



IMPLEMENTING EGYPT'S BLUE ECONOMY ROADMAP: MARINE AND COASTAL PROJECT CONCEPT NOTES



SwitchMed II Project (Policy Component)
to accelerate the implementation of Sustainable Consumption
and Production, Circular Economy and Blue Economy

2024



ACKNOWLEDGEMENT

The project team extends its sincere gratitude to the following experts for their invaluable contributions in the development and drafting of the enclosed projects:

- Hossam A. Karim, Maritime Transportation Senior Expert
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- Ayman Taher, Marine Diving Expert
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- Mahmoud Fouad Ahmed, Conservation Principal Consultant
- Mohamed Said Abdel Warith, Marine Ecologist

Special thanks to Dr. Mahmoud Hanafy, Senior Marine Conservationist, for his thorough review of the projects. Additionally, we extend our appreciation to the Tourism Development Authority, with specific direction provided by the Central Administrations of Environmental Affairs and Tourism Areas Affairs, for their role in developing one of the nine projects. Although these projects are not yet final due to time constraints and other key considerations, their foundational work has been crucial.

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SwitchMed is funded by the European Union, coordinated by CEDARE and collaboratively implemented with UNEP and the Ministry of Environment.

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LIST OF ACRONYMS

CSR	Corporate Social Responsibility
EEAA	Egyptian Environmental Affairs Agency
EGP	Egyptian Pounds
EHA	Egyptian Hotels Association
EIA	Environmental Impact Assessment
GDP	Gross Domestic Product
GIS	Geographic Information System
GPS	Global Positioning System
GSTC	Global Sustainable Tourism Council
ISO	International Organization for Standardization
IT	Information Technology
MoE	Ministry of Environment
NGO	Non-Governmental Organization
PPE	Personal Protective Equipment
PPP	Public-Private Partnership
SDG	Sustainable Development Goal
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
VR	Virtual Reality
WMRA	Waste Management Regulatory Authority

I. INTRODUCTION AND CONTEXT

The "Implementing the Blue Economy Roadmap: Marine and Coastal Project Concept Notes" publication is a pivotal step towards realizing the ambitious goals outlined in the "Blue Economy Roadmap: Advancing Marine and Coastal Eco-Practices in Egypt." While the roadmap laid the strategic foundation for integrating sustainable practices into Egypt's marine and coastal sectors, this new publication translates these strategies into actionable projects. It serves as a comprehensive project catalogue designed to support the Ministry of Environment, the Ministry of Tourism, and other relevant line ministries in fostering blue economy practices, particularly within the marine and coastal ecotourism sectors.

This publication is a direct enactment of the key success considerations highlighted in the Blue Economy Roadmap. The roadmap emphasized the importance of creating a project catalogue to facilitate the implementation of its action plan, and this publication fulfills that recommendation. By providing a detailed and actionable catalogue of projects, it ensures that the strategic visions outlined in the roadmap are translated into concrete initiatives, thereby driving forward the sustainable development of Egypt's marine and coastal resources.

This publication is not merely a continuation but a crucial complement to the roadmap. It transforms strategic insights into tangible initiatives, thereby bridging the gap between planning and implementation. By doing so, it addresses one of the roadmap's key success factors: the facilitation of the action plan's implementation. The proposed projects are designed to be practical, scalable, and impactful, ensuring they contribute effectively to Egypt's sustainable development goals and support Egypt's alignment to SDGs 12 and 14 respectively.

The projects catalogued within this publication encompass a wide range of initiatives, from enhancing marine biodiversity and protecting coastal ecosystems to promoting sustainable tourism practices and improving local community engagement.

Furthermore, this publication aims to foster a collaborative environment where government bodies, private sector stakeholders, international organizations, and local communities can work together towards a common goal. By aligning efforts and pooling resources, these projects can drive significant positive change, promoting economic growth while safeguarding Egypt's marine and coastal environments.

The project catalogue comprises nine potential actionable projects, each crafted to support the implementation of the roadmap. These projects were developed by key sector experts and/or submitted by a relevant authority.

These projects are strategically categorized under two main themes: Marine Ecosystem Conservation and Sustainable Coastal Tourism. This categorization helps streamline efforts and ensures that each initiative directly contributes to the overarching goals of the blue economy roadmap. Project categories are:

1. **Ecotourism Best Practices:** Projects within this category aim to elevate and standardize sustainable tourism practices. These initiatives focus on encouraging responsible tourism behaviors, integrating environmentally friendly technologies, and ensuring that tourism development is conducted in an eco-conscious manner.
2. **Ecotourism Innovation:** This category focuses on introducing new and creative approaches to ecotourism, aiming to diversify the offerings and experiences available to tourists. By developing unique, eco-friendly tourism activities and destinations, these projects seek to attract a broader range of visitors while promoting sustainable practices.

II. PROJECT SELECTION CRITERIA

The selection of projects for the "Blue Economy in Action: Marine & Coastal Eco-Projects in Egypt" publication is guided by a comprehensive set of criteria to ensure that each initiative aligns with the strategic goals of the Blue Economy Roadmap and maximizes its impact on sustainability, economic development, and community engagement. These criteria include:

1. **Alignment with the Four Pillars of the Blue Economy Roadmap:** Projects are selected from suggested initiatives under the four key pillars of the Blue Economy Roadmap:
 - o Aligning Ecotourism Practices with Marine Conservation and Biodiversity Protection.
 - o Diversifying Ecotourism Practices and Enhancing Existing Infrastructure.
 - o Activating Ecotourism for Climate Resilience.
 - o Utilizing Ecotourism for Community Empowerment and Heritage Preservation.
2. **Sustainability and Environmental Impact:** Initiatives are evaluated based on their potential to minimize negative environmental impacts and enhance the conservation of marine and coastal ecosystems. Projects that demonstrate innovative solutions for reducing pollution, conserving natural habitats, and promoting biodiversity are prioritized.
3. **Feasibility and Practicality:** The selected projects must be practical and feasible within the given time frame and available resources. This includes considerations of technical feasibility, financial viability, and the capacity of local stakeholders to implement and sustain the project.
4. **Economic Benefits:** Projects are assessed for their potential to generate economic benefits, such as creating jobs, supporting local businesses, and attracting sustainable investments. Initiatives that promote economic growth while ensuring environmental sustainability are given preference.
5. **Measurable Outcomes and Monitoring:** Projects must have clear, measurable outcomes and a robust monitoring and evaluation framework. This ensures that the progress and impact of the project can be tracked, assessed, and reported, providing accountability and opportunities for improvement.
6. **Scalability and Replication Potential:** Projects are evaluated based on their potential to be scaled up or replicated in other coastal communities in Egypt. This ensures the project's positive impact can be extended beyond the immediate target area and contributes to the broader goals of the Blue Economy Roadmap.

The six criteria outlined above have guided the selection of nine impactful projects featured in "Blue Economy in Action: Marine & Coastal Eco-Projects in Egypt." These projects showcase innovative approaches to promoting a thriving Blue Economy in Egypt. Below is a table listing selected projects.

Project Title	
Ecotourism Best Practices	
1	Developing Oil Collection and Recycling Networks in Red Sea Marinas
2	Eco Labels for Eco-Lodges to Promote Ecotourism
3	Enabling Eco-guiding in South Sinai Natural Reserves
4	Bird Watching in Coastal Areas: Feasibility Study of an Eco-Lodge in Ashtum El-Gamil Reserve
5	Enhancing Marine Conservation and Ecotourism through Artificial Dive Sites in the Red Sea
6	Sustainable Replanning and Infrastructure Development of Coastal Tourism Centers in the Southern Red Sea Region
Ecotourism Innovation	
7	Egyptian Underwater Heritage: Atlas of Sunken Antiquities, Shipwrecks, and Key Diving Sites
8	Suez Canal Yacht Tourism: A Roadmap for Competitiveness and Sustainability
9	Integrated Scientific Diving Center with a Virtual Reality Museum

III. PROJECT DEVELOPMENT APPROACH AND KEY CONSIDERATIONS

The development of the nine selected projects within the "Blue Economy in Action: Marine & Coastal Eco-Projects in Egypt" publication followed a meticulous and structured approach to ensure their effectiveness and feasibility. Each project was developed using a comprehensive project template specifically designed to capture key details and considerations essential for successful implementation.

The project template provided a framework for outlining the project's objectives, activities, timeline, budget, and expected outcomes. It also included sections for identifying potential challenges and risks, as well as strategies for mitigation and monitoring. By adhering to this template, project developers were able to systematically address all aspects of project planning and ensure alignment with the overarching goals of the Blue Economy Roadmap.

In addition to utilizing the project template, specific experts and institutions were enlisted to lead the filling and development of detailed concept notes for each project. These experts brought diverse expertise in areas such as marine conservation, sustainable tourism, community engagement, and project management. Their input and guidance were instrumental in refining project concepts, identifying best practices, and addressing potential implementation challenges. An expert was also enlisted to review all projects from a technical perspective to ensure additional reviewing of main pillars and ideas of all enclosed projects.

Through collaborative efforts and interdisciplinary expertise, the project development approach ensured that each selected project was well-defined, and technically sound. By leveraging the insights and knowledge of experts in the field, the publication aims to deliver a portfolio of projects that not only contribute to the sustainable development of Egypt's marine and coastal ecosystems but also serve as models for similar initiatives. It is also important to note that:

- o Timelines and budgets are subject to change based on further detailed planning and the availability of resources. Adjustments may be necessary to accommodate unforeseen challenges and opportunities.
- o As project development progresses, new information and changing circumstances may require revisions to the initial plans. Flexibility is crucial to adapt to these evolving contexts.
- o Continuous feedback from stakeholders, including local communities, governmental bodies, and industry partners, will be essential to refine and improve the projects. Their input may lead to significant changes in project scope and implementation strategies.
- o Compliance with national and international regulations is a dynamic process. Any changes in legal or regulatory frameworks could impact project activities and require modifications to ensure continued compliance.
- o The projects will undergo comprehensive environmental and social impact assessments. Findings from these assessments may necessitate adjustments to mitigate any identified risks effectively.
- o The success of these projects is contingent upon securing the necessary financial and human resources. Any constraints in resource availability could influence project scope, timelines, and deliverables.
- o Advances in technology and best practices in sustainable tourism and conservation could provide new opportunities or require updates to the project plans.

These considerations highlight the importance of maintaining a flexible and adaptive approach throughout the development and implementation phases to ensure the successful realization of the projects' objectives.

IV. PROJECT CONCEPT NOTES

Ecotourism Best Practices

1	Developing Oil Collection and Recycling Networks in Red Sea Marinas
2	Eco Labels for Eco-Lodges to Promote Ecotourism
3	Enabling Eco-guiding in South Sinai Natural Reserves
4	Bird Watching in Coastal Areas: Feasibility Study of an Eco-Lodge in Ashtum El-Gamil Reserve
5	Enhancing Marine Conservation and Ecotourism through Artificial Dive Sites in the Red Sea
6	Sustainable Replanning and Infrastructure Development of Coastal Tourism Centers in the Southern Red Sea Region

1

Project Name**Developing Oil Collection and Recycling Networks in Red Sea Marinas****Section One****Project Baseline Information****Project Expected Duration (in months)**

The pilot project is expected to have a duration of 18 months.

Project Location (specific region(s) in Egypt) if applicable: The pilot project will focus on all marinas in Sharm El Sheikh (Landmark and Wattaneya) and the marina in Dahab, located in the South Sinai Governorate. Upon successful implementation, the project aims to expand to include marinas in the Red Sea Governorate, such as those in El Gouna, Hurghada, Safaga, Port Ghalib, and Marsa Alam, as well as new marinas being developed around the Red Sea.

Section Two**Project Background and Objectives****Main Scope and Objectives**

The aim of the project is to develop a comprehensive network for the collection and recycling of used engine oil and used cooking oil from touristic and private boats in marinas around the Red Sea. This initiative seeks to address the environmental challenges posed by the improper disposal of these oils, which can lead to significant marine pollution. By establishing an efficient and sustainable system for collecting and processing these oils, the project aims to minimize environmental impact, promote responsible waste management practices, and enhance the overall sustainability of marine tourism and activities in the region. The project will involve collaboration with marina operators, boat owners, and relevant authorities to ensure successful implementation and adherence to environmental regulations.

The specific objectives of the project are as follows:

- Linking used engine and cooking oil collection companies operating in South Sinai to boats in marinas and providing capacity building opportunities for existing licensed oil collection companies operating in the area.
- Improving / creating the infrastructure for used oil collection in marinas.
- Providing the touristic boat crews operating in the marinas with forms of welfare opportunities such as healthcare insurance coverage and capacity building training courses & certifications that benefit the boat crew workforce to encourage the disposal of used oil at the collection points in marinas.
- Providing forms of welfare opportunities such as healthcare insurance and capacity building courses for the local community members working in waste collection in South Sinai.
- Linking these used engine oil collecting companies with certified engine oil recycling companies in Egypt as per national environmental regulations.
- Establishing a circular economic mechanism for the project based on the collection and recycling of used oil and the support of the boat crew workforce and the local community members working in waste collection.

***Note:** this project set up can be expanded to include a solid waste management scope from boats with organic vs. inorganic waste separation. To simplify the scope of work, it is designed to focus on hazardous waste management, a category that is often overlooked when discussing waste management in this sector. The hazardous waste collecting system can be synced to the larger hazardous oil waste collecting network of the cities of Sharm El Sheikh and Dahab. There already exist such hazardous waste collecting companies for used engine and cooking oil in South Sinai, however, they do not operate in marinas, meaning the network and infrastructure needs to be established.

Project Contribution to Ecotourism Challenges and Development

Currently, the touristic and private boating sector offers limited opportunities for the collection and recycling of used engine and cooking oils. Touristic boats generate a significant amount of used engine oil monthly, which must be disposed of, in addition to substantial quantities of used cooking oil from their kitchens. Presently, these oils are either disposed of at marinas along with general solid waste, ultimately ending up in landfills, or sold to local mechanic shops or restaurants.

The Green Fins Initiative, which requires its diving and snorkeling center members to properly dispose of used oil, has demonstrated the need for improved disposal practices over the years it has operated in the country. This initiative has highlighted the gaps in current disposal methods and underscored the necessity for a more efficient and environmentally responsible approach to managing used oils in the boating sector. Firstly, Green Fins members and their boat crews fully support the proper disposal of used engine and cooking oil, recognizing it as a valuable commodity that can provide additional income for the crew members who are often in the low-income and lower-qualified segments of the tourism sector. Secondly, the initiative has revealed that the limited available oil collection outlets, such as mechanic shops and restaurants, primarily operate informally. This informal operation raises concerns and uncertainty regarding how the collected used oil is reused or recycled.

Improper reuse or recycling of used engine oil emits more pollutants, highlighting the importance of traceability within such a network. Moreover, existing regulations for the collection and disposal of used oil in the boating sector require strict enforcement, as this waste is hazardous and poses toxic threats to marine life and Egypt's coral reef ecosystem if dumped at sea or mishandled. Instead of discarding it, used oil can be cleaned, purified, and re-refined to be suitable for other industrial applications, such as in asphalt factories. Developing a proper network for the disposal, collection, and certified recycling of used oil ensures that this hazardous waste is handled and reused according to environmental regulations. Additionally, it provides an opportunity to brainstorm and implement incentives for boating companies to comply with these regulations.

Touristic boats are licensed by the Ministry of Transportation but operate as touristic transportation vessels under the Ministry of Tourism and Antiquities, in coordination with the Chamber of Diving and Water Sports. The members of this chamber either own or rent these vessels and have a direct influence on their operation and the disposal of used oil. The authority managing the marinas varies depending on whether the marina is private or public, making the involvement and collaboration of these authorities crucial to the project's development. Over the last decade, the number of tourist transportation vessels has exceeded their capacity, with more than 2,000 licensed boats currently operating in the Red Sea.

The trend is towards building larger boats (over 40 meters in length and more than 500 tons). These larger vessels have a greater impact on the marine environment and emit twice the pollution compared to the smaller boats built previously. Implementing sustainable practices on boats has become essential to reducing tourism's impact on the Red Sea. The correct disposal of used oils, often a silent polluter, frequently goes unnoticed in the marine tourism sector. Addressing this issue will be a game changer for sustainability in the tourism industry.

Moreover, in the South Sinai Governorate, local community members are highly involved in solid and hazardous waste management and collection. By enhancing the infrastructure and capacity of existing hazardous waste collection companies, we can create a functional network that includes all local marinas. Another objective of the project is to find ways to support these waste collectors with incentives, such as healthcare coverage.

Section Three:

Project Description

Project activities:

The project aims to establish a functional and formal network for collecting used oil from touristic and private boats in the marinas of the South Sinai Governorate. The collected used oil, being hazardous waste, must be carefully handled and transported to certified recycling facilities. The pilot project is recommended to begin in the South Sinai Governorate because its marinas are smaller in scale, with fewer touristic boats, all located and contained within the same marinas, serving as the same ports of entry and exit.

Sharm El Sheikh and Dahab are ideal testing grounds for this project before expanding to the Red Sea Governorate, which has triple the number of boats spread out over several marinas along the coastline, making logistics more challenging. The project focuses directly on the responsible management of used oil waste from the touristic boating sector, an often-overlooked aspect of the transportation and tourism industry, but one that has a significant impact on the sector's sustainability. This initiative aims to address a silent polluter of the Red Sea. The proposed activities are as follows:

Activity 1: Project Inception Phase

In this phase, a project team will be established, consisting of a manager, an accountant, and a subject matter expert with coordinating capabilities. This phase will also involve identifying all stakeholders and mapping their roles in detail, as well as determining the technical support they may require. An action plan will be created to fine-tune the logistics and timeline of the project. All stakeholders will be introduced to the project, and their roles will be clearly defined.

Activity 2: Identifying Local Used Oil Collecting Companies

This activity involves identifying certified local used oil collecting companies in Sharm El Sheikh and Dahab that could collaborate on the project. Their needs for support—whether technical, financial, logistical, or bureaucratic—will be evaluated to handle the required oil collection capacity from the marinas. This support could range from the need for additional trucks for oil transportation to capacity building for staff, improving collection facilities in marinas, or obtaining necessary licensing and approvals from governmental authorities. Although hazardous waste collecting companies already operate in the hotel sector in South Sinai, their capacity will be assessed, and connections with the marinas will be established.

Activity 3: Identifying National Oil Recycling Companies

Certified national engine and cooking oil recycling companies will be identified to ensure the proper recycling and reuse of oils according to national regulations. This activity will also explore how these recycling companies can support the project's development and contribute to a circular economic model in the long run.

Activity 4: Evaluating Marina Storage Capacities

This activity involves assessing each marina's capacity to efficiently and safely store used oil from boats before it is transported to recycling companies in accordance with environmental and safety regulations. Each marina will require adequate oil storage equipment and facilities to match the capacity of the docked boats, as well as crew training on proper handling and storage procedures. Proper safety and firefighting equipment, along with personal protective equipment (PPE), will be necessary. The marinas will be retrofitted as needed to ensure they can handle, and store used oil appropriately.

Activity 5: Ensuring Proper Equipment on Boats

This activity focuses on ensuring that all boats have the proper equipment in their engine rooms and galleys (kitchens) to correctly remove and store used oils. It is essential to verify that boats are equipped to store and transport oils off the boat to the collecting facility. This will require a survey and inspection of the boats docked in the marinas. While the presence and use of such equipment is common practice in most cases, a thorough inspection will ensure all boats are complying with the protocol. Boats lacking the necessary devices will be required to acquire them or establish the proper setup within a set grace period. Additionally, diving and water sports centers, which also dispose of used engine oils monthly through compressors, will be integrated into the proper storage and disposal network.

Activity 6: Establishing Social and Welfare Incentives for Touristic Boat Crews

This activity aims to establish social and welfare incentives for touristic boat crews, including proper healthcare and professional insurance beyond the basic social coverage they currently receive.

Additionally, it will extend to capacity building and educational programs focusing on sustainable boating practices, the Red Sea environment, mooring techniques, engine maintenance, language training, and first aid training. Supporting and incentivizing boat crews in all marinas is crucial to discourage the sale of used oil to the informal sector. Therefore, a circular funding mechanism should be established to ensure the continuation of these programs as long as used oil is being collected and recycled from the boating sector. The social welfare incentive programs and capacity-building courses should be launched and offered once the network for collecting companies to receive the used oils from the boats is established. The project will coordinate the establishment of these opportunities and ensure their ongoing availability.

Activity 7: Establishing a Functioning Logistical Network from Boat to Recycling Company

This activity involves establishing a functional logistical network from the boats to the recycling companies. Once activities 1 to 6 have been implemented, the project will be ready to launch the collection-to-recycling network. This will also involve coordinating with governmental authorities to finalize all the required local permissions to operate.

Activity 8: Establishing a Circular Economic Mechanism

This activity involves establishing a circular economic mechanism for the project, based on the collection and recycling of used oil and the support of the boat crew workforce. This is the final step to safeguard the sustainability and long-term duration of the project. If correctly designed, this circular economic loop could lead to the scalability of the project to other regions in the country.

***Note:** Additionally, the project setup can be expanded to include a solid waste management scope from boats, incorporating organic vs. inorganic waste separation.

Direct and Indirect Beneficiaries and Stakeholders of the Project

The direct beneficiaries of the project are as follows:

- The certified hazardous waste collecting companies contracted to handle the used engine and cooking oil collection and transportation from the marinas to the recyclers.
- The certified used oil recycling companies and their facilities. These will most likely be Petro-chemical companies. These companies are a key pillar in the development of this project, whether technical, logistical or financial.
- The touristic and private boat crews and operators benefiting from provided capacity building and healthcare insurance as incentives in exchange.
- The local community individuals working in the hazardous waste collection benefit from healthcare insurance.
- The marina authorities for having a more efficient and systematic solution to used oil disposal. The authority managing the marina varies according to the marina in question.
- National professional and healthcare insurance companies to provide welfare coverage and incentives for the boat crew workforce.
- The Red Sea ecosystem will see a reduction in used oil dumping and mishandling.

The indirect beneficiaries of the project are as follows:

- The Ministry of Environment and the Egyptian Environmental Affairs Agency (EEAA) for having an improved used engine oil disposal to recycling system and reduced pollution of the Red Sea.
- The Green Fins Initiative of the Chamber of Diving and Water Sports for having a solution provided to their members.
- The local city councils and governorates for an improved management of hazardous waste of the city in which the project is conducted.
- The Ministry of Transportation for an improved management of hazardous waste that comes from the transportation sector.
- The Ministry of Tourism and Antiquities for an improved management of hazardous waste coming from the touristic transportation sector.

