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IMPLEMENTATION COMPLETION AND RESULTS REPORT

TF014701

ON A

GRANT

IN THE AMOUNT OF US\$3 MILLION

TO THE

Regional Organization for the Conservation of the Environment of
the Red Sea and Gulf of Aden (PERSGA)

FOR THE

Red Sea and Gulf of Aden Strategic Ecosystem Management Project

June 28, 2019

Environment & Natural Resources Global Practice
Middle East And North Africa Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective December 31, 2018)

Currency Unit = US\$

US\$ 1 = SAR 3,75

SAR 1 = US\$ 0,267

FISCAL YEAR

January 1 - December 31

Regional Vice President: Ferid Belhaj

Country Director: Anna Bjerde

Senior Global Practice Director: Karin Erika Kemper

Practice Manager: Lia Carol Sieghart

Task Team Leader(s): Enos E. Esikuri

ICR Main Contributor: Sanne Agnete Tikjoeb

ABBREVIATIONS AND ACRONYMS

CPF	Country Partnership Framework
CPS	Country Partnership Strategy
DMNP	Dungonab Bay – Mukkawar Island Marine National Park
EMARSGA	Emergency Mutual Aid in the Red Sea and Gulf of Aden
EBM	Ecosystem-Based Management
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
FER	Final Evaluation Report
FM	Financial Management
GDP	Gross Domestic Product
GEF	Global Environment Facility
GEO	Global Environment Objective
HA	Hectares
ICR	Implementation Completion & Results (Report)
ICZM	Integrated Coastal Zone Management
ISN	Interim Strategy Note
ISR	Implementation Supervision Report
IW	International Water
KIMPA	Kamran Island Marine Protected Area
LME	Large Marine Ecosystem
M&E	Monitoring and Evaluation
MENA	Middle East and North Africa (Region)
METT	Management Effectiveness Tracking Tool
MP	Management Plan
MPA	Marine Protected Area
MTR	Mid-Term Review
NC	National Coordinator
NSC	National Steering Committee
OP	Operational Policy
PAD	Project Appraisal Document
PCU	Project Coordination Unit
PDO	Project Development Objective
PERSGA	Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden
PF	Process Framework
RSGA	Red Sea and Gulf of Aden
SAP	Strategic Action Plan
SDG	Sustainable Development Goals
SNP	Sanganeb Marine National Park
SP	Strategic Priority
TOC	Theory of Change
TF	Trust Fund
TTL	Task-Team Leader
UNESCO	United Nations Educational, Scientific and Cultural Organization
US\$	United States Dollars
WB	World Bank
WGHNP	Wadi el Gamal-Hamata National Park

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DATA SHEET

BASIC INFORMATION

Product Information

Project ID	Project Name
P113794	Red Sea and Gulf of Aden Strategic Ecosystem Management GEF Project
Country	Financing Instrument
Middle East and North Africa	Investment Project Financing
Original EA Category	Revised EA Category
Partial Assessment (B)	Partial Assessment (B)

Organizations

Borrower	Implementing Agency
PERSGA	PERSGA

Project Development Objective (PDO)

Original PDO

The Project Development Objective (PDO) of the proposed project is to improve management of marine resources in the Red Sea and Gulf of Aden in selected MPAs building on resource protection and incentive systems for communities and the harmonization of the knowledge base of marine resources among PERSGA member countries.

Revised PDO

To improve management of selected marine protected areas by local communities and strengthen information sharing between PERSGA member countries.



FINANCING

	Original Amount (US\$)	Revised Amount (US\$)	Actual Disbursed (US\$)
World Bank Financing			
TF-14701	3,000,000	3,000,000	3,000,000
Total	3,000,000	3,000,000	3,000,000
Non-World Bank Financing			
Borrower/Recipient	15,890,000	0	0
Total	15,890,000	0	0
Total Project Cost	18,890,000	3,000,000	3,000,000

KEY DATES

Approval	Effectiveness	MTR Review	Original Closing	Actual Closing
29-Aug-2013	04-Nov-2013	20-Mar-2016	31-Jan-2018	31-Dec-2018

RESTRUCTURING AND/OR ADDITIONAL FINANCING

Date(s)	Amount Disbursed (US\$M)	Key Revisions
16-Sep-2016	1.21	Change in Project Development Objectives Change in Results Framework
01-Dec-2017	2.44	Change in Loan Closing Date(s)

KEY RATINGS

Outcome	Bank Performance	M&E Quality
Satisfactory	Satisfactory	Substantial

RATINGS OF PROJECT PERFORMANCE IN ISRs

No.	Date ISR Archived	DO Rating	IP Rating	Actual Disbursements (US\$M)
01	22-Dec-2013	Satisfactory	Satisfactory	.08
02	18-Jul-2014	Satisfactory	Satisfactory	.38



03	02-Feb-2015	Satisfactory	Satisfactory	.46
04	14-Aug-2015	Satisfactory	Moderately Satisfactory	.62
05	26-Feb-2016	Moderately Satisfactory	Moderately Unsatisfactory	.91
06	23-May-2016	Moderately Unsatisfactory	Moderately Unsatisfactory	1.09
07	09-Dec-2016	Moderately Satisfactory	Moderately Satisfactory	1.35
08	06-Sep-2017	Moderately Satisfactory	Moderately Satisfactory	2.37
09	16-Apr-2018	Satisfactory	Satisfactory	2.95
10	05-Dec-2018	Satisfactory	Satisfactory	3.05

SECTORS AND THEMES

Sectors

Major Sector/Sector (%)

Agriculture, Fishing and Forestry 100

Public Administration - Agriculture, Fishing & Forestry 32

Other Agriculture, Fishing and Forestry 68

Themes

Major Theme/ Theme (Level 2)/ Theme (Level 3) (%)

Social Development and Protection 0

Social Inclusion 17

Participation and Civic Engagement 17

Urban and Rural Development 0

Rural Development 10

Rural Non-farm Income Generation 10



Environment and Natural Resource Management	0
Renewable Natural Resources Asset Management	8
Biodiversity	8
Environmental policies and institutions	28
Water Resource Management	37
Water Institutions, Policies and Reform	37
Private Sector Development	100
Jobs	100

ADM STAFF

Role	At Approval	At ICR
Vice President:	Inger Andersen	Ferid Belhaj
Country Director:	Jonathan D. Walters	Samia Msadek
Senior Global Practice Director:	Junaid Kamal Ahmad	Karin Erika Kemper
Practice Manager/Manager:	Charles Joseph Cormier	Lia Carol Sieghart
Project Team Leader:	Africa Eshogba Olojoba	Enos E. Esikuri
ICR Co Author:		Sanne Agnete Tikjoeb



I. PROJECT CONTEXT AND DEVELOPMENT OBJECTIVES

A. CONTEXT AT APPRAISAL

Regional context

1. The marine resources of the Red Sea and Gulf of Aden (RSGA) have provided prosperity for the region for centuries but are threatened by recent developments. A traditional and essential source of food, trade, and livelihoods, the marine resources of the RSGA are facing many new threats. From over-exploitation of species, destruction of spawning, nursery and feeding grounds, pollution, improper resource management, and weak governance, the living marine environment is being depleted with significant loss of biodiversity as a consequence.

2. The Red Sea and Gulf of Aden is continuously exposed to trans-boundary ecological and anthropogenic stress. Each country's individual development policies or lack of enforcement of its regulations can impact another's resources. It is therefore essential that the countries have the capacity to coordinate and work together to properly monitor, manage, and protect fragile environmental resources, especially within marine protected areas.

3. As a region, the littoral countries of the RSGA share deep historical, cultural, and linguistic ties, but individually the countries are at very different stages of development. Faced with different sets of political, social and economic challenges, and exhibiting varying levels of institutional capacity, concerted regional action has traditionally been lacking. Yemen being a low-income country has a yearly gross domestic product (GDP) per capita of US\$1,106, while Djibouti, Egypt, and Sudan are lower-middle income countries (US\$1,927-2,898), Jordan an upper-income country (US\$4,129), and Saudi Arabia a high-income country (US\$20,849).

Sector and institutional context

4. Weak institutional capacity for monitoring and enforcement hinders proper regulation of living marine resource and some species are being depleted. The status of fisheries in some countries in the RSGA are largely unknown due to inaccurate stock assessments and incomplete fisheries statistics. However, there is general agreement that over-fishing of sharks and by industrial trawlers in the near-shore waters is adding considerable pressure on living marine resources and depleting some species (i.e. cuttlefish and deep-sea lobsters). The legal framework providing for fisheries management is inadequate in many of the RSGA littoral countries.

5. Rapid and uncontrolled tourism in some coastal zones degrades the environment and the very resources that make the area so attractive. Tourism has grown exponentially for decades, and related coastal activities are largely uncontrolled and presents a growing threat to the marine environment. Destruction of important habitats are already occurring, resulting in loss of important species and threats to environmental sustainability. Reducing pressure on key marine resources, habitats, and coastal features, such as wadis, mangroves, sea grass beds, coral reefs, and fishes in designated marine protected areas is a growing challenge.

6. Improving governance and management of the shared marine environment is a stated priority of The Regional Organization for the Conservation of the Environment of the Red Sea & Gulf of Aden (PERSGA) and its member countries. The joint regional Strategic Action Plan (SAP) for the RSGA seeks to protect vital marine habitats and fish stocks in the RSGA Large Marine Ecosystem (LME) for the benefit of current and future generations. SAP is actively supported by PERSGA member countries in recognition that benefits to the marine environment will only accrue if there is a shared vision and coordinated, joint action for its protection and management.

7. Ecosystem-based management (EBM) is an approach to managing living marine resources that recognizes the profound linkages between human communities and marine environments. Respecting the biological, chemical, and physical processes essential to maintaining the structure and function of ecosystems, EBM can be an important



organizing principle to existing fisheries and marine management schemes (including protected areas) if building on an incentive-based system recognizing human needs and multiuse of the ecosystem. Where Integrated Coastal Zone Management (ICZM) collectively considers all existing stakeholder activities and sectoral interests, EBM further considers the functioning and services provided by the whole ecosystem, including humans and the environment, rather than managing environmental resources independently or in isolation from other sectors.

Bank rationale for engagement

8. The World Bank supported Phase I of the Regional Project for the Implementation of the Strategic Action Plan for the RSGA (P063717). The Project, which was financed by the Global Environment Facility (GEF) and closed in 2005, developed a solid platform for regional collaboration aimed at improving the coastal and marine environment of the RSGA. Phase 1 provided many lessons learned and recommendations for the proposed Project, such as the need to strengthen information generation and sharing through regionally-supported monitoring and to pilot pilots a livelihoods approach organized around the management of benefit distribution of coastal marine resources. The proposed project is also referred to as Phase II of the earlier project.

9. The Project was aligned with ongoing World Bank operations, presenting opportunities for adding incremental value towards achieving global environmental benefits. These included the Yemen Fisheries Resources Management and Conservation Project (P086886) and the Yemen Climate Resilient Integrated Coastal Zone Management Project (P144813), which was under preparation.

Higher-level objectives

10. Project objectives and proposed activities were in line with GEF-4 International Waters Focal Area strategic priorities “SPI Restoring and Sustaining Coastal and Marine Fish Stocks and Associated Biological Diversity” and “SP2 Reducing Nutrient Over-Enrichment and Oxygen Depletion from Land-Based Pollution of Coastal Waters in LMEs”. The Project sought to (i) improve management and effectiveness of MPAs on a national and regional scale, (ii) assess and respond to transboundary concerns such as overexploitation of fish stocks, monitoring, and sustainable management of marine resources, and (iii) catalyze action for international cooperation to address water concerns.

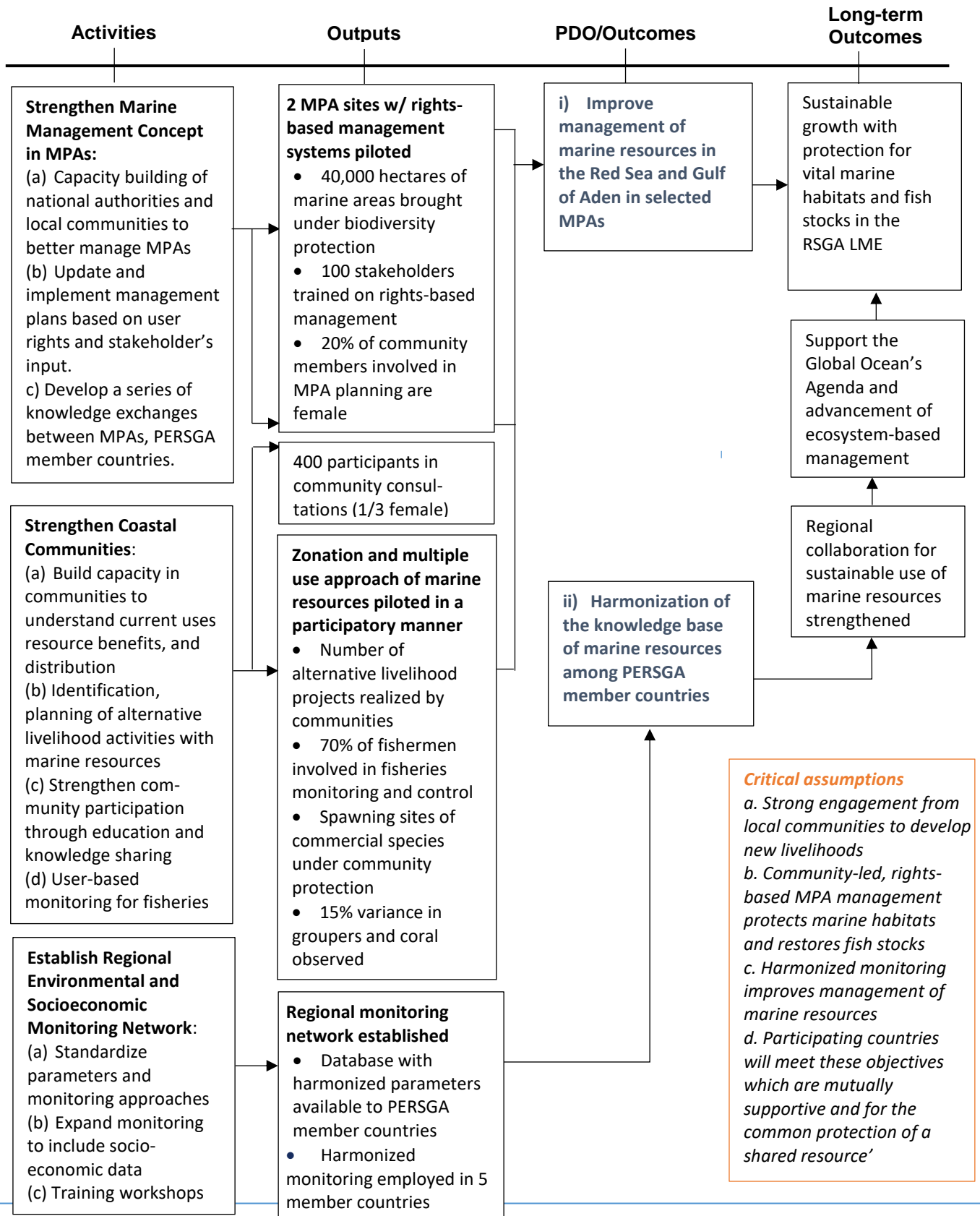
11. The Project was of high strategic importance to the World Bank’s 2015 regional strategy for MENA and its commitment to the Global Partnership for Oceans. In line with the regional strategy from 2015, the Project focused on strengthening institutional capacity at the regional, national and community level for sustainable management of marine resources. Large parts of the regional economy and population depended on marine resources of the RSGA and with a regional focus comprising five out of eight littoral countries of the Red Sea and Gulf of Aden, the project represented MENA region's flagship contribution to the World Bank's oceans agenda.

Theory of Change (Results Chain)

12. The theory of change is organized around three results-chains. First, the project planned to build significant capacity and shared understanding around marine management concepts based on principles of user-rights and multiple use of marine resources by different community groups. The assumption was that when rights and incentives are aligned, the foundation for ecosystem-based management is laid with shared community stewardship of marine resources, resulting in improved management of MPAs and thus biodiversity protection. This approach would be piloted in two MPAs through the implementation of updated management plans and strong local involvement. Second, local communities would be strengthened through incentivized involvement in MPA management and through support for alternative livelihoods to relieve pressure on marine resources. Intermediate outputs linked to community participation, spawning sites, and observed variance in marine life were indicators of improved management of marine resources in those MPAs as evident in the number of hectares brought under biodiversity protection. Finally, a set of activities were aimed at harmonizing the monitoring parameters to improve



Figure 1: Theory of Change at Appraisal





data comparability across the RSGA region. Long-term outcomes were aligned with regional environmental priorities, the Global Ocean’s Agenda, and strengthened PERSGA’s mandate for sustainable management of marine resources.

13. The TOC is based on assumptions of the regional scope and incentive-based nature of the EBM approach.

The regional approach places expectations on participating countries to meet objectives that are mutually supportive and for the common protection of a shared resource. In particular, the application of rights and ecosystem-based principles is expected to enable more effective interactions between resource managers and scientists in the region to better address issues related to lack of reliable data on fisheries and other marine resources, such as region-wide habitat assessments, and to poor data coordination of transboundary relevance. Second, applying an incentive-based ecosystems approach to marine resources management establishes an operational framework for the management and future expansion of the region's MPA network by allowing communities to be in control of marine resources multi-use by different stakeholder groups, leading to protection of critical marine habitats and restoration of sustainable levels of fish stocks.

Project Development Objectives (PDOs)

14. To improve management of marine resources in the Red Sea and Gulf of Aden in selected Marine Protected Areas building on resource protection and incentive systems for communities and the harmonization of the knowledge base of marine resources among PERSGA member countries.

Key Expected Outcomes and Outcome Indicators

15. **The PDO is a composite of two expected outcomes:** (i) To improve management of marine resources in the Red Sea and Gulf of Aden in selected Marine Protected Areas, and (ii) harmonization of the knowledge base of marine resources among PERSGA member countries. The project defined four outcome-level indicators to assess expected project outcomes:

Table 1: Original PDO Indicators

	Indicators	Unit	Target values
1	Marine Areas brought under biodiversity protection	Hectares	40,000
2	Number of direct project beneficiaries	Number	3,000
	- percentage female	Percentage	30
3	Number of alternative livelihood projects realized by communities	Number	4
4	Availability of harmonized parameters and database for PERSGA member countries	Yes/No	Yes

Components

Component A: Strengthening of Marine Management Concept in Marine Protected Areas

Estimated cost: GEF US\$750,000 - Co- and Parallel Project Financing US\$4.47 million

Actual cost: GEF US\$750,000 - Co-Financing US\$2.54 million

16. Strengthening of marine management concepts in select MPAs to pilot zonation and multiple use approach in a participatory and community-based manner consistent with local communities' needs and benefits through: (i) provision of technical assistance and training necessary to strengthen the capacity of national authorities and local communities to review, update, and implement management plans in select MPAs; and (ii) improvement of the capacity of PERSGA member countries to share information by developing a series of engagements/exchanges between MPA authorities and staff through lessons learned, knowledge products, and education and awareness material to highlight the challenges and successes of community-based MPA management.



