GFCR FULL PROGRAMME DOCUMENT

I. Full Programme Summary Information

Programme Title: Egyptian Red Sea Initiative	**Recipient Organisation(s):** United Nations Development Programme (UNDP) **Execution Modality:** Direct Implementation Modality (DIM)
Convening Agent: Alessandro Fracassetti UNDP Resident Representative Egypt Country Office United Nations Development Programme World Trade Center, 1191 Corniche El Nil Cairo, Egypt **Programme Focal Point Contact:** Amany Nakhla UNDP Assistant Resident Representative Biodiversity & Protected Areas Team Leader Environment & Energy Egypt Country Office Tel: 25780302/4/6 amany.nakhla@undp.org	**Programme Location** Country/Region: Egypt Priority Coral Reef Site(s)[1]: • Wadi El-Gemal-Hamata National Park • The Northern Red Sea Islands Protectorate • Brothers Islands
Programme Cost (USD)[2]: $14,250,000	**Proposed Start Date:** *September 2024* **Proposed End Date:** *September 2030*
Programme Description: The Egyptian Red Sea Initiative (ERSI) aims to reduce drivers of coral reef degradation while simultaneously developing new finance sources and mechanisms for reef-positive business and livelihoods. To ensure that the Egyptian Red Sea region's coral reefs continue to provide vital ecological and socio-economic services, the programme will also advance science on coral reef resilience, identify and protect climate refugia[3], and implement sustainable financing mechanisms for Marine Protected Areas (MPAs) that harbour critical coral reef ecosystems.	

[1] Refinement of priority sites will be conducted during the proposal development stage

[2] As per GFCR Executive Board decision, disbursements will be determined based on fiduciary assessment, expenditures and GFCR Secretariat's performance review.

[3] Clarifying the concept of climate change refugia for coral reefs. Javid Kavousi, Gunnar Keppel. ICES Journal of Marine Science, Volume 75, Issue 1, January/February 2018, Pages 43–49, https://doi.org/10.1093/icesjms/fsx124

Through the establishment and operationalization of a new Egyptian Fund for Coral Reefs (EFCR), which will leverage finance for reef-positive businesses that support conservation, economic development, community livelihoods, and enhanced community resilience to climate change, the programme will accelerate the development of reef-positive business models, especially in the ecotourism, sustainable fisheries, and waste management sectors. With additional finance for conservation and investment from the private sector, the programme is expected to leverage at least an additional USD 45 million in grants through the Egyptian Fund for Coral Reefs (EFCR) to support coral reef conservation in the Egyptian Red Sea.

SIGNATURES:		
Signature: H.E Ambassador Hamdy Shaaban Assistant Minister and Director, Department of International Cooperation for Development, Ministry of Foreign Affairs	**Agreed by Government Development Coordination Authority**[4]	**Date/Month/Year:**
Signature: Dr. Ali Abu Sena CEO, Egyptian Environmental Affairs Agency (EEAA)	**Agreed by Implementing Partner**[5]	**Date/Month/Year:**
Signature: Mr. Alessandro Fracassetti Resident Representative in UNDP Egypt	**Agreed by UNDP**	**Date/Month/Year:** 02/09/2024

In witness of USAID

Signature: Mr. Sean Jones Mission Director for USAID in Egypt	**Agreed by USAID**	**Date/Month/Year:** 02 Sept 2024.

[4] *Other evidence of government agreement may be accepted in lieu of a signature, unless the programme country government requires a signature.*

[5] *Other evidence of government agreement may be accepted in lieu of a signature, unless the programme country government requires a signature.*

II. Initial 18 months budget Request Summary by UNDP Categories (full budget attached)

UNDG Categories	Convening Agent	Co-recipient (if any)	TOTAL
1. Staff and other personnel	$421,000		$421,000
2. Supplies, Commodities, Materials	$33,800		$33,800
3. Equipment, Vehicles, and Furniture (including Depreciation)	$5,000		$5,000
4. Contractual services	$1,252,163		$1,252,163
5. Travel	$57,800		$57,800
6. Transfers and Grants to Counterparts	$959,500		$959,500
7. UNDP Operational Direct Project Costs	$159,737		$159,737
Total Direct Costs	**$2,889,000**		**$2,889,000**
8. Indirect Support Costs (7%)	$202,230		$202,230
TOTAL Budget[6] for 18 months	**$3,091,230**		**$3,091,230**

[6] The GFCR ERSI programme is funded by a USAID contribution channeled through GFCR. The total available budget for programming is 14,107,500 (**14,250,000 minus 1% that MPTF keeps as administrative agent**). Of this amount, US $5 million will be put into the Egyptian Fund for Coral Reefs (EFCR) as "seed capital" to be used to finance selected projects and businesses and to act as an incentive for other funds to provide additional funding to the EFCR. The remaining $9,107,500 million will be used for programme activities that support the establishment of the EFCR and its operating costs for its first two years (at approximately USD$ 390,000 / year), as well as strengthening the enabling environment (policies, science, capacities, collaboration mechanisms, etc.) necessary for coral reef friendly investments to succeed.

Acronyms and Definitions

Acronym	Definition
AG-CDA	Abu Ghosoun Community Development Association
BASD	Bioenergy Association for Sustainable Development
BI	Brothers Islands
BPPS	Bureau for Policy and Program Support
CDWS	Chamber of Diving and Water Sports
CFDA	USAID Climate Finance for Development Accelerator
CfP	Call for Proposals
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CRBI	Coral Reef Business Incubator
CSO	Civil Society Organisation
CTF	Conservation Trust Fund
DIM	Direct Implementation Modality
EEAA	Egyptian Environmental Affairs Agency
EPF	Environmental Protection Fund
EFCR	Egyptian Fund for Coral Reefs
ERSI	Egyptian Red Sea Initiative
FPIC	Free, Prior, and Informed Consent
GEF	Global Environment Facility
GFCR	Global Fund for Coral Reefs
GFRPA	Great Fringing Reef Protected Area
GHG	Greenhouse Gas
GoE	Government of Egypt
Ha	Hectare
HEPCA	Hurghada Environmental Protection and Conservation Association
ICZM	Integrated Coastal Zone Management
ILO	International Labour Organization
IUCN	International Union for the Conservation of Nature
KM	Knowledge Management
MFI	Microfinance Institutions
MoU	Memorandum of Understanding
MPA	Marine Protected Area
MPTFO	Multi-Partner Trust Fund Office (of the United Nations)
MoE	Ministry of Environment
MoIC	Ministry of International Cooperation
MoTA	Ministry of Tourism and Antiquities
MSME	Micro, Small, and Medium-sized Enterprises
NbS	Nature-based Solution
NCS	Nature Conservation Sector
NGO	Non-Governmental Organisation
NIOF	National Institute of Oceanography and Fisheries
NRSIP	Northern Red Sea Islands Protectorate
OECM	Other Effective area-based Conservation Measures

PERSGA	Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden
PES	Payment for Ecosystem Services
PMU	Programme Management Unit
RSG	Red Sea Governorate
SDG	Sustainable Development Goal
TA	Technical Assistance
TAC	Technical Advisory Committee
TDA	Tourism Development Authority
ToC	Theory of Change
UNDG	United Nations Development Group
UNDP	United Nations Development Program
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WB	World Bank
WGNP	Wadi El Gemal National Park
WMRA	Waste Management Regulatory Authority
WWF	World Wide Fund for Nature

1 Executive Summary

The "Egyptian Red Sea Initiative" (ERSI) is designed to ensure the conservation of coral reefs that are exceptionally resistant to the rising seawater temperatures that are causing severe bleaching and/or mortality in most hard corals elsewhere in the world. While corals in the Egyptian Red Sea[7] appear highly resilient to climate change impacts, the impacts of other, mainly anthropogenic, localized stressors on coral reef ecosystems will continue to reduce the resilience of the area's reefs unless effectively addressed. In order to mitigate these threats to coral reefs, the Egyptian Red Sea Initiative has been formulated in line with the Government of Egypt, COP27 President, strategies and developmental priorities (i.e. 2050 National Climate Change Strategy, Egypt's updated NDCs). In November 2022 at COP27, in collaboration with the Global Fund for Coral Reefs (GFCR) and UNDP, the Government of Egypt announced their intention to launch the Egyptian Red Sea Initiative that ensures coral reef conservation in the Red Sea to secure the economically vital and highly reef-dependent tourism sectors in Egypt.

Coral reef communities in the Red Sea are unique in that they are among the northern-most tropical reef systems worldwide, have a high diversity of marine taxa, and provide habitat for endemic and rare marine species (as detailed in Section 2 below). The coral reefs of the region provide critically important ecosystem services that underpin the socio-economic development of the communities that are located along the coastline. Tourism is a main engine of the economies in Egyptian coastal areas, and coral-reef visitation is the driver of the tourism sector in the country. Coral reefs in Egypt are also an important source of food and fishing activity for Egyptian Red Sea communities (see Section 1.1 for details on the socio-economic value of the coral reef ecosystems).

Coral reefs and associated ecosystems in the Egyptian Red Sea are under severe pressure from a variety of anthropogenic impacts, including: land-based pollution such as solid waste and micro-plastics; impacts from intensive tourism visitation; marine-based pollution (from ships and ports, including solid waste, oil spills, etc.); coastal infrastructure development for tourism; unsustainable fishing practices; and climate change (which may elevate disease, enable the spread of invasive species, and change rainfall patterns / intensity that could increase flows of freshwater, sediments and pollution onto coral reefs).

The vision for the Egyptian Red Sea Initiative programme is "to conserve Egypt's globally important Red Sea coral reef ecosystems through establishment of reef-positive finance solutions that benefit associated communities and economies". The proposed programme will work towards this vision through a suite of inter-connected interventions to achieve three primary outcomes, as briefly described below and in more detail in Section 2.3. Each of the outcomes includes outputs designed to unlock additional financing and catalyse sustainable revenue streams for reef-positive practices, most notably: 1.1 and 1.3 (financing of reef-positive sustainable enterprises and projects); 1.2 (incubation of reef-positive micro, small, and medium-sized enterprises); and 3.2 and 3.3 (sustainable revenue streams for marine conservation).

[7] Referenced as the "region" in the text.

Outcome 1 - Innovative and independent fund for the Egyptian Red Sea established and operational: Under Outcome 1, the programme will generate the following outputs: 1.1: Egyptian Fund for Coral Reefs[8] (EFCR) established, capitalised and operational (including USD 5 million of USAID's overall USD 14.25 million contribution to the ERSI programme that will be allocated as seed capital for businesses / projects supported by the EFCR[9]); 1.2: Coral Reef Business Incubator established that develops, funds, and supports scaling of reef-positive micro, small, and medium-sized enterprises (MSMEs) and other coral-friendly organizations, community initiatives, and businesses that generate positive returns and benefit local communities, women, and youth; and 1.3: Blended finance opportunities for coral-reef-positive businesses successfully implemented in partnership with banks and other finance institutions (which includes GFCR Solutions on Sustainable community ecotourism around Wadi El Gemal; Organic Waste Upcycling for Urban Farming; and Coral Reef Aquaculture for Ecosystem Resilience and Aquarium Trade).

Outcome 2 - Enabling environment for coral reef conservation and investment strengthened: Under Outcome 2, the programme will generate the following outputs: 2.1: Policy frameworks and institutional coordination strengthened for coral reef finance and conservation; 2.2: Productive sectors (e.g. fisheries, tourism, waste management) transition to reef-positive models through improved management and enhanced awareness and behavioural changes[10]; and 2.3: Knowledge management and learning improves evidence-based decision making on coral reef finance and conservation.

Outcome 3 - Improved management and finance enable effective conservation of Egypt's Red Sea Coral Reefs: Under Outcome 3, the programme will generate the following outputs: 3.1: Capacity to monitor coral reef conditions increased to support effective national and local decision making and investments in reef conservation; 3.2: Management & Business Plan developed for the newly established "Great Fringing Reef Protected Area"; and 3.3: Innovative financing mechanisms for MPAs and other marine conservation approaches operationalized (which includes a GFCR "Solution" or project on Great Fringing Reef Mooring Systems upgrade).

The programme implementation period is projected to be from end 2024 until end 2030. The programme will consist of three phases of implementation: Initial Implementation[11] (approx. 1.5 years), Consolidation (approx. 3.5 years), and Growth (approx. 1 year). By the end of the programme, the programme will have: reduced the drivers of degradation impacting coral reefs with globally important characteristics of resilience to coral bleaching; spurred effective and coordinated management and information sharing to support coral reef conservation; and established the Egyptian Fund for Coral Reefs as the first source of funding for and incubation of reef-positive businesses and projects in the region. The programme's exit

[8] Extensive details on the EFCR are included in the report "Egypt Red Sea Initiative: Structuring Options and Roadmap for an Egypt Red Sea Conservation Trust Fund", found in Annex XIX

[9] The $5 million seed capital fund is earmarked and reserved solely for the express ownership and use of the EFCR, and cannot be used for any interim purpose for any third party during the time between transfer of the $5 million from USAID to the MPTF and the deposit of the $5 million in the EFCR's bank account.

[10] For example, adoption of more sustainable and reef-positive practices in areas such as waste management, landscaping and water management, tourism visitor practices, etc.

[11] The Inception and Initial Implementation Phase of a GFCR programme is not limited to the hiring of staff and initial planning / feasibility analyses; it also includes the implementation of numerous programme activities, such as the establishment of the Egyptian Fund for Coral Reefs; development of policies and regulations; baseline assessments; MPA strengthening; etc., as shown in Table 1 in Section 2.3

strategy will rely first and foremost on the EFCR, which has an overall target to raise USD 50 million from private and donor-funded investments[12], which will operate over a 25+ year timeframe to provide ongoing funding flows into programs and businesses that directly support coral reef conservation or indirectly benefit coral reef ecosystems by removing drivers of reef degradation and destruction. In addition, by programme end the system of MPAs that harbours many of the region's most important coral reef ecosystems will have been strengthened through improved MPA governance, technical capacities, and coordination; and made more viable over the long-term through the establishment of sustainable financing mechanisms.

Key environmental, social, and financial targets from the results framework that demonstrate the impact ambitions of the programme include the following: a total of 99,899 ha[13] of coral reefs in the Egyptian Red Sea are under increased protection, including approximately 13,637 ha of reefs within Wadi El Gemal NP and 50,612 ha of reefs within the Northern Red Sea Islands Protectorate; US$ 50 million raised for the Egyptian Fund for Coral Reefs; 60 enterprises supported by the Coral Reef Business Incubator and over US$ 2 million in outside financing (primarily concessional loans or equity investments) raised as co-financing for successful incubator deals[14]; 3,000 visitors/year are engaged in alternatives to coral reef visitation through sustainable community ecotourism in and around Wadi El Gemal National Park; Organic Waste Upcycling for Urban Farming has reduced organic waste going to landfills by 300MT/day (wet weight), while also employing approximately 1,000 persons in waste management and associated agricultural production using organic waste compost; a program of aquaculture to support Coral Reef Ecosystem Restoration is employing 50 persons and has returned 50,000 young giant clams, sea cucumbers, coral recruits, and reef fish to Red Sea coral reefs; and a Mooring Systems upgrade project has installed 500 new / strengthened mooring systems that are used by 4,000 boats on a daily basis.

UNDP Egypt, as the GFCR convening agent for the programme, will engage with recipient partner organisations and governments, source investment opportunities for the programme's pipeline of interventions, ensure environmental and social safeguards are applied in all supported interventions, monitor results, and provide overall programme management. The Government of Egypt (GoE), represented by the Ministry of Environment, will provide the strategic guidance, oversight and governance in its capacity as the national counterpart for this programme. A Programme Steering Committee (PSC) will be established, chaired by the Ministry of Environment/Egyptian Environmental Affairs Agency (EEAA) and with membership of relevant stakeholders. Under the PSC, a Project Selection and Investment Committee (PSIC) will evaluate and select projects that have responded to the calls for proposals issued by the EFCR, and a Technical Advisory Committee (TAC) to provide technical guidance and backstopping; support the programme in its endeavour to strengthen communication, coordination and collaboration among programme stakeholder; and contribute to knowledge generation and dissemination.

[12] See Annex XIX for details

[13] Official data on coral reef areas in the Egyptian Red Sea is not available; these figures were estimated using the Allen Coral Atlas. These estimates will be updated at the start of the programme, as described under Output 3.1. Citation: Allen Coral Atlas (2022). Imagery, maps and monitoring of the world's tropical coral reefs. doi.org/10.5281/zenodo.3833242

[14] Most of the incubated companies will receive small concessional loans or equity investments to help get them off the ground, with a smaller subset of the most promising companies receiving higher levels of funding. However, it is possible that even one strong opportunity could attract a very large amount of direct investment; so $2 million is a conservative estimate.

Full Programme Narrative

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Programme Strategy

1.1 Problem Statement

Rapid economic growth and development is threatening the health of the world's most resilient coral reefs in a region where economic activity is highly dependent on these same coral reef ecosystems. Existing efforts to transition key economic sectors such as tourism and fisheries towards more sustainable and reef-positive models and to conserve coral reef ecosystems have been constrained by lack of financial resources and very limited understanding of or experience with sustainable and reef-positive investment opportunities and mechanisms. Establishment and operationalization of an Egyptian Fund for Coral Reefs (EFCR) to provide grants and program related investments, combined with blended finance approaches to test and scale up potential reef-positive business models, will bring enormous new resources, partners and capacities to addressing the protection and effective management of the area's coral reefs and the creation of sustainable reef-positive businesses and livelihood opportunities in alignment with the Egyptian development context and Egypt's national priorities and plans, as well as global best practices in coral reef conservation and management and conservation trust funds.

1.2 Strategic vision and Theory of Change

The vision for the Egyptian Red Sea Initiative programme is "To conserve Egypt's globally important Red Sea coral reef ecosystems through establishment of reef-positive finance solutions that benefit associated communities and economies". The programme will seek to fulfil this vision through three primary outcomes, namely:

Under **Outcome 1 - Innovative and independent fund for the Egyptian Red Sea established and operational**, the programme will establish the Egyptian Fund for Coral Reefs (EFCR), or "the Fund", to support the long-term conservation of the Red Sea coral reef ecosystems in Egypt. The EFCR will be based on GFCR's standard blended finance approach, in which grants or concessional loans are disbursed to innovative businesses and initiatives in partnership with private capital sources; an approach that conforms to current, international best practice for nature conservation trust funds. This Outcome is primarily focused on building the institutional, financial, and business support capacity to facilitate the success of the Fund upon its launch and operationalization. Once the Fund is operational, activities initiated and supported by the programme will transition to the fund in approximately 18 months. The programme will also support the establishment of an independent Coral Reef Business Incubator (CRBI) to support new reef-positive businesses through technical assistance, business mentoring, and other capacity building for entrepreneurs and organizations. Finally, the programme will work with finance institutions to provide blended finance for reef-positive businesses and to provide financial guarantees, loans, insurance products, etc. to encourage responsible private investment in reef-positive enterprises.