Identified Key Partners

As mentioned above, the key partners identified for this project in the South Sinai Governorate:

- The touristic boating sector and the boat crew who will be properly disposing of their used oil at the collection facilities in the marinas.
- The local community individuals working with the local waste management and hazardous waste companies.
- The local managing authorities of Landmark marina and Wattaneya marina in Sharm El Sheikh and of the Dahab marina for the pilot phase will support the enforcement of the correct disposal of used oil at the collection facilities.
- The certified used oil collecting companies located in South Sinai could manage the safe storage of the used oils at the marinas and their transportation to the recycling facilities. For example, the company "شركة الحمدا للزيوت المستعملة" in Sharm El Sheikh is licensed for such activities and already has an established network around the city working with hotels.
- The local city councils and South Sinai Governorate for the pilot phase of the project who could support with the permissions and logistics of the project within South Sinai.
- The certified used engine and cooking oil recycling companies will purchase the used oil and recycle it. These may be linked to the Petro-chemical sector. The involvement of the Ministry of Petroleum will be encouraged for a national or large scale roll out of such a project.

- The Ministry of Environment, the Egyptian Environmental Affairs Agency and the waste management apparatus presented by the Waste Management Regulatory Authority (WMRA) as an overseeing body tasked with enforcing the used oil collection regulating decree and supporting the certified companies to operate locally.
- The Chamber of Diving and Water Sports with their Green Fins Initiative supporting the project with the involvement of the diving and snorkeling operators to ensure oil is properly collected and disposed of from the boats and compressors to the collection facilities.
- National professional and healthcare insurance companies to provide welfare coverage and incentives for the boat crew workforce.
- The Ministry of Transportation to support if needed with regulations required on touristic boats for this project, for example the needed devices to safely dispose of used engine oil on board boats.
- Sawiris Foundation for Social Development is a potential candidate for the development of capacity building courses and educational training for the boat crew. The foundation already provides similar programs through the Red Sea Yachting Institute for the boat crew capacity building and certification in El Gouna which has been running for years with a high certification rate for personnel in the industry. Linking the Foundation and their yachting institute is a good step as they already have courses, certification schemes and qualified trainers in place.

Expected Results

The expected results of the project include an improvement in the hazardous waste management and recycling network for local touristic and eventually private marinas in the Red Sea. Specifically, the project aims to ensure the correct disposal of used engine oil and cooking oils from the touristic boating sector in various marinas, linking these to certified recycling facilities. Establishing a connection between hazardous waste collecting companies and local marinas, which has not been done yet, will create a more comprehensive local network.

The project's goal is to create a circular economic model centered on the collection and recycling of used oil from the boating sector. This model will benefit and support continuous capacity building and social welfare, including professional and healthcare insurance for the boat crew workforce and local community members. Capacity development and awareness raising among the boat crew workforce are essential for conserving the Red Sea, as boats directly impact the Red Sea ecosystem. Ensuring that boats have the correct setups to safely collect used oils is necessary to reduce potential pollution from the boating sector.

This project model is scalable and can be extended to other marinas across the country. Improving the hazardous waste management infrastructure at the selected marinas is a key result of this project. This initiative will directly contribute to the following Sustainable Development Goals: SDG 14 (Life Below Water) and SDG 12 (Responsible Consumption and Production).

Key Success Indicators for Project Evaluation

Possible indicators that could measure the success of the project are as follows:

- The monthly and yearly amounts (in liters) of used oil collected from each marina involved in this project. The amounts will vary depending on the tourism season (high and low) as the working days of boats actively working at sea are interconnected with the tourism influx in the country.
- If possible, to track and obtain the data of the amounts of used oil recycled.
- The yearly number of boat crew employees who received social, professional, educational, and healthcare welfare benefits.

- Track the number of oil pollution incidents reported in the marinas before and after the implementation of the project. A reduction in such incidents would indicate the project's success in mitigating environmental impact.
- Measure the compliance rate of boats with proper disposal practices for used oil. This can be assessed through inspections and surveys to ensure adherence to the established protocols.
- The yearly number of local community individuals benefiting from healthcare benefits for their participation in waste collection.

Project Timeline

The suggested timeline for the pilot project in the South Sinai Governorate is 18 months. A similar timeline is expected for marinas in the Red Sea Governorate and could be easily rolled out once a network has been established. It is important to note that with a well-formed team managing this project, several activities are complementary and can be conducted simultaneously. The timeline is subject to change depending on the obtaining of required permissions for the project.

Activities vs yearly quarters (3months)	Q1	Q2	Q3	Q4	Q5	Q6
Act 1						
Act 2						
Act 3						
Act 4						
Act 5						
Act 6						
Act 7						
Act 8						

Section Four:

Project Finance and Sustainability

Estimated Overall Project Cost

The estimated overall budget for the project is 15,000,000 Egyptian Pounds for the duration of 18 months.

Cost Breakdown

The budget listed above is an estimation for the 18-month duration of the project. The allocated funds for the development of oil collecting facilities in the marinas will depend on the on-ground assessment of the current state of these facilities. The three marinas in question already have designated facilities, but they require maintenance and upgrades in oil storage equipment, including oil storage tanks, pumps, shading, and firefighting equipment. Additionally, the technical support and capacity building provided to the oil collecting companies will be based on the support required, which will be assessed by the project itself. To support the launch of social welfare programs and capacity-building courses and certifications for the boat crew workforce, the project should have a budget allocated for the development of these courses or for any necessary payments to training institutes.

- Estimated salaries for the project personnel that covers a team of a manager, a coordinator/technical advisor, an accountant, and a secretary: 3,000,000 EGP

- Project team utilities (office rental, office supplies, transportation, phone bills, internet, IT systems & servers): 3,500,000 EGP
- Oil collecting facility development in marinas (3 marinas): 3,000,000 EGP
- Technical support and capacity building for oil collecting companies: 1,000,000 EGP
- Establishing initial social welfare programs & capacity building courses for boat crew: 1,000,000 EGP
- Budget for workshops set ups, inception meeting, etc.: 200,000 EGP
- For unforeseen circumstances & force majeure situations (inflation, additional costs, extension): 3,300,000 EGP

*The budget does not exclude operational insurance coverage, legal structure set up & fuel for the project.

* The proposed budget is an estimate subject to increases or decreases.

Potential sources of funding or revenue generation for the project

For the initial setup of the project (activities 1 to 6), it is recommended to allocate funds from either potential donor agencies with South Sinai in their scope of work; or development funds or private grants until the project establishes itself and becomes self-sufficient.

Generally, the project involved various sectors (transportation, petroleum, tourism, and environment), it is also suggested to gather either private grants or development funds from banks that generally support such sectors. Also, it is possible to approach the UNDP's Green Sharm project which has biodiversity and waste management scopes of work and has already begun its operation in Sharm El Sheikh. Another possibility is to approach the Climate Resilience Fund which support circular economy business-based projects.

Additional resources or support you require to implement the project successfully

Corporate Social Responsibility (CSR) contributions from the Petro-chemical sector active in the Red Sea could significantly support the project. Their expertise will be crucial in developing and fine-tuning the project, especially on a larger national scale. Their involvement will provide technical and capacity-building support for the project team, as they are subject matter experts, particularly in used engine oil recycling. Financial contributions from the Petro-chemical sector, if secured through CSR, could facilitate various aspects of the project. This includes the physical infrastructure needed at marinas to collect used oil, enhancing the country's used oil recycling capacities, improving the project's logistical network and transportation of used oil to recycling facilities, offering technical advice, and contributing to capacity-building programs.

Project Long Term Financial Sustainability

By establishing a circular economic model for collecting and recycling used oils, this project aims to become self-sustaining by fostering a network among local private entities and generating revenue. Contributions from oil collecting and recycling companies could ensure the continuation of healthcare insurance programs and educational incentives for the boat crew workforce and local community members involved in waste collection. Enforcing the correct and safe disposal of used oils by marina authorities at collection facilities will deter the sale of used oils to the informal sector. Furthermore, the long-term maintenance of oil collecting facilities and trucks in marinas will be funded by the oil collecting companies themselves.

Social Impact:

Promote the participation of local communities in the economic benefits of ecotourism

One of the central components of this project is the engagement of the boat crew workforce (captains, skippers, deck hands, crew) working in the tourism sector. This workforce consists of men with basic levels of education receiving low-income salaries due to the nature of their work. The boat crew sector around the Red Sea holds a significant number of men originating from local communities from these governorates as it is an accessible vocation for sea-front communities such as El Tor, Safaga, El Quseir, Ras Ghareb and the Marsa Alam communities. The engagement of such a workforce in an oil disposal and recycling project will help increase their awareness about the importance of protecting the Red Sea ecosystem and the effects of their direct impact as boat crews dealing with such a sensitive ecosystem. The incentivization of such a workforce is crucial to the success and sustainability of such a project. Their salaries are on average between EGP 3,000 to EGP 8,000 monthly plus tips and allowances as per May 2024 with basic social welfare coverage and no medical or professional insurances depending on their position and the standards of the company employing them. Establishing incentives such as, for example, healthcare insurance, or vocational training opportunities are needed to engage such a sector.

Secondly, in the South Sinai Governorate, the majority of those working in solid waste collection are members of local communities in Sinai. This project engages them by linking them with the hazardous waste collecting companies, creating a larger network spanning over two cities. As mentioned above, their incentivization is also key by providing them with healthcare insurance benefits for their work and capacity building opportunities and training for properly and safely handling hazardous waste such as used engine oil.

Ensure gender equality and social inclusion in its activities and benefits

This project can be designed to increase the social welfare and educational benefits of the boat crew workforce and local community members working in the tourism sector. Social welfare benefits such as increased medical coverage would be an attractive incentive. Due to the nature of the boating sector in Egypt, which is mainly male dominated, this is not a project that touches on the topic of gender equality.

2

Project Name

Eco Labels for Eco-lodges to Promote Ecotourism**Section One****Project Baseline Information****Project Expected Duration (in months)**

The project is expected to have a duration of 24 months.

Project Location (specific region(s) in Egypt) if applicable:

The "Eco Labels for Eco-lodges" project will service all eco-lodges in Egypt, including those situated in the Red Sea Governorate, Sinai Governorate, and Siwa, among others. This project aims to certify eco-lodges in these areas, promoting sustainable tourism and appealing to eco-conscious travelers. Ultimately, the project will benefit all eco-lodges in Egypt by setting a standard for sustainability and enhancing the overall appeal of eco-friendly accommodations throughout the country.

Section Two

Project Background and Objectives

Main Scope and Objectives

- The main idea of the "Eco Labels for Eco-lodges" project is to develop comprehensive sustainability criteria, referred to as Sustainability Guidelines, for eco-lodges across Egypt. These guidelines will serve as a benchmark for environmental, social, and economic sustainability, ensuring that eco-lodges adhere to best practices in sustainable tourism. The project aims to certify eco-lodges in various regions, including the Red Sea Governorate, Sinai Governorate, and Siwa, among others. The certification will be renewable annually for a fee, ensuring continuous compliance and improvement in sustainability practices. Main objectives include:
 - Environmental Conservation by encouraging eco-friendly practices and minimizing the impact on natural habitats and wildlife.
 - Involving local communities in the development and operation of eco-lodges to promote economic growth and social responsibility.
 - Promoting awareness and appreciation of local traditions, heritage, and cultural practices within eco-lodges.
 - Implementing measures to reduce energy consumption, water usage, and waste generation.
 - Enhancing the overall visitor experience by providing unique, sustainable accommodations that connect travelers with nature and local culture.
 - Ensuring the long-term financial sustainability of eco-lodges through responsible business practices and strategic marketing.
 - Increasing the competitive advantage of eco-lodges through granting them an internationally recognized eco-label.

Project Contribution to Ecotourism Challenges and Development

Eco-lodges represent a viable aspect in the development of ecotourism and the national tourism strategy in Egypt, and there are efforts from the government and the private sector to promote this type of tourism. Despite these efforts, there are some challenges facing eco-lodges in Egypt. Below are some of the main issues:

- Infrastructure Challenges:
Many eco-lodge locations in Egypt are in remote, off-grid areas that lack reliable access to basic infrastructure like electricity, water, and waste management systems. Developing and maintaining sustainable infrastructure can be technically complex and financially burdensome for eco-lodge operators.
- Operational Initial Costs:
Implementing and maintaining sustainable practices, such as renewable energy systems, water treatment, and organic waste management, can significantly increase the initial costs which can discourage investors to apply, especially if the return of investment is not considered and the operation process is not sustainably managed. This can make it difficult for eco-lodges to remain financially viable, especially in the face of competition from more conventional, less sustainable accommodations.

- **Limited Awareness and Education:**

There is often a lack of awareness among both tourists and local communities about the importance and benefits of ecotourism and sustainable practices. This can make it challenging for eco-lodges to attract enough environmentally conscious guests and gain the support of local stakeholders due to the confusion between the definition of eco-lodges and environmentally friendly hotels.

- **Access to Financing:**

Eco-lodges typically require significant upfront investments to implement sustainable infrastructure and systems, which can be difficult to secure, especially for smaller operators. Limited access to specialized green financing and investment opportunities can hinder the growth and development of the eco-lodge sector in Egypt.

- **Skilled Labor Shortages:**

There is a shortage of personnel with the necessary skills and expertise to manage the unique challenges of operating an eco-lodge, such as renewable energy systems, sustainable waste management, and eco-friendly construction.

The main issue which is related to our project is the lack of regulation and standardization:

Egypt currently lacks a comprehensive regulatory framework and standardized criteria for eco-lodges, leading to a lack of clarity and consistency across the industry. This is the main relation to our project, which is the lack of a comprehensive regulatory framework and a standardized benchmarking criteria for eco-lodges, leading to a lack of clarity and consistency across the industry.

In the previous years there was no clear criteria from the Ministry of Tourism and Antiquities to be used to rate the eco-lodge like the existing one for the hotels. However, recently the criteria have been developed, but they still do not consider all the sustainability aspects of the hotels. This can lead to confusion and make it difficult for tourists to identify legitimate eco-lodges and for the eco-lodges themselves to promote their eco-lodges as star rated.

Without a clear set of guidelines and certification processes, it is challenging for eco-lodges to demonstrate their sustainability credentials to tourists.

In light of all the previously mentioned issues, it is essential to develop sustainability criteria, or sustainability guidelines, for eco-lodges in Egypt.

Section Three:

Project Description

Project activities:

1. Communication with Stakeholders

When creating sustainable standards for eco-lodges, effective stakeholder participation is essential. The expected stakeholders for the project are the eco-lodges owners, the Ministry of Tourism, the Ministry of Environment, Egyptian Hotels Association, tour operators and local NGOs. The main role for the stakeholders will be mentioned in the stakeholder section.

a. Effective Engagement Strategies:

- Workshops and meetings will be conducted to lead conversations and elicit ideas and concerns, with consideration given to holding separate meetings for various stakeholder groups.
- Questionnaires and surveys will be used to gather more comprehensive input.
- Data gathering efforts will focus on building a database to establish benchmarks and indicators.

- Focus groups will be organized to facilitate in-depth conversations in smaller settings.
- Site visits will be arranged to provide stakeholders with tours of the eco-lodge and its surroundings.
- Social media and online forums will be utilized to promote increased involvement and gather information.
- The purpose will be clearly defined to explain why criteria are being developed and how stakeholder input will be used.
- Relevant information, such as existing sustainability frameworks or case studies, will be shared to inspire discussion.
- Active listening and acknowledgment of concerns will demonstrate genuine interest in stakeholder perspectives.
- Clear timelines and updates will be provided to keep stakeholders informed throughout the process.

b. Strategies for Specific Stakeholder Groups:

- Attention will be paid to how the criteria will benefit local communities in terms of the environment, culture, and economy.
- Common objectives for safeguarding local fauna and the environment will be determined by conservation related organizations.
- Government agencies will ensure that the criteria comply with regulations and legal standards.

2. Develop Sustainability Criteria

The criteria development shall be supported and reviewed by a pool of experts who cover the different required key experiences such as experience in designing and operating eco-lodges, carrying out sustainability audits for hotels or similar facilities, preferably in Egypt as well as experience dealing with the Global Sustainable Tourism Council (GSTC) and prior knowledge of their criteria. The methodology for criteria development will be as follows:

- Review Existing Frameworks and Best Practices.
- Define Sustainability Dimensions.
- Develop Specific Criteria and Indicators.
- Establish a Scoring and Certification System.
- Apply for a GSTC Recognition of the Criteria Developed (level 1: as the recognition mainly covers the criteria itself and ensures that it covers all the requirements of the GSTC criteria for hotels but does not offer an accredited status to the label).
- Flexibility and Adaptability for the Eco-lodges Situation in Egypt.
- Ensure Transparency and Accountability.

After the criteria development, and nearing the project handover, efforts should be exerted to apply for GSTC accreditation (level 2), which covers the training and auditing process in addition to the criteria itself, thus covering the whole auditing cycle and ensuring its transparency and fairness to all parties.

3. Piloting Eco-lodge

4 eco-lodges will be selected to be a pilot for the project to be able to conduct the following:

- a) Train the eco-lodges staff on the criteria requirements.
- b) Onsite investigation of the ability of the eco-lodges to meet the criteria requirements in their current status.
- c) Investigate the extra cost needed to ensure at least mandatory criteria fulfillment.

- d) Support implementation of required actions.
- e) Offer onsite training regarding documentation preparation and preparedness.
- f) Arrange for the final audit to be conducted by an external third-party expert, shadowed by two auditors in training.
- g) Receive final audit report and communicate the results with the eco-lodges.

4. Training of Trainer

Select trainers to be trained by the technical expert team and then these trainers will train the eco-lodges staff. The trainers will offer training, technical assistance, and resources to help eco-lodge operators understand and implement the sustainability criteria.

5. Train New Auditors

Train the trainers to be auditors to be able to conduct the audits.

6. Align with National Sustainability Strategies

Ensure the eco-lodge sustainability criteria are aligned with and contribute to Egypt's broader sustainable development goals, environmental policies and 2050 climate change strategy.

Direct and Indirect Beneficiaries and Stakeholders of the Project

Direct

- Eco-lodge owners
- Eco-lodge visitors
- Employees
- Environment
- Tourism sector in Egypt

Indirect

- Local community
- Local NGOs
- Tour operators

Identified Key Partners

1. The Ministry of Tourism will be the main partner for this project and will be responsible for the following:
 - The certification body
 - Guarantee the maintenance of the professional capacity of the project in terms of the employment of qualified staff running
 - Marketing for the project and the label
2. The Ministry of Environment will be responsible for regulations related to wastewater and its treatment, solid waste management and all other required environmental approvals to ensure that the eco-lodges comply with the applicable laws and regulations.
3. Egyptian Hotels Association (EHA) will be responsible for the following:
 - a) The info-point for the project
 - b) Organize the meetings with the eco-lodges
 - c) Marketing for the project and the label
 - d) Potential hosting for the project

4. According to the focus and availability of NGOs at the implementation destination, the NGOs are expected to support the efforts of the eco-lodges regarding waste management as well as providing environmentally friendly products and services.
5. Tour operators to define their requirements in eco-lodges to direct a flow of their guests to such destinations.
6. Eco-lodges owners to facilitate all the site visits and share in the criteria discussions.

Below are different ways /options for the collaboration:

Option 1:

- a) UNEP (or other similar entity) will be the standard owner (for the first two years) then, will be handed over to the Ministry of Tourism.
- b) The Ministry of Tourism will be the standard owner and will sign the certificates.
- c) EHA will be managing the program through the Green Star Hotel Program.

Option 2:

- d) For the first two years to be co-owned by UNEP (or other similar entity), the Ministry of Tourism and the Ministry of Environment.
- e) EHA will be managing the program through the Green Star Hotel Program.

Option 3 (recommended):

- f) UNEP (or other similar entity) will be the standard owner for the first two years.
- g) To be transferred to the Ministry of Environment or the Ministry of Tourism as a standard owner and a certificate issuer.
- h) A private company as a neutral third party to carry out the training and auditing missions in accordance with the GSTC and ISO requirements for audits.

This option can potentially facilitate GSTC accreditation of the system as it follows their guidelines for accreditation.

Expected Results

- Criteria (Guideline)
- Piloting one or two eco-lodges
- Trainers (6 trainers)
- Auditors (8 trainers)
- Workshops and focus groups (6)

There are indirect outcomes from the project as follows:

- Reducing carbon footprint.
- Cost savings, which can contribute to increased revenue.
- Reducing water consumption.
- Increasing awareness for staff and tourists
- Contributing to Egypt 2030 plan.
- Encouraging new green jobs.

Key Success Indicators for Project Evaluation

Possible indicators that could measure the success of the project are as follows:

- Number of eco-lodges benefiting from the certification
- Energy consumption saving measures
- Water consumption saving measures
- Waste production saving measures
- CO₂ production saving measures
- Number of trained people
- The applicability of the criteria
- Number of partnerships with environmental organizations, local businesses, and government agencies to promote sustainability
- The proportion of energy consumption derived from renewable sources such as solar, wind, or bioenergy
- Percentage of waste materials recycled or reused, including composting of organic waste

Project timeline for "Eco Labels for Eco-lodges to Promote Ecotourism"

Activity	Action	Year 1												Year 2											
		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
Project Structure																									
Team Selection																									
Expert Team Selection																									
Stakeholder Identification & Engagement																									
Develop Criteria																									
	1st Draft																								
	Communicate W GSTC																								
	Communicate W Eco-lodge for implementation																								
	2nd Draft																								
	Final Version																								
Cost	\$ 7,000.00																								
Train the Trainers																									
	Call for Trainers																								
	Filtration System																								
	Train the Trainers																								
	Select some of them to be auditors																								
	On Job Assessment																								
Cost	\$ 5,000.00																								
Train the Auditors																									
	On Job Training																								
	On Job Assessment																								
Cost	\$ 5,000.00																								
Marketing																									
	Social Media Marketing																								
	Marketing Event																								
	WebPage																								
Cost	\$ 8,000.00																								
Awareness sessions																									
	Awareness sessions for the community																								
Cost	\$ 7,000.00																								
4 pilot eco-lodges																									
	will select 4 eco-lodges for the pilot project																								
Cost	\$ 5,000.00																								
Other Costs	\$ 3,000.00																								
Total Costs	\$ 40,000.00																								

Section Four:**Project Finance and Sustainability****Estimated Overall Project Cost**

The estimated overall budget for the project will be 11,590,000 EGP.

Cost Breakdown

	Dollar rate	\$ 50					
Item	EGP	Monthly Cost	No. of P	Year 1	Year 2	Total	
Project Manager	EGP 100,000	\$ 2,000	1.0	\$ 24,000	\$ 24,000	\$ 48,000	
Project Consultanat	EGP 75,000	\$ 1,500	1.0	\$ 18,000	\$ 18,000	\$ 36,000	
Project coordinator	EGP 35,000	\$ 700	1.0	\$ 8,400	\$ 8,400	\$ 16,800	
Tech. officer	EGP 35,000	\$ 700	1.0	\$ 8,400	\$ 8,400	\$ 16,800	
Accountant	EGP 35,000	\$ 700	1.0	\$ 8,400	\$ 8,400	\$ 16,800	
International Expert (If needed)		\$ 700	25.0	\$ 17,500	\$ 17,500	\$ 35,000	
Utilities & Misl.				\$ 3,600	\$ 3,600	\$ 7,200	
Activity Costs				\$ 20,000	20,000	\$ 40,000	
Equipment				\$ 4,200	1000	\$ 5,200	
GSTC Recogintion + Accredetation				\$ 5,000	5000	\$ 10,000	
Total	EGP 5,875,000			\$ 117,500	114,300.00	\$ 231,800	11,590,000

Potential sources of funding or revenue generation for the project

The proposed financial structure for the setup of the project is 100% fund from an international organization as UNEP (or other similar entity) for the first two years and then the project will be self-funded.