Component B: Strengthening Coastal Communities

Estimated cost: GEF US\$800,000 - Co- and Parallel Project Financing US\$2.72 million

Actual cost: GEF US\$800,000 - Co-Financing US\$980,000

17. Strengthening local communities' capacity to identify, develop and implement Sub-projects aimed at reducing pressure on marine resources and provision of alternative livelihood income in such areas as fish processing, recreational fishing, eco-tourism and small-scale aquaculture. Planned activities focused on i) review of relevant legislation, policies and management practices, ii) identification, planning and implementation of sustainable economic activities, demonstrating small scale, low impact alternative livelihood sub-projects, and iii) strengthen community participation and compliance, and iv) promote institutional capacities and legal framework for regional collaboration in sustainable living marine resources management.

Component C: Regional Environmental and Socioeconomic Monitoring Network

Estimated cost: GEF US\$1.2 million - Co- and Parallel Project Financing US\$7.45 million

Actual cost: GEF US\$1.2 million - Co-Financing US\$280,000

18. Strengthening Regional Environmental and Socioeconomic Monitoring Network of PERSGA member countries to support ecosystem and community benefits-based management, including standardization of parameters and monitoring approaches, making data comparable and sharable, and expansion of monitoring to include socio-economic data, especially for fishery and communities inside MPAs.

Component D: Project Management

Estimated cost: GEF US\$250,000 - Co-Financing and Parallel Projects Financing US\$1.25 million

Actual cost: GEF US\$250,000 - Co-Financing US\$4.73 million

19. Strengthening the Recipient's capacity for Project management, coordination, monitoring and evaluation through provision of goods, consultants' services, including audit, training and financing of travel costs.

20. **Estimated co-financing and parallel project financing:** The GEF contribution to this Project was US\$3M with in-kind contributions from PERSGA member countries of US\$6 million and an additional US\$9 million in parallel financing from the Yemen Fisheries Resource Management and Conservation Project; hence GEF funds are leveraged at a ratio of 1:5. At the appraisal stage, the amount for co-financing and parallel project financing is combined (see further details in Annex 3), as it was not possible to separate the numbers based on the information in the PAD.

21. **Actual co-financing and parallel project financing:** Actual co-financing from PERSGA member countries reached US\$8.53 million and actual parallel project financing reached US\$29 million, raising the GEF ratio to 1:12. However, it was not possible to estimate the contribution of parallel financing by component (see Annex 3).

B. SIGNIFICANT CHANGES DURING IMPLEMENTATION

Revised PDOs and Outcome Targets

22. The PDO and related outcome indicators were revised in a Level 1 restructuring approved on September 16, 2016.

23. **Revised PDO: To improve management of selected Marine Protected Areas by local communities and strengthen information sharing between PERSGA member countries.** Still a composite, the revised PDO has two expected outcomes:

- (i) Improve management of selected Marine Protected Areas by local communities, and



- (ii) Strengthen information sharing between PERSGA member countries.

Revised PDO Indicators

24. **The PDO indicators were revised for clarity and to better align with the revised PDO.** One PDO indicator was dropped, and one was moved to the intermediate level. A summary is provided in Table 2 below.

Table 2: Revision of PDO indicators

Original GEO	Revised GEO	Note
To improve management of marine resources in the Red Sea and Gulf of Aden in selected Marine Protected Areas building on resource protection and incentive systems for communities and the harmonization of the knowledge base of marine resources among PERSGA member countries.	To improve management of selected Marine Protected Areas by local communities and strengthen information sharing between PERSGA member countries	GEO revised for clarity (focus on ends, not on means) and to specify beneficiaries (local communities).
Original PDO Indicators	Revised PDO Indicators	Note
Marine areas brought under biodiversity protection (ha): 40,000	Dropped	Indicator dropped as the project does not focus on biodiversity and none of the activities aim to protect biodiversity.
	Area in selected marine protected areas under improved management (ha): 40,000	New indicator, added to capture the revised GEO with regards to improved management of selected MPAs.
Direct project beneficiaries (#): 3,000	Direct project beneficiaries (#): 1,500	End target revised downward as original target was too ambitious.
- Percentage female: 30%	- Percentage female: 30%	Unchanged.
Number of alternative livelihoods projects realized by communities (#): 4	Moved	Moved to intermediate level and revised for clarity: Alternative livelihood projects completed by communities (#): 4
Availability of harmonized parameters and database for PERSGA member countries: Yes	Agreed upon common Red Sea monitoring variables of water quality, fisheries and coral reef habitats accessible for PERSGA member countries on a regional database: Yes	Indicator revised for clarity and to focus on strengthened information sharing through access to data on common variables for all participating countries.

Revised Components

25. The components were not revised.

Other Changes

26. **Intermediate indicators were also revised in the first restructuring of September 16, 2016.** Out of 19 original intermediate indicators, 16 were dropped which focused on process and biodiversity, targets for two indicators were revised upwards, and one indicator remained unchanged (see Restructuring Paper, details in Annex 6). Six new intermediate indicators were introduced, which were similar in nature and scope to the original indicators, but more clearly defined and aligned with the revised PDO and outcome indicator, which dropped references to biodiversity outcomes entirely (see rationale for changes below).



27. **The project closing date was extended from January 31, 2018 to December 31, 2018 in a Level 2 restructuring approved on December 1, 2017.** The extension was requested by PERSGA in a letter to the World Bank dated July 16, 2017. The extension was sought to: (i) allow more time for five livelihoods subprojects to be completed and for their expected benefits to be demonstrated to the community before Project closing; (ii) assess implementation of the MPA management plans developed by the Project in order to demonstrate effectiveness; (iii) allow for more time for environmental and socioeconomic monitoring activities to be well established and operational in Djibouti. Disbursement estimates were updated to account for implementation delays and supported by the revised implementation schedule and procurement plan.

28. **Location of pilot site changed due to political unrest in Egypt and Yemen.** As part of the civil uprising in MENA region, which began in Tunisia in late 2010, political unrest engulfed Egypt and Yemen for years. During project preparation, Wadi El Gemal-Hamata National Park (WGHNP) in Egypt had been proposed as one of two MPA pilot sites, the other being Dungonab Bay – Mukkawar Island Marine National Park (DMNP) in Sudan. However, Egypt did not submit the GEF required Endorsement Letter and withdrew from the project early on. At project appraisal, the plan was to identify Kamran Island Marine Protected Area (KIMPA) in Yemen as a possible MPA pilot site, but this plan was eventually dropped as violent conflict broke out in Yemen, which have persisted until today. Meanwhile, Egypt returned to the project after popular elections were held in May 2014, and WGHNP eventually became the second MPA pilot site.

Rationale for Changes and Their Implication on the Original Theory of Change

29. **The revisions reflect better measures of the Project's outputs and objectives without reducing the scope or level of ambitiousness.** The spirit of the revised PDO/GEO and outcome indicators impacts positively on the TOC and remains true to the original project objectives, while the clarifications to outputs improve the links in the results-chain.

30. **The rationale for revising the original PDO, or Global Environmental Outcomes, is threefold:** First, to focus the wording on the ends “to improve management” and remove the means by “building on resource protection and incentive systems for communities”; second, to specify the target beneficiaries of improved MPA management as the local communities, and; third, to focus on outcomes for which the Project could be reasonably held accountable. The latter referred to both parts of the PDO: i) To “improve management of selected MPAs” rather than “to improve management of marine resources in selected MPAs” as the former implicitly includes management of marine resources; and ii) to “strengthen information sharing” rather than “harmonization of the knowledge base”, as the former is specific, measurable, and attainable. The clarified TOC is illustrated in Figure 2 in Annex 1.B.

31. **Biodiversity protection is dropped as an outcome indicator of improved MPA management.** None of the project activities aimed specifically at protecting marine biodiversity, but rather focused on improving management of MPAs. In the clarified TOC, improved management of MPAs is an outcome of MPA management plans being informed by communities and with assigned user rights, of alternative livelihoods that reduce pressure on the marine resources, and of sustainable fishing practices that protect species and stocks from overexploitation.

32. **Outputs are focused at the appropriate level and aligned with the M&E plan.** In the original TOC, some of the outputs would have been more appropriate at the outcome or even impact level, such as i.e. a 15 percent variance in groupers and coral reefs. Seeing an effect of planned activities at this level could take many more years than the duration of the project. Following the restructuring, outputs are more appropriately defined and better linked in the results chain to activities and outcomes.



II. OUTCOME

A. RELEVANCE OF PDOs

Rating: Substantial

Assessment of Relevance of PDOs and Rating

33. Project development objectives have remained highly relevant to the Bank’s regional development agenda and substantially relevant to national development priorities.

34. **MENA Regional Strategy:** The Project is relevant to the strategic priorities outlined in the new 2019 MENA regional strategy titled “Economic and Social Inclusion for Peace and Stability in the Middle East and North Africa: A New Strategy for the World Bank Group”. The strategy is built around four pillars addressing root causes of conflicts and violence and their consequences through development that fosters inclusion and shared prosperity. The Project supports Pillar II on Regional Cooperation focused on regional integration around public goods and sectors including water, and helps to foster greater trust and collaboration across MENA region.

35. **National development priorities:** The project has stayed relevant to most current Country-Bank development agendas. Table 3 below summarizes the alignment between project objectives and the strategic priorities for collaboration between the Bank and participating countries as per the most recent partnership frameworks and strategies. While Bank engagement in Egypt and Yemen is currently focused on more urgent issues, the PDO is still highly relevant to the countries medium- and long-term development agendas. As countries with a large potential for harnessing the value of the blue economy, this project lays the foundation for such work in the future.

Table 3: PDO relevance to Bank-Country partnership priorities

Country	Country-Bank Engagement	Period	Alignment with Strategic Priorities
Djibouti	Country Partnership Strategy	FY14-17	The CPF five-year strategy and action plan supports the implementation of the GoD’s Vision 2035. Pillar I focus on Reducing Vulnerability, and project activities are aligned with the strategy to pilot innovative approaches to reduce vulnerability at the community level. Building partnerships and engaging citizen’s in the development process are key strategies promoted in the CPS and supported by project activities.
Egypt	Country Partnership Framework	FY15-19	The current CPF comes at the heels of the political transition period 2011-2014 and presents a departure from previous Bank strategies in Egypt and a significant shift from previous priorities and sectors. Water and environment issues are now addressed through other priorities, such as governance and agriculture. The Project supports aspects of the current CPF, which relate to closer cooperation and integration with other countries in the region, and specifically supports lagging regions, such as Upper Egypt.
Jordan	Country Partnership Framework	FY17-22	Objective 2.1 focus on improved management of the water sector. Water is identified as the new “frontier” for Jordan’s economy, and regional collaboration is strongly promoted due to its significant potential to improve management of scarce resources in the sector. Environmental protection remains an important element of Bank assistance to Jordan. The Project also supports cross-cutting issues related to gender and governance.
Sudan	Interim Strategy Note	FY14-15	For more than a decade, the WB has supported Sudan through a knowledge development program as Sudan is not eligible for IDA funds. The Project is in line with this approach through capacity building and institutional strengthening and supports the overarching goal of promoting shared growth to reduce conflict and provide economic opportunities.
Yemen	Country Engagement Note	FY17-18	The short-term CEN outlines WB engagement with Yemen during the ongoing conflict, focusing on creating stability through renewing the social contract, economic inclusion, and regional cooperation. While urgent needs related to peace building sets the agenda for Bank engagement in Yemen, the objectives of the project are still highly relevant to Yemen’s future development, albeit not urgent in the current context.



36. **SDGs and the Blue Economy:** The Project supports the achievement of Sustainable Development Goal 14 to “conserve and sustainably use oceans, seas, and marine resources for sustainable development.” The project is tapping into the potential of the blue economy to provide long-term benefits from the sustainable use of marine resources. The UN and WB highlight the importance of the blue economy to reaching the SDGs by 2030, and the project supports the equitable and sustainable use of marine resources to promote economic growth and social inclusion. Particularly in coastal least-developed countries such as Djibouti, Sudan, and Yemen, project support for the blue economy is particularly relevant.

37. **GEF-7 IW Strategic Focus:** The PDO remains highly consistent with global priorities of the current 2018-2022 GEF-7 IW focal area, particularly Objective 1 “Strengthening the Blue Economy”, which aim to sustain healthy marine ecosystems and catalyze sustainable fisheries management.

B. ACHIEVEMENT OF PDOs (EFFICACY)

Rating: High

Assessment of Achievement of Each Objective/Outcome

38. The Project objective is to improve management of selected Marine Protected Areas by local communities and strengthen information sharing between PERSGA member countries. Assessment of Project achievements are organized around each of the two expected outcomes:

- Improve management of selected Marine Protected Areas by local communities, and
- Strengthen information sharing between PERSGA member countries.

39. While the project was restructured, a split evaluation of project achievements is uncalled for because the nature, scope, and ambition of the original project objectives and activities remained unchanged, while only the links in the results-chain were clarified and the TOC strengthened.

(i) Improve management of selected Marine Protected Areas by local communities

40. **The project improved over 200,000 hectares of marine waters in the MPA pilot sites of DMNP and WGHNP** (PDO Outcome Indicator #1 500% achieved). This outcome was achieved based on i) the development and implementation of MPA management plans for each area with updated zoning plans and assigned user rights informed by consultations with 1000 community members, and ii) the completion of 10 community-based alternative livelihood sub-projects to reduce pressure on marine resources.

41. **The project supported the development of 3 MPA management plans, which are all being implemented** (Intermediate Indicator #1 target 150% achieved):

- **Developed DMNP Management Plan 2016-2021 (Sudan):** The final draft of a five-year MPA Management Plan for DMNP was delivered in both English and Arabic versions to Sudanese officials in December 2016. It replaces the Master Plan that was produced in 2004 and currently serves as the primary management document for the DMNP between 2016 and 2021. The completed management plan served to inscribe Dungonab and Sanganeb Atoll as a UNESCO World Heritage Site (WHS) (see Section II.E).



- **Updated WGHNP Management Plan 2018-2023 (Egypt):** WGHNP is an established national marine park with a management plan in place since 2004. The Project delivered the final draft of the updated management plan in September 2018 based on an updated zoning plan informed by community input.
- **Developed integrated Management Plan for Sanganeb & Dungonab National Park (Sudan):** Following the inscription of Dungonab and Sanganeb as UNESCO WHS, PERSGA received an official letter from the Sudanese Minister of Environment to develop an integrated management plan for the entire inscribed WHS including the buffer zone between the two areas. The Project directly supported the development of a third integrated management plan for the combined area of the Dungonab and Sanganeb Atoll.

42. **Updated zoning demarcations stipulating access and user rights to marine resources have improved management of fishing practices within the MPA.** Following a comprehensive review of national fisheries legislation and regulation and following consultations with local communities, each MPA management plan defined and updated the zoning demarcations to govern fishing practices. The rules relate specifically to the use of nets, the size of the mesh, and restricted access for commercial fishing during spawning season. At project end, 600 fishermen are using the specified mesh size and 500 fishermen are observing closed season, equal to 200% and 250% of targets, respectively. As a result, species with high commercial value, upon which the communities depend economically, can now spawn in safe zones and young fish are protected from catch, allowing the stock to grow.

43. **Extensive consultations have strengthened relations between local communities and MPA management and fostered growing awareness and stronger stewardship of the marine protected areas among locals, who appreciate the economic potential of the MPAs.** The MPs were developed and adopted through a consultative process involving local communities and a range of other institutions involved in MPA management, including NGOs, research institutions, and local authorities. In that process, local community members have come to appreciate their user rights, gained a deeper understanding of the economic potential in managing the resources collectively, and takes active responsibility in the implementation of the MPs. This is evident, when fishers now frequently report poaching and other violations within the MPAs to protect against exploitation from intruders and when locals now remove solid waste from mangroves and beaches to keep the environment pristine in order to attract tourists.

44. **Community-driven alternative livelihoods are proving to be effective and sustainable solutions to protect the living marine environment from overexploitation.** 12 livelihood sub-projects were developed by local communities to pilot approaches that generate economic benefits while reducing pressure on the natural marine environment (10 sub-projects are fully completed while another two are close to being operational). The projects were selected based on their potential to benefit the ecosystem and deliver positive environmental impacts. The projects span from bakery, milk production, and handicrafts to fishing vessel maintenance workshops and solar-energy powered water desalination plants. Each initiative is supported through capacity-building and close supervision by PERSGA. With a target of four completed alternative livelihoods, the indicator is 250% achieved. See Annex 1 Output by Component for a full list of livelihood sub-projects.

- **In Egypt, alternative livelihoods are supporting the Qula'an Eco-Village established as a sustainable ecological tourist destination within WGHNP.** Activities include: (i) Solar energy unit to power lights and community run tourism venture, (ii) solar energy operated water desalination at Qula'an eco-village, (iii) Abu Ghosson Women's Center with production of handicraft and textile for tourist establishments, and (iv) procurement of a glass-bottom boat for the fishermen's cooperative for tourist operation. The provision of facilities and amenities has allowed the eco-village to charge a small entrance fee from visitors, which offers



a new stream of revenue to the eco-village and which has reinforced good management practices in the MPA, including the erection of signs to reduce disturbances to mangroves by tourists.

“The Qula’an eco-village has been a success story from a number of viewpoints. In summary, it: created the first community-based tourism venture in Egypt; contributed to positive environmental outcomes such as reduced pressure on mangroves for fuel; raised community stewardship in relation to local natural resources; reinforced community rights; reduced conflict between the local community and the tourism industry; has alleviated poverty and improved livelihoods” Project Coordinator in Egypt.

- **In Sudan, livelihoods activities are transitioning the local community from overreliance of marine resources towards sustainable alternatives.** Activities include (i) renovating the women’s cooperative buildings and provision of equipment to establish new bakeries in the two main villages inside DMNP in Dungonab and Mohammed Gol, (ii) provision of goats to provide milk for the local community and school children, (iii) renovation and equipping of new workshops to allow the local fishermen to repair boats and engines, (iv) installation of solar panels in community facilities (mosque, school etc), and (v) procurement of a glass-bottom boat for the fishermen’s cooperative for tourist operation. The activities have positive spill-over effects to nearby communities and have inspired the installation of other locally-funded solar-power infrastructure in the area.