Under **Outcome 2 - Enabling environment for coral reef conservation and investment strengthened**, the programme will work with the Government of Egypt to strengthen the enabling environment for coral reef conservation and investment, which will be critical to ensure the long-term success of the EFCR. This work will include enhancing legal and policy frameworks to support coral reef conservation by reviewing available laws, regulations and policies, in addition to integrating coral reef conservation into national

development plans and strengthening enforcement of regulations regarding infrastructure development. The programme will also seek to improve the management of productive sectors (fisheries, tourism, waste management) that have an impact on coral reef ecosystems, and by extension the entire region's socio-economic health, towards reef-positive operating models. Finally, activities under this outcome will seek to improve knowledge and understanding to support stronger evidence-based decision making on coral reef finance and conservation, including information sharing through the GFCR global REEF+ Knowledge Management system and global community of practice.

Under **Outcome 3 - Improved management and finance enable effective conservation of Egypt's Red Sea Coral Reefs**, the programme will support improved site-based information, management and conservation to ensure that coral reef ecosystems continue to provide social and economic benefits for local inhabitants as well as sustainable investment opportunities for reef-positive businesses and projects. The programme will strengthen Egypt's information on its coral reef and other marine ecosystems and its capacities for coral reef monitoring in order to support effective decision-making on investments in reef conservation. In addition, the programme will support the development of a management and business plan for the new Great Fringing Reef Protected Area, so as to enable Egyptian authorities and other affected parties to make this new MPA a functional and effective management mechanism for the northern Egyptian Red Sea. Finally, the programme will seek to develop and operationalize new and/or improved finance mechanisms to support MPAs and other marine conservation approaches (OECMs).

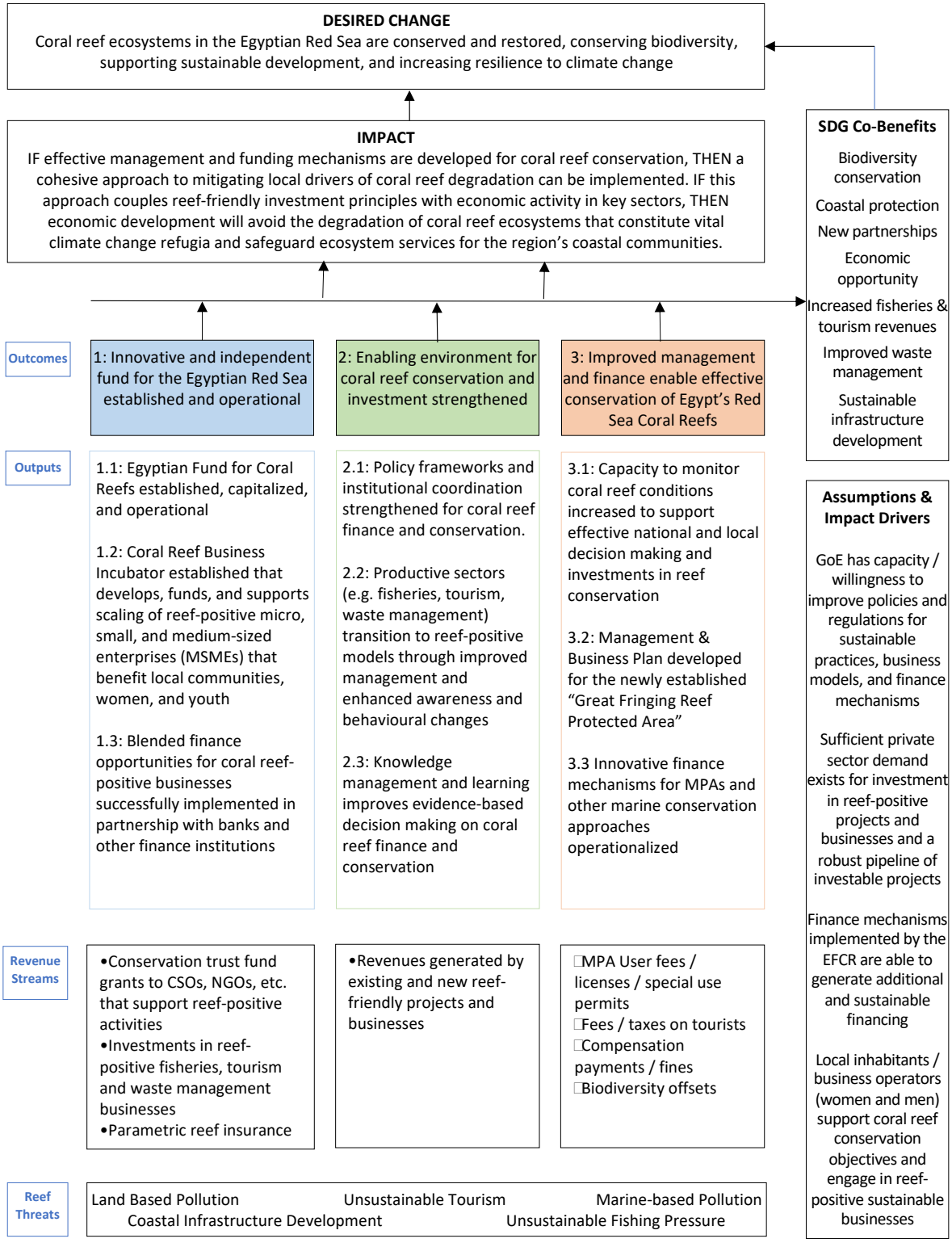
Within the Egyptian Red Sea region stretching from the area of Hurghada in the north down to Wadi EL Gemal in the south, three sites have been selected as priority implementation sites: 1) Wadi El-Gemal-Hamata National Park (WGNP); 2) the Northern Red Sea Islands Protectorate (NRSIP); and 3) the Brothers Islands. While these are priority sites for the GFCR programme, once the EFCR is established, it may make grants / investments in support of projects and businesses throughout the Egyptian Red Sea area. The WGNP, which includes the largest island in this area of the coast, extensive mangroves, sea turtle nesting beaches, and large colonies of nesting seabirds, the most significant local drivers of degradation for coral reef ecosystems are: 1) pressure from tourism activities, including physical damage to coral ecosystems by divers and snorkellers; 2) pollution from tourism boats; 3) oil spills; and 4) overfishing. The islands of the NRSIP are important breeding sites for seabirds (more than 30% of endemic Red Sea gulls breed there) and the endangered green turtle (*Chelonia mydas*); the area's mangroves serve as nurseries for fish and crustaceans; and large schools of dolphins reside there. Major threats to the NRSIP include illegal fishing by trawlers, whose nets threaten coral reefs and wildlife and have harmed sea turtle and dolphin populations, as well as the construction of tourism resorts, harbours and airports in the Hurghada area. Finally, the Brothers Islands area is one of the most attractive diving sites in the Red Sea, in particular for the area's crystal clear waters and diverse and beautiful coral reef assemblages. Because of their remote location and topography, the impacts from divers / snorkellers as well as pollution from the coastline are not major drivers of degradation, although the number of boats visiting the islands creates significant problems in terms of sewage and trash being dumped into the water.

The Theory of Change (ToC) (Figure 1) is based on various key assumptions and impact drivers:

- That the Government of Egypt has the capacity and willingness to improve policies and regulations to facilitate the adoption of reef-positive practices, business models, and financing mechanisms

- That sufficient private sector demand exists for investment financing (from both domestic and international lending facilities) for reef-positive projects and businesses, which will allow for the structuring and financing of a robust pipeline of investable projects
- That financial mechanisms implemented by the EFCR generate additional and sustainable financing
- That local inhabitants and business operators (women and men) support coral reef conservation objectives, and understand and are motivated to engage in the development and operation of reef-positive sustainable businesses.

Figure 1: Theory of Change Diagram



1.3 Programme outcomes, outputs and activities

Table 1: Overview of Outcomes, Outputs and activities

Outcome 1: Innovative and independent fund for the Egyptian Red Sea established and operational		***Geographic scope***
Output 1.1: Egyptian Fund for Coral Reefs established, capitalized, and operational		
Activity 1.1.1: Establish and operationalize the Egyptian Fund for Coral Reefs[15] (EFCR or the "Fund"), including both grant and blended finance mechanisms, to enhance access to capital for coral reef conservation and for reef-positive sustainable enterprises	Phases 1-3	Egyptian Red Sea including all priority sites (WGNP, NRSIP, BI[16])
Activity 1.1.2: Establish and implement a long-term fundraising plan to secure contributions to the Fund adequate to cover operating costs, provide blended finance, and grants for reef-positive investments for a 25+ year horizon	Phase 1	
Activity 1.1.3: Provide grants to community organizations, NGOs and other organizations that support reef-positive activities	Phases 1-3	
Output 1.2: Coral Reef Business Incubator established that develops, funds, and supports scaling of reef-positive micro, small, and medium-sized enterprises (MSMEs) and other coral-friendly organizations, community initiatives, and businesses that benefit local communities, women, and youth		
Activity 1.2.1: Identify and select a contracted partner to manage the Coral Reef Business Incubator (CRBI)	Phase 1	Egyptian Red Sea including all priority sites (WGNP, NRSIP, BI)
Activity 1.2.2: Establish and operationalize a Coral Reef Business Incubator (CRBI) and identify an initial pipeline of reef-positive investment opportunities.	Phases 1-2	
Output 1.3: Blended finance opportunities for coral reef-positive businesses successfully implemented in partnership with banks and other finance institutions		
Activity 1.3.1: Partner with banks and other finance institutions to create market sensitive concessional finance options for reef-positive businesses	Phase 1	Egyptian Red Sea including all priority sites (WGNP, NRSIP, BI)
Activity 1.3.2: Develop innovative risk mitigation instruments such as financial guarantees or insurance products to encourage responsible private investment in reef-positive enterprises	Phases 1-2	
Activity 1.3.3: Sustainable community ecotourism in and around Wadi El Gemal	Phases 1-2	WGNP priority site
Activity 1.3.4: Organic Waste Upcycling for Urban Farming	Phase 1	All priority sites (WGNP, NRSIP, BI)
Activity 1.3.5: Aquaculture to support Coral Reef Ecosystem Restoration	Phases 1-2	
Outcome 2: Enabling environment for coral reef conservation and investment strengthened		
Output 2.1: Policy frameworks and institutional coordination strengthened for coral reef finance and conservation		
Activity 2.1.1: Strengthen policy, legal and regulatory frameworks related to the management, conservation and finance of coastal and marine environments	Phase 1	Egyptian Red Sea including all priority sites (WGNP, NRSIP, BI)
Activity 2.1.2: Strengthen enforcement systems and institutional capacities to implement policies, laws and regulations regarding productive sector practices in coastal and marine environments	Phases 1-2	
Output 2.2: Productive sectors (e.g. fisheries, tourism, waste management) transition to reef-positive models through improved management and enhanced awareness and behavioural changes		

[15] Note, this is only a working name and may be changed during programme implementation

[16] WGNP = Wadi El Gemal National Park; NRSIP = Northern Red Sea Islands Protectorate; BI = Brothers Islands

Activity 2.2.1: Support improved management and promote sustainable practices in the fisheries sector	Phases 1-2	All priority sites (WGNP, NRSIP, BI)
Activity 2.2.2: Support improved management and promote sustainable practices in the tourism sector	Phases 2-3	
Activity 2.2.3: Support improved management and promote sustainable practices to reduce solid waste flows into the marine environment	Phases 2-3	
Activity 2.2.4: Support strategy of Green Fins Egypt to improve sustainable practices in the tourism sector through private sector finance and engagement	Phases 1-2	
Output 2.3: Knowledge management and learning improves evidence-based decision making on coral reef finance and conservation		
Activity 2.3.1: Monitoring and Evaluation of programme impacts	Phases 1-3	Egyptian Red Sea including all priority sites (WGNP, NRSIP, BI)
Activity 2.3.2: Engage with GFCR REEF+ Knowledge Management & Finance Platform and other global coral reef learning mechanisms	Phases 2-3	
Activity 2.3.3: Transmit lessons learned under the ERSI programme to the Egyptian Fund for Coral Reefs (EFCR)	Phases 2-3	
Outcome 3: Improved management and finance enable effective conservation of Egypt's Red Sea Coral Reefs		
Output 3.1: Capacity to monitor coral reef conditions increased to support effective national and local decision making and investments in reef conservation		
Activity 3.1.1: Ecological assessments to enhance baselines for monitoring, determine sites for potential new or expanded MPAs, and support addressing the drivers of coral reef degradation in the Egyptian Red Sea	Phase 1	All priority sites (WGNP, NRSIP, BI)
Activity 3.1.2: Collaborate with existing coral reef science, mapping and monitoring programmes in the region to strengthen coordination and technical capacities for coral reef monitoring and inform decision-making	Phases 1-2	
Activity 3.1.3: Establish partnerships with local communities and private sector partners to enhance existing coral reef health monitoring programmes	Phases 2-3	
Output 3.2: Management & Business Plan developed for the "Great Fringing Reef Protected Area"		
Activity 3.2.1: Develop a management & business plan for the 'Great Fringing Reef Protected Area' based on extensive consultation and engagement with key affected parties	Phase 1	Egyptian Red Sea including all priority sites (WGNP, NRSIP, BI)
Activity 3.2.2: Strengthen capacity of EEAA, HEPCA and other partners (local NGOs and community associations) to secure financing and implement the management and business plans for the Great Fringing Reef Protected Area	Phase 2	
Output 3.3 Innovative finance mechanisms for MPAs and other marine conservation approaches operationalized		
Activity 3.3.1: Assess, develop and implement financing mechanisms for MPAs, community-based conservation areas, and other marine conservation approaches (OECMs)	Phase 2	All priority sites (WGNP, NRSIP, BI)
Activity 3.3.2: Great Fringing Reef Mooring Systems upgrade	Phases 1-2	

Note: Phase 1 = Months 1-18; Phase 2 = Months 19-60; Phase 3 = Months 61-72

1.4 Work-planning

Inception & Initial Implementation Phase (18 months)

Outcome 1: Innovative and independent fund for the Egyptian Red Sea established and operational

- Legally establish and operationalize the Egyptian Fund for Coral Reefs, including hiring of the Executive Director and other staff
- Completed long-term fundraising plan to secure contributions to the EFCR
- Completed plan for transferring relevant ERSI program functions to the EFCR Secretariat
- Legal and financial establishment of the Coral Reef Business Incubator (CRBI) and setting up a management and operational plan
- First call for proposals issued by the CRBI
- Pipeline identified of at least 10 projects/businesses to receive CRBI technical assistance and/or small grants
- At least $200,000 in technical assistance and/or small grants provided to selected companies to allow entrepreneurs to focus on and effectively develop their reef-positive businesses / projects
- Completed national assessment of opportunities for impactful large-scale investments
- Protocols for grant and blended finance issuance developed in partnership with commercial banks
- Parametric insurance product for rapid containment of oil or gas discharges from offshore rigs or ships designed and ready for funding
- GFCR blended finance solution for sustainable community ecotourism in and around Wadi El Gemal under implementation
- GFCR blended finance solution for Organic Waste Upcycling for Urban Farming under implementation
- GFCR blended finance solution for Coral Reef Aquaculture for Ecosystem Resilience and Aquarium Trade under implementation

<u>Outcome 2: Enabling environment for coral reef conservation and investment strengthened</u>

- Completed gap analysis and prioritisation of legal and regulatory changes necessary to enable coral reef conservation and investment
- Assessment of coral reef fish stocks in the Egyptian Red Sea and a report on the fishing sector that utilizes these fisheries
- Private sector funding partners identified; business and marketing plans developed; system for CFDW to collect funds / manage from private sector partners established
- Completed funding strategy, business plan, and finance mechanisms for Green Fins Egypt

<u>Outcome 3: Improved management and finance enable effective conservation of Egypt's Red Sea Coral Reefs</u>

- Ecological assessments to enhance baselines for monitoring, determine sites for potential new or expanded MPAs, and support addressing the drivers of coral reef degradation
- Assessments completed for the programme priority sites of: 1) key drivers of coral reef resilience and degradation; 2) coral reef carrying capacities and impacts of tourism and fishing on coral reef ecosystems; 3) characteristics / locations of climate resilient reefs in the area; and 4) the importance of coral reefs as climate refugia and biodiversity habitat; 5) maps of coral reefs
- Egyptian government and other partners have increased technical capacities for coral reef monitoring (measured with metrics used by one or more of the coral reef monitoring and research programs at Suez Canal University, Ain Shams University, and the National Institute of Marine Science)
- Completed management plan for the Great Fringing Reef Protected Area (GFRPA)

- Completed business plan for the GFRPA that includes MPA financing mechanisms
- Establish partnerships to promote the GFRPA and support the financing of the GFRPA Management and Business Plan.
- Completed desk reviews, interviews, and technical studies / analyses to assess the viability and support for various MPA financing options

2 Programme Solutions

2.1 Summary Table of Proposed GFCR Interventions[17]

Table 2: Summary of Programme Solutions

Number and name of Solution	Sector	Location Implemented	Coral Reef Driver of Degradation Addressed	Linked Programme Outputs	GFCR Grant Request (USD)	Readiness stage	Implementing Partners
1. Egyptian Fund for Coral Reefs	Diverse	Hurghada Region	Multiple Drivers: Technology and community driven solutions for diverse drivers	**Output 1.1:** Egyptian Fund for Coral Reefs established, capitalized, and operational **Output 1.3:** Blended finance opportunities for coral reef-positive businesses successfully implemented in partnership with banks and other finance institutions	**TOTAL: $6,350,000** **Phase I:** $1,350,000 for activities to establish & operationalize the Fund **Grant co-financing:** $45,000,000 (initial fundraising target)	Design	USAID (anchor donor); HEPCA, EEAA (Nature Conservation Sector)
2. Coral Reef Business Incubator	Diverse	Hurghada Region	Multiple Drivers: Technology and community driven solutions for diverse drivers	**Output 1.2:** Coral Reef Business Incubator established that develops, funds, and supports scaling of reef-positive micro, small, and medium-sized enterprises (MSMEs) and other coral-friendly organizations, community initiatives, and businesses that benefit local communities, women, and youth	**TOTAL: $900,000** **Phase I:** $350,000 (grant) **Grant co-financing:** $0	Incubation	Venture Capital and other investment partners; HEPCA
3. Sustainable community	Ecotourism	Wadi EL Gemal	Tourism Pressure: Provide a sustainable	**Output 1.3:** Blended finance opportunities for coral reef-	**TOTAL: $457,000** **Phase I:** $242,000 grant	Incubation	Gorgonia Hotel, Abu Ghosoun

[17] During Phase I (months 1-18) of the GFCR programme, funding for the activities of the Solutions described in this table will come from the GFCR programme budget (under Output 1.3); during Phases II and III, funding (where applicable) would come from the Egyptian Fund for Coral Reefs endowment (under Output 1.1). Spending levels for the Phase II and III activities are indicative only and may change based on results during Phase I and overall budget availability.