Project Long Term Financial Sustainability

The project will be funded through annual subscriptions from the eco-lodges. To ensure the project's sustainability, we aim to achieve GSTC Recognition. Each eco-lodge will then pay an annual subscription fee of approximately \$1,200 to renew their certification and remain part of the certified network. The certification will be valid for two years, after which a re-audit will be conducted to ensure ongoing compliance with the established sustainability criteria.

Social Impact:

Promote the participation of local communities in the economic benefits of ecotourism.

The standards will incorporate requirements for maximum local community engagement in all eco-lodge activities. This development will encourage the involvement of local populations in ecotourism, providing economic benefits in several ways:

- Community Ownership and Partnerships
- Prioritizing Local Employment and Procurement
- Skills Development and Training
- Cultural Preservation and Showcasing Local Products

Ensure gender equality and social inclusion in its activities and benefits

The sustainability criteria can be an effective instrument to guarantee social inclusion and gender equality in all its advantages and activities.

Empowering Women in the Workplace:

- Recruitment and Training: The guideline can establish procedures for fair and non-discriminatory recruitment, ensuring women have equal opportunities for employment at all levels within the eco-lodge (considering the local culture). Training programs can be designed to cater to the needs of women.
- Equal Pay and Working Conditions: The guideline can mandate equal pay for equal work, regardless of gender.

Community Benefits for All:

- Livelihood Opportunities: The guideline can encourage the eco-lodge to source goods and services from local businesses, particularly those owned or operated by women who face a lot of challenges in getting exposed to outer communities, which is why this project will open more working from home opportunities for this category in particular.
- Skill Development: The guideline can advocate for training programs that benefit both men and women in the community, equipping them with skills relevant to the ecotourism industry.

Inclusive Activities and Guest Education:

- Accessibility: The guideline can ensure the eco-lodge's design and activities are accessible to people with disabilities, regardless of gender. This might involve features like ramps, wider doorways, and accessible bathrooms.
- Cultural Sensitivity: The guideline can promote cultural sensitivity training for staff to ensure all guests, regardless of gender or background, feel welcome and respected.
- Guest Education: The application of sustainability aspects plays an important role in guest education, besides the guidelines encourage the provision of educational material and activities for guests to raise awareness about sustainable practices and encourage responsible tourism behavior.

3

Project Name

Enabling Eco-guiding in South Sinai Natural Reserves

Section One

Project Baseline Information

Project Expected Duration (in months)

The pilot project is expected to have a duration of 12 months.

Project Location (specific region(s) in Egypt) if applicable:

The project will be implemented over a full calendar year, encompassing both the Nabq and Abu Galoum protected areas located within the cities of Dahab and Abu Galoum, respectively, on the Sinai Peninsula in South Sinai Governorate.

Nabq and Abu Galoum Reserves in South Sinai (Dahab and Nuweiba)

First: Nabq Reserve

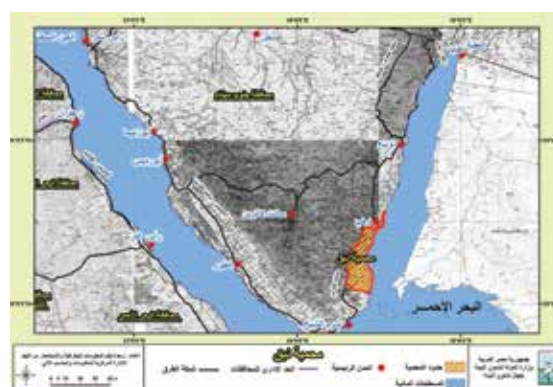
Nabq was declared a multi-purpose natural reserve by Prime Ministerial Decree No. 1511 of 1992, amended by Decree No. 33 of 1996. The reserve covers an area of approximately 600 km².

Nabq is bordered to the north by the line extending from kilometer mark 75 on the Sharm El Sheikh/Taba Road, passing through Wadi Qena El-Rayan, and extending 3-5 km from the coral reef line to the east. It continues through Wadi Um Adawy until it intersects with the Sharm El Sheikh/Taba Road to the south. To the west, it is bordered by the Sharm El Sheikh/Taba Road from its intersection with Wadi Um Adawy to its intersection with Wadi Qena El-Rayan.

Second: Abu Galoum Reserve

Abu Galoum was declared a multi-purpose natural reserve by Prime Ministerial Decree No. 1511 of 1992, amended by Decree No. 33 of 1996. It is located between the cities of Dahab to the south and Nuweiba to the north, along the upper coast of the Gulf of Aqaba.

Abu Galoum is bordered to the north by the line extending from the intersection of the Sharm El Sheikh/Taba Road with Wadi Al-Rasasa, extending 3-5 km from the coral reef line to the east, and continuing to Wadi Tella Al-Murra by Jebel Al-Hamra until it meets the Sharm El Sheikh/Taba Road to the south. To the west, it is bordered by the Sharm El Sheikh/Taba Road and covers an area of approximately 500 km² (350 km² of land and 150 km² of marine area).



Source: Natural Reserves, Legislations and Laws, Ministry of Environment. 2011, Mohamed Ibrahim



Source: Natural Reserves, Legislations and Laws, Ministry of Environment. 2011, Mohamed Ibrahim

Section Two

Project Background and Objectives

Main Scope and Objectives

The "Enabling Eco-guidance in South Sinai Natural Reserves" project aims to foster sustainable tourism and support local communities over a 12-month period. This initiative will be implemented in the Nabq and Abu Galoum protected areas, located within the cities of Dahab and Abu Galoum on the Sinai Peninsula in South Sinai Governorate. The project focuses on equipping local communities with the necessary skills, training, and certification to prepare eco-guides. By enhancing the capacity of local residents to serve as eco-guides, the project seeks to promote sustainable tourism practices, create employment opportunities, and empower the community to play an active role in the conservation and sustainable use of their natural resources. This effort will contribute to the preservation of the unique ecosystems in these protected areas while fostering economic growth and environmental stewardship within the local population.

The concept of this model starts with redefining the approach to sustainable ecotourism and highlighting the vital role of local communities in its promotion. It emphasizes mindful engagement with visitors and encourages them to contribute positively to the places they visit, leveraging the deep-rooted presence of the local community. The goal is not only to minimize environmental impact but also to inspire proactive efforts in making a positive difference, ensuring that destinations are left in a better state than when visitors arrived, guided by local eco-experts. This model aims to foster environmental advocacy, encouraging visitors to immerse themselves in education and conservation, as the collective effort works towards a sustainable future.

In addition to the general main idea of the project, there are sub-operational objectives, which are the following:

- Offer innovative ecotourism products and experiences in the renowned Nabq and Abu Galoum protected areas by developing unique activities such as snorkeling trails, underwater photography workshops, and guided birdwatching tours.
- Promote ecotourism in the marine environments of Nabq and Abu Galoum by focusing on coral reefs, seagrass beds, and mangrove forests.
- Explore low-impact ecotourism opportunities within marine protected areas and coastal zones by researching and developing new activities that minimize environmental impact.
- Partner with local and Bedouin communities in planning and implementing ecotourism projects to involve communities in decision-making, provide training, and share benefits equitably.
- Enhance communication and promotion of marine ecotourism through visitor centers by developing informative exhibits, organizing educational programs, and using social media.
- Build the capacity of the ecotourism sector to provide exceptional visitor experiences and minimize environmental impact by providing training on sustainable tourism practices and eco-friendly service delivery.
- Create job opportunities and guiding models for ecotourism in other reserves by promoting camping areas and the sustainable use of natural heritage sites.
- Encourage local and Bedouin communities to offer their expertise and culture to visitors by training locals as guides, developing cultural tourism experiences, and promoting handicrafts.
- Collaborate with the ecotourism industry and relevant organizations to develop new offerings and manage visitor services by working with tour operators, travel agencies, and conservation organizations.
- Improve the skills of guides and operators in Nabq and Abu Galoum by developing training curricula, certification programs, and organizing workshops.
- Form a specialized environmental guide capable of supporting ecotourism offerings in Nabq and Abu Galoum reserves and transferring their expertise.

- Work with competent authorities in tourism to grant an eco-certificate and support civil society to obtain an eco-guide environmental guide certificate by collaborating with tourism ministries, certification bodies, and non-governmental organizations to establish ecotourism standards and promote sustainable tourism practices.

Project Contribution to Ecotourism Challenges and Development

In line with its strategic plan, the Egyptian Ministry of Environment has prioritized the development of ecotourism as a new and significant form of tourism in the country. Ecotourism fosters a mutually beneficial relationship between the environment and the tourism sectors.

Challenges Faced by Local Communities

- o **Limited Awareness and Engagement:** Many community members lack awareness of ecotourism benefits, leading to low engagement and resistance to change from traditional livelihoods.
- o **Insufficient Training and Skills:** Residents often lack necessary skills and knowledge for eco-guiding, with few certified trainers and resources available for comprehensive training.
- o **Limited Financial Resources:** Inadequate funding for training, certification, and equipment hinders project scalability. Financial constraints also limit community participation in training.
- o **Infrastructure and Accessibility:** Underdeveloped infrastructure in Nabq and Abu Galoum makes effective training and sustainable tourist management difficult. Limited access restricts community involvement and tourist flow.

Focus on Nabq and Abu Galoum Protected Areas:

The Ministry of Environment and the Environmental Affairs Agency have dedicated significant attention to placing Nabq and Abu Galoum Protected Areas on the global ecotourism and marine tourism map. These protected areas possess world-class attributes, including diving sites ranked among the 100 most beautiful in the world.

Infrastructure Development and Visitor Services:

Numerous services and facilities have been established, infrastructure upgrades have been implemented, and visitor centers have been developed within the protected areas. These enhancements aim to provide a unique ecotourism experience that meets international standards and offers visitors comprehensive services. These efforts align with Egypt's Vision 2030 for sustainable development, promote community integration, and adhere to the protected areas' unique characteristics.

Green Tourism Initiatives:

In recent years, the number of hotels in Sharm El Sheikh that have earned the "Green Star" certification has increased. Additionally, support has been provided to diving centers to obtain the "Green Fins" certification, which is the world's first environmental certification in the diving industry. Furthermore, efforts have been made to activate the plastic bag ban policy in several major Egyptian cities, including Sharm El Sheikh, to conserve natural resources and mitigate the environmental damage caused by plastic waste in tourist areas.

Bridging the Gap: The Eco-Guide Certification Program

While significant investments have been made in infrastructure and services, a gap exists in ensuring that tour guides possess the knowledge, skills, and values necessary to deliver truly responsible and environmentally conscious ecotourism experiences. Traditional tour guide training may not adequately address minimal impact principles, sustainable consumption practices, or responsible program design that respects local cultures and heritage.

The Eco-Guide Certification Program will support the development of ecotourism in Egypt by creating green job opportunities and raising public awareness about the importance and necessity of conserving and sustainably managing marine and coastal biodiversity. It will also emphasize respecting the culture and knowledge of the Bedouin communities residing in the cities and protected areas targeted by the project. Furthermore, it aims to improve the quality of services provided to both Egyptian and foreign visitors, offering them a unique experience that imparts positive lessons on reducing carbon emissions, conserving water, minimizing the negative impacts of traditional tourism, protecting biologically and ecologically significant sites, and reducing pollution. This ensures they have a safe, culturally enriching, and environmentally sustainable experience.

The eco-guide certification/license can:

- Be a recognized industrial/professional qualification and a competitive advantage in the tourism job market.
- Serve as a tool for providing practical guidelines for implementing sustainable practices and more beneficial experiences.
- Create success stories in the sustainable management of natural resources and the exchange of expertise.
- Increase opportunities for global communication and professional development.

Section Three:

Project Description

Project activities:

The Eco-Guide Certification Program is designed to bridge this gap. By equipping tour guides with the necessary expertise in these areas, the program empowers them to lead ecotourism activities that minimize environmental impact, promote responsible visitor behavior, and foster a deeper appreciation for the natural and cultural treasures of South Sinai.

Eco-Guide Certification Assessment:

The eco-guide certification process evaluates the following aspects:

- **Knowledge of the tourism industry:** Guides must demonstrate a comprehensive understanding of the tourism industry, including market trends, customer expectations, and industry regulations.
- **Guide roles and responsibilities:** Guides must be well-versed in their roles and responsibilities, including ensuring visitor safety, providing accurate information, and adhering to ethical guidelines.
- **Communication skills:** Guides must possess effective communication skills to engage with visitors, build rapport, and handle diverse situations professionally.
- **Safety and risk management:** Guides must be trained in safety procedures, risk assessment, and emergency response protocols to ensure the well-being of visitors.
- **Group and visitor management:** Guides must demonstrate the ability to effectively manage groups, maintain order, and ensure a positive experience for all visitors.
- **Developing and delivering tourism activities:** Guides must possess the skills to develop and deliver engaging and informative tourism activities that align with ecotourism principles.
- **Minimal impact principles:** Guides must understand and adhere to minimal impact principles to minimize the environmental footprint of their activities.
- **Sustainable consumption principles:** Guides must promote sustainable consumption practices among visitors, such as conserving water, reducing waste, and supporting local businesses.
- **Designing responsible tourism programs:** Guides must have the knowledge and skills to design responsible tourism programs that promote cultural understanding, respect for local communities, and appreciation for natural heritage.

The project activities are proposed to include a number of activities that support the achievement of the project's objectives. These activities include the necessary steps to achieve communication with the administrative bodies concerned with the implementation and approval of this program, as well as identifying the elements that the program will include, etc.

The project will be implemented in four phases:

1. Phase 1: Coordination and Evaluation

This phase includes the following tasks:

- Coordinate with the Ministries of Environment, Tourism, and Higher Education, and the South Sinai Governorate to sponsor the project as one of the promising initiatives for biodiversity conservation, sustainable management, and maximizing its benefits.
- Organize a workshop with representatives of all the project's target groups to present the project idea and distribute tasks.
- Conduct a comprehensive survey of the types of tourism activities carried out in the two reserves.
- Evaluate the current direct returns and compare them with the extent of the losses incurred by the current use of biodiversity components (irresponsible tourism practices, marginalization of civil society and Bedouins from benefiting from tourism revenues and their alternative practices).
- Assess the size of the workforce, environmental guides, and tour guides in the two reserves that represent elements capable of achieving the concept of the environmental guide from civil society and Bedouins.
- Organize a workshop to present the results of the surveys and evaluations to lay the foundations for designing the program.
- Develop the training program framework according to the evaluations and the results of field visits.

2. Phase 2: Program Design and Nomination of the First Batch

This phase includes the following tasks:

- Design a comprehensive program integrated into the Chamber of Tourism to obtain the environmental guide certificate based on appropriate standards and program passing criteria to obtain the training guide certificate that will be approved by both the Environmental Affairs Agency and the Ministry of Tourism.
- Coordinate with the target groups to nominate individuals representing them to participate in the environmental guide training program (as a pilot application of the environmental guide program) to review the experiences and models applied in the various reserves in Egypt (if any) or exchange experiences and success stories with other reserves in the region.

3. Phase 3: Program Implementation

This phase includes the following tasks:

- Implement the training guide program with the nominees from the target groups.
- Test and pass the nominees from the target groups to obtain the environmental guide certificate as will be determined later.

4. Phase 4: Evaluation and Project Completion

This phase includes the following tasks:

- Evaluate the effectiveness of the program on the target groups, the quality of tourism, and its extent of contribution to biodiversity conservation (for example, in terms of the amount of waste and consumption, killing of living or plant organisms, or geological landmarks).
- Organize a workshop to conclude the project and present the results and recommendations.
- Coordinate with the Ministry of Higher Education to integrate the program into related colleges such as tourism, hotels, antiquities, and the Marine Sciences Department in the Faculties of Science.
- Prepare the final project report.

The Eco-Guide Certification Program will be designed by experienced consultants with expertise in biodiversity, ecotourism, and training and development. These consultants will ensure the program aligns with international best practices and equips participants with the necessary skills through sessions, workshops, and field visits led by specialists in relevant areas. The program itself requires approval from both the Ministry of Environment and the Ministry of Tourism to ensure its alignment with national environmental policies and tourism industry standards. Upon successful completion, participants will receive their Eco-Guide Certification from the Ministry of Environment, recognizing their expertise and commitment to sustainable tourism practices. For integration into higher education institutions, the program would require additional approval from the Ministry of Higher Education, with graduates receiving their Eco-Guide Certification from this Ministry as well.

The philosophy underpinning the training is a blend of philosophies that, when combined, enhance the training program to achieve its primary goal of preserving biodiversity and combating climate change. These philosophies are:

1. Environment-based philosophy that focuses on the relationship between humans and the environment, the ethical considerations surrounding environmental policies and practices, and the conceptual frameworks for understanding nature and its value. It also includes appreciating the importance of local communities and their heritage in conserving, preserving, and sustainably managing biodiversity to adapt to climate change.
2. The philosophy of free education and immersion in the natural reserves within the project's scope.

Direct and Indirect Beneficiaries and Stakeholders of the Project

Direct Beneficiaries of the Program Implementation:

- **Ministry of Environment:** Represented by the Natural Protection Sector in the management of Nabq and Abu Galum Protected Areas, due to the direct benefits it will receive from the conservation of marine biodiversity and the sustainability of these resources.
- **Ministry of Tourism:** Represented by those responsible for the tourism sector in the Chamber of Tourism in Egypt, its quality, and its marketing, given the importance of the environmental dimension in sustainable green tourism as one of the global trends, which makes the implementation of this program a step towards placing Egyptian tourism on the global ecotourism map.
- **Local communities in the targeted reserves (Nabq - Abu Galum):** Represented by the environmental guides, as the implementation of this program will be a beacon of hope for them in creating sustainable green job opportunities that are responsible towards their environment and respect their traditional knowledge based on the biodiversity surrounding them and its conservation. They will raise their efficiency and knowledge level with ecotourism tools and requirements and exchange experiences.
- South Sinai Governorate.

Indirect Beneficiaries of the Program Implementation:

- **Tourism operators such as cafeterias, camps, and hotels.**
- **Service sectors such as electricity, water, and sanitation, etc.,** due to tourists' understanding of the need for conservation, sustainable consumption, and responsibility.
- **Local residents in the targeted reserves whose work is based on the sustainability of biodiversity and ecotourism.**
- **Ministry of Higher Education:** Represented by the faculties of tourism, hotels, antiquities, and science faculties (Marine Sciences Department), as the environmental guide program can be included in the specialized diplomas for tourist guidance in Egypt to ensure the sustainability of the project and consequently the sustainability and conservation of biodiversity.

Identified Key Partners

Partners in aligning with the achievement of project objectives:

- Management of Nabq and Abu Galoum Protected Areas (natural reserves).
- Government departments in South Sinai Governorate and the local councils of the cities of Dahab and Nuweiba.
- Tourism industry operators and tour guides.
- Local communities in the targeted reserves.
- Civil society organizations.
- Eco-hotels in the targeted reserves.

Expected Results

- Provide green and innovative job opportunities.
- Reduce the negative impact of tourism (pollution, destruction of natural resources and habitats, etc.).
- Promote ecotourism concepts in natural reserves.
- Support the local community and respect their traditional cultures and knowledge.
- Combat climate change, as ecotourism revolves around natural resources, supporting the industry can help reduce carbon emissions.
- Encourage the maintenance of attractions, as ecotourism provides incentives to enhance biodiversity and preserve natural resources.
- Increase tourism revenue, as preserving natural resources attracts and retains visitors interested in this type of tourism, which is growing year by year.
- Educate tourists and local residents: Ecotourism activities promote environmental awareness and education among both locals and tourists.

Key Success Indicators for Project Evaluation

Possible indicators that could measure the success of the project are as follows:

- Coordination with and approval from both the Natural Reserves Management and the Tourism Sector.
- Evaluation of activities conducted in Nabq and Abu Galoum reserves.
- Designing a training program for the eco-guide certification.
- Preparing scientific resources for the eco-guide certification.
- The number of trainees applying for the eco-guide certification.
- The number of formal agreements or partnerships established with local communities, tourism organizations, and environmental agencies to support the project.
- Feedback collected from visitors regarding their experience, focusing on aspects such as the quality of ecotourism activities, environmental education, and overall satisfaction.
- The number of green job opportunities created for local and Bedouin community members as a result of the eco-guide certification program and related ecotourism activities.

Project Timeline per Phase

Activities vs yearly quarters (3months)	Q1	Q2	Q3	Q4
Phase 1				
Phase 2				
Phase 3				
Phase 4				

Section Four:**Project Finance and Sustainability****Estimated Overall Project Cost**

The estimated overall budget for the project is 15,000,000 Egyptian Pounds or \$ 2,000,000 for the duration of the project.

Cost Breakdown by Phases

Phase One - Coordination and Evaluation (1,765,000 EGP): Obtaining approvals to support the project idea as an initiative and evaluating the current status of activities and the guides responsible for implementing them in the targeted reserves and their impact on biodiversity in the two reserves.

Phase Two - Program Design and Nominations for the First Cohort (575,000 EGP): Designing the training program according to the results of surveys and evaluations from the first phase.

Phase Three - Program Implementation (200,000 EGP): Implementing the program with representatives of the target groups as a pilot to evaluate the program's effectiveness.

Phase Four - Evaluation and Project Conclusion (320,000 LE): Integrating the eco-guide program into tourism education programs.

Additional resources or support you require to implement the project successfully

Forming a specialized team to develop evaluation criteria for activities in the Nabq and Abu Galoum reserves, along with experts in program design to prepare the training materials, could be beneficial. Additionally, connecting with an international network of eco-guides to exchange experiences can be valuable.

Project Long Term Financial Sustainability

The achievement of the project's goals is expected to contribute to reducing the waste of natural resources and lowering the pressures resulting from irresponsible use. This program will also provide a sustainable income for eco-guides. Additionally, the training program will generate financial flows through participation fees and certification costs. Moreover, the implementation of this pilot phase will serve as an attraction and a point of confidence for donors, encouraging the replication of such experiences in other reserves.

Social Impact:

The local community will benefit the most from the design and implementation of the program, as it will enhance the sustainability of natural resources and subsequently increase the number of visitors to activity areas, thereby meeting essential logistical services such as cafeterias and restrooms. Additionally, it will be very beneficial to attract the local community, given their expertise in the activity areas, to participate in the program and obtain the eco-guide certification.

It is advantageous and beneficial to encourage all community members working in the tourism sector, including both genders, to apply for the eco-guide certification due to the diverse services that the eco-guide will provide to visitors.

4

Project Name

Bird Watching in Coastal Areas: Feasibility Study of an Eco-lodge in Ashtum El-Gamil Reserve

Section One

Project Baseline Information

Project Expected Duration (in months)

The project timeline is estimated to be around 6 months, including the initial project design, environmental and economic feasibility studies, and environmental impact assessment.