45. The livelihood projects are all in operation, generating new and alternative revenue streams, and reducing pressure on living marine resources. The mechanisms at play all center around respect for the concept of assigned user rights. For fishers, alternative livelihoods provide them with an income during closed season, which helps to enforce the management plan and reduce pressure on the fish stock. Women’s participation in the livelihoods sub-projects provide additional revenue streams, which also help to eliminate the need for fishers to violate their assigned user rights. Likewise, better equipment helps to protect the marine resources by removing a tendency towards overreliance on those resources, i.e. such as freezer units to preserve and transport catch to retain the commercial value until it reaches the market, and solar powered electricity in place of fuelwood, which is often harvested from mangroves.

46. METT scores on MPA management at DMNP and WGHNP improved 30% and 32%, respectively. The Management Effectiveness Tracking Tool (METT) score tracking was implicit to the indicator “Reporting on GEF IW Indicators and Participation in Workshops” under Component 4 and represents the single best quantitative indication that management at DMNP and WGHNP has improved during project implementation. METT is scored on multiple dimensions from community involvement in the planning process, updated zoning demarcations, improved fisheries management, the application of fees to improve MPA management, improved monitoring and enforcement, and adequate equipment and training for MPA staff – all of which were supported by the Project. A baseline assessment was conducted at DMNP and WGHNP in 2015, followed up with a mid-term assessment in 2016/2017, and evaluated again in 2018 at project closing (see Annex 1 for a graphic on METT Score results).

(ii) Strengthen information sharing between PERSGA member countries

47. Information sharing between PERSGA member countries has strengthened. This is evidenced by i) the ‘Standardized Monitoring Protocol Manual’ with common monitoring variables and methods approved by PERSGA in June 2018 and adopted by 5 PERSGA member countries as of this writing, namely Egypt, Sudan, Jordan, Djibouti and Saudi Arabia, ii) the training of 66 PERSGA member country staff on monitoring methods using common variables, and iii) 4 regional exchanges on data collection and sharing of monitoring results on water quality, fisheries and coral reef habitats, and iv) a regionally accessible database to share information and promote knowledge



exchanges among MPAs in the region. The database contains the results of three years of environmental and socio-economic monitoring data.

48. The Project successfully strengthened regional monitoring cooperation by standardizing monitoring variables and methods in a Protocol endorsed by all PERSGA member countries. Standard methods included environmental and socio-economic monitoring indicators and approaches to collecting data. This has increased the monitoring capacity of member countries and has also allowed PERSGA to track and compare the status of marine resources in the region. The protocols are now contained in a standardized monitoring manual and the promotion of standardized regional coastal environmental and socioeconomic monitoring was executed in all project member states.

49. The Project built capacities of specialists in national monitoring teams and provided institutional and equipment support to promote sustainable monitoring of coastal and marine environments in the countries. The project contracted qualified national institutions to undertake national monitoring programs and trained 66 country staff members in the application of proper monitoring techniques. Four regional workshops focusing on common data collection and sharing were held attended by 100 specialists from the participating countries. 19 national workshops were attended by more than 500 participants. These national and regional exchanges have strengthened information sharing by bringing together specialists from all PERSGA member countries, establishing professional networks and personal contacts among specialists both within and across participating countries and laying the foundation for future collaboration at the regional level.

50. Three years of marine monitoring data is being shared in a regional database (2016-2018). PERSGA member countries have access to the results of the standardized monitoring data. Five monitoring variables are included: socioeconomic characteristics, marine litter, coral reef habitats, fisheries, mangroves, and water physical and chemical characteristics. At project end, the database contains the results from three years of monitoring across the region. The database was developed using online open source tools to ensure compatibility with various systems and to eliminate license fees and maintenance budget.

51. Results will be reported in the second State of the Marine Environment Report (SOMER) for the Red Sea and Gulf of Aden, which is periodically published by PERSGA. Building on the Project interventions and the monitoring data collected in the regional database, PERSGA and member countries are currently preparing the second SOMER for the Red Sea and Gulf of Aden, which follows the framework under the United Nations Convention on the Law of the Sea and includes socio-economic aspects of the marine environment. The SOMER report provides a foundation for improved decision-making at all levels and strengthens a shared understanding of environmental trends and conditions—their causes and consequences—among all stakeholders. The report also provides a baseline of integrated information against which future assessments can be compared. Phase I of the Project informed the first SOMER, which was published in 2006.

52. PERSGA developed a series of knowledge products and “Success Stories”, based on Project experiences, which are being shared regionally and globally. Knowledge products are helping to improve management in other MPAs in PERSGA’s network and beyond. These are being shared online through the Project website, through GEF IW website and in international fora. Information sharing goes beyond PERSGA member countries and is benefitting the global knowledge community on the blue economy. PERSGA has participated internationally to share knowledge and experiences related to the Project, i.e. during the 2nd Annual Africa Regional Network Meeting held on 3-4 September 2018 in Dakar, Senegal, and the 8th and 9th IW Conferences in Sri Lanka, May 2016 and in Morocco, November 2018.



(iii) Discussion of Attribution

53. **Key outcomes were only realized as a result of the GEF financing.** This was confirmed in the Final Evaluation Report (FER), in which feedback from Project participants shows a strong consensus that without the GEF grant, the activities implemented during the Project would not have materialized. The reasons for this being that resources for regional projects are difficult to come by, and that national budget allocations for MPA management in the region tend to be low given the many other urgent priorities.

54. **The project was highly successful in leveraging its impact in the context of on-going government and donor support.** While GEF financing and planned commitments were instrumental in achieving project outcomes, those outcomes were further sustained and amplified due to the additional co-financing leveraged. As such, Project outcomes must be understood through a multi-focal lens of support from government agencies, who have extended significant support to the Project beyond the committed level, from other donors such as United Nations Industrial Development Organization, United Nations Development Programme, United Nations Environment Programme, and from PERSGA itself. In addition, several smaller NGOs and community organizations complemented Project activities. It is difficult to fully account the contributions from each counterpart, but the points below serve to illustrate the complementarity of the support leveraged by the Project:

- At Qula'an village, the intervention was co-financed by PERSGA, and two NGOs HEYA and HEPCA. PERSGA provided the solar system (panels, cables and batteries); HEYE provided the new houses for local community and HEPCA provided the 'tent' that serves as the café for tourists using the beach.
- At Mohammed Gol, PERSGA provided the solar system to operate the vessel maintenance center. The maintenance center is hosted in a sea container that was provided by the Sudanese Department of Wildlife Protection, while the jetty at the landing site was provided by a UNIDO project.
- At Abu Ghosson, the handicraft center was installed by PERSGA in a building provided by the local government. PERSGA also provided the furniture, sewing machines and weaving/loom equipment. HEPCA funded floor tiles to be placed inside the center as well as continuous training.
- At Moucha-Maskali Islands MPA, PERSGA provided the material to build the fishers center and the solar system. The fisher's association funded the construction of the center and transport of material by their boats to the center location at Maskali Island. The Djibouti Department of Tourism provided the land and license for the center on the Island.

Justification of Overall Efficacy Rating

55. **Overall Project efficacy is rated High.** This is justified by the high achievement of the PDO and the two project outcomes i) to improve management of DMNP and WGHNP by local communities and ii) to strengthen information sharing among PERSGA member countries.

C. EFFICIENCY

Rating: Substantial

Assessment of Efficiency and Rating

Project efficiency is assessed based on an ex-post incremental cost analysis and the assessment of efficiency in Project administration, design and implementation.



Ex-post incremental cost analysis and assessment

56. **At the time of appraisal, an Incremental Cost Analysis was conducted in lieu of standard economic and financial rates of return.** In a qualitative analysis, the costs and benefits of the project activities were separated from a baseline set of activities, which were likely to be carried out independently of the availability of GEF resources, and then compared with an additional set of activities that were contained in the proposed Project. The analysis showed that the GEF alternative scenario would generate significant global environmental benefits by adding incremental value to a baseline investment scenario of US\$15.89 million through the application of ecosystem-based management to marine protected areas and of a regional perspective to monitoring and information sharing.

57. **The Project was remarkably successful in leveraging substantial resources that maximized the impact of the Project.** Two mechanisms were at play, co- and parallel financing (see a list of realized co- and parallel finance in Annex 3). Direct co-finance was provided by PERSGA and national governments for a total of US\$8.53 million at a ratio of 1:2.8 compared to the GEF investment of US\$3 million, or 42% more than planned. Parallel finance was leveraged from other donor projects and amounted to over US\$37 million at the time of project closing, or more than double that expected, with an overall ratio of 1:12. This outcome compares favorably to the approved ratio of 1:5 (see Table 4).

Table 4: Estimated and actual leveraged Project finance

	Appraisal-stage (US\$M)	ICR-stage (US\$M)
GEF	3.00	3.00
Direct co-finance	6.00	8.53
Ratio GEF:Co-finance	1:2	1:2.8
Parallel finance	9.89	29.10
Co- and parallel finance	15.89	37.63
Ratio GEF:TOTAL	1:5	1:12

58. **The ex-post incremental cost analysis shows that the Project delivered incremental value to the global environment and worked as a catalyst to change the baseline scenario** (Table 6Annex 4). By realizing all planned activities, meeting or exceeding most outputs targets, and achieving the project development objectives, the Project has delivered on all expected global environmental benefits. Key among those are:

- Reduced pressure on fragile marine resources while balancing the needs of community livelihoods;
- Empowered local communities to be stewards of the marine environment by strengthening their understanding of ecosystem-based management;
- Improved standardized environmental monitoring, making information comparable at the regional level and integrating fisheries stock information, and;
- Focused on regional trans-boundary issues for improved environmental management and performance thereby facilitating marine and coastal biodiversity of global significance.

Efficiency of project administration, design and implementation

Project implementation and achievements must be understood in the complex operating environment that is the regional transboundary nature of the Project in a challenging country context. As a regional Project among countries at very different stages of development, marked by conflict and violence, and with varying degrees of capacity, Project administration must compensate for those differences by first leveling the playing field through substantial mobilization and capacity building. Only then will all stakeholders be afforded a chance to participate in,



contribute to, and benefit from the project. The up-front legwork required to reach local communities living in isolated areas, establish trust among the community leaders, and mobilize their support and engagement in the planned Project activities is a momentous under-taking, which requires patience, personal commitment, and cultural awareness among the Project team members. Likewise, institutional partners in countries with lower capacity require additional training, equipment, and capacity building to develop ownership of the Project. By letting the process run its due course rather than letting tight timetables set the agenda, implementation efficiency was nurtured and led to the successful achievement of project outcomes.

59. The design of alternative livelihood activities was highly efficient. The livelihood sub-projects were designed to be economically viable with one of the selection criteria being a positive internal rate of return. The design encouraged the adoption of low maintenance technologies and infrastructure that local people could maintain or replace at their own cost, such as the choice of construction material etc. Where appropriate, the Project team sourced technologies developed locally or in the PERSGA region, i.e. the glass-bottom boats are produced in Egypt. Given the remote location of each of Project sites, it was not possible to collect primary data as part of the ICR process to perform ex-post economic analysis at the sub-project level.

60. The Final Evaluation Report found that most sub-projects are showing strong potential to remain profitable over time. While it was not possible to undertake economic analyses at the sub-project level, interviews with project beneficiaries show that most livelihood activities have taken root at the local level and some businesses are seeking to expand. The vessel maintenance center at Mohammed Gol has the greatest potential for long-term financial sustainability given the current level of demand. The traditional handcraft center at both Abu Ghosson and Qula'an Eco-village in Egypt are generating a profit and are seeking to market their goods beyond the MPA.

61. The Project closing date was extended for less than a year (eleven months), an indication of substantial efficiency – particularly given the change in pilot site. The extension resulted in net efficiency gains as the project was able to meet all targets and successfully demonstrate the viability of the EBM approach. There were no cost overruns.

D. JUSTIFICATION OF OVERALL OUTCOME RATING

62. An overall outcome rating of Satisfactory is justified by the (i) continued substantial relevance of the development objectives, (ii) the high achievement of project development outcomes, and (iii) the substantially efficient allocation of resources in achieving those outcomes.

E. OTHER OUTCOMES AND IMPACTS

Gender

63. The project was not gender-tagged, but it had a positive impact on women's economic empowerment in the local context. By supporting women-managed livelihoods sub-projects, the project was and remains highly consistent with the current regional and global development priorities, which specifically target women in closing gender gaps. The geographic area covered by the project is characterized by very conservative social values and the actual economic role of women in the blue economy is limited. For the same reason, it is commendable that the project was able to successfully support women's participation in creating alternative livelihoods that reduce the



pressure on the marine environment, while contributing to increasing women's assets, income earning, employment, and meaningful participation in managing marine resources and project activities.

64. Overall, women made up 38 percent of community members, who were consulted throughout project implementation, and 50 percent of direct beneficiaries of livelihood sub-projects and training workshops. The high percentage was achieved by targeting some subprojects to be led and operated by women exclusively. The women at WGHNP prioritized production of traditional handicrafts and textile products as a business activity. At DMNP, the women prioritized production of bakeries and rearing dairy goats. Women's subprojects have been fully operational since end 2017.

65. Anecdotal evidence shows that the impact of the subprojects to the beneficiary household is substantial. First, there were no upfront contributions to getting involved in the Project-financed livelihood sub-projects for the women. Second, the earned income for some extremely poor female-headed households is crucial, e.g. a woman beneficiary expressed to the Project team that her bakery work at the women's center enabled her to enroll her kids in school again after she had been forced to take them out earlier because she could not meet the schooling expenses. Third, goat rearing provides essential nutritional value to women and children, and all goat milk is consumed locally in the community.

Institutional Strengthening

66. The project facilitated the adoption of the Regional Protocol on Cooperation in the Management of Fisheries and Aquaculture in the Red Sea and Gulf of Aden. The Project triggered the process for revising fishery legislation in PERSGA member countries. This culminated in the review of fisheries related legislation, strategies and policies in all member countries. The review led to the adoption of the Protocol, which was signed on February 28th 2017, providing the legal basis for collaborative and coordinated mechanisms among PERSGA states to regulate fisheries, adopt regional bio-security and bio-safety systems in aquaculture, and implement an ecosystem approach to fishery management and aquaculture development. The reviews also form the basis for updating national fishery legislation and policies, and the FER confirms that this process is already taking place, such as in Jordan.

67. Promotion of the MPA environmental and socioeconomic monitoring program has created long-term partnerships across national agencies. The Project contracted national academic institutes, working closely with MPA authorities and other relevant agencies to execute consolidated national monitoring programs throughout the project period. In Sudan, the Wildlife Administration signed joint agreement with the Faculty of Marine Sciences at the Red Sea University and Marine Fisheries Research Centre within the Ministry of Animal Resources to conduct sustainable environmental monitoring program in DMNP, which includes regular training of MPA officers and rangers in reef checks and allocation of scholarships for postgraduate research focusing on MPA management subjects. In Djibouti, the monitoring program has strengthened collaboration between the Environment Department and national partners, such as the Research Center and Maritime Security, which resulted in better interagency interaction, e.g. the Environment Department have recently started to receive reports on violations observed by fishers and marine security officers in the sea.

68. The Project provided valuable lessons learned that will improve PERSGA's already considerable capacity to manage donor funded projects. Institutional capacity at PERSGA was further strengthened as a result of the Project. Going forward, PERSGA will work on new ideas to streamline Project management even further, and to improve monitoring and evaluation of project progress and achievements. Guidelines provided by the World Bank has exposed PERSGA staff to new ways of structuring and evaluating donor related projects.



Mobilizing Private Sector Financing

69. N/A

Poverty Reduction and Shared Prosperity

70. **Project activities at the two pilot sites contributed to reducing poverty and improving the livelihoods of local communities at Dungonab and Mohammed Gol in Sudan and Qula'an and Abu Ghosson in Egypt.** Communities at these MPAs depend mainly on fishery and pastoralism for a living, which are threatened by a decline of fish stocks and land degradation, and the majority of families live in poverty. Both MPAs are however endowed with rich marine biodiversity that characterizes the Red Sea, which increase their attraction as tourism destinations. In Sudan, livelihood activities have provided fixed income opportunities for women and men, which is making an impact at the community level. In Egypt, livelihood activities supporting Qula'an Eco-Village is transforming WGHNP into a sustainable tourism destination, which contributes to shared prosperity and economic growth. Testimonies from Project beneficiaries confirm this:

- *“We work as groups in the bakery, producing cakes and biscuits. We are 5 groups; each group include around 15 women and use the bakery in shifts. We produce 3-4 kilos per shift (day), and we sell them either by kilo to local merchants or by piece to school kids and other customers in the village market. Each woman earns approximately 100-200 SDG (US\$2-4), when we divide the profit (estimated as \$10-20 per month, based on the information they provide regarding the frequency of the shift work).”* Beneficiary at bakery in Mohammed Gol, Sudan.
- *We market our products at several points in the nearby resorts and hotels. Generally, each woman earns 200-300 Egyptian £ monthly (US\$12-24). Sometimes we have an order to prepare room carpets for a big hotel or a resort; in this case we have a good deal and much more profit. If we can have marketing points at Hurghada and other cities in the north, we can produce to get at least 1500 Egyptian £ per month (90\$) for each working woman”. Community leader of women’s center at Abu Ghosson, Egypt.*

71. **Livelihood activities are providing fishermen with new business opportunities during both closed and open fishing season.** With the construction of a fish landing site in Mohammed Gol, the Fishers Association is running a boat and gear maintenance center. In Djibouti, a new center established for fishers in Moucha-Maskali MPA on Maskali Island has given fishers an opportunity to run a side business of taking tourists to the island during off season. Glass-bottom tourist boats were supplied to fisher communities in WGHNP (Egypt) and DMNP (Sudan), which will also provide additional income to the fishermen when fully operational.

Other Unintended Outcomes and Impacts

72. **The Project contributed significantly to inscribing Dungonab Bay–Mukkawar Island Marine National Park and Sanganeb Marine National Park in Sudan as a UNESCO World Heritage Site.** This is a major achievement, which will ensure the long-term sustainability of the activities to be implemented within the context of the Management Plan developed. In June 2016, UNESCO listed Sunganeb & Dungonab Atoll as a World Natural Heritage Site, and one of the key criteria to be inscribed was the presence of MPA management plans for the continued protection of the sites, of which the Project developed the MP for DMNP. Following, the Project developed an integrated management plan for the entire inscribed area, including the buffer zone between the Sanganeb and Dungonab, which now also enjoys improved management.

