



Terminal Evaluation  
of the GEF Supported Project  
for the Implementation of:

## **The Strategic Action Programme (SAP) for the Red Sea and the Gulf of Aden**

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PERSGA – “The Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden” is an intergovernmental organisation dedicated to the conservation of the coastal and marine environments in the region.

The Regional Convention for the Conservation of the Red Sea and Gulf of Aden Environment (Jeddah Convention) 1982, provides the legal foundation for PERSGA. The Secretariat of the Organization was formally established in Jeddah following the Cairo Declaration of September 1995. The PERSGA member states are: Djibouti, Egypt, Jordan, Saudi Arabia, Somalia, Sudan and Yemen.

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## EXECUTIVE SUMMARY

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This summary provides an overview of the Terminal Evaluation for the GEF Supported Project for the Implementation of the Strategic Action Programme (SAP) for the Red Sea and Gulf of Aden (RSGA). This summary is designed to not only share report findings, but to also profile the Project's considerable achievements and make a case for partnerships to help carry the SAP forward to new horizons. Through such collaboration, the commitment to environmental knowledge and human values demonstrated in this Project can continue, and ensure that the vital resources of the globally significant RSGA are appreciated, studied and wisely utilised for generations to come.

### ***Red Sea and Gulf of Aden Context***

The Red Sea and the Gulf of Aden supports some of the world's most significant marine and coastal species and habitats, and related marine resources, due to its globally distinct oceanographic and geologic evolution and location. The average width of the Red Sea is 280 km; depth ranges from 500 m down to 2000 m. The Gulf of Aden has depths of over 3000m, is heavily influenced by seasonal upwelling, and is bound by 1,400 km of coast on the northern side and 800 km along the southern coast. The RSGA region is dominated by an arid coastal zone with minimal freshwater resulting in tropical clear waters that support vibrant coral reefs and associated communities, many of which are endemic to this region. The marine resources of the RSGA area have sustained human cultures for centuries. In comparison with other 'semi-enclosed seas' in the world, this region is relatively pristine from an ecological perspective. However, the present transboundary and region-wide concerns are far-reaching and require national-regional-international coordination to minimise loss of vital ecological and economic services to the people of the RSGA region.

### ***PERSGA & the SAP Process***

In view of the growing environmental threats to this ecologically and economically important area of the world, ALECSO established the Programme for the Red Sea and Gulf of Aden (PERSGA) in 1974. This was followed by creation of the "Regional Convention for the Conservation of the Red Sea and Gulf of Aden" in 1982 – known as the Jeddah Convention. The seven Arab League member nations – Djibouti, Egypt, Jordan, Saudi Arabia, Somalia, Sudan and Yemen - signed the convention and helped to establish PERSGA, an intergovernmental organisation to implement the Convention. PERSGA is based in Jeddah and is hosted by the Kingdom of Saudi Arabia.

In line with the goals of the Global Environment Facility (GEF) International Waters Focal Area, the GEF supported the preparation of a Strategic Action Program (SAP) for the Red Sea and Gulf of Aden from 1995-1998. Subsequently PERSGA and partners prepared a GEF full-project proposal, resulting in approval by the GEF Council for \$19 M GEF support, and anticipated co-financing through other partners (e.g. IMO, FAO and the Islamic Development Bank), to be implemented during 1999-2003. The global objective of this Project is to: *safeguard the coastal and marine environments of the RSGA and ensure*

*sustainable use of its resources.* This 5 year GEF Project phase of the SAP targets complementary, preventive and curative actions, responding to previous SAP planning exercises.

The project is executed jointly between the 3 GEF implementing agencies (UNDP, UNEP and World Bank). Early in the development of the Project, a Project Implementation Plan (PIP) was prepared to detail the activities and provide a framework for further elaboration of logical frameworks, budgets etc. The Project actions collectively address the transboundary nature and sustainable development of marine resources for the RSGA region as a whole, and are organised around the following objective-based components:

1. *Institutional Strengthening to Facilitate Regional Cooperation (IS)*
2. *Reduction of Navigation Risks and Maritime Pollution (NAV)*
3. *Sustainable Use and Management of Living Marine Resources (LMR)*
4. *Habitat and Biodiversity Conservation (HBC)*
5. *Development of a Regional Network of Marine Protected Areas (MPAs)*
6. *Support for Integrated Coastal Zone Management (ICZM)*
7. *Enhancement of Public Awareness and Participation (PAP), and*
8. *Monitoring and Evaluation of Programme Impacts (M&E)*

### ***Terminal Evaluation Scope***

This Terminal Evaluation (TE) is designed to assess the global and detailed performance of the project as compared to the objectives presented by the PIP and supporting project documents. The TE was conducted by a three person team (hereafter 'mission') with collective experience in the region, as well as other international 'regional seas' and GEF project experiences. The TE used the description of activities, outputs and main indicators, as well as recommendations from the Mid-Term Evaluation findings from 2002. The TE was conducted at both the regional and the national levels, from which results were integrated. The mission met with staff at PERSGA, as well as in-country missions to all countries except Somalia (who was engaged predominately through a questionnaire process).

The evaluation mission reviewed the entire phase of implementation (1999-2004) taking into account, re-orientations and re-scheduling decided for some components. Therefore some components which are only getting underway due to design changes from the MTE (e.g. demonstration projects and other emerging initiatives) are not evaluated to the same degree as the core 8 components listed above. The evaluation mission wishes to thank the many individuals and organisations who made this evaluation possible.

Chapter II of this evaluation focuses on the interface between the core 8 project components (IS, NAV, LMR, HBC, MPA, ICZM, PAP and M&E) and GEF criteria, as well as perspectives on the Project overall in light of the GEF Criteria. Chapter III of this report provides the core reviews of the eight components, while Chapter IV presents a rating and related discussion of the Project based on the GEF Criteria and Rating. Chapter V of this report, summarises the 'demonstration projects' and other emerging initiatives. Chapter VI presents concluding lessons and recommendations. Annexes complement the main report and illustrate the considerable depth and scope of this SAP Project.

### ***Component Highlights and Findings***

The following provides a synopsis of the component highlights and findings which are detailed in Chapter III, evaluated in Chapter IV and provide context for the recommendations in Chapter VI.

### 1. Institutional Strengthening to Facilitate Regional Cooperation:

This component addresses the cross-cutting human resources architecture and leadership of the Project as demonstrated through the Project's diverse and substantive range of planning, preparation, reporting, technical, strategic and action plan training and resulting documents. The most enduring aspect of this component is the network of people working together throughout the RSGA area, including: PERSGA, the Council of Ministers for high-level policy dialogue; the Task Force with representatives from key national and international bodies, and the technical leadership of the Lead Specialists, Thematic Experts and National Coordinators. Some activities were compromised due to the complex and ambitious nature of this Project and the relatively short time of 5 years including start up and post-GEF transition. A Red Sea Fund has not yet been established as was originally envisaged but a PERSGA strategy and business plan to address the post-GEF climate is now in preparation.

### 2. Reduction of Navigation Risks and Maritime Pollution:

This component has been successful at strengthening the existing network of competent authorities to address a range of maritime safety and pollution mitigation challenges within short to long term time frames. Partnerships with IMO and working groups have been established. Core achievements include surveys of the southern Red Sea, resulting in new routing measures and maritime charts. Other activities that have been advanced to varying degrees, and which will be continuing, include: the establishment of MEMAC (Marine Emergency Mutual Aid Centre) in Hurgada and assistance to seek sustainable functioning of the Djibouti sub-regional Stockpile Equipment; navigation aids (lighthouse in Yemen); as well as marine contingency planning and port state control. Activities conducted in this component are highly relevant to the regional transboundary character of the RSGA area and warrant focused continued effort and replication across a range of scales and time frames.

### 3. Living Marine Resources:

This component has lead on workshop-based training related to the establishment of present status and levels of knowledge, and fishery survey and monitoring methods for a range of living marine resources species. Data collection capacity and centers are established throughout the region. Efforts to better understand and ultimately manage the 'shark fin' trade as well as sustainable ornamental trade has advanced but needs follow-up. Regional centers for training in Saudi Arabia and Yemen are established with support from host countries. Regional networks of fishery stakeholders across a range of issues, locations and scales is now in place. The excellent partnership with FAO should be continued and replicated with other partners. Next steps include the acceleration of capacity for the various centers. Work on fisheries monitoring and management with other partners should continue, with an emphasis on implementation and provision of equipment facilities to follow-on from the training and to start monitoring programme which will continue to update status on the RSGA region. LMR links with HBC and MPA themes should be further integrated.

### 4. Habitats & Biodiversity Conservation

This component has also resulted in an excellent network of researchers and stakeholders through a broad suite of training and workshops and on-the-ground work resulting in critical baseline data on key habitats and species. This component has enhanced the knowledge, status, and methods on key species and habitats that are replicable in other time and place contexts. Species Action Plans for turtles and birds, as well as Regional Action Plans for corals and mangroves have been developed and are ready for implementation. The most immediate next steps should focus on funding to accelerate implementation of the species and habitat action plans as basis for monitoring and regionally linked strategic zoning and protection programmes, linked with LMR, MPAs and ICZM. Additionally the work on the biodiversity and MPA protocols is commended and is being taken forward in May 2004.

#### 5. Development of a Representative Network of Marine Protected Areas

This component has established a network of marine protected areas, through the enhancement of existing areas and establishment of new areas, most notably: Dongonab Bay and Mukawwar Island in Sudan, Belhaf-Bir Ali in Yemen and Ile des Sept Feres in Djibouti. MPA acceleration has been accomplished through a range of ecological and socio-economic workshops, training and surveys accomplished with involvement and participation of local communities and other stakeholders. Regarding process, a Regional Master Plan was first developed which then served as a template and framework for national level MPA master plans. The plans facilitated sound linkages with the LMR, HBC, ICZM and PAP elements of the project. These plans form the basis and justification for PERSGA to approach donors and solicit financial assistance from international organisations and NGOs and industry for equipment and staffing to further operationalise these vital MPAs.

#### 6. Integrated Coastal Zone Management

This component addressed planning and priority setting intuitional mechanisms in the region, using a 'lessons learned to target' areas process. The long term and diverse experience base in the northern RS area provided insights for the emerging work in the southern RSGA area. Thus, a series of 'model' ICZM experiences were developed addressing different scales and contexts: e.g. governorate-city planning for Aden and national coastal scales of Djibouti and Sudan. This approach is potentially a replicable for other places with diverse demographic and biogeographic contexts and development stages. As elsewhere, the achievements were largely realised through the development of networks of concerned individuals and organisations as experts and facilitators. Additionally this component resulted in standardised and adaptive data for region into GIS/IEM which has proven useful for all components and which will be elaborated further through PERSGA and partners. Further support to refine and apply ICZM at national levels, as well as trial use of ICZM as overall concept for the RSGA at a regional scale is needed.

#### 7. Public Awareness

This component has achieved much at the local level regional networks of NGOs and over 100 'eco clubs' in schools throughout the region. Additionally 'micro grant' projects have trailed different PAP approaches and local management that has been welcomed in all regions. Profiling of the RSGA marine resources threats and values, and links NAV, HBC, LMR components has helped raise the awareness of these issues. There is a need to expand the PAP experience to further engage with NGOs and local stakeholders, as well an immediate need to target public awareness and outreach to decision-makers as well.

#### 8. Monitoring & Evaluation

The project was compliant with the various reporting and monitoring elements. However there was a changing approach of monitoring indicators (e.g. from verifiable to process) during the project which may have compromised clarity on some of the big-picture insights across components. However, in terms of GEF 'indicators', the Project demonstrates success on 'process indicators'. For example: the establishment of sustainable institutional networks at different levels; fostering an enabling legislative and policy climate; development of surveys and monitoring protocols and strategic action plans; changes in ICZM and MPA policies, and demonstration of stakeholder involvement and training throughout. The Project is also starting to demonstrate 'stress reduction' indicator achievements. For example: MPAs established, new hydrographic routes, accepted ICZM plans, and initiation of a regional environmental monitoring programme (REMP).

### **Evaluation Ratings & Analysis**

As required by the GEF Terminal Evaluation Guidelines, the mission prepared a 'rating matrix' of: a) components rated by GEF Criteria; and b) Criteria assessment for the entire project is presented. GEF projects are to be evaluated in light of the following criteria: a)

*Outcomes/achievements of objectives; b) Implementation approach, c) Stakeholder participation/public involvement, d) Sustainability, and e) Monitoring and Evaluation.* The grading required by the GEF Secretariat guidelines was used as a basis for the rating process ranging from 4-1 scale, ranging from: highly satisfactory (4), satisfactory (3), partially satisfactory (2) and unsatisfactory (1).

While there was varying levels of accomplishment across the project, the overall result was 3.22 out of 4, putting this Project in the 'satisfactory' (plus) category. Satisfactory is defined by GEF as: *Implementation of most of the components in substantial compliance with original/revised plans, except a few elements that are subject to remedial action. Project will provide satisfactory global benefits without major shortcomings.* With regard to Project results in terms of the GEF Criteria: the Project was highly successful on many achievements, however a few activities were compromised by the ambitious design and 5 year time frame. This meant that at the MTE some activities were rephrased, but the overall integrity of the Project and key outputs were realised. The implementation approach, focusing on networks was strong for all components, as was stakeholder participation. M&E was generally successful even though self-monitoring and clear exist strategies were not optimised. The new baseline of knowledge and human resources makes a good basis for sustainability, however immediate implementation of action plans etc. was not realised due to limited new donor funds the lack of new financing mechanisms. New funding is now PERSGA's primary focus.

### ***Emerging Initiatives***

During the course of implementing the GEF funded phase of the PERSGA SAP, some regionally and nationally significant initiatives have 'emerged' from the 'Project process'. These serve as important cross-cutting component linkages as well as axes to build on as the SAP continues to be realised beyond the GEF phase. These initiatives are just getting underway, so they were not included in the rating and full evaluation. However, they are presented in this report as noteworthy avenues of sustainability of the SAP objectives and important areas for further work and support. These initiatives are noted here and detailed in the report.

1. Protection of the Marine Environment from Land-Based Activities
2. Regional Action Plan for Marine Contingency Planning
3. Regional Environmental Monitoring Programme (REMP) for RSGA
4. Demonstration Projects in all countries

### ***Concluding Lessons & Recommendations***

PERSGA and its partnership network of member states, NGOs and other international organisations have together achieved a great deal during the five year focus of this Project, which is builds a solid foundation for exciting work ahead. Therefore this final chapter is targeted to donors and future partnerships of many types to build on PERSGA and GEF's investment to date.

#### **Project Achievements:**

The Project was largely executed through a diverse set of on-the-ground oriented training- and workshops which provided skills development in leadership, management, surveys, strategic action plan development. Together this resulted in over 500 persons being trained at different levels, and nearly 80 substantive reports, documents and outputs across all components. This has resulted in a substantial increase in the environmental baseline and status of knowledge and needed actions for the globally significant marine resources of the RSGA area. Additionally this resulted in human resource networks of people who worked



together across the region in generating new environmental information, supporting enabling policies and action plans for further implementation.

#### Considerations for PERSGA

The Project was highly ambitious in its objectives to be realised in 5 years. Thus constructive changes were made in the overall design, scope and phasing at the mid-term to ensure solid results were achieved. In future for large donor partnerships and projects PERSGA could consider more phased approaches that sequentially allow time for both results generation, linked with monitoring and critical assessment as a basis for ongoing funding explorations. The Project demonstrated excellent partnerships with a range of stakeholders including national governments, and NGOs. As PERSGA takes the SAP forward beyond this GEF phase, it is encouraged to diversify the partnership and funding base to include a wider range of partners, in particular the private sector. The training orientation of the Project resulted in considerable regional – national coordination and outreach, which now needs to be followed up by targeted dissemination of the results coming from the Project to key audiences. PERSGA is encouraged to continue its work on incorporating new horizons that are potentially highly relevant to the semi-enclosed sea and international waters character of the RSGA region, in particular land-based activities and marine impacts, as well as climate change challenges.

#### Considerations For GEF:

This is one of the first GEF international waters projects to mature through the full project cycle. As noted above, emerging issues of climate change and seas such as the Red Sea are now important as ‘indicator seas’ for climate change, marine conservation control areas, and trials of ICZM approaches. Thus GEF may want to utilise the new ‘targeted research’ avenue of GEF to explore emerging marine science and sustainable development capacities. Related is the need to support ways to foster exchange on the findings from this RSGA sea region with other Regional Seas initiatives and networks. Taking into account the challenges for the RSGA Project (and other large projects) to generate first-level results and cultivate new donors at the same time, GEF may want to consider new ways to better integrate firm ‘exist strategies’ into overall project design with a level of rigor similar to that conducted for preparation of complex GEF International Waters projects.

*The mission hopes this report conveys a sense of endorsement and congratulations to all those who have been involved on this Project at every stage. PERSGA and its partners have achieved a great deal. There is now a solid foundation of a much needed baseline of information on marine resources, collation of experience, and most importantly an invaluable network of experienced people throughout the region. We hope PERSGA’s leadership and coordination will continue to cultivate and inspire future partnerships. We encourage all donors and other people who value the vibrant heritage of the Red Sea and Gulf of Aden region, to take time to review the many action plans and forward looking ideas that have emerged from this Project, and explore to collaborations that can continue the considerable momentum this Project has started.*

## ACRONYMS

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CBD	Convention on Biological Diversity
CEDARE	Center for Environment and Development in the Arab Region and Europe
CITES	Convention on the International Trade in Endangered Species
COM	Council of Ministers
CTA	Chief Technical Advisor
EEAA	Egyptian Environmental Affairs Agency
EU	European Union
FAO	Food and Agriculture Organization (of the United Nations)
GEF	Global Environment Facility
GIS	Geographic Information System
GMDS	Global Maritime Distress and Safety System
GPA	Global Programme of Action
HBC	Habitat and Biodiversity Conservation (Component 4)
IA	Implementing Agency (for GEF)
IALA	International Association of Lighthouse Authorities
ICZM	Integrated Coastal Zone Management (Component 6)
IDB	Islamic Development Bank
IGO	International Government Organization
IS	Institutional Strengthening (Component 1)
IIMS	Integrated Information Management System
IMO	International Maritime Organization (of the United Nations)
IPIECA	International Petroleum Industry Environmental Conservation Association
IW	International Waters
KAU	King Abdulaziz University
LFA	Log Frame Analysis
LMR	Living Marine Resources (Component 3)
LS	Lead Specialists
M&E	Monitoring and Evaluation (Component 8)
MAP	Mediterranean Action Plan
MEMAC	Marine Emergencies Mutual Aid Centre
MOU	Memorandum of Understanding
MPAs	Marine Protected Areas (Component 5)
MTE	Mid-Term Evaluation
NAV	Reduction of Navigation Risks and Maritime Pollution (Component 2)
NE	North-East
NGO	Non-Governmental Organization
NPC	National Programme Coordinator

NW	North-West
NWG	National Working Group
PAP	Public Awareness and Participation (Component 7)
PDF	Project Development Fund (GEF)
PME	Presidency of Meteorology and Environment (Saudi Arabia)
PERSGA	Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden
PIP	Project Implementation Plan
PSC	Port State Control
RAP	Regional Action Plan
RECOFI	Regional Commission of Fisheries
REMP	Regional Environmental Monitoring Programme
RRCC	Regional Reference Collection Centre
ROMPE	ROMPE Sea Area (Kuwait region)
RSQA	Red Sea and Gulf of Aden
SAP	Strategic Action Plan
SSM	Standard Survey Methodology
STA	Senior Technical Advisor
TDA	Transboundary Diagnostic Analysis
TE	Terminal Evaluation
TF	Task Force
TSS	Traffic Separation Scheme
TOR	Terms of Reference
UKHO	United Kingdom Hydrographic Office
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UN-TSC	United Nations Train Sea Coast Programme
USAID	United States Agency for International Development
VTs	Vessel Traffic System
WB	World Bank
WG	Working Group



## I GEF SAP PROJECT OVERVIEW

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### *Red Sea and Gulf of Aden Context (RSGA):*

In order to review the considerable importance of the ongoing RSGA 'Strategic Action Plan' (SAP) to date, it is essential to highlight the physio-graphic and demographic context of this region. The Red Sea and the Gulf of Aden supports some of the world's most significant marine and coastal species and habitats, and related marine resources, due to its globally distinct oceanographic and geologic evolution and location. The Red Sea of today is an expression of the deep ocean rifting and separation of the African and Arabian plates that occurred over 70 million years ago, resulting in the convergence of three major biogeographic realms. The Red Sea itself is approximately 2,100 km long, starting from the Mediterranean in the north (via the Suez Canal, a human-created link), continuing down to the Bab el Mandab Straits in the south, where the Red Sea flows into the Gulf of Aden and the Indian Ocean.

The average width of the Red Sea is 280 km and depth ranges from 500 m down to 2000 m. The Sinai peninsula divides the northern Red Sea into 2 distinct marine areas - the Gulf of Suez which averages 20-40 km long and 30 m deep, and the contrasting Gulf of Aqaba, which is 12-14 km wide and more than 2000 m deep in most places. The Gulf of Aden was also formed from the separation of the African and Arabian plates. It has depths of over 3000 m, is heavily influenced by seasonal upwelling, and is bound by 1,400 km of coast on the northern side and 800 km along the southern coast. Socotra Archipelago, situated at the eastern extreme of the Gulf of Aden, is an area of global significance in terms of island biodiversity and species endemism.

