

**The Regional Organization for
the Conservation of the
Environment of the Red
Sea and Gulf of Aden**

PERSGA



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



Annual Progress Report (2000)



The Strategic Action Programme (SAP) for the Red Sea and Gulf of Aden is funded jointly through the member countries of PERSGA, the Global Environment Facility (GEF) and the Islamic Development Bank.

The GEF implementing agencies include the United Nations Development Programme, the United Nations Environment Programme, and The World Bank.

PERSGA is the executing agency for the Strategic Action Programme.

SAP Development Objective

To conserve the coastal and marine environments in the Red Sea and Gulf of Aden region and ensure the sustainable use of their resources.

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Fusiliers - Living marine resources in need of sustainable management

List of Abbreviations and Acronyms

CEDARE	Centre for Environment and Development in the Arabian Region and Europe, Cairo
CV	Curriculum Vitae
DSA	Daily Subsistence Allowance
EPC	Environment Protection Council (Yemen)
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FMS	Financial Management System
GEF	Global Environment Facility
GIS	Geographical Information System
HBC	Habitat and Biodiversity Conservation
ICZM	Integrated Coastal Zone Management
IsDB	Islamic Development Bank
IMO	International Maritime Organization of the United Nations
IUCN	World Conservation Union (formerly International Union for the Conservation of Nature)
IWLEARN	International Waters Learning Education and Resource Network
LAN	Local Area Network
LMR	Living Marine Resources
LS	Lead Specialist
MAP	Mediterranean Action Plan (UNEP)
MEMAC	Marine Emergency Mutual Aid Centre
MPA	Marine Protected Area
MSRRC	Marine Science Research and Resources Centre (Aden, Yemen)
NCWCD	National Commission for Wildlife Conservation & Development (Saudi Arabia)
NGO	Non-governmental Organization
NPC	National Programme Co-ordinator
NRMP	Navigation Risk and Marine Pollution
PADI	Professional Association of Diving Instructors
PAP	Public Awareness and Participation
PC	Programme Co-ordinator
PCU	Project Co-ordination Unit
PERSGA	Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden
RAP	Regional Action Plan for the Conservation of Coral Reefs in the Arabian Seas Region
ROPME	Regional Organization for the Protection of the Marine Environment
ROWA	Regional Office for West Asia (UNEP)
RSGA	Red Sea and Gulf of Aden
SAP	Strategic Action Programme for the Red Sea and Gulf of Aden
SCUBA	Self-contained Underwater Breathing Apparatus
SSM	Standard Survey Methodology
TOR	Terms of Reference
TSC	Train-Sea-Coast
UKHO	United Kingdom Hydrographic Office
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
WG	Working Group

Introduction

This is the second Joint Annual Project Progress Report for RAB/97/G33 – GE-63717 *Implementation of the Strategic Action Programme (SAP) for the Red Sea and Gulf of Aden*. The SAP is being executed by the Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden (PERSGA) and contributes to the goals and objectives of this organisation. These goals include the conservation of the environment of the Red Sea and Gulf of Aden, and the sustainable use of the region's coastal and marine resources. The SAP was developed over a period of three years by PERSGA and the three Global Environment Facility (GEF) implementing agencies, namely the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP), and the World Bank. The implementing agencies, together with The Islamic Development Bank (IsDB), have provided the necessary financial and technical support to PERSGA for the execution of the programme.

The SAP is an interdisciplinary project with eight components:

- Reduction of Navigation Risks and Marine Pollution (NMRP)
- Sustainable Use and Management of Living Marine Resources (LMR)
- Habitat and Biodiversity Conservation (HBC)
- Development of a Regional Network of Marine Protected Areas (MPA)
- Support for Integrated Coastal Zone Management (ICZM)
- Public Awareness and Participation (PAP)
- Institutional Strengthening to Facilitate Regional Co-operation
- Monitoring and Evaluation of Programme Impacts (M&E)

This report follows the Joint Annual Project Progress Report 1999, and is complementary to the SAP Semi-annual Report 2000. It covers the full period from January to December 2000.

The year 1999 saw the establishment of the Project Co-ordination Unit (PCU) and the necessary infrastructure for future project development. The year 2000 may be described as the period during which the project moved from detailed planning to in-country implementation. The early months of the year were focussed on preparing Indicative and Operational Workplans, assessing methods of component integration and the development of common procedures. The value of this investment is now being realised. The latter part of the year saw a marked increase in component implementation and training initiatives.

The Second Task Force Meeting was held in Khartoum, Sudan from the 30th September to the 1st October and was attended by representatives from the PERSGA Member Countries, the GEF Implementing Agencies, the IsDB, as well as the PERSGA Secretariat and a representative from the Government of Eritrea. A list of attendees is attached as annex 1.