Ecotourism in and around Wadi El Gemal			community based tourism model for avoiding over-tourism in southern Red Sea	positive businesses successfully implemented in partnership with banks and other finance institutions	**Grant co-financing: $1,478,000**		Community Development Association (AG-CDA), Wadi El Gemal NP
4. Organic Waste Upcycling for Urban Farming	Waste Management	Great Fringing Reef (Hurghada through Wadi EL Gemal)	Waste & Plastics: recycling organic waste and treated wastewater to foster urban farming around Hurghada	**Output 1.3:** Blended finance opportunities for coral reef-positive businesses successfully implemented in partnership with banks and other finance institutions	**TOTAL:** $350,000 **Phase I:** $145,000 **Grant co-financing:** $180,000 (HEPCA) $200,000 (Red Sea Investor's Society)	Design	HEPCA
5. Coral Reef Aquaculture for Ecosystem Resilience and Aquarium Trade	Mariculture	Port Ghalib, Great Fringing Reef (Hurghada through Wadi El Gemal)	Overfishing: Mariculture reduces threat of live harvest on reefs; provides alternative livelihoods for fishers; may produce animals for transplant onto coral reefs to restore native populations	**Output 1.3:** Blended finance opportunities for coral reef-positive businesses successfully implemented in partnership with banks and other finance institutions	**TOTAL:** $445,000 **Phase I:** $240,000 **Grant co-financing:** $200,000 (HEPCA) $205,000 (Univ. of Bristol)	Incubation	HEPCA, Suez University, University of Bristol (UK)
6. Great Fringing Reef Mooring Systems upgrade	Ecotourism	Great Fringing Reef (Hurghada through Wadi EL Gemal National Park)	Tourism Pressure: Pressure on Red Sea dive and snorkel sites reduced through better quality and high-technology moorings with self-financing system	**Output 3.3:** Innovative financing mechanisms for MPAs and other marine conservation approaches operationalized	**TOTAL:** $360,000 **Phase I:** $125,000 **Grant co-financing**: $470,000 (HEPCA) $40,000 (Red Sea Governorate) $120,000 (Min. of Env.) $525,000 (tbd)	Design	HEPCA, Red Sea Protectorates, Red Sea Governorate, Chamber of Diving and Water Sport, Red Sea Investors Society

2.2 Solution #1 - Egyptian Fund for Coral Reefs[18]

Introduction and Summary

One of the main sustainable finance outcomes of the programme will be the design, establishment, capitalization, and operationalization of the Egyptian Fund for Coral Reefs (EFCR), a conservation trust fund whose mission is to support the long-term conservation and sustainable use of Egypt's coral reef ecosystems in the Red Sea. The EFCR is expected to pursue three key overarching strategies: 1) the provision of grants (traditional and recoverable[19]) for conservation activities and early stage reef-positive businesses (the ratio of grants for traditional conservation vs. reef-friendly businesses, as well as the size of grants and the size of target businesses / projects, will be determined during the design of the Fund during Phase I); 2) support for and potential deployment of blended finance tools[20] that will mobilize and leverage private capital for scaling reef-positive activities in the Egyptian Red Sea; and 3) financial support for the operation of a blue economy incubator – currently described as the Coral Reef Business Incubator (CRBI) -- to generate a viable pipeline reef-positive businesses and finance mechanisms. Guidelines and potential design considerations for EFCR have been proposed by USAID through the Climate Finance for Development Accelerator (CDFA) and are included in the report "Egypt Red Sea Initiative: Structuring Options and Roadmap for an Egypt Red Sea Conservation Trust Fund" included in Annex XIX. The complete design, creation, and capacitation steps required for a well-designed and capitalized Fund will build from these efforts and are expected to require significant support over a 1-2 year period.

Theory of Change and Drivers of Degradation

The Egyptian Fund for Coral Reefs is a core response of the GFCR to the challenges of sustainable finance for coral reef ecosystems in Egypt. Because the health and well-being of these ecosystems is so closely associated with a major economic driver in coastal Egypt – coral reef related tourism – it is essential for the local economy, local populations, and for the coral reef ecosystems themselves that adequate and sustainable financing is assured for the long term. Well capitalized foundations and conservation trust funds have been proven to play an essential role in complementing and enhancing government and other sources of capital to assure long-term conservation and sustainable development of priority ecosystems such as the Galapagos Islands (Galapagos Foundation), Costa Rican Forests (Costa Rica Forever), and the Amazon rainforests (FUNBIO). The blended finance approach being implemented by the Global Fund for Coral Reefs is highly appropriate for the situation along the southern coast of the Egyptian Red Sea since the establishment and operationalization of a Fund built around this approach is highly likely to generate substantial financing and to be directly aligned with the sustainable development objectives of the Government of Egypt, the Global Fund for Coral Reefs, USAID, UNDP, and the Fund's donors. The key performance indicators and targets to address the drivers of degradation are detailed in Annex VI.

Background

[18] Note: Additional details on each of the 6 proposed GFCR Solutions are provided in Annex VI

[19] Recoverable grants are, as the name implies, grants to be repaid to the EFCR over a set period, and with no interest.

[20] Blended finance is the use of catalytic capital from public or philanthropic sources (e.g. grants, technical assistance) to increase private sector investment in sustainable development. The EFCR Board may also select to use other forms of blended finance, such as concessional loans and financial guarantees; this will be determined once the board is operational

See Annex VI

Success Factors and Challenges

A general risk is that the Fund does not raise adequate finance to assure its long-term functioning, cover its administrative costs, and finance key essential activities in the Egyptian Red Sea target areas. This risk will be significantly reduced by establishing the Fund as an independent entity or conservation trust fund (following globally recognized Best Practices[21]) as this will facilitate significant private donations at the scale needed to achieve its mission and objectives. The legal structure must also be designed so that there is minimal risk of diversion of resources to organizations or actions that are not aligned with the Fund's mission. The fact that US$ 5 million in grant funding will be allocated directly to the Fund upon its creation and operationalization will help to achieve these targets and encourage other donors to complement these initial funds.

Revenue and Financial Sustainability

The Fund will be designed for financial sustainability through a combination of approaches, including: active fundraising including capital campaigns, international and national investment in a balanced and professionally managed financial portfolio; and possibly impact investments and blended finance structures associated with the Fund's programs. The initial capital campaign will seek to raise approximately US$50 million as the main initial funding for the Fund ($5 million of the programme budget has already been designated for the Fund's endowment to go entirely to financing projects / businesses). The costs to establish the EFCR and make it operational (US$ 253,000) by the end of the initial implementation phase (the first 18 months) will be covered from the remaining $9.25 million in the GFCR programme budget; after this, the EFCR operating costs will be covered by the EFCR itself. Initial outreach has begun to identify potential donors, but a resource mobilisation plan will need to be developed and implemented during the first phase of the programme and will continue in subsequent phases. The amount of funds raised that will enter into the EFCR's endowment will depend on 1) donors' wishes (some donors do not like endowments), 2) the amount of money raised, including pass-through grants that allow other monies raised to go into the endowment, and 3) the cost efficiency of the Fund itself – if it can keep costs low for operations, more money can be saved in an endowment). The international and national investments will be managed by a professional financial management company (e.g. Barclay's, UBS, etc.) that will be chosen through a call for proposals and a rigorous procurement process overseen by the Board once it is in place.

Development Plan and Milestones

The governance structure, management, and administrative operations of the EFCR will be elaborated during the first phase of the ERSI program. The steps outlined below represent initial recommendations for consideration but should be evaluated after full consultation with all key stakeholders.

Fund Planning and Set-Up Phase (Months 1-12)

- Collate and analyse data to produce a stakeholder mapping and engagement process, to include analysis and interpretation of results from existing EFCR proof-of-concept projects.

[21] Bath, P., Luján-Gallegos, V. and Guzmán-Valladares A. (2020), 'Practice Standards for Conservation Trust Funds - 2020 edition,' Conservation Finance Alliance.

- On-going stakeholder consultations to develop a preliminary EFCR mission, vision, theory of change, and measurable objectives.
- Validate threats, risks, and opportunities to support consensus on the EFCR mission, vision, theory of change, and measurable objectives.
- Map the legal steps to register the EFCR as a legal entity and assign responsibilities for completing the legalization process.
- Delineate the governance, administrative-management, and financial structures for the Fund.
-
- Hold exploratory discussions with potential funders

Fund Establishment Phase (Months 13-18)

- Create terms of reference for members of the Board of Directors
- Identify and establish Board of Directors; select a Board Chair
- Draft fund bylaws
- Identify appropriate committees to support Board operations; create terms of reference for members of committees; establish Board committees
- Legally register the fund
- Prepare the Fund interim operating procedures and a draft Operations Manual
- Validate Operations Manual and other operating documents.
- Prepare terms of reference for Fund Chief Executive Officer (CEO) and other staff; carry out search and contracting process for the CEO; Administrative Assistant; and Financial Manager
- Define training and capacity building needs for EFCR Secretariat staff and board members
- Implement training/capacity building/planning exercises with EFCR Secretariat (staff) and board members to build capacity in the planning, implementation, and adaptive management of sustainable marine infrastructure, blue economy, and ecosystem-based adaptation projects.
- Establish the Fund bank account(s), physical office, and administrative framework.
- Prepare 5-year Strategic Plan and associated 2-year Action Plan.
- Develop terms of reference for investment advisory services; establish an Investment Policy
- Complete donor agreements to capitalise initial Fund accounts
- Develop long-term fundraising and capitalization plan.
- Develop and implement the Communications-Marketing-Outreach strategy (including a logo, website, social media, etc.)

Operations and Growth Phase (ongoing)

- Implement long-term fundraising and capitalization plan.
- Issue first call for grant proposals (as described under Activity 1.1.3; the frequency and scope of the call for proposals, and the number of businesses or conservation projects supported through each call, will be determined by the Fund itself once it is operational)

Finance Tools

See Annex VI for details on tools including:

- Resource Mobilisation for the EFCR
- EFCR Program Finance
- Blended Finance

- Endowment and Sinking Fund Management

Beneficiaries
The main beneficiaries of the Fund will be approximately 200 persons in communities dependent on coral reef ecosystem who are directly employed in sustainable businesses supported by the EFCR. See Annex VI for additional details.

Implementing Partners
Implementing partners for the Fund are expected to include EEAA (Nature Conservation Sector), USAID as the anchor donor, and the Hurghada Environmental Protection and Conservation Association (HEPCA) as a key affected party.

Co-financing
Co-financing will come from the wide range of donors who will likely contribute to the Fund. The target capital raise will be US$50 million. Thus, an additional US$45 million US will be targeted to complement the initial financing of US$5 million from USAID to be raised over the life of the ERSI project.

Key Performance Indicators and Targets
See Annex VI

Overview of Grant Financing Needs

18-month GFCR Grant Cost (USD)	Total GFCR Grant Fund Cost Estimate (USD)	Grant Co-financing (source)	TOTAL (USD)
727,000	5,650,000	45 million (target of fundraising)	~50 million

Revenue Generation (USD/yr)	Commercial Investment (USD)	Debt, Equity, or N/A	Type of Investor (Public or Private)	GFCR Grant to Commercial Investment Leverage
2,500,000/yr. (50 million endowment earning 5% annual returns)	Only co-investment	Diverse	NA	TBD – target 1:3 minimum

2.3 Solution #2 - Coral Reef Business Incubator

Introduction and Summary
The creation of a Coral Reef Business Incubator (CRBI or "Incubator") is a key solution for the ERSI GFCR programme. The CRBI will include elements of a venture studio, incubator, accelerator, and technical assistance facility, enabling it to support companies and non-profits at a wide range of implementation phases from initial concept through growth stage. The CRBI will be a component of the EFCR (once it is established). The CRBI is expected to provide incubation, technical assistance, etc. to community and non-profit led projects supported by the GFCR programme that have revenue potential but limited prospects for commercial returns on investment. It is expected to provide incubation, technical assistance, etc. to businesses with high potential returns that will receive funding from the EFCR, or also from venture capital investors or other financial partners providing concessional and commercial loans.

The Incubator will be financed initially by the GFCR programme, and then through the budget of the EFCR (once it is established). It is also expected that the CRBI will be able to use a range of technical assistance and finance instruments, including grants (i.e. open calls with prizes), reimbursable grants (or forgivable loans), equity, convertible debt, etc., to support, incentivize, and invest in start-ups, small to medium sized enterprises (SMEs) and other coral-friendly organizations, community initiatives, and businesses that benefit local communities, women, and youth. All of the said instruments will be within the setup and programs developed within the EFCR.

Theory of Change and Drivers of Degradation

The CRBI is designed at its core to address drivers of coral reef degradation through supporting enterprises that seek to address one or more of these drivers. As well, the socio-economic development goals of the Incubator are highly compatible with the GFCR's four main outcomes. The key performance indicators and targets to address the drivers of degradation are detailed in Annex VI.

Background

See Annex VI

Success Factors and Challenges

The success of an incubator includes its success at implementing its mission (for mission driven incubators) and its financial success – or the success of its incubated enterprises. Regardless of the financial model, the likelihood of achieving successful development of enterprises and ultimately of establishing a vibrant entrepreneurial ecosystem depends on the quality of the business and other expertise that the incubator is providing – i.e. the quality of the technical assistance. Another key element is the choice of projects – this is usually done within the process of the EFCR. It could also fall as an applicant within the competitive programs of the EFCR. When an incubator such as this one has such a strong thematic mission – coral reef conservation – scientific expertise will also be needed to evaluate the potential impacts (positive and negative) of various business propositions.

Revenue and Financial Sustainability

The CRBI will generate revenues from selling its technical assistance services – business plan preparation, investment guidance, etc. – but most incubators operate with outside funding so that they do not require financing from the businesses themselves for the provision of services. As such, the CRBI will initially not seek to generate revenue at all but will be funded through grants. The CRBI may make equity investments in some of the incubated businesses or retain equity in some of the enterprises that arise from the venture studio. These shares in companies may become valuable if there is an "exit event" where the enterprise is acquired by another company or the incubator is somehow bought out of its ownership stake. Another potential source of revenue could be the sale of intellectual property derived from innovations developed during the course of venture studio operation (i.e. the Incubator's own ideas). All investment and revenue generation will be in the name of the EFCR and within its governance structure.

Development Plan and Milestones

The CRBI should be developed at the programme start with a call for proposals for the establishment and technical assistance for the management of the CRBI and all the services described in this solution. This call for proposals will be overseen by both the EFCR Board and the ERSI Project Selection and Investment Committee and further on by the ERSI Steering Committee. Once the Technical Assistance of the

Incubator has been selected, a collaborative process should be established to plan and design the details based on the interest and competencies of the selected Incubator implementor. The primary milestones for Phase I include: 1) finalizing Terms of Reference for the call for proposals or "Request for Appraisal" if a sole provider can be arranged; 2) contracting of the Incubator service provider TA); 3) establishment of physical premises; 4) team recruitment; 5) Call for Proposals; and 6) First Incubation Round. Additional details on the milestones, and the number of participants and activities, are provided in Annex VI.

Finance Tools

The Incubator (EFCR) will be providing support to entrepreneurs, MSMEs, non-profits and other organizations[22] in various ways including but not limited to:

1. Grants – mostly in forms of prizes for successful calls for proposals or competitive bids.
2. Technical Assistance – during incubation rounds and directly to target enterprises.
3. Debt and Equity – ownership shares received in exchange for services or for direct investments. If a partner VC or fund is working with the Incubator, then that fund can make these investments rather than the Incubator itself. Debt can be either in the form of forgivable loans, convertible debt (convertible to equity), or concessional to market rate debt. The level of investment will vary for different recipients, but will be based on their capacity for absorbing investment.

Beneficiaries

At least 90 persons directly employed and at least 60 new sustainable business concepts supported[23] in communities dependent on coral reef ecosystems (at least 50% women and/or youth). See Annex VI for additional details.

Implementing Partners

A number of established venture capital and incubator operators in Egypt (including the Climate Resilience Fund, Sultan Ventures, and others) have been identified as potential contracted partners to manage the CRBI. However, as there will be a public call for proposals to operate the incubator, no agreements have been developed with any potential partners at this time.

Co-financing

A partner VC or investment fund will provide co-financing once the Incubator operating company is chosen. The amount of co-financing will be determined by the partner fund but should be roughly equivalent to the amount being granted to the Incubator – resulting in a minimum co-financing ratio of 1:1. This will be one of the selection criteria for the call for proposals.

Key Performance Indicators and Targets

See Annex VI

[22] The mix of companies / organizations supported be determined as the incubator begins operations, but it is estimated that 80-95% of the potential "market" will be MSMEs (including community-based) and only 5-20% will go towards companies with true "venture" funding potential

[23] Many of the 60 enterprises may only be supported for incubation or training; i.e. the target of 60 is not for viable functioning enterprises. So, the target of 90 employees assumes that this would be the number of persons employed at 8-15 functioning enterprises (approx. 7-10 jobs per company)

Overview of Grant Financing Needs

18-month GFCR Grant Cost (USD)	Total GFCR Grant Fund Cost Estimate (USD)	Grant Co-financing (source)	TOTAL (USD)
350,000	900,000	0	900,000

Revenue Generation (USD/yr)	Commercial Investment (USD)	Debt, Equity, or N/A	Type of Investor (Public or Private)	GFCR Grant to Commercial Investment Leverage
TBD	2M	Debt and Equity	Estimated 2 million in venture capital funding for the overall CRBI portfolio	(1:1) with potential for substantial follow on Investment

2.4 Solution #3 - Sustainable community Ecotourism in Wadi El Gemal

Introduction and Summary

Gorgonia Hotel in partnership with Wadi El Gemal National Park (WEGNP) and the Abu Ghosoun Community Development Association (AG-CDA) has developed a community eco-tourism investment opportunity to support local communities while providing alternative tourism experiences that will reduce the pressure on coral reefs in and around the WEGNP located on the southern Red Sea coast of Egypt. The project will initially focus on several elements for community ecotourism development and is designed to be expanded once successful to other areas and activities, including: 1) Ecotourism Concession Site Development and Management at Hankorab Beach and Qulaan Bay / Beach; 2) a new Crossbill Guide https://crossbillguides.nl/crossbill-guides/ for Wadi El Gemal to promote ecotourism; and 3) Alternative Desert Tours (E-Bike and Unimog trips - to be developed with outside financing). The proposals cited here include activities that would take place inside the Wadi El Gemal National Park under a proposed concession agreement with the Egyptian Environmental Affairs Agency (EEAA).

Currently in the area around Wadi el Gamal NP, levels of tourism are still relatively low and having only a minimal impact on the reefs. However, communities in this part of the coast are eager to avoid the mass tourism and significant ecosystem degradation that has occurred in the Sharm el Sheikh and Hurghada areas. The partners for this community ecotourism solution, who have 20 years of experience in the area of Wadi El Gemal, believe that desert visit experiences will attract a different type of guest; i.e. rather than increasing the number of visitors, they will attract guests ready who are interested in the ecological and cultural / historical attractions of the desert environment and who wish to support community-led efforts. Furthermore, tourism is coming to this part of the coast no matter what, and the goal of the partners is to develop all tourism in the area in a way that 1) pays close attention to risks to the environment; 2) provides a diversity of options for tourists; and 3) includes strong community engagement and benefit so the communities respect the regulations and do not contribute to ecosystem degradation.