The RSGA region is dominated by an arid coastal zone with minimal freshwater resulting in tropical clear waters that support vibrant coral reefs and associated communities. Due to the variety of topographic features noted above, the region has a high diversity of coastal-marine ecosystems, as well as many endemic species. There are protected shallows, exposed sandy and rocky shorelines, extensive mangroves, seagrass and macro-algal beds. The diversity of corals, many of which are found only in the Red Sea, may be greater than anywhere else in the Indian Ocean. More than 1,300 species of fish have been recorded from the Red Sea, thought to be higher than any other semi-enclosed sea.

The marine resources of this region have sustained human cultures for centuries. In comparison with other 'semi-enclosed seas' in the world, the RSGA area is relatively pristine from an ecological perspective. Yet the present transboundary and region-wide concerns are far-reaching and require national-regional-international coordination to minimise loss of vital ecological and economic services to the people of this region. Critical issues include: maritime pollution caused by international shipping; unregulated exploitation of shared fish stocks; wide-spread habitat destruction by uncontrolled coastal zone development for cities and tourism; and emerging challenges of climate change. The rich cultural legacy of the region, including a number of significant archaeological, historical and sacred sites and

traditional livelihoods in coastal areas, is threatened by the above suite of development pressures.

### *PERSGA & the SAP Process*

In view of the growing environmental threats to this ecologically and economically important area of the world, ALECSO established the Programme for the Red Sea and Gulf of Aden (PERSGA) in 1974. This was followed by creation of the “Regional Convention for the Conservation of the Red Sea and Gulf of Aden” in 1982 – known as the Jeddah Convention. The seven Arab League member nations – Djibouti, Egypt, Jordan, Saudi Arabia, Somalia, Sudan and Yemen - signed the convention and helped to establish PERSGA, an inter-governmental organisation to implement the Convention. PERSGA is based in Jeddah and is hosted by the Kingdom of Saudi Arabia.

In line with the goals of the Global Environment Facility (GEF) International Waters Focal Area, the GEF supported the preparation of a Strategic Action Program (SAP) for the Red Sea and Gulf of Aden from 1995-1998. This PERSGA SAP guides the implementation of a regional framework for protection of the environment and sustainable development of coastal and marine resources. It is envisaged to be an ongoing 'living process' for PERSGA's leadership and coordination in the region. The GEF supported phase of the SAP to initiate this process was led by PERSGA. For this GEF project phase, PERSGA also serves as the Executing Agency, in partnership with all 3 GEF implementing agencies (UNEP, UNDP and the World Bank.) The initial 3 year 'preparatory phase' of the SAP used a participatory process including workshops to develop baseline Country Reports, Navigation Risk Workshops in Egypt and Yemen and a Living Marine Resources Workshop in Saudi Arabia. Although the Government of Eritrea is not a member state of PERSGA and has not been directly involved in the formal SAP process, coordination has been conducted through UNDP, as there is a linked GEF marine resources project for Eritrea.

### *GEF SAP Project Overview 1999 – early 2004*

Building on the above, in 1998 PERSGA and partners prepared a GEF full-project proposal and 'project document' that lead to successful approval by the GEF Council for \$19 M GEF support, and anticipated co-financing through other partners. This full-project was to be implemented during 1999-2003 and is the focus of this 'terminal evaluation' review. The long term, or global objective of this 5 year 1999-2003 GEF supported phase of the SAP (here after 'Project') *is to safeguard the coastal and marine environments of the RSGA and ensure sustainable use of its resources*. To support this global objective, the priorities of the SAP were to: a) strengthen the capacity of PERSGA to coordinate SAP implementation with all international-regional-national stakeholders; b) provide support for priority activities; and c) facilitate further resource mobilisation through national-international partnerships.

In light of the 'incremental funding mandate' of GEF, support was designed to achieve global benefits by removing barriers against implementation of the SAP through supporting the incremental costs to augment national support required to address regional and international concerns. Therefore, the five year GEF Project phase for SAP development was to utilise a series of complementary, preventive and curative actions as highlighted through the SAP planning phase. These collectively address the transboundary nature and sustainable development of marine resources for the RSGA region as a whole. These 'development objectives', or components, are listed below and function as the guiding framework for a wide range of inter-related activities that were to be realised through this Project, and which are discussed in this evaluation.

9. *Institutional Strengthening to Facilitate Regional Co-operation (IS);*
10. *Reduction of Navigation Risks and Maritime Pollution (NAV);*
11. *Sustainable Use and Management of Living Marine Resources (LMR);*
12. *Habitat and Biodiversity Conservation (HBC);*
13. *Development of a Regional Network of Marine Protected Areas (MPAs);*
14. *Support for Integrated Coastal Zone Management (ICZM);*
15. *Enhancement of Public Awareness and Participation (PAP); and*
16. *Monitoring and Evaluation of Programme Impacts (M&E)*

To further refine the initial SAP planning and status documents, which secured the \$19 M GEF Council support in 1998, a 'Project Implementation Plan' (PIP) was prepared in 1999 to detail activities as per the above objectives. The Project management team used the PIP as a guide additional work plans, budgets, and the development of logical frameworks, to ensure that component-activity-objectives were linked in a hierarchal and verifiable manner.

Although the GEF supported phase of the PERSGA SAP is executed in a fully integrated and joint manner between the 3 GEF implementing agencies (UNDP, UNEP and World Bank), each agency did provide a lead 'monitoring and finance management' facilitation role for certain components. However, reporting and finance management was streamlined into a common platform. For example, UNEP GEF lead and supported component (1) Institutional Strengthening. UNDP lead on the components 3, 4, 5 and 6 (LMR, MPAs, HBC and PAP). The World Bank led on components 2 and 6 (NAV and ICZM). The Islamic Development Bank contributed to the component 6 (PAP).

In addition to the routine quarterly-semi-annual reporting that is part of the overall project implementation and monitoring, the project also had a 'Mid-Term Evaluation (MTE) in 2000, which provided the opportunity to reflect and review progress and priorities in light of experiences so far. The mid-term evaluation recommended re-orientation of the Project management team and programmatic priorities to better realise the project goals in light of the remaining time frame, and to achieve more 'on the ground' results that were both nationally and regionally relevant. Therefore, a significant outcome of the MTE included the re-programming of various budgets across the Project in light of the following: a) usual small revisions related to progress by the mid-term phase, b) some savings due to limited on the ground work in NE and NW Somalia, and c) to generate \$2M USD for a suite of one-year 'demonstration projects' which were to be implementation-oriented and country-driven evolutions and complements of the original component activities. Additionally several 'emerging initiatives' have been started through the Project, that are highly relevant to the RSGA region and are considered evolutions of the original activities. These include work on a protocol and programme of action to address land-based pollution issues, and initial establishment of a 'Regional Environmental Monitoring Programme (REMP).

While formal support by GEF for many of the project activities ended in late 2003, work in ICZM and the 'demonstration projects' continues through 2004 on a no-cost extension basis. Activities related to the overall 'themes' of the components (e.g. ICZM, navigation, habitat biodiversity, protected areas, public awareness) continue to be carried forward through PERSGA and its work with member states and partners in the coming years. PERSGA is now in an active phase of preparing a suite of post Project strategic and programmatic activities targeted to a range of partners. However, the 8 components-objectives listed previously continue to serve as the 'Project framework' for this 'terminal evaluation' (TE). The achievements from the core 5-year project period (1999-early 2004) are the focus of this terminal evaluation report.



## II EVALUATION SCOPE

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### ***Evaluation Objectives:***

This terminal evaluation (TE) is designed to assess the global and detailed performance of the project as compared to the objectives presented by the PIP, and made explicit through the component log frames and other supporting project documents. The TE has been conducted by a three person team (hereafter 'mission') who collectively had experience in the region, as well as other international 'regional seas' and GEF project experiences. (TORs and biographies for the Evaluation are in Annex E.)

This evaluation is based on the overall global and component objectives of the Project. It used the description of activities, outputs and main indicators as detailed and concrete references to be compared, in particular the outputs as compared to the planned activities. It took into account what was realistic and reasonable to expect as 'outputs', noting the Mid-Term Evaluation and subsequent comments of the GEF Implementing Agencies that it was - "necessary to reduce the scope and scale of expectations...and to maximise the potential achievements within the available budget and time constraints; as well as the need to amend the design of the project "ensuring on the ground results in each country" .<sup>1</sup>

### ***Evaluation Scope:***

The TE was conducted at both the regional and the national levels, from which results were integrated. The mission met with staff at PERSGA, as well as in-country missions to all countries except Somalia. Additionally a questionnaire was sent in advance to all key Project participants as preparation for the mission visits. (It is noted in the TORs Annex E.) A list of all persons and institutions met with for each country are provided in Annex A, including the list of questionnaire respondents for NE and NW Somalia in lieu of field visits. While the Project is of regional interest and is implemented on a regional basis, the mission recognises the Project relies on country inputs and participation, and that the ownership by countries is a key prerequisite of the whole project in terms of replication and sustainability. Therefore outputs were reviewed at the regional level and at the country level as well as component by component and globally.

In terms of the period assessed (from 1999 – early 2004), the evaluation mission reviewed the entire phase of implementation; taking into account mid-term and special evaluations which were undertaken in 2002 as well as further recommendations, re-orientations and re-scheduling decided for some components.

It should be noted that the SAP GEF project was not fully completed at the time of this terminal evaluation. For example, demonstration projects, amounting to \$USD 2,100,000

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<sup>1</sup> Report of the Fourth Meeting of the Taskforce, Jeddah, May 2002

dollars were in the implementation phase as they were initiated in June/July 2003 and are scheduled to be concluded by June 2004. In addition, some activities included in the navigation component and ICZM will be completed in 2004 and thus could not be evaluated during this time. These ongoing activities are noted and are considered part of the overall context of this terminal evaluation, however only preliminary conclusions can be drawn on at this time for these elements.

The PERSGA teams prepared draft final reports for each component, a summary document on 'capacity', and national and regional achievements, as well as the distribution of questionnaires in advance of the mission. However, a PERSGA-produced 'self monitoring' final report on the entire project, including financial summaries, is still to be completed and could not be used by the evaluation mission. Nonetheless, the mission was able to ascertain the critical elements and achievements of the project through reviewing the wide range of both monitoring and 'substantive output documents produced during the course of the project (e.g. key species and habitats action plans, protected areas plans, ICZM plans, public awareness products). All documents reviewed by the mission are attached as Annex B. A full list of all substantive documents arising from Project to date is tabled in Annex C.

The revised financial expenditures (showing for each component what was planned, re-scheduled and spent to date as of December 2003) were not available during the mission. However, the mission was able to use the 1999-2003 summary budget tables of the World Bank, UNEP and UNDP, with additional information added at the mission's request to note the planned cost at project start, planned disbursements through project end (including extensions) and component-activity linkages. While the original project was designed with a \$36 Million dollar 'vision', assuming co-financing, the actual project was executed from the Project start with a USD \$19 million plan, and it is this figure to which the budgets correspond.

In summary, the evaluation team adhered to the following GEF Project Review criteria as disseminated by the GEF Secretariat, and as the guiding principles for project evaluation.

1. Implementation approach
2. Country ownership
3. Stakeholder and public participation
4. Sustainability
5. Replication
6. Financial planning
7. Cost effectiveness
8. Monitoring and evaluation

In the context of the above GEF criteria, the evaluation mission:

- held interviews at the regional level with the PERSGA Secretariat, Project Management, and staffs; and at the national level with National Coordinators, responsible Ministries and Agencies, as well as local authorities, scientific institutes NGO's, teachers and other actors;
- made use of the official documents adopted or produced in the context of the project:
  - the SAP including Country reports
  - the PIP and SAP planning documents
  - reports of the Task Force
  - reports of working groups of each component
  - annual reports
  - available draft final reports for each component
  - financial documents



- regional strategies and plans such as, contingency plans, regional plans for seabirds, mangroves etc.
- ICZM studies
- Educational or information documents, etc.

Thus, this evaluation report is largely designed to address the interface between the core 8 project components (IS, NAV, LMR, HBC, MPA, ICZM, PAP and M&E) and the above criteria, as well as perspectives on the Project overall in light of the GEF criteria. Chapter III of this report provides the core reviews of the eight components, while Chapter IV presents a rating and related discussion of the Project based on the GEF Criteria.

Chapter V of this report summarises the 'demonstration projects' and other emerging initiatives, such as the Regional Environmental Monitoring Programme (REMP). Since these activities were just getting underway at the time of this evaluation, they are not part of the detailed project 'rating' developed for the activities of the 8 components. The mission recommends that these deserve a specific assessment in about six months time.

Chapter VI of this report presents concluding recommendations, lessons learned and next steps which are presented as: a) highlights from each component; b) summary of overall Project achievements, c) lessons learned and suggestions to PERSGA and c) considerations for the GEF community.

Annexes, as noted throughout the preceding discussions, serve to complement the main report and illustrate the considerable depth and scope of this SAP Project.

### ***Acknowledgements:***

The evaluation mission wishes to thank the many individuals and organisations who made this evaluation possible. PERSGA is thanked for their highly efficient logistical arrangement, which ensured that travel, visas and meeting coordination arrangements were smooth and timely. Contracts and payment arrangements for the mission were clear and smoothly executed. All of the PERSGA personnel - including management, lead specialists and administrative, exhibited a spirit of enthusiasm, transparency, openness and efficiency that made working with PERSGA a pleasure. At any time, any document or information requested was readily accessible and provided.

The mission also wishes to express their gratitude to the many people they met with across the seven PERSGA member countries involved in this Project. From ministers to researchers to local community members - all provided their valuable time and sharing of experience in a way that brought the report-oriented presentation of outputs to life and grounded the mission's evaluation insights. (Annex A. provides a list of all persons and organisations met with for this evaluation.)

It has been a privilege to work with the excellent staff of PERSGA and the many dedicated individuals and organisations working in each country. These persons represent the heart and future of the Red Sea and Gulf of Aden region. Through their work together they illustrate the kind of commitment needed to ensure the rich natural and cultural heritage of the region will be sustainably managed for generations ahead.



### III EVALUATION of COMPONENTS

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1. Institutional Strengthening to Facilitate Regional Cooperation (IS)
2. Reduction of Navigation Risks and Maritime Pollution (NAV)
3. Sustainable Use and Management of Living Marine Resources (LMR)
4. Habitat and Biodiversity Conservation (HBC)
5. Development of a Regional Network of Marine Protected Areas (MPA)
6. Support for Integrated Coastal Zone Management (ICZM)
7. Enhancement of Public Awareness and Participation (PAP)
8. Monitoring and Evaluation of Programme Impacts (M&E)

## Component 1

### Institutional Strengthening to Facilitate Regional Cooperation (IS)

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#### A. IS - RATIONALE:

Conservation of the unique and valuable resources of the Red Sea and Gulf of Aden requires concerted and coordinated efforts by the PERSGA member countries to protect these resources. This requires cooperation and coordination between relevant environmental and non-environmental organisations and institutional stakeholders across the region. All the member states recognise that effective environmental management and pollution prevention and control programs are needed to protect the natural resources of the Red Sea and Gulf of Aden, while allowing for growth of the region's trade, industry and tourism opportunities in an ecologically and economically sustainable way.

The stakeholders recognise that environmental problems are not contained by national borders and that strong and effective regional environmental protection mechanisms are required. Therefore, regional cooperation must be a continuous catalytic process, requiring strengthening existing institutional arrangements at the regional and national levels. Institutional strengthening that promotes regional cooperation has been a priority during all phases of the SAP process, and PERSGA remains the most appropriate institutional framework and coordination body to foster long-term regional cooperation and coordination in the RSGA and with partner's worldwide.

#### B. IS - OBJECTIVES:

There are several different presentations of objectives for this component in the PIP, which vary with regard to level of detail, as well as subtle shifts of wording in the subsequent work plans and the log frames prepared after PIP. However, these variations are in essence about the same 'core objectives' which are presented below, and around which the evaluation frames the discussion of 'achievements' later in this chapter.

1. ***Strengthening the Institutional Capacity of the PERSGA Secretariat***
2. ***Enhancing Regional Cooperation***
3. ***Developing a Sustainable Financing and Resource Mobilisation Strategy***

For reference, various other objectives are noted below. The evaluation mission accepts these 'sub-objectives' as 'supporting variations on the theme' and organises the discussion around the 3 'core objectives' listed in bold above.

- *Raise awareness of the Strategic Action Programme locally, regionally and Internationally;*
- *Develop skills and capacity of technical personnel from the region in report preparation and desktop publishing;*
- *Enhanced institutional capacity (both technical and administrative) of PERSGA to effectively lead and co-ordinate the SAP as a long-term regional programme;*
- *Closer co-ordination among existing projects and programmes in the Region;*
- *Enactment of adequate environmental policies and legislation for managing transboundary environmental issues;*
- *Enhancement of environmental management capacity throughout the Region;*
- *Increased participation in regional and global Conventions on the environment;*

- *Development of strong regional networks among environmental organisations; and*
- *Effective linkages between national and regional goals for protection and management of coastal and marine resources.*

### **C. IS - IMPLEMENTATION APPROACH:**

This institutional strengthening component is 'cross-cutting' and supports all components. The following discussion of 'human capacity' and project management provided the underpinning 'architecture' for implementation of the overall project and component activities.

A Council of Ministers, which consists of national level Ministers for relevant environmental ministries in each country, served to ensure that PERSGA and this GEF SAP had the highest level of support and endorsement throughout the project implementation.

A Task Force (TF), of senior national government representatives from key concerned ministries and agencies, served to provide oversight and facilitated implementation of the project, monitoring of progress and creating awareness of regional environmental issues at higher government levels. The TF that was active during the preparatory phase continued to function during the SAP-GEF project implementation phase with an adapted mandate and membership.

#### *PERSGA - based roles:*

PERSGA is lead by a Secretary General and Deputy Secretary General. In August 2003 the Secretary General of PERSGA for many years passed on. PERSGA was fortunate to attract a new Secretary General of the highest caliber, and who is one of the original founders of PERSGA.

Overall day-to day project management, executed from within PERSGA, included a Project Management Team, whose salaries were supported by GEF. For the first two years of the Project, management was lead by one Chief Technical Advisor. After the MTE, management was restructured to include two persons - a Project Manager, a Senior Technical Advisor.

Administrative and other technical support was made available through an administrative assistant, a finance officer and procurement officer, as well as librarian and secretary. From the beginning of the Project a full-time 'editor' was hired to lead on the writing, editing, preparation and publishing of all GEF SAP and PERSGA documents, which proved highly effective. Additionally a GIS/Information Management Specialist provided critical cross to support to all components and web-management.

Regional Lead Specialists lead on most the components served as the core interface between the execution of regional and national activities. However, Component 1 was lead by the Project Manager in PERSGA. Component 2, the navigation component, was led by a senior navigation advisor with support by a part-time navigation consultant, both based in Yemen. In the case of LMR and ICZM there were changes in Lead Specialists early in the project, due to staff moving, but new recruits were hired and have stayed with the Project throughout. This was a first major project leadership role for most of the lead specialists but over the course of the project their experience and capacity grew considerably.

#### *National Based Roles:*

Regional expert Working Groups were established for the different thematic components (navigation, biodiversity, ICZM etc.) of the project. Their time was provided as 'in-kind' by the

governments of each country, but associated costs with meetings and leadership were supported by the GEF. The WG constituted an effective mechanism for networking and communication between experts of the region. The WG met at least twice a year, and often in combination with other component-based training workshops to foster broader links with a diversity of project participants. The establishments of the WGs and their activities has facilitated links between national and regional goals as well as avenues for exchange of lessons and experiences. In some situations there was change of working group leaders due to changes in internal national government programmes, but this did not substantially affect the overall effectiveness of the working groups.

National Programme Coordinators (NPC) were supported by the project to work full-time in four of the countries: Djibouti, Somalia (two persons - for both NE and NW Somalia), Sudan and Yemen. The mandate of the NPCs is to ensure effective coordination and implementation of the programme activities at the national level and linking them to the regional initiatives.

#### **D. IS - OVERALL ACHIEVEMENTS:**

The following presents an evaluation of the project achievements for this “Institutional Strengthening” component is based collectively on the PIP and log frames.

##### **1. Strengthening the Institutional Capacity of the PERSGA Secretariat**

Overall this sub-component has been achieved successfully. The Project Management Team (PMT) comprising the Project Manager, the Senior Technical Advisor and 6 Regional Lead Specialists covering the thematic areas of SAP has been established and functioning well. Administrative support and financial management was provided by qualified support staff to the programme. Reports indicate that during 2002 there were between 22 and 24 full and part-time staff. However during the Terminal Evaluation, the staff was reduced to about 7 due to the closure of GEF support.