Project Location (specific region(s) in Egypt) if applicable:

The proposed project is to establish a small eco-lodge in the Ashtum El-Gamil Reserve in Port Said Governorate, along the coast of Lake Manzala. The total project area is estimated to be about 3000 square meters, with 500 square meters allocated for the structures.

Ashtum El-Gamil Reserve

Declaration of the Reserve

The Ashtum El-Gamil Reserve was declared by Prime Ministerial Decree No. 459 of 1988, amended by Decree No. 2780 of 1998, and further amended by Decree No. 2423 of 2019, which delineates the boundaries of the Ashtum El-Gamil Reserve.

Location and Area of the Reserve

The Ashtum El-Gamil Reserve is located in Port Said Governorate, in the northeastern part of Lake Manzala. It includes the two new Gamil inlets, part of the Mediterranean Sea, the coastal area, and the archaeological island of Tennes. The reserve covers an area of approximately 203 square kilometers, with the administrative headquarters located at kilometer 13 on the Port Said-Damietta Road.

Biodiversity in Ashtum El-Gamil Reserve

The biological community in the reserve, from the functional perspective of the ecosystem, is categorized into three main sections: producers, consumers, and decomposers. The producers (plants) include about 80 species within the reserve and 150 species in Lake Manzala, such as the common reed (*Phragmites australis*) and aquatic plants like the hornwort (*Ceratophyllum demersum*) and sea lettuce (*Ulva lactuca*). The consumers (birds, fish, and insects) include about



Source: https://ar.wikipedia.org/wiki/%D9%85%D8%AD%D9%85%D9%8A%D8%A9_%D8%A3%D8%B4%D8%AA%D9%88%D9%85_%D8%A7%D9%84%D8%AC%D9%85%D9%8A%D9%84_%D9%88%D8%AC%D8%B2%D9%8A%D8%B1%D8%A9_%D8%AA%D9%86%D9%8A%D8%B3

250 bird species, 29 fish species, and 36 insect species. The decomposers (fungi and bacteria) include about 80 species of fungi and 24 species of bacteria.

Birds:

The reserve is one of the most important bird areas in Egypt, with 250 bird species recorded. Among them, some are resident, such as the pied kingfisher, hoopoe, turtle dove, and little egret. Others are migratory, such as ducks, white storks, quail, crows, and waders. These represent about 50% of the bird species recorded in Egypt.

Plants:

The islands scattered within Lake Manzala feature diverse vegetation, with more than 80 plant species recorded in the Ashtum El-Gamil Reserve.

Fish:

Lake Manzala is one of the most important fish sources in Egypt, especially for Port Said Governorate. The lake hosts economically significant freshwater fish such as Nile tilapia (*Oreochromis niloticus*) and white tilapia (*Sarotherodon galilaeus*), as well as saltwater fish like mullet (*Mugil cephalus*) and mullet (*Liza ramada*). Lake Manzala contributes approximately 14% of Egypt's total fish production.

Local Residents

Currently, no local residents live within Lake Manzala or on the islands scattered in the lake. However, approximately 30,000 people rely entirely on the lake for their livelihoods. The local residents primarily depend on fishing and livestock rearing.



Source: <https://en.wataninet.com/features/education/first-birdwatching-festival-to-be-held-in-port-said/40416/>



Source: <https://www.sis.gov.eg/Story/115455?lang=ar>

Section Two**Project Background and Objectives****Main Scope and Objectives**

Establishing an eco-friendly lodge consisting of 10 to 12 rooms in the Ashtum El-Gamil Reserve on the shore of Lake Manzala. This project aims to create a new tourist destination in the Mediterranean region. The lodge will offer a unique blend of activities and experiences designed to attract eco-tourists and nature enthusiasts.

Guests will have the opportunity to engage in bird watching, taking advantage of the reserve's status as one of the most important bird areas in Egypt, with 250 bird species recorded. The lodge will provide guided bird watching tours, allowing visitors to observe both resident and migratory species in their natural habitats.

In addition to bird watching, the lodge will offer eco-friendly water sports, such as kayaking and paddleboarding, enabling guests to explore the pristine waters of Lake Manzala while minimizing their environmental impact. These activities will be designed to promote a deeper connection with nature and raise awareness about the importance of conserving aquatic ecosystems.

Local community activities will be an integral part of the guest experience. Visitors will have the chance to participate in traditional crafts, cultural exchanges, and community-led tours, providing them with an authentic insight into the local way of life. This not only enhances the visitor experience but also supports the local economy and preserves cultural heritage.

The eco-friendly accommodation will be designed to minimize environmental impact while providing a comfortable and sustainable stay. The lodge will utilize renewable energy sources, implement water and waste management systems, and use locally sourced, eco-friendly materials in its construction and operations. The design will blend seamlessly with the natural surroundings, creating a harmonious environment that promotes relaxation and appreciation of natural beauty.

Overall, this project aims to provide a sustainable tourism model that benefits both the environment and the local community, while offering visitors a unique and enriching experience in one of Egypt's most beautiful natural reserves.

The project aims to:

- Create a new tourist destination in Port Said Governorate by laying the foundation for tourism activities that rely on natural resources and enhance conservation concepts, such as bird watching.
- Promote ecotourism as a tool for nature conservation and increasing local income.
- Support conservation efforts in the Ashtum El-Gamil Reserve and reinforce the reserve's goals.
- Create job opportunities for local residents, particularly.
- Alleviate pressure on natural resources by creating alternative opportunities, such as reducing the pressure on fishing.
- Raise environmental awareness among the public about the importance of biodiversity and the reserve's resources.

Project Contribution to Ecotourism Challenges and Development

The establishment of the eco-friendly lodge in the Ashtum El-Gamil Reserve represents a significant contribution to ecotourism in Egypt. By creating a new tourist destination that emphasizes sustainable practices, the project sets a benchmark for future ecotourism initiatives. It promotes the conservation of natural resources, particularly the rich biodiversity of the reserve, through activities such as bird watching and eco-friendly water sports. Additionally, the project supports the local economy by creating job opportunities and involving the community in tourism activities, thus preserving their cultural heritage. By raising environmental awareness among visitors and the local population, the project fosters a deeper appreciation for Egypt's natural beauty and biodiversity.

The rationale behind designing this project includes the following:

- The Egyptian Mediterranean region suffers from insufficient inclusion in nature conservation agendas compared to the Red Sea and the Gulf of Aqaba, which have received numerous projects and dedicated efforts and resources for conservation and protection. As a result, the state has focused its promotional efforts on tourism in the Red Sea and the Gulf of Aqaba over the past three decades.
- The network of reserves in the Egyptian Mediterranean region requires more support and efforts.
- Despite the Mediterranean region's unique biodiversity and stunning natural landscapes, it lacks ecotourism activities. Therefore, the project serves as a tool to attract attention and highlight the importance of sustainably utilizing these resources.
- Utilizing ecotourism activities in the Ashtum El-Gamil Reserve to generate income for the Ministry of Environment, creating opportunities to activate conservation and protection programs.
- The Ashtum El-Gamil Reserve needs more attention to its natural resources and their importance, which can be achieved through this project.
- Maximizing the advantage of the reserve's proximity to Cairo and the capital's heart, facilitating easy access to the site.
- The proposed site is near Port Said, making it easier to obtain the necessary materials and supplies for the project's implementation. Additionally, there are other nearby attractions, providing a diverse and unique visitation program.

Section Three:

Project Description

Project activities:

1-1 Project Components:

- Determine the environmental and economic feasibility of the proposed project activities.
- Develop the initial design of the project.
- Conduct an environmental and social impact assessment study in accordance with best international practices and national legal requirements.
- Implement a comprehensive marketing, awareness, and education campaign to promote the benefits of ecotourism, engage local communities, and attract eco-conscious tourists.
- The study will focus on:
 - o Establishing and operating a small eco-lodge (12 rooms) that relies on clean energy.
 - o Establishing and operating a tourist restaurant.
 - o Conducting bird watching activities during the migration seasons (spring and autumn) and constructing three bird watching towers.



Source: <https://laketahoewatertrail.org/paddle-paddle-glide-what-to-wear-kayaking/>



Source: https://sa.made-in-china.com/co_yijiangoil/product_Two-Person-Water-Bike-Hot-Sale-Water-Sports-Dolphin_uorgensgug.html

- o Engaging in eco-friendly water activities on Lake Manzala, such as kayaking and other similar activities.
- o Organizing water tours to visit some of the historically significant islands in Lake Manzala.

Direct and Indirect Beneficiaries and Stakeholders of the Project

Ministry of Environment: By increasing income and green investment in natural reserves and collecting fees for the right of use.

Ashtum El-Gamil Reserve: By supporting the reserve's goals and raising environmental awareness among the public.

Local Residents: It is worth noting that around 30,000 local residents rely on Lake Manzala for fishing or grazing around the lake. Therefore, the proposed project should engage local residents during the construction and operation phases, not only by providing job opportunities but also by promoting the cultural heritage of these communities and supporting the implementation of simple handicrafts.

Port Said Governorate: By creating a new tourist destination in the governorate, which allows for the sustainable utilization of natural resources.

Target Audience: The project aims to attract various audience segments, such as school and university students, and visitors to Port Said arriving on international yacht cruises.

Identified Key Partners

Ministry of Environment: The entity granting the right of use.

Ministry of Tourism: The entity granting the license for the eco-lodge.

Ashtum El-Gamil Reserve: Responsible for monitoring and ensuring the project's compliance with environmental legal requirements.

Port Said Governorate: For approvals, coordination and activation.

Private Sector: Owner of the project and responsible for its construction and operation.

Local Residents: Key partners contributing traditional knowledge and cultural heritage.

Funding Entities: Providing funding for the project (such as international donors, lenders, or national banks).

Expected Results

- Offering environmentally friendly tourism options.
- Raising awareness about the importance of natural resources in the Ashtum El-Gamil Reserve.
- Ensuring profitable economic returns while guaranteeing resource sustainability.
- Ensuring that the local community is represented and participates in different phases of the project.
- Positioning Port Said as a destination for ecotourism.
- Supporting the achievement of the Ashtum El-Gamil Reserve's conservation objectives.

Key Success Indicators for Project Evaluation

Possible indicators that could measure the success of the project are as follows:

No	Objectives	Expected Results	Indicators
1	Create a new tourist destination in Port Said Governorate by laying the foundation for tourism activities that rely on natural resources and enhance conservation concepts such as bird watching.	Sustainable ecotourism activities. Port Said Governorate / Ashtum El-Gamil Reserve on the ecotourism map.	- Number of eco-lodge visitors/year. - Number of tourist nights/year.
2	Promote ecotourism as a tool for nature conservation and increasing local income.	Profitable economic return while ensuring resource sustainability.	- Economic return to the Ministry of Environment (right of use)/year. - Profit margin for the project implementer/year. - Amount of taxes collected by the state/year.
3	Support conservation efforts in the Ashtum El-Gamil Reserve and reinforce the reserve's goals.	Contributing to the achievement of the Ashtum El-Gamil Reserve's conservation objectives.	- Annual achievements report of the reserve.
4	Create job opportunities for local residents, particularly.	Local community represented and participating in different phases of the project.	- Number of local residents working in various phases of the project.
5	Alleviate pressure on natural resources by creating alternative opportunities, such as reducing the pressure on fishing.	Improved state of natural resources.	- Change in resource condition through periodic monitoring reports.
6	Raise environmental awareness among the public about the importance of biodiversity and the reserve's resources.	Good environmental awareness about the importance of natural resources in the Ashtum El-Gamil Reserve.	- Number of visitors who received informational lectures about the reserve. - Number of awareness pamphlets distributed. - Number of social media posts.

Project Timeline

Activity	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6
Develop the initial design of the project	X	X				
Determine the environmental and economic feasibility of the proposed project activities		X	X	X		
Environmental and social impact assessment of the project according to best international practices and national legal requirements			X	X	X	X

Section Four:**Project Finance and Sustainability****Estimated Overall Project Cost**

The estimated overall budget for the project is 1,560,000 Egyptian Pounds for the duration of 6 months.

Cost Breakdown

Component	Preliminary Design	Environmental and Economic Feasibility	Environmental and Social Impact Assessment
Cost (in EGP)			
Consultants	400,000	350,000	400,000
Field Visit	120,000	120,000	170,000
Total			1,560,000

Social Impact:

Promote the participation of local communities in the economic benefits of ecotourism.

Local residents are considered a vital resource that natural reserves work to support and ensure the preservation of their cultural heritage, including traditional knowledge, handicrafts, and livelihoods. Local residents are one of the main attractions of the project, and therefore, it is crucial to involve these communities in the Ashtum El-Gamil area during the various stages of the project, from construction to operation.

The proposed project suggests that the eco-lodge should offer several activities that heavily rely on local residents, such as organizing visits to the islands in Lake Manzala and showcasing local handicrafts.

Involving the local community in the project's activities not only generates economic returns but also indirectly contributes to alleviating pressures on biodiversity by creating alternative livelihood opportunities for these residents, thereby reducing the strain on the region's biodiversity.

Ensure gender equality and social inclusion in its activities and benefits

Addressing and understanding biodiversity practices that are based on gender differences and the knowledge of both women and men enhances biodiversity conservation. Numerous case studies from around the world have shown that by empowering women and vulnerable groups to equally participate in decision-making related to information sharing, education, training, technology transfer, organizational development, financial assistance, and policy development, biodiversity conservation efforts become more effective and efficient.

Understanding the links between gender-based relationships and the environment means achieving a better analysis of usage patterns, knowledge, and skills related to the conservation and sustainable use of natural resources. A comprehensive understanding of human relationships and ecosystems can only be built with a gender perspective.

Furthermore, men and women have different roles and responsibilities in the use, management, and conservation of natural resources, which vary greatly from one region to another. Women often contribute to the family, local community, and society as a whole without achieving equality in access to, use of, control over, and benefits from resources. It is clear that gender equality is a matter of fundamental human rights and social justice. Gender considerations must be taken into account in environmental management as a prerequisite for sustainable development.

Without the participation of women and the full realization of their creative and productive potential, it will not be possible to achieve the Sustainable Development Goals (SDGs), particularly those related to environmental protection. The SDGs emphasize the clear links between gender equality, poverty alleviation, biodiversity conservation, and sustainable development. These ideas must be incorporated into our vision and approach to halt biodiversity loss, reduce poverty, and improve people's lives and livelihoods.

5**Project Name****Enhancing Marine Conservation and Ecotourism through Artificial Dive Sites in the Red Sea****Section One****Project Baseline Information**

Project Expected Duration (in months)	The pilot project is expected to have a duration of 18 - 24 months depending on the geographic coverage of the project. The project is divided into several stages, with a schedule that involves deploying various models at each site on a monthly basis. The project culminates at a main selected site or sites, where the project will be announced, along with the results of the monitoring conducted throughout the year, and the readiness of the sites for visitation will be assessed.
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Project Location (specific region(s) in Egypt) if applicable:

The main geographic areas for the project are the Red Sea coast, primarily Hurghada in the Red Sea Governorate and Sharm El Sheikh in the South Sinai Governorate. The main site will be established in Dahab, featuring the submerged museum. Additionally, twenty other diving sites will be allocated across these two governorates.

The first preference for the pilot project is the Greater Hurghada area, known for its vibrant marine life and high tourist density, making it an ideal location to showcase the project's potential. The second preference is Sharm El Sheikh, a renowned diving destination with rich marine biodiversity and a well-established tourism infrastructure.

These locations were chosen to maximize the project's impact by targeting areas with significant tourist traffic and the potential for environmental education. An additional twenty diving sites will be strategically placed along the Red Sea coast. This approach ensures a comprehensive coverage of both popular and underrepresented areas, promoting sustainable tourism and conservation efforts across the region.

Section Two

Project Background and Objectives

Main Scope and Objectives

- The project aims to establish new underwater museums or artificial diving sites designed specifically for the beginner level diving tourists and snorkeling activities to relieve the existing stress and damage created by these activities on local coral reef sites regularly visited by touristic companies. These new "artificial reefs" are to be designed as an underwater artistic gallery or museum, offering sculptures, artistic installations and diver buoyancy training installations built from primarily natural materials that promote the natural growth of new corals and fish habitats.
- The concept of underwater museums/ artificial sites is not new; it dates back to the first shipwreck, or the first building flooded to the sea floor. However, the idea of preserving the marine ecosystem and coral reefs is a new perspective. This is achieved by creating new diving sites to relieve pressure on natural diving sites, such as the Statue Museum in Dahab. This project is entirely Egyptian, from the concept to the execution, production, and technical and scientific follow-up. This idea has existed for about 20 years and was brought to life through the collaboration between a group of young Egyptians interested in environmental protection (I Dive Tribe), the Egyptian General Authority for Tourism Promotion, and the Protected Areas Sector of the Ministry of Environment in South Sinai Governorate.
- A timeline was established for creating and installing 25 statues in multiple stages. The statues were created by artist Hamed Mohamed, an assistant lecturer at the Faculty of Arts at Luxor University. Everyone participated in installing the statues underwater, including Bedouins, professional divers in Dahab, and every sector of civil society. This was done through a series of celebrations aimed at raising environmental awareness among civil society and the diving community and promoting diving tourism in Egypt within an environmental framework to preserve our national marine heritage. The first phase of the museum began in 2012 and consisted of three statues: two chairs and a table shaped like a donkey, which were submerged at the Mashraba diving site.
- The next phase was carried out three years later and included three more statues. The first was "Horus", the protective deity of the pharaohs, placed facing south as a reference to protect the gulf from southern enemies, the Hyksos. It was submerged at a depth of 12 meters and stood 2 meters tall. The second statue was "Bes", the god of pleasure in Babylonian civilization, submerged at a depth of 18 meters. The third statue was a life-sized elephant made from recycled and treated parts to suit marine life. It was submerged at a depth of 23 to 27 meters and stood 2 meters tall. Images and videos of this statue are widely shared on major diving and environmental protection organizations' websites globally. The latest promotional film for the International Tourism Promotion Authority featured the statue as one of the key tourist attractions.
- The most recent phase is a modern art statue, "Ptah", the god of wisdom in ancient Egyptian civilization. The statue was made from 100 pieces of granite cut from the Sinai mountains and stacked on top of each other at a depth of 22 meters.

- The museum has achieved global fame, and the next phase will feature a collection of pyramids inspired by ancient Egyptian cultures, including Pharaonic, Islamic, Coptic, and Roman. These pyramids will be constructed to precise proportions, with a maximum height of 9 meters, hollow inside, made of stainless-steel frames designed for easy and quick assembly on land. They will then be disassembled and reassembled underwater on pre-prepared and equipped bases at depths of approximately 15-20 meters, so that they are 5-10 meters below the water surface, depending on the height and dimensions. The pyramids will be clad with metal plates, granite slabs, and eco-friendly cement, manufactured and prepared by Egyptian artists and technicians.
- Accordingly, the project idea includes implementing twenty new artificial diving sites at various coastal locations along the Red Sea and South Sinai, following the same concept as the previous phase. These sites will be selected near hotels that support the project idea. Artists are expected to develop a different art statue or constellations per site.
- The project also includes creating a main structure at the first project site with an exceptional design with the following details:
 - o Various art schools will be invited from outside Egypt to participate in the global artistic event by painting parts of the internal surface on land before submersion in celebratory festivals aimed at promoting ecotourism and documenting and sharing the environmental content with the world through symbolic artistic contributions. The artwork pieces will be designed and executed by the Egyptian artist Hamed Mohamed, an assistant lecturer at the Faculty of Fine Arts at Luxor University, who executed the previous phases of the museum and holds a master's degree on the same subject titled "The Aesthetic Dimensions of the Interaction between Nature and Underwater Sculpture." These artistic messages will reinforce the project's awareness goals.
 - o The story of the external painting of the largest pyramid will be an imaginative artistic narrative from the pyramid civilization, from which various sculptures will emerge to tell the story on land. The museum will extend in stages with different exciting stories from multiple civilizations.

The specific objectives of the project are as follows:

1. **Coral Reef Conservation:** Provide alternative sites for divers to reduce pressure on natural coral reef sites.
2. **Enhance Ecotourism:** Attract tourists by offering a unique and educational diving experience.
3. **Environmental Awareness:** Raise awareness about the importance of coral reefs and the need to protect them.
4. **Scientific Research:** Use the museum as a site for environmental and marine studies.
5. **Local Economic Development:** Stimulate the local economy by creating job opportunities and increasing tourism income.
6. **Cultural Heritage Preservation:** Display underwater statues that reflect Egyptian culture and history.
7. **Community Development and Alignment with SDGs:** Foster community development and embed the project within the framework of the United Nations Sustainable Development Goals.

Project Contribution to Ecotourism Challenges and Development

- The marine ecosystem and coral reefs are valuable assets for Egypt, but this diverse and unique marine life is under constant threat. Professional divers may break half to one centimeter of coral during each dive, not to mention non-professional divers. Coral reefs take about 30 to 70 years to grow one centimeter. Scientists predict that coral reefs may become extinct within the next seventy years, except for those in the Red Sea and the Arabian Gulf. The death of more than 50% of the Great Barrier Reef in Australia is a recent example of this trend. Although the rate of marine life recovery in the Red Sea is higher compared to other seas, it still requires a significant amount of time. This time can be provided by creating alternative artificial diving sites.
- Marine mass tourism hubs like Hurghada and Sharm El Sheikh have, in recent decades, exceeded their carrying capacity thresholds for coral reef sites used in tourist activities. The Northern Red Sea holds some of the world's healthiest and most resilient coral reef species, showing tolerance to increasing water temperatures and bleaching. However, these corals are currently impacted by shipping pollution, unregulated fisheries, and mass tourism traffic. Safeguarding the Red Sea's corals is crucial to ensuring the survival of coral reef ecosystems worldwide, and there is an urgent need to reduce anthropogenic pressures and promote their resilience. During the COVID-19 pandemic, the temporary cessation of tourism allowed the Red Sea corals to recover significantly, demonstrating their resilience if given a chance.
- Tourism hubs like Hurghada and Sharm El Sheikh, which mainly rely on mass tourism, experience high traffic of tourists and boats on marine diving and snorkeling sites. The most in-demand activities in these hubs are snorkeling and beginner-level "intro" diving, which have higher physical contact rates with corals, causing damage. A 2018 study by the Egyptian Chamber of Diving and Water Sports estimated that there are 5,000 introductory dives per day in the Red Sea, with an average of 15 contacts with coral per dive, resulting in 75,000 damaging incidents daily. This equals an average of 187m2 of damaged coral per day. Snorkeling activities have similar damaging contact rates due to snorkelers standing on corals for stability.
- To protect Hurghada and Sharm El Sheikh's coral reef ecosystems, it is suggested to create alternative beginner diving and snorkeling sites. These sites, including underwater artistic museums and diver buoyancy training installations, can divert damaging activities away from ecologically important areas. Carefully selected locations that meet safety, logistical, and environmental criteria would host these alternative sites, reducing the impact on natural coral reefs. This approach aims to improve the zoning and management of such activities, redirecting them to suitable locations without banning or hindering the business of beginner diving and snorkeling, which are main products marketed in these mass tourism destinations.