Theory of Change and Drivers of Degradation

The programme's theory of change recognizes that high levels of tourism visitation in parts of the Egyptian Red Sea (e.g. Sharm El Sheikh, sites around Hurghada) are one of the leading drivers of coral reef ecosystem degradation as well as a threat to the very ecological values that drive tourism in the region – i.e. the incredible beaches and coral reefs of the Red Sea. The proposed solution will establish culturally supportive alternative ecotourism options in the area of Wadi El Gemal National Park to give visitors

alternatives to diving and snorkelling, before tourism visitation can cause significant ecological damage in the area, and in doing so, will demonstrate how more sustainable tourism can be developed throughout the southern Red Sea area. Furthermore, by strengthening community organizations and involvement and by increasing local employment in other forms of ecotourism, the solution will reduce community impacts on the reef from overfishing. The community ecotourism solution will be supported by programme activities under Output 2.1 to revise regulations regarding concession investments inside of Protected Areas, and to work with policy makers, universities, NGOs, etc. to develop policies that support transition from mass tourism models to sustainable tourism; under Output 2.2 to raise awareness on sustainable marine tourism practices through the Green Fins programme; under Output 3.2 to ensure that a higher percentage of MPA revenues (mainly from visitor fees) flow back into MPA management (incl. visitor management); and under Output 3.3. to establish moorings systems that will reduce visitor impacts on coral reef ecosystems. The key performance indicators and targets to address the drivers of degradation are detailed in Annex VI.

Background
See Annex VI

Success Factors and Challenges
Some key success factors include the continuing strong relationship between the Gorgonia Hotel and the Abu Ghosoun Community Development Association. There do not, at present, appear to be any risks to this relationship and this project will help to strengthen this partnership through joint finance and enhanced collaboration on these projects. Some risks include the low level of finance – indications are that WGNP is underfunded (based on the WGNP Management Plan[24]) – currently allocated to Wadi El Gemal National Park from the GoE and the risks that this poses to the adequate management of the Park infrastructure and conservation efforts. It should be noted that any construction activities within the Park or near the coast or other fragile ecosystems should undergo a social and environmental assessment at least commensurate with the existing legislation and GFCR safeguard requirements.

Revenue and Financial Sustainability
The main revenue source is direct charges and revenues generated by the tourism offerings and concessions. Although the sale of food and drinks at the proposed concessions will generate revenue, the operations must be managed in an efficient and high enough quality manner as to generate profits that can then be reinvested in the operations and ultimately shared with the community. The desert tours – such as the e-bike tours or the Unimog tours – will have a strong revenue stream. All of the additional service and tour offerings, along with the marketing efforts that Gorgonia is prepared to make, will increase the number of visitors to Wadi El Gemal National Park and thus increase entry fees being captured by the EEAA.

Development Plan and Milestones

[24] Financial information from Wadi El-Gemal Management Plan 2012 (UNDP-GEF-EEAA)
- The recurrent budget required to support management activities is EGP1,788,100 comprising EGP1,438,100 for operations and EGP 350,000 for salaries and wages.
- An investment of EGP1,700,000 is required for Wadi El-Gemal to improve tourism services.
- Wadi El-Gemal requires two new 4x4 vehicles, one new multipurpose tank vehicle, office (computers), field (GPS, cameras, etc.) equipment, solar energy system, and staff uniform costing EGP 1,748,000.

Phase I includes the following milestones:

- Purchase of e-bikes and expansion of desert tours offering
- Planning and site development at Hankorab Beach and Qulaan Bay and Beach (trail repairs; training centre; training of snorkel guides; cultural centre; eco-lodges; and other visitor facilities)
- Language training and operations training
- Marketing

Following successful implementation of these plans in the first 18 months to 2 years, additional activities will be implemented. Additional details on the milestones are provided in Annex VI.

Finance Tools

The finance tools that will be used for this project include GFCR Grants to the Abu Ghosoun Community Development Association, potential concessional finance for the AG-CDA in later stages (or at least reimbursable grants), asset-based financing (to be explored for the Unimog), and co-financing from Gorgonia that is generated from hotel revenues. As noted above, revenue generated from Park entrance fees should support the Park management and infrastructure. Although Gorgonia has strong business experience and will directly support the AG-CDA on this project, there is also the possibility of technical assistance support from the coral reef-positive incubator being developed and supported by the project.

Beneficiaries

See Annex VI

Implementing Partners

- Abu Ghosoun Community Development Association: Lead community organisation implementing this project in close collaboration with the Gorgonia Beach Resort and the National Park.
- Gorgonia Beach Resort: Eco-tourism hotel located at the entrance to Wadi El Gemal National Park; it is the lead technical partner and will provide co-financing and technical oversight on the project.
- Wadi El Gemal National Park: Managed by the Egyptian Environmental Affairs Agency, park staff are key partners and will be totally integrated in all aspects of the project that touch the Park.

Co-financing

This project is moving forward with strong cash and in-kind financing from the Gorgonia Hotel totalling up to a minimum of 114,000 USD in cash and an estimated 461,000 USD in in-kind services. If Gorgonia is able to find the financing for the Unimog, then an additional 250,000 USD will be brought in through either concessional finance or through a grant.

Key Performance Indicators and Targets

See Annex VI

Overview of Grant Financing Needs (additional details in the budget in Annex V)

18-month GFCR Grant Cost (USD)	Total GFCR Grant Fund Cost Estimate (USD)	Grant Co-financing (source)	TOTAL (USD)
242,000	457,000	598,000 USD (Cash co-financing Gorgonia) 480,000 USD in-kind co-financing (Gorgonia)	1,536,000

Revenue Generation (USD/yr) -	Commercial Investment (USD)	Debt, Equity, or N/A	Type of Investor (Public or Private)	GFCR Grant to Commercial Investment Leverage
300,000/year once fully operational (100,000 for each of two sites + 100,000 for e-bike tours)	TBD	Debt	TBD	(1:x) TBD Limited likelihood for this small community organization / project

2.5 Solution #4 - Organic Waste Upcycling for Urban Farming

Introduction and Summary

The city of Hurghada produces over 100 tons of organic waste daily (from restaurants, hotels, resorts) and approximately 50 tons more from landscaping of public areas[25], and disposing of such quantities in landfills results in significant greenhouse gas emissions and risks to the marine environment. The city also produces more than 90,000 m^3 per day of treated domestic wastewater. Recycling of this organic waste and wastewater could greatly mitigate the potential harmful impacts these waste flows have on human health and the Egyptian Red Sea's coral reefs, and the production of usable compost and water for agriculture from these waste flows is a potentially sustainable and cost effective solution. This programme will build the capacity of HEPCA to recycle organic waste and wastewater and use these products to foster and expand urban farming around Hurghada, while also promoting sustainable agriculture practices and economic opportunities for local farmers. To achieve these goals, HEPCA will create a compost production facility and establish a pilot hydroponic greenhouse for ornamental and garden plants using the compost produced from organic waste and the treated wastewater. The compost produced and the treated wastewater will be used for the pilot greenhouse production; in addition, much of the compost will be sold to hotels etc. for use in landscaping, and eventually sold to a nearby farm owned by a government owned company (Ganoub El Wadi) with 3,000 acres of land planted with jojoba (*Simmondsia chinensis*).

Theory of Change and Drivers of Degradation

The project will seek to reduce the flow of untreated wastewater onto reefs by eliminating the flow of organic waste into Hurghada's main landfill, which is located approximately 2 km. from a shoreline that is replete with fringing reefs. Seawater intrusion in this area of the coast can potentially extend several kilometres inland, and the decomposed organic waste in the landfill has the potential to reach the inland seawater table and then flow into the sea, particularly at times when flooding discharges water back into the sea in large volumes. The loading of organic matter and nutrients is directly tied to algal growth and related damage to coral colonies through competition for space and reducing coral resilience. The proposed solution will not only address this threat to coral reef ecosystems, but also produce alternative livelihoods for local farmers, and generate sustainable revenue for HEPCA – the leading Egyptian Red Sea coral reef conservation organization. The organic waste upcycling solution will be supported by activities under Output 2.1 to strengthen water quality regulations and permitting mechanisms. The key performance indicators and targets to address the drivers of degradation are detailed in Annex VI.

[25] Information provided by HEPCA, personal communication with Dr. Mahmoud Hanafy

Background
See Annex VI

Success Factors and Challenges
This solution seeks to make use of a current waste stream and turn it into a useful material to grow products in an area where there exists a high demand for flowers and ornamental plants (from approximately 700 hotels and resorts) but no local supply. Success is highly dependent on technical support being provided by experts in composting organic waste from cities the size of Hurghada, which exists globally and can be brought in through international partners / consultants. However, as this is a new activity in the region, there are multiple challenges that are mainly operational and financial, including staff capacity and limited local experience in growing these plants and serving the local market.

Revenue and Financial Sustainability
This activity will require initial investment and then should be self-financing after 4-5 years. Revenues are generated already from the contract that HEPCA has with Hurghada city to collect and treat the city's waste streams. Additional revenue will be generated from the sale of flowers and non-edible plants and eventually from the sale of compost for the regions' local farmers. Details of the revenue streams and the specific business plan will be developed during the second year of the project.

Development Plan and Milestones
Key milestones under Phase I include:

- Prepare 6 hectares of land as the pilot site to support a compost production facility, greenhouse and garden
- Establish a system for the collection of organic waste and delivery to the compost production facility
- Establish a pilot compost production facility
- Establish a greenhouse for the cultivation of non-edible plants (garden and ornamental plants and flowers) based on the produced compost and the desalinated and treated wastewater.
- Install a small desalination plant[26]

Additional details on the milestones are provided in Annex VI.

Finance Tools
This project will require grant funding from the GFCR for the first phase and may reach a stage where concessional loans will be helpful for expanding the composting facility, the plant production facilities, or both depending on market demand.

Beneficiaries

[26] This is freshwater from the sewage treatment plant that has relatively high salt content of 2.3 parts per thousand (ppt), due to the fact that some of the city pumping stations are affected by underground salt water leaks from the sea. This water is suitable for the cultivation of most ornamental plants; however, some of the target plant species for cultivation need freshwater with less salt content. For this reason, a desalination unit with a capacity of 10m3/day is necessary to reduce the salt content to less than 0.2 ppt. The expected resulting effluent from this unit will have a salinity level of 4.5 ppt, which is still classified as freshwater and can be used for the cultivation of certain plants, i.e. there will be no discharge of any effluent into the environment.

See Annex VI

Implementing Partners
Hurghada Environmental Protection and Conservation Association (HEPCA) has a contract with the city of Hurghada for solid waste management, including waste collection, street cleaning and recycling, with more than 600 employees and dealing with 400-500 tons of solid waste/day.

Co-financing
The main co-financing will come from HEPCA as it is currently running the waste management system for Hurghada and the diversion of organic waste can be incorporated into their ongoing operations – as such there is substantial in-kind co-financing being provided. Additional cash co-financing may be provided by HEPCA if needed.

Key Performance Indicators and Targets
See Annex VI

Overview of Grant Financing Needs (additional details in the budget in Annex V)

18-month GFCR Grant Cost (USD)	Total GFCR Grant Fund Cost Estimate (USD)	Grant Co-financing (source)	TOTAL (USD)
145,000	350,000	HEPCA: 180,000 Red Sea Investors Society: 200,000	730,000

Revenue Generation (USD/yr)	Commercial Investment (USD)	Debt, Equity, or N/A	Type of Investor (Public or Private)	GFCR Grant to Commercial Investment Leverage
TBD	TBD	TBD	TBD	TBD

2.6 Solution #5 - Aquaculture to support Coral Reef Ecosystem Restoration

Introduction and Summary
This solution proposes to cultivate various coral reef ecosystem species, including corals, giant clams, sea cucumbers, and reef fish, primarily for release back into coral reefs in the Egyptian Red Sea[27]. This solution will build on HEPCA's existing onshore reproduction and growth facility in Port Ghalib, where giant clams and sea cucumbers have been successfully propagated and reared for sale for 7 years. The facility currently produces 100,000 clams (of 3 different species) per year, some of which are sold through the international aquarium trade and the rest of which are released into coral reef ecosystems in the Egyptian Red Sea. In 2022-2023, HEPCA sold almost 20,000 clams, and at present there are over 150,000 clams in the hatchery and growing area. As of late 2023, HEPCA has released several hundred animals of two species of Tridacna as part of a pilot program while it waits for the Ministry of Environment to prepare a protocol for restoration. Expanding this operation to collect and rear early life stages of corals and fishes

[27] A portion of the cultivated coral will be sold, following recommended practice, as a way to reduce the trade in wild-collected corals (as the price of farmed coral is typically lower)

will represent a major new initiative for Egypt, and this facility will become a globally-recognised test and demonstration site for larval collection and coral reef restoration and restocking. In addition, this approach will provide livelihoods for local residents who might otherwise harvest animals from natural coral reef ecosystems, while also undercutting the market for wild harvested aquarium trade species (since HEPCA is able to cultivate species at a lower cost). At the same time, the programme's work under Output 2.1 to improve monitoring and enforcement of the aquarium trade, as well as under Outputs 3.2 and 3.3 to strengthen protection and financing of marine protected areas in the Egyptian Red Sea, will increase the likelihood that where corals are restored, they are also effectively protected.

Theory of Change and Drivers of Degradation

The solution would provide coral reef ecosystem health benefits by restoring populations of important species in locations where they have been depleted. In addition, the operation would be financially self-sustaining and generate both jobs and knowledge on how to raise key species ex-situ. As coral reefs degrade from the combined effects of both local (e.g. overfishing, sedimentation, pollution, visitor impacts) and regional (e.g. marine heatwaves, extreme weather events) stressors, natural coral regeneration becomes increasingly difficult. Coral habitat becomes less attractive to the settlement-stage larvae of the next generation that are critical to coral reef recovery, and filamentous algae, soft corals and sponges often replace reef-building stony corals, preventing recovery of habitable structure. The cues that larval corals, molluscs, crustaceans and fishes use to locate suitable settlement sites (e.g. olfactory cues from crustose coralline algae, soundscape cues generated by animals in healthy reef communities) are lost, meaning that degraded reefs are not repopulated normally. This project seeks to enhance natural regeneration processes by collecting coral larvae to rear through early life to maximise survival before returning them to their natural environment[28]. Moreover, the project will employ underwater speakers to recreate the acoustic cues that both attract wild larvae (acoustic enrichment) and retain larvae and juveniles at release sites (acoustic anchoring). At the same time, the project will also cultivate the eggs and larvae of coral reef fish and invertebrate species and release these into their natural environment so as to ensure sufficient herbivory function on degraded reefs to allow for hard coral growth and the reduction of smothering algae. The aquaculture and coral reef ecosystem solution will be supported by activities under Output 2.1 to investigate the potential for limiting the number of tourism boats allowed to visit certain coral reef zones, and to reduce overexploitation of reef organisms by the aquarium trade through improved monitoring and enforcement of the collection and trade of coral and other reef species. The key performance indicators and targets to address the drivers of degradation are detailed in Annex VI.

Background

See Annex VI

Success Factors and Challenges

Additional work is required to better understand the temporal and spatial patterns of larval production (spawning) and larval supply (arrival of larval fish after pelagic development) along the coast of Southern Egypt. Successful captive propagation from larvae requires careful control of the ex-situ environment including water quality, temperature, management for disease and mortality, sustainable food sources,

[28] HEPCA has extensive experience in monitoring mass spawning in corals, specifically mass spawning of 12 species of Acropora, and has piloted efforts at collecting coral larvae in the sea.

and a wide range of other issues. In addition, Egypt's discharge regulations require the responsible treatment of all waste streams and products to avoid risks to the existing healthy reefs. Finally, as with any young enterprise, there are multiple challenges and risks to achieving profitability.

Revenue and Financial Sustainability

The existing aquaculture production and research facility that will become the R&D and demonstration site is ready to expand operations for PCCR (post-larvae capture, culture and release). There is the potential for revenue through the culture of corals, mobile invertebrates and fishes, that could be sold in the aquarium trade, to public aquariums and museums, and to restoration programmes at other sites (e.g. hotels, harbours, coastline redevelopments). HEPCA's experience with fish aquaculture has shown that early life mortality at settlement can be >80%, but by rearing larvae through this fragile stage, and releasing 60% of the larvae, survival might be tripled compared to the wild, while still providing 20–40% of the larvae for revenue-generating supply chains. Revenue from sales could start to be realised in the third year of operations, with the first year being spent establishing the spatial and temporal patterns of larval production, and the second year focused on honing the aquacultural methods needed to maintain larvae and juveniles, and the approaches for releasing the majority of larvae into restoration sites. This proposed project is at the concept and design stage, with the aim to get to incubation and revenue generation in the third year and beyond. The potential for annual revenue generation is in the $100Ks to a few million USD over the next 5–10 years, depending on market demand.

Development Plan and Milestones

Key milestones under Phase I include:

- Develop a detailed work plan, including equipment, staffing, and operational needs
- Expand research and carry out pilot operations for the cultivation and release of corals, clams, sea cucumbers and reef fish species, including strategies / techniques for successful repopulation
- Pursue export permits for captive raised species
- Identify and ensure management and regulatory systems for pilot coral reef restoration areas
- Establish market relationships with aquarium buyers
- Develop business plan for project and determine if separate legal entity is needed.

Additional details on the milestones are provided in Annex VI.

Finance Tools

Initial funding will be in the form of grants to HEPCA. The development of a business plan will provide guidance on viable finance instruments and institutional arrangements that can support this solution over the long-term; these likely will include concessional loans or equity. This solution has the potential to attract public investment from port development and private investment from hotels, residential developments, dive industry and aquarium trade. This will allow expansion of the facility in Port Ghalib, and the roll out of similar facilities in nearby areas.

Beneficiaries

See Annex VI

Implementing Partners

This programme will be delivered through collaboration between:

- The HEPCA team will foster strategic links to the Government of Egypt and relevant Ministries (fisheries, environment, tourism), and support Egyptian students participating in the programme. HEPCA will host the programme, providing research facilities, local access to natural resources, and connections with tourism, dive industry, civic and governmental partners.
- Professor Steve Simpson[29] from the University of Bristol, a distinguished pioneer in coral reef restoration through the use of acoustic technology

Co-financing

Through GFCR funding, these active, scalable restoration approaches can be established in Egypt, providing a globally-relevant demonstration of new technologies that work in harmony with nature to accelerate coral reef recovery. HEPCA will provide its research facility at Port Ghalib as in-kind support. Additional co-financing will hopefully be provided by finance sources providing concessional loans or equity as well as from revenues that will be re-invested into the project to grow.

Key Performance Indicators and Targets

See Annex VI

Overview of Grant Financing Needs (additional details in the budget in Annex V)

18-month GFCR Grant Cost (USD)	Total GFCR Grant Fund Cost Estimate (USD)	Grant Co-financing (source)	TOTAL (USD)
240,000	445,000	200,000 (HEPCA) 205,000 (University of Bristol)	850,000

Revenue Generation (USD/yr)	Commercial Investment (USD)	Debt, Equity, or N/A	Type of Investor (Public or Private)	GFCR Grant to Commercial Investment Leverage
100,000 (estimate based on current revenues; revenues after scaling up will be determined in the business plan during Phase I)	TBD in the business plan during Phase I	Debt	Private (bank or VC)	TBD

2.7 Solution #6 - Great Fringing Reef Mooring Systems upgrade

Introduction and Summary

The Great Fringing Reef of Egypt is home to very high levels of tourism that provide both local livelihoods as well as larger economic benefits for Egypt and its travel industry. High visitation rates on specific coral reef sites have been managed for several decades by a system of moorings established and maintained by HEPCA and the Nature Conservation Sector of EEAA. The proposed GFCR solution seeks to strengthen the existing mooring system network managed by HEPCA by: 1) installing mooring systems that can

[29] https://www.researchgate.net/profile/Stephen-Simpson-2

accommodate the larger boats that are increasingly used by dive/snorkel operators; 2) creating a management plan to limit the size and number of boats visiting any given site based on that site's carrying capacity; and 3) putting in place a fee payment system (as part of the management plan) for the use of mooring systems to ensure the long-term maintenance and monitoring of the mooring system network.