73. **The use of solar systems to generate a reliable energy stream had several positive benefits.** Extended periods of lighting had unintended educational benefits, such as in Mohammed Gol where children are now able to read after sunset, thereby potentially improving education outcomes (interview with community leader in October 2018



for the FER). A similar finding was reported by people at Qula'an. Reliable energy has also enabled communities to run freezers to store catch and vaccines. Freezers allows people to catch and retain more fish for market sale, though this could potentially also encourage greater fishing effort of commercial species. With vaccines stored at location, community members need not suspend work to travel to the city for vaccinations.

III. KEY FACTORS THAT AFFECTED IMPLEMENTATION AND OUTCOME

A. KEY FACTORS DURING PREPARATION

74. **Overall, the Project was based on sound diagnostics of the development priorities in the region, lessons learned from Phase I, and extensive consultations with local stakeholders.** The Project was well-targeted to meet the needs of direct beneficiaries while reducing pressure on living marine resources. Stakeholder consultations were carried out during preparation to inform about the Project, assess potential risks, and brainstorm potential livelihoods sub-projects. Local communities expressed strong support for the Project. Project components were logically linked, and planned activities clearly defined. Lessons learned from other IW projects were incorporated, drawing on GEF's deep experience in regional marine projects and best practice knowledge, such as the Coral Triangle Initiative.

75. **Phase I of the Project delivered important lessons learned, which were integrated into the design of the second phase** (see also paragraph 0). Phase I showed the importance of i) complementing the Integrated Coastal Zone Management (ICZM) concept with support to local communities in co-managing benefit distribution of coastal marine resources and on-the-ground alternative livelihoods approaches, ii) strengthening information generation and sharing through regionally-supported monitoring, and iii) simplifying and streamlining project management by using one implementing agency for GEF funds as opposed to three in Phase I, allowing the countries to concentrate on project activities rather than financial and procurement processing.

76. **The Project leveraged PERSGA's capacity and impact directly on local communities and reinforced PERSGA's mandate in the region.** PERSGA had gained significant capacity under Phase I. For example, the Integrated Information Management System, which is an advanced web-based accounting tool, was introduced in 2004 under the first project and enabled seamless management of project finances and procurement. Phase I was focused to a greater extent on developing rapport and building capacity through traditional channels of public authorities. Phase II supported community-based activities and ownership as key steps toward a more distributed and effective form of environmental management with higher sustainability. Such a community-level, rights-based multiuse approach to managing marine resources was untested in the region. Implemented in close collaboration with local organizations and public authorities, the consolidated regional scope of the Project reinforced PERSGA's mandate and global profile.

77. **The original PDO was vaguely worded, and the results framework was confusing.** The project development objective was imprecise and referred to both ends and means. The indicators in the results framework were not fully aligned with operational objectives and some were impact-oriented but placed at the intermediate output level (see Section IV.A). Operational arrangements for M&E implementation included the appointment of an M&E specialist in the PCU project team.

78. **The Project benefitted from a high degree of readiness and sound implementation and risk management arrangements.** Effectiveness was declared two months after Board approval and within the 90 days deadline. All key members of the Project Coordination Unit were in place soon after signing the Project agreement. Operational



risks were identified and assessed to be substantial. Project design risk was rated “high” and mainly related to i) the challenge of designing coordinated national and regional action and ii) the collection of all pledged co-financing contribution from PERSGA member countries to fully implement the Project. These risks were mitigated by the involvement of local communities, regional coordination driven by PERSGA, and co-financing commitments secured upfront from PERSGA member countries. Mitigation measures put in place at the time of appraisal were all adequate.

B. KEY FACTORS DURING IMPLEMENTATION

(a) Factors subject to the control of the government and/or implementing entities control

79. PERSGA’s strong implementation capacity led the project to a highly successful outcome. The PCU at PERSGA was responsible for day-to-day implementation and oversight of the Project. From the very beginning of implementation, the team focused on building relationships with supporting agencies, undertaking participatory consultation with beneficiaries; and thorough planning and analysis prior to the commencement of sub-projects. PERSGA handled all matters related to compliance with GEF, World Bank and PERSGA reporting requirements; routine implementation of M&E, provision for external Mid-Term and Final Evaluations, sharing project information and lessons learned with international fora on IW, and participation in GEF IW Conferences and other relevant activities. At the national level, the PCU was supported by National Steering Committees (NSC) formed in each participating country to coordinate activities at the national and local level. The highly competent and committed staff at both the PCU and NSC are key factors for the positive project outcomes.

80. Evidence from the Final Evaluation Report shows that local beneficiaries and national project stakeholders appreciated the effectiveness of Project management. Consensus amongst interviewees was that the management process was effective. Most agreed that management was characterized by having a clear and stated goal with effective communication lines, transparent and timely decision making, strong oversight over budget and allocation of funds, and that members of the PCU listened to the National Coordinators (NC). They also highlighted flexibility to modify Project activities when necessary and to take advantage of opportunities such as i.e. increase the number of participants in trainings and workshops. The Project team members were well versed with the challenges of executing projects in the region, indeed, all members of the Project team are from the region and thus were aware of cultural nuances.

81. The Project successfully mobilized funds beyond the originally anticipated level. As a result of continued and growing commitment from national governments and the trust earned by the Project team among local beneficiaries, additional co-finance provided by PERSGA member states allowed for a higher number of livelihood sub-projects to be completed. Timely, strategic, and pointed synergy with parallel project financing enabled the Project to achieve beyond planned outputs and strengthen expected Project outcomes and global environmental benefits.

82. The livelihood sub-projects were realistic in terms of ambition and cost. PERSGA encouraged the adoption of low maintenance technologies and infrastructure that local communities could maintain or replace at their own cost. Where appropriate, the Project team sourced technologies developed locally or in the region. Interviewees in the FER confirmed that the management team was thorough in its planning and analysis of support for community-identified livelihood sub-projects. The PERSGA Project management team made regular visits to Project sites to evaluate progress and solicit feedback and input from the NCs.



83. The Project was off to a slow start, but PERSGA's Project team delivered thorough and adaptive management. At the time of the Mid-Term Review (MTR) in March 2016, project implementation was behind schedule, the disbursement rate was low at 28 percent, and key project ratings were rated Moderately Unsatisfactory. PERSGA attributed this delay to several factors, including the suspension of activities for Egypt from the onset of the project, and the decline in the security situation in Yemen from September 2014. The FER also mentioned the show of commitment to building strong relations with local communities at the outset of the Project as one of the reasons for the ensuing delay. PERSGA effectively used M&E data to assess the status of project implementation and timely detect the need to restructure the Project. Thorough planning and analysis at the initial stage of implementation coupled with timely Project restructuring enabled a successful implementation of the project and the achievement of development objectives.

(b) Factors subject to World Bank

84. The Bank project team provided timely and engaged supervision of the project. The Project was led by two TTLs, who undertook 10 supervision missions over 5 years. The team was proactive in exploring new opportunities for project restructuring and extension of closing deadline. The team provided generous support in technical missions, safeguards assistance, and FM training and has ensured appropriate transition arrangements as the regional work is embedded into PERSGA's agenda. Mission aide memoires and internal implementation status and results (ISR) reports show that the World Bank Project team maintained candor of reporting and addressed PERSGA's concerns and requests in a timely manner.

(c) Factors outside the control of government and/or implementing entities

85. Political unrest in Yemen and Egypt affected project implementation and caused slight implementation delay. Due to the outbreak of violent conflict in Yemen, the pilot site identified in Yemen was dropped. Egypt rejoined the project shortly after popular elections were held in May 2014. Declared a national park in 2003, WGHNP in Egypt, which was ten times larger than KIMPA in Yemen, had developed a higher level of capacity for MPA management compared to KIMPA, which was a newly declared NP in 2009. Implementation of project activities in WGHNP managed to catch up with only a slight implementation delay of less than a year.



IV. BANK PERFORMANCE, COMPLIANCE ISSUES, AND RISK TO DEVELOPMENT OUTCOME

A. QUALITY OF MONITORING AND EVALUATION (M&E)

Rating: Substantial

M&E Design

86. **The theory of change** that the application of an EBM approach to the distribution of access and user rights to marine resources, to the realization of alternative livelihood projects, and to the regional monitoring framework would improve management of select marine protected areas in the RSGA was clear and realistic.

87. **Shortcomings of the M&E design related to the unclear outcome indicators.** The original key Outcome Indicator measured “marine areas brought under biodiversity protection”. However, none of the planned project activities were directed towards biodiversity protection, but rather sought to improve MPA management and thereby indirectly aimed to protect and conserve biodiversity of marine resources at the impact level. To illustrate this point, a search for the term “biodiversity” in the PAD returns only a handful of entries, mainly in the context of the outcome indicator itself. This was corrected in the September 2016 restructuring, when the indicator was dropped and replaced with a more pointed indicator measuring the marine area under improved management based on the same target value. The other original key indicator measured the “Availability of harmonized parameters and database for PERSGA member countries”. The PAD did not specify what was meant by “harmonized parameters”, and the term was swapped with “Agreed upon common ... variables..” as a more precise wording and defined as a set of standardized variables that was endorsed by all PERSGA member countries.

88. **Intermediate indicators were also revised, making the RF overall more streamlined.** With 19 intermediate indicators approved, several of those overlapped and tracking that many indicators was unpractical. Furthermore, some of those intermediate indicators were impact-driven though included at the output level. All but three intermediate indicators were dropped and replaced by clarified indicators.

M&E Implementation

89. **Full implementation of the M&E program was initially delayed.** In part because an M&E specialist had not been recruited or appointed, and in part because M&E mechanisms had not been properly defined and implemented. The latter was largely due to the vague and unclear results framework approved at appraisal, which did not enable effective monitoring of project activities. This was remedied in 2016, when PERSGA proactively recommended a restructuring of the M&E framework, following which M&E substantially improved.

90. **Monitoring and evaluation data were collected and analyzed in a systematic way by the PERSGA PCU.** Progress reports were regularly transmitted to the World Bank and updated before missions. PERSGA tracked project implementation, tallied the number of participants in meetings and consultations, and coordinated the contracting of national specialist entities to undertake environmental and socio-economic monitoring in all PERSGA member countries.

M&E Utilization

91. **M&E data was regularly reviewed by PERSGA and was effectively used to plan activities and to inform decision-making about Project course-correction.** At the MTR, monitoring data was used to timely detect the need to restructure the project PDO and results framework. The lack of clarity and progress of several results indicators, underlined the need to revise the GEO and results framework in order to be able to accurately reflect progress towards achievement of project results.



Justification of Overall Rating of Quality of M&E

92. **Overall quality of project monitoring and evaluation is rated Substantial.** The justification is i) that even with moderate shortcomings in M&E design related to the results framework, with the restructuring it was adequate in tracking progress towards the development objectives, and ii) that M&E was executed in a timely manner by a dedicated PCU. The recommendations from the MTR were adopted and were sufficient for the successful achievement of project objectives. Substantial improvements were observed in the revised results framework following the September 2016 restructuring, in which the vaguely worded PDO was clarified and both outcome and intermediate indicators were revised for clarity and realigned at the appropriate levels.

B. ENVIRONMENTAL, SOCIAL, AND FIDUCIARY COMPLIANCE

93. **The project was rated “category B” (partial assessment) with expected significant positive environmental and social impacts.** The project triggered three safeguards policies: OP/BP 4.01 Environmental Assessment reflecting the potential for some negative environmental impacts associated with Component 2 with regards to the alternative livelihoods; OP/BP 4.04 Natural Habitats given activities related to marine habitats and fish stocks, and; OP/BP 4.12 Involuntary Resettlement due to the potential restriction of access for fishers and other users to new demarcated areas as part of the updated zoning plans.

94. **An Environment and Social Management Framework (ESMF) and a Process Framework (PF) were prepared for each pilot study site.** Environment and Social Management Plans (ESMP) were prepared for each of the livelihood sub-projects. The project held comprehensive consultations and focus group discussions with stakeholders to assess different perspectives and systematically address conflicts of use for the realization of environmental benefits. The ESMF showed that most potential negative environmental impacts would be minor, temporary and site-specific in nature and could be mitigated through implementation and compliance with the ESMPs. A Safeguards Specialist was appointed to the PCU in PERSGA to support and monitor how the social and environmental objectives for each sub-project were being met. All safeguards instruments were timely disclosed, and safeguards was consistently rated Satisfactory throughout implementation.

95. **PERSGA is applying the same social and environmental safeguards to activities outside the pilot sites and sharing lessons learned from the Project.** Having gained significant institutional capacity for proper safeguards, PERSGA organized a Regional Training Workshop on “Zoning Planning and Environmental and Social Management of Alternative Livelihoods Subprojects in Marine Protected Areas” in Hurghada, Egypt on 16-18 April 2018. A total of 30 participants from all PERSGA member states attended the workshop, which provided extensive training on MPAs zoning planning, monitoring MPA management effectiveness, and environmental and social safeguards in all stages of development of livelihood subprojects. The training was based on Project experiences at DMNP in Sudan and WGHNP in Egypt as the pilot sites of the Project.

96. **Financial management was handled by PERSGA, and no significant FM issues arose during implementation.** PERSGA managed all FM aspects of the Project including accounting, recording, and reporting using an automated accounting system and the internal control system was based on an acceptable manual of procedures and disbursement processes. PERSGA submitted satisfactory quarterly Interim Financial Reports (IFRs) to the WB on a timely basis. Project finances were audited regularly by the WB Procurement Office in Cairo, by the internal audit of the WB office in Zagreb, and by externally certified accountants, all of which delivered unqualified reports.

97. **Procurement plans were updated regularly to develop the budget and submitted on time to the WB.** Activities were executed according to the different processes and procedures as defined in the procurement plans. Bi-annual



post procurement reviews were carried out by the Bank. No issues regarding procurement arose during implementation.

C. BANK PERFORMANCE

Quality at Entry

98. The Bank team employed due diligence in basing the Project on a solid diagnostic of regional development priorities and was closely aligned with the Bank's engagement strategies in the region. The team drew on the Bank's knowledge from the Global Oceans Initiative and incorporated lessons learned from Phase I of the Project and other relevant projects. Close consultations with regional, national, and local Project stakeholders helped frame the project design and set-up the institutional arrangements that carried the Project to a successful outcome. The team paid close attention to poverty and gender issues in the Project design and aimed to ensure sustainability of livelihood projects by developing local ownership of the projects and relying on locally available materials and technologies. Provisions for safeguards, procurement, and financial management were adequate at entry, and built on the existing strong capacity for implementation at PERSGA.

99. Two aspects that would have benefitted from higher quality at entry are the PDO and the results framework, which both required a restructuring to enable effective monitoring towards intended Project outcomes. However, it should be noted that the original theory of change was internally logical and did not change as a result of the restructuring, only the results chain was clarified.

Quality of Supervision

100. The Bank provided timely and adequate guidance to the Project and supported the implementation of project activities in bi-annual supervision missions. With a keen focus on strengthening the development impact of the Project, the project team proactively clarified the indicators that were too broad or vaguely worded and aligned activities, outputs, and outcomes to the overall objectives in the first restructuring. Recommendations put forth in the MTR and adopted by PERSGA were aimed at bringing the Project out of problem status with an MU rating and effectively set the Project on a trajectory towards the satisfactory achievement of outcomes.

101. The WB Project team provided adequate assistance on safeguards, FM and procurements, and maintained candid communication lines with both PERSGA and Bank management. During the ICR mission and in the FER, the PERSGA Project team expressed appreciation to the WB team for the successful execution and management of the Project.

Justification of Overall Rating of Bank Performance

102. **Overall Bank performance is rated Satisfactory.** This is justified by the satisfactory quality at entry with moderate shortcomings to the design of the PDO and results framework, and to the satisfactory quality of supervision, which provided the adjustment needed to mitigate the effect of those shortcomings.

D. RISK TO DEVELOPMENT OUTCOME

103. **The governments of Egypt and Sudan have responded positively by increasing staff and budget to empower MPA management, but management and zoning plans must be updated and reviewed periodically to stay relevant.** Committing a larger budget to each of the two MPAs bodes well for the continued implementation and enforcement of the project-supported management plans. However, MPA management and zoning plans are living documents that remain in draft state and depend on periodic updating to stay relevant taking into account changes in the living



marine environment, in the social and economic fabric of the community, and in new and emerging threats. The project has built significant capacity at the technical and institutional level of local authorities and MPA managers, but this achievement must be sustained through future training and capacity building when there is turnover of staff and to address emerging issues. The MPA managers, who form part of the PERSGA network have been trained on proper management, planning, and evaluation processes. They are also able to evaluate the management effectiveness of the MPAs using the METT scorecard. The project delivered backup of all digital files and soft data with tables, maps, satellite images, GIS data, etc., to official authorities and parks managers to enable updates.

104. **The Project has strengthened commitment to MPA management, but continued work at the regional level is necessary to sustain outcomes.** The project has advanced regional collaboration around standardized monitoring and integrated assessment of marine environment. However, issues related to data sharing, national monitoring capacities in member states, and high monitoring costs under limited budgets prevail. These issues must be addressed for current outcomes not to be undermined. This will require continued training to promote national capacities in the use of regional standard monitoring methods, and cost-effective solutions should be considered in a regional perspective.

105. **Livelihood sub-projects have proven profitable, but their sustainability is vulnerable to internal community disputes and future negotiations about access and user rights.** The development of alternative livelihood strategies and activities is integral to making marine managed areas a reality. Designed as alternative income earning opportunities for local communities, their continuation rests on local economic dynamics and on access and user rights agreed to as a community. For example, sub-projects focusing on tour boat operation and hand craft production for tourists are vulnerable to seasonal swings and economic downturn. Furthermore, when zoning plans of marine areas are being updated, internal power struggles and tribal relations may play a role in how resources and benefits are distributed.

106. **The weakest link may disrupt the accrual of environmental, social, and economic benefits highly dependent on a shared vision and coordinated, joint action among all PERSGA member countries.** The marine environment is a transboundary matter, and protecting its natural abundance and integrity requires all parties to deliver on the commitments agreed to by the whole group. However, as many of the littoral countries of the RSGA are not unfamiliar with political instability and violent conflict, there is a risk that national priorities may shift away from environmental issues and disrupt the accrual of regional benefits from improved management of MPAs and living marine resources.

V. LESSONS AND RECOMMENDATIONS

107. **Regional projects require more time and effort in the upstart phase to mobilize different projects stakeholders, and this should be recognized in the project design.** Too often the design of regional projects is identical to a similar project in a national context and fail to sufficiently consider the qualities that make regional projects different. Even so, it is widely accepted among Project implementation agencies that the efficiency of regional Projects is different from national projects, by definition. The upstart phase takes longer as the coordination effort is more complex, the implementation capacity across countries can differ significantly, and internal events in one country will likely affect implementation progress of the whole project. Inevitably, these qualities will lead to implementation delay as they were not properly addressed as part of the project design. The lesson would be not to underestimate the time needed for mobilization and capacity building in the crucial first 12 months of the implementation phase.