Section Three:**Project Description****Project activities:**

The project will need an Environmental Assessments Study (EIA) study and approvals from designated official authorities before the implementation phase.

Main Project Site in Dahab:

The museum will feature a pyramid-shaped structure made of metal, with a height of no more than 9 meters. It will be hollow inside, consisting of a stainless-steel frame designed for easy and quick assembly on land, then disassembled and reassembled underwater on pre-prepared bases at a depth of approximately 15-20 meters, so it is 5-10 meters below the water surface, depending on height and dimensions. The structure will be clad with metal plates, granite slabs, and eco-friendly cement.

Implementation of Multiple Sites (20 sites):

The project will replicate the concept used in previous phases, implementing it at twenty new locations, leveraging previous experience to design the museum or sculptures according to the site's survey results. But with each site there will be a different statue.

1. Creation of a team consisting of a manager, an accountant and a subject matter expert with coordinating capabilities should be sufficient. This phase will also identify all stakeholders and map in more detail their roles and potential technical support they would require in order to act. An action plan will be drawn to fine tune the logistics and exact timeline of the project. All stakeholders will be introduced to the project and their roles defined.
2. Conduct detailed site surveys to identify the most suitable locations and optimal timing for implementation, forming an execution plan. Suitable locations should be sheltered from wind and waves, have shallow sandy bottoms with a maximum depth of 10 meters, and be free from existing coral reefs or seagrass ecosystems. Ideally, these sites should be near the coastline or marinas to minimize boat travel time and provide mooring space. Exploratory dives should be conducted to ensure site suitability. Additionally, surveying local diving operators for their opinions on the proposed locations is essential, as their acceptance is crucial for the museum's success and popularity. Also, sites near dolphin resting areas should be avoided to reduce boat traffic in ecologically important areas.
3. Select construction materials in accordance with environmental standards and agreeing on the types of structures to be sunk. It is recommended that the underwater structures be built from eco-friendly and safe materials such as stone, pH-neutral marine-grade cement, ceramics, and encased glass and mirrors. Metal can be used but must be covered to prevent toxin leaching. These materials are proven to promote new coral polyp growth effectively. The structures should feature many holes and crevices to provide shelter for reef fish and invertebrates. Each structure should weigh no more than 1 ton, preferably less, to allow easy sinking from local dive boats with the help of divers using ropes and lift bags.
4. Obtain necessary permits. This will require agreeing on a suitable location, on the materials used for the underwater structure, the techniques used to install the structures, the permissions to install the underwater structures.
5. Communicate with relevant companies to receive quotations and select those that match the project's scope.
6. Prepare work sites (museum locations), including securing bases and supports for the artistic structures.

7. Coordinate with artists for the creation and structuring of the museum. Commissioning artists for the creation of the underwater structures. It is recommended to create a large workshop inviting several artists, mainly sculptures capable of working with such materials to collaborate on the project. The artistic workshop could include the participation of local communities and their schools in the inception and design of the statues where awareness raising around the project and the importance of protecting the marine ecosystem can be conducted. The location of the workshop will have to be close to the location of the marina to facilitate the transportation of the structures.
8. Installation of the structures underwater with the coordination of the diving sector. Once the structures are finalized, they will have to be transported onto boats and sunk in their designated locations as per the artistic design with the help of diving center operators and professionals. If the statues respect the above-mentioned weight and size, it would be possible to sink the statues using life bags and ropes/harnesses and professional divers working in diving centers. Boat moorings in the new locations will have to be installed to accommodate boats. Engage heavy-duty companies to submerge and secure the sculptures on pre-prepared bases.
9. Specialized divers (welders and technicians) will assemble the museum on the pre-prepared bases and supports.
10. Place buoy markers around the sites.
11. Monitor and record environmental results on a quarterly basis in order to showcase the ecological benefits of the project on existing coral reefs and the development of the new sites, monitoring and research efforts will have to be conducted to understand in the long term how the ecosystems have improved and adapted to this project. The monitoring should be done annually by the selected body to determine the success and ecological impact of the project.
12. Prepare promotional and informational materials about the story of each site.
13. Opening of the new underwater museum. Once the museum has been installed, an opening event could be created. An international promotional campaign should be set in place with underwater photography and videography to promote the new site. A strong communication campaign will have to be conducted to communicate the regulations regarding the management of the underwater museum to the marine tourism operators, explaining the objectives of the underwater museum and its contribution to the conservation of existing coral reef sites.

Direct and Indirect Beneficiaries and Stakeholders of the Project

The direct beneficiaries of the project are as follows:

1. **Tourists:** Those seeking unique and educational diving experiences.
2. **Hotels, Resorts, and Dive Centers:** Which will benefit from the increased number of visitors.
3. **Professional Divers and Photographers:** Who can explore new sites and offer their services to visitors.
4. **Local Communities:** Which will benefit from the jobs and income generated by tourism.
5. **Researchers and Scientists:** Who can use the museum as a site for scientific research and environmental studies.
6. **Environmental Organizations:** Which work on conserving coral reefs and biodiversity.
7. **Artists and Fine Arts Students:** Who will participate in designing the selected sculptures for the project.

The indirect beneficiaries of the project are the following:

- The Arab Republic of Egypt which will receive great international promotion for the opening of Egypt's first underwater museum.
- The Ministry of Tourism and Antiquities for the promotion of Egypt's first underwater museum and the opening of a new tourist attraction.
- The Chamber of Diving and Water Sports for an improved management of this sector at sea and the better management of dive and snorkel sites with safer conditions for the tourists and the corals.
- The Ministry of Culture for the promotion of local artists.
- Local communities involved in the project.
- The NGOs involved in the implementation of the project and in the engagement of schools and local communities in the project.

Identified Key Partners

1. **Hotels, Resorts, and Dive Centers**
2. **Chamber of Diving and Water Sports**
3. **International Diving Organizations**
4. **International Environmental Protection Programs**
5. **Civil Society Organizations Interested in Environmental Protection**
6. **Government and Tourism Sector:** (Ministry of Tourism and Antiquities, Ministry of Environment), which benefit from enhancing Egypt's image as a sustainable tourist destination.

Expected Results

- Improved Marine Environment: By reducing pressure on natural diving areas.
- Development of Fish Stocks: By creating additional breeding and spawning areas.
- Preservation of Natural Heritage: By protecting coral reefs.
- Additional Job Opportunities: For those directly involved in the project and for services near the new sites.
- Additional Scientific Databases: Providing experiences that can be monitored and built upon.
- Enhanced Tourist Image of Egypt: Portraying it as a more sustainable and effective destination in environmental protection efforts.
- Media Momentum: Highlighting environmental protection efforts and the role of local communities.

Key Success Indicators for Project Evaluation

Possible indicators that could measure the success of the project are as follows:

- The number of diving and snorkeling operators and number of tourists that visit and utilize the underwater museum.
- Changes in biodiversity levels at the new sites, including the presence of new species.
- Feedback from stakeholders such as diving operators, tourists, and local businesses.
- Feedback from tourists regarding their experience at the new sites.
- The number of educational programs and awareness campaigns conducted.
- The increase in local income generated from tourism activities.
- The number of scientific studies and publications resulting from the project.
- Assessing the project's positive or negative impact on the marine environment.
- Interest from international organizations in replicating the experience.

Project Timeline

The suggested timeline for the pilot project is 18 months. The timeline is subject to change depending on the obtaining of required permissions for governing authorities on the location of the underwater museum and the installation of the structures. The timeline has been designed to anticipate that the permissions will take time, in this case it can reach up to 24 months. The activities that focus on the negotiation and permission phases of the project may take the most time as it will require several stakeholders to come together. The activities related to implementation phase focusing on the creation of the underwater structures, their installation and the opening of the museum can be shorter depending on efficacy.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Planning																		
Advocacy																		
Call for designs																		
Material purchase																		
Main site																		
Site 1																		
Site 2																		
Site 3																		
Site 4																		
Site 5																		
Site 6																		
Site 7																		
Site 8																		
Site 9																		
Site 10																		
Site 11																		
Site 12																		
Site 13																		
Site 14																		
Site 15																		
Site 16																		
Site 17																		
Site 18																		
Site 19																		
Site 20																		
Filming and check																		
Launching event																		

Task	Duration
Develop the project execution plan and finalize site locations	1 month
Market the project and coordinate with hotels and support sites	3 months
Announce the collection of proposals for the design of sculptures for the 20 new sites	2 months
Obtain permits and complete administrative procedures	2 months
Procure the necessary materials for building the sculptures	3 months
Construct the main project site (pyramid structure)	6 months
Build and deploy sculptures at each selected site (20 sites)	1 month per site, in parallel
Launching date	(Date to be scheduled)

Section Four:

Project Finance and Sustainability

Estimated Overall Project Cost

The estimated overall budget for the project is 20,000,000 Egyptian Pounds as an average estimate for the duration of 18 months.

Cost Breakdown

Task	Duration
Cost per diving site (same as previous Dahab Museum)	600,000 per site
Total cost for 20 sites	12,000,000
Cost of the main site (Diving Pyramid)	Approximately 6,000,000
Reserve budget for emergencies, project marketing, and establishing an association with supporting data and contributors	2,000,000

Budget

Main site Production					
Description		Unit	Rate	sub-total	Notes
Artists	5	15	EGP 10,500.00	EGP 787,500.00	
Material	6	10	EGP 60,000.00	EGP 3,600,000.00	
Researcher & inspection	2	2	EGP 2,400.00	EGP 9,600.00	
Accommodation, transportation, etc	5	7	EGP 3,150.00	EGP 110,250.00	
logistics, diving and installment	4	7	EGP 50,400.00	EGP 1,411,200.00	
Project Manager	1	3	EGP 20,000.00	EGP 60,000.00	
Assisstantants and helpers	2	3	EGP 15,000.00	EGP 90,000.00	
				EGP 6,068,550.0	

New sites Production					
Description		Unit	Rate	sub-total	Notes
Artists	5	5	EGP 10,500.00	EGP 262,500.00	
Material	5	20	EGP 60,000.00	EGP 6,000,000.00	
Researcher & inspection	5	5	EGP 2,400.00	EGP 60,000.00	
Accommodation, transportation, etc	3	20	EGP 18,900.00	EGP 1,134,000.00	
logistics, diving and installment	3	20	EGP 50,400.00	EGP 3,024,000.00	
Project Manager	1	18	EGP 20,000.00	EGP 360,000.00	
Assisstantants and helpers	5	18	EGP 15,000.00	EGP 1,350,000.00	
				EGP 12,190,500	

Preproduction / Production/ Post-production					
Description		Unit	Rate	sub-total	Notes
Main site				EGP 6,068,550	
New sites				EGP 12,190,500	
Contingency				EGP 2,000,000	
Total budget ner each site				EGP 20,259,050	

Potential sources of funding or revenue generation for the project

It is planned to invite various entities and institutions to sponsor the project, with donors' names being recorded at the sites. The main entities include:

- Hotels near the submersion sites
- Dive centers
- Civil society organizations interested in environmental protection
- Donor or supporting institutions
- Major diving institutions (through invitations to sponsor the sites)

It is recommended to allocate funds from either potential donor agencies; or development funds or private grants until the project establishes itself. Given that the project involved various sectors (tourism, art, culture and environment), it is also suggested to gather either private grants or development funds from banks that generally support such sectors.

Additional resources or support you require to implement the project successfully

CSR, sponsorships or donations from the private sector would be required to support the development of the project. The project could target multinationals operating on the Red Sea or that would have a direct benefit from protecting its ecosystem.

It is possible to receive in kind contributions from the diving operators in the forms of diving equipment and boats used for activity 5, the installation of the structures. This will have to be negotiated with the sector which would participate in the implementation of the project. Also, consulting with the diving operators would greatly benefit the project's inception to benefit from the knowledge and technical expertise of the sector.

Project Long Term Financial Sustainability

Given that the project is essentially not owned by any single entity and, once submerged, the sculptures become public property, the financial sustainability relies on the awareness of donors and supporters about the importance of monitoring the sculptures. Sustaining and developing the sites with additional sculptures will ensure continuous growth and overall sustainability of the project. It might be beneficial to establish a working group or create an association to oversee the project. This association would include direct beneficiaries, especially hotels and dive centers, ensuring regular financial contributions.

After its implementation, the project should be managed by an association responsible for overseeing it. This association would launch a website and social media pages, among other promotional tools, providing a promotional platform that could also serve as a means to sell advertising spaces.

Social Impact:

Promote the participation of local communities in the economic benefits of ecotourism.

From the beginning of the project, it is planned to create direct job opportunities for local communities in the construction of the sculptures and the necessary services during the project's implementation period. This will ensure job opportunities for:

- Blacksmiths
- Artists
- Crane operators and other logistical support elements

It is essential to launch an awareness campaign for local communities about the importance of these sites. Educating them about the benefits will ensure their protection due to the positive economic impact on these communities. The project in Dahab serves as a good example of this positive impact.

Once the artificial diving points are established, they will be an addition to the tourism offering, ensuring the availability of a range of services, especially transportation, food, and beverages, etc. Consequently, this will generate additional cash flows around the sites from visitors, in exchange for services provided by the local communities surrounding the sites.

Ensure gender equality and social inclusion in its activities and benefits

The project, from its inception, has been based on gender equality and social inclusion, with a significant number of volunteers on the team being women. This focus on female expertise will continue and become one of the project's priorities, particularly in leadership roles for the upcoming phases.

The project can encourage the participation of female artists in the design and creation of the structures placed in the underwater museum. Egypt holds a large number of female artists that could engage and lead the design and development of the artistic side of this project as well as help lead the artistic workshops with the local communities and their schools.

Regarding community involvement, the project's commitment remains as strong as before. The initial phases were implemented during the annual Dahab Festival, which aimed to support the local community of Dahab and ensure economic benefits from tourism activities. The project is built on the principles of sustainable development and the blue economy.

6**Project Name**
**Sustainable Replanning and Infrastructure Development of Coastal Tourism
Centers in the Southern Red Sea Region**
Section One**Project Baseline Information****Project Expected
Duration (in months)**

The estimated time for the project is about 3 years or 36 Months. With a focus on achieving long-term sustainability, the project is designed to unfold over a strategic 36-month (3-year) period. This timeframe provides the necessary flexibility to ensure each crucial step receives the appropriate level of attention. The initial phase will prioritize in-depth research and comprehensive planning, laying a solid foundation for future success. The following stages will involve meticulous implementation, with each phase carefully monitored and adjusted for optimal results. This phased approach within the 3-year window allows for a dynamic and adaptable project, fostering a sustainable future for the coastal tourism centers of the Southern Red Sea Region. In the following sections an envisioned timeline will be provided.

Project Location: The project targets three main geographic tourism sectors within the Southern Red Sea Region of Egypt.

The Al Qusier – Marsa Alam Tourism Sector

It encompasses a stretch of approximately 120 km along the Red Sea coast, situated between Al Qusier and Marsa Alam cities in the Red Sea Governorate of Egypt. This area boasts a maximum depth of 8 km from the shoreline.

Comprising nine distinct coastal centers, namely Bier Asel, Al Sharm Al Bahary, Marsa Wazar, Ras Trompy, Gabl Al Gaziera, Marsa Shoney, Marsa Morien, Al Nabee Al Saghler, and Marsa Shagara, this region presents an opportunity for integrated tourism development projects.

Located strategically about 14 km south of Al Qusier city and 14 km north of Marsa Alam city, this expansive area offers premium beachfront real estate and natural features that are conducive to sustainable tourism initiatives. Developing these projects can play a crucial role in diversifying the local economy.

To ensure the harmonious development of these nine centers in the years to come, a comprehensive situational analysis and master planning process will be essential. This approach will guide compatible development practices and foster the sustainable growth of the tourism sector in the region.

Marsa Alam - Ras Benas Tourism Sector

The integrated coastal tourism development zone spans approximately 103 kilometers along the southeastern coastline of Egypt, stretching from Marsa Alam in the north to Ras Benas in the south. With a reach extending 6 kilometers inland from the shoreline in most areas, this zone encompasses a rich tapestry of coastal and inland environments.

A pivotal feature of this region is its southern alignment with the Wadi Al Gimal Protected Area, a globally recognized biodiversity hotspot teeming with diverse flora and fauna. The protected status of this area underscores the importance of adopting an ecosystem-based approach to tourism development across the integrated planning area.

Seven distinct coastal centers have been earmarked for integrated sustainable tourism projects: Ras Dorry, Sharm Al Fokairy, Hankourab, Wadi Al Gimal, North Abougsoun, South Abougsoun, and Wadi Lahami, arranged from north to south.

Strategically positioned along approximately 14 kilometers of coastline south of Marsa Alam city, concluding at Ras Benas, this zone presents invaluable coastal and inland environments reliant on their pristine natural characteristics. Its prime ecological attributes and strategic location provide a platform for establishing sustainable tourism models that harmonize environmental, social, and economic imperatives. A robust situational analysis and evidence-based master plan will serve as guiding principles for the compatible development of tourism initiatives across these seven centers in the forthcoming period, aligning with integrated coastal management principles and ensuring the preservation of this unique ecosystem for future generations.

Southern- Ras Benas Tourism Sector

This remarkable coastal area stretches around 50 km from southern Ras Benas to the village of Marsa Humayra, with a width of nearly 10 km inland from the shoreline. What makes this area truly special is that it falls entirely within the boundaries of the Elba Protected Area, which holds international recognition as a biodiversity hotspot, housing a wide array of plant and animal species. The protected status of this area strongly supports an ecosystem-based approach to tourism development.

This unique coastal center has been specifically designated for a distinctive developmental concept centered around eco-friendly approaches and practices. It has valuable coastal lands with exceptional features including lagoons, serene sandy beaches, and refreshing gentle winds, as well as captivating fringing reefs. Inland, the environment shares the delicate natural characteristics, characterized by diverse flora, fauna, and various habitats. The combination of its prime ecological qualities and strategic positioning presents abundant opportunities to cultivate a distinct and sustainable tourism model.

By emphasizing sustainable practices, preserving the natural environment, and capitalizing on its ecological assets, this coastal zone has the potential to foster a harmonious relationship between tourism development and the surrounding ecosystem.

Section Two

Project Background and Objectives

Main Scope and Objectives

The "Sustainable Replanning and Infrastructure Development of Coastal Tourism Centers in the Southern Red Sea Region" project is a visionary initiative focused on harmonizing tourism growth with environmental conservation and community prosperity. Located in Egypt's breathtaking Southern Red Sea Region, the project aims to preserve the area's natural integrity and rich cultural heritage while promoting sustainable development.

This project adopts a holistic approach to coastal development, integrating strategies to ensure the region's long-term sustainability. Central to this approach is balanced replanning aligned with the carrying capacity of the environment of its geography and area, which thoughtfully considers land use, infrastructure, and environmental conservation. By strategically redesigning coastal tourism centers, the project aims to minimize environmental impact and maximize benefits for local communities and visitors.

The primary objective is to replan the targeted centers using an ecotourism approach to address issues from previous intensive development. This strategy prioritizes sustainable and responsible tourism practices, ensuring the protection and conservation of local resources and environments. The focus needs to be on transforming the proposed centers into premier ecotourism destinations. This shift will emphasize sustainable practices, environmental conservation, and integration of local culture, aligning with true ecotourism principles.

Project objectives include:

- The utilization of ecotourism as an approach to the replanning and design of these centers.
- Develop integrated long-term spatial plans to organize and control urban pattern of coastal tourism centers.
- Rationalize land use zoning to protect valuable coastal and marine ecosystems from overdevelopment.
- Improve connectivity between tourism centers and hinterlands/ back areas to distribute economic benefits.
- Foster public-private partnerships to finance and operate sustainable tourism infrastructure projects.
- Build local capacity by providing technical assistance and training for eco-friendly tourism operations. Implement standards, regulations, and voluntary certifications for sustainable coastal tourism.
- Improve infrastructure resilience against climate change impacts like sea level rise, intensifying storms.
- Conduct environmental impact assessments to identify sustainable carrying capacities for existing tourism centers.
- Refurbish and upgrade tourism infrastructure like hotels, marinas, piers, boardwalks, etc. using eco-friendly designs and materials.
- Implement renewable energy, water efficiency, and waste management solutions to improve sustainability of tourism facilities.
- Protect and rehabilitate fragile coastal ecosystems like coral reefs, mangroves, beaches that may be impacted by tourism.
- Expand and diversify tourism offerings focused on ecotourism, nature-based, and cultural heritage experiences.
- Serve as a replicable model of integrated planning for other Egyptian coastal destinations.

Project Contribution to Ecotourism Challenges and Development

This project will significantly contribute to the development of ecotourism in Egypt in the following ways:

- Addressing overcrowding and degradation of fragile coastal/marine ecosystems.
- Diversifying fragile economies away from mass tourism models by developing new ecotourism products showcasing local identity, history and environment.

- Advancing Egypt's green credentials and complying with international sustainability standards to attract high-value conscious travelers.
- Reducing pollution and waste management issues in overgrown tourism centers like Magawesh and Makadi.
- Enhancing natural and cultural heritage preservation by integrating conservation priorities into land use and activity planning.
- Fostering community stewardship of the southern protected areas by supporting alternative local livelihoods dependent on healthy ecosystems.
- Promoting sustainable transport connectivity within towns to reduce private vehicle use and emissions through investment in electric buses, cycling lanes, etc.

Key addressed challenges include:

- Overcrowding and degradation of fragile coastal/marine ecosystems
- Economic diversification away from mass tourism models
- Compliance with international sustainability standards
- Pollution and waste management issues
- Mitigating and adapting to climate change impacts

Section Three:

Project Description

Project activities:

The management and implementation of the project will be overseen by the Tourism Development Authority, with specific direction provided by the central administrations of environmental affairs and tourism areas affairs. Under the auspices of the Tourism Development Authority, the central administration of environmental affairs is tasked with overseeing environmental stewardship aspects of the project. This includes conducting environmental assessments, identifying ecologically sensitive areas, and formulating strategies to mitigate environmental impacts while promoting sustainable tourism practices. Additionally, the central administration of tourism areas affairs is responsible for coordinating the development of tourism infrastructure and managing tourism-related activities within the designated coastal areas. This involves strategic planning, stakeholder engagement, and implementation oversight to ensure that tourism development aligns with environmental conservation efforts and enhances the overall visitor experience.

Activities that will be implemented under the project include:

- Stakeholder consultations with local communities, businesses, government to understand needs and gather feedback.
- Baseline studies of existing conditions covering physical environment, socio-economic profiles and tourism trends analysis.
- Vulnerability and infrastructure assessments to identify climate and development challenges.
- Spatial analysis using GIS and scenario modeling to develop alternative replanning frameworks.
- Field surveys and condition assessment of engineering infrastructure like roads, utilities, drainage.
- Guidelines and design standards formulation for green buildings, resilient facilities.
- Policy and regulatory reforms to align with sustainability and zoning plans.
- Capacity building programs for local authorities, industry, craft groups.
- Financial mechanism development for public-private cooperation models.
- Stakeholder reviews and validation workshops for draft replanning proposals.
- Environmental and social impact assessments of pilot interventions.
- Awareness campaigns for sustainable tourism promotion and community engagement.
- Monitoring framework establishment for long-term evaluation.