Theory of Change and Drivers of Degradation

Previous studies have demonstrated that using an anchor in a coral reef area can damage 1-2 sq. meters of coral every time the anchor is used. Given that approximately 2,000 tour boats (snorkelling, diving, and island visits) operate on a daily basis in the Egyptian Red Sea area, and each boat will use its anchor at four sites per day on average, the potential for large-scale damage from anchoring directly on the reefs is extremely high. Furthermore, when large boats use mooring systems that are unsuitable for their use, they can not only dislodge the mooring system anchoring but also damage surrounding coral areas in doing so. Therefore, without the extensive network of mooring attachments established and maintained by HEPCA and partners, thousands of square meters of corals could be damaged on a daily basis. The mooring systems solution will be supported by activities under Output 2.1 to investigate the potential for limiting the number of tourism boats allowed to visit certain coral reef zones. The key performance indicators and targets to address the drivers of degradation are detailed in Annex VI.

Background

See Annex VI

Success Factors and Challenges

To succeed in upgrading and long-term maintenance of the mooring system, it will be essential to prioritize specific sites for the first few years, ensure the technical elements are compatible with current and future pressures, ensure adequate capacity and technical materials for the mooring installation and maintenance teams, and identify and operationalize long-term stable and adequate financing for ongoing maintenance as well as monitoring and evaluation. Some of the challenges to the success of this solution includes the current structure of financial flows for park and site visitation fees. Most fees collected at sites with moorings established and maintained by HEPCA are not returned to HEPCA or the protected areas at levels sufficient to support the maintenance of this critical infrastructure. Additional challenges include the limitations of current regulations on site visits, including the number and size of vessels allowed to visit specific sites.

Revenue and Financial Sustainability

The service charge for dive/snorkel boats that use the mooring systems has the potential to provide sufficient long-term financing to support the maintenance and ongoing expansion of the mooring system network in the Egyptian Red Sea. However, at present fees are not charged for the use of most mooring systems, and for those mooring systems where fees are in place the revenues are not always designated for use in maintaining the system. However, government authorities (i.e. Red Sea Governorate), HEPCA, and dive industry partners are all interested in expanding the visitation / mooring system fee structure to more sites (especially high visitation sites), strengthening the capacity to collect fees, and putting into place clear guidelines for the use of fees collected. In addition, the use of high tech solar powered mooring systems (e.g. the mooring system developed by BlueSeeds for the Mediterranean) that facilitate the

collection of fees and better management of site visits based on carrying capacity will be explored[30]. In recent years, HEPCA has allocated approximately US$ 550,000 that it has generated from its waste management and aquaculture businesses to install close to 40 new mooring systems at high priority reefs, and to build the capacity of the mooring system team of HEPCA. In addition, EEAA provides some materials and other support for the mooring system network. However, many other priority reef sites also need new mooring systems, and a sustainable business model is essential to ensure that these areas are also covered and that existing mooring systems are properly maintained over time.

Development Plan and Milestones
Key milestones under Phase I include:

- Determine mooring system site carrying capacities and develop a prioritized list of sites for installation of new or enhanced mooring systems
- Engage with local communities, government entities, etc. to gain support and build consensus
- Develop a management plan for the mooring system network
- Strengthen the capacity of HEPCA's mooring system team and procure equipment and materials
- Build awareness among divers and snorkellers on coral reef conservation and protection
- Create strengthened mooring systems designed to fit with the boat sizes and numbers operating at priority offshore diving sites and install a prototype at one of these sites
- Implement a management plan for mooring system network
- Continue to provide training and equipment and to build public awareness

Additional details on the milestones are provided in Annex VI.

Finance Tools
To secure the financial sustainability of the mooring system project and pave the way for commercial and public investments, various revenue streams will be developed over time, possibly including: Mooring System Service Charges; Entrance Fees; Tourist Engagement; Donor Support; Public-Private Partnerships; and Partnerships on Sustainable Tourism Initiatives. The revenue generated through these potential revenue streams will seek to sustain the mooring system over time and potentially demonstrate the long-term financial viability and attractiveness of future support to the mooring system and HEPCA to potential investors. By deploying grant capital strategically for these technical assistance and financial instruments, the mooring system project can develop a robust financial track record, improve its investment readiness, and demonstrate its attractiveness to commercial and public investors interested in sustainable marine conservation initiatives. This financial track record will be crucial for leveraging concessional loans, blended finance, and other financial instruments to further expand and scale the project. Additional details on Finance Tools are provided in Annex VI.

Beneficiaries
See Annex VI

Implementing Partners

[30] HEPCA has done an initial analysis of the BlueSeeds system but has not yet confirmed its suitability for use in the Egyptian Red Sea

This project will be led by HEPCA in collaboration with the following key partners: Red Sea Protectorates (EEAA); Red Sea Governorate; Chamber of Diving and Water Sports; and Red Sea Investors Society

Co-financing
Sources of direct and in-kind co-financing include the following: HEPCA; Red Sea Governorates; and MoE

Key Performance Indicators and Targets
See Annex VI

Overview of Grant Financing Needs (additional details in the budget in Annex V)

18-month GFCR Grant Cost (USD)	Total GFCR Grant Fund Cost Estimate (USD)	Grant Co-financing (source)	TOTAL (USD)
125,000	360,000	1,155,000	1,515,000

Revenue Generation (USD/yr)	Commercial Investment (USD)	Debt, Equity, or N/A	Type of Investor (Public or Private)	GFCR Grant to Commercial Investment Leverage
TBD (cannot be estimated until the legal basis for collecting service charges has been established, which will depend on the success of Phase I)	TBD	NA	NA	TBD

3 Replicability and Sustainability

The GFCR Solutions proposed for the ERSI programme are designed to be replicable, scalable, and sustainable during and beyond the programme life. This section summarises how each solution will pursue replicability and sustainability, and describes the programme's overarching sustainability exit strategy.

- Egyptian Fund for Coral Reefs: The EFCR is scalable and conservation trust funds have been used in many countries to support long term conservation and sustainable development[31]. Once established, the independent EFCR can focus on raising, managing, and strategically deploying capital to meet its conservation and sustainable development mission. The EFCR can seek to mobilize resources from diverse sources – including international donors, national governments, and the private sector – to assist multiple programs and projects carried out through non-governmental and community-based organizations, small and medium productive enterprises, and governmental agencies[32].
- Coral Reef Business Incubator: The Incubator could be replicable across different locations but is unlikely to be replicated within the same target localities until a robust entrepreneurial ecosystem is developed. On the other hand, the potential for significant scaling is there with the Incubator continuing to provide support as companies grow and seek growth capital. Although it is unlikely that the GFCR Investment Fund managed by Pegasus Capital Advisors (PCA) would be a potential investor in the Incubator itself (because Pegasus only considers very large investments), it would be possible

[31] https://www.conservationfinancealliance.org/10-year-review
[32] The legal analysis will determine the feasibility and process through which the EFCR can provide grants or other financial support to Government of Egypt and other public institutions.

for: 1) companies incubated to seek financing from the Investment Fund, and 2) an associated VC or other fund could be an interesting investment for the Investment Fund.

- Sustainable community Ecotourism in and around Wadi El Gemal: This solution for community-led ecotourism has the potential to be replicated at various locations along the coast of southern Egypt, including both those areas where tourism is already developing as well as the many sites along the coast with high tourism potential but no development as of yet. Because the primary beneficiaries are local inhabitants, the approach being used could be implemented in a wide range of tourism destinations where either local communities are not benefitting adequately from tourism, or there is a need to provide alternative locations and activities to take pressure off of fragile ecosystems.
- Organic Waste Upcycling for Urban Farming: Depending on the demand for organic compost in Egypt, the organic waste upcycling solution could be scaled up to eventually manage the entire organic waste stream coming from Hurghada (150 tons/day), as well as from other urban centres and communities along the Egyptian Red Sea coast.
- Coral Reef Aquaculture for Ecosystem Resilience and Aquarium Trade: The coral reef aquaculture solution is designed to be scalable, so that similar facilities could potentially be built at other sites on the Egyptian Red Sea coast. If successful, the solution will provide a valuable model for restoring and restocking coral reefs in the Egyptian Red Sea region where local stressors have damaged and degraded reefs, and for collecting early life stages of corals, fish and other marine creatures from areas with significant spawning activity to be translocated to areas where such species have declined and/or where natural settlement cues have been lost.
- Great Fringing Reef Mooring Systems upgrade: This GFCR solution is not designed to be scalable for investment from the GFCR Investment Fund managed by Pegasus Capital Advisors (PCA). However, the solution will provide opportunities for private financing in the future and will enhance the overall investment ecosystem in the programme target area.

Sustainability Exit Strategy

The EFCR represents the most important element of the programme's sustainability exit strategy, as the EFCR has a target of raising at least USD 50 million between now and 2050. The EFCR itself will be designed for financial sustainability, through a combination of approaches including: active fundraising including capital campaigns; international and national investment in a balanced and professionally managed financial portfolio; and impact investments and blended finance structures associated with the EFCR's programs. Initial outreach has begun to identify potential donors, and a resource mobilisation plan will be developed and implemented during Phase I of the programme and will continue in subsequent phases. International and national investments will be managed by a financial management company chosen through a call for proposals and a rigorous procurement process overseen by the EFCR Board once it is in place. The programme's policy coordination, institutional strengthening and financing mechanisms are essential to advancing the overall enabling environment for coral reef conservation in the Egyptian Red Sea and to facilitate the replication, upscaling and sustaining of policy changes, improved management, and the GFCR solutions after the programme has ended. In addition to the EFCR and CRBI, other key elements of the ERSI programme expected to develop technical and financial capacities to sustain coral reef conservation and financing in the Egyptian Red Sea over the long term include:

- Activity 1.3.1: Partner with banks and other finance institutions to create market-sensitive concessional finance options for reef-positive businesses. The programme will seek to develop partnerships with commercial, investment, and development banks as well as other finance

institutions such as non-profit microfinance institutions (MFIs) to create a blended finance ecosystem that encourages investments in reef-positive businesses and discourages investments in activities that harm the Red Sea environment.

- Activity 1.3.2: Develop innovative risk mitigation instruments such as financial guarantees or insurance products to encourage responsible private investment in reef-positive enterprises. In collaboration with commercial and development banks and insurance companies, explore options to develop financial and insurance products that can be combined with investments and other blended finance mechanisms to better build the ecosystem of reef-positive enterprise.
- Activity 3.2.1: Develop a management & business plan for the 'Great Fringing Reef Protected Area' based on extensive consultation and engagement with key affected parties. Develop a business plan for the GFRPA that includes MPA financing mechanisms to ensure financial self-sufficiency and sustainability, as well as clear and realistic budget plans for staff, equipment, materials, etc.
- Activity 3.2.2: Strengthen capacity of EEAA, HEPCA and other partners (local NGOs and community associations) to secure financing and implement the management and business plans for the Great Fringing Reef Protected Area. Establish partnerships to promote the GFRPA and support the financing of the GFRPA Management and Business Plan; and raise financing in collaboration with the Fund and other project partners to implement the Management and Business plans of the GFRPA.
- Activity 3.3.1: Assess, develop and implement financing mechanisms for MPAs, community-based conservation areas, and other marine conservation approaches (OECMs). Work with relevant partners to develop the processes, regulations, partnerships, etc. required to implement/strengthen MPA financing mechanisms at the three priority sites identified for this program, including for example: user fees, licences, or special use permits; tourism fees / taxes; revenues from fines and/or compensation payments paid by companies / individuals who are found to have damaged marine / coastal ecosystems; biodiversity offsets; community concessions for camping, restaurants, etc.

Finally, during the programme's Consolidation and Sustainable exit phase, the programme will utilize knowledge platforms and products (see Output 2.3) to ensure scale-up and replication of the programme's GFCR solutions and other results.

4 Governance and Management Arrangements

4.1 Programme implementation arrangements

4.1.1 Convening Agent

UNDP is the GFCR convening agent for the programme and will provide strategic guidance, engage with recipient partner organisations and governments, source investment opportunities for the programme's pipeline of interventions, ensure environmental and social safeguards are applied in all supported interventions, monitor results, and provide overall programme management. UNDP Egypt will support the Programme Management Unit technically and operationally, providing coordination across the different components of the programme and managing the day-to-day activities. UNDP will lead the reporting process on the programme's progress and management of the programme budget.

At the national level, the UNDP country office in Egypt has been working through a suite of interventions over many years to support the conservation of coral reefs and associated ecosystems. UNDP Egypt has been engaged in coral reef conservation through the GEF-funded project Financial Sustainability of Protected Areas, which included activities to support monitoring of coral reefs in South Sinai by MPA rangers and reporting to the Egyptian Environmental Affairs Agency (EEAA), as well as the GEF-funded Mainstreaming Biodiversity into the Tourism Sector project, which included activities to reduce the negative impacts of the diving sector on coral reefs and establish sustainable recreational diving programs. UNDP Egypt is also poised to launch the Green Sharm El-Sheikh project, which includes a component on the protection of the marine environment in Ras Mohamed and Nabq protected areas in South Sinai, as well as activities to reduce impacts on the marine environment from urban areas and tourism developments. In addition, the sustainable use of natural resources can barely generate adequate income for local communities if they are not built around tourism, which is a significant engine of growth for both the national economy and the development of local communities. For this reason, UNDP is also tackling the promotion of responsible and sustainable eco-tourism activities and, in doing so, is pursuing the integration of other potential local economic activities such as handcrafting, agriculture, bee keeping and fishing. UNDP Egypt also has experience in leveraging financing from development partners and vertical funds; in encouraging entrepreneurship and innovation; and in assisting MSMEs to participate in green growth by capitalizing on its partnership with ILO and UNICEF to promote financial inclusion and economic empowerment of youth and informal workers.

4.1.2 Key Partners

4.1.2.1 Co-recipients

Co-recipient Organisation	Role in Programme
UNDP Egypt will be the only direct recipient of GFCR grant funding.	Convening Agent

4.1.2.2 Co-implementers

UNDP Egypt will aim to collaborate with the potential co-implementors listed below. During full proposal development, initial conversations with these organisations were conducted and the organisations have indicated their interest in collaboration. During the programme Inception & Initial Implementation phase, full agreements will be put in place, and UNDP Egypt may also identify additional partners that will support implementation, including local NGOs, women and youth associations, the private sector, and academia.

Co-implementer Organisation	Role in Programme

Ministry of Environment (MoE) www.eeaa.gov.eg/	• Experience / Value Added: MoE works in close collaboration with national and international development partners on defining environmental policies, setting priorities and implementing initiatives within a context of sustainable development.
	• Project Outputs-Activities: MoE will play a leading role in the following programme outputs:
	  • 1.1: Egyptian Fund for Coral Reefs established, capitalized, and operational
	  • 2.1: Policy frameworks and institutional coordination strengthened for coral reef finance and conservation

	• 2.2: Productive sectors (e.g. fisheries, tourism, waste management) transition to reef-positive models through improved management and enhanced awareness and behavioural changes • 3.3 Innovative finance mechanisms for MPAs and other marine conservation approaches operationalized • Programme Governance: Egypt's Ministry of Environment will function as the Government Focal Point to the GFCR programme, as well as acting as one of the Co-Implementers for programme activities. MoE will also sit on the Programme Steering Committee and Technical Advisory Committee.
Egyptian Environmental Affairs Agency (EEAA) www.eeaa.gov.eg/	• Experience / Value Added: EEAA formulates environmental policies, prepares plans for environmental protection and environmental development projects, and functions as the national authority in charge of promoting environmental relations between Egypt and other States and regional and international organizations. EEAA is also the sole owner of Egypt's protected areas, including the priority sites for this programme, and has the full jurisdiction over them. EEAA manages the Wadi El Gemal National Park and has extensive experience in working with partners in that area, with which it will develop and manage the GFCR solution on "Sustainable community Ecotourism in and around Wadi El Gemal". EEAA's Nature Conservation Section has recently hired an additional 100 rangers in the Red Sea and South Sinai. • Project Outputs-Activities: EEAA will play a leading role in the following programme outputs: • 1.1: Egyptian Fund for Coral Reefs established, capitalized, and operational • 2.1: Policy frameworks and institutional coordination strengthened for coral reef finance and conservation • 2.2: Productive sectors (e.g. fisheries, tourism, waste management) transition to reef-positive models through improved management and enhanced awareness and behavioural changes • 3.2: Management & Business Plan developed for the newly established "Great Fringing Reef Protected Area" • 3.3 Innovative finance mechanisms for MPAs and other marine conservation approaches operationalized • Programme Governance: EEAA will sit on the Technical Advisory Committee
Hurghada Environmental Protection and Conservation Association (HEPCA) preview.hepca.org/	• Experience / Value Added: HEPCA's mandate is the protection and conservation of the land and marine ecology and the underwater environment of the coral reefs, land ecosystems of the Red Sea and its coastline. HEPCA has extensive experience in the areas in which it will support the implementation of three of the GFCR Solutions under Output 1.3, namely: • Organic Waste Upcycling for Urban Farming: HEPCA is the main waste management service provider in Hurghada under contract with the city. Their current responsibilities include collecting solid waste and separating recyclable plastics which are shipped to facilities along the Nile. • Aquaculture to support Coral Reef Ecosystem Restoration: HEPCA has an existing onshore reproduction and growth unit for giant clams (Tridacna) and sea cucumbers, as well as technical expertise and experience in working with local communities. HEPCA will be supported by Suez University (which will foster strategic links to relevant Ministries and support Egyptian students on the programme), and the University of Bristol - UK (which will provide expertise and equipment and support UK students on the programme)

	• Great Fringing Reef Mooring Systems Upgrade: HEPCA initiated the mooring system in the Egyptian Red Sea, which has evolved into the largest mooring system in the world with over 1400 moorings installed and maintained throughout Hurghada, Safaga and the South.
	• Project Outputs-Activities: HEPCA will be an important partner in the following programme outputs:
	  • 1.3: Blended finance opportunities for coral reef-positive businesses successfully implemented in partnership with banks and other finance institutions
	  • 3.1: Capacity to monitor coral reef conditions increased to support effective national and local decision making and investments in reef conservation
	  • 3.2: Management & Business Plan developed for the newly established "Great Fringing Reef Protected Area"
	  • 3.3 Innovative finance mechanisms for MPAs and other marine conservation approaches operationalized
	• Programme Governance: HEPCA will sit on the Technical Advisory Committee (and may be one of the rotating civil society members on the Programme Steering Committee)

Abu Ghosoun Community Development Association (AG-CDA) abughosoun.org/	• Experience / Value Added: The Abu Ghosoun Community Development Association (AG-CDA) mission is to provide development services to the local community so they can create jobs, build assets, and improve their standard of living. The AG-CDA will be the lead community organisation implementing the GFCR solution on "Sustainable community Ecotourism in and around Wadi El Gemal".
	• Project Outputs-Activities: AG-CDA will be an important partner in the following programme outputs:
	  • 1.3: Blended finance opportunities for coral reef-positive businesses successfully implemented in partnership with banks and other finance institutions, specifically Activity 1.3.3: Sustainable community ecotourism in and around Wadi El Gemal
	  • 3.1: Capacity to monitor coral reef conditions increased to support effective national and local decision making and investments in reef conservation
	• Programme Governance: AG-CDA may be one of the rotating civil society members on the Programme Steering Committee

Gorgonia Beach Resort gorgoniabeach.com/en/	• Experience / Value Added: The Gorgonia Beach Resort is located at the entrance to the Wadi El Gemal National Park. The company has received several international certifications recognising its environmental initiatives, works with local populations in a culturally sensitive manner, and is a close working partner with the Abu Ghosoun Community Development Association (AG-CDA) in providing culturally compatible and ecologically sensitive revenue generating opportunities for the local community while offering activities to Gorgonia's clients that do not include diving, snorkelling, and other activities that risk damaging reefs. Gorgonia is the lead technical partner and will provide co-financing and oversight for the GFCR solution on "Sustainable community Ecotourism in and around Wadi El Gemal". • Project Outputs-Activities: Gorgonia will be an important partner in the following programme output: • 1.3: Blended finance opportunities for coral reef-positive businesses successfully implemented in partnership with banks and other finance institutions, specifically Activity 1.3.3: Sustainable community ecotourism in and around Wadi El Gemal

	• Programme Governance: NA

4.1.3 Governance and Operational structure[33]

Key Partners for Programme Management and Oversight

This is a USAID financed and UNDP-implemented GFCR programme, in which USAID is the donor that is providing funds to the GFCR for an earmarked programme in Egypt; GFCR is the fund through which UNDP has been selected to become convening agent (implementer) of the programme, and UNDP is required to develop the programme in line with the GFCR's mission and outcomes.