Three key points were decided at the meeting:

1. A Memorandum of Understanding for technical cooperation between PERSGA and the Government of Eritrea would be prepared and submitted to the Government for consideration.
2. PERSGA would continue to exchange experience with other regional and international programmes, especially with the Regional Organization for the Protection of the Marine Environment (ROPME) and the Mediterranean Action Plan (MAP).
3. Greater stress would be laid on the hire of regional consultants, whenever possible, to assist with the SAP implementation. On those occasions when the hiring of international expertise was warranted, emphasis would be placed on the transfer of knowledge and on opportunities for regional personnel to gain experience.

Major Achievements of the Project during 2000

Reduction of Navigation Risk and Marine Pollution

One major SAP objective is to increase the safety of navigation and reduce the risk of marine pollution from shipping accidents. This will be achieved by establishing an internationally recognized ‘marine traffic separation scheme’ along the major east-west trade route transiting the southern part of the Red Sea, and carrying out the essential hydrographic surveys of the area. By requiring ships to follow this new scheme, the current unregulated flows of traffic in and around the hazardous waters of the Hanish Islands will come under control, largely removing the constant threat of ship groundings and collisions.

New Vessel Routeing and Hydrographic Survey Work

A report on navigation safety in the Red Sea and Gulf of Aden was prepared by the consultants Det Norske Veritas and amended by Captains S. Yafai and R. Facey. A vessel traffic separation scheme was proposed for the southern end of the Red Sea, together with the required hydrographic survey which will cover the new traffic lanes and extend 500 m to each side to ensure that there are no obstructions in the immediate vicinity (see areas marked on the map opposite).

Interestingly enough, this section has not been properly surveyed since the 1880’s when the British Navy used sailing ships and lead-lines for measuring water depth.



New vessel traffic separation scheme in the southern Red Sea



The hydrographic survey vessel - Ocean Seeker

Charts of the southern Red Sea were re-schemed by the United Kingdom Hydrographic Office (UKHO) for future publication when the survey data has been gathered and verified. The competent Ministries of the Governments of Yemen, Eritrea and Djibouti confirmed their support for the introduction of the scheme and gave the necessary ‘no-objection’ to conduct the survey in their waters. The contract was awarded to Gardline Surveys Ltd. The mobilization report was approved by UKHO and the work initiated in November. Tide gauges were installed by Gardline Surveys at Hodeidah, Mokha, and Perim Island (Yemen).

Navigation Aids

The International Association of Lighthouse Authorities confirmed in July that it would review the present provision of navigation aids in the southern Red Sea and recommend any necessary changes to these in support of the introduction of the new routing measures.

Conventions

With the support and encouragement of PERSGA/SAP personnel, further International Maritime Organization (IMO) conventions have been adopted in the region. The Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation, and the Protocol for the Suppression of Unlawful Acts Against the Safety of Fixed Platforms Located on the Continental Shelf, 1988, were ratified by Yemen in 2000.

Sustainable Use and Management of Living Marine Resources

Development of a Strategy for the Sustainable Management of Fish and Invertebrate Stocks

Although a rudimentary strategy can be prepared using a precautionary approach, basic information on stock levels is a pre-requisite for the development of practical, future-oriented management plans. Working Group (WG) members prepared country reports which showed that current systems for collecting statistical data from fish catches vary considerably from country to country. Saudi Arabia has a well-developed system, landings from the Red Sea coast of Yemen are reported by species but from the Gulf of Aden are aggregated as pelagic, or demersal. Jordan has no system in place and in Somalia virtually no data has been collected since the war started. Reports from Sudan are irregular.

No country keeps information on fishing grounds, locations and types of habitats, or on individual fishing vessels in order to measure changes in fishing effort through the use of new technology. Through the LMR WG, the SAP is standardizing data formats and the methodology of data collection as a first step towards obtaining governments' approval and commitment to provide the necessary information. In order to establish a cost-effective system to synthesize the national data into a regional picture, the SAP is developing a regional LMR database in Jeddah.

Meanwhile a report on the '*Status of Living Marine Resources in the Red Sea and Gulf of Aden Region and their Management*' has been completed and will be printed by the World Bank. This report will provide fisheries managers with the most up-to-date analysis of fisheries in the region.

The region contains more harvestable, transboundary species than the SAP can assess with its current budget. Two project identification reports have therefore been prepared, '*Stock Assessment Studies of Transboundary Fish and Shellfish*' and '*Monitoring Control and Surveillance of Fisheries in the PERSGA Region*', seeking co-operation in joint activities with the Food and Agriculture Organization of the United Nations (FAO) and extra funding.

Currently regional shark stocks are over-exploited and data collection methods insufficient to allow a management strategy to be implemented. Shark landing records are grouped together and it is necessary to disaggregate the data so that reliable information on selected species can be obtained.

Twenty scientists were therefore trained on shark identification methods and the biological measurements to be taken for stock assessment. A chart for identifying the different shark families was prepared. Shark specimens were collected and preserved for training purposes in Gizan, Hodeidah and Socotra.

Subregional Training Centres

An assessment of training needs for regional capacity building in LMR management was carried out. Subsequently an appraisal was made of the facilities available at the subregional training centre - Fisheries Manpower Training Institute and Marine Science Research and Resources Centre (MSRRC) in Aden.