It has been reported that the administrative and financial systems and manuals that were developed. The project office infrastructure has been adequately developed and appropriate office equipment has been procured including computers, printers, scanners, etc. A local area network (LAN) is operational. Preparatory work has been done to install a GIS system in the office and is very nearly complete. Standardised forms, templates and manuals for administrative and financial/procurement purposes have been prepared and are in use.

An excellent library has been established with a collection of references, reports, maps, videos, etc. A contract with a training provider has been signed which allowed the staff to be trained on software applications.

A large number of information products and packages have been produced for the project which involved all levels of the project (managers, lead specialist, workshops, working groups, national coordinators and the Project Editor and library staff). A full list of all products produced through the SAP Preparation Phase (1995-1998) and the full-project phase (1999-2004) are listed in ANNEX C. In summary they include the following types of documents:

- Planning documents;
- Status documents;
- Reporting documents;
- Technical series documents;
- Training workshop documents;
- PERSGA/SAP brochure in Arabic, English and French;

- Communication and awareness national including flyers, posters, quarterly newsletter “Al-Sanbouk”; and
- A documentary film about the Red Sea, which was produced in collaboration with UNDP.

In addition, a website was established and incorporates most of the above documents.

In spite of the impressive volume and solid substance of the PERSGA and project outputs listed in Annex C and noted above; feedback to the evaluation mission suggested that outreach could have been wider. This is most likely due in part to the fact that much of the core results from the most intense activity phase of the project (e.g. 2002-2004) are only now coming together in final forms. Additionally the process of informing and ensuring ‘drafts’ were reviewed by all stakeholders was considered a national responsibility, rather than PERSGA. Enhanced ‘outreach’ between PERSGA and national partners, as well as international partners is an area that should be of highest priority by PERGA to ensure the solid work done through these GEF phases continues.

A wide range of training was conducted throughout all phases of this project for all staffs and national counterparts, and is detailed subsequently in each component discussion. (Annex D. presents a table summarising all training conducted through the Project.)

Regarding ‘management’ training for the PERSGA team and lead specialists there was mix of training: a) general training for lead specialists and national coordinators on technical aspects of marine conservation and management; b) training on project management and planning (including workplans and log frames); and c) training on project monitoring and evaluation.

Collectively the PERSGA team provided continuous and sound technical and administrative support to the Task Force (TF) and to the other components of the SAP-GEF project. PERSGA served as a knowledge and information base (data bases, maps, library, studies, surveys...etc) for regional use. The ‘human resources architecture’, or combination of regional PERSGA support linked with networks of national input at multiple levels (Council, Task Force, Working Groups and National Coordinators), overall worked well and provides a management and technical platform that should support ongoing and future RSGA environmental activities addressing transboundary and shared interests.

## **2. Enhancing Regional Cooperation**

This sub-component has been satisfactorily achieved according to the PIP and overall project achievements context. The SAP TF has been operational under amended TOR. The TF meetings have been held yearly and then increased to twice a year starting 2002.

Regional expert Working Groups have been established for the different project components. In the PIP it was envisaged that the Regional WGs would support coordination and implementation of the national components of the SAP, and respective incorporation into national policies and investment programmes. This was only partially achieved, mainly due to the over ambitious design and expectations in the PIP, especially given the fact that a large percentage of the WGs members were researchers or technical staff of organisations and not decision makers or higher management staff. A composition of WGs representing a mix of decision makers and researchers might have better achieved the objectives of this sub-component.

PERSGA has succeeded in preparing a roster of regional and international experts and consulting firms covering a wide range of relevant disciplines. The office has established a

regional library on marine environmental sciences. Information products of high quality have been produced and disseminated including technical reports, awareness material and the PERSGA publication *Al Sanbouk* (further discussion on public outreach is provided in the Public Awareness component.)

The PIP notes that under this sub-component, and in collaboration with other components, the following new regional protocols were to be developed. The development and drafts of these has been ongoing throughout the Project, and is in varying stages of development as described below and in the respective component-specific sections. They are discussed below:

- i. *“Protocol concerning the conservation of biological diversity and the establishment of protected areas”* (links with the HBC and MPA sections):  
The 'biodiversity and MPA' protocol was developed through the HBC and MPA working groups and specialists from PERSGA, and with ROMPE (parallel regional body for the Gulf area). A Final Draft prepared in May 2003 including the legal protocol document as well as supporting 'concept paper' which provides the background of rationale and status relevant to this protocol. A high-level joint technical and legal experts meeting is planned for May 2004 to finalise the Protocol and supporting documents.
- ii. *“Protocol on the protection of the marine environment from land-based sources of pollution in the Red Sea and Gulf of Aden”*: There has been considerable progress on this protocol. As highlighted in Chapter V, various drafts of a protocol and complementary 'regional programme of action on *“The Protection of the Marine Environment from Land-based Sources of Pollution in the Red Sea and Gulf of Aden”* have been developed (1999, 2000). This protocol is now moving forward in collaboration as a PERSGA priority area in collaboration with the UNEP-lead Global Programme of Action. A joint technical and legal experts meeting is planned for May 2004 to review the Protocol.

Originally it was envisaged that a protocol for transboundary fish stocks or establishment of a regional fishery body would be developed. In collaboration with FAO through the LMR component, a high-level workshop recommended the establishment of *Regional Commission of Fisheries* (RECOFI) for the PERSGA region rather than develop a protocol. A focal point from Sudan, representing PERSGA, has been designated to follow up with FAO, and facilitate a report with contributions by each country on recommendations for setting up the RECOFI. However, the report has not yet been developed.

Additionally, PERSGA has conducted a review of all environment related legislation for the region with regard to marine and transboundary issues for the RSGA region. A draft report in Arabic has been prepared. This is considered a significant cross-cutting activity which builds on and contributes to all components through a better understanding of the status of marine relevant environmental legislation for all countries in the region.

As evidenced in the other components, the Project has realised and encourages getting the basic science and knowledge on the RSGA region in place, as well as organisational structures. This 'environmental status base' is now solid due to the collective Project achievements, and the mission encourages PERSGA to take the development of these protocols in collaboration with other relevant regional and international bodies (e.g. ROMPE, CBD, FAO, GPA, IMO, etc.) to further cultivate an enabling policy climate to address RSGA international waters issues.

### **3: Developing a Sustainable Financing and Resource Mobilisation Strategy**

This sub-component was designed to facilitate mobilisation of financial resources to sustain the activities and programmes implemented under Project. In particular the PIP outlined the following activities for this sub-component.

- i. Reviewing the opportunities for self -financing of the different components of the SAP at the regional and national levels;
- ii. Assessing the feasibility of establishing the proposed Red Sea and Gulf of Aden Environmental Fund;
- iii. Evaluating existing economic instruments within the PERSGA member countries; and
- iv. Seeking funds from bilateral and multilateral donors.

While there has been ongoing activity for this resource mobilisation sub-component, there is not yet an RSGA Environment Fund, and the other activities have been addressed in a general way as discussed below. PERSGA has been in discussion with the World Bank and others on the need for and request for assistance in establishment of a Fund since 2000. During the course of the Project the following 'forward looking' documents have been prepared:

- PERSGA's Strategy for Sustainability (DRAFT), May 2002;
- "Agenda for the New Millennium – Sustainable Development of the RSGA", which was prepared for the WSSD in August 2002;
- A discussion paper "PERSGA's Framework and Vision Beyond the Funded Phase of the Strategic Action Programme" was prepared in December 2003 and presented to a recent Task Force meeting. The discussion paper builds on the ideas noted in the earlier 'vision' papers, summarises highlights from the GEF SAP work and makes a case for new partnership building towards a donor conference.

Additionally in most of the component-specific Action Plans there is much consideration given to financing, priorities for action and future partnerships. (e.g. Regional Master Plan for MPAs, National MPA plans, Regional Action Plan for key species (turtles, seabirds) and habitats (corals, mangroves), navigation plans, ICZM plans and public awareness plans). The LMR component has prepared two detailed proposals related to fisheries for submission to the EU, as some of the LMR components were identified as not having GEF support from the outset.

Recognising the immediate importance to review the Project status, sharpen PERSGA's future goals, and facilitate a participatory process for future partnerships, PERSGA has hired a consultant in March-April 2004 to prepare a comprehensive document on sustainability strategy to serve as a donor planning document and business plan, which will in part build PERSGA strong leadership of the SAP to date.

#### **F. IS - CONCLUSIONS:**

The project has created a many planning, preparation, reporting, technical, strategic documents. (See Annexes B and C.) Collectively these give credence to the success of this component as the 'foundation' for the others.

Overall the implementation approach for this component, in particular the human resources and management elements, are sound, sustainable and replicable if substantive and



financial support for key activities and causes can be continued through PERSGA's leadership and coordination.

From a financial perspective, the project has in some cases shifted costs from 'on the ground' (e.g. equipment) to more management-oriented activities, while putting the 'on the ground' focus into the demonstration projects.

From a monitoring and evaluation perspective, there has been considerable ongoing reporting and evaluation in terms of reporting with less emphasis on either component targets or 'bigger picture' critical and synthesis oriented monitoring as needed to develop new partnerships. The monitoring and evaluation achievements and challenges of the Project are discussed further in Component 8.

With regard to sustainability, as noted above, the 'human resource management' and networks capacity is very high. It is regrettable that the catalytic 'new financing' actions envisaged through the 'resource mobilisation' track above have not been fully realised.

While there has been work towards a "Red Sea Fund", this area needs further development. The previously listed 'forward looking documents' demonstrate work along the way and awareness of the need for new partnerships. However, they do not provide a critical final assessment of the GEF support phases and transition to the non-GEF phases in a compressive and targeted way that facilitates new partnerships or financing mechanisms as originally envisaged would happen through this sub-component. At present the most substantive portfolio of 'short-long' term recommendations is embedded in the depth of component specific action plans.

As noted earlier in the 'evaluation scope chapter', the Project has not prepared a comprehensive 'final report', and this mission report is serving this role for the time being.

However, the mission does not feel the considerable achievements of this project should be discounted because of the lack of new funding in place. The mission wishes to note the complexity and challenge of even start-up implementation of the SAP, and commends the considerable achievements of generating a much needed and globally valuable knowledge base on the region, as well as regional-national networks that can be sustained through new funding arrangements.

Therefore, the mission fully supports the highest priority that PERSGA is now placing on 'forward planning, partnerships and financing process', and feels this is timely given the high caliber of information that have been generated through this Project.

## Component 2

### Reduction of Navigation Risks and Maritime Pollution (NAV)

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#### A. NAV RATIONALE:

The Red Sea and Gulf of Aden is a globally important shipping route, which is used by oil tankers and other ships carrying dangerous and noxious substances. Due to the ecological sensitivity of the region (and in spite of no major accidents recently), it remains critical to raise the standards the level of implementation of international conventions related to the prevention of maritime accidents, preparation of contingency plans, monitoring and controlling voluntary pollution and other initiatives aiming at preventing/combating maritime accidents. Supporting PERSGA initiatives to take action on such issues is fully in line with GEF mandates for International Waters.

#### B. NAV OBJECTIVES:

This component is *de facto* based on the main elements of the international maritime agenda in terms of protection of the marine environment from pollution arising from maritime navigation. This is reflected in the main objectives as enumerated by the PIP.

- the need for legal developments in PERSGA countries (ratification of conventions and translation into national laws);
- support for the development of Port State Control;
- improvement of charts based on hydro-graphic surveys;
- routing measures aiming at separating the traffic in dangerous maritime regions;
- supporting the preparation and adoption of contingency plans;
- improving navigation aids; and
- establishing or supporting pollution response facilities.

#### C. NAV APPROACH:

This component was based on the findings of the “Navigation Risk Assessment and Management Plan” (published as Volume 3a of the Strategic Action Program). The document is an output of the “Navigation Working Group” which was established in November 1996 and which met twice under the guidance of the PERSGA and the World Bank. The analysis and conclusions of this exercise led to the definition of objectives and activities that were incorporated in the Project Implementation Plan (PIP).

Based on the PIP, a navigation advisor and a part-time navigation consultant (both based in Yemen) were appointed for this component. The regional oriented working group participated in both decision-based meetings and training oriented workshops. Professionals of the maritime navigation activity were involved in the implementation of this component. In contrast to the other components, this component has largely been coordinated from Yemen rather than PERSGA in Jeddah, as this was the base of the specialist and advisor with the most experience on this component. Additionally the most urgent navigation needs addressed in the component were predominately in the southern Red Sea area.

#### D. NAV ACHIEVEMENTS:

In order to realise the objectives above, this component included 9 subcomponents, or achievement targets, supporting the objectives through expected achievements. Through

the World Bank, this component had a total budget allocation of USD \$3,500,000 to implement the planned activities.

## 1. The Navigation working group:

This WG was composed of representatives of the countries, competent intergovernmental organisations and experts. The WG served as a framework mechanism for discussing issues, reviewing activities and adopting recommendations relevant to this component. The WG also supported workshops for training its members, thus contributing to the overall capacity building objective of this Project. The IMO provided substantial support to the working group through international experts, documents and materials, demonstrating high interest in the definition and the implementation of this component. Other international partners were also involved in this component, e.g. collaboration with Mediterranean Action Plan. With regard to routing measures, Eritrea was engaged.

From 2000 to 2003, five workshops took place first annually, then twice a year; and focused on the following issues:

- Hydrographic Surveying Methods and the planning and design of Routing Measures
- Marine Contingency Planning and the Ratification of IMO Conventions
- Port State Control
- Maritime Accident and Incident Investigations
- Vessel Traffic Systems and Automatic Identification Aids
- Regional Action Plan for Marine Contingency Planning

A review of the minutes and recommendations related to workshops and meetings of this component demonstrate participation, commitment, and a high level of expertise and precise planning of the work programme.

## 2. Implementation of International Conventions:

The PIP recommended that more countries ratify key maritime conventions (IMO/ILO), with the Navigation Working Group bringing attention and support in this context. Below is the “Table of Instruments” ratified as of December 2003 (as compared to 1999):

	<b><u>Number of IMO Conventions Ratified</u></b>	
	<b><u>December 2003</u></b>	<b><u>1999</u></b>
Djibouti	10	08
Egypt	33	32
Jordan	14	07
Saudi Arabia	18	18
Somalia	02	02
Sudan	09	04
Yemen	19	17

While some progress has been made during this period (e.g. Jordan and Sudan doubling the number of conventions they signed in only 5 years), overall progress in ratification of IMO Conventions remains less than satisfactory. This situation, which is not specific to PERSGA region, can be explained by:

- the need for IMO to make available the conventions in Arabic;
- the lack of legal structures in some countries;
- the lack of proper infrastructures, such as reception facilities in harbors to implement such conventions as MARPOL 73/78;

Additionally as noted in Component 1, there has been a broad review of marine relevant environmental legislation for the each country in the region (*Legislation Concerning Protection of Marine Resources in the RSGA*). This review contributes to a more effective policy climate with regard to linkages between national-regional-international legislative instruments.

With a view of ensuring sustainability to this sub-component, PERSGA Secretariat is encouraged to support member states in order to accelerate the process of ratifications and enabling legislation at all levels.

### **3. Port State Control (PSC)**

Some progress has been made on PSC by PERSGA states in accordance with SAP/PIP objectives, including the participation of Eritrea. An intensive workshop took place in Jeddah 2002 in order to provide training to the countries maritime authority representatives. At the national level, a number of officers specialised in PSC (two to four per country) have been appointed and trained. Countries such as Egypt, Jordan, Yemen and Sudan have started controlling ships in their harbors but there are no detailed statistics available on the number of inspections.

No regional PSC/MOU has yet been developed so far. This is in part due to the member states already being engaged through other means. For example, Egypt and Jordan are members of the Mediterranean MOU, Saudi Arabia of the Gulf MOU; and Sudan and Yemen having joined the Indian Ocean MOU.

Only limited funds (US \$7,110 dollars) were allocated for PSC activities as compared to what was originally planned (USD \$395,890 dollars) to meet the extra budgetary for hydrographic surveys discussed below. As a result, the PIP objectives related to PSC were only partially achieved.

### **4. Hydrographic surveys**

Hydrographic surveys were a prerequisite for the review of risks, the publication of new navigation maps, the designation of new routing schemes and additional navigation aid systems and equipment. This sub-component was effectively and fully completed on time and in conformity with PIP and the logical framework.

A hydrographic survey was conducted following standards set by the International Hydrographic Organisation, and was the first to be operated since the XIX century. The survey whose cost amounted to almost USD \$2.7 million dollars, including supervision (which exceeded the projected cost estimate of \$2M) was conducted between 2000 and 2001 by the UK Hydrographic Office after a successful international tender.

“Avocet Rock”, a dangerous region where a number of wrecks occurred was included in the survey for the first time along with some other risky areas that were carefully surveyed. The survey has been accepted by UKHO and IMO and new charts have recently been put on sale to the shipping industry.

Subsequent activities that took place in this context included:

- Submission of a request to UKHO for accreditation for the survey in the southern Red Sea to be put on international charts (this is not common charting practice, but has been agreed by UKHO);
- An assessment of the status of hydrographic surveys around the coasts of Yemen between the border of Saudi Arabia and Socotra Island;
- An update of the chart of ports and anchorages on the coast of Somalia, which will result in this chart being changed from fathoms and feet to meters (the only remaining chart in the region that needs to be 'metricated').
- Preparation of a request by the Government of Yemen for a new chart of the southern Red Sea and Gulf of Aden to be designed and published, providing coverage of the Gulf of Aden out to and beyond Socotra Island to an improved scale, thus enhancing the safety of navigation for this part of the Region.

The quality of these achievements that even surpassed the expectations of the PIP.

## **5. Routing measures**

Based on the survey, new routing measures affecting the southern part of the Red Sea (Traffic Separation Scheme) were prepared in addition to the existing ones (Gulf of Suez, Strait of Tiran and Strait of Babel Mandab, the Red Sea southern entrance). The process of elaborating and getting the approval of the new TSS took less than 2 years, including: elaboration of the new draft chart; its submission to IMO by concerned countries; the examination and adoption by IMO competent instances; their official entry into force (01/07/2003); and their publication in relevant international navigation documents. Further plans aiming at separating the maritime traffic routes are being prepared in 2004. This is the most impressive achievement within this component.

## **6. Navigation aids**

Navigation aids equipment for activities is the logic follow up of the improvement of knowledge related to navigation risks and the establishment of routing measures. In conformity with PIP provisions, new requirements for improving navigation aids were reviewed through contacts with professionals and the International Association of Lighthouse Authorities (IALA). In this context a new lighthouse including an Automatic Identification System is to be established in Hanish Al Kubra (Yemen) providing improved navigation security in the southern part of the Red Sea. Its cost (USD \$180,000) was budgeted through the revision of the World Bank project.

## **7. Contingency plans**

Two regional workshops (Djibouti, 2001 and Hurghada, 2003) involving IMO experts were devoted to this issue. As a follow-up, a Regional Action Plan on contingency planning was approved by PERSGA in 2003, which provided objectives and guidelines for further development of national and sub-regional contingency plans. A total of USD \$1,800,000 remains to be secured for the implementation of the Plan. In summary:

- National contingency plans are operational in Egypt, Sudan, Saudi Arabia and Djibouti;
- IMO is committed to supporting the development of such plans in Yemen as well as regional workshops in oil spill modeling and sensitivity mapping; and
- It is expected that all countries including Somalia will have adopted contingency plans by 2005

## **8. MEMAC and Oil Pollution Response Facilities**

The decision to establish a Marine Emergency Mutual Aid Centre (MEMAC) in Hurghada (as formally planned by PERSGA) was grounded in the Jeddah Protocol. The host agreement of MEMAC was signed in Cairo, Oct. 2003, between PERSGA and the Egyptian Ministry of Environment. MEMAC will be in charge of implementing its objectives stated in Jeddah Protocol.

The PERSGA Council, recognising that the Djibouti Stockpile Equipment is an operational centre, requested PERSGA Secretariat to assist in inviting financial support from donor agencies (such as WB, EU, Norwegian Government, and Petroleum Industry) to secure sustainability for the Djibouti Stockpile Equipment. PERSGA is about to conduct a technical study for the sustainability of the Djibouti Stockpile Equipment that will be part of the Regional Network of Operational Oil Spill Response facilities in the PERSGA region.

## **9. Port rules, GMDSS, Accident and Incident Investigations**

A number of achievements are to be mentioned under this sub-component. The issues of port security under new IMO rules (to be approved within 2004) came on the agenda. In this context, the ISPS code was translated into Arabic and disseminated to ports for further implementation. The definition of maritime boundaries between states (as a legal prerequisite for the effective monitoring of navigation and the enforcement of international rules) has made progress. GMDS stations were installed in some countries covering the northern part of the Red Sea. Finally, a workshop held in Port Sudan (March 2002) was partially devoted to marine accidents and incident investigations with the view of improving national capacity and sharing experiences in processing investigations.

## **E. NAV CONCLUSIONS:**

While not all its sub-components were equally addressed, the Component 2 on 'reduction of navigation risks and maritime pollution' was very successful in the following areas:

- effective achievements such as surveys, mapping and vessel traffic systems in the southern Red Sea;
- participation and ownership by all countries;
- creating a regional approach and a network of authorities in charge with maritime safety and prevention of pollution from maritime activities;
- continuous involvement of competent IGO's or private organisations such as IMO and IPIECA;
- sustainability, as PERSGA, with the support of IMO and the countries, is committed to further develop ongoing activities such as routing, contingency plans; and
- replication, as all sub-components could be used as reference modules.