The implementation of the project activities will be guided by a participatory and evidence-based approach, aimed at generating actionable replanning solutions for sustainable coastal tourism development. Stakeholder consultations with local communities, businesses, and government entities will serve as the foundation for understanding needs and gathering feedback, ensuring that the project reflects the aspirations and priorities of all involved parties. Baseline studies will provide a comprehensive understanding of existing conditions, covering aspects such as the physical environment, socio-economic profiles, and tourism trends analysis. Vulnerability and infrastructure assessments will further inform decision-making by identifying climate and development challenges. Utilizing spatial analysis techniques, such as GIS and scenario modeling, alternative replanning frameworks will be developed to optimize land use and infrastructure planning. Field surveys and condition assessments will provide valuable insights into the state of engineering infrastructure, enabling the formulation of guidelines and design standards for green buildings and resilient facilities.

Direct and Indirect Beneficiaries and Stakeholders of the Project

The Sustainable Replanning and Infrastructure Development of Coastal Tourism Centers in the Red Sea Area project aims to enhance and develop the coastal tourism centers in the Red Sea region while promoting sustainable practices and infrastructure. The project focuses on ensuring the long-term viability and environmental sustainability of these tourism destinations. The beneficiaries of this project can be categorized into several groups:

- o **Local Communities:** The project aims to benefit the local communities residing in the Red Sea coastal areas. It seeks to create employment opportunities, improve living standards, and boost the local economy through sustainable tourism practices. The development of infrastructure and tourism facilities can generate jobs in various sectors such as hospitality, transportation, and entertainment, providing income and livelihood opportunities for the local population.
- o **Tourists:** The project aims to enhance the overall tourist experience in the Red Sea coastal areas. By developing sustainable infrastructure, such as eco-friendly accommodations, waste management systems, and transportation networks, tourists can enjoy a high-quality and environmentally conscious tourism experience. The project strives to preserve the natural beauty and biodiversity of the region, making it an attractive destination for domestic and international tourists.
- o **Environment and Biodiversity:** One of the primary objectives of the project is to promote sustainability and environmental conservation. By implementing sustainable practices and infrastructure, the project aims to minimize the negative impact of tourism on the Red Sea ecosystem. This includes measures to reduce pollution, protect coral reefs, preserve marine life, and manage waste effectively. By safeguarding the environment, the project ensures the long-term ecological health of the Red Sea area.
- o **Government and Local Authorities:** The project can benefit the government and local authorities responsible for the management and development of coastal tourism centers. By improving infrastructure and promoting sustainable practices, the project helps attract investment, boost tourism revenue, and strengthen the economy. It also supports the government's efforts to promote sustainable development and achieve environmental conservation goals.

Project Outcomes

The expected outcomes of the project include:

- o **Sustainable Tourism Growth:** The project aims to foster sustainable tourism growth in the Red Sea coastal areas. By developing the necessary infrastructure, promoting environmental conservation, and implementing sustainable practices, the project can attract more tourists and increase visitor satisfaction. This, in turn, can lead to increased tourism revenues and economic growth for the region.
- o **Enhanced Infrastructure:** The project seeks to develop and upgrade infrastructure in the coastal tourism centers. This includes the construction or improvement of accommodations, transportation networks, waste management systems, recreational facilities, and other tourism-related infrastructure. The enhanced infrastructure can provide better services and amenities for tourists, leading to an improved overall tourism experience.
- o **Environmental Conservation:** The project focuses on preserving the natural environment and biodiversity of the Red Sea area. By implementing sustainable practices, such as responsible waste management, conservation of coral reefs, and protection of marine life, the project aims to mitigate the negative environmental impacts of tourism. It strives to maintain the ecological balance and ensure the long-term sustainability of the region's natural resources.
- o **Socioeconomic Development:** The project aims to stimulate socioeconomic development in the local communities. By generating employment opportunities, improving living standards, and supporting local businesses, the project can contribute to poverty reduction and economic empowerment. It can also promote social inclusivity and cultural preservation by involving local communities in the planning and development processes.

Overall, the Sustainable Replanning and Infrastructure Development of Coastal Tourism Centers in the Red Sea Area project aims to balance tourism growth with environmental conservation and socioeconomic development. By promoting sustainability and enhancing infrastructure, the project seeks to create a vibrant and sustainable coastal tourism destination that benefits all stakeholders involved.

Key Success Indicators for Project Evaluation

1. Stakeholder Engagement:

- o Percentage of key stakeholders (local communities, businesses, government) participating in consultations.
- o Level of satisfaction among stakeholders regarding their involvement in decision-making processes.

2. Baseline Studies:

- o Completion and comprehensiveness of baseline studies covering physical environment, socio-economic profiles, and tourism trends analysis.

3. Vulnerability and Infrastructure Assessments:

- o Identification and prioritization of climate and development challenges.
- o Recommendations for addressing identified vulnerabilities and infrastructure gaps.

4. Spatial Analysis and Replanning Frameworks:

- o Development and validation of alternative replanning frameworks using GIS and scenario modeling.
- o Integration of environmental and socio-economic considerations into replanning strategies.

5. Field Surveys and Condition Assessments:

- o Completion of field surveys and condition assessments of engineering infrastructure.
- o Identification of priority areas for infrastructure improvement and maintenance.

6. Guidelines and Design Standards:

- o Adoption and implementation of guidelines and design standards for green buildings and resilient facilities.
- o Compliance of new infrastructure developments with established standards.

7. Policy and Regulatory Reforms:

- o Adoption and implementation of policy and regulatory reforms to align with sustainability and zoning plans.
- o Improvement in regulatory frameworks to support sustainable tourism development.

8. Capacity-Building Programs:

- o Participation rates and feedback from capacity-building programs for local authorities, industry stakeholders, and craft groups.
- o Demonstrated improvements in the capacity of stakeholders to contribute to project implementation.

9. Financial Mechanism Development:

- o Establishment of public-private cooperation models for financing project interventions.
- o Availability of funding sources and mechanisms to support sustainable tourism initiatives.

10. Stakeholder Reviews and Validation Workshops:

- o Feedback received from stakeholders during reviews and validation workshops for draft replanning proposals.
- o Incorporation of stakeholder feedback into final replanning strategies.

11. Environmental and Social Impact Assessments:

- o Completion of environmental and social impact assessments for pilot interventions.
- o Mitigation measures identified and implemented to minimize adverse impacts.

12. Awareness Campaigns:

- o Reach and engagement metrics for sustainable tourism promotion and community engagement activities.
- o Level of awareness and understanding among target audiences regarding sustainable tourism practices.

13. Monitoring Framework Establishment:

- o Establishment of a monitoring framework for long-term evaluation of project outcomes.
- o Availability of data and indicators for tracking progress towards project objectives over time.

Project Timeline

Initial concepts and consultation phase:	2-3 Months
Baseline studies, assessments and data collection:	9-10 Months
Replanning framework development:	5-7 Months
Masterplans and detailed infrastructure designs:	9-10 Months
Pilot project implementation:	3-4 Months

Section Four:**Project Finance and Sustainability****Estimated Overall Project Cost**

The average estimated cost would be around \$ 2,500,000. The scale of the multi-year, multi-location project means actual costs could vary substantially depending on scope, international expertise involved, percentage of pilots implemented, etc.

Project Long Term Financial Sustainability

The financial sustainability of the Sustainable Replanning and Infrastructure Development of Coastal Tourism Centers in the Red Sea Area project in the long run can be achieved through various practices and approaches. Here are some key considerations:

- o **Land Use Planning Revenue:** The approved master plans for each tourism center will delineate geographically defined land parcels allocated for specific uses. Private sector entities may obtain long-term leases for these land parcels through a competitive bidding process, with the lease rates comprising a significant revenue stream. Developed according to the designated land use, each leased parcel is intended to supply visitor accommodation and attractions compatible with predicted tourism demand patterns in the overall destination. As the aggregate room/visitor capacity grows across all tourism center developments, the resulting increase in the length of visitor stay and average daily spending can be reasonably projected.
- o **Revenue Generation:** The project can aim to generate sustainable revenue streams to cover ongoing operational and maintenance costs. This can be achieved through various means, such as entrance fees to tourist sites, licensing fees for tourism-related businesses, and taxes on tourism activities. By leveraging the increased tourism demand and improved infrastructure, the project can generate steady income to support its long-term financial sustainability.
- o **Public-Private Partnerships (PPPs):** Engaging the private sector through partnerships can be an effective way to mobilize additional financial resources and expertise. Private entities can invest in the development and management of tourism infrastructure, such as hotels, resorts, and recreational facilities, while sharing the financial risks and responsibilities. PPPs can ensure a more diversified funding base for the project and promote efficient resource allocation and management.

- o **Tourism Taxes and Levies:** Implementing tourism-specific taxes or levies can provide a dedicated source of funding for the project. These can include tourism bed taxes, departure taxes, or environmental levies. The revenue generated from such mechanisms can be earmarked for the sustainable development and maintenance of coastal tourism centers. It is important to ensure that these taxes are reasonable and proportionate, balancing the funding needs with the competitiveness of the destination.
- o **Sustainable Business Models:** Encouraging sustainable business practices among tourism operators and stakeholders can contribute to the long-term financial sustainability of the project. This can include promoting eco-friendly practices, responsible resource management, and community engagement. Sustainable businesses are often more resilient and attractive to tourists who prioritize environmentally conscious choices, leading to increased revenue and longevity.
- o **Grant Funding and International Support:** The project can seek financial support from international organizations, development agencies, and donor countries that prioritize sustainable tourism and infrastructure development. Grants, loans, or technical assistance can be obtained to support the initial investment and capacity-building efforts. Collaboration with international partners can also bring expertise, knowledge sharing, and financial resources to ensure the long-term sustainability of the project.
- o **Cost Recovery Mechanisms:** Implementing cost recovery mechanisms, such as user fees or service charges, can help cover the ongoing operational and maintenance costs of the developed infrastructure. For example, charging fees for waste management services or infrastructure usage can ensure that the project remains financially sustainable by covering its own expenses.

Project Social Impact:

Below are some of the ways the Red Sea Coastal Tourism Centers project aims to promote local community participation, including women and youth, in ecotourism economic benefits:

- o Developing tourism products and services that leverage local culture, traditions, crafts and skills. This could include opportunities for local guides, experiences showcasing local cuisine/handicrafts, etc.
- o Providing training and skills development programs to local communities, with a focus on women and youth, to qualify them for tourism-related jobs like hospitality, hotel management, tourism activities, etc.
- o Encouraging community-led tourism initiatives such as homestays, family restaurants, local excursions run by community groups or cooperatives. This allows more direct economic participation.
- o Establishing clear policies for local hiring and procurement wherever possible in the tourism industry and infrastructure that develops. For example, requiring a certain percentage of staff or supplies to come from local communities.
- o Investing in improving local infrastructure such as roads, utilities, broadband makes it easier for communities to tap into tourism opportunities and spend less on transportation/logistics costs.
- o Supporting women's collectives or cooperatives involved in activities like handicrafts, cooking, nature guides, etc. to market directly to tourists and retain more benefits locally. Creating funds or incentives for ecotourism startups that are community-led and ensure benefits stay within local areas through ownership models.

The overall idea is to create sustainable livelihoods linked to tourism while protecting natural and cultural heritage assets that attract visitors.

Ecotourism Innovation	
7	Egyptian Underwater Heritage: Atlas of Sunken Antiquities, Shipwrecks, and Key Diving Sites
8	Suez Canal Yacht Tourism: A Roadmap for Competitiveness and Sustainability
9	Integrated Scientific Diving Center with a Virtual Reality Museum

7

Project Name

Egyptian Underwater Heritage: Atlas of Sunken Antiquities, Shipwrecks, and Key Diving Sites

Section One

Project Baseline Information

Project Expected Duration (in months)

The pilot project is expected to have a duration of 18 months.

Project Location (specific region(s) in Egypt) if applicable:

The project encompasses 40 significant sites of sunken antiquities across diverse locations, including the Red Sea, the Mediterranean Sea, the springs of Siwa Oasis, ancient ports along the Nile River, and Nile islands that host temples in Aswan.

Section Two

Project Background and Objectives

Main Scope and Objectives

The project focuses on creating a comprehensive digital platform known as the "Atlas of Sunken Antiquities, Shipwrecks, and Key Diving Sites in Egypt." This atlas aims to document and provide comprehensive information on 40 sites of sunken antiquities in the Red Sea, the Mediterranean Sea, the springs of Siwa Oasis, ancient ports along the Nile River, and Nile islands that host temples in Aswan. Through this digital atlas, these unique sites will be highlighted and considered as submerged museums and diving sites, allowing visitors and specialists to explore and enjoy them.

Application of the UNESCO Convention on the Protection of the Underwater Cultural Heritage

The UNESCO Convention on the Protection of the Underwater Cultural Heritage is a treaty adopted on November 2, 2001, by the General Conference of the United Nations Educational, Scientific and Cultural Organization (UNESCO). The purpose of the convention is to protect "all traces of human existence having a cultural, historical, or archaeological character" that have been submerged underwater for over 100 years. The convention mandates the protection of shipwrecks, sunken cities, prehistoric artifacts, looted treasures, burial sites, and ancient ports that span the oceans. Preserving underwater cultural heritage is important as it allows us to understand many historical events. As part of its duty to conduct scientific research and provide ongoing education on the importance of underwater cultural heritage, UNESCO strives to preserve these sites for present and future generations. The convention provides a framework to help raise awareness and combat illicit looting and piracy occurring in waters worldwide. As an international body, the member states of the convention agree to work towards preserving submerged cultural properties within their jurisdiction and in international waters.

Specific objectives of the project:**1. Highlighting Sunken Antiquities Sites:**

- o Transforming sites of sunken antiquities into archaeological areas that can be managed according to environmental management principles and regulations.
- o Raising cultural and historical awareness about these sites through the digital platform.

2. Monitoring and Studying Ecosystems:

- o Conducting comprehensive studies of the ecosystems associated with the mentioned sites.
- o Providing accurate and up-to-date information about the environmental status of these sites, helping in formulating strategies for their preservation.

3. Effective Site Management:

- o Applying environmental management principles to ensure the sustainability and protection of the submerged sites.
- o Developing tailored management plans for each site based on its environmental and archaeological characteristics.

4. Promoting Ecotourism:

- o Attracting tourists and researchers by offering a unique experience to explore submerged archaeological sites.
- o Enhancing sustainable tourism by managing the sites in a way that preserves natural and historical resources.

5. Enhancing Cooperation and Partnerships:

- o Collaborating with local and international academic and research institutions to study the sites and develop new preservation techniques.
- o Strengthening partnerships with public and private sectors to develop and support the digital platform.

6. Documentation and Recording:

- o Documenting and recording the location and characteristics of underwater cultural heritage sites, including their historical significance, cultural importance, and archaeological value. Documentation should cover what was there, what is currently present, and what is expected to be found.

7. Digital Mapping:

- o Creating a digital map of underwater cultural heritage sites, including their geographical coordinates, depth, and other relevant information.

8. Standardization and Classification:

- o Developing a unified classification system for underwater cultural heritage sites, including evaluation criteria, significance, condition, and threats.

9. Data Sharing and Collaboration:

- o Facilitating data sharing and collaboration among stakeholders, including researchers, policymakers, and local communities, to ensure access to and benefit from the project's findings.

10. Preservation and Maintenance:

- o Identifying and prioritizing measures aimed at preserving underwater cultural heritage sites, including strategies to protect them from looting, damage, and destruction.

11. Education and Awareness:

- o Promoting awareness and education about the importance of underwater cultural heritage sites, their cultural significance, and the need to preserve and maintain them.

12. Policy Development:

- o Informing policy development and decision-making at the national and international levels regarding the protection and management of underwater cultural heritage sites.

13. International Cooperation:

- o Enhancing international cooperation among governments, institutions, and organizations to promote the protection and preservation of underwater cultural heritage sites.

14. Economic Development:

- o Transforming underutilized or diving areas into economically profitable regions, creating new job opportunities.

By achieving these objectives, the Atlas of Underwater Cultural Heritage aims to contribute to a better understanding of our shared cultural heritage and promote its preservation for future generations. This project represents a significant step towards preserving Egypt's submerged archaeological heritage and presenting it to the world in a sustainable and attractive manner.

The atlas will be divided into several sections, each focusing on a specific area or theme:

Red Sea Shipwrecks: A section dedicated to shipwrecks found in the Red Sea, encompassing around 70 sites, including the 17th-century ship Al-Sa'danah, the SS Thistlegorm (a British warship sunk on May 5, 1941, due to German aerial bombing), and the Carnatic (a British passenger ship sunk in 1879).

Mediterranean Sea Shipwrecks and Sunken Archaeological Sites: This section covers shipwrecks found in the Mediterranean Sea, including ancient Greek and Roman ships, as well as ancient ports and warship wrecks from World War I and II. It also includes the ruins of the ancient Alexandria Lighthouse (Pharos) near the old eastern harbor of Alexandria.

Nile Treasures: A section exploring treasures found along the Nile River, including artifacts and ancient treasures, particularly ancient ports and islands with temples, especially in Aswan, such as Elephantine Island and its surroundings.

Desert Submerged Antiquities: A section highlighting submerged antiquities in the oasis water springs, especially in Siwa Oasis, including ancient trade routes.

Each section will consist of several parts:

- An overview of the wrecks and antiquities
- A map showing the location of each wreck
- A description of each wreck, including photogrammetry images and a short video with detailed explanations of the site in multiple languages
- Other noteworthy wrecks

Project Contribution to Ecotourism Challenges and Development

It will play an important role in developing ecotourism in Egypt in general through the following points:

- 1. Cultural and Heritage Awareness:** The Atlas of Sunken Antiquities will raise awareness of Egyptian culture and historical heritage, encouraging visitors to discover these submerged relics, which will contribute to the economic profit of the Egyptian economy.
- 2. Ecotourism:** The Atlas of Sunken Antiquities will educate the Egyptian community on the importance of underwater environmental preservation, encouraging the integration of ecotourism as part of their policy.
- 3. Economic Development:** Developing ecotourism in Egypt will bring substantial foreign currency, driving the development and qualification of the banking, tourism, and marine sectors.
- 4. Employment Opportunities:** A large number of people will gain job opportunities in the fields of tourism, culture, and the environment, contributing to the economic profit of the Egyptian economy.
- 5. Studies and Research:** The Atlas of Sunken Antiquities will be a major focus for studies and research on Egyptian underwater culture and historical heritage, leading to new and unprecedented discoveries.
- 6. Education and Teaching:** The Atlas of Sunken Antiquities will be a primary reference for educating and teaching about Egyptian underwater culture and historical heritage, enhancing the skills of leaders, engineers, and researchers in tourism, culture, and environmental fields.
- 7. Behavioral Development:** The Atlas of Sunken Antiquities will promote behavioral development among Egyptian citizens, encouraging them to adopt policies for underwater environmental preservation.
- 8. Climate Change Studies:** It will play a fundamental role in studies related to combating or reducing the negative impacts of climate change on ecosystems.

And will contribute to addressing the following problems:

- Neglecting many important diving sites, which exposes them to damage.
- Lack of environmental management for the utilized sites, such as providing mooring systems or determining the daily carrying capacity of visitors.
- Weak capabilities and tools from the management side to enforce regulations governing environmental sites.
- Low level of environmental awareness about these sites

Section Three:

Project Description

Project activities:

Detailed Implementation Steps

1. Preliminary Planning and Coordination:

- **Objective:** Establish a clear plan and coordinate with relevant stakeholders.
- **Steps:** 1.1. Identify and list all the selected sites for documentation and research. 1.2. Coordinate with local authorities, diving centers, and marine experts to arrange site visits and necessary permits. 1.3. Develop a detailed timeline and allocate resources for each activity. 1.4. Conduct preliminary meetings with the project team to outline responsibilities and objectives.

2. Site Visits and Diving Expeditions:

- **Objective:** Conduct fieldwork to gather data and documentation.
- **Steps:** 2.1. Organize a team of divers, photographers, and marine biologists for each expedition. 2.2. Ensure all team members are equipped with the necessary diving and safety gear. 2.3. Visit each site and conduct dives to begin the documentation process.

3. Photogrammetry Documentation:

- **Objective:** Create detailed 3D models of each site.
- **Steps:** 3.1. Use underwater cameras and drones to capture high-resolution images of the sites. 3.2. Employ photogrammetry software to process the images and generate 3D models. 3.3. Verify the accuracy of the models with input from marine archaeologists.

4. Video Recording:

- **Objective:** Produce comprehensive video documentation of each site.
- **Steps:** 4.1. Record high-definition videos during dives, covering different angles and aspects of the sites. 4.2. Edit the videos to include informative commentary and explanations. 4.3. Add subtitles and translations in multiple languages.

5. Land Survey and Mapping:

- **Objective:** Conduct precise land surveys to create detailed maps of the sites.
- **Steps:** 5.1. Utilize GPS and sonar technology to measure and map the underwater terrain. 5.2. Integrate survey data into Geographic Information System (GIS) software. 5.3. Produce detailed maps indicating the exact locations and features of the sites.

6. Digital Photography of Marine Life:

- **Objective:** Catalog and document marine organisms at each site.
- **Steps:** 6.1. Capture high-resolution digital photographs of marine life encountered during dives. 6.2. Identify and classify the photographed species with the help of marine biologists. 6.3. Create a digital database of marine organisms, including photographs and descriptions.

7. Geographic Information System (GIS) Integration:

- **Objective:** Use GIS to manage and present site data.
- **Steps:** 7.1. Input all collected data (photogrammetry models, videos, survey maps, and marine life photographs) into the GIS. 7.2. Develop interactive GIS maps to visualize the sites and their features. 7.3. Ensure GIS data is accessible to researchers, policymakers, and the public through an online platform.

8. Review and Quality Assurance:

- **Objective:** Ensure the accuracy and quality of all collected data and documentation.
- **Steps:** 8.1. Conduct peer reviews of the photogrammetry models, videos, and maps by experts in marine archaeology and biology. 8.2. Implement feedback and corrections to improve the quality of the documentation. 8.3. Finalize and archive all documentation for future reference.

9. Public Engagement and Awareness Campaign:

- **Objective:** Raise public awareness and promote the project's findings.
- **Steps:** 9.1. Develop a public outreach strategy, including social media campaigns, exhibitions, and workshops. 9.2. Create educational materials, such as brochures, documentaries, and interactive websites, to share with schools, museums, and the general public. 9.3. Organize events and presentations to showcase the project's achievements and engage with the community.