The procurement procedures for obtaining the necessary equipment to upgrade the centre are in progress. Courses in stock assessment were identified that will be held regularly in the sub-regional centre.



Living Marine Resources WG training course, Aden

Pilot programmes for sustainable fisheries

The SAP has developed two demonstration programmes to promote sustainable fisheries. A strategy has been developed to increase the number of fishermen using longlines rather than nets to catch sharks. Specifications for these lines have been prepared, and details for their distribution completed. As part of a pilot project aimed at artisanal fisherman in the lobster fishery, specifications have been made for lobster traps to replace the gillnets currently in use. Procedures have been set in place to include local small businesses and NGOs in the preparation and distribution of these traps.

Habitat and Biodiversity Conservation

Coral Bleaching

Coral bleaching is a major phenomenon worldwide and poses potentially grave economic consequences for the region. A HBC WG meeting was held in Riyadh immediately after a joint workshop organised by ROPME, PERSGA and the National Commission for Wildlife



Conservation and Development (NCWCD) on 'The Effects and Impacts of Coral Bleaching in the Arabian Region' where this problem was addressed.

Subsequently a '*Regional Action Plan for the Conservation of Coral Reefs in the Arabian Seas Region*' (RAP) was prepared.

This plan provides a set of priority actions for the conservation and ecologically sustainable development of coral reefs in the region.

Coral Bleaching

Regional Action Plan for the Conservation of Coral Reefs in the Arabian Seas Region

Objectives in six priority action components

Integrated Coastal Zone Management

Implementation by all participating nations of Integrated Coastal Management Planning for conservation of coastal reefs, supported by appropriate legislation, land-use planning, participatory approaches, socio-economic and environmental impact assessment, monitoring and enforcement.

Marine Protected Areas

Development of six 'flag-ship' demonstration MPA sites, in each of the major sub-regional seas, as examples of effective MPA management practices in the Region.

Ecologically Sustainable Reef Fisheries

Implementation by participating nations of accurate stock assessment and monitoring, effective regulation of fishing effort through licensing and other methods, protected areas with "no take" zones, seasonal closures to protect spawning stocks, surveillance and enforcement.

Impacts of Shipping and Marine Pollution

Implementation by participating nations of obligations under regional and international conventions, adoption of Port State Control, improved navigation systems and oil spill response capacities, surveillance and enforcement.

Research, Monitoring and Economic Valuation

Implementation by participating nations of standardized methods of biophysical and socio-economic survey and monitoring, data-storage, analysis and reporting, using regional (PERSGA - ROPME) and international protocols (e.g. ReefCheck - GCRMN).

Education and Awareness

Raised government and public awareness through implementation of Education and Awareness programs developed for dissemination through communication networks (electronic mail) to decision-makers, the mass media, schools and universities and local communities.

To assist effective implementation, a steering committee composed of representatives from each participating nation and the major regional and national organizations, including PERSGA, ROPME, UNEP/ROWA and UNDP will be formed to coordinate the RAP over its initial period of implementation.

Preparation of a Guide on Standard Survey Methods

In the past there has been no standardisation of the survey methods used in the region for collecting data on species distribution and population levels. Comparisons have therefore always been subjective and a sound regional overview difficult to establish. A draft '*Guide to Standard Survey Methods*' (SSM) was prepared at a workshop in Sharm El-Sheikh and is now being used as the standard for all survey methods in the region. Standard procedures were prepared for the following habitats: sub-tidal, coral reefs, seagrass beds, inter-tidal, mangroves and their associated fauna, and for the following species groups: marine mammals, marine turtles and seabirds.



Underwater survey

At the workshop the WG members prepared and delivered reports on the status of habitats in their countries focussing on the physical features, status of the marine resources, their importance and current threats to ecosystems.

Training in ReefCheck Methodology

Eighteen coral reef specialists from the region were trained to use *ReefCheck* methodology. This included training on survey basics, site selection, fish and invertebrate belt transects, species identification, data transfer and analysis, report preparation and the presentation of results. A team of coral reef experts is now available that can provide the essential data for regional coral reef management programmes and contribute to the work of the International Coral Reef Initiative and the Global Coral Reef Monitoring Network.



Hawksbill turtle

Training in Marine Turtle Conservation

A training course for regional specialists on 'Standard Survey Methods for Marine Turtles' was carried out from 3-10 December at Sharma and Mukalla, in Hadhramout, Yemen. Seventeen participants attended the course from seven countries. All members of the team learnt about the biology of sea turtles, conservation measures and practices, tagging and the basic requirements for sea turtle surveys in the region. The team is now fully prepared to carry out a regional monitoring programme.

Development of a Regional Network of Marine Protected Areas

Systems, or networks of protected areas have added advantages over and above the generally accepted justifications for individual MPA site establishment. They can serve the purpose of conserving representative examples of regional biodiversity and have the potential to benefit both migratory species that require scattered habitats, and transboundary or straddling stocks. A coordinated approach to management of MPAs as a network has potential added benefits such as consistency in legal frameworks and enforcement, opportunities for sharing knowledge and experience, improved cost effectiveness through joint training initiatives, improved communication at times of pollution crisis, and a regional approach to sustainable resource usage leading to a more equitable sharing of the benefits from the marine environment.