The financial implementation of this component differed considerably from planned estimates in the original project design. The overall cost of for management expertise on this component doubled and the cost of the Hydrographic Survey exceeded the first estimation by about USD \$600,000 dollars. Meeting the costs of the surveys resulted in the expenses for Port state control activities being substantially reduced. Therefore, in future NAV activities, priority should be given to the improvement of national capacities in terms of equipment and training of port officers in charge with PSC. Precedence should be given to national capacity building, specifically in PSC training, activation of the Hurghada MEMAC Regional Centre and the sustainability of the Djibouti Stockpile Equipment facility.

## Component 3

### Sustainable Use and Management of Living Marine Resources (LMR)

#### **A. LMR RATIONALE:**

As noted earlier, the Red Sea and Gulf of Aden contain some of the world's most important marine habitats and species, illustrating rich diversity at many levels. The Gulf of Aden is a region of oceanic upwelling, resulting in high productivity of fishery resources. Also in this area is the Socotra Archipelago, which is critical for fishery resources. A wide range of species are targeted, e.g. demersal and pelagic finfish as well as invertebrates. Most species cross boundaries at different life cycle stages and/or are shared stocks. There is a wide range of socio-economic development scales, e.g. industrial and artisanal throughout the region, yet it is essential that fisheries in the RSGA be managed from a shared resource perspective. Fishery resources are of high socio-economic importance to the region for food security; yet, limited knowledge, awareness of ecosystem links and enforcement are resulting in unplanned exploitation that is having a negative effect, eroding the potential sustainability of fisheries as a long-term resource. Along with the Habitats and Biodiversity (HBC - Component 4) and the Marine Protected Areas (MPA - Component 5) described elsewhere, this LMR component is one of three that directly address issues related to sustainable marine resource management and biodiversity conservation.

The scope of this LMR component, which links fisheries with ecosystem health and biodiversity conservation, is intended to expand previous fisheries studies in the area and provide baseline data to include a more comprehensive picture of fisheries beyond specific stocks only, as well as to include environmental and socio-economic information. The major issues targeted through this component are listed below and were addressed through the objectives and activities of this component:

- lack of public awareness in sustainable use of LMR;
- lack of information on transboundary stocks and cooperation in management of shared stocks;
- inadequate baseline data on benthic and demersal stocks,
- unregulated exploitation of high profile species, e.g. sharks and lobsters,
- need for management of 'fishing shark fins' for Asian food market;
- lack of surveillance and enforcement of existing fishing regulations;
- shrimp and fish farming resulting in environmental degradation;
- unsustainable harvest of ornamental fish for the aquarium trade; and
- lack of coordinated monitoring overall for fisheries in the region.

#### **B. LMR OBJECTIVES:**

1. *Promote capacity building for sustainable management of living marine resources;*
2. *Development of a sustainable management strategy for transboundary stocks and invertebrates*
3. *Establishing the legal and policy framework for conservation and sustainable management of living marine resources.*

#### **C. LMR APPROACH:**

In a similar mode to that of the HBC and MPA components, this component was executed through the modalities noted below.

- working groups, coordination by lead specialist;
- establishing centres of excellence, sub-regional training centres linking with existing universities;
- fisheries data collection centres;
- training courses on methods, key species identification and stock assessment and sustainable use;
- regional studies and stock assessments on key species;
- monitoring programs;
- development of ecologically sustainable guidelines; and
- integration with other components and into GIS and information management data bases.

Some of the activities related to the sustainable management of transboundary fish stocks and invertebrates in this component were designed to be done with non-GEF support through partnership with FAO from the start. Activities related to the ornamental fish trade were anticipated to be complemented by private sector industry support.

#### **D. LMR ACHIEVEMENTS:**

Achievements are presented as 'sub-components' to realise the objectives noted above.

##### **1. Capacity Building for Sustainable Management of Living Marine Resources:**

A LMR lead specialist provided full-time guidance and management for this component and coordinated activities and products, and links with other components, especially HBC and MPAs. He received training on project management and GIS.

LMR Working group – 6 meetings: The LMR Working Group met six times to plan joint activities, evaluate progress, and exchange data and lessons learned. The WG members served as the link between the regional project and the national government agencies concerned with the management of LMRs. Additionally some regional and international experts joined meetings to address specific issues as needed.

Establishment of 2 sub-regional regional training centres as ongoing partnerships with 2 universities. One was established in the premises of the Faculty of Marine Science at the King Abdulaziz University (KAU) in Jeddah, Saudi Arabia. While the second, the Fisheries Training Institute in Aden, Yemen, serves as a sub-regional centre. The GEF provided equipment and computer elements to both centres.

“Regional Reference Collection Centre” (in connection with the HBC component) was established at the Marine Science Faculty of King Abdulaziz University (KAU) in Jeddah, Saudi Arabia. The marine lab facilities has provided building and support staff which will continue to serve as a training centre and 'regional reference collection centre (RRCC). Funds are needed to secure additional materials and environmental education outreach needed.

Establishment of 16 LMR Data Collection Centres for reporting fish-catch landings. These include 4 in Djibouti, 4 in NE Somalia, 4 in NW Somalia, and 4 in Sudan. The project provided computers and other equipment.

Regional Training Workshops: Seven major workshops were held throughout the region on different issues and often held simultaneously with WG meetings to maximise learning and meaning to meetings. Many of these were done with collaborative support by other partners including FAO, and utilised facilities of national universities around the country. These workshops helped provide the basis and knowledge capacity needed to carry out the other



LMR objectives discussed subsequently. In each case there were participants from all countries, and in most cases reports and or manuals were prepared as follow-up.

Specific workshops included:

- a) One training course on '*standardisation of data methods*', which linked into the data being compiled through other components and was used in the GIS/Information Management System; held in Djibouti in collaboration with FAO;
- b) One training workshop on developing a *regional fisheries database*, Djibouti, Nov. 2002;
- c) Two training courses on *elasmobranchs (sharks and rays)* held at the newly established PERSGA sub-regional training centre in Aden, Yemen, 2001 focusing on *identification, data recording techniques* and again in 2002 in Aden (see subsequent sections), focusing on *stock assessment*;
- d) One training course at the sub-regional training centre in Jeddah, 2002 on 'methods for assessing the status and potential for *ornamental fisheries* and their environmental impacts' of the aquarium trade; and
- e) One workshop on *environmental friendly aquaculture* and fisheries practices, Hurghada, 2002.

## **2. Development of a sustainable management strategy for transboundary fish stocks and invertebrates**

- Overall LMR Data Collection and Dissemination activities:
  - Preparation of a comprehensive *Status of LMR Resources for the RSGA* was prepared as a baseline document for this component, published in 2002.
  - All *LMR data* has been standardised, geo-referenced and incorporated into an LMR Data Base and integrated with the overall SAP GIS system, focusing on 3 modules: elasmobranchs, finfish and invertebrates and ornamental fish.
  - *ID Guide for all LMR Species* developed from the database and distributed on CDs to region.
  - Purchase of *FAO 'Fish Base' 2000* (interactive CD Rom) and distributed to WG and national institutions.
- Shark and Ray LMR management:
  - A regional shark 'finning' study including data collection on landings and analysis of present fisheries impact from 'shark finning' was conducted. Two technical reports produced and distributed, including:
  - *ID and Stock assessment of Elasmobranchs*; and *Field Guide to Elasmobranchs* (published by FAO)
  - A *waterproof Shark Guide* in Arabic and distributed regionally, *Regional Elasmobranchs Management Plan*— a report on Elasmobranchs Identification and Stock Assessment with regional management measures produced.
- Invertebrates LMR Management (shrimp, cuttlefish, crabs):
  - *Regional training* meeting to enhance skills for conducting trawling studies;
  - *Assessments of trawl surveys* and studies on exploitation rate and environmental impacts;
  - Development of a *monitoring programme* in collaboration with fisheries ministries in Saudi Arabia, Egypt and Yemen to look at trawling impacts in coastal waters;
  - A *Regional Management Plan for Invertebrates* was prepared,
  - *National Management Plans* on target 'trawl' species developed by: Saudi Arabia, Egypt and Yemen

- Ornamental fish stocks and aquarium trade:  
Following from the training (above), surveys of existing practice in ornamental fish trade conducted in Egypt, Jordan, Djibouti, Saudi Arabia and Yemen as indicative monitoring; Studies include sampling and survey methods, findings, analysis, and provisional quotas per country were proposed. Three sequential products evolved from work in this trade issue:
  - *Guidelines for Ornamental Fish Sampling, Data Collection and Analysis for the Aquarium Fish Trade;*
  - *Status Report of the Ornamental Fish Trade* for the region; and
  - *Guidelines for Ornamental Fish Monitoring, Control and Surveillance* for the region on this issue, including proposals for quotas, self-financing, monitoring, control and surveillance.
  
- Environmental Friendly Aquaculture:  
As noted in the training above, an international workshop was held on 'Environmentally Friendly Aquaculture and Fisheries Practices' in Egypt, in partnership with: FAO, ICLARM, ROMPE and USAID. Proceedings were published by FAO. From this workshop, *EIA Guidelines* for Aquaculture were prepared.
  
- Public Awareness:  
In collaboration with the PAP component, the guides noted above were useful to targeted fishing audiences and provided basic information that was rewritten for children's activities and posters in the PAP.

### **3. Establishment of the legal and policy framework for conservation and sustainable management of living marine resources**

In collaboration with HBC and MPA components and the project overall, a review of environmental legislation at the regional and national scales was completed for all the countries (*Legislation Concerning Protection of Marine Resources in the RSGA*). In this review CITES and trade in marine resources was examined, as well as utility of protocols for the region. As discussed in the IS component section, with regard to developing a protocol for transboundary fish stocks or establishment of a regional fishery body - there have been ongoing discussions with FAO to establish a "Regional Commission of Fisheries" (RECOFI) for the PERSGA region. An elected focal point from Sudan, representing PERSGA, has been designated to follow up with FAO, and facilitate a report with contributions by each country on recommendations for setting up the RECOFI. However, the report yet has not yet been developed to the mission's knowledge.

#### **E. LRM CONCLUSIONS:**

This LMR component has done an excellent job in establishing status, methods, networking across local to larger scale fisheries, as well as in integrating with other components. However, like the situation with much of the Project, there was little time to start implementing some of the guidance, and this is the critical next step. The documents and action plans lay out clear priorities and areas of action that can be continued at national – international levels and by a wide range of donors/stakeholders.

As indicated above, a substantial number of high quality and comprehensive products were developed through this LMR component. These are listed in Annex C. Together these considerably realise the baseline of knowledge for the region, and to the world community, on the overall status of RSGA living marine resources, and action plans to address these issues. These documents lay a critical foundation of knowledge for the region, especially in light of the Red Sea as a globally unique water body. Each of these documents has been

developed through a wide range of training, field surveys and collaborative workshops as noted above. The publications will soon all be available both in published hardcopy and electronic-web based formats and GIS and information management systems. This will serve ongoing networking goals of the region and others interested in these fields.

The implementation approach of forming national working groups as well as thematic expert groups has been effective to engage a range of stakeholders and lays a good foundation for further collaboration. All countries were highly involved, and in particular the level of knowledge for the southern Red Sea countries and ecological functional relationships to the whole RSGA region is much better understood. This created a strong sense of leadership, ownership, interest, and participation. Links with the PAP and ICZM work also helped spread the work and interest in these LMR issues beyond the typical 'fisheries-biodiversity' community.

With regard to development of the RECOFI and links with protocols, fisheries management is complex world-wide, and the process is often lengthy. This Project has helped establish critical fishery and habitat related information baselines and also demonstrates the value of linking fisheries management with habitat and ICZM oriented measures as well, demonstrated the generally accepted concept of 'ecosystem based' management. However, it is essential for PERSGA to help continue the RECOFI and/or transboundary fisheries agreements.

From a financial planning and cost effective perspective, this component has achieved a great deal in 5 years given the limited baseline, range of coverage, complexity of issues. So from a human and organisational capacity the knowledge base and ground work for clear action is solid, and funds are well spent. While much of the overall Project is supported from an integrated way and not-component specific, the key areas that are designated as only for LMR are as follows and documented in the UNDP budgets. About USD \$1M was spent on LMR specific activities with almost this evenly divided between personnel and equipment to the countries. However, another \$400k was indicated for contracts but much of this was reallocated to the country-driven 'demonstration activities', of which many addressed LMR issues.

From a monitoring and evaluation perspective, like the rest of the project, there was considerable reporting in terms of work plans, quarterly-semi-annual reports. All of the training and workshops were executed through participatory approaches with feedback evaluations. As discussed in the M&E section, the formal adherence to log-frames and indicators was an evolving process, however the component did stay focused on objectives outlined in the PIP, although some elements were not executed to the scale originally envisaged.

Replication and sustainability of the findings and baseline advancement from this LMR work should be applicable to other areas in and outside of the region now that there are standardised methods. However, a series of events and a strong fishery based monitoring programme will be needed to maintain momentum, as well as further work with FAO and others on regional protocols and standards of conduct for the various fisheries trades from pelagics to ornamental. It is also suggested that as PERSGA moves forward, this LMR work continue to be highly integrated with the work of the HBC and MPA in particular, as well as obvious links with ICZM and PAP.

## Component 4

### Habitats And Biodiversity Conservation (HBC)

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#### **A. HBC RATIONALE:**

Along with the 'Living Marine Resources' (Component 3) described before and the next one on Marine Protected Areas (Component 5), this component is one of three that directly address issues related to sustainable marine resource management and biodiversity conservation. The Red Sea and Gulf of Aden contains some of the world's most important marine habitats and species, illustrating a wide diversity at many levels. Key challenges to conservation of these critical habitats were: limitations in baseline knowledge; management capacity, and ability to proactively address human-induced threats that directly impact critical habitats and species. (In particular coral reef, mangrove and seagrass destruction from coastal development, including dredging and filling of coastal areas.) Additionally migratory species such as seabirds and turtles needed transboundary approaches to management.

#### **B. HBC OBJECTIVES:**

1. *Promote capacity building for sustainable management of habitats and biodiversity at the regional and national levels across the RSGA area.*
2. *Develop regional conservation action plans for key species, e.g. seabirds and marine turtles;*
3. *Develop regional conservation action plans for key habitats, e.g. coral reefs, mangroves and seagrass.*
4. *Assist in the establishment of legal and policy framework for conservation of habitats and biodiversity*

#### **C. HBC APPROACH:**

The overall approach started with the identification and training of national and regional specialists through the PERSGA structures (lead specialist, working groups, national coordinator), as well as thematic groups or expert committees and rosters (birds, corals, etc.).

The core work focused on the development of standard survey methods (SSM), from which regional surveys (corals, sea birds, mangroves) were developed. This set the stage for on-the-job training that facilitated expansion of initial work to more areas and ongoing replication. From the survey work, regional status reports and conservation action plans were prepared and are now in various stages of dissemination, such as the development of pilot sites, monitoring, regional networks, and project proposals.

This information is also now integrated with other components in the GIS and Information management systems of PERSGA and national countries. Part of the overall approach for this component was the development of centres of excellence as training facilities in collaboration with other national and regional universities and ministries. These were utilised during the project and will be part of ongoing collaborations.

#### **D. HBC ACHIEVEMENTS:**

1. **Promote capacity building for sustainable management of habitats and biodiversity at the regional and national levels across the RSGA area:**

Overall 115 regional/national habitat/species specialist were trained in RSGA area, including:

- A lead specialist provided full-time guidance and management for this component and coordinated activities and products, and links with other components, especially LMR and MPAs. He received training on project management and GIS.
- 7 regional working group meetings were conducted through nominated WG leader for each country; link between the regional SAP and national governments. 2 meetings / yr to plan activities, evaluate progress, exchange data, share lessons learned; Members also involved in studies, training programmes and surveys.
- 4 specialist groups/networks were established (coral reefs, seabirds, turtles, mangroves) to lead regional and national survey and conservation plan developments.
- Standard survey method guidelines (SSM) were developed for key habitats and species in the RSGA region. These were tailored for a range of RSGA conditions to allow integration with other surveys. They were adopted and taught through training courses, then applied in the field surveys for LMR, HBC and MPA components.
- 16 surveys were conducted across the region to evaluate present status of key habitats and species, conducted by regional specialists, and now serve as a basis for ongoing training monitoring throughout the region.
- 5 regional training courses on SSM Methods including workshops reports and evaluations, were conducted around the region in Egypt, Yemen, Jordan, Djibouti and Saudi Arabia, in partnership with marine laboratories or MPA centres in these countries:
  - Reef Check Methods, Aqaba, 2000
  - SSM for marine turtles – Yemen, 2000
  - SSM for corals; Egypt, Sinai Protectorates; 2001
  - SSM for seagrasses and seaweeds; Jordan, Aqaba Marine Science Station, 2001
  - SSM for mangroves, Djibouti Institute, 2002
  - SSM breeding seabirds, Farasan Islands, Saudi Arabia, 2002,
- Coastal community rangers/members were trained for basic monitoring, largely executed through the PAP and LMR component.
- Establishment of ‘Regional Reference Collection Centre’ in connection with the LMR component. RCCC building was provided through Marine Science Faculty of King Abdulaziz University (KAU), Jeddah, and is part of university marine lab facilities for sustainability. The director of the centre received training on natural history museum management in Germany in early 2004. Funds to secure additional materials for the centre and environmental education outreach need to be raised.

## **2. Develop regional action plans (RAPs) for key species (turtles, seabirds):**

- Breeding seabirds regional surveys were conducted in 2002 for Djibouti, Egypt, Saudi Arabia, Somalia, Sudan and Yemen, resulting in national inventories and a regional inventory and published report, ‘Status of Breeding Seabirds in RSGA, 2003’; published and on the web.

- Regional Action Plan for the Conservation of Seabirds in RSGA was finalised in 2004, and now in press for publication.
- Turtle surveys and 'Turtle Kits' with tags for tracking were distributed to 5 countries from 2000-2002. Surveys and monitoring programmes in 5 countries resulted in a Regional status report for Marine Turtles 2002 and 5 National Status Reports for Marine Turtles 2002 (Djibouti, Egypt, Saudi Arabia, Sudan, Yemen);
- Regional Action Plan for the Conservation of Marine Turtles in RSGA finalised in 2004, and is now in press for publication.
- The original project design included surveys for marine mammals, but this was eliminated early in the project due to difficulty in conducting accurate surveys and equipment limitations.

### **3. Develop regional action plans (RAPs) for key habitats: (mangroves, corals, seagrasses)**

- Coral reef surveys – Reef Check during 2002: Saudi Arabia (Jeddah, Al Waijj, Farasan); Egypt (Sharm, Ras Mohammed, Hurgada); Yemen, Djibouti, Sudan. Resulted in 2 regional and 14 national status reports for coral reef reports for 2000 and 2002 each; all were incorporated into the international report "Status of Coral Reefs of the World (2000 and 2002 volumes).
- Regional Action Plan for the Conservation of Coral Reefs in RSGA, was developed which includes monitoring protocols, is finalised in 2003, published and on the web.
- Regional mangrove surveys and monitoring programmes were conducted in Sudan, Djibouti, Yemen 2002 for regional and national reports, this lead to
- Regional Action Plan for the Conservation of Mangroves in RSGA was finalised in 2004, in press for publication.
- Seagrass data and recording was collected through the turtle surveys and the coral reef surveys. Due to the information being recorded in this way, and limitations in time and finance no formal RAPs were prepared for seagrasses.

### **4. Assist in the establishment of legal and policy framework for conservation of habitats and biodiversity:**

In collaboration with the Institutional Strengthening Component 1, a review of environmental legislation at the regional and national scales was completed (*Legislation Concerning Protection of Marine Resources in the RSGA*). This review contributes to a more effective policy climate with regard to linkages between national-regional-international legislative instruments that is essential to foster more ecosystem and habitat based management of the RSGA area.

Also as noted in Component 1, a 'Biodiversity and MPA protocol; has been prepared through joint HBC and MPA working groups and specialists from PERSGA, and with ROMPE (parallel regional body for the Gulf area). A series of draft versions starting in 2001 through to a Final Draft prepared in May 2003 have been prepared. Documents include both the legal protocol document as well as supporting 'concept paper' which provides the background of rationale and status relevant to this protocol. Another working group meeting is planned for May 2004 to finalise the Protocol and supporting documents.

## **E. HBC CONCLUSIONS:**

This component achieved a great deal in limited time frames across challenging logistical, capacity and financial considerations. An excellent group of researchers, including universities, concerned agencies and environment ministries, are in place, with a strong sense of learning and ownership due to the participatory training and testing implementation approach. The methods are highly replicable in both other time and place contexts. The stakeholders were predominately the marine community who were highly engaged.