The Government of Egypt (GoE) is the national partner and "owner" of the programme. Within GoE, the **Ministry of Environment** will function as the Government Focal Point to the GFCR programme, and as a Co-Implementer for programme activities (see Section 6.1.2). The programme also expects to work with other institutions within the Government of Egypt, including the Ministry of International Cooperation (MoIC), the Ministry of Tourism and Antiquities, and the Ministry of Housing and Urban Development.

USAID/Egypt is the funder and a key partner for the programme. A Letter of Exchange between USAID and GFCR (managed via MPTFO) has been signed. A Standard Administrative Arrangement (SAA) has been signed by MPTFO and USAID as required for submission of the programme proposal to the GFCR Executive Board. The USAID funds for the programme are earmarked by GFCR for UNDP and will be transferred to UNDP Egypt as phased tranches during implementation. Oversight and technical support will be provided by the UNDP Bureau for Policy and Program Support (BPPS) / Nature Hub with costs recovered.

The Global Fund for Coral Reefs (GFCR) will oversee the overall ERSI programme technically and operationally through the GFCR UN Global Team, which is accountable to the GFCR Executive Board. The Project Team, within UNDP Egypt, is responsible for ensuring that the programme is compliant with GFCR policies, standards and best practice, including strict GFCR M&E requirements (annual reports, mid-term, final reporting), and participation in the GFCR global community of practice.

UNDP Egypt is the official GFCR convening agent for the programme and will provide strategic guidance, engage with recipient partner organisations and governments, source investment opportunities for the programme's pipeline of interventions, ensure environmental and social safeguards are applied in all interventions, monitor results, and provide overall programme management. Programme funds are managed through the Convening Agent for distribution to programme implementing partners for delivery of programme activities and investments. The programme will be implemented in accordance with UNDP Direct Implementation Modality (DIM), where UNDP will assume the overall management responsibility and accountability for programme implementation. The programme will be executed in close coordination with relevant authorities in Egypt, in particular the Ministry of Environment and the Red Sea Governorate. However, EEAA will be involved in clearing the TORs of staff recruitment, procurement and all other

[33] Section 6.1.3 refers to the governance and operational structure of the GFCR ERSI programme; it does not reference the EFCR governance and operational structure, which is covered in some detail in the Fund Report but will also be refined during the inception phase of the GFCR ERSI programme.

project related activities, to ensure that the comments received from its CEO – as shown in annex XX - are well integrated and mainstreamed throughout the project duration.

Programme Governance

The programme will have two governance mechanisms:

- The GFCR Executive Board, which is responsible for approvals of: i) the ERSI programme proposal, which sets out the vision for the programme over 6 years and includes a funding request for the first 18 months (phase 1); and ii) subsequent replenishments to support phases 2 and 3 of the programme
- The ERSI Programme Steering Committee, which will provide strategic direction and oversight of the ERSI programme

In addition, once the Egyptian Fund for Coral Reefs (EFCR) is operational, the ECRF Board will be established to govern the operations of the EFCR.

ERSI Programme Steering Committee

An ERSI Programme Steering Committee (PSC) will be established, chaired by the Ministry of Environment/ EEAA and also consisting of the UNDP Country Office in Egypt, USAID/Egypt, sub-national authorities (the Red Sea Governorate), and various national partners such as the Ministry of Planning, Ministry of International Cooperation, Ministry of Foreign Affairs, Ministry of Tourism and Antiquities, Ministry of Housing, etc. Additional partners will be consulted during the initial implementation phase to identify their roles in programme implementation. Consideration will be given to potential conflicts of interest. The PSC, which will meet annually, will oversee the Programme execution, maintain strategic direction during implementation, review progress and approve programmatic modifications of the programme execution to ensure continued country ownership. The PSC will also ensure and facilitate coordination of programme partners and other programs and initiatives in the region relevant to conservation and sustainable management of marine and coastal areas and the development of reef-positive economic activities.

ERSI Programme Project Selection and Investment Committee

The programme will establish a Project Selection and Investment Committee (PSIC), which will make decisions on the allocation of programme financing to the Coral Reef Business Incubator. The PSIC will select an operator (e.g. investment firm) to manage the Coral Reef Business Incubator (CRBI), and they will jointly plan and design the CRBI's operating practices, with inputs from other partners responsible for supporting entrepreneurs, SMEs and civil society organizations. The PSIC will not intervene in the CRBI's decision making process for choosing companies or projects, which will be based on criteria to be developed for each call and in adherence with the GFCR Policy Architecture (which includes Investment Principles and safeguards)[34]. The project will likely need to fund the CRBI twice prior to the operationalization of the EFCR, which will then be responsible for providing support to the CRBI; thus, once the EFCR is operational, the PSIC should no longer have a role. The PSIC will also secure alignment

[34] Project selection and investment decisions and responsibilities will be transferred to the Board of Directors of the EFCR when the Fund is established, capacitated, and fully operational.

with other related projects that may add co-financing to the CRBI and/or the projects/businesses it incubates. Membership and operating practices of the committee will be determined during the 1st phase of program implementation.

ERSI Programme Technical Advisory Committee

A Technical Advisory Committee (TAC) will provide technical guidance and backstopping; support the programme in its endeavour to strengthen communication, coordination and collaboration among programme affected parties; publicise the programme success and lessons learned; and contribute to knowledge generation and dissemination. Membership on the TAC will include Egyptian Environmental Affairs Agency (EEAA), Hurghada Environmental Protection and Conservation Association (HEPCA), Ministry of Environment (MoE), the National Institute of Oceanography and Fisheries (NIOF), USAID and UNDP (additional members may be designated during programme implementation). These and other institutions will be instrumental in the identification of climate refugia, development of technical approaches to coral reef conservation, and implementing the M&E component of this programme.

The figures below summarise the governance and operational structure envisioned for the programme at two different stages: 1) prior to the start of EFCR operations, and 2) once EFCR operations have started:

Figure 1: ERSI Governance and Operational Structure (prior to start of EFCR operations)

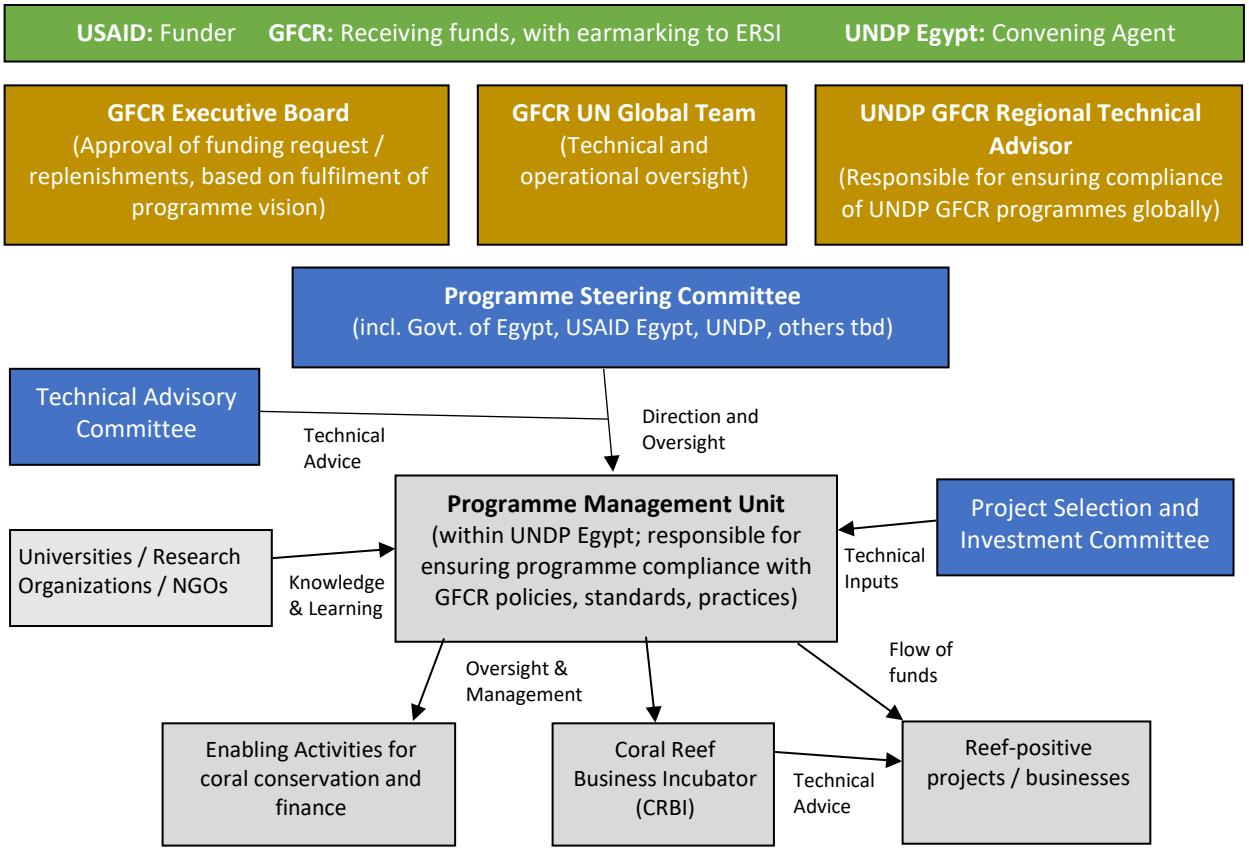
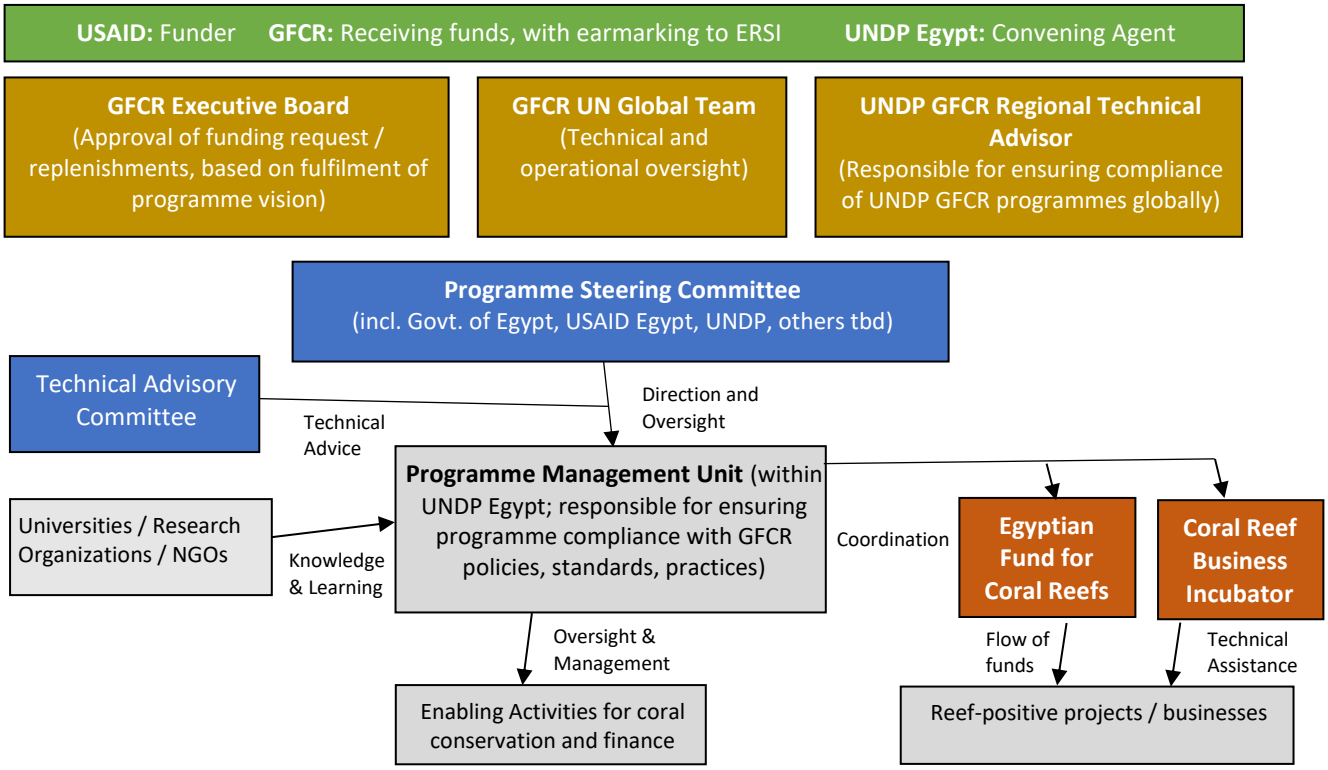


Figure 2: ERSI Governance and Operational Structure (once EFCR has commenced operations)



Programme Management

UNDP will establish a well-capacitated **Programme Management Unit (PMU)**, overseen by the PSC and led by a Programme Manager on a day to day basis who will report to the CEO of EEAA and UNDP Egypt, to lead implementation of ERSI programme. The PMU will implement program activities over the life of the program, including the launch and operationalization of the EFCR. The entire PMU staff led by the Project Manager , has to follow the instructions, comments received from the CEO of EEAA, as shown in annex XX of this document.

- The PMU is expected to include the following staff: a programme manager, a program coordinator, admin assistant, finance assistant, gender specialist, coral expert; monitoring & evaluation specialist, knowledge management/communications expert, driver .
- The PMU will be based in the field (Hurghada or Marsa Alam) with a focal point in Cairo.
- The PMU will be responsible for the day-to-day running and implementation of the GFCR program including regular required reporting to GFCR/UNDP/USAID.
- The PMU will be overseen by the UNDP Egypt Country Office as GFCR Convening Agent with the support of the UNDP Nature Team and EEAA
- The PMU will be responsible for the day-to-day implementation and oversight of the programme and will further be responsible for the programme's financial and administrative management, for periodic reporting to the PSC and for the execution of programme activities.

The Programme Management Unit will support the ongoing development of the Egyptian Fund for Coral Reefs (EFCR), including the contracting of EFCR staff during the Inception & Initial Implementation phase of the GFCR programme. As the GFCR program closes (expected at the end of 2029), the PMU will be disbanded, and it is expected that PMU capacity will be integrated into the Fund's staff for continuity. Table 3 below presents the possible timeline for the recruitment of the PMU vs. Fund staff, based on the expected establishment of the Fund and alignment with Programme duration, and the responsibility of PMU vs Fund staff over the course of the ERSI programme.

Table 3: Responsibilities for Programme Implementation and Fund Management

	Blue = GFCR PMU		Green = Fund Staff					
Outcomes	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2030 – 2052**
1: Innovative and independent fund for the Egyptian Red Sea established and operational								
2: Enabling environment for coral reef conservation and investment strengthened								
3: Improved management and finance enable effective conservation of Egypt's Red Sea Coral Reefs								

4.2 Country ownership

4.2.1 Government engagement

The Ministry of Environment (MoE) and the Egyptian Environmental Affairs Agency (EEAA) has been actively involved in formulating the ERSI programme and the strategies related to coral reef conservation and the establishment of the Egyptian Fund for Coral Reefs that have been proposed in this document. Several consultative meetings were held with representatives of the Egyptian government, which included: decision makers in the Ministry of Environment, heads of relevant departments in the ministry (head of the nature protection sector, and directors of marine protected areas), and representatives of the Red Sea Governorate and the Ministry of Tourism, all of whom were involved in defining the logical framework for the programme to ensure that it is aligned with national priorities to preserve coral reefs and promote sustainable development of the Egyptian Red Sea coast.

The Government of Egypt fully supports the programme's goal of conserving coral reef ecosystems in the Egyptian Red Sea, particularly as this aligns directly with the GoE's plan to declare a Great Fringing Reef Protected Area for the Egyptian Red Sea. The GoE also supports the programme's goals to increase national capacities for coral conservation and reef-positive business and project development; to strengthen the enabling environment for coral reef conservation and investment; and to monitor coral reef conditions to support effective decision making and investments in reef conservation. EEAA, which operates under the Ministry of Environment, has the primary responsibility for coral reef conservation in Egypt, as well as responsibility for the management of marine protected areas (MPAs) along Egypt's Red Sea coastline. EEAA collaborates with international organizations, research institutions, and NGOs to develop and implement programs to conserve coral reefs. In addition, the GoE, through MoE and other

ministries, continues to implement regulations and laws to control harmful activities that may negatively impact coral reefs, such as fishing practices, waste management, and coastal development.

4.2.2 Programme consistency with national priorities and plans

The programme is fully consistent with Egypt's national priorities. Egypt's National Biodiversity Strategy and Action Plan (NBSAP, 2015-2030) identifies the urgent need to implement environmental projects to support the protection of Red Sea coastal areas, particularly coral reefs and mangroves, by combating threats to terrestrial, marine, freshwater and coastal ecosystems such as over-grazing, over-fishing, pollution, invasive species, climate change, desertification, and land degradation. The NBSAP also recognizes the need to better protect the approximately 60% of Red Sea coral reefs that are considered to be at risk[35], primarily due to coastal development, overfishing, and the potential threat of oil spills. The ERSI programme's activities to protect and implement effective monitoring programs for coral reefs, develop sustainable fishing policies, control marine pollution, and promote awareness and education about the importance of coral reefs will therefore support this national priority for coral conservation.