108. **Effective execution of regional activities rests on strong political and financial support from member countries and on a leadership structure that breeds trust vertically and horizontally within and across countries.** As a regional entity with a clear mandate underpinned by the Jeddah Convention, PERSGA enjoys strong support among its member countries. This was evident throughout implementation, where member countries continued to commit financial resources to the project elevating co-financing above expected levels. Moreover, PERSGA took on another operational dimension when for the first time ever the organization moved from its traditional role at the national and regional level to getting involved at the community level. This required a different skill set to develop the kind of trust that would allow PERSGA staff to operate effectively at the local level. The leadership style employed and the cultural sensitivity embodied by PERSGA staff, breathed trust into the relationships built with local community leaders and members, and earned the necessary loyalty and commitment from communities at each pilot site to implement project activities in an efficient and sustainable manner.

109. **Timely and engaged supervision can bring a project back on track.** A positive lesson can be derived from the fact that the project achieved intended targets and outcomes despite a vaguely worded PDO and unclear RF. The MTR was a game changer, where PERSGAs proactive management coupled with the Bank's thorough supervision lead the Project towards a restructuring, which made the difference for development effectiveness. What becomes apparent is how solid diagnostics of the development problem, careful design of project activities, and strategic implementation arrangements remained relevant throughout the life of the project.

110. **Keeping ambition and costs in line with local traditions and capacities is a key success factor for the successful completion of community-based alternative livelihood projects.** Too often, the design of alternative livelihood modules is based on unrealistic ideas or influenced by outsiders with limited knowledge of local traditions. Developing alternative projects in plenum and focusing on matching proposed activities to locally available technologies and materials explain how the project achieved above the target of four livelihood projects to complete 10 livelihood projects with another two nearly in operation. It also lays the foundation for improved sustainability of the subprojects, as it affords the local community an opportunity to construct and repair the buildings and technology introduced as part of the project.



ANNEX 1. RESULTS FRAMEWORK AND KEY OUTPUTS

A. RESULTS INDICATORS

A.1 PDO Indicators

Objective/Outcome: To improve management of selected Marine Protected Areas by local communities

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Area in selected marine protected areas under improved management	Hectare(Ha)	0.00	40000.00	40000.00	200000.00
		29-Aug-2013	31-Jan-2018	31-Jan-2018	31-Dec-2018

Comments (achievements against targets):

Target 500% achieved. The indicator was introduced in the September 2016 restructuring, and replaced an original indicator with the same target value related to biodiversity protection of marine resources, which was dropped concurrently (see Section I.B). At project end, over 200,000 hectares in DMNP and WGHNP marine protected areas are benefitting from improved management as evident by a 30% and 32% increase in the METT score, respectively, which tracks management effectiveness. "Improved management" was achieved based on i) availability of 2 updated MPA management plans with assigned user rights and informed by input from consultations with 1000 community members, ii) realization of 10 alternative livelihoods to reduce pressure on marine resources, and iii) fishermen using mesh size (600 fishermen) and observing closed season (500 fishermen) in accordance with updated management plans – all of which are intermediate indicators (see table below). The target value was defined based on the size of the two MPAs expected to be selected as pilot sites at project approval, namely Dunganab Bay – Mukkawar Island Marine National Park (DMNP) with 85,070 hectares in Sudan and Kamran Island Marine Protected Area with 20,000 hectares in Yemen. With a combined marine area of 105,070 hectares, the target value represented 38% of the total area. When Yemen was dropped as a pilot site, Wadi el Gemal-Hamata National Park (WGHNP) in Egypt was included instead, which



alone measures 200,033 hectares. The target value was not adjusted upwards, and now represented just 14% of the total area of 285,103 hectares.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Direct project beneficiaries	Number	0.00	3000.00	1500.00	2000.00
		28-Aug-2013	28-Aug-2013	16-Jul-2018	31-Dec-2018
Female beneficiaries	Percentage	0.00	30.00	30.00	50.00

Comments (achievements against targets):

Original target 67% achieved. Revised target 133% achieved. The target value was revised downwards in the September 2016 restructuring. Direct project beneficiaries are defined as all people benefitting from sub-projects and training workshops. The achieved value of 2000 beneficiaries at completion is likely an underestimate because Mohammed Gol and Dungonab alone have a combined population of approximately 3,000 inhabitants, and most, if not all people living there have benefitted from the solar energy systems at schools, mosques and amenities. In Qula'an eco-village, the total population of around 100 people have benefited from solar energy lighting; women at Abu-Ghoson village (70 families) have benefited from the handicraft center; 150 fishermen at Mochi Maskali MPA and 24 fishermen at Aqaba NP have directly benefited from the subprojects to increase their incomes from ecotourism and pelagic fishing.

Objective/Outcome: To strengthen information sharing between PERSGA member countries

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
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Agreed upon common Red Sea monitoring variables of water quality, fisheries and coral reef habitats accessible for PERSGA member countries on a regional database	Yes/No	N 29-Aug-2013	Y 31-Jan-2018	Y 31-Dec-2018	Y 31-Dec-2018
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Comments (achievements against targets):

Original and revised target 100% achieved. The indicator was revised for clarity in the restructuring of September 2016. The indicator is defined as the establishment of a standardized integrated database with socioeconomic, ecological, biological, chemical and physical variables. At project completion, PERSGA has approved the ‘Standardized Monitoring Protocol Manual’. The Monitoring Protocols have been adopted in 5 PERSGA member countries, namely Egypt, Sudan, Jordan, Djibouti and Saudi Arabia. A regional database has been established to share information and promote knowledge exchanges among MPAs in the region. Project activities were implemented in all PERSGA member countries and included i) developing standardized monitoring variable for MPAs inclusive of socio-economic parameters in addition to environmental ones, ii) training of 66 PERSGA member country staff on monitoring methods using common variables, and iii) three years of data collection with results shared on a regional database, and iv) 4 regional exchanges on data collection and sharing of monitoring results on water quality, fisheries and coral reef habitats (see intermediate indicators).

A.2 Intermediate Results Indicators

Component: Strengthening of Marine Management Concept in Marine Protected Areas

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Number of MPA plans	Number	0.00	2.00	2.00	3.00



updated with community input and with assigned rights for user groups		29-Aug-2013	30-Jun-2014	01-Jan-2018	31-Dec-2018
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Comments (achievements against targets):

Target 150% achieved. Management plans were prepared and updated for the marine protected areas of DMNP and WGHP. Community input was gained via workshops, and user rights were assigned for different groups based on an agreed zoning scheme, which governs access to marine resources as outlined in the management plans. DMNP was declared a UNESCO World Heritage Site in 2016, and the updated management plan was among the criteria evaluated by UNESCO. The project counts this output among its achievements and went on to support the development of a third Integrated Management Plan for the entire property of Sanganeb Marine National Park and DMNP, including the buffer zone between the two marine parks.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Protected Areas with updated management plans that brought coral reefs under regular monitoring and surveillance with community participation	Number	0.00	3.00	3.00	3.00
		29-Aug-2013	06-Apr-2018	31-Jan-2018	19-Nov-2018

Comments (achievements against targets):

Target achieved. The indicator was introduced in September 2016 to capture improved management of ecologically sensitive coral reefs. A baseline of 0 was set as August 29, 2013, which was also the status on August 18, 2016 at the time of the restructuring. At project closing, three marine protected areas in WGHP, DMNP, and SNP/DMNP are monitoring coral reefs regularly with community participation. Significant progress was also achieved towards involving community stakeholders in monitoring and surveillance at Moucha Maskali Islands MPA in Djibouti and Aqaba National Park in Jordan.



Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Participants in consultation activities during project implementation (number)	Number	0.00 29-Aug-2013	400.00 29-Jan-2014	545.00 30-Aug-2017	1000.00 31-Dec-2018
Participants in consultation activities during project implementation - female	Number	0.00 29-Aug-2013	120.00 26-Jul-2016	165.00 30-Aug-2017	380.00 31-Dec-2018

Comments (achievements against targets):

Target 183% achieved. The indicator was revised in September 2016, when the target value was adjusted upwards to reflect current achievements at the time. Consultation field missions to Sudan and Egypt were held to gather input from local stakeholders on activities related to both Component 1 and 2. At project closing a total of 1000 people had been consulted on the project throughout implementation. The numbers were tallied by the PERSGA team during consultation activities.

Female beneficiaries: **Target 230% achieved.** The indicator was revised in September 2016, when the target value was adjusted upwards to reflect current achievements at the time. While defined in absolute terms, the original target value is equal to 30% of the original target 400 participants in consultations activities. This proportion was held constant in the September 2016 restructuring (545 participations, of which 165 are female). At project closing, a total of 380 women participated in consultations, equal to 38% of the actual 1000 community members who participated in consultations throughout project implementation. The numbers were tallied and tracked by the PERSGA team during consultation activities.

Component: Strengthening Coastal Communities

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised	Actual Achieved at
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				Target	Completion
Alternative livelihood projects completed by communities	Number	0.00	4.00	4.00	10.00
		29-Aug-2013	24-Nov-2014	19-Dec-2017	31-Dec-2018

Comments (achievements against targets):

Target 300% achieved. The indicator was slightly revised for clarity in the September 2016 restructuring. At project end, a total of 10 livelihood sub-projects have been completed and an additional 2 sub-projects are close to being operational (see complete list of alternative livelihood sub-projects in Outputs by Component 2 below, Annex 1). Most sub-projects are concentrated in DMPA and WGHNP MPAs respectively, however, some are also implemented in Djibouti and Jordan. The sub-projects were chosen by communities in consultation with stakeholders. Based on principles of multiple use of resources for different user groups, sub-projects have provided alternative livelihood options to fishermen during closed season, and opened up opportunities for women, who have become involved in eco-tourism activities around the marine environment.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Fishermen in selected marine protected areas using mesh size as per management plan	Number	0.00	300.00	300.00	600.00
		29-Aug-2013	23-Mar-2017	14-Sep-2016	31-Dec-2018

Comments (achievements against targets):

Target 200% achieved. The indicator was introduced in the first restructuring of September 2016 to reflect behavior change following the implementation of updated management plans for two MPAs. The target was defined as 300 fishermen using a certain mesh size as specified in the management plan. At project end, 600 fishermen are operating in accordance with the management plan and using a mesh size large enough to allow little fish to escape catch. Sources of evidence include fishery reports and stakeholder meeting reports compiled when negotiating on zoning for WGHNP and DMNP.



Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Fishermen observing closed season for major species as per management plan	Number	0.00 29-Aug-2013	200.00 22-Jul-2014	200.00 22-Sep-2016	500.00 31-Dec-2018
<p>Comments (achievements against targets): Target 250% achieved. The indicator was introduced in the September 2016 restructuring to reflect behavior change following the implementation of updated management plans for DMNP and WGHNP. The target was defined as 200 fishermen, who observe closed season during spawning in accordance with the adopted management plan. At project end, 500 fishermen are observing closed season for major commercially important species. Artisanal fishing for personal consumption is still allowed. Sources of evidence include fishery reports and stakeholder meeting reports compiled when negotiating on zoning for WGHNP and DMNP.</p>					

Component: Regional Environmental and Socioeconomic Monitoring Network

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
PERSGA member country staff trained on methods of monitoring agreed upon common variables	Number	0.00 29-Aug-2013	74.00 06-Apr-2018	40.00 14-Sep-2017	66.00 19-Nov-2018
<p>Comments (achievements against targets): Target 165% achieved. The indicator was introduced in the September 2016 restructuring based on similar indicator approved at appraisal, which was dropped concurrently. The target was defined as the number of staff from PERSGA member countries, who by the end of the</p>					



project were trained in common monitoring methods using common variables. Training workshops were organized at the country level and regional meetings were conveyed to exchange knowledge on the use of common variables and results from project-financed monitoring work. Numbers were tallied by the PERSGA team during training activities.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
PERSGA member countries that use common monitoring methods developed by PERSGA	Number	0.00	5.00	4.00	5.00
		29-Aug-2013	28-Jan-2014	21-Sep-2016	31-Dec-2018

Comments (achievements against targets):

Original target achieved and revised target 125% achieved. The indicator was introduced in the first restructuring based on a similar indicator approved at appraisal, which was dropped concurrently. The target was defined as the number of PERSGA member countries that used the common variables and monitoring methods developed by PERSGA at project closing. In the restructuring, the target was adjusted down from 5 to 4 member countries to reflect actual progress at the time. However, by the end of 2018, a total of five member countries are using common variables to monitor water quality, fisheries and coral reef habitats. PERSGA is also using this set of common variables in the development of the upcoming report on the State of Marine Environment for the entire Red Sea and Gulf of Aden.

Component: Project Management

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Reporting on GEF IW indicators and participation in workshops	Yes/No	N	Y	Y	Y
		29-Aug-2013	10-Dec-2013	22-Sep-2016	31-Dec-2018



Comments (achievements against targets):

Target achieved. The indicator tracks reporting on GEF International Water indicators and participation in international events to share information and knowledge on MPA community-based management from pilot experiences in DMNP and WGHNP. The PERSGA Project Team, including National Country Coordinators, have participated widely in regional and global events on International Waters and the marine environment, and the reporting on GEF IW indicators have been done using a variety of forums: success stories disseminated on the SEM website and IW-Learn Newsletter; at the IW&MPAs events (Dakar, September 2018); and at the 8th and 9th IW Conferences (Sri Lanka, May 2016 and Morocco, November 2018, respectively).

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Regional exchanges on data collection and sharing of monitoring results of water quality, fisheries and coral reef habitats	Number	0.00 29-Aug-2013	5.00 20-Jan-2015	10.00 22-Sep-2016	12.00 31-Dec-2018

Comments (achievements against targets):

Achieved:

- Harmonization of Environmental and Socioeconomic Monitoring in the Red Sea and Gulf of Aden Countries and Updating a Regional Habitats Survey and Monitoring Manual. 25-26 February, 2015, Jeddah, Saudi Arabia.
- Exchange of environmental and socioeconomic monitoring results attended by 55 specialists from participating countries, 3-5 November, 2015 in Aqaba, Jordan.
- Survey and measurement of common indicators in environmental and socioeconomic monitoring, Aqaba, Jordan, 9-11 January, 2017.
- Participation in a meeting on ecosystem approach integrated monitoring correspondence group of UNEP MAP (Integrated CORMON); 30 March to 1 April 2015, Athens, Greece.



- National workshop on environmental and socioeconomic monitoring for stakeholder awareness and outreach (organized in collaboration between Djiboutian Ministry of Housing, Urbanism and Environment (MHUE) and PERSGA (attended by about 40 participants), in Djibouti; 15 November, 2015).
- Signing of monitoring contracts in Jordan (with the International Research Center for Water, Environment, and Energy (IRCWEE), Balqa Applied University, April 2015) and Sudan (with the Faculty of Marine Sciences and Fisheries of the Red Sea University, June 2015).
- Completion of first year monitoring activities in Jordan, Sudan and Egypt and renewal of contracts, 2017.
- Coordination mission and monitoring in Djibouti, 2017.
- Studying degraded overfished habitats and suggesting appropriate rehabilitation and restocking measures in Jordan, 2017.
- National workshop in relation to Moucha and Maskali Islands: ecological importance and requested conservation actions in MPAs, April 2017.
- Assessing fish aggregates at artificial reefs in Aqaba, Jordan, 7-11 May, 2017.
- Review of the revised ESMP monitoring checklist and transmission to PERSGA.
- National workshop on environmental monitoring and assessment of rehabilitation and restocking of fishing habitats on the Jordanian coast of the Gulf of Aqaba, 11-12 September, 2017.
- National training workshop: monitoring the health of the coral reefs using the Reef Check Method, 16-20 October, 2017.
- National workshop on presenting environmental and socioeconomic monitoring results and management effectiveness evaluation (MEE) of MPAs, 18-20 December, 2017.



B. KEY OUTPUTS BY COMPONENT

Objective (i): To improve management of selected Marine Protected Areas by local communities	
Outcome Indicators	<ol style="list-style-type: none"> 1. Area in selected marine protected areas under improved management 2. Direct project beneficiaries <ul style="list-style-type: none"> - Percentage female
Intermediate Results Indicators	<ol style="list-style-type: none"> 1. Number of participants in consultation activities during project implementation <ul style="list-style-type: none"> - Percentage female 2. Number of MPA plans updated with community input and with assigned rights for user groups 3. Protected Areas with updated management plans that brought coral reefs under regular monitoring and surveillance with community participation 4. Alternative livelihood projects completed by communities 5. Fishermen in selected marine protected areas using mesh size as per management plan 6. Fishermen observing closed season for major species as per management plan 7. Reporting on GEF IW Indicators and Participation in Workshops
Key Outputs by Component (linked to the achievement of the Objective/Outcome 1)	<p>Component 1: Strengthening of Marine Management Concept in Marine Protected Areas</p> <p><i>The goal is to strengthen the concept of marine management in selected Marine Protected Areas to pilot zonation and multiple use approach in a participatory and community-based manner consistent with local communities' needs and benefits. The component was focused on the following main interventions:</i></p> <ul style="list-style-type: none"> - <i>Update MPAs management plans with community and other stakeholder input and support the management plans implementation.</i> - <i>Build capacity of the community stakeholders and institutions involved in MPA management and zoning</i> - <i>Develop a series of engagements/exchanges between MPA authority staff among PERSGA member countries including lessons that one jurisdiction can share with another, and education/ awareness materials that highlight the challenges and success of community-based management of MMAs.</i> <p>Key among the outputs were two documents developed by PERSGA:</p> <ul style="list-style-type: none"> • “Guidelines for the Management of Marine Protected Areas”, which place strong emphasis on consultation with stakeholders • “Guidelines for the Planning of Marine Protected Areas Using Mapping Techniques”.



The guidelines are available online at:

http://sem.persga.org/Documents/C1/03_Guidelines_for_MPA_Management.pdf.