MPA Working Group training at Sharm El-Sheikh

At the first regional WG meeting in 2000, members gave presentations on the status of MPAs in their respective countries leading to a better understanding of the region as a whole and the benefits of a network of MPAs. The second WG meeting took place at Sharm El-Sheikh, Egypt where presentations were given on the legal and institutional frameworks in each country.

Survey Programme for Marine Protected Areas

The first draft for the design of *'Detailed Survey Programmes for Marine Protected Areas in the Red Sea and the Gulf of Aden'* has been completed and is under review. It covers survey design for the proposed MPAs at: Isles des Sept Frères and Ras Siyyan, Djibouti; Aibat, Saad Ad-Din Islands and Saba Wanak, Somalia; Mukkawar (Magarsam) Island and Dunganab Bay, Sudan; and Belhaf Bir Ali, Yemen. Basic information fundamental to the intended survey programmes was collected during visits to Mukkawar Island and Dunganab Bay in Sudan, and Iles des Sept Frères and Ras Siyyan in Djibouti.

Regional Master Plan

The first draft of a *'Master Plan for the Red Sea and the Gulf of Aden Regional Network of Marine Protected Areas'* has been completed. It includes an adaptation of the international guidelines for the establishment and management of MPAs to regional conditions.

Existing management plans for MPAs in the Region have been reviewed and relevant features incorporated. The policies and strategies developed will facilitate regional consistency in the management of MPAs in the network.

Guidelines are presented for developing site specific management plans for individual MPAs, and for the identification and selection of other areas that deserve protection at the national level.

A Training Course on MPA Management was conducted during the period 20-22 November. Sixteen individuals were present, trainees from each PERSGA member country in addition to the WG members. The training provided the team with an increased understanding and insight into the role and function of MPAs, using Ras Mohammed National Park as an example of a highly successful, operational MPA in the Red Sea and Gulf of Aden region.



Bir Ali, (Yemen) proposed as part of the regional network of marine protected areas

Public Awareness and Participation

Pre-assessment surveys

Pre-assessment surveys have been conducted in Egypt, Sudan and Yemen to study PAP status, to visit relevant organisations, public awareness and environment centres, to meet with national public



PAP Training Course

awareness experts, to establish the PAP Board, and to conduct training-needs assessment and brain-storming workshops with the relevant stakeholders.

Regional Capacity Building

Two capacity-building training courses have been conducted to improve the ability of the PAP WG and national Board Members to deliver effective environmental education and public awareness programmes to schools, local communities, decision-makers and the public.

A basic training course on ‘Creating a Vision of Environmental Public Awareness Programmes’ was conducted in Cairo, in conjunction with the first meeting of the PAP WG. Participants were provided with knowledge and skills about how public awareness programmes can contribute towards marine environmental management and sustainable development.

The second training course was conducted in association with the World Conservation Union (IUCN) conference in Amman. The combined workshop and training course was attended by the PAP Board members (Working Group members, national experts and SAP National Programme Co-ordinators [NPCs]) and was made up of three sections:

1) Participation at the IUCN Conference, which included:

- Attendance at relevant sessions, with special training from the IUCN Commission on Education and Communication and the IUCN Marine Programme
- Official meetings with IUCN staff
- A field visit to Azraq reserve, and
- A concluding workshop on ‘Public Awareness and Participation: Lessons Learned from the Conference’

The exposure to discussions on environment and development at an international forum has been beneficial for the participants: it has widened their horizons, provided them with new ideas, methods and approaches.

The exposure to new knowledge on environmental education and communication, provided by discussions with experts from various parts of the world, has been equally beneficial for the participants: they have seen that a technical and scientific approach to environmental problems alone is insufficient; lasting solutions also need a social (marketing) approach, and capacity building in communication techniques, skills and strategies is a crucial factor in the success of environmental projects.

2) A Workshop on 'Project Planning and Management'

The style of the workshop was highly participative, with emphasis on group work and 'learning-by-doing'. By the end of the fourth day the participants had acquired a better knowledge and understanding of the following:

- The key elements of a well-planned project (project planning cycle, logical framework analysis, work plans, budget)
- How to build a project team and conduct a 'training needs analysis' to guide staff selection and development
- How to develop appropriate organisational structures and systems for ensuring effective project implementation

3) A Workshop on 'Effective Presentation Skills and PowerPoint'

By the end of the training course trainees were able to prepare and deliver presentations using Microsoft PowerPoint software. Future training needs were identified.