The ERSI programme also focuses on ensuring that coral reef based tourism activities are sustainable and do not contribute to coral reef degradation; in so doing, it is well-aligned with the NBSAP National Target 6 "By 2018, apply CBD tools to monitor and control the impact of tourism on biodiversity, in particular in protected areas and vulnerable ecosystems". ERSI programme activities to address waste management and sustainable fisheries respectively support the NBSAP National Target 7 "By 2020, measures, including waste management plans and law enforcement, are in place to prevent and reduce the impact of pollution and waste on ecosystems, especially on wetlands and coastal and marine areas" and National Target 10 "By 2027, promote the implementation of good fishing practices in both Mediterranean Sea and Red Sea, favourable to fish protection and their habitats".

The ERSI programme also supports the goals of Egypt's Sustainable Development Strategy - Vision 2030, including its proposed environment programs 10 for "Encouraging civil society and private sector participation in preserving and protecting biodiversity" and 11 for "Enhancing the efficiency of protecting coastal and marine areas", as well as its social justice program 2 for "Institutionalizing the partnership between the state and the civil society". The programme will support these goals by developing mechanisms to finance and support local communities, NGOs, women and youth by providing opportunities for implementing small and medium size projects that depend on the value of coral reefs, and by working to involve and empower local communities by providing job opportunities for women and youth as well as develop local skills, provide training and practices necessary to participate in the management, protection and restoration of coral reefs to enhance awareness about the importance of coral reefs and the environmental and societal impacts of sustainable operations in them.

4.3 Community engagement

Engagement with local community associations is a crucial aspect of the ERSI programme. During the programme design phase, numerous local community associations were consulted in individual meetings

[35] One of the priority actions under NBSAP National Target 10 is to "Conserve key threatened coastal, coral reef, mangrove and marine species, habitats and ecosystems"

and/or workshops. In early 2023, USAID/Egypt distributed a Request for Information (RFI) Questionnaire to a wide array of Red Sea affected parties. The responses to this questionnaire identified various strategies for community engagement that will guide the programme during implementation, including:

- Strengthen community partnerships with the Red Sea Governorate, local municipalities, Tourism Development Authority, Protected Areas management;
- Integrate local communities through development of comprehensive community engagement plan;
- Organize local conservation education initiatives;
- Integrating local communities into income generating opportunities;
- Provide support, visibility to environmental initiatives / community organizations;
- Provide and stimulate investments in green entrepreneurship related to tourism

Another key step in community engagement was the Egypt Red Sea Initiative Program Consultation Workshop that took place in Hurghada on June 27, 2023. Among the local affected parties represented at this meeting were community associations (including the Abu Ghosoun Community Development Association), resource users associations (including the Hurghada Fishermen's Association), local NGOs (such as the Hurghada Environmental Protection and Conservation Association), local investors (the Marsa Allam Investors' Association), tourism representatives (Gorgonia Beach Resort, Marsa Shagra Eco-Lodge, and Red Sea Safari Diving Company), and educational institutions (National Institute of Red Sea, Suez Canal University). For additional details of community associations consulted, please refer to Annex IX.

Through the above processes, the programme's design integrates the suggestions and observations of local affected parties on how they can participate in and support the project, provide advice and local knowledge, and contribute to determining the needs of coral reefs in the region while also taking into account community needs and traditional uses of the coastal environment. During implementation, the program will work to follow a clear strategy to communicate and participate with local community associations and ensure that they benefit from the programme's activities through forming partnerships with local associations to work together in the implementation of programme activities, and an ongoing process of dialogues and workshops that will contribute to programme decision-making and adaptive management. The program will also recognise and foster full respect for the cultural heritage of local communities and resource users, and will ensure that no actions are supported that violate these rights. Gender balance will be carefully considered, and gender analysis will be conducted during the Inception & Initial Implementation phase, which will include identifying gender-balanced opportunities for participating in the Program's activities and benefiting from its interventions.

Community consultations and engagement will take place for all activities that may affect the local communities' rights and traditional livelihoods. Free, Prior, and Informed Consent (FPIC) principles will be applied that include undertaking culturally appropriate and meaningful participation with the local communities ensuring that they are involved in decision-making and implementation of the Program's activities. At least one civil society organization (on a rotating basis) will participate on the Programme Steering Committee and the Project Selection and Investment Committee. Finally, Taking into consideration national policies, rules and regulations the Program will work closely with local communities to ensure they can benefit from reef-positive business opportunities, for example by utilising open and competitive bidding processes for coral reef related investments and issuing calls for proposal specifically targeting women and local community-led organisations.

4.4 Coordination with other initiatives

A number of ongoing initiatives on the Egyptian Red Sea coast are working on marine farming operations outside coral reefs, preventing the use of plastic bags, promoting sustainable tourism and addressing the problem of waste, monitoring the status of coral reefs by satellite, etc. The programme will work to collaborate with these existing initiatives and provide support in the form of grants and other financing mechanisms that build the capacity of community associations and other partners implementing reef-positive activities. The programme will also move forward towards integration with these initiatives with the aim of achieving the strategic vision of Egypt 2030, which focuses on diversifying production sources and economic activities, providing new job opportunities, alleviating poverty and achieving social justice while providing a clean, healthy and safe environment for every Egyptian citizen.

Several of the GFCR Solutions proposed for the ERSI programme will build on existing initiatives being spearheaded by HEPCA, which is widely viewed as the premier environmental NGO in the Egyptian Red Sea region. These will include building on HEPCA's experience as the main waste management service provider in Hurghada for the GFCR Solution on Organic Waste Upcycling for Urban Farming; using HEPCA's existing onshore aquaculture facility and technical expertise, as well as its existing partnerships with the University of Suez and University of Bristol (UK), to support the GFCR Solution on Coral Reef Aquaculture for Ecosystem Resilience and Aquarium Trade; and relying on HEPCA's extensive experience and leadership in installing and maintaining Egypt's Red Sea mooring system to support the GFCR Solution on Great Fringing Reef Mooring Systems Upgrade.

As noted under Output 3.2, the ERSI programme will support the Initiative for the Great Fringing Reef Protected Area (GFRPA) by developing a management and business plan for the GFRPA, once it has been formally approved by the GoE, that includes financing mechanisms to ensure financial self-sufficiency and sustainability, and a clear and realistic budget plans for staff, equipment, materials, etc.; and by strengthening the capacity of EEAA, HEPCA and other partners to secure financing and implement the management and business plans for the GFRPA. As noted under Output 2.2, the ERSI programme will develop financing mechanisms to enable the expansion of the ongoing Green Fins program working in the Egyptian Red Sea. Finally, as noted under Output 1.3, the ERSI programme will support a GFCR Solution for sustainable community ecotourism around Wadi El Gemal, which will be built on the long-standing collaboration among the Abu Ghosoun Community Development Association (AG-CDA), the Gorgonia Hotel, and Wadi El Gemal National Park (WEGNP) on community eco-tourism.

In addition, UNDP will seek partnerships / synergies and potential cost sharing with other donor-funded programs that address coral reef conservation and sustainable economic uses:

- UNDP-GEF project "Mainstreaming the conservation and sustainable use of biodiversity into tourism development and operations in threatened ecosystems in Egypt": The ERSI programme will seek to build on and learn from this project's outputs (due to end in mid 2024), in particular: 1) using the project's guide for eco-lodges, licensing system criteria, and the ongoing Eco-Egypt awareness campaign and Green List Initiative to encourage tourism facilities to adopt stronger environmental standards; 2) building on awareness work with communities around MPAs; and 3) using the results

of environmental assessments in the Red Sea to include coral reef conservation objectives in Egypt's environmental impact assessment system and related institutional and legislative frameworks

- UNDP-GEF project "Green Sharm El Sheikh": The ERSI programme will seek to learn from the experiences of the ongoing (2023 – 2029) Green Sharm project in terms of tourism development that incorporates biodiversity protection; coordination for planning and management of marine and coastal PAs; best practice tourism initiatives; and improved waste management.
- UNIDO-GEF project "Greening Hurghada": The ERSI programme will seek to learn from the experiences of this ongoing project (2023-2028) in terms of approaches for climate smart technologies and biodiversity conservation practices in tourism, energy and transport infrastructure, including green economy investment to reduce biodiversity harmful practices and greenhouse gas emissions and make the business case for increased investments in nature-based infrastructure.
- USAID LIFE Red Sea project: The ERSI programme will seek to learn from the experiences of this project (which ended in 2014), as it had a significant impact in the area of the Red Sea coast that is targeted by the ERSI programme. This will include lessons learned on the streamlining of business processes through four Tamayouz Centres and a unified and computerized Commercial Registry systems; vocational and technical training and giving students on-the-job training needed by the private sector; and an entrepreneurship program that raised awareness of entrepreneurship and highlighted the potential of young people for starting new businesses in various sectors.

4.5 Affected parties mapping & engagement plan

A full-day Egypt Red Sea Initiative (ERSI) Program Consultation Workshop was held in Hurghada in June 2023 to review and revise the programme framework. Through this workshop, as well as wide and varied affected party consultations through one-on-one meetings, the programme design team solicited inputs to the programme design from a number of key affected parties, including:

- Government Agencies: Ministry of Environment, Egyptian Environmental Affairs Agency, Ministry of Tourism and Antiquities, Ministry of International Cooperation, Red Sea Governorate
- Marine Environment / Science Institutions: National Institute of Red Sea; Suez Canal University
- Tourism / Industry Representatives: Gorgonia, Hurghada Marriott, Red Sea Diving Safari Company, Marsa Shagra Eco-Lodge, Chamber of Diving and Water Sports
- Resource User Associations: Hurghada Fishermen's Association
- NGOs: HEPCA
- Community Service Organisations: Abu Ghosoun Community Development Association
- Environmental Consulting Firms: MAWAEL, Enviromnica
- Finance Institutions: Marsa Allam Investors' Association
- International Partners / Donor Agencies: PERSGA; Italian Agency for Development Cooperation

Based on these consultative processes, a number of common priorities for inclusive affected party engagement were identified and will be used to guide programme implementation, including:

- Analysis of Affected Parties: Detailed analysis of potential affected parties, to include a wide range of (local and government authorities, local people, tourism leaders, academia, media, NGOs) and identify how they are affected by coral reef conservation programmes.

- Communication and participation: Providing comprehensive and clear information about coral reefs and the challenges they face, and carrying out workshops and meetings with concerned affected parties to encourage open communication and the exchange of information and opinions.
- Participation in decision-making: Give affected parties the opportunity to participate in decision-making on protection measures, future management of coral reefs and associated investment opportunities. This process could include forming committees or working groups that bring together different affected parties to provide multiple perspectives and build consensus.
- Training and Awareness: Provide training and awareness opportunities to affected parties on the importance and benefits of coral reef conservation and related activities. These events may include workshops, field lessons and public awareness campaigns in line with the awareness, communication and training plan that will be developed for the program.
- Monitoring and evaluation: Based on evaluations of project outcomes and impacts on coral reefs and affected parties, determine the effectiveness of the programme's actions and share this information with relevant affected parties to solicit feedback and support adaptive management.

Additional information on local community engagement in programme implementation is described in Section 4.3. Information on how the programme will collaborate with other relevant initiatives is provided in section 4.4. An overview of relevant programme affected parties and specific engagement strategies for each of them is provided in Annex IX.

4.6 Awareness building and communications

The project will undertake communication efforts to reflect the innovation and complexity of this undertaking and the need to constantly monitor the programme's activities in relation to its goals and react through adaptive management. KM&L / Communication efforts will be especially important to replicate best practices and exploit the potential for the ERSI's interventions to become a model for other areas in the country. The project will identify and participate in scientific, policy-based and other networks that could be beneficial to the project implementation in terms of teachings. The overall communication objectives of the programme are to increase support from the community, private sector, policymaker and other affected parties for long-term coral reef conservation; raise awareness of the opportunities for the private sector and government to invest in reef-positive enterprises and long-term coral reef conservation; and share information on approaches for transforming and improving livelihoods of coral reef-dependent communities and for strengthening policy frameworks that facilitate innovative finance mechanisms for coral conservation. A communications strategy, including indicators and measures objectives and activities, will be developed in the first 3 months of the project, led by UNDP in collaboration with USAID and other partners, which will increase the visibility of the programme through their unique audience channels and have the ability to provide content information of their own.

In addition to building awareness at the local and national levels with key affected parties, another specific target audience consists of those who interact with coral reef ecosystems. As this audience consists of both local communities and visitors to the Egyptian Red Sea, a range of communication avenues will be utilised to support an awareness-raising strategy, including videos, photography, logos, infographics, social media assets and written content. UNDP and MoE staff will oversee the production of all content, joining efforts and expertise from marketing, communications, media relations, conservation, and finance

teams, forming synergies of knowledge to create a larger and more impactful end product. Additional details on the programme's awareness building and communications strategy are provided in Annex VII.

4.7 Gender mainstreaming considerations

This section draws on the full Gender Analysis and Action Plan presented in Annex XII, which provides more details on specific gender issues relevant to the programme activities, indicators, and actors.

In the programme area, cultural norms and traditions as well as the early exit of women from the labour force to start families has led to generally low participation rates for women in income earning activities in the region. A lack of suitable job opportunities for women, as well as discrimination against female job applicants, are also important factors contributing to the comparatively high unemployment rate for women. The programme will develop and use a comprehensive gender responsive approach that identifies the different needs, constraints and opportunities of both men and women in terms of participating in, and sharing the benefits of, the ERSI programme's activities for conservation, management and investment related to coral reefs. This approach is expected to include the following strategies to support women's participation and access to benefits:

1. Representation: Ensuring diverse and balanced representation in the training, natural resource management, business and project development, and management activities of the programme
2. Bias detection and mitigation: Implementing mechanisms to identify and address any potential biases related to gender, thereby avoiding reinforcing stereotypes or discrimination.
3. Accessibility and reach: Ensuring that the programme's services and benefits are accessible to all individuals, regardless of their gender or background, by considering factors such as language support, user interface design, and availability across different devices and platforms.
4. Capacity Building and Training: Offer training and capacity-building programs to equip women with the necessary skills and knowledge for active participation in conservation activities. This will include training in marine monitoring, data collection, eco-tourism, and other related skills
5. Women's Livelihood Diversification: Encourage the development of alternative livelihood opportunities for women that are linked to coral reef preservation. For example, promoting women's involvement in sustainable eco-tourism, handicraft production using sustainable materials, or marine education initiatives can create economic opportunities while contributing to conservation goals
6. Support Women-led Enterprises: Establish initiatives that support and promote women-led and reef-friendly businesses and organizations. This could include funding opportunities, technical assistance, and access to finance and/or markets for their sustainable products and services

5 Financial arrangements and procedures

5.1 Overview

Table 4: Total Grant Costs (USD)

Source	Grant	Percent deployed as Concessional loan/Recoverable Grant/Guarantee
GFCR	14,107,500	To be determined by the EFCR Board (max 30%)
Co-financing	68,367,996	To be determined by investors in the EFCR

Secured	1,566,000	Same
Anticipated	66,801,996	Same
		GFCR Grant Co-financing leverage

Table 5: Leverage potential of GFCR grants (USD)

	Private Sector Investment	Public Sector Investment	TOTAL	GFCR Grant Leverage
Secured	0	0	0	NA
Ambition	0	0	0	NA
TOTAL[36]	0	0	0	NA

5.1.1 GFCR Grant Cost Overview by Outcome

Table 6: GFCR Grant cost by Outcome for first 18 months (USD)

Component	Total GFCR Grant Cost for first 18 months (% of TOTAL)	Percent deployed as Concessional loan / Recoverable Grant / Guarantee
Outcome 1	1,455,000	To Be Determined by the EFCR (max 30%)
Outcome 2	207,500	0%
Outcome 3	515,263	0%
Monitoring & Evaluation	230,500	0%
Programme Management	$480,737	0%
Total programmable Costs	$2,889,000	0%
Indirect Costs (7%)	202,230	0%
GFCR Trustee (1%)	28,890	0%
TOTAL	$3,120,120	

An amount of $427,500 will be charged on GFCR total grant of $14,250,000 per phase as direct costing in support of project implementation, communication, M&E and quality assurance. Charges will be collected per phase quarterly as follows;

An amount of $93,604 for phase 1 will be collected quarterly.
An amount of $306,504 for phase 2 will be collected quarterly.
An amount of $27,393 for phase 3 will be collected quarterly.

5.1.2 Grant co-financing

Table 7: Grant Co-financing arrangements (USD)

[36] The hope is that private and public investors will provide concessional finance (loans and financial guarantees) alongside the Fund. But the $45 million that is planned to be raised for the Fund (in addition to the initial $5 million from USAID) will all be in the form of Grants (some of which will be invested as concessional finance - but that is dependent on the Board)

Co-financing Source	USD	Monetary *or* In-kind	Status	Description	Relevant programme outcome / output / activity
Public and Private Sector Investors and Donors	45,000,000	Monetary	Ambition	A wide range of donors will likely contribute to the Fund. The target capital raised will be US$50 million (an additional US$45 million to complement the initial financing of US$5 million from USAID)	Output 1.1
Partner Venture Capital or Investment Fund	1,000,000	Monetary	Ambition	A partner VC or investment fund providing co-financing for the Coral Reef Business Incubator. The amount of co-financing targeted will be roughly equivalent to the amount being granted to the Incubator	Output 1.3
Egyptian Environmental Affairs Agency	160,000	Monetary	Secured	Cash support for operational costs	Outputs 1.1 + 2.1 + 2.2 + 3.2 + 3.3
HEPCA	40,000	Monetary	Secured	Coral restoration / aquaculture project	Output 1.2
HEPCA	160,000	In-kind	Secured	Use of the HEPCA aquaculture facility in Port Ghalib; land reclamation; housing for scientific partners, etc.	Output 1.2
University of Bristol	205,000	Monetary	Ambition	Technical guidance for coral restoration, including larval dispersal, acoustic cues, etc.	Output 1.2
HEPCA	75,000	Monetary	Secured	Support for organic waste upcycling program, including planning, greenhouse expansion, land reclamation, etc.	Output 1.2
HEPCA	105,000	In-kind	Secured	In-kind support for organic waste upcycling program, including planning, compost production, hydroponic systems, etc.	Output 1.2
Red Sea Investor Society	200,000	Monetary	Ambition	Land renovation to support organic agriculture expansion	Output 1.2
HEPCA	315,000	Monetary	Secured	Installation, maintenance and inspection of mooring systems	Output 1.2
HEPCA	155,000	In-kind	Secured	Planning, capacity building, public outreach and evaluation of mooring systems	Output 1.2
Red Sea Governorate	40,000	In-kind	Anticipated	Installation, maintenance and inspection of mooring systems	Output 1.2
Gorgonia Resort	598,000	Monetary	Secured	Support for community ecotourism in and around Wadi El Gemal NP (1 million Euros)	Output 1.2
Gorgonia Resort	480,000	In-kind	Secured		
Government of Italy	1,000,000	Monetary	Anticipated	Egyptian-Italian Environmental Cooperation: Work to strengthen Egypt's protected areas (PAs) system, with a focus on establishing income-generating mechanisms to ensure financial sustainability for Egypt's protected areas.	Output 3.3
Government of Italy	4,380,000	Monetary	Anticipated	Euro 4 million for the Nature Conservation Monitoring Project in three PAs (*Wadi Rayan, Qaroun Lake, and Wadi El-Gemal)* designed to increase understanding of the	Outputs 3.1 + 3.2