Direct and Indirect Beneficiaries and Stakeholders of the Project

The direct beneficiaries of the project are as follows:

- **The Government and the Tourism Sector**, which benefit from enhancing Egypt's image as a sustainable tourism destination.
- **Researchers and Scientists** in their fields of marine biology or archaeological studies.
- **Dive Guides.**

The indirect beneficiaries of the project are as follows:

- **Accommodation and Tourist Resorts.**
- **The Transport and Transportation Sector.**
- **Inbound and Local Tourists.**
- **The Local Community.**

Identified Key Partners

1. **Ministry of Communications:** Since the atlas is a digital platform, the Ministry will handle the creation of the website and provide technical support.
2. **Ministry of Environment.**
3. **Ministry of Tourism and Antiquities.**
4. **Specialized Scientific Institutes and Colleges.**
5. **Federation of Tourist Chambers and Various Tourist Chambers.**
6. **Chamber of Diving and Water Sports.**
7. **Civil Society Organizations Interested in Environmental Protection and Underwater Heritage.**

Expected Results

The following are some expected outcomes of the Underwater Archaeological Sites Atlas Project:

1. **Development of a Comprehensive Database:**
 - o A comprehensive database of underwater archaeological sites in Egypt will be created, serving as a reference for researchers, scientists, and policymakers.
2. **Increased Knowledge and Awareness:**
 - o The project will enhance knowledge and awareness of the importance of underwater archaeological sites in Egypt, highlighting their significance and potential for tourism and economic development.
3. **Improved Preservation and Maintenance:**
 - o The project will contribute to the preservation and maintenance of underwater archaeological sites by identifying high-priority areas for conservation and developing strategies to protect them, and developing long-term sustainability plans for site usages.
4. **Capacity Building:**
 - o The project will build capacity among Egyptian and international researchers, scientists, and professionals in the fields of underwater archaeology, marine archaeology, and cultural heritage management.
5. **Addition to Egypt's Tourist Map through Tourism Infrastructure Development:**
 - o The project will contribute to the development of tourism infrastructure in Egypt, including the creation of tourist attractions, museums, and other facilities showcasing underwater archaeological sites.

6. Enhanced International Cooperation:

- o The project will enhance international cooperation among countries with similar interests in underwater archaeology, leading to the exchange of knowledge, expertise, and best practices.

7. Sustainable Development:

- o The project will contribute to sustainable development in Egypt by promoting responsible tourism practices, supporting local communities, and protecting the environment.

Overall, the Underwater Archaeological Sites Atlas Project is expected to have a significant impact on the cultural heritage sector in Egypt, enhancing the preservation and protection of underwater archaeological sites while also contributing to sustainable development and economic and social growth.

Key Success Indicators for Project Evaluation**Possible indicators that could measure the success of the project are as follows:**

- The number of submerged antiquities mapped and documented by the project can be a good indicator of its success.
- The quality of documentation and imaging of submerged antiquities can be assessed based on factors such as accuracy, clarity, and precision of information sources.
- The number of visitors to the project's online platform, museum exhibits, or virtual reality experiences can measure its impact on public awareness and engagement.
- The economic benefits generated by the project, such as increased tourism revenues, can be tracked and measured.
- The number of partnerships and collaborations with other organizations, institutions, and governments can indicate the project's impact and scope.
- The number of research papers, articles, and books published as a result of the project's research and findings can measure its academic impact.
- The number of students, researchers, and professionals trained or educated through the project's workshops, conferences, and online courses can indicate its capacity-building efforts.
- The level of community participation in the project's activities, such as citizen science initiatives, can be evaluated based on factors like volunteer numbers, user engagement, and social media reach.
- The project's impact on environmental conservation efforts, such as increased funding or policy changes, can be measured and tracked.
- The frequency and quality of media coverage of the project can indicate public awareness and reputation.
- International recognition and awards received by the project can measure its impact and global reputation.
- The sustainability of the project, including its ability to maintain momentum and continuity over time, and strategic planning, can be evaluated.
- The project's impact on local communities, such as increased economic benefits or cultural preservation, can be evaluated based on factors like surveys, interviews, or job opportunities generated by the project.
- Status of marine ecosystems around sites.

Project name:	ATLAS, Sunken treasures of Egypt	Documentary		اطلس الآثار الغارقة وحطام السفن واهم مناطق الغوص في مصر (منصة رقمية)
Number of episode	40			
Duration	5d	Filming Days	5d per site	
Budget for each Episode				
Main Production				
Description		Unit	Rate	sub-total
Producer	1	5	EGP 5,600.00	EGP 28,000.00
Director	1	5	EGP 4,800.00	EGP 24,000.00
Researcher & Writer & Interviewer	1	5	EGP 2,400.00	EGP 12,000.00
Permissions	3	1	EGP 50,400.00	EGP 151,200.00
Entry tickets and logistics	3	1	EGP 50,400.00	EGP 151,200.00
Production Manager	1	5	EGP 1,600.00	EGP 8,000.00
first Assistant	1	5	EGP 1,600.00	EGP 8,000.00
				EGP 382,400.00
Production Crew				
Description	Days	Unit	Rate	sub-total
DOP	4	1	EGP 6,400.00	EGP 25,600.00
underwater photographer	4	1	EGP 4,800.00	EGP 19,200.00
underwater videographer	4	1	EGP 14,400.00	EGP 57,600.00
Sound Engineer-in field.	4	1	EGP 960.00	EGP 3,840.00
techincians	4	2	EGP 800.00	EGP 6,400.00
interwiwee	4	1	EGP 1,600.00	EGP 6,400.00
production assistant	4	1	EGP 480.00	EGP 1,920.00
				EGP 120,960.00
Facility and Equipment				
Description	Days	Unit	Rate	sub-total
Camera equipment	4	3	EGP 400.00	EGP 4800.00
Light equipment	4	3	EGP 160.00	EGP 1920.00
Lenses	4	3	EGP 640.00	EGP 7680.00
Sound equipment	4	1	EGP 320.00	EGP 1280.00
underwaterhausing	4	1	EGP 160.00	EGP 640.00
Dive equipments	4	4	EGP 640.00	EGP 10240.00
Drones	2	1	EGP 11200.00	EGP 22400.00
				EGP 48,960.00
Post-Production				
Description	Days	Unit		sub-total
Editor	5	1	EGP 4,000.00	EGP 20,000.00
Translation	1	4	EGP 8,000.00	EGP 32,000.00
Musik	1	1	EGP 15,000.00	EGP 15,000.00
Voice Over	1	4	EGP 3,000.00	EGP 12,000.00
				EGP 79,000.00
Travel				
	Trips	Unit		sub-total
Transport Van	4	1	EGP 4,800.00	EGP 19,200.00
Hotel	5	5	EGP 1,600.00	EGP 40,000.00
boot & zodice	4	1	EGP 9,600.00	EGP 38,400.00
				EGP 97,600.00

Preproduction / Production/ Post-production	
Main production	EGP 382,400.00
Production Crew	EGP 120,960.00
Facility and Equipment	EGP 48,960.00
Post-Production	EGP 79,000.00
Travel	EGP 97,600.00
Total budget per each site	EGP 728,920.00

Project Timeline

Task Description	Duration
1. Developing the implementation plan	1 month
2. For each selected site, it takes seven days for archaeological survey and detailed documentation and photography. Total duration:	10 months
3. Building and designing the website	2 months
4. Populating and configuring the website content	3 months
5. Delivering the project in a testable and evaluable format	1 month

Section Four:

Project Finance and Sustainability

Estimated Overall Project Cost

The estimated overall budget for the project is 40,000,000 Egyptian Pounds, subject to increase or decrease.

Cost Breakdown

1. 2,000,000 Egyptian Pounds for the cost of creating the website.
2. 2,000,000 Egyptian Pounds for the cost of maintaining the website.
3. 730,000 Egyptian Pounds for the cost of surveying and documenting each site, including equipment, accommodation, transportation, subsistence, and technician fees, totaling approximately 30,000,000.
4. 6,000,000 Egyptian Pounds for the emergency budget.

Potential sources of funding or revenue generation for the project

- Supporting banks such as the National Bank of Egypt.
- Granting entities.
- International diving organizations.
- Environmental protection associations.
- International research centers and associations interested in underwater heritage.
- Ministry of Environment as the ultimate beneficiary of the revenues generated after the project completion.
- The Ministry of Tourism as the project is a key pillar in supporting the tourism image.
- Renting advertising spaces on the website and on the project's pages.
- Income from hosting scientific missions.

Additional resources or support you require to implement the project successfully

Permits and support from official authorities

Potential sources of funding or revenue generation for the project

Project Long Term Financial Sustainability

- Lease advertising space on the website and project pages to relevant businesses.
- Seek sponsorships from banks, corporations, and industry leaders who benefit from tourism and environmental sustainability.
- Partner with international diving organizations, environmental NGOs, and heritage conservation groups for funding and resources.
- Apply for grants from governmental bodies, international organizations, and private foundations focused on cultural heritage, environmental conservation, and sustainable tourism.
- Offer paid virtual reality tours, online workshops, and interactive experiences showcasing the underwater sites.
- Develop and sell ecotourism packages that include guided tours, diving experiences, and educational programs related to the underwater archaeological sites.
- Offer paid workshops, courses, and certifications in underwater archaeology, marine biology, and environmental management.
- Collaborate with academic institutions to integrate the project into their curricula, potentially securing funding from educational grants.
- Create and sell branded merchandise such as clothing, accessories, and souvenirs featuring images and information about the underwater sites.
- Offer digital products such as e-books, documentaries, and high-resolution images of the underwater sites.

Social Impact:

Promote the participation of local communities in the economic benefits of ecotourism.

1. Most of the sites are already in remote areas, and the project will become one of the main sources of job opportunities in the community and a fundamental pillar for developing services in those areas.
2. Initiating projects based on building relationships and harmony between the communities and incoming visitors, ensuring volunteer activities (such as language teaching, etc.) provided by visitors to the local community.

Ensure gender equality and social inclusion in its activities and benefits

- The project is based on complete equality among all groups, whether in terms of gender or otherwise, regarding employment opportunities.
- Involving girls and women in work at all stages of the project.
- Appointing women to leadership positions.

8

Project Name

Suez Canal Yacht Tourism: A Roadmap for Competitiveness and Sustainability**Section One****Project Baseline Information****Project Expected Duration (in months)**

The project is expected to have a duration of 12 months. Project is to be led and implemented by the Suez Canal Authority Yacht Marinas Unit.

Project Location (specific region(s) in Egypt) if applicable:

The project is centered on the Suez Canal Yacht Marinas, which are strategically located in the governorates of Port Said, Ismailia, and Suez. These governorates are integral to the Suez Canal, a critical maritime route connecting the Mediterranean Sea to the Red Sea.

Port Said: Situated at the northern entrance of the Suez Canal, Port Said is distinguished by its significant port activities and historical importance. The marina in Port Said serves as a crucial access point to the Mediterranean and is a key stopover for yachts navigating between Europe and Asia.

Ismailia: Located at the midpoint of the Suez Canal, Ismailia is recognized for its essential role in canal operations and its supportive infrastructure. The yacht marina in Ismailia offers modern facilities and services, supporting the needs of maritime tourists and enhancing the overall canal experience.

Suez: Positioned at the southern entrance of the Suez Canal, Suez is a vital maritime center with a longstanding history in international trade. The marina in Suez caters to yachts entering or exiting the Red Sea, providing comprehensive services and facilities essential for maritime tourism.

Collectively, these governorates form a network of yacht marinas that are pivotal in enhancing the competitiveness and attractiveness of yacht tourism along the Suez Canal. The project aims to utilize the distinctive advantages of each location to develop a unified and appealing yacht tourism destination. By focusing on sustainable practices, the project will integrate ecotourism principles to preserve the natural beauty and biodiversity of the region, promote environmentally responsible tourism, and support local communities. This approach not only aims to attract a higher number of eco-conscious travelers but also ensures that the development of yacht tourism contributes to the long-term sustainability and resilience of the local environment and economy.

Section Two**Project Background and Objectives****Main Scope and Objectives**

This project serves a multifaceted purpose, in addition to achieving its strategic goal of increasing Egypt's market share in yacht tourism, which is one of the most important types of ecotourism. The project has several key objectives:

1. Attracting More Yachts to Authority Marinas:

- Create an attractive environment and implement efficient operations.
- Enhance marketing efforts.
- Improve infrastructure and strengthen safety measures.
- Target attracting 1,000 yachts, in line with the available capacity of Egyptian marinas and ports.

2. Promotion of Ecotourism:

- Develop and implement ecotourism initiatives that highlight the natural and cultural heritage of the Suez Canal region.
- Encourage yacht tourists to engage in eco-friendly activities such as guided nature tours, wildlife observation, and cultural heritage visits.
- Establish eco-friendly facilities and services at marinas to minimize environmental impact.
- Partner with local ecotourism operators to create unique and sustainable tourism packages that appeal to environmentally conscious travelers.

3. Boosting the Economy and Increasing the Contribution of Ecotourism to GDP:

- Increase revenue from yacht-related services, such as marinas, fuel stations, and supplies.
- Expected revenue increase no less than 35-50%.

4. Sustainability and Environmental Responsibility:

- Raise awareness among workers about best practices to minimize the impact of yacht tourism on the marine ecosystem.
- Promote sustainable tourism behaviors.
- Organize specialized training courses.

5. Collaboration and Partnerships:

- Strengthen cooperation with relevant stakeholders, including yacht clubs, travel agencies, and international maritime organizations.
- Coordinate with relevant ministries on the issuance of regulations governing yacht tourism.

6. Enhancing Local Community Participation, Especially Women and Youth:

- Increase awareness, participation, and skills in ecotourism areas.
- Studies indicate that four direct job opportunities are created for each yacht, in addition to providing one hundred indirect job opportunities in the hotel, tourism, and service industries.

7. Alignment with Suez Canal Authority Strategies:

- Support the transition to a vision of a green canal by 2030.
- Enhance the utilization of the Authority's significant assets and efforts in the field of yacht tourism.

8. Addressing Challenges and Implementing Policies to Facilitate Procedures:

- Simplify the procedures required for obtaining mooring and tracking permits.
- Consolidate the entity responsible for reviewing data and issuing approvals.
- Ensure coordination with all relevant parties.
- Expedite the approval process for tourist yachts.
- Extend yacht visas under specific conditions (determined by relevant regulations, such as in cases of inclement weather).

9. Alignment with International Commitments and the National Blue Economy Framework:

- The Egyptian Participatory Blue Economy Strategy identifies yacht tourism as one of the types of coastal tourism, which is a key pillar of Egypt's blue economy.

Project Contribution to Ecotourism Challenges and Development

The project is poised to significantly benefit ecotourism practices by promoting sustainable and environmentally responsible tourism. By focusing on the development and enhancement of yacht marinas in Port Said, Ismailia, and Suez, the project aims to create an eco-friendly tourism infrastructure that minimizes the environmental impact of yachting activities. The implementation of best practices and specialized training courses for workers will ensure that the marine ecosystem is protected, fostering a culture of sustainability.

Additionally, the project's emphasis on community engagement, particularly involving women and youth, will cultivate local stewardship of natural resources. These efforts align with broader sustainability goals, supporting the transition to a green canal by 2030 and contributing to Egypt's national blue economy framework. By integrating ecotourism principles, the project will enhance the attractiveness of Egypt as a premier yachting destination while safeguarding its unique marine environment for future generations. The Roadmap for Enhancing the Competitiveness of Yacht Tourism in the Suez Canal can significantly contribute to Egypt's ecotourism development through several approaches:

1. Enhancing Environmental Awareness:

Promoting yacht tourism in the Suez Canal can encourage visits to surrounding natural and environmental areas, raising awareness of the importance of environmental protection and biodiversity. This can be achieved by:

- Developing a training plan for personnel to be employed in the yacht tourism services sector. A team of trainers should be formed (including trainers from the maritime transport sector, the Ministry of Environment, the Ministry of Tourism, and the Ministry of Interior) to cover important topics, primarily familiarizing participants with regulations, laws, and environmental impact assessment studies, particularly regarding the safe disposal of ship waste, conservation of natural reserve areas, and permit requirements.

2. Promoting Ecotourism:

- Activating promotional plans already implemented by the Suez Canal Authority and the Ministry of Environment, as they are responsible for supporting beach tourism and protecting natural reserves. This will attract tourists to visit Egypt's coastal and marine environmental sites, raising awareness of the beauty of nature and increasing the demand for ecotourism.
- Implementing environmental regulations and monitoring systems to protect marine life and developing eco-friendly marina facilities using renewable energy and effective waste management systems.
- Promoting the use of sustainable materials and construction practices for marina infrastructure and encouraging yachts to adopt eco-friendly practices such as using biodegradable cleaning products and reducing plastic use.
- Conducting awareness campaigns and educational programs to inform yacht tourists and marina workers about marine conservation and sustainable tourism practices through organized training sessions.
- Engaging local communities by creating job opportunities and providing training in sustainable tourism and fostering the development of community-based tourism enterprises that offer unique experiences and boost local economies.
- Developing and implementing policies that balance the growth of yacht tourism with the need to protect and conserve natural ecosystems, establishing protected marine areas, and limiting yacht access to sensitive regions.
- Supporting research initiatives to study the impacts of yacht tourism on marine ecosystems and developing innovative solutions to mitigate negative effects and encouraging the adoption of new technologies and practices to enhance sustainability.

3. Collaboration with Relevant Entities:

The roadmap can include strengthening cooperation with local governments and relevant stakeholders to implement initiatives and projects that promote ecotourism and address its challenges. This can be achieved by:

- Establishing a high-level committee comprising the Suez Canal Authority, the Ministries of Tourism, Transport, Environment, and Interior to set regulatory frameworks, unify procedures, and select the implementing agency for issuing the necessary permits.

While main challenges facing coastal and marine ecotourism in Egypt encompass the following:

- Water and beach pollution pose a significant challenge that affects the attractiveness of ecotourism and threatens the marine environment.
- Some coastal and marine areas lack the necessary tourism infrastructure to accommodate tourists and meet their needs.
- Some visitors and locals lack awareness of the importance of environmental protection and the impact of tourism activities on it. The intensive use of yachts without conducting environmental impact assessment studies can lead to the pollution of marine waters with chemicals and plastic waste.
- Egypt is exposed to natural environmental threats such as climate change, floods, and desertification, which can affect ecotourism and its sustainability.
- The movement and anchoring of yachts near reefs can damage and harm coral reefs and the marine ecosystem.
- Yachts cause emissions of environmental pollutants from diesel exhaust and fuel, which contribute to increased global warming and climate change.

Section Three:**Project Description****Project activities:**

Within the context of the Roadmap for Enhancing the Competitiveness of Yacht Tourism in the Suez Canal, a variety of activities are expected to be implemented, including:

1. Current Situation Analysis/Assessment:

- Study and assess the current status of yacht tourism in the Suez Canal, including available facilities, services provided, demand and supply levels, and review global best practices to learn from lessons learned and identify challenges and how to overcome them (200,000 Egyptian Pounds).

2. Opinion Polls and Market Surveys:

- Conduct opinion polls and market surveys to understand the needs and preferences of potential customers and assess their satisfaction with the services provided (100,000 Egyptian Pounds).

3. Implementing Measures to Enhance Competitiveness:

- Define key objectives and indicators to improve yacht tourism competitiveness, such as increasing the number of tourists, improving service quality, and increasing revenue. This can be achieved by:
 - o Issuing a unified code for establishing and operating marinas and ports in the Arab Republic of Egypt. This code will provide information on all available berths, capacity, services offered, and all relevant laws, regulations, and implementing regulations (1,000,000 Egyptian Pounds).
 - o Unifying customs tariffs for tracking fees on all berths and tourist ports with flexible prices that provide a competitive advantage for Egyptian ports (1,000,000 Egyptian Pounds).

4. Implementing Promotional Programs:

- Implement promotional programs and improve tourism services to achieve the set goals. This includes:
 - o Participating in international tourism-related exhibitions, particularly those focused on yacht tourism.
 - o Organizing seminars and conferences to highlight the expected economic and social benefits of supporting yacht tourism.
 - o Enlisting the help of Egyptian embassies abroad to promote the advantages and opportunities available in Egypt, by preparing promotional brochures that include all necessary information (2,000,000 Egyptian Pounds).

5. Training and Development:

- Provide training and development programs for staff working in Suez Canal marinas to enhance their skills and improve the quality of services provided (1,000,000 Egyptian Pounds).

6. Communication and Cooperation with Relevant Entities:

- Exchange information and expertise with other relevant entities and cooperate in implementing joint projects that promote the development of yacht tourism in the region. This includes coordination on:
 - o Streamlining procedures for the arrival and departure of yachts at tourist ports and marinas.
 - o Establishing a single digital window for foreign yachts in cooperation with the maritime transport sector.
 - o Creating a website on the international information network to facilitate access to data on available marinas and ports, submit mooring requests, and provide voyage information such as arrival times to obtain the required permits (500,000 Egyptian Pounds).

The aforementioned activities will be implemented through the following:

7. Interviews:

- Conduct interviews with stakeholders, officials, and yacht tourism specialists (representatives of the Maritime Transport Sector, the Ministry of Tourism, the Ministry of Environment, the Ministry of Interior, etc.)

8. Workshops:

- Organize workshops to raise awareness about the importance of this type of coastal tourism.

9. Specialized Training Courses:

- Conduct specialized training courses for workers in this sector, while utilizing social media to promote this type of tourism.

10. Partnerships with Relevant Entities:

- Establish partnerships with relevant stakeholders to gain a better understanding of yacht tourism competitiveness in the Suez Canal and how to enhance it.

11. Final Report:

- Prepare a final report that includes a roadmap summarizing the findings and recommendations for enhancing the competitiveness of the Suez Canal.

Direct and Indirect Beneficiaries and Stakeholders of the Project

Benefits of Implementing the Roadmap for Enhancing the Competitiveness of Yacht Tourism in the Suez Canal:

Developing a Roadmap for Enhancing the Competitiveness of Yacht Tourism in the Suez Canal will have clear benefits for various stakeholders, including:

1. The Egyptian Government:

- The Egyptian government will benefit from the strengthened maritime tourism industry in the Suez Canal region through increased tourism revenue and a boost to the local economy.

2. Tourism Companies and Yacht Owners:

- Yacht owners and tourism companies operating in the region will benefit from increased demand for their services and an improved business environment.

3. Tourists and Yacht Passengers:

- Tourists and yacht passengers will be the primary beneficiaries, as they will enjoy an enhanced and diverse tourism experience in the Suez Canal region.

4. Local Community:

- The local community will benefit from the creation of new job opportunities and the improvement of infrastructure and public services in the area.

5. National and International Investors:

- Domestic and international companies and investors will benefit from new investment opportunities arising from the strengthening of the maritime tourism industry in the region.