Non-formal Environmental Education

Three non-formal Environmental Education training courses for teachers and educators were conducted in Yemen, and one in Sudan. The objective of the training was to provide teachers and other communication agents with the skills and techniques that will enable them to organise their own environmental education programmes. The following subjects were covered:

- Introduction to PERSGA/SAP
- Introduction to environmental issues and marine conservation in the Red Sea and Gulf of Aden
- Introduction to Environmental Education
- Non-formal Environmental Education regional case studies
- Establishment of Environmental Clubs
- Production of Environmental Education materials

Field visits to schools were conducted and a national network of environmental clubs established. Schools and their teachers were supported with educational materials to be integrated into the clubs' activities according to the workplans. A Newsletter for the clubs was established in both Sudan and Yemen. This activity was fully supported by all stakeholders and the community at large, and it was very well covered by the media (newspaper, radio, TV) in both countries.



School class, Yemen

The three teacher-training workshops conducted in Yemen were held in Aden, Hodeidah and Mukallah. Fifty classroom teachers and educators were trained, and 35 environmental school clubs were established. The EPC in Aden is coordinating this activity.

One teacher-training workshop was conducted in Port Sudan, Sudan. Thirty environmental schools clubs were established, and 33 classroom teachers and educators were trained, all drawn from environmental and women's NGO's. This activity is being coordinated by the Sudanese Environmental Society in Port Sudan.

In total, more than 6000 students are involved in the clubs' activities in the two countries.

Information Dissemination

Website

A PERSGA website has been prepared with funding kindly provided by UNEP and it can be found at www.unep.ch/seas/main/persga/red.html. PERSGA has reserved the domain name

www.persga.org for its Internet address and the sites will be linked in 2001 when a parallel PERSGA/SAP Arabic website is prepared.

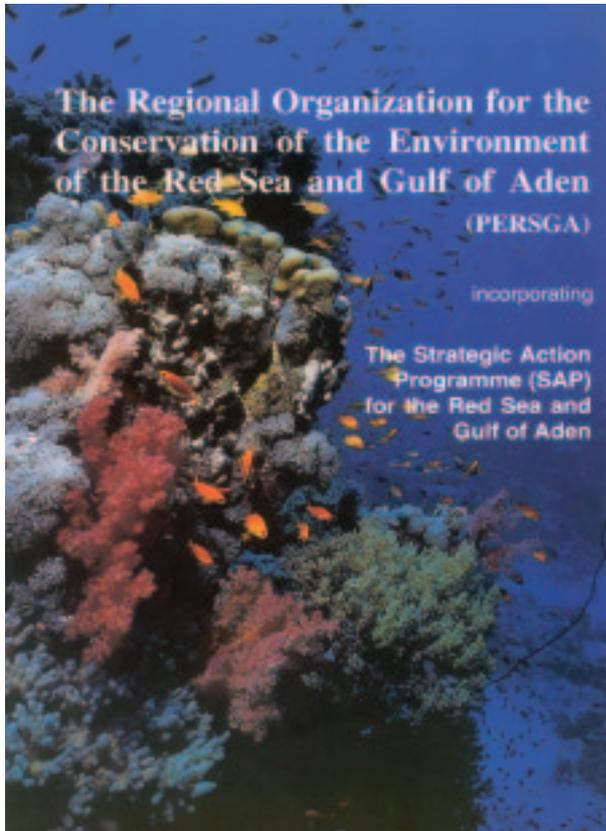


Currently the site hosts the following pages: map, overview of the region, resources and threats, introduction and history of PERSGA and the Jeddah Convention (text and Protocol included), and 'library' with links to a portable document format (.pdf) copy of the brochure and back issues of the newsletter *Al-Sambouk*.

Printing and Document Distribution

The World Bank kindly offered to edit and print a number of important documents during the year 2000. These included: the SAP Project Document (French), SAP Project Implementation Plan (French), SAP Country Reports (with section on Djibouti in French and English), Navigation Risk (English), Living Marine Resources of the Red Sea and Gulf of Aden (English), with reprints of the SAP poster in Arabic, English, and French.

These documents are close to completion and delivery is expected in the first quarter of 2001. A print-run of the Project Implementation Plan (English) has been finished and copies have been delivered to Jeddah.



PERSGA/SAP Brochure

PERSGA/SAP Brochure

The brochure (a joint Arabic/English publication) has been sent to all individuals and organisations on PERSGA's mailing list and copies forwarded to the NPCs and/or Focal Points for local distribution.

***Al-Sanbouk* newsletter**

Issue number 11 of the PERSGA newsletter *Al-Sanbouk* was printed and distributed in May. During the second half of the year Dr. Mohamed Fawzi, (Deputy Secretary General) took the position of Chief Editor and a new series was launched, printed on 100% recycled paper and in full colour. Each edition of the remodelled newsletter will focus on a particular theme. Issue 12, the first new-look edition, was printed and distributed in September and took 'Coral Reefs' as its primary subject matter.

Each issue of *Al-Sanbouk* is printed in both Arabic and English.



Al-Sanbouk newsletter

Institutional Strengthening to Facilitate Regional Co-operation

Recruitment of Personnel

Three new members of staff were recruited to join the SAP project coordination unit. They included the Public Awareness and Participation (PAP) Lead Specialist, a Living Marine Resources Specialist and a Senior Regional Advisor (SRA).