Co-financing Source	USD	Monetary *or* In-kind	Status	Description	Relevant programme outcome / output / activity
				areas, enhance the capabilities of PA staff, establish permanent monitoring systems, and engage local communities	
Government of Egypt	65,000	Monetary	Anticipated	Same NCM project as above, but funding is EGP 2 million from the Government of Egypt through a debt swap programme	Outputs 3.1 + 3.1
Global Environment Facility	6,200,000	Monetary	Anticipated	Ongoing UNDP-GEF project "Green Sharm El Sheikh"	Outputs 2.1 + 2.2
Global Environment Facility	3,889,996	Monetary	Anticipated	UNIDO-GEF project "Greening Hurghada"	Outputs 2.1 + 2.2
European Union	4,300,000	Monetary	Anticipated	COP 27 Project: Euro 4 million for the GoE to host COP27 and implement associated activities through mid-2025, including the following climate action activities: i) Egypt PV mechanism and existing consultations mechanism for Greening Sharm El Sheikh; ii) Reduce Sharm el-Sheikh GHG emissions by limiting plastic waste; iii) Nabq Protected Area; and iv) Climate Security.	Outputs 2.2 + 3.2 + 3.3
Total	**68,367,996**				

5.1.3 Commercial Investments

Table 8: Private Sector co-financing

Relevant Programme Solution	Source of Invest. Capital	Category	Amount	Status
Egyptian Fund for Coral Reefs	Private companies / philanthropies (own capital)	Monetary	22,500,000 (Ambition)	Tbd during programme
Coral Reef Business Incubator	Partner Venture Capital or Investment Fund (own capital)	Monetary	1,000,000 (Ambition)	Tbd during programme
Total			**23,500,000**	

6 Risk management

The primary risks facing the proposed programme, and the programme's corresponding mitigation measures, include: 1) Climate change impacts (mitigation includes activities to protect and restore coral reefs and their associated ecosystems, and to better understand the conditions and mechanisms that enhance the resilience of coral reefs in the Egyptian Red Sea); 2) Limited opportunities for investment in coral-friendly businesses and projects (mitigation through using the programme's Project Selection and

Investment Committee to provide national / local expertise in identifying and vetting potential business and project investments and using the CRBI to provide technical assistance, training, development of both NGOs and businesses who can pilot investable opportunities); 3) Technical and market challenges for organic waste upcycling (mitigation through contracting technical support provided by experts in composting organic waste from cities the size of Hurghada); 4) Limited local capacities and experience in entrepreneurial business development (mitigation through establishing the CRBI to provide technical assistance, business mentoring, and other capacity building for entrepreneurs and organizations that are developing reef-friendly businesses and projects); 5) Uncertain support for mooring system expansion / upgrade solution (mitigation through increasing capacity for collecting payments and securing government support for a fee system); 6) Potential permitting problems for the coral reef aquaculture solution (mitigation through identification of target sites where the addition of certain species does not have unintended consequences, and adequate monitoring and adaptive management, and working with relevant authorities to ensure that reintroductions are properly planned and monitored and do not produce negative environmental impacts); 7) Potential delay in the establishment of the GFRPA (mitigation through supporting two key tasks to facilitate GFCRPA operations, namely the development of a management plan and a business plan, as well as supporting GFRPA partners in identifying and securing investment for the GFRPA from private and public sector sources); 8) Financing of the Egyptian Fund for Coral Reefs (mitigation through establishing the EFCR as an independent conservation trust fund as this will facilitate significant private donations at the scale needed to achieve its mission and objective, as well as allocating US$ 5 million of grant money directly to the Foundation upon its creation and operationalization to encourage other donors to complement these initial funds); and 9) Investment risks (mitigation through support for all of the businesses and projects receiving finance to help them overcome profitability / finance challenges, and it will use GFCR grant resources to de-risk investments).

7 Monitoring and Evaluation and Results Framework

Entities that will be responsible for M&E of the proposed programme

- Programme Management Unit: The PMU, and in particular the PMU's M&E Specialist, will develop and oversee implementation of the programme's M&E strategy, which will guide technical impact monitoring and data collection throughout the programme. In addition, the PMU's Coral Expert will provide technical inputs on monitoring of coral reef and other marine ecosystem indicators.
- HEPCA: HEPCA will provide inputs related to the monitoring of the GFCR Solutions on Organic Waste Upcycling for Urban Farming; Coral Reef Aquaculture for Ecosystem Resilience and Aquarium Trade; and Great Fringing Reef Mooring Systems upgrade
- EEAA: EEAA will play a leading role in monitoring of programme activities and indicators relevant to the marine environment, management of conservation areas, etc.

Development of the M&E strategy

The M&E Specialist in the Programme Management Unit will develop the programme's M&E strategy using the GFCR Monitoring and Evaluation Toolkit[37] during the Inception & Initial Implementation Phase,

[37] GFCR-Monitoring-and-Evaluation-Toolkit.pdf (globalfundcoralreefs.org)

and will oversee its implementation throughout the programme. The PMU will work with the GFCR Partner UNEP to develop the M&E Strategy and ensure that the GFCR indicators are captured. The M&E strategy will include detailed indicator reference sheets (including a description of the indicator, the unit of measure, disaggregation, the data collection plan and data quality issues) as well as information on the roles of M&E partners who can support baseline setting and monitoring of ecological indicators.

The M&E Strategy will include the following:

- M&E to check that interventions are in compliance with the agreed Investment Principles, the Safeguards and Gender Policies and the Risk Management Strategy of the GFCR on a regular basis (a gender specialist will support the M&E strategy development at the beginning of the project);
- Monitoring of the progress of the programme according to the workplan; in terms of performance to meet outcomes and outputs;
- Monitoring of threats to coral reefs and associated ecosystems (e.g. seagrass beds) and the biophysical status of these ecosystems coupled with socio-economic effects on local communities;
- M&E for indicators related to the reef-positive businesses and projects, measuring aspects such as business profitability, socio-economic impact, gender-inclusivity, innovation, and environmental standards. Reef-positive businesses will report regularly on these indicators based on the M&E indicators. M&E for reef-positive businesses and projects will be carried out jointly with the Egyptian Fund for Coral Reefs / Coral Reef Business Incubator team once it is operational;
- Strategy for adaptive learning based on regular monitoring, evaluation, and learning.

Capacity that is lacking for M&E and how will it be acquired

- Building and maintaining an effective M&E system requires specialized knowledge and skills; at present, there are few individuals in Egypt with expertise in coral reef ecology, data collection methods, and analysis, and it is important to work on unifying methods for monitoring and training national cadres in these areas and providing training for Egyptian partners in these areas. The programme will support training in these technical areas.
- Collecting reliable data on the health of coral reefs and other marine ecosystems in the Egyptian Red Sea is difficult due to limited access to remote or inaccessible sites, limited monitoring equipment, and lack of qualified staff. The lack of data standardization can also impede effective M&E. The programme will support acquisition of monitoring equipment and efforts at data standardization.
- Effective M&E requires strong institutional support and cooperation. Currently in Egypt there is some collaboration between EEAA, HEPCA, Suez Canal University and the National Institute for Oceanography and Fisheries to conduct monitoring activities, primarily focused on climate change impacts. However, there are few policies or protocols in place to institutionalize such collaboration. The programme will support workshops to develop policies / protocols for institutional collaboration.
- M&E requires active involvement and collaboration among various affected parties, including local communities, government agencies, NGOs, and researchers. The programme will work to ensure that affected parties are adequately engaged in the programme in order to avoid any constraints in collecting comprehensive data and achieve buy-in for conservation actions.
- The program is a complex and long-term undertaking, so adequate long-term planning, sustainability considerations, and commitment of key partners will determine the continuity of M&E efforts.

M&E coordination across the programme

- The M&E Specialist in the Programme Management Unit has overall responsibility for measuring / tracking indicators in the programme's Results Framework, with support from partners implementing specific outputs or activities

The M&E programme will build on a number of existing monitoring programs, including:

- The Nature Conservation Sector of EEAA has programs for monitoring coral reef health; surveying and/or tagging of sharks, marine turtles and dugongs; and seagrass bed monitoring. In addition, Wadi El Gemal National Park has M&E activities that feed into EEAA's M&E program.
- HEPCA has ongoing monitoring programs on coral bleaching, dolphins and giant clams (*Tridacna*)
- The proposed GFCR programme will work closely with EEAA to share information and develop strategies for M&E that are aligned with and build upon these existing programs

The strategy for baseline assessments where it has not been possible to set targets during proposal development and the timeline for acquiring baseline assessment and setting targets

- The strategy to carry out baseline assessments and set targets for indicators in the programme's results framework is outlined under the Results Framework table (see Annex IV). The Egyptian Red Sea is a data poor region, but the strategy outlined below and the overall M&E strategy that will be developed during year 1 of the programme are designed to fill in the critical gaps.
- The PMU M&E Specialist and PMU Coral Reef Expert will lead the efforts regarding baseline assessments and target setting for the biophysical indicators, using peer-reviewed methodologies.
- The PMU, with support from UNDP Egypt, will lead efforts regarding baseline assessments and target setting for other indicators, using peer-reviewed methodologies as relevant.

The annual amount of GFCR financing requested for M&E in the first 18-months of implementation, as well as co-financing for M&E (in direct financial or in-kind contributions)

During Phase I of programme implementation, a total of $210,500 is budgeted for M&E costs, including:

- $73,100 for ecological surveys to fill information gaps on live hard coral cover, reef fish and macroalgae at the 3 programme priority sites (contracted experts; boat hire costs; survey equipment and materials; etc.)
- $62,400 for the PMU M&E Specialist to develop programme M&E strategy for impact monitoring and data collection; to provide training to partners on data collection, analysis, and standardization; and to carry out data collection and analysis to support target setting on programme indicators, including targets for number of direct jobs created, number of people with increased income and/or nutrition from GFCR support, and number of direct beneficiaries. Targets for these indicators (disaggregated by gender, age, disability, Indigenous peoples, small-scale producers, etc.) will be established at programme start and as the EFCR and CRBI begin to provide technical and finance assistance to projects / companies, and as activities on organic waste upcycling, coral reef aquaculture, mooring systems and community ecotourism unfold, all of which will create employment income and other benefits for local inhabitants. Data collected will be used by the PMU staff working with the EFCR and CRBI to establish 18-month, mid-term and end of project targets.
- $15,000 for a consultant to carry out targeted Climate Risk/Vulnerability Assessment and Risk Preparedness Plans for critical reef habitats and communities dependent on coral reef resources

- $40,000 for a consultant to complete an Environmental and Social Management Framework (ESMF), including measures or action plans related to potential programme impacts, gender and environmental conditions, that will be completed before the start of relevant project activities
- $20,000 for a consultant to complete a Biodiversity Action Plan (BAP) including measures to minimize negative impacts, monitor project sites, engage local affected parties in the BAP
- $20,000 to carry out workshops to develop policies / protocols for institutional collaboration on monitoring, data collection, etc.

Independent Mid-term and End-of programme evaluations costed and include as an M&E activity

- Determining the cost for independent mid-term and end-of programme evaluations will be included as an M&E activity during the Inception & Initial Implementation phase (but are not costed in the Inception & Initial Implementation Phase budget); Terms of Reference shall be developed for both the Mid-term and End-of-programme Evaluations in collaboration with the Government of Egypt

Strategy for learning through M&E processes

- The PMU M&E Expert will develop a strategy for learning through M&E in order to support adaptive management of the programme; this may include creation of an online dashboard to highlight progress on key indicators and will be accessible to the public in order to promote transparency and public engagement.

8 ANNEXES

Annex 8.1 Total Budget and Workplan

Outcomes	Phase 1	Phase 2	Phase 3	Total
Outputs	**Months 1-18**	**Months 19-60**	**Months 61-72**	
Outcome 1: Innovative and independent fund for the Egyptian Red Sea established and operational	**1,455,000**	**6,843,394**	**119,472**	**8,417,866**
Output 1.1: Egyptian Fund for Coral Reefs established, capitalized, and operational	**353,000**	**5,258,394**	**0**	**5,611,394**
1.1.1: Establish and operationalize the Egyptian Fund for Coral Reefs (EFCR or the "Fund"), including both grant and blended finance mechanisms, to enhance access to capital for coral reef conservation and for reef-positive sustainable enterprises	253,000	4,908,394		5,161,394
1.1.2: Establish and implement a long-term fundraising plan to secure contributions to the Fund adequate to cover operating costs, provide blended finance, and grants for reef-positive investments for a 25+ year horizon	100,000	0	0	100,000
1.1.3: Provide grants to community organizations, NGOs and other organizations that support reef-positive activities	0	350,000	0	350,000
Output 1.2: Coral Reef Business Incubator established that develops, funds, and supports scaling of reef-positive micro, small, and medium-sized enterprises (MSMEs) and other coral-friendly organizations, community initiatives, and businesses that benefit local communities, women, and youth	**375,000**	**900,000**	**79,472**	**1,354,472**
1.2.1: Identify and select a contracted partner to manage the Coral Reef Business Incubator (CRBI)	0	0	0	0
1.2.2: Establish and operationalize a Coral Reef Business Incubator (CRBI) and identify an initial pipeline of reef-positive investment opportunities.	375,000	900,000	79,472	1,354,472

Output 1.3: Blended finance opportunities for coral reef-positive businesses successfully implemented in partnership with banks and other finance institutions	**727,000**	**685,000**	**40,000**	**1,452,000**
1.3.1: Partner with banks and other finance institutions to create market sensitive concessional finance options for reef-positive businesses	50,000	0	0	50,000
1.3.2: Develop innovative risk mitigation instruments such as financial guarantees or insurance products to encourage responsible private investment in reef-positive enterprises	50,000	100,000	0	150,000
1.3.3: Sustainable community ecotourism in and around Wadi El Gemal	242,000	175,000	40,000	457,000
1.3.4: Organic Waste Upcycling for Urban Farming	145,000	205,000	0	350,000
1.3.5: Aquaculture to support Coral Reef Ecosystem Restoration	240,000	205,000	0	445,000
Total Outcome 1	**1,455,000**	**6,843,394**	**119,472**	**8,417,866**
Outcome 2: Enabling environment for coral reef conservation and investment strengthened	**207,500**	**710,000**	**60,000**	**977,500**
Output 2.1: Policy frameworks and institutional coordination strengthened for coral reef finance and conservation	**80,000**	**150,000**	**0**	**230,000**
2.1.1: Strengthen policy, legal and regulatory frameworks related to the management and conservation of coastal and marine environments	30,000	50,000	0	80,000
2.1.2: Strengthen enforcement systems and institutional capacities to implement policies, laws and regulations regarding productive sector practices in coastal and marine environments	50,000	100,000	0	150,000
Output 2.2: Productive sectors (e.g. fisheries, tourism, waste management) transition to reef-positive models through improved management and enhanced awareness and behavioural changes	**127,500**	**450,000**	**25,000**	**602,500**
2.2.1: Support improved management and promote sustainable practices in the fisheries sector	30,000	50,000	0	80,000
2.2.2: Support improved management and promote sustainable practices in the tourism sector	0	200,000	25,000	225,000
2.2.3: Support improved management and promote sustainable practices to reduce solid waste flows into the marine environment	0	185,000		185,000

2.2.4: Support strategy of Green Fins Egypt to improve sustainable practices in the tourism sector through private sector finance and engagement	97,500	15,000	0	112,500
Output 2.3: Knowledge management and learning improves evidence-based decision making on coral reef finance and conservation	**0**	**110,000**	**35,000**	**145,000**
2.3.1: Monitoring and Evaluation of program impacts	0	0	0	0
2.3.2: Engage with GFCR Global REEF+ Knowledge Management & Finance Platform and other global coral reef learning mechanisms	0	80,000	35,000	115,000
2.3.3: Transmit lessons learned under the ERSI program to the Egyptian Fund for Coral Reefs (EFCR)	0	30,000	0	30,000
Total Outcome 2	**207,500**	**710,000**	**60,000**	**977,500**
Outcome 3: Improved management and finance enable effective conservation of Egypt's Red Sea Coral Reefs	**533,000**	**828,400**	**452,408**	**1,813,808**
Output 3.1: Capacity to monitor coral reef conditions increased to support effective national and local decision making and investments in reef conservation	**253,000**	**448,400**	**452,408**	**1,153,808**
Cross-cutting for Output 3.1	78,000	218,400	0	296,400
3.1.1: Ecological assessments to enhance baselines for monitoring, determine sites for potential new or expanded MPAs, and support addressing the drivers of coral reef degradation in the Egyptian Red Sea	100,000	0	0	100,000
3.1.2: Collaborate with existing coral reef science, mapping and monitoring programs in the region to strengthen coordination and technical capacities for coral reef monitoring and inform decision-making	75,000	125,000	0	200,000
3.1.3: Establish partnerships with local communities and private sector partners to enhance existing coral reef health monitoring programs	0	105,000	15,000	120,000
Output 3.2: Management & Business Plan developed and implemented for the newly established "Great Fringing Reef Protected Area"	**80,000**	**60,000**	**0**	**140,000**
3.2.1 Develop a management & business plan for the 'Great Fringing Reef Protected Area' based on extensive consultation and engagement with key affected parties	80,000	0	0	80,000

3.2.2. Strengthen capacity of EEAA, HEPCA and other partners (local NGOs and community associations) to secure financing and implement the management and business plans for the Great Fringing Reef Protected Area	0	60,000	0	60,000
Output 3.3: Innovative finance mechanisms for MPAs and other marine conservation approaches operationalized	**200,000**	**320,000**	**0**	**520,000**
3.3.1: Assess, develop and implement financing mechanisms for MPAs, community-based conservation areas, and other marine conservation approaches (OECMs)	75,000	75,000	0	150,000
3.3.2: Great Fringing Reef Mooring Systems upgrade	125,000	245,000	0	370,000
Total Outcome 3	**533,000**	**828,400**	**452,408**	**1,813,808**
Monitoring & Evaluation*	**230,500**	**50,000**	**20,000**	**300,500**
Baseline assessments and target setting for Results Framework indicators	73,100	0	0	73,100
Impact Monitoring of M&E Framework across all sites	157,400	50,000	20,000	227,400
Total M&E	**230,500**	**50,000**	**20,000**	**300,500**
Project Management Costs**	**463,000**	**1,028,195**	**183,711**	**1,674,905**
Management & Operations	316,132	569,326	83,447	968,905
Communications & Learning	43,500	140,000	40,000	223,500
UNDP Programme Oversight - DPC	93,368	283,869	50,264	427,500
Audits	10,000	35,000	10,000	55,000
Total PMC	**463,000**	**1,028,195**	**183,711**	**1,674,905**
Total Direct Costs	**2,889,000**	**9,459,989**	**835,591**	**13,184,579**
Convening Agent Costs*** 7%	202,230	662,199	58,491	922,921
Total plus indirect GMS	**3,091,230**	**10,122,188**	**894,082**	**14,107,500**
GFCR Trustee Costs **** 1%	28,890	94,600	19,010	142,500
Total Indirect/direct Costs	3,120,120	10,216,788	913,092	14,250,000
Total GRANT	**3,120,120**	**10,216,788**	**913,092**	**14,250,000**