Specific outputs under component 1:

- First national workshop on MPA planning, Port Sudan, 6-9 October, 2015 (25 specialists) (introducing participants to the process of management planning). Followed by community consultation field trip to Dungonab.
- Second national workshop on MPA planning, Port Sudan, 17 December, 2015.
- Field training workshop on survey and data collection methods for planning and management of MPAs in the Red Sea and Gulf of Aden (5-7 January, 2015, Port Sudan, Sudan).
- Regional training workshop on EBM for conservation of marine mammals and seagrass habitats, Jeddah, 23-25 November, 2015 (22 participants from six countries (Djibouti, Egypt, Jordan, Saudi Arabia, Sudan and Yemen).
- Final draft of the management plan for DMNP (March 2016);
- Contribution to inscribing Sanganeb and Dungonab as a UNESCO World Heritage Site (21 March, 2016) based on completed MPA management plan.
- Regional workshop on MPA management and on the job training at WGHNP, Egypt, 22-24 March, 2016 (17 participants).
- Field missions to DMNP and WGHNP, 19-27 May, 2016.
- Training program on MPA governance in the PERSGA region, 9-13 October, 2016.
- Consultation field missions to Sudan for the integrated management plan of the Sanganeb and Dungonab UNESCO World Heritage Site, 19-27 February and 24-29 April, 2017.
- Coordination meeting for the Sanganeb and Dungonab UNESCO World Heritage Site (meeting in Bahrain), 9-10 May, 2017.
- Regional training workshop on reef resilience and responding to climate change in the Red Sea and Gulf of Aden, Hurghada, Egypt, 15-17 May, 2017.
- Coordination mission to Hurghada and WGHNP to follow up on Project activities; 18-22 June, 2017.
- Consultation field missions and data gathering for the zoning plan of WGHNP, 3-8 November, 2017.
- Regional training workshop on "IUCN Red List Assessment in the Red Sea and Gulf of Aden" 4-7 December, 2017.
- Final draft of the zoning plan for WGHNP, October 2018.



The project supplied tools and materials to enhance the operation of DMNP and WGHNP. This included: Renovation and maintenance of park buildings; construction of outposts, gates and borders; information signs; furniture for the park and for outposts; uniforms for park rangers; patrol boat; diving equipment; office equipment; and installation of solar system.

Other highlights include:

- Fostering relationships between communities at Dungoab Bay and Mukkawar Island National Park and the MPA management and enforcement. As a consequence of this intervention, communities were strongly involved, and the authority managed to inscribe the MPA as a UNESCO World Heritage site in 2016.
- Fostering relationships between fishers using Moucha-Maskali MPA and the Djibouti Department of Environment and fostering stewardship of the MPA among local fishers through the provision of a Fishers Association centre on Maskali Island. As a consequence of this intervention, fishers are now reporting poaching and other violations within the MPA and removing solid waste from Maskali Island.
- Improving signage and amenity at WGHNP has enabled execution of entry fees procedures for visitors and tourists since 2017, which increased the MPA financial resource.
- Promoting enforcement capability in the DMNP and Moucha-Maskali Islands by the MPA management and enforcement agency with a patrol vessel.

Component 2: Strengthening Coastal Communities

This component supported institutional and technical capacity for MPAs communities to use and protect living marine resources, increase net benefits derived from the resources in a sustainable manner, understand trade-offs associated with development and the costs and benefits to the community, organize as user groups around these uses, and develop alternative livelihood options through a community-driven process. The component was focused on the following main interventions:

- *Review of relevant legislation, policies and management practices to identify entry points/ provide recommendations for supporting co-management approaches, building capacity of local user groups including local community for co-management and monitoring their resource uses and impacts;*
- *Support identification, planning and implementation of sustainable economic activities, demonstrating small scale, low impact alternative livelihood sub-projects that are compliant with environmental and social safeguards.*
- *Strengthen community participation, compliance and build ownership for resource protection and sustainability.*



- *Promote institutional capacities and legal framework for regional collaboration in sustainable living marine resources management*

Workshops, training sessions, and consultations under component 2:

- Review and assessment of fisheries legislation, policies, and strategies in participating PERSGA countries. Reviews available online at: <http://sem.persga.org/page-reports-and-guidelines.php>
- Regional workshop to review legislations, strategies, policies and management plans for the fishery sectors in the Red Sea and Gulf of Aden, 10-12 November 2014, PERSGA, Jeddah.
- National workshop to review legislations, strategies, policies and management plans for living marine resources, February 2015, Port-Sudan, Sudan.
- National workshop on mainstreaming ecosystem approach and co-management principles in living marine resources legislation and policies, November 2015, Jordan.
- National workshop on mainstreaming ecosystem approach, principles in legislation and policies for living marine resources and development of livelihood options for coastal communities (45 participants), December, 2015 in Port Sudan.
- Regional workshop: Guidelines for Ecosystem Approach, Co-management and Livelihoods of Coastal Communities in MPAs, 8-11 June, 2015, Jeddah, Saudi Arabia.
- Capacity building workshop on application of ecosystem approach and co-management principles in selection and implementation of livelihoods sub-projects, 14-16 December, 2015 in Port Sudan.
- National workshop on legislation and policies for living marine resources and awareness of coastal communities, May 2016, Djibouti.
- Focus group meeting for recommendations concerning Alternative Livelihoods Subprojects (ALS) for fishers of DMNP, Sudan (30 key experts and informants from stakeholder community), 26 November, 2016 in Port Sudan.
- Regional workshop on guidelines for ecosystem approach, co-management and livelihoods of coastal communities in MPAs (about 20 regional specialists); 8-11 June, 2015, Jeddah, Saudi Arabia.
- Consultation Mission in DMNP Meeting with stakeholders (22 participants), 23 – 25 January, 2016.
- Legislation and policies for living marine resources, and awareness of coastal communities in Djibouti, 29-30 May, 2016.
- Installation of central solar energy system at Qula'an and establishment of the eco-village in WGHNP, February – March 2017.
- Installation of 8 decentralized solar units at Dungonab and Mohammed Gol, DMNP, January 2017.



- Provision of glass-bottom boats to support income from ecotourism at WGHNP and DMNP pilot sites, 2017.
- Supporting women’s income diversification from pastry production and dairy goat rearing at DMNP, 2017.
- Supporting women’s income diversification from textile and handicraft production at WGHNP, 2017.
- Fishing gear maintenance workshops to support integrated services of fish landing sites at Mohammed Gol and Dongonab, 2017.
- Assessment of Nagel fish spawning aggregations, 2017 (Drat final report in January 2018).
- Regional workshop for demonstration of the ESMP cases of the SEM sub-projects during 16-18 April, 2018 in Hurghada, Egypt (25 participants)

Alternative livelihood sub-projects implemented in project areas

More subprojects were achieved as a result of mobilizing a significant share of co-finance by member states and parallel projects, and efficiency in the use of funds. The following 12 livelihood sub-projects were fully - or close to being fully - operational by December 2018:

Table 5: List of alternative livelihood sub-projects implemented by communities

#	Livelihood Sub-Project	MPA	Village	Country	Status
1	Qula’an eco-village - including solar energy unit to power lights and community run tourism venture	WGHNP	Qula’an	Egypt	Completed
2	Solar energy operated water desalination at Qula’an eco-village	WGHNP	Qula’an	Egypt	Completed
3	Solar energy units at Dungonab and Mohammed Gol	DMNP	Dungonab Mohammed Gol	Sudan	Completed
4	Mohammed Gol Women Association: Bakery and pastries for sale, and supply of dairy goats for milk production for personal consumption and potential commercial gains	DMNP	Mohammed Gol	Sudan	Completed
5	Dungonab Women Association: Bakery and pastries for sale, and supply of dairy goats for milk production for personal consumption and potential commercial gains	DMNP	Dungonab	Sudan	Completed



6	Abu Ghosson Women Center: Producing traditional handicraft and textiles	WGHP	Abu Ghosson	Egypt	Completed
7	Fishing boat maintenance center	DMNP	Mohammed Gol	Sudan	Completed
8	Fishing boat maintenance center	DMNP	Dungonab	Sudan	Completed
9	Fishers center with shaded area and facilities for tourism operation as a side business		Moucha-Maskali Islands	Djibouti	Completed
10	Development of pelagic fishery	AMPA	Aqaba	Jordan	Completed
11	Glass-bottom tourist boats supplied to communities	WGHP	Qula'an	Egypt	Not fully operational during, awaiting license
12	Glass-bottom tourist boats supplied to communities	DMPA	Dungonab	Sudan	Not fully operational during, awaiting license

Component 4: Project Management

This component supported the Project execution with technical, administration, procurement, financial management, fiduciary fulfilment, and project monitoring and evaluation. Day-to-day implementation and oversight of the Project was undertaken by the Project Coordination Unit (PCU) based in PERSGA. This included compliance with GEF IW, World Bank and PERSGA reporting requirements; routine M&E, external Mid-Term and Final Evaluations, sharing lessons learned and other project information to LME/IW-LEARN, and participation in GEF IW Conferences and relevant activities.

Box 4. Examples of the livelihood subprojects' beneficiaries



Mr. Mahmoud Hussein, fisherman and vessel mechanic, at the vessel maintenance centre, Mohamed Gol, Sudan. Since the Project helped establish the centre, Mr. Mahmoud has been overwhelmed with work and now needs to train apprentices.



Mr. Salih Borale, head of the Fisher's Association Moucha-Maskali Island MPA, Djibouti. Fishers expanded their activities into tourism based on the Fishers' centre established by the Project at Maskali Island.



A woman from Abu Ghosson, Egypt, producing handicraft using a loom provided by the Project. The traditional handicraft centre, established with support from the Project and partners, is now generating income

Objective (ii): To strengthen information sharing between PERSGA member countries

Outcome Indicators	1. Agreed upon common Red Sea monitoring variables of water quality, fisheries and coral reef habitats accessible for PERSGA member countries on a regional database
Intermediate Results Indicators	<ol style="list-style-type: none"> 1. Regional exchanges on data collection and sharing of monitoring results of water quality, fisheries and coral reef habitats 2. PERSGA member country staff trained on methods of monitoring agreed upon common variables 3. PERSGA member countries that use common monitoring methods developed by PERSGA 4. Reporting on GEF IW Indicators and Participation in Workshops
Key Outputs by Component	Component 3: Regional Environmental and Socioeconomic Monitoring Network



(linked to the achievement of the Objective/Outcome 2)

This component built on ongoing monitoring activities to strengthen capacities and help standardizing monitoring variables and approach between the participating countries. It also supported expansion of monitoring scope to include socio-economic data, and promote knowledge exchanges, data comparability and sharing through regional networking and database. Specific MPAs within the regional network were monitored during the project geared to enhance the monitoring capacity of member countries. The component focused on the following main interventions:

- *Conduct a gap analysis of coastal environmental monitoring capacity in each country and update standard survey methods and other relevant manuals.*
- *Build capacities of specialists in national monitoring teams and provide institutional and equipment support to promote sustainable monitoring of coastal and marine environments in the countries.*
- *Facilitate workshops to harmonize monitoring methods, discuss lessons and share experience among countries.*
- *Support establishment of a standardized integrated monitoring database for the region.*
- *Strengthen outreach concerning monitoring by raising the profile of stakeholder engagement and informing them and the decision makers of the monitoring results.*

Regional knowledge sharing workshops:

- Harmonization of Environmental and Socioeconomic Monitoring in the Red Sea and Gulf of Aden Countries and Updating a Regional Habitats Survey and Monitoring Manual. 25-26 February, 2015, Jeddah, Saudi Arabia.
- Exchange of environmental and socioeconomic monitoring results attended by 55 specialists from participating countries, 3-5 November, 2015 in Aqaba, Jordan.
- Survey and measurement of common indicators in environmental and socioeconomic monitoring, Aqaba, Jordan, 9-11 January, 2017.
- Participation in a meeting on ecosystem approach integrated monitoring correspondence group of UNEP MAP (Integrated CORMON); 30 March to 1 April 2015, Athens, Greece.

National training workshops:

- National workshop on environmental and socioeconomic monitoring for stakeholder awareness and outreach (organized in collaboration between Djiboutian Ministry of Housing, Urbanism and Environment (MHUE) and PERSGA (attended by about 40 participants), in Djibouti; 15 November, 2015.



- Signing of monitoring contracts in Jordan (with the International Research Center for Water, Environment, and Energy (IRCWEE), Balqa Applied University, April 2015) and Sudan (with the Faculty of Marine Sciences and Fisheries of the Red Sea University, June 2015).
- Completion of first year monitoring activities in Jordan, Sudan and Egypt and renewal of contracts, 2017.
- Coordination mission and monitoring in Djibouti, 2017.
- Studying degraded overfished habitats and suggesting appropriate rehabilitation and restocking measures in Jordan, 2017.
- National workshop in relation to Moucha and Maskali Islands: ecological importance and requested conservation actions in MPAs, April 2017.
- Assessing fish aggregates at artificial reefs in Aqaba, Jordan, 7-11 May, 2017.
- Review of the revised ESMP monitoring checklist and transmission to PERSGA.
- National workshop on environmental monitoring and assessment of rehabilitation and restocking of fishing habitats on the Jordanian coast of the Gulf of Aqaba, 11-12 September, 2017.
- National training workshop: monitoring the health of the coral reefs using the Reef Check Method, 16-20 October, 2017.
- National workshop on presenting environmental and socioeconomic monitoring results and management effectiveness evaluation (MEE) of MPAs, 18-20 December, 2017.

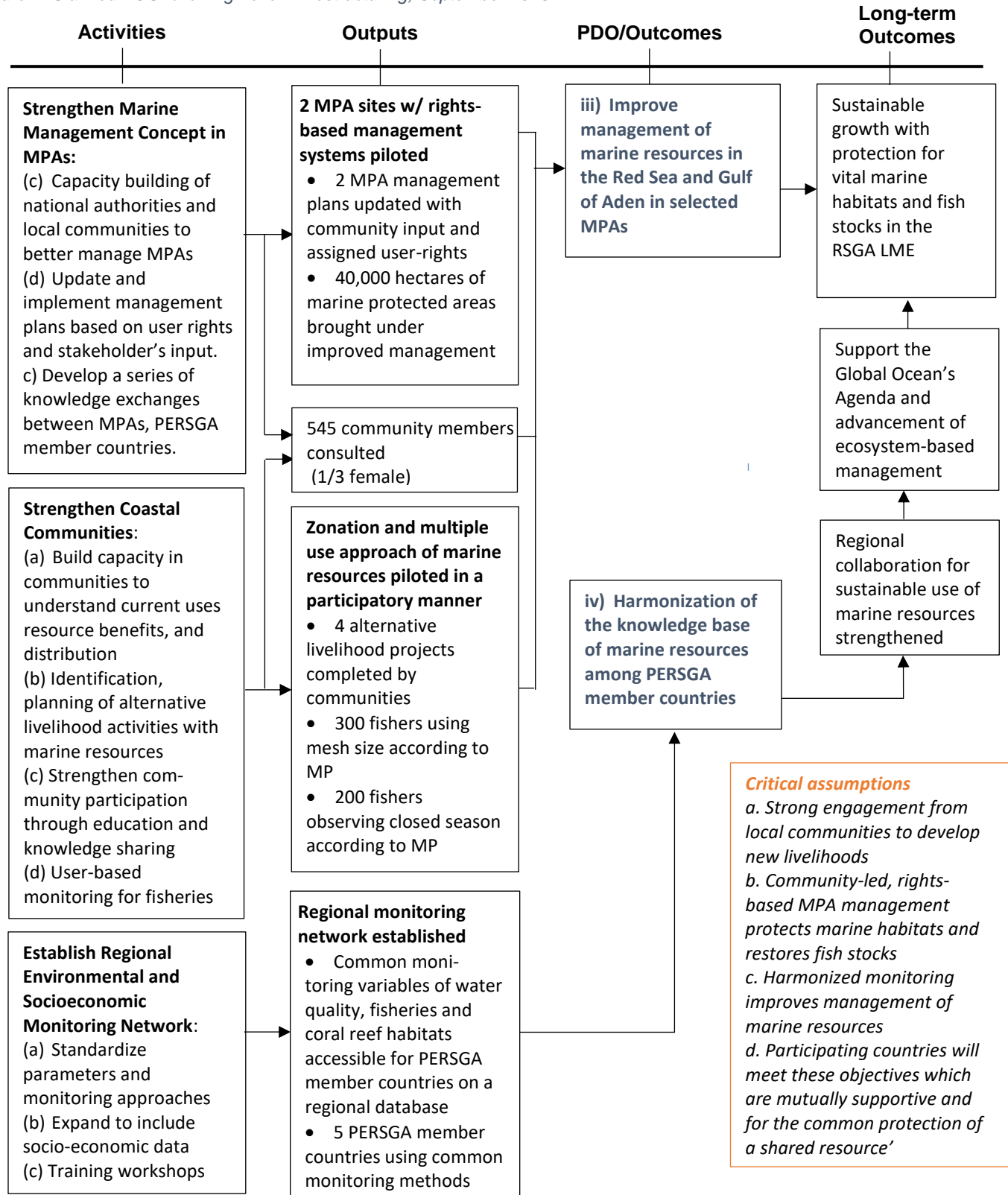
Other highlights:

- PERSGA is preparing a 'State of the Marine Environment Report' using data and indicators sourced from and agreed upon by all PERSGA member countries.
- The adopted draft of the "Regional Protocol Concerning Cooperation in Management of Fisheries and Aquaculture" includes an article for sharing and exchange of fishery data and information.