In a similar achievement to the LMR component, and as noted above, the HBC component resulted in a substantial collection of much needed baseline verification and status work that now provides a solid knowledge basis for critical habitats in the region. Additionally this work form a good suite of priority actions, planning suggestions and funding possibilities that should help national –regional- international partnerships to build on the work started in PERSGA. Each of the reports noted above and listed in Annex C. are substantial, highly professional and grounded by workshops, literature searches, field work and expert teams. They are in various stages of publication but will soon be available in hardcopy and electronic-web forms, as well as the GIS and information management systems. This will not only help the RSGA region, but also the global understanding of linkages and comparisons world wide for vital shared and common habitats and species such as corals, mangroves, seabirds.

This component was highly effective for gathering critical baseline information and establishing methodologies. Nearly USD \$500,000 was dedicated to HBC. Much of the work was done in collaboration with the survey work for MPAs and LMR in efforts to integrate learning across habitats and sites, as well as be more cost effective. No equipment is indicated for HBC in the UNDP budgets as much of the work was done in collaboration with MPA related activities and facilities.

In spite of the considerable HBC achievements, more time is needed to communicate the results to donors and partners that can foster additional resources for continued work, as it is not surprising most of the 5 years was taken simply in acquiring this vast amount of knowledge in a field-tested and participatory way. The establishment of clear information, goals and effective networks should cultivate partnerships in order for lead specialists to attend and market at critical meetings.

This component should continue to be managed in an integrated way with the others on LMR and MPAs, and continue clear links with PAP and ICZM. It is understood that the post-GEF funded phase of PERSGA will have 'natural resources unit' that integrates HBC, LMR and MPA issues.

Like the LMR and HBC components, there was considerable reporting. The component also worked with the evolving monitoring and evaluation climate building on the PIP through logframes with later a shift towards 'process indicators'. Feedback from workshops was conducted and was positive.

## Component 5

### Development of a Representative Network of Marine Protected Areas (MPAs)

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#### **A. MPA RATIONALE:**

In attempting to safeguard the environment of the RSGA area, the SAP established a system of MPAs aiming at conserving ecosystems of the Red Sea and Gulf of Aden in an integrated way. The network's goal was to contain examples of all major bio-geographical sub-units of the Region and major habitat types within each sub-unit, including prime examples of the full range of coastal and marine habitat types and species communities.

All countries in the Region have designated MPAs, but they are few in number and only one or two are adequately managed. Many of the current and/or proposed protected areas are under high pressure from fishing and tourism. Others are at risk from navigation and development activities in adjacent areas. To avoid designating more MPAs than can be adequately managed, the SAP programme emphasised institutional and capacity building, including resource mobilisation. The programme was designed in a way that the experience gained during the regional exercises would allow each country to apply conservation management principles to the full set of MPAs in its territory.

Twelve declared and proposed MPAs, representing different ecosystem types and biodiversity richness and uniqueness, were identified as regionally or globally important. Of these, eight are covered by existing projects with various funding sources, so the proposed programme funded the remaining four sites and related regional activities (in Yemen, Sudan, Djibouti). The component focused on these priority sites while at the same time retaining a regional approach in planning, management and provision of training.

#### **B. MPA OBJECTIVES:**

1. *Establishment of a regional network of experts specialised in MPA planning and management.*
2. *Increased human capacity in MPA management through regional training and exchange programmes.*
3. *Effective implementation of a network of representative MPAs.*
4. *Completion of site-specific management plans, supported by detailed habitat, biodiversity and resource use surveys, and public consultation.*
5. *Commitment from the respective Governments.*
6. *Establishment of a process of regular regional review meetings with exchange of data, information and management expertise.*

#### **C. MPA APPROACH:**

Similar to the HBC and LMR components, the approach included a lead specialist, and working groups who guided the overall component. Much of the work was done in participatory way through training workshops in MPA management as well as 'on the job' training for rangers throughout the area. The core and strategic implementation approach for the MPA component was the decision to first develop a regional master plan and network, which then provided the 'big picture and status' as well as a process to develop a template for national MPAs, taking into account regional commonalities and differences. From the 'regional master plan approach', site specific national surveys for selected areas were conducted, which then lead to the development of master plans at the country level, that resulted in higher endorsement for existing areas as well as declaration of new areas. Implementation got started with the establishment of mooring buoys and integration into the



GIS data base and information management systems, as well as ongoing work through the regional working group mode.

#### **D. MPA ACHIEVEMENTS**

##### **1 & 2. Establishment of a regional network of experts specialised in MPA planning and management, and increased human capacity in MPA management through regional training and exchange programmes.**

- Seven Working Group Meetings were conducted successfully in the different PERSGA's member states.
- 45 existing and future MPA managers were trained in MPA planning and management during 4 training workshops held in the region:
  - Regional Training Workshop on MPA Management, Egypt, 2000;
  - Regional Workshop on 'fully protected area' approaches, Djibouti, 2001;
  - SCUBA training for future MPA managers, Djibouti, NE Somalia, NW Somalia, 2001; and
  - Regional Training for MPA managers in collaboration with UNDP Train Sea Coast, Sudan 2002.
- Nine existing and future MPA managers participated in two hands-on exchange and community participation programmes held in Sharm & Aqaba (2001).
- Class room training & OJT in survey techniques, GIS and remote sensing were conducted in Djibouti, Sudan and Yemen, 2002.
- Workshop on developing biodiversity protocol with HBC component, Egypt 2003.

##### **3. Effective implementation of a regional network of representative MPAs.**

- MPA data entry forms were sent to countries, filled and required data entered in the GIS and the information data bases.
- Regional Survey Design published.
- Regional Master Plan published and disseminated and now available in PERSGA website.
- Master Plan was used as a template to develop Site-Specific Master Plans for 4 MPAs.
- Survey reports for 3 MPAs were finalised and awaiting publication.

##### **4. Completion of site-specific management plans, supported by detailed habitat, biodiversity and resource use surveys, and public consultation.**

- Diving, survey and field equipment were delivered to Djibouti, Sudan and Yemen
- Ecological and socio-economic surveys were nationally executed in Dongonab Bay and Mukawwar Island (Sudan), Belhaf-Bir Ali (Yemen) and Ile des Sept Freres (Djibouti) MPAs.
- GIS & remote sensing data on Dongonab Bay and Mukawwar Island (Sudan); Belhaf Bir Ali (Yemen), Sanganeb (Sudan) and Ile des Sept Freres (Djibouti) entered in PERSGA GIS Data Base.
- Draft Site-Specific Master Plans for Dongonab Bay and Mukawwar Island, Belhaf Bir Ali, Ile des Sept Freres and Sanganeb were completed and circulated to countries.
- All four Site-Specific plans were reviewed comments incorporated and scheduled for publication.

##### **5. Commitment from the respective Governments.**

Site-Specific Master Plans Implemented:

- The State Government of the Red Sea (Sudan) has consented to the declaration of Dongonab Bay and Mukawwar Island an MPA and a letter was sent to the Federal Government in Khartoum;
- The Djibouti Government has officially declared Ile des Sept Freres, as one of the largest MPAs in the region;
- The Environment Protection Agency (Yemen) was further urged to expedite declaration of Bir Ali-Belhaf; and
- The process of installment of mooring buoys in Ile des Sept Freres and Sanganeb Atoll MPAs is still in progress.

#### **6. Establishment of a process of regular regional review meetings with exchange of data, information and management expertise.**

- The MPA Component Provided continuous collaboration and support to the UN-TSC Programme in the development of the MPA Managers course. A significant and large-scale workshop held in Port Sudan. This was the first approved UN Train Sea Coast MPA Managers Course which included a level of accreditation for the participants;
- The MPA LS participated in seven international for a presenting the MPA regional achievements and enhancing PERSGA's visibility;
- Regional and national experts took active part in several MPA activities including the regional ecological surveys and the development of the Regional Master Plan and Site-Specific Master Plans; and
- The process of establishment of a Regional Steering Committee was initiated – TOR developed and countries requested to send nominations.

Additionally as mentioned in the Institutional Strengthening Component 1, a review of environmental legislation at the regional and national scales was completed (*Legislation Concerning Protection of Marine Resources in the RSGA*). This review contributes to a more effective policy climate with regard to linkages between national-regional-international legislative instruments that is essential to ensure the effectiveness of a network of marine protected areas.

### **E. MPA CONCLUSIONS**

The overall highlights of the MPA component included: ecological and socio-economic surveys accomplished, national surveyors trained, involvement and participation of local communities and other stakeholders; national ownership becoming tangible, and exchange of experience between international, regional and national personnel. The advancement of work and progress towards real and effective MPAs for Dongonab Bay and Mukawwar Island (Sudan), Belhaf Bir Ali (Yemen), Sanganeb (Sudan) and Ile des Sept Freres (Djibouti) is considerable and a global contribution.

As with the LMR and HBC components, and as illustrated in the activities above, the MPA component resulted in a substantial collection of much needed baseline verification and status work that now provides a solid knowledge basis for marine protected areas. This information is highly relevant to marine resource management and critical habitats in the region. Additionally these reports provide an excellent suite of priority actions, planning suggestions and funding possibilities that should help build national, regional, and partnerships to carry on the work started in PERSGA. Each of the MPA reports and management plans are substantial, highly professional and grounded by workshops, literature searches, field work and expert teams. They are in various stages of publication but will soon be available in hardcopy and electronic-web forms, as well as the GIS and

information management systems. This will not only help the RSGA region, but also the global goals of establishing representative systems of MPAs as well as advancing the knowledge on how to better integrate the transboundary and highly dynamic elements of marine ecosystems in to spatial and temporal MPA design and management arrangements.

This component was highly successful in terms of integrating regional and national perspectives through the regional > national planning process, as well as links with other components in particular, LMR, HBC, ICZM and PAP. Experience gained in development of the regional and national site-specific master plans will form the basis and justification for PERSGA to approach donors and solicit financial assistance from international organisation in its pursuit to conserve the environment of the Red Sea and Gulf of Aden

From a cost effectiveness perspective, this component also achieved considerable goals in a short period time, with a particular case example being the formal declaration of new protected areas, e.g. in Djibouti. Achieving the regional plan or strategy will help with other wider initiatives in MPA assessments world-wide now ongoing through IUCN and other NGO and UN bodies. Support and engagement with these bodies is essential to now build on the considerable work laid down in this project and ensure these MPAs do not become paper parks.

Like the other components, the MPA component was highly integrated from a cost perspective, so the true costs and benefits are not reflected in one place. However, as with HBC and LMR, the specific MPA costs can be ascertained through the UNDP budget tables. For example, a total of USD\$1.5 M is dedicated for MPAs. However only about USD \$800k spent and/or committed. About one-third of the MPA funds dedicated to equipment were not disbursed as originally allocated in the PIP. The mission understands this was for several reasons. As mentioned at the start of this report, the MTE exercise recommended the establishment of demonstration projects that were on the ground oriented and required rallying of USD \$2M across various components. Additionally, since MPAs are typically a long process, especially when they are 'firsts' for a country, at the stage of the MTE the proposed areas being strengthened by the project were not yet formally declared so funds were not reserved at the time of the MTE. However, since a main highlight of MPA advancement is the new MPA in Djibouti, the mission is pleased that further support to the new MPA site here will be realised through the Djibouti 'demonstration project' that focuses on MPAs and thus provided some of the on-the-ground benefits that take time to realise, especially in MPA contexts.

In spite of the achievements of the MPA component, It is critical to maintain the momentum of the working and expert groups at the regional levels but it is equally, and maybe more important to ensure that the national treasures of MPAs are well managed in perpetuity. This will require much effort at the national level with regional support as well as engagement by international community and NGOs. PERSGA could serve as a regional coordination or information center for the networking aspects of MPAs in the region.

It is also important to note the 'protocol on biodiversity and marine protected areas' discussed in the HBC, as well as the REMP under development through PERSGA. Both are important interlinked steps for a sound network of MPAs in the region as well as linked with studies elsewhere. These MPAs in the Red Sea are 'living labs' of ecological functioning and understanding that is important globally given the uniqueness of the Red Sea and its potential role as an 'indicator' sea with regard to monitoring impacts of climate change on marine species and evolutionary changes through ocean and water-body comparisons world-wide.

## Component 6

### Support for Integrated Coastal Zone Management (ICZM)

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#### **A. ICZM RATIONALE:**

During the preparation of the SAP, the need to strengthen integration of environmental and natural resource concerns in planning and management of the coastal zones in all countries of the Region was recognised. For countries where the coastal areas have not yet been developed, ICZM would help in drawing up consistent strategies for future development. ICZM in these countries would also introduce land use planning and make sure that development activities in the coastal zone areas avoid environmental stress, damage and deterioration.

For the countries of the region where the coastal zone areas have already witnessed urban, tourism and industrial development, ICZM is needed to resolve the conflicts between users' interests and coordinate the mandates and activities of the different authorities. In addition, ICZM would help identify programmes and plans aiming at restoring and rehabilitating coastal ecosystems, which might have suffered from environmental stress.

Finally, ICZM would help the PERSGA member states in the efficient implementation of their commitments to the Regional and International Conventions concerning the protection of marine environment and coastal areas.

#### **B. ICZM OBJECTIVES:**

In the PIP, this component had a number of clear and sharply focused objectives namely:

- Enhance regional exchange of expertise, experience and information on coastal zone management through establishment of a regional WG.
- Strengthen national and local government capacity to develop and implement ICZM plans at the national and local level through training and model projects.
- Promote the capacity of both national and local government departments to work co-operatively to implement land use planning and environmental planning policies and procedures.
- Provide training in the practical skills of policy planning, environmental assessment, monitoring and management in the context of the ICZM process.
- Reduce environmental degradation within the region through use of management tools such as environmental assessment, environmental auditing and strategic environmental assessment.
- Improve the technical support base and provision of information required by decision makers through guidelines for standardisation and routine updating of GIS.
- Increase political and public support for ICZM through participatory approaches in development and implementation.

#### **C. ICZM APPROACH:**

The implementation approach for this component involved:

- Two ICZM lead specialists based in PERSGA working with the ICZM WG;
- Work done at the country level to develop and implement national level activities. These national level efforts entailed planning and management of model ICZM activities in the four southern countries;
- As for the other countries, Egypt, Jordan and Saudi Arabia, the national level activities involved preparing a joint comparative 'lessons learned' study on the evaluation of the collective ICZM Experiences in these countries.
- Given the nature of the ICZM activities, the PIP envisaged significant coordination between this ICZM component and most of the other components of the SAP-GEF project. This has only been partially achieved given the delay in the ICZM activities.
- Despite the delays in the activities of the component, the implementation approach was sound and was followed efficiently.

#### **D. ICZM ACHIEVEMENTS:**

This ICZM component is divided into four sub-components. Evaluation of achievements is presented in this section against the activities of each of these sub-components.

It is to be noted here that concerning this component, very little was achieved between 1999 and 2000. Activities for this component effectively started in 2001.

##### **1. Regional Networking -**

The regional working group WG was established with the participation of two members from each country (except for Egypt, with one member). National ICZM working groups were established to work on model ICZM activities in Sudan, Yemen, Djibouti and Somalia. In addition, national ICZM teams were also established in Jordan, Egypt and Saudi Arabia.

Four working group meetings were held to date, with a view of exchanging information and presenting and discussing lessons learned and/or progress made on ICZM activities. A regional seminar on "Integrated Coastal Zone Management and Planning" was held at the Aqaba Marine Park Conference Centre. During this seminar, existing coastal zone management status in each of the participating countries was presented and discussed. In particular, Egypt, Saudi Arabia and Jordan's ICZM country reports were presented giving an overview of the status, experiences and lessons learnt. In addition reports on the Model Activities in Djibouti, Sudan and Yemen were also presented.

As noted elsewhere, a review of environmental legislation at the regional and national scales was completed (*Legislation Concerning Protection of Marine Resources in the RSGA*). This review can potentially contribute to a more effective policy climate with regard to linkages between national-regional-international legislative instruments that is required for effective ICZM planning and implementation.

The activities conducted under this sub-component only partially covers what was planned in the PIP. This could be attributed partly to the late start of the sub-component.

##### **2. Regional Training and Exchange Programme -**

The PIP identified a diverse and large number of topics for training, including:

- Role of coastal and marine ecosystems in economic and social development.
- Planning and implementation of ICZM.
- Use of physical and environmental planning in ICZM process.
- Mechanisms for inter-governmental and cross-sectoral coordination.
- Public information programmes to support the ICZM process.
- Monitoring and evaluation of ICZM programmes and activities.

As a result of the MTE, it was agreed to integrate and teach on some of the above themes through a series of capacity building workshops held in the different countries of the region during 2001, 2002 and 2003. In addition, according to the ICZM final report (2001 – 2004), WG members along with national working groups were trained on-the-job during the implementation process of the ICZM Model Planning. Annex D provides an overview of all training executed through the Project so far. Some of this is specific to ICZM. It is also worth noting that much of the training conducted through other components will also advance ICZM capacity across a range of issues, scales and contexts.

Component 6 is also working with the World Bank – International Water – Learn (WB-IW) to finalise a “Distance Training ICZM Course”. It has been reported that the first trail of the training CD is ready. In addition, the component is planning for training activities to be conducted in 2004.

A regional ICZM handbook (draft) has been prepared. The handbook presents the main concepts of ICZM together with the experience and lessons learned from the Egypt, Jordan and Saudi Arabia. It has been reported that a second handbook is planned and will present the experience and lessons learnt from the implementation of the ICZM Model Activities. These handbooks when finalised should be widely disseminated to the relevant target groups in all countries. This will help enhance the knowledge in the region concerning ICZM and could complement and augment the training elements.

While there has been much significant progress on this sub-component, more is needed, and it is understood that some of the remaining ICZM in 2004 work will focus on training.

### **3. Geographic Information Systems -**

The ICZM component design as reflected in the PIP included the following activities for the GIS sub-component:

- Improve understanding of the application of GIS to the development and implementation of ICZM.
- Support development by the WG of PERSGA guidelines for standardisation and routine updating of GIS.
- Undertake a regional review of the present GIS and related databases in the Region that contain data relevant to ICZM.
- Provide technical advice and support to harmonise the different systems to facilitate and expand information exchange within the Region.
- Undertake well-designed GIS applications as an element of model ICZM activities supported under the component.

However, in the World Bank Project Appraisal Document, the LFA included only the following:

- Establish GIS Working Group.
- Conduct Regional GIS Review.
- Develop model GIS applications.

According to the meeting with one of the ICZM Lead Specialists and the final ICZM Report (2001 – 2004), the Regional GIS Working Group has been established and has held two meetings. In addition, CEDARE conducted a regional GIS review. An “**Integrated Information Management System – IIMS**” has been developed to include relevant data from all SAP-GEF project components not only the ICZM component. All data collected from the surveys conducted under SAP have been compiled in the system, which can be accessed through the web. Under this sub-component two GIS training Courses have been conducted.

During implementation this sub-component has been adapted from its original design. Yet the sub-component as implemented serves well the overall objective of the project and as such has been satisfactorily implemented.

#### **4. Model ICZM Plans**

Both the PIP and the LFA presented in the World Bank Project Appraisal Document required the preparation and implementation of model ICZM plans for selected sites in four countries – Djibouti, Sudan the northern coast of Somalia and Yemen.

Three ICZM Model Activities are currently being implemented in Djibouti, Sudan and Yemen. Under each ICZM model activity a coastal profile and an ICZM framework were prepared. According to the ICZM Lead Specialist and the documents reviewed, the following has been achieved under this sub-component:

##### **Yemen**

- The model activity is being implemented in Aden Governorate; Both the coastal profile and the framework ICZM plan have been prepared;
- Both documents have been approved by stakeholders in a participatory approach; and
- The framework ICZM plan for Yemen is in the final stage of adoption by the Prime Minister of Yemen.

##### **Djibouti**

- The Model Activity covers the whole coastal area for Djibouti;
- The coastal profile has been prepared and approved by stakeholders in participatory approach; and
- The team is currently working on the preparation of the national ICZM plan;

##### **Sudan**

- The Model Activity covers the whole coastal area for Sudan;

- The framework ICZM Plan has been prepared and currently in the discussion process with stakeholders;
- It will be presented officially by the Minister of Environment in a national workshop to be conducted in April 2004 which will coincide with the ICZM WG meeting;

In addition, national expert teams in Jordan, Egypt and Saudi Arabia have prepared and produced reports "Evaluation of the ICZM Experience" in their countries. This sub-component, although delayed, recent performance is satisfactory in light of the lengthy process and complexity of preparing and implementing ICZM plans.

#### **D. ICZM CONCLUSIONS:**

This ICZM component addresses a much needed planning and priority setting institutional mechanism in the region, and as experience has shown worldwide, requires a lengthy process and complex institutional set-up. With this in mind, the component has been quite successful despite the considerable delays in its initiation. Among the difficulties faced by this component are:

- An ambitious component design further complicated by a late start.
- Scarcity of regional experts on the subject of ICZM.
- Problems of data exchange between the different components of the SAP-GEF project as well as problems of data collection at the national level.

The overall implementation approach of the ICZM component has demonstrated innovative adaptive management for the different demographic baselines of countries in the region. This approach of 'lessons learned' for some, and 'models' for others should be replicable to other areas in various stages of ICZM development. There was a high sense of interest and ownership by the countries. The plans and human capacity structures should be sustainable into other forms of partnerships across national-regional-international levels. Although the total funding of USD \$2,110,000 for this component is only USD \$200,000 more than originally envisaged, there have been considerable reallocations of budgets as a result of the MTE and changing of time lines and needs for this component. In particular, the project staffing/management costs doubled, while about one-third of funds allocated for training were reallocated. Additionally, about one-half of the funds indicated for Yemen have been reallocated. Other elements are generally in line with anticipated spends.