Training of Project Personnel

As part of the SAP's objective to upgrade the technical skills of management personnel in the region, a 'Project Planning and Management Training Course' was held in January 2000, conducted by an international management consultant from the University of Bradford, UK. Following an in-house survey of computer and English language skills an agreement was signed with a local training company called *New Horizons* to provide computer training at a variety of different levels and standards over a period of 12 months. The British Council has provided English language training. To assist further with project planning, a specialist from UNDP led a Monitoring and Evaluation Workshop in November.

Five members of the Project Management Team are now qualified SCUBA divers after two Lead Specialists completed a PADI training course.

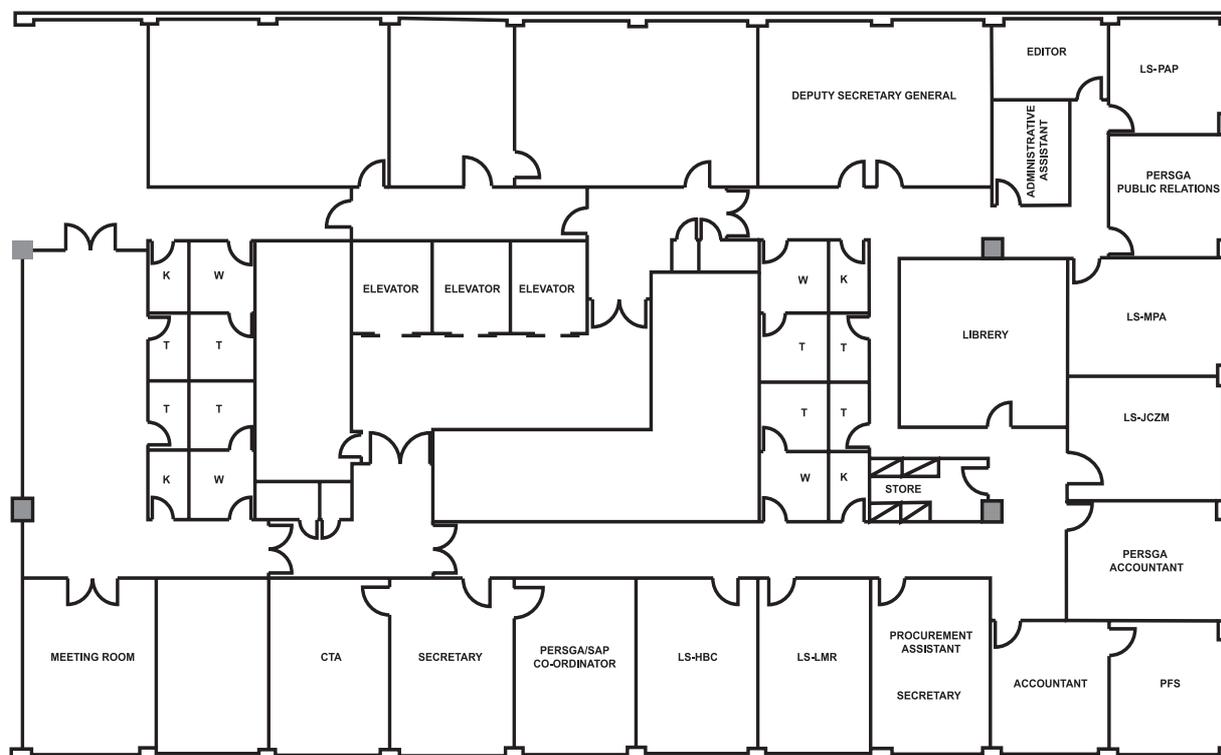


The SAP Lead Specialists, Management Team members, the Programme Coordinators from Djibouti, NE and NW Somalia, Sudan and Yemen, and the SAP Task Force representative from Jordan at the training workshop in November.

Project Office Arrangements

As part of the contribution of the Kingdom of Saudi Arabia to PERSGA, extra office space has been allocated as shown in the diagram below. Appropriate furniture and office equipment has been acquired, and the telephone network and the Local Area Network (LAN) extended.

The LAN is now fully operational with 21 users and five shared peripherals, a high-speed black and white printer/scanner, a flatbed colour scanner, an A3 colour printer and two specialized dot matrix printers. To accommodate the needs of staff while on mission, key personnel (Lead Specialists and NPCs) have been provided with laptop computers and office docking stations.



PERSGA office layout, June 2000

Financial Management System

The first version PERSGA's new Financial Management System (FMS) was delivered in July and rigorously tested. The beta version was submitted at the end of November. The system includes two main modules: the personnel and payroll module, and the financial module that incorporates inventory, budget and procurement procedures as sub-modules.

Among the most immediate benefits achieved from the FMS thus far, is the advanced inventory system that allows PERSGA to register all fixed assets and track them within PERSGA and the field. All project budgeting and procurement is now carried out electronically through the FMS. Requisition requests for goods and services, and leave requests are all generated automatically.