C. REVISED THEORY OF CHANGE

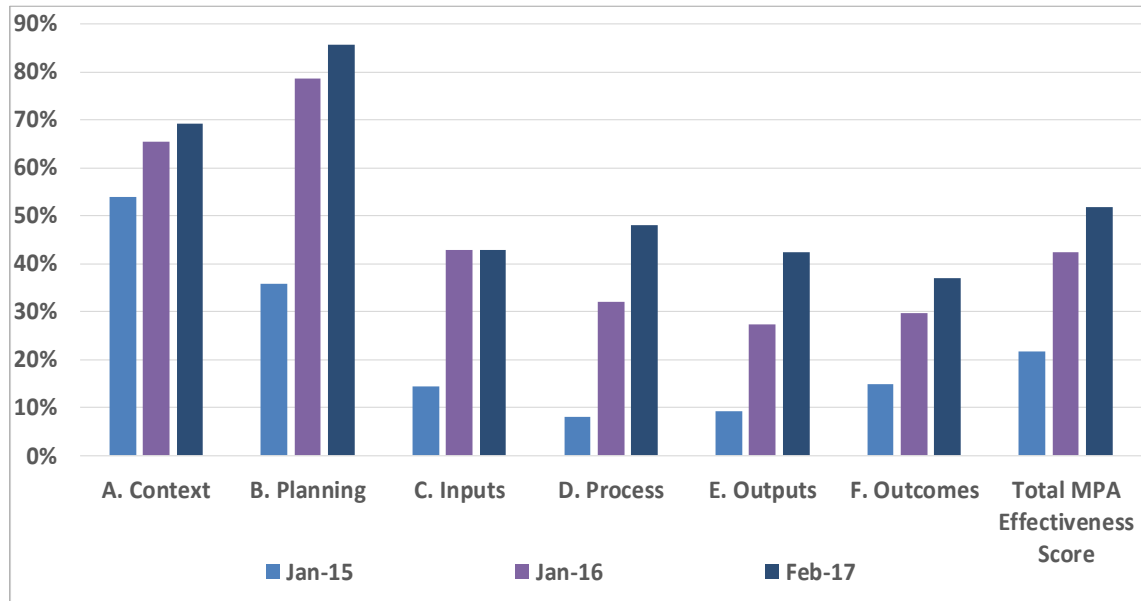
Figure 2: Clarified TOC following Level 1 Restructuring, September 2016



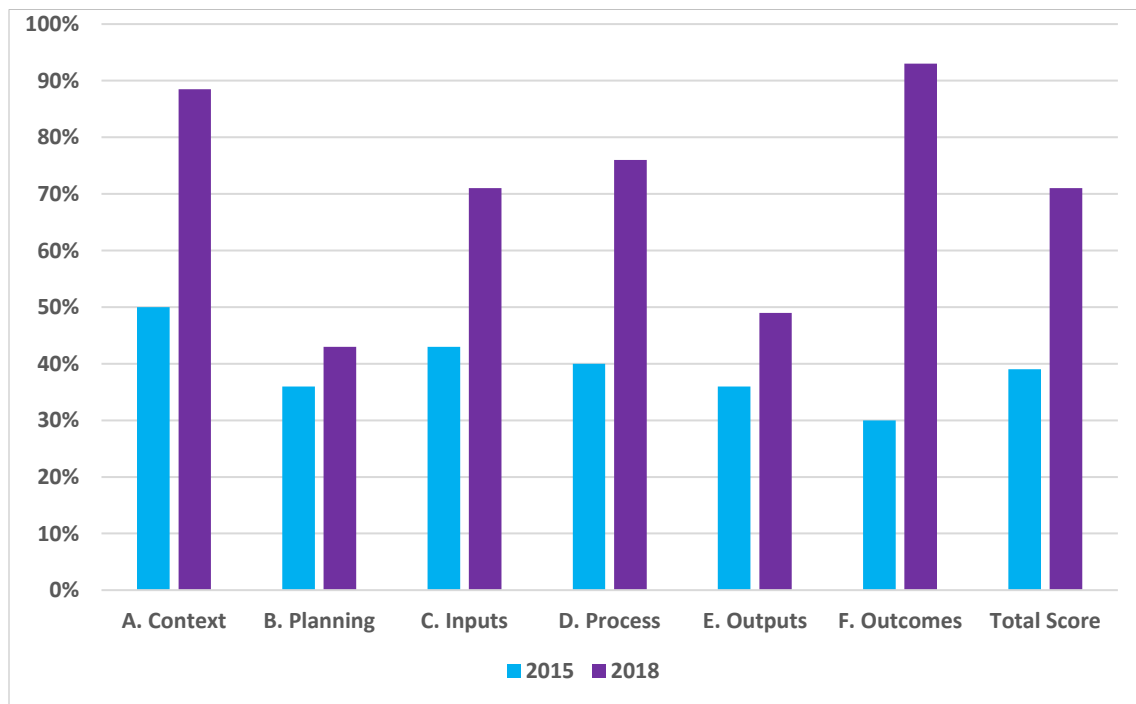


D. METT SCORE for DMNP and WGHNP

Graph 1: METT Scorecard Results Dungenab Bay and Mukkawar Island National Park, Sudan. Note that Total score has increased by 30% (2015 to 2017)



Graph 2: METT Scorecard Results for Wadi el Gemal Hamata National Park, Egypt. Note that Total score has increased by 32% (2015 -2018)





E. SUCCESS STORIES

The Project presented several success stories, which had been captured in leaflets and disseminated on the Project website (sem.persga.org) and in GEF International Waters (IW) regional and online fora, including IW-Learn 2nd African Network Meeting (3-4 September 2018 in Dakar), and published by IW-Learn Newsletter (issue 9-2018). These successful stories have considerable potential for replication at scale in the region and beyond:

1. Empowerment of women at Dungonab (Sudan) and Abu Ghoson (Egypt) through their ownership of livelihood subprojects in marine protected area (MPA) Pilot Sites;
2. Inscribing Dungonab Bay-Sanganeb National Parks (Sudan) as a UNESCO Natural Heritage site;
3. Qula'an eco-village at Wadi el Gemal National Park (Egypt) and introducing clean energy in MPAs;
4. Moucha-Maskali Island MPA (Djibouti) Fishermen Center organization, empowerment and participation in the MPA conservation;
5. Development of Regional Protocol Concerning Management of Fisheries and Aquaculture in the Red Sea and Gulf of Aden;
6. Triggering legislation and policy reforms to mainstream EBM principles and enable co-management of living marine resources, and;
7. Partnerships and local participation in all stages of livelihood subproject development and co-management initiatives.





1. Empowerment of women and marginalized fishers

A primary focus of this Project was to increase the participation of women in management of resources as well as to provide them with alternative livelihood strategies. Women associations at Mohammed Gol, Dunganab and Abu Ghosson took ownership of some of the livelihood sub-projects in the MPA pilot sites (e.g. Mrs. Eisha Ahmed, Mohammed Gol Bakery, pers. comm., 29 October, 2018).

Women's focused sub-projects related to foodservices (catering) at Dunganab and Mohammed Gol and to traditional handicrafts and textile production at Abu Ghosson. The Mohammed Gol bakery has proved profitable (Mr. Osman Hussein, community leader, pers. comm. 29 October, 2018). According to Mrs. Eisha Ahmed, Bakery, (Mohammed Gol, pers. comm. 29 October 2018) each woman earns approximately 100-200 pounds (US\$2-4) per month. The actual amount of income per person is determined by how much they work in the bakery. Similarly, the production of handicrafts at the women's centre is generating profit (Dr. Mahmoud Hanafy, NC, pers. comm., 15 November, 2018). These initiatives have raised the status of women in their respective communities and provide their families with added sources of income.

The Project has also improved the outlook and condition of marginalized fishers. With the assistance of the Project team, fishers in Djibouti formed a fishing association and were given assistance to obtain materials to build a shelter and storage facility on Maskali Island. The fishers are using the centre to generate additional income from tourism (Mr. Salih Elmi Borale, Head of Fishers Association, pers. comm. 5 November, 2018). Fishers are also removing litter from the Island and reporting MPA violations to the Department of Environment (Mr Aden Hassan Elmi, NC, pers. comm. 5 November, 2018). In Sudan, revised fishery legislation and by-laws have been prepared and will be submitted to the State Legislative Council for approval (Mr. Hamad Takuliya, Director of Marine Fishery Administration, pers. comm., 5 November, 2018).

2. World Heritage Nomination of Dunganab Bay- Sanganeb National Parks

The combined DMNP and Sanganeb National Park was inscribed as a UNESCO World Heritage Site in 2016. This World Heritage Site was inscribed based on natural values. It consists of two separate areas: Sanganeb about 25 km offshore in Sudan. The second component is Dunganab Bay and Mukkawar Island. It is hoped that this World Heritage Site will encourage greater management as well as foster further business opportunities for local communities (Mr. Eisa Kabashi Eisa, Minister of Environment, Red Sea State, Sudan, pers. comm. 30 October, 2018).

3. Qula'an Eco-village at WGHNP, Egypt

The Project team, in collaboration with two NGOs, HEYA and HEPCA, have assisted the Qula'an community to become self-sufficient in energy and fresh water using a renewable source. The Project team installed a solar system (solar panels, batteries and network) to power lights and a small desalination unit. The power generated by the solar system is sufficient to run refrigerators, which now allows fishers to store their fish catch. This has economic benefits because fishers can take their time to seek the best market price or to store more catch before going to distant markets (Mr. Mansur Saleh, community leader, pers.



comm. 14 November, 2018). The solar system also permits children to continue their learning after sunset because the lights last longer compared with when the villagers used generators. The solar system has also liberated funds that were previously spent on diesel fuel to power generators and to truck fresh water from the Marsa Alam desalination plant, which cost about 10,000 Egyptian Pounds (approximately US\$550) per month (Mr. Mansur Saleh, community leader, pers. comm. 14 November, 2018). Dr. Mahmoud Hanafy (NC, pers. comm. 14 November 2018) believes these interventions will reduce pressures on local marine resources by the Qula'an community. Some of the Project interventions at this location have probably already contributed to the villagers removing large amounts of solid waste that once characterised the beach and mangrove environment fringing the village (pers. obs.). Further, according to Mr. Monsur Saleh (community leader, pers. comm. 14 November, 2018), members of a village in the mountains inland from Qula'an have commissioned the company installing the Qula'an solar system to provide a system for their own needs. This is direct evidence of Project interventions being replicated.

The Qula'an eco-village has been a success story from a number of viewpoints. In summary, it: created the first community-based tourism venture in Egypt; contributed to positive environmental outcomes such as reduced pressure on mangroves for fuel; raised community stewardship in relation to local natural resources; reinforced community rights; reduced conflict between the local community and the tourism industry; has alleviate poverty and improved livelihoods (Dr. Mahmoud Hanafy, pers. comm., 2 December, 2018).

4. Moucha-Maskali Island MPA Fishers Centre– empowerment and participation in MPA management, Djibouti

In addition to tourists, local fishers are frequent visitors to Moucha-Maskali Island MPA. Before the Project, local fishers had felt marginalized due to a lack infrastructure on Maskali Island for them to rest and store equipment. In contrast, there was infrastructure on the Island for exclusive use by tourists. The Project team provided the fishers with resources to build a centre on Maskali Island. This was done with permission and approval of the Djibouti Department of Environment. According to Mr. Salih Elmi Borale (Head of fisher association, pers. comm. 4 November, 2018) the association members are using the infrastructure in a tourism venture and is generating about US\$600-\$800 net profit per month. The fishers use their vessels to transport tourist groups to the Maskali Island about 3 to 4 times per month.

An environmental benefit of this intervention is that it has fostered stewardship towards the MPA among fishers. For instance, fishers now collect solid waste (theirs and visitors) from Maskali Island for disposal on the mainland (Mr. Salih Elmi Borale, Head of Fishers Association, pers. comm. 5 November, 2018). They also report MPA violations to the Department of Environment. Examples include the reporting of illegal aquarium fish collectors and the disturbance of mangroves on Maskali Island by tourists. Another benefit of the intervention is the close relationship that has developed between the fishers and the Department of Environment (Mr. Aden Hassan Elmi, NC, pers. comm. 5 November, 2018).



5. Development of Regional Protocol Concerning Management of Fisheries and Aquaculture

A final draft of the Regional Protocol Concerning Management of Fisheries and Aquaculture in the Red Sea and Gulf of Aden is ready for signing by the appropriate Ministers from each PERSGA member state (Dr. Ahmed S. M. Khalil, PERSGA, pers. comm., 8 November, 2018). This Protocol will provide a legal framework¹ to foster sustainable management of fisheries resources in the Red Sea and Gulf of Aden. Signing of the Protocol is proposed for the next Ministerial Meeting in April 2019.

6. Triggering legislation and policy reforms to mainstream EBM principles and enable co-management of living marine resources

The Project triggered the process for revising fishery legislation in PERSGA member countries. This culminated in the review of fisheries related legislation, strategies and policies in all member countries. The reviews can be found <http://sem.persga.org/page-reports-and-guidelines.php>

These reviews form the basis for updating of fishery legislation and policies in member countries. Indeed, the process of updating fisheries legislation based on these reviews is already taking place in Jordan (Mr. Abdullah Abu Awali, Director, Aqaba Marine Park, pers. comm. 10 November, 2018). Mr. Abdullah Abu Awali showed me a copy of the proposed workshop agenda to engage fishers to provide feedback on the revised legislation.

7. Partnerships and local participation in all stages of livelihood subproject development and co-management initiatives.

An important achievement of this Project has been increased awareness among local communities of the potential for MPAs to provide alternative income generating activities. The previous section described an example from Djibouti, where local fishers are expanding into tourism. A similar example was evident at Qula'an, WGHNP (pers. observation, 14 November, 2018). At the time of final evaluation survey, about 20 tourists were visiting the beach near Qula'an and paying a small fee for the privilege. The tourists were also spending at the café. As a result of the income generated from tourists visiting Qula'an, local people regularly remove solid waste from the beach and adjoining mangrove stand (Mr. Monsur Saleh, community leader, pers. comm., 14 November, 2018). The villagers have also erected signs and bollards to reduce disturbance to mangroves by the tourists (pers. obs. 14 November, 2018).

¹ In accordance with Article III of the Jeddah Convention.



ANNEX 2. BANK LENDING AND IMPLEMENTATION SUPPORT/SUPERVISION

A. TASK TEAM MEMBERS

Name	Role
Preparation	
Africa Eshogba-Olojoba	Task Team Leader
Tracy Hart	Task Team Leader
Sophie Herrmann	Task Team Leader
Abdoul-Wahab Seyni	Senior Social Development Specialist
Samia Al-Duaij	Environmental Specialist
Moad Alrubaidi	Financial Mangement Specialist
Lina Fathallah Rajoub	Procurement Specialist
Nikolai Soubotin	Lead Counsel
Hassine Hedda	Finance Officer
Mark Njore	Program Assistant
Supervision/ICR	
Enos E. Esikuri	Task Team Leader
Basheer Ahmad Fahem Sadeq Jaber	Procurement Specialist
Moad M. Alrubaidi	Financial Management Specialist
Marie A. F. How Yew Kin	Team Member
Mariana T. Felicio	Social Specialist
Amer Abdulwahab Ali Al-Ghorbany	Environmental Specialist
Sanne Agnete Tikjoeb	ICR Main Contributor



B. STAFF TIME AND COST

C. STAFF TIME AND COST

Stage of Project Cycle	Staff Time and Cost	
	No. of staff weeks	US\$ (including travel and consultant costs)
Preparation		
FY09	5.075	45,194.35
FY10	0	0.00
FY11	23.066	105,284.33
FY12	28.657	288,922.47
FY13	22.139	147,517.81
FY14	2.166	144,999.07
Total	81.10	731,918.03
Supervision/ICR		
FY14	7.374	52,629.09
FY15	5.840	44,460.86
FY16	9.334	68,514.82
FY17	8.349	61,187.86
FY18	11.697	87,177.29
FY19	17.275	159,386.24
Total	59.87	473,356.16



ANNEX 3. PROJECT COST BY COMPONENT

Table 5: Project cost by component

Components	GEF at Approval (US\$M)	Co- and Parallel-Finance at Approval ² (US\$M)	TOTAL at Approval (US\$M)	GEF at Project Closing (US\$M) ¹	Co-finance at Project Closing ³ (US\$M)	TOTAL at Project Closing ⁴ (US\$M)	Parallel Finance at Project Closing ⁵ (US\$M)	GEF Percentage of Approval (US\$M)
Strengthening of Marine Management Concept in Marine Protected Areas	0.75	4.47	5.22	0.75	2.54	3.29	-	100
Strengthening Coastal Communities	0.80	2.72	3.52	0.80	0.98	1.78	-	100
Regional Environmental and Socioeconomic Monitoring Network	1.20	7.45	8.65	1.20	0.28	1.48	-	100
Project Management	0.25	1.25	1.50	0.25	4.73	4.98	-	100
Total	3.00	15.89	18.89	3.00	8.53	11.53	29.71	100

¹ Latest Interim Financial Report issued by PERSGA for Q1 March 31, 2019.

² Inclusive of PERSGA co-finance commitment of US\$6 million and expected parallel finance of US\$9.89 million in Yemen Fisheries Resource Management and Conservation Project.

³ Only co-finance from PERSGA and PERSGA member countries (see Table 6). Activities from various parallel projects totaled over US\$29 million (see Table 7).

⁴ Based solely on realized co-finance as presented in Table 6. The ICR Team assigned cost to component categories for the purpose of completing Table 5. Not inclusive of parallel projects.

⁵ See detailed list of parallel projects in Table 7 below.

The GEF contribution to this Project was US\$3M with in-kind contributions from PERSGA member countries (see point (i) Realized Project Co-finance and Parallel Projects below). PERSGA member countries contributed all funds committed to the Project, which effectively covered all administration and management costs by the PCU, in addition to other costs. The GEF fund did not contribute towards administration or management costs; instead, all GEF funds were directed to on-ground activities, including capacity building, equipment and work and consultancies to support livelihood subprojects, MPAs planning, environmental and socioeconomic monitoring, and other project interventions. Management cost were covered by PERSGA or the participating countries.



i. Realized Project Co-Finance and Parallel Projects

111. Total contributions to the Project from PERSGA member countries reached USD8.5 million, comprising of USD4.7 million from PERSGA and USD3.8 million from member countries, as shown in Table 6 below. This is significantly more than the US\$6.0 million committed at project appraisal as in-kind contributions from PERSGA and local authorities at the pilot sites.

112. Parallel financing was expected to come from Yemen Fisheries Resource Management and Conservation Project (P086886) amounting to US\$9.89 million. However, due to civil unrest, part of this project was cancelled and part of it was implemented with delay. Instead, a number of other projects in Egypt, Djibouti, and Jordan complemented the SEM Project through various parallel activities totaling over US\$29 million (see Table 7 for details).