In conclusion, PERSGA should build-up on the success that has been achieved so far especially on the ICZM Model activities and follow-up on their full implementation.



## Component 7

### Public Awareness and Participation (PAP)

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#### **A. PAP RATIONALE:**

Public awareness and participation is a key component of marine environment policy; the complexity of the issues at stake in terms of living marine resources, biodiversity, marine pollution and coastal zone management makes this component a major element. Participation of all concerned actors, professionals, scientists, local authorities, NGO's, the media was a prerequisite for the effective implementation of the overall project.

#### **B. PAP OBJECTIVES:**

The component focused on specific objectives to maximise effectiveness, including:

- building a regional capacity;
- promoting environmental education;
- improving PERSGA visibility; and
- implementing a Micro Grants Program built on NGO's involvement.

#### **C. PAP APPROACH:**

The PAP component was designed and implemented with a view of contributing to the implementation of all components by ensuring a participative approach to the overall project

#### **D. PAP ACHIEVEMENTS:**

This component was executed through the following sub-components or activities:

##### **1. Capacity building for PAP regional network members -**

Through the establishment of the PAP Board, which included 2 or 3 country experts who benefited from training courses, board members were trained to raise their professional capacities in relation to public awareness. Five national centres for developing public awareness were established. A training kit was produced and disseminated.

##### **2. Raising PERSGA profile at the regional and international level -**

PERSGA visibility has improved substantially with its admittance as an observer at the WSSD summit and the presentation of a side event during the 4<sup>th</sup> PrepCom. RSGA day is to take place every 26<sup>th</sup> September. It has been already celebrated in Somalia, Sudan, Djibouti and Yemen along with a range of other activities and festivities in these countries.

##### **3. Raising awareness of PERSGA SAP in the general public and decision makers in the region -**

Numerous activities were successfully implemented under this item including publication of posters which are visible in the countries, upgrading of PERSGA's newsletter (Al Sanbouk), creation of PERSGA's website and the establishment of a regional media network.

However, a highly important gap remains as there is a need to develop a more diverse range of outreach tools and mechanisms to better address and engage decision-makers.

#### **4. Development of environmental education -**

Achievements under this sub-component are substantial compared to those planned. They are replicable and sustainable. More than 350 teachers were trained through 20 training workshops (regional and national) and 150 environmental school clubs (a very novel idea) have been created involving 4000 students. In some countries the Ministry of Education has created an environmental education unit within the Ministry that will ensure the continuity of the project using the documents and kits, which were published. The Environmental Education Learning Supplement (EELS) on conservation of marine and coastal environment is an initiative of great interest, which will be helpful in ensuring the continuity of the environmental education component

#### **5. Community participation projects funded by micro-grants -**

The micro-grants program to support NGO's activities (including social events) in promoting environmental awareness was very innovative. Seventeen community participation projects (CPP) were funded in 7 countries and listed on the CPP manual. Many of these activities were connected to nature conservation issues and support the LMR and biodiversity components.

#### **E. PAP CONCLUSIONS:**

This component, through the educational program, capacity building and NGO's involvement in the micro-grants, met the objectives and due to its implementation at the national level. The component succeeded in getting a high level of ownership from countries, national and local actors. It meets the criteria of sustainability, replication and cost effectiveness. In financial terms, it should be noted that the micro-grants program was originally budgeted at USD \$180, 000 dollars was re-allocated to USD \$410, 000 dollars to respond to increased demands, which can be taken as an indicator of success.

It is of critical importance to keep the momentum of this component going - in particular the regional networks, the structures established at the national level such as Environmental clubs, the involvement of NGO's and to ensure continuity, as well as quality communication and media tools such as posters, the newsletter, and educational documents generated through PERSGA.

## Component 8

### Monitoring and Evaluation of Programme Impacts

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#### A. RATIONAL & OBJECTIVES:

As mentioned in the PIP, the monitoring and evaluation component is a built - in programme that allows continuous and structured monitoring and evaluation of programme impacts. Therefore, the objectives of this M&E component are summarised as follows:

- *To enhance the capacity of PESRGA in self-monitoring and evaluating activities.*
- *Results will serve as an early warning system regarding programme progress and will help identifying corrective measures; and*
- *To enable the project to fulfil the reporting requirements of the GEF IAs.*

#### C. APPROACH:

As highlighted in the GEF Guidance on Monitoring and Evaluation (GEF Working Paper No. 8, 2002) - the role of M&E relative to GEF's International Waters focal area is to provide an indicator framework, or regional tool, that countries can use to foster more effective integration between country-specific and regional interventions that are inherent to the transboundary features of international waters regions, such as the RSGA area. However, when this Project was first designed and formulated in 1995-1999, there was minimal guidance from GEF on best practice for developing monitoring into IW projects. In light of this lack for formal M&E guidance, the Project was based on a logical approach to meet the needs and character of this Project.

It was envisaged in the PIP at the onset of the project, that a matrix would be developed to map project targets and achievements against benchmarks and verifiable indicators to measure programme impacts. The matrix would specify type, quality, quantity and collections methods of data to be used. A pilot testing of the matrix should have been carried out at the end of the first year of the project, based on which modified indicators should have been used. In this regard a log-frame matrix was prepared for each component as a follow-on activity of the PIP to address the above.

During the 1990s many large IW projects were implemented, and GEF has refined guidance to address M&E from the 'verifiable indicators', relative types that better incorporate various stages (or progressive involvement) and contexts of different project settings, as explained below. (Source: GEF Secretariat Working Paper No. 10, November 2002 - Monitoring and Evaluation Indicators for GEF International Waters Projects.)

1. Process indicators: these characterise the completion of institutional processes on the multi-country level that requires joint action on policy, institutional reforms and investments to reduce the environmental stress on international water bodies. Process indicators demonstrate institutional and political progress to solve complex problems inherent to IW areas. Examples of process indicators are: establishment of inter-ministerial committees; country-endorsed regional TDAs, completion of a SAP, stakeholder involvement, high-level political commitment, adoption of M&E during a project. More specifically examples include: country adoption of IW water related reforms, treaty ratifications, etc.

2. Stress reduction indicators: These relate to the specific on the ground measures to produce detectable changes in international waters contexts. Examples include: enforcement action on pollutant discharges, investments in pollution mitigation, amounts of underwater or coastal habitats protected; changes in fishing practices, etc.

3. Environmental status indicators: These are measures of actual performance or success in restoration and/or protection of a water body through multi-country activities and harmonised programmes. Examples include: measurable improvements in trophic complexity (biodiversity) or productivity of a habitat, ecosystem or species; improved oceanographic or biological indices of water quality; reduction of persistent pollutants in the food chain; improvements in local community economic situation; increased stakeholder awareness.

The above new guidance on GEF M&E is included here, as it provides important context to the subsequent discussion of M&E for this section of the report, as well as concluding recommendations at the end of this report.

#### **D. ACHIEVEMENTS:**

At the outset of the Project (1999) no log-frames were required or prepared for the project overall. As a means to 'operationalise' and detail the PIP, log-frame matrices were prepared for all the components. These matrices included indicators and their means of verification. However, in some cases objectives and outputs presented in the LFA matrix did not coincide with those of the PIP.

Subsequently, application of the emerging guidance from GEF led to re-interpretations to the PIP and changes to previous log-frames to include the identification development of 'process indicators' for most of the components approximately mid-way through the five year Project time frame. Feedback from lead specialists and other staff to the mission indicated that they felt these were positive directions and helped guide execution of activities. However, in some cases the requirement change the log-frame approaches and rationales made clear tracking more challenging during the course of the Project phases.

Another objective of M&E is to have a 'self-monitoring' mechanism, both at the component level and the overall project levels. The MTE process provided an opportunity for the Project to conduct a 'self-evaluation' midway through the project. Prior to the GEF-required MTE, PERSGA initiated a 'special review' to serve as an in-house examination, as a preparatory exercise for the MTE. As noted in the beginning and throughout this 'terminal evaluation' report, the MTE had a significant impact in terms of major Project revisions with regard to scaling up or down the level of effort for specific activities and budget implications. It is worth noting that the MTE review team highlighted they did not have time to review budget elements of the Project, so the direct link between activity performance and expenditures was not taken into account, either in a looking back or forward perspective.

However, in this context, the role of the Task Force and monthly meetings (phone conferences) between PERSGA and the Implementing Agencies has served as *de facto* 'self-monitoring' and transparent examination and consensus on budget and activity level of effort revisions. From a 'reporting' perspective, the Project has been very clear and consistent with the Project design. For example, all semi-annual and annual reports throughout the lifetime of the project were all produced.

#### **E. CONCLUSION:**

Interestingly, the level of clear, 'critical path' tracking envisaged by the PIP objectives may have been compromised by a state of dynamic change and too much work on creating numerous monitoring indices and protocols - resulting often in more focus on component details rather than big-picture results. From a component-specific perspective the overall level of 'M&E' and adherence to objectives is satisfactory. However, it is the a lack of 'critical path' of achievements and challenges review by the Project management that make the overall picture of M&E partially satisfactory to satisfactory. This in turn has potentially

contributed to the difficulty in making a clear 'forward vision' and getting new funding mechanisms in place by the time of GEF closure.

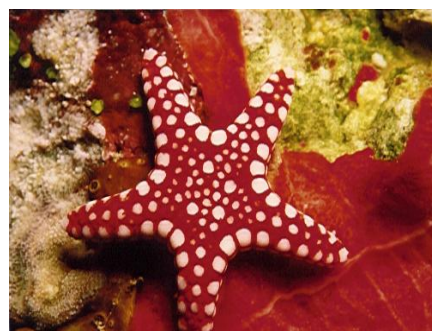
However, it is worth noting 'process', as achievements from the Project have naturally matured during the past 5 years, and now provide the foundation for an ongoing SAP 'programme' rather than 'project' perspective. In this context it is important to be cognisant of the GEF types and 'stages' of M&E indicators described in the start of this M&E component section. The Project has clearly achieved the first stage of objectives, responding to 'process indicators', e.g. :

- establishment of sustainable institutional networks at different levels (Council of Ministers, Task Forces, Lead Specialists, etc.) through the Institutional Strengthening Component;
- fostering an enabling legislative and policy climate through development of protocols on biodiversity and MPAs as well as LBAs;
- development of surveys and monitoring protocols that have resulted in strategic action plans for navigation, critical species and ecosystems;
- real changes in policy for integrated coastal zone management and marine protected areas in some countries; and
- demonstration of stakeholder involvement through the PAP component, but also through the intense level of participation and training in all components.

The Project has now started to mature into the second phase of 'stress reduction' indicator achievements, for example:

- increased areas of critical marine and coastal habitat (space) now formally classified as marine protected areas, most notably in Yemen, Djibouti, Sudan;
- new surveys and maritime maps and vessel traffic systems that will minimise accidents in the navigationally complex southern RSGA area;
- formally accepted ICZM plans for provincial and national scales which influence the nature of development activities towards more ecological sustainable trends in a range of locations;
- establishment of a regional environmental monitoring programme for oceanographic and pollution parameters to complement the Project advances in habitat and biodiversity monitoring.

As the PERSGA SAP moves beyond the GEF supported phase, the scientific, ecological, policy and public awareness foundations developed through this project will prove in the longer term (e.g. 10 years) allow for the last level of 'indicators' to be realised, e.g. tractable evidence of an enhanced marine environment situation for the RSGA. Interestingly many GEF IW projects are trying to address 'restoration' measures for polluted or damaged seas. Yet the RSGA is one of the world's few areas that are still in a semi-pristine condition and relatively unpolluted as compared to other seas. The challenge for the post GEF phase of the SAP will be to use monitoring and evaluation tools and indices as a way to ensure the RSGA not only maintains the present level of ecological health for reasons relevant to the RSGA area, but also as evidence of ecological thresholds that other marine-coastal areas should be striving towards.



## IV. EVALUATION RATINGS & ANALYSIS

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### A. APPROACH

As required by the GEF Terminal Evaluation Guidelines, the mission conducted a 'rating' for each component and the overall project. The 'ratings' in the context of GEF Criteria are described subsequently. This information guided the evaluators' assessments of the components. A 'rating table' is presented which is a matrix of: a) components ranked by GEF Criteria; and b) Criteria assessment for the entire project. The grading required by the GEF was used as a basis for the rating process. It ranges from 4 to 1, as explained in the next section. It is important to note that the 'Demonstration Projects' and other emerging initiatives, are not incorporated into the 'rating' as these were too early in their 'project cycles' for the mission to effectively evaluate. In this chapter, overall discussions of the GEF Criteria as relevant to the 'whole' project are discussed, elaborating on the numeric indications from the rating table. The guidance presented below is extracted from two GEF Secretariat documents: GEF, 2001. Project Performance Report, Annex 1 – Definition of Ratings; and GEF, 2003. UNDP Guidelines on Terminal Evaluation Reports (Criteria).

### B. EXPLANATION OF GEF RATING & CRITERIA

#### ***GEF International Waters Ratings:***

Taking into account both implementation progress (components/activities) and objective (or purpose-based) perspectives, the ratings are:

- Highly Satisfactory (4) = Implementation of all components in compliance with original (or formally revised) PIP. Project achieved or exceeded all major objectives, resulting in a project being presented globally as 'best practice' and yielding global environmental benefits.
- Satisfactory (3) = Implementation of most of the components in substantial compliance with original/revised plans, except a few elements that are subject to remedial action. Project will provide satisfactory global benefits without major shortcomings.
- Partially satisfactory (2) = Implementation of several components only, and not in substantial compliance with plan. The project is not expected to achieve several of its major purposes nor yield substantial global benefits.
- Unsatisfactory (1) = Implementation of most components not realised and Project not expected to yield worthwhile global results.

### ***GEF International Waters Projects Criteria:***

The use of the following GEF Criteria are used to conduct terminal evaluations. These criteria were applied to each of the eight components of the SAP/GEF project leading to an overall rating as noted above and detailed subsequently.

#### ***Outcomes/achievements of objectives***

Achievements based on final reports for each component and financial documents were compared to the PIP and the logical frameworks taking into consideration what could realistically be expected following the mid-term evaluation. For example, the navigation component came slightly below the logical framework but above what could be reasonably expected, therefore, high marks were given to that component.

#### ***Implementation approach***

The mission reviewed institutional and partnership agreements related to the project. Adaptation and revisions, including financial that were introduced during the implementation process were taken into consideration.

#### ***Stakeholder participation/public involvement***

The evaluation process took into account the extent to which concerned stakeholders were associated in the implementation of the project (scientists, local authorities, NGO's, socio-economic actors and other ministries) and public participation encouraged,

#### ***Sustainability***

Together with the achievement criteria, sustainability was considered a major component of the evaluation, as most of the outputs of the project have to show continuity and must be maintained after the completion of the project, for instance: MPA's, navigation routing measures, environmental school clubs, port state control, etc.

#### ***Monitoring and evaluation***

The project had a range of M&E mechanisms, including monthly-quarterly-semi & annual reporting on progress and finance, public outreach, presentations, a mid-term review, final component reports and final reports on 'capacity building' overall and country/regional achievements.

### **C. RATING TABLE**

The following provides a numeric expression for of the evaluation of components as fully discussed in Chapter III.

Comp x Criteria	OBJ- OUTCOMES	IMPL APPROACH	PARTICIPATION	M & E	SUSTAINABILITY	Component Averages
1. IS	3.3	3.5	3.1	2.3	2.7	2.98
2. NAV	3.7	3.7	3.3	3	3	3.34
3. LMR	3.3	3.2	3.2	3	2.7	3.08
4. HBC	3.7	3.6	3.4	3	3.3	3.40
5. MPA	3.5	3.3	3.4	3	3	3.24
6. ICZM	3	3.7	3.2	2.5	3	3.08
7. PAP	4	3.7	3.7	2.7	3	3.42
Criteria Averages	3.50	3.52	3.32	2.78	2.95	<b>3.22</b> (out of 4)

As explained above, the grading suggested by the GEF Secretariat guidelines was used as a basis for the rating process ranging from 4-1 scale as: highly satisfactory (4); satisfactory (3); partially satisfactory (2), though to unsatisfactory (1).

The above table also allows the evaluators to rank the overall project as 3.22, which is overall 'satisfactory', with many elements moving towards 'highly satisfactory' according to the GEF criteria. The mission expects this positive trend will continue with further work by PERSGA and partners around these critical objective-based components. The mission's findings are discussed in more detail below.

## **D. DISCUSSION OF GEF CRITERIA AS APPLIED TO OVERALL PROJECT**

### **1. Achievement of objectives**

When comparing outcomes/achievements to objectives as expressed in the PIP and log frame documents, and taking into account the reorientation that took place after the mid-term evaluation as well as the need for a reasonable and realistic approach, the analysis of the outcomes gives a very positive feedback and progress accomplished in most areas: e.g.

- creation of an innovative infrastructure for environmental education;
- capacity to draft projects to be submitted international donors;
- safety of navigation;
- quality and substantive excellent scientific assessments which were implemented specifically in the hydrographic and biodiversity fields;
- better knowledge of the regional natural heritage;
- establishment of marine protected areas;
- capacity in preparing strategic plans at the national and regional levels;
- the strengthening of the administrative and scientific capacities throughout the region;
- establishment of regional networks of scientists or professionals; and
- improvement in PERSGA visibility.

Of course, some of the objectives, and in particular, those that were to provide equipment or increase capacities at the national level could not be totally reached as of this stage in light of the budget revisions done to support the demo activities now getting underway or other priorities decided as per the MTE. These all had budget and delivery implications, e.g.:

- The navigation component was very successful at the regional level with hydrographic survey and the official acceptance of new navigation routings in the south. Yet, changes overall in the budget reflects the high priority finally given to the management of the project at the regional level (e.g. budget for the navigation management component doubled from US\$335,000 to US\$650,000) or to regional concerns (hydrographic survey budget was increased by US\$1000 000) as compared to capacity building in the countries for PSC training (US\$240,000 was cancelled) as well as the reduced budget for PSC implementation and for international conventions ratifications. Concerning ICZM, the budget for the management aspects was doubled (from US\$309.000 to US\$618,000). From the HBC, MPA and LMR components, some activities to be undertaken in countries were scaled back, such as equipment for anticipated declaration of MPA's (boats, cars, diving equipment) as well as national training courses. However, most of the demonstration projects are oriented to HBC, MPA and LMR objectives and re-packed in a way that is designed to provide more benefits to countries while also supporting regional and global goals.



At this point in time, the mission cannot determine if the Demo's project was a better response to the local needs than what was originally planned and budgeted in the initial documents.

The mission agrees that for PERSGA as young organisation with a broad mandate, it was correct to put the emphasis on the regional dimension of the project as a first step. This does reinforce the role of this Project as a GEF project on international waters, in which implementing agency is a regional body. In this context, the mission would express the overall view that the Project achieved what was reasonable to expect in terms of outputs, with some activities going beyond expectations, some as planned, and some still needing further work.

## **2. Implementation Approach**

The implementation approach adopted by the Project was a flexible and responsive or 'adaptive management' approach. This responsiveness and flexibility have allowed the project to achieve its overall objectives with a relatively high degree of satisfaction. On the other hand, it has resulted in a situation where utilisation of the M&E tools was compromised. This has caused some components to lag behind in achievements and time schedule, as well as difficulty in seeing overall needs as discussed in the M&E chapter.

Concerning the partnership arrangements established for implementation of the project with relevant regional/national stakeholders, the evaluation exercise has revealed three main findings:

- Overall, the partnership arrangements with the institutional stakeholders was effective.
- There is an inherent difficulty in this type of regional project where sometimes sustainable regional benefits are outweighed by specific national interests.
- More participation of, and consultation with the national institutional stakeholders could result in better achievements the objectives of the project.

## **3. Stakeholders participation/public involvement**

PERSGA managed to bring concerned stakeholders in the scope both at regional and national levels. For instance, IMO and IPIECA actively participated in the regional activities ministries for maritime navigation and port authorities were involved at the national level with the ministries for environment, which was a prerequisite for effective outputs of this component. In the field of living marine resources, PERSGA engaged involvement of the ministries of fisheries and national resources as well as fishing communities in some cases.

ICZM, where implemented, for instance in Aden government or Djibouti facilitated all concerned actors to working together with a view of making progress and reaching consensus for an integrated approach of sustainable development. The PAP component far from being isolated was well integrated with some other components, for instance, promoting better awareness and NGO's participation in living marine resources management plans. PAP component managed to get education departments involved in the project.

## **4. Sustainability**

There are variable findings regarding this criteria field. The project has high potential for sustainability in terms of knowledge and skills in light of the considerable new baseline advancement and new knowledge that was done (e.g. surveys, national marine protected area plans, navigation surveys, public awareness, etc.). Additionally there has been

considerable strategic and priority setting executed, in particular through the HBC, LMR, MPA and ICZM components. Each of these resulted in an impressive set of collated knowledge and strategic plans and priority action programmes. However, the reallocation of some equipment and infrastructure capacity to other activities or later phases (e.g. demos) has reduced immediate results on the ground in some cases and a sense of countries getting material benefits at this time.