Finance and Procurement

In March a grant agreement in the amount of US \$488,850 was signed between IsDB and PERSGA. As part of the parallel funding to the SAP, the grant is aimed at increasing the institutional capacity of PERSGA and provides assistance under the following areas: computer hardware, software, consultants for developing the financial management system, staff training, and a regional reference library.

Arthur Andersen & Co. performed the annual audit for PERSGA and SAP accounts for the year 1999. The audit for UNEP and the World Bank was concluded in July, and for UNDP in August. Audited financial statements were sent to the respective Implementing Agencies. Audited accounts were fully satisfactory.

Ninety-five purchase orders were issued against 60 Requisition Requests for Goods and 88 service contracts were issued against 90 Requisition Requests for Services.

Disbursement during this reporting period was 64% higher than the previous reporting period. By year-end, the total disbursement was up from US \$684,321 to US \$2,022,600.

Administration

A major step forward has been made in the administrative system through the preparation and implementation of new procedures laid down in the second edition of the '*Administration and Procurement Manual for PERSGA*'. The manual has been updated and elaborated and includes new sections on disbursement rules for hospitality, special Daily Subsistence Allowance (DSA) rates for training and nationals travelling within their own countries, updated tables concerning delegation of authority and thresholds, general procurement principles and modalities, exceptions for waiving certain procurement processes, as well as the modalities for contracting services. This development has both clarified and streamlined office procedures and has made a significant impact towards capacity building in the organisation.

A project of this magnitude needs an efficient administrative system to run the routine daily procedures. This capacity has now been built. These standard operations include - project planning, budgeting, budget revisions, travel arrangements, inventory, document editing, translations into Arabic and/or French, distribution of reports and minutes, filing, correspondence, accounting, and regular procurement operations for goods and services.

Development of Consultant Rosters

In order to facilitate the implementation of activities a roster of more than one hundred regional and international consultants and consulting firms has been prepared. The skills and expertise included cover a wide range of disciplines such as marine biologists, pollution control specialists, fisheries scientists, ecologists, social scientists, editors, translators and librarians.

The translators have assisted with the preparation of the following: A National Oil Spill Contingency Plan for Sudan (Arabic), Strategic Action Programme Project Document (Arabic and French), SAP Project Implementation Plan (Arabic and French), SAP Quarterly reports (Arabic), SAP Annual Report 1999 (Arabic), SAP Semi-annual Report 2000 (Arabic), *Al-Sanbouk* newsletters (Arabic).

Library Development

PERSGA is establishing a regional marine and environmental science library and document centre. This valuable resource will provide library services to the PERSGA staff and support environmental institutions, professionals, researchers and students throughout the region. One room of approximately 40 sq. metres is now available. Potential library consultants and a part-time assistant have been identified and the library will become operational in 2001. Approximately 500 useful texts have been identified and a database created. The necessary procurement procedures have been set in motion. Requests for donations have been submitted to a number of international and national environmental organisations, notably IUCN, FAO, NCWCD, UNEP and the World Wide Fund for Nature (WWF).

Monitoring and Evaluation

The basis for successful M&E has already been laid through the design of a comprehensive logframe matrix following the training on project management, in early 2000. A specific training course on M&E was given in November by a UNDP representative.

The work by the HBC component on standardised survey methods for potential indicator habitats and species, has developed important tools relevant to long-term environmental impact monitoring.

In early 2001 the SAP team will finalise the identification of indicators for the SAP development objective and identify indicators for the outputs under all components.

Many other GEF IW projects have not yet established comprehensive M&E frameworks zeroing in on results and impacts. Once the SAP has completed the framework it will be shared with other projects and may even be presented as a 'best practice' experience from which others could learn.

Additional SAP related Activities

Development of a new Regional Protocol

PERSGA has cooperated with ROPME and UNEP-ROWA (Regional Office for West Asia) in the development of new regional legislation for species and habitat conservation. The first draft of the '*Protocol Concerning the Conservation of Biological Diversity and the Establishment of Protected Areas*' was received by PERSGA in late December 2000. It is based on the broad principles outlined in the Convention on Biological Diversity and the supplemental declarations in the Jakarta Mandate. The draft also includes provisions specifically related to the control of genetic exploitation of biological resources.

SAP support to the Train-Sea-Coast Programme

The UN Division for Ocean Affairs and the Law of the Sea implements the Train-Sea-Coast (TSC) Programme. Its centre in Port Sudan is responsible for the development of a course entitled 'Training of Managers for Marine Protected Areas'. Logistic and technical support was provided to the TSC/Red Sea Course Development Unit during the course of the year. Twelve candidates were interviewed and two selected to participate in a TSC Course Developers Workshop. The two Sudanese candidates chosen, together with the MPA Lead Specialist, attended a Workshop in New York. The Sudanese team are designing a standardized training package on the integration of tourism into coastal development in the Red Sea and the Gulf of Aden.