Expected Results

The "Roadmap for Enhancing the Competitiveness of Yacht Tourism in the Suez Canal" is expected to yield substantial positive outcomes across various dimensions. Economically, the project aims to significantly boost revenue from yacht-related services, projecting an increase that will contribute meaningfully to the GDP through enhanced ecotourism activities. The anticipated attraction of up to 1,000 yachts will stimulate local economies, creating numerous direct and indirect job opportunities, particularly benefiting local communities, including women and youth. Environmentally, the project is set to advance sustainable tourism practices, reducing the ecological footprint of yacht tourism and promoting marine conservation. Improved infrastructure, safety measures, and streamlined procedures will enhance the overall experience for yacht tourists, positioning Egypt as a premier yachting destination. Collaborations with stakeholders and adherence to international commitments will further reinforce Egypt's leadership in sustainable maritime tourism. Ultimately, the project is expected to foster a resilient and dynamic ecotourism sector, aligning with national strategies and contributing to the long-term sustainability of the Suez Canal region, including the following:

- The growth of yacht tourism will create new employment opportunities in sectors such as hospitality, transportation, and maintenance.
- Local communities will benefit from increased economic activity and improved infrastructure, leading to better living standards.
- By promoting sustainable practices and raising awareness of environmental issues, yacht tourism can contribute to the protection of the marine environment.
- Enhancing yacht tourism in the Suez Canal will strengthen Egypt's position as a global tourism destination and promote international relations.

Key Success Indicators for Project Evaluation

Possible indicators that could measure the success of the project are as follows:

Increased Competitiveness and Market Share:

- The number of yachts visiting Suez Canal marinas should show an increase compared to the baseline data, indicating project success.
- The market share of Egypt in yacht tourism should be tracked and show an upward trend.
- The number of new yacht service providers should increase, indicating a growing yachting ecosystem.

Economic Benefits:

- Track revenue generated from yacht-related services (marina fees, fuel stations, supplies) compared to the baseline.
- Track direct and indirect job creation in sectors like hospitality, transportation, and maintenance.

Environmental Sustainability:

- Track the number of participants trained in sustainable yacht tourism practices, showing a commitment to environmental responsibility.
- Monitor and track the reduction in marine pollution incidents in the Suez Canal.
- Track the increase in adoption of environmentally friendly technologies by yacht operators, such as cleaner fuels or waste management practices.

Improved Customer Satisfaction:

- Conduct surveys among yacht owners and tourists to gauge their experience and satisfaction.
- Track the number of returning yachts.

Enhanced Collaboration:

- Track the number of partnerships formed with relevant stakeholders, including tourism agencies, environmental groups, and local communities.
- Monitor the processing time for yacht permits and approvals to ensure streamlined procedures.

Key Measures and Policies for the Success of the Roadmap for Enhancing Yacht Tourism Competitiveness in the Suez Canal:

1. Legal Framework:

- Develop and implement laws and regulations that support yacht tourism development, including streamlining licensing and permit procedures for yacht operation and tourism services.
- Establish an electronic platform to facilitate the application and processing of permits and approvals.

2. Infrastructure Development:

- Upgrade and expand the capacity of Suez Canal marinas to accommodate all types of yachts.
- Ensure the availability of essential facilities, including docks, utilities, maintenance services, and waste disposal systems.
- Enhance the overall aesthetics and appeal of marinas to create a welcoming and attractive environment for yacht owners and visitors.

3. Logistics, Recreation, and Cultural Amenities:

- Provide efficient customs, immigration, and security clearance procedures for yacht arrivals and departures.
- Offer a variety of recreational activities, such as water sports, shore excursions, and cultural attractions, to cater to diverse interests.
- Develop and promote ecotourism experiences that highlight the unique natural beauty and heritage of the Suez Canal region.

4. Environmental Commitment:

- Implement sustainable practices and adhere to environmental regulations to minimize the ecological impact of yacht tourism.
- Promote eco-friendly marina operations, including energy conservation, waste management, and responsible use of resources.
- Encourage yacht owners and operators to adopt environmentally friendly practices, such as using low-emission fuels and reducing pollution.

Project Timeline**Month 1-2: Initial Phase**

- Current Situation Analysis/Assessment (200,000 Egyptian Pounds)
 - o Study and assess the current status of yacht tourism in the Suez Canal.
 - o Review global best practices and identify challenges.
- Interviews
 - o Conduct interviews with stakeholders, officials, and yacht tourism specialists.

Month 3-4: Market Research and Engagement

- Opinion Polls and Market Surveys (100,000 Egyptian Pounds)
 - o Conduct opinion polls and market surveys to understand customer needs and satisfaction levels.
- Workshops
 - o Organize workshops to raise awareness about the importance of yacht tourism.

Month 5-7: Planning and Development

- Implementing Measures to Enhance Competitiveness (1,000,000 Egyptian Pounds)
 - o Define key objectives and indicators.
 - o Issue a unified code for establishing and operating marinas and ports.
 - o Unify customs tariffs for tracking fees on all berths and tourist ports.
- Specialized Training Courses
 - o Conduct specialized training courses for workers in the yacht tourism sector.

Month 8-10: Promotion and Training

- Implementing Promotional Programs (2,000,000 Egyptian Pounds)
 - o Participate in international tourism exhibitions.
 - o Organize seminars and conferences.
 - o Use Egyptian embassies abroad for promotion.
- Training and Development (1,000,000 Egyptian Pounds)
 - o Provide training and development programs for staff at Suez Canal marinas.

Month 11: Collaboration and Digital Integration

- Communication and Cooperation with Relevant Entities (500,000 Egyptian Pounds)
 - o Exchange information and expertise.
 - o Streamline procedures for yacht arrivals and departures.
 - o Establish a single digital window for foreign yachts.
 - o Create a website for marina and port information, mooring requests, and voyage data.

Month 12: Conclusion and Reporting

- Partnerships with Relevant Entities
 - o Establish partnerships to enhance understanding of yacht tourism competitiveness.
- Final Report
 - o Prepare a final report summarizing findings and recommendations.

Section Four:**Project Finance and Sustainability****Estimated Overall Project Cost**

The estimated total cost is approximately \$ 100,000, equivalent to 5,000,000 Egyptian Pounds.

Project Long Term Financial Sustainability**The financial sustainability of this project can be achieved through:**

- Funding and support from the Suez Canal Authority's budget. This could include allocating a specific budget line for the project or providing financial incentives for yacht tourism development.
- Revenue from activities and services provided by the authority's yacht marinas in Port Said, Ismailia, and Suez. This could include marina fees, docking fees, fuel sales, and other services offered to yacht owners and passengers.

Social Impact:

The development of the roadmap will contribute to enhancing the participation of local communities, including women and youth, in the economic benefits of ecotourism by implementing the following measures and policies:

1. Training and Qualification:

- Raise awareness among the local community by providing workshops, seminars, and educational materials to inform residents about ecotourism opportunities and their potential benefits.

2. Creating Additional Sustainable and Profitable Employment Opportunities for Local Communities, Including Women and Youth:

- Assess the skills required for ecotourism jobs and provide training programs to equip local residents, particularly women and youth, with those skills.
- Offer financial assistance, business counseling, and market access to local entrepreneurs who want to start or expand ecotourism-related businesses.
- Ensure that local residents, including women and youth, have equal opportunities for employment and fair compensation in ecotourism businesses.

3. Empowering Women:

- Encourage women's participation in decision-making processes by involving them in the planning, development, and management of ecotourism projects.
- Provide access to financing and resources by supporting women-led ecotourism enterprises through microloans, grants, and access to business networks.
- Promote women's entrepreneurship by encouraging them to develop innovative ecotourism products and services that cater to diverse markets.

4. Encouraging Youth Participation:

- Support youth-led ecotourism initiatives by providing funding, mentorship, and training to young entrepreneurs.
- Promote environmental education and stewardship among youth by raising awareness about the importance of conservation and encouraging participation in sustainable ecotourism activities.

By implementing these measures, the roadmap can ensure that local communities, including women and youth, are actively involved in and benefit from the development of ecotourism in the Suez Canal region.

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Project Name

Integrated Scientific Diving Center with a Virtual Reality Museum**Section One****Project Baseline Information****Project Expected Duration (in months)**

The project is expected to have a duration of 36 months.

Project Location (specific region(s) in Egypt) if applicable:

The project location is dedicated to the rich underwater heritage of Alexandria and the North Coast, particularly highlighting the Alamein area. The submerged archaeological sites in these regions hold immense historical and cultural significance, offering a unique glimpse into ancient civilizations and their interactions with the Mediterranean Sea.

Importance of this Heritage and Location:

1. Alexandria, founded by Alexander the Great, has been a significant cultural and economic hub since ancient times. The sunken ruins include remnants of ancient harbors, shipwrecks, and artifacts that provide valuable insights into the maritime history and trade routes of ancient Egypt and the broader Mediterranean region.
2. The North Coast, especially around Alamein, is home to a variety of underwater sites that reflect the diverse cultural influences that have shaped the region over millennia. These include Greek, Roman, and Byzantine relics that tell stories of conquest, trade, and cultural exchange.

Section Two**Project Background and Objectives****Main Scope and Objectives**

This project aims to establish a state-of-the-art Scientific Diving Center between Alamein and Marsa Matrouh that will serve as a hub for scientific studies, tourism, education, and training related to underwater archaeology. Located in Alexandria and the North Coast, with a special focus on the Alamein area, the center will explore, document, and preserve the region's rich submerged archaeological heritage.

The Scientific Diving Center will develop and oversee an online virtual reality platform that offers an immersive experience of these sunken historical sites. This virtual reality experience will provide detailed 3D models, interactive exhibits, and educational content, allowing users worldwide to explore the underwater wonders of Alexandria and the North Coast. Through advanced diving and exploration techniques, the center will conduct scientific research and provide training for tourists and professionals interested in underwater archaeology and diving experiences. By integrating scientific research with cutting-edge virtual reality technology, the center will enhance public understanding and appreciation of the region's ancient maritime history and cultural significance.

The project aims to build upon and adhere to the Convention for the Protection of the Mediterranean Sea Against Pollution (Barcelona Convention), signed on February 16, 1976, in Barcelona and entering into force in 1978. The Barcelona Convention was amended in 1995 and renamed the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean. These amendments came into effect in 2004. The Barcelona Convention and its seven protocols, adopted within the framework of the Mediterranean Action Plan, form the principal legally binding regional multilateral environmental agreement in the Mediterranean region. As per the convention:

"The Contracting Parties to the Barcelona Convention agree to take, individually or jointly, all appropriate measures according to the provisions of this Convention and the protocols in force to which they are parties to prevent, abate, combat, and eliminate pollution in the Mediterranean Sea area and to protect and enhance the marine environment in that area to contribute towards sustainable development."

Other objectives include:

- The ecosystems of the Egyptian Mediterranean Sea should be preserved, maintained in good condition, and effectively managed through a continuous and representative network of marine and coastal protected areas and other conservation measures to achieve sustainable development goals, human welfare, and mitigate the effects of climate change.
- Work according to the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) as amended by the Protocol of 1978, which covers all aspects of pollution from ships, except for dumping waste into the sea. The convention applies to ships of all types.
- Preservation of marine life involves the conservation of natural resources in the region and the protection of endangered species such as sea turtles, sponges, significant coral communities, and especially reptiles and amphibians like the loggerhead sea turtles and the Mediterranean monk seal.
- Preservation of submerged cultural heritage includes the protection of ancient ports and sunken shipwrecks from the Greco-Roman era and the First and Second World Wars.
- Tourism development: The project will contribute to the development of ecotourism and scientific tourism in Egypt by providing a virtual reality museum and a scientific diving education center serving students from faculties of science and humanities (underwater archaeology) and others.
- Education and awareness: The project will enhance knowledge in natural sciences and submerged heritage, their significance, and the impact of human and environmental activities.
- Promoting sustainable tourism involves establishing this entity around Alamein University and its surrounding resorts and tourist villages, promoting sustainable tourism practices, and encouraging visitors to respect and protect the marine environment.
- Enhancing local communities: The project will benefit local communities by creating job opportunities, fostering economic growth, and improving their quality of life as an alternative to overfishing and looting of submerged artifacts.
- Scientific research: The project will support scientific research for marine science and fisheries institutes and archaeology sciences for discoveries along the Mediterranean coast, as well as monitoring marine ecosystems, allowing researchers to study the impact of human activities on marine life and efforts to mitigate the effects of climate change.

- International cooperation: The project will establish partnerships with international organizations, universities, and research institutions to exchange knowledge and best practices in marine life conservation and management.

Project Contribution to Ecotourism Challenges and Development

It will play an important role in developing ecotourism in Egypt in general through the following points:

- Preserving the rich maritime heritage and cultural significance of Egypt and highlighting it through technology.
- Promoting sustainable tourism practices that support local communities and protect the environment.
- Providing unique and immersive experiences for tourists and the local community, enhancing their understanding and appreciation of submerged heritage and natural heritage.
- Creating job opportunities and stimulating local economic growth.
- Increasing awareness of the importance of marine conservation and the need to protect Egypt's coastal ecosystems.
- Enhancing international cooperation and knowledge exchange in the field of ecotourism and marine conservation.

And will contribute to addressing the following problems:

- Lack of a management plan for the environmental resources (human and natural) of Egypt's Mediterranean coast.
- Absence of official initiatives to develop the coast according to blue economy principles and systems.
- Weak databases related to submerged heritage and natural heritage of the northern Mediterranean coast.
- Issues with permit procedures.

Section Three:

Project Description

Project activities:

The project is firstly concerned with submerged antiquities, and secondly with marine environments, habitats, and natural heritage of the Mediterranean Sea. It can be perceived as made up of three main parts:

First: Establishing a Scientific Diving Center that offers services to the scientific community, including those working in nature reserves, fisheries, and marine science institutes, as well as students of submerged archaeology. The area is still pristine and lacks any diving services. Services provided by the diving center will include the following:

- Guided tours conducted by professional guides, historians, and marine biologists to provide context and insights into marine life and submerged antiquities.
- Immersive virtual reality experiences that allow visitors to explore underwater environments and historical sites.
- Interactive displays and games for children to engage with the exhibits and learn about the history and culture of the Mediterranean region and marine environments and habitats.
- Regular conferences and workshops on maritime history, archaeology, and conservation to bring together experts and enthusiasts.
- The diving center will also utilize areas with submerged antiquities to become diving sites for tourists, along the north coast from Alamein to Matrouh and also Alexandria. This will happen by designing tours, studies and exhibits related to ancient civilizations such as the Egyptians, Greeks, and Romans.

Second: The Scientific Center will develop and manage a virtual museum that provides an immersive experience for visitors to explore the underwater museum remotely, featuring interactive exhibits, 3D models, and virtual reality experiences. The virtual museum will showcase exhibits about:

- **Ancient Civilizations:** Artifacts and remnants from ancient Egyptian, Greek, and Roman civilizations, including sculptures, mosaics, ceramics, and amphoras.
- **Maritime History:** Exhibits on shipbuilding, navigation, and trade in the Mediterranean, showcasing artifacts from ships and ancient vessels, including those that traveled from the Nile to the sea and vice versa, known for their unique maritime engineering.
- **Naval Battles:** Interactive exhibits on significant naval battles in the Mediterranean, including World War II and other historical conflicts, such as the sinking of Napoleon's fleet off the coast of Aboukir.

Activities of the Project:

- Documenting and recording submerged archaeological sites, marine life, and natural habitats in the northern Mediterranean coast area, which will serve as the primary database and the most important reference for researchers.
- **Education and Awareness:** The museums will offer educational programs for students and visitors to promote marine conservation, cultural heritage, and environmental awareness.
- **Scientific Research:** The museums will serve as research platforms for scientists and researchers to study the marine ecosystem and its inhabitants.
- **Art and Culture:** The museums will display artworks and sculptures that reflect the rich cultural heritage of Egypt and its Mediterranean neighbors.
- **Tourism Development:** The museums will attract tourists and promote sustainable tourism in the region, supporting local economies and communities.
- **Community Engagement:** The interactive museums will engage with local communities, promoting environmental education and community development initiatives.

Direct and Indirect Beneficiaries and Stakeholders of the Project

The direct beneficiaries of the project are as follows:

- Residents of the North Coast area, which has not previously received the same attention as the development of the Red Sea Coast.
- The government and the tourism sector, which benefit from enhancing Egypt's image as a sustainable tourist destination.
- Researchers and scientists in their respective fields, whether marine biology or archaeological studies.
- Diving guides, archaeologists, marine biologists, environmental enthusiasts, and students and staff at marine science and fisheries institutes.

The indirect beneficiaries of the project are as follows:

- Accommodation and Tourist Resorts.
- The Transport and Transportation Sector.
- Inbound and Local Tourists.
- The Local Community.

Identified Key Partners

1. The Tourism Development Authority under the Ministry of Housing.
2. The Ministry of Environment.
3. The Ministry of Communications.
4. The Ministry of Scientific Research.
5. The Ministry of Tourism and Antiquities of Egypt: Collaborating with the Egyptian government to access archaeological sites and submerged artifacts.
6. Coastal Countries along the Mediterranean Sea: Partnering with coastal countries to exchange knowledge, resources, and expertise, and to provide training in scientific diving.
7. International organizations: Collaborating with UNESCO, the International Council on Monuments and Sites, and other international organizations to promote cultural heritage conservation.

Expected Results

The following are some expected outcomes of the project:

- Creating a database.
- Establishing a virtual reality museum for submerged human heritage that includes the most important submerged artifacts.
- Providing scientific diving services.
- Preserving marine life in the area.
- Increasing tourism revenues in the region and creating additional opportunities for local communities to engage in citizen science.
- Improving awareness of marine life conservation and sustainability.
- Enhancing the economic growth of local communities.
- Contributing to scientific research and understanding of marine ecosystems and submerged heritage.
- Promoting international cooperation and knowledge exchange.

Key Success Indicators for Project Evaluation

Project Milestones: The extent to which project stages are implemented according to the timeline.

- The number of visitors annually, measured through ticket sales and visitor surveys.
- The contribution of the virtual reality museum and the scientific diving center to the local economy, measured through tourism revenue, job creation, and other economic indicators.
- Efforts by the virtual reality museum and the scientific diving center to promote marine conservation and sustainability, measured through initiatives like beach cleanups, marine life research, and educational programs.
- The level of community participation in the activities of the virtual reality museum and the scientific diving center, measured by the number of volunteers, community events, and partnerships with local organizations.
- The effectiveness of educational programs offered by the virtual reality museum and the Scientific Diving Center, measured through student feedback, teacher evaluations, and public awareness campaigns.
- The online presence and engagement of the virtual reality museum and the Scientific Diving Center, measured through social media metrics like followers, likes, shares, and comments.
- The number of collaborations and partnerships established between the virtual reality museum and the scientific diving center and other organizations, institutions, or governments.

- The quality and relevance of exhibits at the virtual reality museum and the scientific diving center, measured through visitor feedback, expert reviews, and awards received.
- Efforts by the virtual reality museum and the scientific diving center to promote accessibility and inclusion for all visitors, measured through visitor feedback, accessibility evaluations, and initiatives like wheelchair accessibility and sign language interpretation.
- Efforts by the virtual reality museum and the scientific diving center to reduce their environmental footprint, measured through energy efficiency measures, waste reduction initiatives, and sustainable practices.
- The number of research papers, articles, and books published as a result of the project's research and findings, indicating its academic impact.
- The number of students, researchers, and professionals trained or educated through workshops, conferences, and online courses offered by the project, indicating its capacity-building efforts.
- The level of community involvement in the project's activities, such as citizen science initiatives, measured by factors like volunteer numbers, user engagement, and social media reach.
- The impact of the project on conservation efforts, such as increased funding or policy changes, measured and tracked.
- The international recognition and awards received by the project, indicating its global impact and reputation.
- The project's impact on local communities, such as increased economic benefits or cultural preservation, measured through surveys, interviews, or job opportunities generated by the project.

Project Timeline

Planning and Design Phase: 6-12 months. During this phase, detailed plans and designs for the Scientific Diving Center and virtual reality museum will be developed. This includes architectural designs, technological infrastructure planning, exhibit layout designs, and educational program development. Collaborations with historians, marine biologists, architects, and technology experts will be essential to ensure the project's success. Additionally, necessary permits and approvals will be obtained, and initial community engagement activities will be conducted to gather input and support.

Construction Phase: 2-3 years. This phase involves the actual construction of the Scientific Diving Center and the setup of the virtual reality infrastructure. It will include building facilities for diving operations, research labs, classrooms, and offices. Simultaneously, the virtual reality platform will be developed, incorporating 3D modeling of submerged archaeological sites and interactive educational content. Recruitment and training of staff, including dive instructors, marine biologists, and VR technicians, will also take place. Regular progress reviews and adjustments will ensure the project stays on track.

Operational Phase: Ongoing. Once construction is complete, the Scientific Diving Center and virtual reality museum will commence operations. This phase includes the launch of diving programs, research activities, educational workshops, and community outreach initiatives. Continuous updates and enhancements to the virtual reality platform will be made to incorporate new findings and technologies. The center will also establish partnerships with local and international institutions for collaborative research and conservation efforts. Monitoring and evaluation processes will be implemented to assess the impact and effectiveness of the project, ensuring long-term sustainability and growth.

Section Four:**Project Finance and Sustainability****Estimated Overall Project Cost**

The estimated overall budget for the project is 75,000,000 Egyptian Pounds, subject to increase or decrease.

Cost Breakdown

- The cost of environmental impact assessments and economic feasibility studies for the project is approximately 3,000,000 Egyptian Pounds.
- Rent for the project site, covering an area of about 1000 square meters, is approximately 2,000,000 Egyptian Pounds per year.
- Purchase of equipment and facilities for the Scientific Diving Center is approximately 30,000,000 Egyptian Pounds.
- Vehicles for land transportation and watercraft for water transport services are at an estimated cost of about 15,000,000 Egyptian Pounds.
- Establishment of the virtual museum site and virtual reality equipment, including the setup of halls, is approximately 15,000,000 Egyptian Pounds.
- Salaries and wages for photographers and the team are approximately 5,000,000 Egyptian Pounds per year.
- Budget for advertising, promotion, and contingencies is approximately 5,000,000 Egyptian Pounds per year.

Potential sources of funding or revenue generation for the project

- Donor agencies
- Soft loans from funding institutions
- Sponsors from research centers and universities, as well as institutions interested in environmental and archaeological matters
- Entrance fees to the museum and revenues from training courses and scientific trips
- Other income sources from ancillary activities

Additional resources or support you require to implement the project successfully

Permits and support from official authorities

Project Long Term Financial Sustainability

- The project will implement several core income-generating activities, the most important of which are entrance fees for visits to the virtual museum and educational courses, in addition to the main activity of scientific diving. The uniqueness of the project in the region, along with the historical and environmental significance of the area for researchers, ensures one of the main guarantees of demand for the project's services, providing sustainable income from the core activities of the project.
- Income from various ancillary activities of the project, such as restaurants, cafes, and tourist transport services.
- Other income sources from regular and irregular events and activities.

Social Impact:

Promote the participation of local communities in the economic benefits of ecotourism.

- Most of the areas are already in remote regions, and the project will become one of the main sources of job opportunities in the community and the cornerstone for developing services in those areas.
- The initiation of the projects will be based on building relationships and harmony between the communities and incoming visitors, ensuring volunteer activities (such as language teaching, etc.) provided by visitors to the local community.

Ensure gender equality and social inclusion in its activities and benefits

- The project is based on complete equality among all groups, whether in terms of gender or otherwise, regarding the granting of employment opportunities.
- Involving young women and ladies in work at all stages of the project.
- Appointing women to leadership positions.