The project may prove highly sustainable with regard to the 'human' capacity and maintaining momentum and institutional memory through the excellent use of working groups for all components, thematic groups (e.g. species), as well as national coordinators and focal points to provide PERSGA <> National communication. Additionally the role of high-level Council (ministerial level) to endorse the project at the highest levels proved useful, as well as the Task Force, serving as a guiding role. All of these modalities could easily be continued.

However, the above potentially highly sustainable human and knowledge aspects are presently compromised by the unfortunate reality that no ongoing financing, or new financing was rallied during this 5 year process in spite of various efforts to do so. The Red Sea Environment Fund that was envisaged from the start has not yet transpired. The mission is of the opinion that the project design could have been better phased to have a 'transition' phase with some activities to longer have GEF support towards the end as they starting to seek new support, while others continued until new support was found. Yet, in light of the ambitious and comprehensive character of the Project, the mission feels it has been overall very successful in achieving all it has, and realises it is now in a state of readiness for new partnerships and support.

## **5. Monitoring & Evaluation**

As discussed, the Project's 'self monitoring' capacity has been somewhat challenged by the changes application of M&E modalities to the Project. However, from a 'process perspective', the Project successfully illustrates typical 'process indicators' and objectives and is now moving on towards demonstrating valid stress reduction indicators. The resulting human-organisation capacity and environmental information and strategic planning foundations realised through this project can lead to considerable future benefits if further funding is rallied around key issues, taking into account variable time frames for different issues.



## V EMERGING INITIATIVES

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During the course of implementing the GEF funded phase of the PERSGA SAP, some regionally and nationally significant initiatives have 'evolved' or 'emerged' from the 'Project process'. These not only serve as important cross-cutting component linkages but also as axes to build on as the SAP continues to be realised beyond the GEF phase. In that these initiatives are just getting underway, the mission does not evaluate them in the same way as the 8 core components. However, the mission felt these emerging initiatives provide some avenues of sustainability of the SAP objectives and are important areas for further work and support. Therefore this chapter provides a summary of these initiatives, with elaboration of the demonstration activities and links with components.

5. Protection of the Marine Environment from Land-Based Activities
6. Regional Action Plan for Marine Contingency Planning
7. Regional Environmental Monitoring Programme (REMP) for RSGA
8. Demonstration Projects

### **1. PROTECTION OF THE MARINE ENVIRONMENT FROM LAND-BASED ACTIVITIES (LBA)**

Issues related to land-based activities have gained prominence since the original GEF Project design and PIP were elaborated. There is the accelerating and catalytic work the LBA Protocol and Action Plan to address the protection of the marine environment from land-based sources of pollution in the RSGA area. Final drafts have been prepared as of June 2000 and joint technical and legal experts meeting is planned for May 2004. The LBA protocol responds to emerging LBA issues from recent global summits and supports the goals of the Global Programme of Action (GPA). This protocol is complementary to the Project-generated review of all environment related legislation which addresses marine and transboundary issues for the RSGA region. Both legislative efforts are considered a significant cross-cutting activities which build on and contribute to all components through a better understanding of the status of marine relevant environmental legislation for all countries in the region. Further connected to the issue of the land-based pollution is the recent development of a cross-cutting REMP discussed subsequently. The maturing ICZM work in each country developed through the Project potentially lays a solid foundation for addressing the national-regional character of LBA activities in terms of land-based pollution affecting the marine environment.

### **2. REGIONAL ACTION PLAN FOR MARINE CONTINGENCY PLANNING**

Following on from the momentum of the NAV (Component 2) activities discussed earlier, PERSGA and IMO prepared a draft 'action plan (and related project document for donor

consideration) to develop national and regional systems and sub-regional contingency planning in the RSGA area. In light of the increasing risks to the RSGA area from marine activities, this Action Plan focuses on:

- the development of national systems for oil spill preparedness and response;
- the enhancement of regional cooperation through the development of a sub-regional framework between neighboring states; and
- further establishment and realisation of the MEMAC (see Component 2) to coordinate activities and assist Parties in their preparation and response plans.

### **3. REGIONAL ENVIRONMENTAL MONITORING PROGRAMME (REMP) FOR THE RED SEA AND GULF OF ADEN**

Through the Project, PERSGA has put in place a comprehensive biological habitat and resource monitoring programme, and PERSGA seeks to build on this initiative by integrating an additional suite of physical, chemical and biological measurements into a regional monitoring programme. This will not only be important for LBA issues as noted above, but also highly significant for the emerging science and monitoring role that the RSGA region might provide with regard to climate change indices and actions.

In this context, PERSGA has designed an overarching Regional Environmental Monitoring Programme (REMP), with a focus on contaminant-monitoring. The concept of the Regional Environmental Monitoring Programme is as a minimum, a common set of monitoring parameters/requirements to be undertaken by all Member States as an integral part of their national monitoring programmes. It will target transboundary pollution issues. Its scope in the first development stage will be limited because of funding constraints and disparities in the technical capacity and facilities between states. It is expected to take up to 4 years to bring all the Red Sea states to a common first stage monitoring level. As a first step, PERSGA commissioned in autumn of 2003 a multi-disciplinary mission to tour the region in order to address the following and provide a basis for future funding and action.

- identify the objectives and aims of a proposed REMP;
- review and assess existing national and regional, chemical and biological monitoring capacities;
- conceptualise a proposed REMP; and
- prepare a proposal for the implementation of the first phase of REMP, including resource mobilisation proposals.

### **4. DEMONSTRATION PROJECTS**

#### **Demo Rationale -**

The Mid-Term Evaluation recommended that the overall project be revised to include a number of "demonstration activities" (hereafter 'demos') to ensure concrete delivery of project funds for on the ground actions, engender a sense of 'country ownership' and address in a limited way root causes of marine environmental issues in each country. Additionally the demonstration activities would start implementation action building on some of the baseline knowledge and strategic advances of the project (e.g. marine surveys and action plans).

These 'demos' would also allow the 'environmental researchers, rangers, on-the-ground managers' to learn about project design and grant management in a way that would mentor and foster forward leadership and future work with partners like the UN and other NGOs. In 2002 the recommendation for reprogramming selected elements of the GEF SAP for 'demonstration activities' was endorsed and approved by the Task Force, Implementing Agencies (UNDP, UNEP and WB) and the country representatives.

## Demo Implementation approach -

The demos were launched with a training workshop for all countries to discuss:

- common understanding of project sustainability;
- development of log-frames and finance plans;
- utility of monitoring and evaluation in projects; and
- development of M&E plans for each demo and common M&E platform.

Subsequently, each country, in collaboration with PERSGA and UNDP, developed project proposals (which are similar in scope and scale to GEF PDF B documents). Through this process the following demonstration projects were developed with implementation starting in mid-2004, with funding of the projects tied to performance, including an initial payment upon proposal approval, another upon delivery of an inception report, and further tied to quarterly progress reports. The GEF support for the demos is USD \$2.1M total, with national allocations from \$125,000 to \$360,000, with the GEF funds to be disbursed over a year period (allowing for reasonable no-cost extensions). Additionally each country pledged a match of funds or in-kind support that would continue the activities beyond one year. These projects follow closely work is of regional and national interests as well as work that countries were keen to accelerate from their own previous work.

The following table lists the projects and links with the Project, followed by scope and preliminary status reports on each demo project. Already in some cases there is more success to date than others, as would be expected. While the mission does fully support the rationale above for such projects, it may prove that some of the projects are ambitious in scope for the time frames. In the cases where some of the ideas are 'new' and not clearly flowing from the SAP capacity and knowledge building these may prove challenging.

#	Demonstration Project Title	Country	GEF SAP Links
1	Development and Implementation of a Management Plan for two pilot Marine Protected Areas in Djibouti	Djibouti	MPAs
2	Sustainable Development of Coastal Marine Resources along the Gulf of Aqaba Coast	Egypt	LMR, HBC, MPA, PAP
3	Incorporating Artificial Reefs in the Gulf of Aqaba	Jordan	HBC
4	Establishing a Regional Remote Sensing Centre for the RSGA Countries	Saudi Arabia	ICZM, IS
5	Management of living marine resources along the NW Somalia coast of the Gulf of Aden"	Somalia (NW)	LMR
6	Assessment of key habitats and turtle nesting"	Somalia (NE)	HBC
7	Demonstration Activities Project for Sudan	Sudan	LMR, HBC
8	EPA Program on the Conservation of Coastal and Marine Habitats	Yemen	MPA, HBC, PAP

### 1. Demonstration Project for Djibouti

**Title:** *"Development and Implementation of a Management Plan for two pilot Marine Protected Areas in Djibouti"*

**SAP Component Links:** MPAs

**Objectives:** The Demo project is expected to include the following components:

- formation of a planning committee
- strengthening of the national capacity in the management of MPAs

- monitoring and conservation of living marine resources
- preparation and implementation of a final management for MPAs

### **Scope and Status:**

After some delays on the design and content of the Demo's project in Djibouti, a plan was approved in the context of the Demo's project as decided after the mid-term evaluation. The main goal is to prepare management plans for 2 marine protected areas, one already existing on the islands of Mokcha and Maskali, the second on the Isle des 7 Frères and Ras Liya to soon be formally declared by the Government of Djibouti. Both need equipment to implement management plans. GEF funds amounting to US\$300,000 have been allocated with work formally beginning during October 2003 and conclusion scheduled for June 2004.

## **2. Demonstration Project for Egypt:**

**Title:** *"Sustainable Development of Coastal Marine Resources along the Gulf of Aqaba Coast"*

**SAP Component Primary Links:** LMR, HBC, MPAs

**Objectives:** This project is designed around 5 integrated sub-projects or objectives:

- Carrying capacity assessment for southern Sinai diving centres;*
- Reduction of risks of accidents, pollution and navigation;*
- Sustainable development of living marine resources – sea cucumbers;*
- Sustainable development of living marine resources – ornamental fish; and*
- Public awareness and community mobilisation programme.*

### **Scope and Status:**

As noted above this project are 5 distinct ,but inter-related, projects, each with their own objectives, sub-budgets and responsible team leader. The overall goal is to advance and focus the considerable experience with marine resource management in the Aqaba area by focusing on key activities that need attention and are of high priority to the public and private sector in this area.

The overall time frame for the GEF contribution is 1 year (July 03- 04), but all of these activities build on work in progress by the Egyptian Environmental Affairs Agency, in particular the Sinai Protectorates Unit. The GEF support is for USD \$272,000 with an additional \$330,000 by EEAA both as cash and in-kind. A detailed project proposal was prepared and approved by UNDP. An inception report was prepared, as well as a detailed first quarter progress report. The second quarter (mid-term) progress report has been submitted.

The mission met with the environmental researchers staff responsible for leading these components and was provided presentation and site-based examples of considerable progress to date, that are in full accordance with actives proposed in the proposal. Highlights include:

- Dive Capacity:** Extensive dive surveys of impacted and non-impacted areas have been conducted. Diver interviews and analysis of critical areas, and proposals for a 'rotating' dive site plan in agreement with the diver tour operators have been prepared as a result of the surveys.
- Accident and Pollution Risk:** surveys of shallow reef areas with remote sensing and ground truthing, as well as interviews with boat operators conducted. Agreement on installation of markers for areas made with operators. Proposal to make the Straits of Tiran as an IMO endorsed PSSA (particularly sensitive sea area) is in preparation. Refinement of linkages with emergency coordination and planning is underway.

During the mission, a ship wreck occurred during the presentation of this component, highlighting the need for this work. The mission also attended 'skippers' meetings, illustrating endorsement of the activity.

- c) LMR – Sea Cucumbers: There is increasing demand from the Asian 'food trade' market for sea cucumbers, as well as increasing research on cultivation. This project has to date developed sea cucumber status and species surveys, monitoring areas and successful completion of asexual reproduction for one target species. Further work for expansion of results and learning about sexual reproduction for other species is underway.
- d)
- e) LMR – Ornamental Fish: Surveys of key species and locations for 'target' fish have been conducted, along with interviews with the fishermen and primary supplier/industry link. Experiments with larval grow out were not successful, as has been the case worldwide, so further collaboration with international colleagues continues. The focus now is on better understanding of the collection and distribution techniques towards more sustainable practices in collaboration with the Marine Aquarium Council.
- f) Public Awareness: The rangers or environmental researchers for the Sinai Protectorates have much experience in this area due to the popularity of Ras Mohammed and Sharm el Shiek as dive holiday destinations. A range of information outreach products and workshops are in progress including hotel questionnaires and discussions with industry leaders and owners.

In conclusion, it is the impression of the mission that this 'demo' project is fully realising the goals of the 'demo' rationale from a perspective of advancing effort that is critical to both the country and regional interests. Furthermore each component leader expressed strong appreciation for the learning curve and experience value of directing and managing their own projects, both in terms of substance, finance and time-frame targets.

### **3. Demonstration Project for Jordan:**

**Title:** *"Incorporating Artificial Reefs in the Gulf of Aqaba"*

**SAP Component Links:** LMR, HBC and MPAs

**Objectives:**

- To demonstrate the viability and effectiveness of construction of artificial reefs in the Gulf of Aqaba, drawing on worldwide experience, as a complimentary approach to the traditional utilisation of naturally occurring coral reefs to support sustainable eco-tourism;
- To enhance public awareness on reef conservation, involving local communities in reef management, to document and disseminate Jordan's experience in artificial reefs in order to benefit the wider PERSGA region; and
- To provide alternative source of income through fishing and tourism activities from the newly created artificial reef sites.

**Scope and Status:**

This project aims at relieving the pressure from various development activities on naturally occurring coral reefs through testing the feasibility of constructing artificial reefs in selected locations of the Jordanian coast of the Gulf of Aqaba. Project activities involves technology transfer in artificial reef construction and techniques, sharing of experience with other countries of the region through the regional cooperation framework provided by PERSGA, on the spot training, and longer term monitoring programme to measure successes (and

failures) and to accumulate regional knowledge and document lessons learnt from such initiative. Like all the 'demo' projects, the funding by GEF/PERSGA covers only one year, in this case \$300,000. The Government of Jordan is contributing \$379,000 and will ensure adequate flow of resources to sustain such activities beyond project duration.

The implementation of the demonstration project is moving forward with some delays at the national level. A large percentage of the hardware needed for the project is already in Jordan and it is expected that implementation is accelerating accordingly.

#### **4. Demonstration Project for Saudi Arabia**

**Title:** *"Establishing a Regional Remote Sensing Centre for the RSGA Countries"*

**SAP Component Links:** ICZM (GIS/IEM), IS and data input from LMR, HBC and MPAs.

**Objectives:**

- To outline the procedures and requirements to establish a Regional Remote Sensing Centre serving the RSGA Countries as a 'centre of excellence' for the region;
- For this RSSC to be key tool for decision making of the RSGA marine environment and resource use; and
- For the RRSC to be fully integrated into the PERSGA GIS and Information Management Systems.

**Scope and Status:**

This project will help to extend the national Saudi Arabia capacity to the region, as well as provide better means to integrate and examine different levels of information for different purposes, by linking remote sensing tools with other GIS and planning tools. It will be especially useful for environmental monitoring and assessment for multi-temporal data in the region (e.g. coral reef bleaching). The visual and up-datable nature of this tool will help with critical decision making and priority setting for a range of sites and scales in the region.

The project is envisaged around a 1 year time frame for the GEF 'demo' phase longer taking into account national contributions. The GEF budget of USD \$360,000, along with \$464,000 provided by the Presidency of Meteorology & Environmental Protection (PME) in Saudi Arabia, who is the host organisation for this element as well as PERSGA overall. This centre will build existing capacity by PMEP at the national level, and extend it to the regional. The support by GEF provides: training activities, computer hardware/software. PMEP is providing office space and specialist personnel.

A project proposal was approved and an inception report was prepared, but information from PERSGA at the time of the evaluation does not indicate further work. However mission meetings with PMEP staff conducting this work indicate they are now setting up the office area and procuring relevant remote sensing requirements as needed, as well as acquiring land-sat imagery for this purpose.

#### **5. Demonstration Project in NW Somalia "Hargeisa"**

**Title:** *"Management of living marine resources along the NW Somalia coast of the Gulf of Aden"*

**SAP Component Links:** LMR

**Objectives:** The project aims at enhancing the capacity of the Ministry of Fisheries to participate in national and regional programs on living marine resources by providing the



necessary logistics and training of personnel within the context of illegal fishing, poverty and the lack of governance in addressing LHR issues.

**Scope and Status:** The project is divided in two components:

1. Capacity building of the Ministry of Fisheries and Environment including the supplying of basic equipment, training of staff in computers, data collection and fishery management
2. Monitoring, surveying and conservation of LMR including data collection, monitoring of biodiversity and the development of partnerships with stakeholders

GEF has allocated US\$135,200 to the demonstration project. A staff of 3 was recruited, equipment was bought, while only 2 payments have taken place due to delays in the transfer of installments. The project is expected to surmount technical difficulties related to the situation in Somalia.

## **6. Demonstration Project in NE Somalia “Puntland”**

**Title:** *“Assessment of key habitats and turtle nesting”*

**SAP Component Links:** HBC

**Objectives:** The main objectives of the project, as prepared by the Ministry of Fisheries, Ports and Marine Transportation is to develop a strategy in the field of living marine resources focusing on marine turtle assessments.

**Scope and Status:**

The above objective is realised through: a) validation of human resources (training, equipment); and b) monitoring and conservation of marine resources (creating of a fisheries data centre, assessment of marine biodiversity and key habitats, assessment of turtle nesting and sea grass bed involving local communities. This project starts the implementation of the marine turtle RAPs completed through the GEF SAP phase in the HBC component. An amount of USD \$126,700 is allocated by GEF to this project, which is to be executed by the Ministry of Fisheries. The first workshop took place in September 2003 bringing together all concerned actors. A National Project Coordinator has been appointed and a set of recommendations were adopted aimed at the effective implementation of the project and the creation of a favorable environment for its sustainability.

## **7. Demonstration Project for Sudan:**

**Title:** *“Demonstration Activities Project for Sudan”*

**SAP Component Links:** LMR, HBC, PAP

**Objectives:** The Demonstration Project implemented in Sudan is composed for four sub-projects with different objectives.

- Objective of Sub-Project 1: to implement a monitoring programme of coral reefs and associated key species.
- Objective of sub-project 2: to reduce the pressure on the existing Mangrove habitats and establish a mechanism for their sustainable use.

- Objective of sub-project 3: Restocking of sea cucumber in its natural environment and training on sea cucumber mariculture.
- Objectives of sub-project 4: Raising the awareness among residents, visitors and locals about the marine environment and the need for its protection.

**Scope and Status:**

Linked with the above objectives, the project is composed of four proposals entitled:

1. Use of Biological Indicators for Monitoring Sudanese Coral Reefs near Port Sudan;
2. Rehabilitation of Degraded Mangrove Stands;
3. Establishment of a Pilot Sea Cucumber Hatchery; and
4. Development of an effective partnership between Government and Stakeholders.

GEF funds of \$225,000, with a matching in-kind contribution from Sudan are allocated for these demonstration activities. The inception report has been written, and the demonstrations sub-projects are already underway. However, there is a consensus that the time frame for implementation is very limited and might jeopardise outputs and benefits. Another concern is that researchers are mainly those involved with the demonstration projects and might not have an impact on decision makers.

## **8. Demonstration Project for Yemen**

**Title:** “*Conservation of coastal and marine habitats and ecosystems*”

**SAP Component Links:** MPA, HBC, PAP

**Objectives:** The main objectives of this project are the following:

- Establishment of a coastal/marine protected area along the Luhayya-Midi coastline and near shore islands;
- Monitoring coral reefs in the Yemeni islands between Hodeidah and Midi;
- Establishing in Aden a reference collection of preserved specimens of coastal/marine pollutants;
- Enhancing environmental awareness among the local communities along Balhaf-Burum coastal area; and
- Establishing at the EPA-HQ databases for environmental information concerning the above sites.

**Scope and Status:**

The project was budgeted with USD \$430,000 (\$300,000 of which are from GEF). It started in July 2003 but encountered some disbursement difficulties originally that are now being resolved. The demo project is seen as a good opportunity to recruit national experts in biodiversity and management, to raise their capacity and to increase the level of knowledge in the field of biodiversity and in particular coral reefs and mangroves. The project would increase the Marine Sciences and Resources Research Centre (Aden) capacities, involve NGO's and provide scientific and technical equipment to participant bodies. It is hoped that the duration of the project will not be too short to produce effective results and achievements.



## VI CONCLUDING LESSONS & RECOMMENDATIONS

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PERSGA and its partnership network of member states, NGOs and other international organisations have together achieved a great deal during the five year focus of this Project. This is a very short time frame to realise solid achievements in light of the complexity of challenges and opportunities for this globally significant Red Sea and Gulf of Aden area, but they have managed well. As with any Project of this scale, some elements are more robust than others. However, the collective results from this Project provide insights and experiences that provide a solid foundation for further action.