International Waters: LEARN

Two SAP project members have successfully completed their MSc training through the IW: LEARN programme, with technical and financial support from the SAP. Mr. Nasser D. Abdi, SAP NPC Djibouti, submitted a thesis on '*Human Impacts on Mangrove Ecosystems in Djibouti City and its Vicinity*'. Mr. Mohamed M. Eltayeb, MPA WG member, studied '*Aspects of Sudanese Kokian (*Tectus dentatus*) Fisheries and Habitats*' for his MSc dissertation.

The degrees were awarded by the Royal Holloway University of London. Both candidates are now involved in the promotion of distance learning programmes in the region.

The LMR Lead Specialist provided a talk on sustainable fisheries management that is now delivered as part of the distance-learning package.

Annex 1

Attendees at the Second SAP Task Force Meeting

Dr. Nizar I. Tawfiq	Secretary General PERSGA
Mr. Mohammed Ali Moumen	Government Representative - Djibouti
Mr. Ahmed Khattab	Government Representative - Jordan
Mr. Osama Qurban	Government Representative - Saudi Arabia
Dr. Nadir M. Awad	Government Representative - Sudan
Mr. Abdullah Abdul Futooh	Government Representative - Yemen
Mr. Marcel Alers	UNDP, Regional GEF Co-ordinator, Regional Bureau for Arab States
Mr. Halifa Drammeh	UNEP, Deputy Director Division of Policy Development & Law
Mr. John B. Collier	METAP Operations Officer, World Bank
Dr. Bakri Mekki Hamad	Islamic Development Bank
Dr. Mohamed Fawzi	Deputy Secretary General PERSGA
Dr. Fareed Krupp	SAP Chief Technical Advisor
Dr. Dirar Nasr	PCU Co-ordinator
Dr. Abdul Majeid Haddad	UNDP/SAP Programme Co-ordinator
Captain Saeed Yafai	LS - Reduction of Navigation Risks & Marine Pollution
Dr. Khaled Hariri	LS - Sustainable Use and Management of Living Marine Resources
Mr. Abdullah Alsuhaibany	LS - Habitat and Biodiversity Conservation
Mr. Mohammed Younis	LS - Establishment of a Regional Network of Marine Protected Areas
Ms. Khulood Tubaishat	LS - Public Awareness and Participation
Dr. Mohammed Abdullah Ali	Specialist - Living Marine Resources
Dr. Mahmood Abdulraheem	Regional Director UNEP-ROWA
Ms. Inger Andersen	Partnership Coordinator UNDP-World Bank International Waters Partnership
Mr. Mussie Tesfahiwet	Representative from the Government of Eritrea
Mr. Nasser Djama Abdi	NPC Djibouti
Mr. Ali Farah Ali	PC Northeast Somalia (Puntland)
Mr. Ali Yusuf Ibrahim	PC Northwest Somalia (Somaliland)
Eng. Mahgoub Hassan	NPC Sudan
Dr. Mohammed M. A. Abubakr	NPC Yemen
Captain Roy Facey	Consultant - Reduction of Navigation Risks & Marine Pollution
Mr. Carlos Haddad	Procurement and Finance Specialist
Mr. Roderick Fleming	Editor

Annex 2.

SAP Personnel - Partnership for Action

The Strategic Action Programme has been designed to ensure maximum participation of all partners at the national, regional and international levels. The project has successfully established regional foundations by forming a central Project Coordination Unit in Jeddah where a number of regional specialists are now working. At the national level, Programme Coordinators have been hired and offices opened in Djibouti, Sudan, Somalia and Yemen substantially improving the communication and flow of information across the region. At the technical level, six specialised Working Groups have been established, which form the cornerstones for project implementation.

Project Coordination Unit

Dr. Nizar I. Tawfiq	Secretary General PERSGA
Dr. Mohamed Fawzi	Deputy Secretary General PERSGA
Dr. Saiyed Al-Khouli	SAP Project Manager (formerly Senior Regional Advisor)
Dr. Dirar Nasr	PCU Co-ordinator
Dr. Fareed Krupp	SAP Chief Technical Advisor
Captain Saeed Yafai	LS - Reduction of Navigation Risks & Marine Pollution
Dr. Khaled Hariri	LS - Living Marine Resources
Dr. Mohammed Abdullah Ali	Specialist - Living Marine Resources
Mr. Abdullah Alsuhaibany	LS - Habitat and Biodiversity Conservation
Mr. Mohammed Younis	LS - Marine Protected Areas
Ms. Khulood Tubaishat	LS - Public Awareness and Participation
Mr. Carlos Haddad	SAP Procurement and Finance Specialist
Ms. Reem Al Qawas	Procurement Assistant
Mr. Mohamed Satti	Accountant
Mr. Nagmeldin Awad	Administrative Assistant
Mr. Roderick Fleming	PERSGA/SAP Editor

Programme Coordinators

Mr. Nasser Djama Abdi	Djibouti
Mr. Ali Farah Ali	Northeast Somalia
Mr. Ali Yusuf Ibrahim	Northwest Somalia
Eng. Mahgoub Hassan	Sudan
Dr. Mohammed M. A. Abubakr	Yemen