Table 6: Realized co-finance

Institution	Description	Co-finance (US\$)	Notes	Component
PERSGA	PCU staff (technical, finance-administrative)	3,000,000	Annual/ part-time salaries for PM, 3 components coordinators, FM, and 3 finance/ procurement assistants, IT, awareness officer and 3 supporting staff	4
PERSGA	Venue, office supplies, office and communication facilities	1,500,000	For the day to day project management, regional workshops and activities, meetings, other supplies	4
PERSGA	Use of mobile assets	50,000	Cars at HQ and EMARSGA (transport of workshop participants) and project team missions.	4
PERSGA	EMARSGA assistance staff	30,000	Assistance with onsite supervision, monitoring and procurement	4
PERSGA	Support of Saudi Arabia PC & Steering Committee Staff participation in the Project workshops and meetings	150,000	Participants of KSA supported by PERSGA in all regional workshops and meetings	4
National staff/ member states	NCs and NSCs members/experts	2,500,000	Full and part-time staff work in Djibouti, Egypt, Sudan, Jordan; 5 national coordinators (fulltime); 10-12 NCS experts/ members in each country	1
Djibouti Gov	Land piece to establish fishermen center	50,000	Maskalli Island beach	2
Fisher Society-Djibouti	Work construction of the center	10,000	Fishermen participation in construction work and cleaning campaigns	2
Egypt Gov	Women center building	120,000	The center was established by the Red Sea Governorate	2
Egypt Gov	Environmental monitoring team	200,000	The environment monitoring team budget supported by EEAA for three years field surveys and reporting	3
Egypt Gov	Qula'an-land pieces for solar system and desalination units	100,000	Accommodating solar system (panels and battery gauge) and solar desalination unit	2
Sudan Gov	Container office and land piece for boat maintenance workshops	25,000	Furnished container office at M. Gol landing site to accommodate the workshop tools and work area	2
Sudan Gov	Land pieces for solar units	40,000	Accommodate panels for solar units at Dunganab village	2



Sudan Gov	Women and fishermen centers at Dunganab and Mohamed Gol	300,000	Women center at Mohamed Gol is established by the state government. Women center at Dunganab was established by the state government; and expanded by SEM project	2
Sudan MPAs/ NGOs Partners	Beneficiary vocational training	10,000	Training of local community/ awareness workshops	2
HEPCA- NGO- Etypt	Floor furniture of women center	5,000	Building constructed by the government; all equipment (machines, looms, office and storage furniture supported by SEM)	2
Heya-NGO Egypt	Qula'an ecovillage houses (18 houses)	300,000	Design ecovillage masterplan; design and construction of 18 houses for local inhabitants	2
Jordan Gov	Fish sampling gears	28,000		2
KSA and PERSGA	Monitoring program	50,000	Monitoring field surveys at two pilot sites	3
KSA and PERSGA	Fishery legislation assessment	12,000	Review assessment study and workshop	1
KSA and PERSGA	Ornamental fish management workshop	25,000	Mainstreaming EBM and co-management principles in ornamental fish management and regulation	1
PERSGA	Consultancy on SOMER	25,000	Consultancy team for technical backstopping to improve SOMER process; workshop and database supported by SEM	3
Total Co-finance		8,530,000		

Table 7: Parallel financing

Project	Country/Site	Project Budget (US\$)	Remarks on relevance to SEM Project)
UNDP/EIECP: Support to the Egyptian Protected Areas (SEPA) Project 2013-2015	Egypt, Siwa, Wadi El Rayan and Wadi Gamal National Park	1,800,000	Complementary and synergistic actions to the UNDP-GEF project "Strengthening Protected Areas' financing and management systems- Enhancing the archaeological and cultural heritage in WGNP (tourism)
UNDP/EEAA: Strengthening Protected Area Financing and Management Systems (2010-2017)	Egypt, Several MPAs	17,666,000	GEF: 3,616,000; Egypt parallel finance:13,800,000; UNDP: 250,000. Establishment of protected areas financing system with management structure and capacities; revenues for biodiversity conservation
UNDP/Djibouti gov: Establishing Effectively Managed Marine Protected Areas in Djibouti (2013-2016)	Djibouti, MPAs	2,000,000	GEF support 980k: build management capacity and financing mechanisms of MPAs in Djibouti
UNDP/Jordan gov: Mainstreaming Marine Biodiversity Conservation into Coastal Zone Management in the Aqaba Special Economic Zone (2011-2015)	Jordan, Aqaba	8,250,000	GEF support 1,000,000; co-finance 7,250,000. Promote more effective and integrated management of the coastal zone in the Aqaba Special Economic Zone (ASEZA)
Total Parallel Projects		29,716,000	



ANNEX 4. EFFICIENCY ANALYSIS

113. Given the nature of the project, no formal economic and financial analysis was undertaken at the time of preparation. Global environmental benefits, such as transboundary effect of improved MPA management, were difficult to quantify. Instead, the analysis emphasized the positive incremental cost analysis, the importance of ensuring economic viability of alternative livelihood sub-project, and the positive economic and social returns likely to follow from capacity building and community involvement.

114. Employing a Community-Driven Development (CDD) model, requiring local contribution and private partnerships provides built-in incentives to choose efficient and locally appropriate designs for conservation and alternative livelihood activities. Using co-management built on partnerships with government, communities, and the private sector to help reduce cost for various stakeholders and leverage funding for future efforts in MPA management beyond the Project horizon.

115. Because the interventions mainly result in environmental benefits, the financial rate of return was not the main consideration in undertaking the investment. Instead, it becomes important to discuss the financial viability of the GEF-financed interventions, to ensure that they continue operating beyond the end of the project. Revenues from alternative livelihood approaches will reinforce community stewardship of the marine resources and support conservation activities in the coastal areas, thus lessening the reliance on external institutions for sustaining the costs of these interventions beyond the end of the project.

Ex-Ante Incremental Cost Analysis at Appraisal

116. At the time of appraisal, an Incremental Cost Analysis was conducted in lieu of standard economic and financial rates of return. In a qualitative analysis, the costs and benefits of the project activities were separated from a baseline set of activities, which were likely to be carried out independently of the availability of GEF resources, and then compared with an additional set of activities that were contained in the proposed Project. The analysis showed that the GEF alternative scenario would generate significant global environmental benefits by adding incremental value to a baseline investment scenario of US\$15.89 million through the application of ecosystem-based management to marine protected areas and through a regional perspective to improve monitoring and information sharing.

117. Under the baseline scenario, it was expected that PERSGA member countries would pursue a program to meet national development objectives in coastal and marine areas as MPAs are recognized as the principle tool for managing marine resources throughout the region. This would include institutional and financial support to meet the needs and obligations of established MPAs both through national programs and through membership in PERSGA. Support from other donors was also available, such as a Yemen Fisheries Resource Management and Conservation Project, among other initiatives.

118. It was assessed that interventions by national governments, local communities and other donors would not adequately address issues of regional concern, and thus would not be able to tap into or contribute to a shared knowledge pool with neighboring countries. Thus, implementation of the baseline scenario in the absence of GEF assistance would result in limited progress towards achieving a more holistic, ecosystem-based management approach whereby local communities would be empowered to balance resource use with sustainability and help provide stronger stewardship of the marine environment. In addition, little regional collaboration and knowledge sharing would be realized, and the opportunity to catalyze a regional



monitoring network to better inform scientists and decision-makers of the state of the larger marine ecosystem in the RSGA would be foregone.

119. The GEF alternative presented significant incremental value to achieving global environmental benefits building on current development objectives and enhancing management of MPAs by (i) by piloting the introduction of ecosystem-based approaches in select communities, (ii) by targeting low-cost investments to locally identified needs on the ground as a means to diversify incomes and engage communities as stewards of the environment, and (iii) by moving towards standardized monitoring approaches between the participating countries, making data comparable and sharable through the strengthening of a regional network of MPAs and their data collection. Without the grant from the GEF, the following specific outcomes would not be possible within the project time frame:

- Improved functionality of MPAs through the application of ecosystem-based management of marine resources with sustainable community stewardship.
- Improved awareness of holistic approaches to managing the marine environment among a broad set of stakeholders, including the community, decision-makers, local and regional scientists.
- Empowerment of local communities to participate in the daily management of marine resources.
- Support to development of livelihood alternatives to relieve pressure on fragile natural assets.
- A standardized monitoring framework with a broadened focus on variables beyond ecological aspects to include socio-economic data in order to enable an EBM approach across the region.
- Implementation of a regional database for member countries to access standardized monitoring variables.

Incremental cost: Total expenditures under the baseline scenario were estimated at US\$15.89 million - consisting of US\$6 million in co-financing and US\$9.89 million Parallel Projects - while the total expenditures under the GEF alternative were estimated at US\$18.89 million. GEF funding was requested to finance the incremental costs of US\$3.0 million.

Ex-Post Incremental Cost Analysis at ICR

120. An ex-post incremental cost analysis was undertaken by the ICR team to account for the incremental achievements against the baseline scenario to assess global environmental benefits supported by the Project.

121. The ex-post incremental cost analysis is presented in Table 6. It shows that the Project delivered incremental value to the baseline scenario. By realizing all planned activities, meeting or exceeding most outputs targets, and achieving the project development objectives, the Project has delivered on all expected global environmental benefits. Key among those are:

- Reduced pressure on fragile marine resources while balancing the needs of community livelihoods;
- Empowered local communities to be stewards of the marine environment by strengthening their understanding of ecosystem-based management;
- Improved standardized environmental monitoring, making information comparable at the regional level and integrating fisheries stock information, and;
- Focused on regional trans-boundary issues for improved environmental management and performance thereby facilitating marine and coastal biodiversity of global significance.



122. With a relatively modest monetary contribution from GEF, the Project was remarkably successful in leveraging substantial resources that maximized the financial impact of the Project. Two mechanisms were at play, co-financing and parallel projects (see a list of realized co-finance and parallel projects in Annex 3).

123. **Co-finance:** The Project attracted US\$8.53 million in co-financing, comprising US\$4.73 million from PERSGA and US\$3.8 million from national resources. This is 42 percent more than the amount committed at appraisal. Additional country contributions were provided due to the strong support and commitment that the Project enjoyed from national governments, and were primarily used to increase the number of alternative livelihood sub-projects.

124. **Parallel Projects:** Parallel projects of US\$29.71 million implemented by partner organizations complemented Project activities. This is 300 percent more than the amount identified at appraisal. National Coordinators were highly experienced and skillfully created synergies between projects to increase the impact of all activities. Parallel Projects have continued to strengthen and build upon capacity building and training activities to the benefit of both community members and technical specialists.

125. Table 8 shows the project has leveraged the initial investment at a 1:12 ratio for a total of US\$37.63 million in co-finance and parallel projects. This outcome compares favorably to the approved ratio of 1:5.

Table 8: Estimated and actual leveraged Project finance

	Appraisal-stage (US\$M)	ICR-stage (US\$M)
GEF	3.00	3.00
Direct co-finance	6.00	8.53
Ratio GEF:Co-finance	1:2	1:2.8
Parallel Projects	9.89	29.10
Total leveraged finance	15.89	37.63
Ratio GEF:TOTAL	1:5	1:12

126. **This assessment is supported by views expressed during interviews with different Project stakeholders** as part of the final evaluation funded by PERSGA in preparation for the Borrower ICR, pointing directly to the regional scope of the Project and much-needed support for on-the-ground investments:

“Yes. Alternative resources would probably not have been forthcoming since: (a) this is a regional project; (b) the SEM Project would probably not be eligible for other sources of international funding; and (c) PERSGA does not have sufficient other sources of revenue to implement SEM Project activities.” (Dr. Sheppard, Project consultant)

“Yes. The SEM Project has definitely financed activities that would otherwise not have been achieved. National budget allocations for biodiversity and marine protected areas management in the countries in this region tends to be low given there are many other more urgent priorities. Some examples of investments the project has supported that otherwise would not have happened include: the installation of new infrastructure in the parks, including solar panels, signage, as well as renovation works to upgrade park buildings, the livelihood programs and the ecological monitoring programs and the preparation of management plans. All of these activities would not have happened without the technical support and investment made by PERSGA SEM project.” (Dr. Rebecca Klaus, Project Consultant).



Table 6: Ex-post incremental cost analysis at ICR

Activity	Baseline	GEF Alternative	Global Benefits	Incremental Cost (US\$ million)
Component 1. Strengthening the principles of marine managed areas by achieving selected MPA functionality through community empowerment/engagement in selected pilot coastal sites.				Baseline: 2.54 GEF Alternative: 3.29 Increment: 0.75
1.1 Implement the master plans of selected MPAs; Build the capacity of community stakeholders and institutions involved in MPAs	Long-term planning and investment in MPAs as a principle tool for conservation management in RSGA.	Improved functionality of MPAs through the application of ecosystem-based management of marine resources with sustainable community stewardship.	Reduced pressure on fragile marine resources for the preservation of natural assets balanced with community livelihood needs.	
1.2 Develop a series of engagements/exchanges between MPA counterparts	Focus on knowledge sharing of local environmental issues.	Broadened focus on knowledge sharing at the regional level	Common knowledge of marine management in RSGA strengthened.	
1.3 Develop education and public awareness materials that highlight the success of community-based MPA co-management	N/A	Knowledge products generated of success stories to build national and local capacity.	Local communities empowered to apply suitable best practices	
Component 2. Strengthening coastal communities to use Ecosystem Based Management approaches to improve fisheries management and achieve other marine resource benefits in selected pilot areas				Baseline: 0.98 GEF Alternative: 1.78 Increment: 0.8
2.1 Development of institutional framework for ecosystem-based management (EBM)	Improving the governance and management of the marine environment of the RSGA is a stated priority of the countries, as manifested in the regional Strategic Action Plan and in the universal support (including annual member contributions) for the efforts of PERSGA in organizing resources to implement the Plan.	Ecosystem-based management requires different institutional frameworks that include not only the governments but also other coastal and community stakeholders Recognition of the broader ecosystem functions and services, and the need to accommodate and reconcile the many objectives of different uses and users	Transition to EBM will allow communities to gain an integrated understanding of sustainable uses of marine resources.	
2.2 Strengthening community participation through education and knowledge sharing, implement monitoring, control and surveillance systems for fisheries	Small productive projects, health education for women, provision of basic community services, but with limited opportunities for community-based management of marine resources	Building capacity in communities of ecosystem-based management to fisheries, including training on monitoring impacts and implementing effective control measures.	Community-based ownership, stewardship and empowerment help protect critical habitats, environmental services and the generation of benefits from living marine resources.	
2.3 Support development of sustainable economic activities of marine resources and demonstrate alternative management models, through applying community driven planning and impact assessment, support in partnership development for subsequent implementation	Focus on small scale investments, mostly funded through donor support, including eco-tourism, fish processing, handicrafts, etc.	Additional support to develop subprojects for alternative livelihood initiatives while building the capacity of local communities to evaluate the ecological impact and socioeconomic benefit-cost of different opportunities.	Enhanced livelihoods of local communities with capacity to increase marine-based and alternative incomes through informed decision-making in balance with existing marine resources.	



		Increased capacity to build partnerships to leverage funding for implementation of further pilot projects.		
Component 3. Regional environmental and Socioeconomic Monitoring Network Supporting Ecosystem Based Management (EBM) and Community Benefits				Baseline: 0.28 GEF Alternative: 1.48 Increment: 1.20
3.1 Supporting establishment of a standardized integrated database(s) of socioeconomic, ecological, biological, chemical and physical variables.	Regular monitoring of social and environmental indicators.	<p>Support to establishment of standardized integrated database with updated mapping of significant habits and anthropogenic threats.</p> <p>Enhance collaboration at the regional level to enrich a regional database of environmental ecosystem variables.</p> <p>Inter-calibration of monitoring methods for cross-regional analysis to identify key issues and hot spots.</p>	Improved standardized environmental monitoring combined with better communication of results on a regional and MPA network level. Information is comparable at regional level and fisheries stock information is integrated.	
3.2 Encouraging the development of a regional framework and initiate coordinated long-term monitoring and research for coral reef ecosystem variables and ecosystem processes, as well as support monitoring of basic environmental variables and impacts of neighboring activities, and strengthen monitoring and assessment concerning land-based activities and their impacts on coastal habitats.	N/A	In addition to creating baselines from current monitoring activities, this component will encourage countries to introduce a range of environmental monitoring in the pilot/demonstration MPAs as well as in the adjacent environments, and taking into consideration the impacts from surrounding coastal activities.	Moving from a focus on single-species to consideration of habitat and life history considerations, monitoring has expanded its focus to also address ecosystem functioning and responses to development	
3.3 Organize a training workshop for scientists, managers and community leaders or students from the communities in collaboration with IUCN on GCRMN; and review of PERSGA monitoring manual of 2004.	On-going funding and participation in PERSGA activities.	<p>PERSGA's convening power will be used to raise public awareness across countries and stakeholders in a high-level dialogue.</p> <p>PERSGA will provide regional leadership through scientific management, education, data collection, monitoring, and communication.</p>	<p>Improved regional monitoring networks.</p> <p>Greater focus on regional trans-boundary issues for improved environmental management and performance thereby facilitating marine and coastal biodiversity of global significance</p>	
Component 4. Project Management				Baseline: 4.73 GEF Alternative: 4.98 Increment: 0.25
TOTAL				Baseline: 8.53 GEF Alternative: 11.53 Increment: 3.00



ANNEX 5. BORROWER, CO-FINANCIER AND OTHER PARTNER/STAKEHOLDER COMMENTS

The borrower has reviewed the ICR and in an email response dated June 19, 2019 noted that the 18th Meeting of the Ministerial Council of PERSGA Member countries, held in May 2019 in Jeddah has unanimously endorsed and valued the Red Sea and Gulf of Aden Strategic Ecosystem Management Project outcomes and PERSGA strategic partnership with the World Bank. This was expressed in the Ministerial Council decision Nr. 5/18/22-5-2019, which also called PERSGA to continue collaboration with the World Bank in the design and implementation of the next phase and asserted support of PERSGA Member States at the ministerial council level.



ANNEX 6. SUPPORTING DOCUMENTS

World Bank Project and Financing Documents

- Grant Agreement - November 4, 2013 (Grant Number TF014701)
- Project Appraisal Document - August 8, 2013 (Report No: 76146-MNA)
- Aide Memoires for Project Supervision Missions
- Project Implementation Status and Results Reports (ISRs)
- Restructuring Paper dated September 6, 2016 (Report No.: RES23514). Available at: <http://documents.worldbank.org/curated/en/755331474250428750/pdf/Restructuring-Paper-Final-P113794-09062016.pdf>

WBG Engagement Strategy Documents

- Republic of Djibouti, Country Partnership Strategy FY14-17
- Arab Republic of Egypt, Country Partnership Framework FY15-19
- Hashemite Kingdom of Jordan, Country Partnership Framework FY17-22
- Republic of the Sudan, Interim Strategy Note FY14-15
- Republic of Yemen, Country Engagement Note FY17-18

Other Documents

- Final Borrower ICR from PERSGA
- Final Draft Management Plan for Dungonab and Mukkawar Island National Park, Sudan (2016 to 2021). PERSGA (2016). Prepared under the World Bank GEF funded Strategic Ecosystem Management (SEM) for the Red Sea and Gulf of Aden Project

Table 7: Key Project Milestones and Events

Date	Event
July 2012	Preparation of GEF IW Tracking Tool
January 2013	Completion of the ESMF of the MPA Pilot Sites
29 August 2013	WB Board Approval
4 November 2013	Effectiveness
26-27 March 2014	Inception workshop with training on procurement, safeguards, and M&E - 1 st WB Supervision Mission
February 2015	2 nd WB Supervision Mission
November 2015	3 rd WB Supervision Mission
January-February 2016	Mid-term Review - survey and assessment report
14 March 2016	4 th Supervision Mission and Regional MTR workshop
September 2016	5 th Supervision Mission
May 2017	6 th Supervision Mission
January 2018	Original project closing date
March 2018	7 th WB Supervision Mission
31 July 2018	Initiated ICR process
October 2018	8 th WB Supervision Mission



October/Nov 2018	Final project evaluation assessment and reporting
December 2018	Final project evaluation and closing workshop
31 December 2018	Revised project closing date
February 2019	Borrower ICR completion



ANNEX 7. MAP