Therefore, this final chapter first provides a synopsis of concluding highlights and specific next steps for each component. The second part summarises: a) *Overall Achievements*, b) *Considerations for PERSGA and Partnerships*, and c) *Considerations for GEF*. The mission hopes these summaries, lessons, and suggested guidance will engender future collaboration across a diverse donor and partnership community of many types – the international community, the scientific community, traditional groups, and the private sector just to name a few.

### 1. COMPONENT HIGHLIGHTS & INSIGHTS

#### ❖ ***Institutional Strengthening to Facilitate Regional Cooperation***

This component addressed the cross-cutting human resources architecture and leadership of the Project. Overall the Project has substantially met the goal of ‘institutional strengthening’ for PERSGA and its national partners across a wide range of themes, modalities and scales. These are most visibly demonstrated through the Project’s diverse and substantive range of planning, preparation, reporting, technical, strategic and action plan training and resulting documents. Other examples of the overall depth and success of this Institutional Strengthening component are the solid work that has been done in each of the other components (highlighted subsequently).

While the Project has achieved much, some specific activities were compromised due to the complex and ambitious nature of this Project and the relatively short time of 5 years including start up and post-GEF transition. Ideally a Red Sea Fund would have been established from the outset and new partnerships forged to ensure a smooth post-GEF transition, as was originally envisaged. The lesson learned from an institutional strengthening and project design-execution perspective might be that it is difficult to both generate ‘first stage results’ (as the documented environmental baseline was limited in most areas) and market these at the same time. Therefore the mission suggests future IV projects build a more tractable, diverse and robust ‘post-GEF transition’ phase into similar multi-faceted, multi-scale, large-donor based international waters projects.

The most potentially enduring and sustainable legacy of this component is the strong network of people that are now working together in various ways to continue to address the balance of protection and sustainable for the RSGA area. Specifically this includes: engagement of the Council of Ministers for high-level policy dialogue; the Task Force with representatives from key national and international bodies that were engaged in the Project, and most crucially the technical and leadership skills of the Lead Specialists (LS) , Thematic Experts (TE) and National Coordinators (NC) who were the driving force of implementation for this Project.

In light of the above, the most compelling next steps are to maintain momentum and further realise the solid foundation achieved through this Project to date. It is the mission's understanding that this is underway in part. Actions needed are: a) to have constructive review of the Project by those engaged through a retreat mode (e.g. with the TF, LS, TE, NC); b) develop a five year plan and related package of fundable projects that is developed and endorsed by the national and regional partners; and c) organising a workshop to share and refine results for the decision-makers in the member countries through the COM; and d) hosting a donors conference (with private and public sector bodies) based on preparation of the success stories and achievements, as well as globally significant emerging initiatives such as LBAs and climate change that are highly relevant to the RSGA area.

#### ❖ ***Reduction of Navigation Risks and Maritime Pollution***

This component has been highly successful at strengthening and empowering the existing network of competent authorities to address a range of maritime safety and pollution mitigation challenges within short to long term time frames. This has largely been realised through the cultivation of a sense of equal partnerships from a diverse suite of stakeholders, e.g. national government authorities, private industry (shipping in particular) and the International Maritime Organization (IMO).

Through these partnerships, which collaborated through the 'working group' approach, a range of tangible activities were conducted. Most impressive is surveying of the southern Red Sea for the first time in over 100 years, which has resulted in new routing measures and new IMO endorsed maritime charts available to all mariners passing through the RSGA area. Other activities that have been advanced to varying degrees and will be continuing through a range of initiatives are: the initial establishment of MEMAC (Marine Emergency Mutual Aid Centre) in Hurgada and assistance to support sustainable functioning of the Djibouti sub-regional Stockpile Equipment; navigation aids (lighthouse in Yemen); as well as marine contingency planning and port state control. Activities conducted in this component are highly relevant to the regional transboundary character of the RSGA area and warrant focused continued effort and replication across a range of scales and time frames. Chapter V on 'emerging initiatives' illustrates how PERSGA is continuing to advance some of these marine navigation and pollution challenges.

#### ❖ ***Living Marine Resources***

This component has done an excellent job in workshop-based training related to the establishment of present status/level of knowledge and fishery survey/monitoring methods for a range of living marine resources species. Data collection capacity and centres are established throughout the region. Efforts to better understand and ultimately manage the 'shark fin' trade as well as sustainable ornamental trade has advanced but needs more work. Establishment of regional centres for training in Saudi Arabia and Yemen is commended.

Like the other components, a highlight has been the invaluable role of people in establishing regional networks of fishery stakeholders across a range of issues, locations and scales. This component has demonstrated excellent partnership modalities with FAO that can continued and replicated.

Next steps should target further implementation for acceleration of the capacity for the various centres, and continue to focus on fisheries monitoring and management with other partners. The emphasis now needs to be implementation on the ground with equipment facilities to follow on post training and start monitoring programme to build on status findings. This component has a range of highly specific and fundable elements. Such should continue to be looked at in collaboration with similar work in the HBC and MPA areas.

#### ❖ ***Habitats & Biodiversity Conservation***

This component has resulted in an excellent network of researchers and stakeholders through both university and environment ministries links through a broad suite of training and workshops and on-the-ground work resulting in critical baseline data on key habitats and species. This component has greatly enhanced knowledge, status, and methods on key species and habitats that are highly replicable for other time and place contexts. The standard survey methods are highly replicable elsewhere and also serve a good monitoring handle. The species action plans for turtles and birds are globally significant and ready for implementation. The same applies to the comprehensive and excellent regional action plans (RAPS) for globally threatened ecosystems of coral reefs and mangroves, with the RSGA having some of the best examples in the world still.

Essential and immediate next steps should focus on the ongoing implementation of the species/ habitat action plans as basis for monitoring and regionally linked strategic zoning and protection programmes, linked with LMR, MPAs and ICZM, and rallying of funding for this. Each of the action plans contains solid funding outlines that can be taken forward. Additionally the work on the biodiversity and MPA protocols is commended and needs to be taken forward.

#### ❖ ***Development of a Representative Network of Marine Protected Areas***

This component has been very successful in advancing the establishment of a network of marine protected areas, through the enhancement of some existing areas as well as ground work and formal adoption of several new areas, most notably: Dongonab Bay and Mukawwar Island in Sudan, Belhaf-Bir Ali in Yemen and Ile des Sept Feres in Djibouti. This acceleration of MPAs in the region has been accomplished through conducting a range of ecological and socio-economic workshops, training and surveys accomplished with involvement and participation of local communities and other stakeholders. Also noteworthy here is the 'process' utilised by this component. A regional Master Plan was first developed which then served as template and framework for national level MPA master plans. This also facilitated sound linkages with the LMR, HBC, ICZM and PAP elements of the project.

These regional and national site-specific master plans can form the basis and justification for PERSGA to approach donors and solicit financial assistance from international organisations and NGOs and industry for equipment and staffing to further ensure that these are living legacies are sustainable and maximised in their role as ecological reservoirs and biodiversity insurance for the region.

#### ❖ ***Integrated Coastal Zone Management***

This component has been highly valuable to address critical planning and priority setting intuitional mechanisms in the region. Again the 'process' through which this component was executed is noteworthy. For example in the northern RS area where there was much ICZM experience already, the focus was on lessons learned as guidance for the emerging work in the southern RSGA area. From this design, a series of 'model' ICZM experiences were developed addressing different issues of scale, e.g. the emphasis on governorate-city planning for Aden; nationally endorsed work entire coast of Djibouti and the whole coast of

Sudan. This is potentially a replicable approach for other places with diverse demographic and biogeographic contexts and development stages. Like the other components, the achievements were largely realised through the development of networks of concerned individuals and organisations as experts and facilitators, which came together through an ongoing suite of regional training and exchange programmes.

Additionally this component led on the development of standardised and adaptive data for region into GIS/IEM which has proven useful for all components and which will be elaborated further through PERSGA and partners. In addition to the GIS/IEM advancement, other next steps should incorporate further refinement and application of the continued application of ICZM at national levels (Sudan, Yemen), as well as use of ICZM as overall concept for SAP for linking, prioritising, and scaling the many inter-related international waters activities in the greater RSGA region.

### ❖ **Public Awareness**

This component has achieved a great deal, especially at the local level, and through establishment of a regional networks of members. Examples include the 'eco clubs' now established in over 150 many schools throughout the region (and 4000 students) which are largely conducted through local NGOs and teaching groups. Additionally 'micro grant' projects have allowed a range of trailing different PAP approaches and self/local management that has been welcomed in all regions. The links with the 'issues' and 'heritage' of the NAV, HBC, LMR components has been highlighted throughout, therefore raising the awareness overall of the region on the valuable treasures as well as threats in the RSGA region. It is important to maintain the momentum of PAP activities generated so far, specifically the regional network and the nationally oriented Environmental clubs. PERSGA needs to use learning and avenues from this PAP experience to further engage with NGOs and local stakeholders. However, there is an equally important, and immediate need to target public awareness and outreach now to the decision-maker as well.

## **2. OVERALL PROJECT ACHIEVEMENTS HIGHLIGHTS**

The following presents a summary of cross-cutting and integrated achievements of the Project that have evolved from the component-specific work as well as collective synergy from the Project, PERSGA and the many partnerships and networks that have been developed through the Project and before.

### **Enhanced knowledge networks, environmental baseline, status, science values:**

- *Enhanced environmental baseline:* The project produced a set of excellent documents and new information baselines. These provide a more accurate vision of the state of environment of the region (PERSGA web site, library etc.) The reports are comprehensive to international standard. They are also electronically available through the web.
- *National and Regional benefits of environmental knowledge:* The more comprehensive knowledge base of the marine environmental status is now advanced for all countries (e.g. surveys of habitats, key species (commercial fish, threatened species, migratory species) and will contribute to national benefits and regional connections.
- *Enhanced public awareness of environment:* As a result of the enhanced environmental status and understanding, there is an overall there is an increase in understanding and ability to raise awareness about RSGA issues through national

and regional focal points and coordinators. This was especially crucial where there were different levels of baseline knowledge and capacity, so that new horizons and progress could be realised by all countries.

- *Global significance of the RSGA region:* Increased awareness to the world of the values and challenges that are special and unique to the RSGA region, demonstrating the true 'global significance' of the RS from geological, ecological and demographic perspectives. This provides sound platforms to link with and contribute to other International Waters and Regional Seas concerns and challenges - these regional seas are distinct but global complements to each other and the world.

#### **Establishment of an enabling policy climate:**

- There was considerable progress in legal policy context and protocol developments, in particular the advances in protocols and related action plans or strategies for the land-based pollution as well as the protocols on marine protected areas and biodiversity. The environmental review provides a useful legislative baseline for the region and this needs to be now linked with actual or potential policy opportunities for on-the-ground changes.

#### **Enhanced networks, coordination and management capacity across scales:**

- *Regional-local networks established for coordinated approaches to diverse marine resources and challenges:* The SAP succeeded in deepening the 'regional – international waters' concepts, tools, mechanisms that are needed to address common shared resources of the interconnected Red Sea. It helped national institutions realise the need to plan and manage coastal areas and marine resources in a coordinated way.
- *Local – regional processes and scales:* The project laid down seeds for translating the idea of thinking regional acting local in the RSGA area. Increased ability to make priority and strategic assessments across different scales and purposes. E.g. developing ICZM for Aden in Yemen and national scale in Djibouti; or MPAs in specific places that link ecologically and provided 'learning complements' as a regional network.
- *Enhanced national - regional prioritisation capacity (assessment, planning and implementation):* Increased ability to conduct integrated planning and implementation design through networking approaches that support knowledge exchange and addressing gaps, e.g. RAPs, MPA master Plan, Information Management and Navigation. Promotion of the national expertise and capacities in management (not just science) has increased, e.g. navigation, MPAs, and implementation of projects, drafting plans, elaborating projects. Most issues are now approached and addressed through inter-ministerial, participatory approaches, including key stakeholders and other partners.

### **3. CONSIDERATIONS for PERSGA and PARTNERSHIPS**

It is the mission's understanding that PERSGA is already taking on board many of the suggestions below, so they are noted here in the spirit of endorsement as PERSGA moves forward beyond the GEF Project phase. In particular, the mission supports PERSGA's present focus in the development of a 'Strategy and Business Plan for PERSGA (April 2004)

which can serve as a complement to this evaluation report and help to take the evaluation report's findings forward in a proactive way.

### **Partnerships and sustainability:**

- *Building on international partnerships:* While some elements of the project were compromised due to lack of funds, the Project managed to be implemented in an ongoing spirit of partnerships, especially in the case of the navigation component with IMO and the LMR with FAO, as well as PAP with local stakeholders. PERSGA needs to build on these examples through alliances with other organisations that have an interest in the regional nature of the RS and PERSGA, e.g. GPA, CBD, UNESCO for different themes.
- *Diversifying partnerships:* Additionally there is a need for increased engagement with other international partners, beyond the UN-oriented international community, but to a range of private and public sector stakeholders who have an interest in sustainable management of RSGA resources.
- *Recurrent and consistent financial streams needed:* Look at devising and designing instruments that would allow small but steady flow of financial (e.g. charge, economical instrument, recurrent funding). For example, e.g. air tickets, or ship fees through Suez Canal.
- *Having a vision and clear path:* Key elements in the project 'vision and goals' which were to help strengthen the regional elements and sustainability flow from the project need further attention. In particular this applies to progress on development of financial sustainability (new approaches, self financing), monitoring and assessment of project progress to build ongoing partnerships and establishment of the Red Sea Environmental Fund (or similar).

### **Project design, scope and phasing challenges:**

- *Ambitious scope and scale of some activities:* Overall the project scope and scale was ambitious, therefore activities were achieved to varying degrees as reassessed at the MTE. One result was the recommendation for demonstration activities to initiate implementation and to realise some of the baseline work and action plans developed through the project for some key issues (e.g. ornamental fish trade, environmental monitoring etc.), fostering a stronger sense of 'country ownership'. However, it may prove that some of these will be challenging in the one year time frame, so PERSGA and national partners will need to continue efforts on these demonstration efforts.
- *Simplifying the package of components:* While the Project was designed around 8 groupings, it is suggested that PERSGA further integrate these 8 component into 5 related and inter-connected themes. These could be along the lines of:
  - Regional Leadership, Coordination and Partnerships (IS and M&E)
  - Sustainable use and development seas and coasts in the RSGA (ICZM)
  - Stakeholder Awareness and Participation (PAP)
  - Marine Emergency Preparedness (NAV)
  - Marine Biodiversity Use and Conservation (LMR, HBC, MPA)
- *Phasing considerations:* Building on the GEF Project experience, in future PERSGA may wish to propose more of a phased approach to project designs with large donors. These could be more realistically anticipated the long start up times,



maximum effort in the final third of a project, and then a better exit or phase out of core donor funds, to be replaced by more sustainable or diverse funds.

- *Raising the 'standard' or 'baseline' for all countries:* The project largely focused on getting the southern RS nations up to a higher level of environmental status, knowledge and capacity. The northern countries served as trainers and insights from lessons learned from previous experience. There now needs to be activities (e.g. international collaboration on climate change, coral reef monitoring, sustainable tourism) that also offer opportunities for the northern countries to reach new goals for their needs as well, thereby further expanding the overall 'baseline' of capacity in the region, e.g. more links with international and other regional seas groups.

### **Regional – National coordination and outreach:**

- *Clarity regional benefits and added value of PERSGA:* The project and subsequent phases could more clearly identify and profile the added values of having a regional body to serve as a conduit between international and national interests and opportunities.
- *Maintaining interest and continuity of key persons:* Prepare an outline a series of key activities and events over the next year that will keep the existing task forces, working groups, specialists interested in PERSGA and the work they achieved to date, while PERSGA is working on new funding. It is essential to keep the knowledge teams and momentum going.
- *Enhance self-monitoring mechanisms:* Internal, or self-assessment by PERSGA of their own work could be better incorporated into ongoing activities and monitoring. For example, the special review and mid-term could have been conducted in part as a 'retreat' in a positive climate of engagement with all focal points, working group leaders etc. to have them part of the review process, as a complement to other external reviews.
- *Maximise Information outreach opportunities and disseminate outputs:* In that many of the many products just now being finalised, there is an immediate need to target outreach and information flow from PERSGA to national counterparts. Get all products on the web as soon as possible, and maintain regular updates. Linked with 'donor preparation' above, review and target a broad range of audiences and get materials directly to them. Have PERSGA staff attend and give talks a key meetings/conferences that address various SAP themes.
- *Language and cultural challenges:* Throughout the project, there was a continued to challenge to not only have key meetings, workshops and products in both Arabic (for the region), English (for the international community) but also will continue to need to hold meetings in French for Djibouti.

### **Critical Assessment of Achievements:**

- *SAP Retreat:* Conduct a retreat for all key SAP participants (task force, working groups, specialists) to 'celebrate and reflect' on a job well done and to help design a series of project activities to keep the SAP goals going. This would be in addition to and complement the GEF required evaluations. This would be a participatory approach to help PERSGA create a vision and new action plan. PERSGA would have a draft plan to start with but use this process to engage and refine.

- *Output assessment and consolidation:* There is a need for a thorough assessment and consolidation of all outputs (data, maps etc.), from which a 5-year plan can be prepared in a participatory manner that would constitute a basis for:
  - Continued member country contributions to PERSGA
  - Attract donors and other funding bodies
  - Attract private sector
  - Establish Red Sea fund
- *Target Audiences:* Compile a synthesis of the different products and materials that have been produced through the GEF SAP that can be packaged for different audiences: a) brochure for general; b) 'updated RSGA status and knowledge report' for more technical, summarising various technical and science baseline reports; and c) future projects by themes/components for different audiences/donors. These could be targeted around the 5 proposed new themes for PERSGA (or similar).

#### **New Horizons for RSGA Action:**

- *Link SAP with Land Based Activities:* Enhanced work addressing issues related to land-based activities (assessment and control) that are polluting the sea, as illustrated by ICZM and the emerging work on the REMP and the LBA protocol.
- *Red Sea as 'Indicator Sea':* Develop better exchange-learning based relationships between scientists and labs in the RSGA and other universities/research groups interested in similar coral reef, climate change issues. The Red Sea is a globally relevant 'indicator sea' of the state of climate around the world.

#### **Enhanced Ongoing Monitoring & Evaluation:**

- *Follow on SAP reporting and updating:* Put in place a mechanism to follow up SAP implementation including reporting that is clear and tractable, including the constant updating of web site.
- *Self-appraisal mechanisms needed:* Enhance existing mechanisms of 'self appraising' in the future projects, such as retreats, feedback on workshops etc.

### **4. CONSIDERATIONS FOR GEF**

#### **Linking Marine Science with Sustainability:**

- *Targeted research:* Explore the new 'targeted research' avenue of GEF funding, especially with regard to coral reefs and climate change, and role of Red Sea as an 'indicator sea'. Foster integration of the PERSGA region and activities into existing and pipeline GEF avenues on these topics.
- *Issues of scale:* Use this PERSGA SAP experience as a means to explore levels of ecological scale issues that are relevant for transboundary water bodies and national and regional efforts, in order to foster a more holistic and ecosystem-based approach to marine resource management here and other regional marine seas.
- *Fisheries Management Changes:* Use this PERSGA SAP work to link with the Convention on Biodiversity to help globally link fisheries management with habitat and ecosystem based conservation efforts, getting away for single-stock species target quota approaches.

- *MPA and Biodiversity Protocols:* Explore how the protocols for SPAMI (Mediterranean) and SPAW (Caribbean) have worked well to cultivate regional and national MPA linkages and what applications, lessons might be relevant for the PERSGA region. Additionally, the MPA network can be linked with others for examining new spatial and time approaches to marine conservation taking into account the inherently dynamic nature of marine ecosystems.
- *Regional Seas collaboration:* Support workshops across the various 'regional seas' bodies and partners world wide to share experience in managing international waters contexts.

#### **Project Design Considerations:**

- *Linking GEF projects in the region:* Ensure that other GEF projects in the region which are in various phases of start-up, implementation and closure can benefit and contribute to this regional PERSGA experience.
- *Preliminary scoping and implementation trials:* Better utilisation of project development phases (PDF) periods and opportunities to adjust the scope of the project, using criteria of feasibility. Consider developing a more rigorous process of 'phase out' for GEF Projects in a similar way PDFs are used to 'phase in'.
- *Sustainability:* Design sustainability firmly into the project design and ongoing implementation, especially for International Waters projects that have transboundary, multiple scale, and timing challenges.

***In closing,*** *The mission hopes this report and insights convey our sense endorsement, congratulations, inspiration and energy to all those who have worked hard on this Project. PERSGA and its partners have achieved a great deal. There is now a solid foundation of much needed baseline information on marine resources, as well as a suite of invaluable and experienced networks of people throughout the region. We hope PERSGA's experience through this Project will continue to catalyze and guide future partnerships for innovative development. We encourage all donors and people who value the Red Sea and Gulf of Aden's vibrant heritage to take time to consider the many action plans and ideas that have emerged from this Project; and reflect on how you can contribute in a way that will ensure the long-term security and vitality of the region's natural and cultural heritage for generations to come.*