An underwater photograph of a vibrant coral reef. The scene is dominated by various types of coral, including large, branching white and yellow corals on the left, and a prominent, thick, red coral structure in the lower-left foreground. The water is a deep, clear blue, and numerous small, yellowish-orange fish are scattered throughout the scene, swimming near the coral. The overall lighting is bright, highlighting the textures and colors of the marine life.

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

incorporating

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



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.

International importance

The waters of the Red Sea and Gulf of Aden are treasured throughout the world for their natural beauty and their astounding biological diversity. This is an area of global importance on account of the significant number of animals and plants that are found here and nowhere else on the planet. The Socotra Archipelago in particular features so many unique species it has been called ‘the Galapagos of the Indian Ocean’.



Coastal lagoon near Hadibo, Socotra.



Half spotted grouper in the Gulf of Aden. The region has the potential to establish a valuable and sustainable fishing industry that will provide food and employment to future generations.

The rich coral reefs, lush mangroves and fertile seagrass beds are important productive areas for local fisheries and have provided food for the region for thousands of years. Today however, supertankers cruise this historical trading route transporting oil and other dangerous cargoes around the world.

These unique habitats and their animal and plant communities are placed in increasing jeopardy each day from oil and effluent pollution, over-exploitation and inadequately managed urban development. It is PERSGA’s role to promote activities that safeguard the environment and support sustainable development in the region.

The mounds of sand are built by ghost crabs which excavate burrows to create a cool, moist home along the water’s edge. A clean, unpolluted beach is essential for these important shoreline scavengers.



Historical Background

PERSGA can trace its origins back to the early 1970's. The Arab League Educational, Cultural and Scientific Organization, ALECSO, with the assistance of UNESCO, convened a meeting in Bremerhaven, Germany in 1974 where initial ideas for interdisciplinary research were discussed. Subsequent meetings identified key regional concerns and proposed plans of activity which gave rise to the *Programme for the Environment of the Red Sea and Gulf of Aden* known as 'PERSGA'. An interim secretariat was established in Cairo to implement this programme, under the auspices of ALECSO. The secretariat moved to Jeddah in 1980.

From 'Interim Secretariat' to 'Regional Organization'

One of the most significant achievements of PERSGA has been the development of new international laws. In February 1982 the plenipotentiaries of the governments in the region signed *The Regional Convention for the Conservation of the Red Sea and Gulf of Aden Environment* (the Jeddah Convention) together with a *Protocol Concerning Regional Co-operation in Combating Pollution by Oil and other Harmful Substances in Cases of Emergency*. The main focus of the Convention concerns the prevention, reduction and fight against pollution. It also includes an Article directing the contracting parties to establish a regional organization, headquartered in Jeddah, to implement the agreement.

This regional organization was established in September 1995 under the umbrella of the Arab League. At the first Council Meeting in Egypt, the



The League of Arab States (Arab League) is a regional organisation set up to strengthen ties between Arab neighbours, co-ordinate policies and promote common interests. Its membership now extends to 22 states. The League includes several specialised organisations and councils such as the Arab Council of Ministers Responsible for Environmental Affairs and the Arab League Educational, Cultural and Scientific Organization (ALECSO).

ALECSO was established in 1970 and has as its primary responsibility the promotion and co-ordination of educational, cultural and scientific activities at the regional level.

In 1974 ALECSO initiated a programme for the protection of the environment of the Red Sea and Gulf of Aden. Their direct involvement continued until the declaration of the Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden (PERSGA) in September 1995 and their active support continues to this day.

Cairo Declaration formally announced the creation of the *Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden*, which keeps the title 'PERSGA'.



The Red Sea and Gulf of Aden form an important transport route between the Far East and Europe for the carriage of oil and other commodities. The potential for accidents that might release oil or other toxic chemicals into the marine environment is being addressed by PERSGA in conjunction with institutions such as the International Maritime Organisation.



The PERSGA Council with representatives from the Global Environment Facility (GEF) implementing agencies at the Third PERSGA Council Meeting and SAP Signing Ceremony in Jeddah, December 1998. From R-L: Dr. N. Tawfiq (Secretary General PERSGA), Mr. Rafael Asenjo (GEF Executive Coordinator), Dr. Stephen Lintner (Global Advisor, World Bank), Mr. Fawaz Fokeladeh (Assistant Secretary General, UNDP), Dr. Klaus Töpfer (Executive Director, UNEP), HH Prince Fahd bin Abdullah Al Saud (PERSGA Council Chairman 1998), HE Mr. Taufic Kreichan (Minister of Environment, Jordan), HE Mr. Osman Daach (Minister of Environment and Tourism, Djibouti), HE Mr. Mohammed Aila (Minister of Environment and Tourism, Sudan), HE Dr. Nadia Makram Ebeid (Minister of Environment, Egypt), HE Eng. Mohsen Al Hamdani (Chairman, Environment Protection Council, Yemen).

PERSGA's administration and funding

PERSGA is governed by a Council. This is composed of the Ministers in charge of the environment from each of the Member States. The Council meets annually to approve technical and financial policies. The daily affairs are managed by the PERSGA Secretariat, a small but dedicated team of professionals drawn from the countries of the region.

The Kingdom of Saudi Arabia hosts the PERSGA Secretariat in Jeddah and all of the Member States contribute to the budget.

Specific regional programmes are assisted with grants provided by international donors.

Djibouti, Egypt, Jordan, Palestine, Saudi Arabia, Somalia, Sudan, and Yemen are the PERSGA Member States.





Environmental Assessment of the coasts of Saudi Arabia and Yemen (with IUCN).



Survey of natural habitats and plans for their protection in Sudan & Djibouti.



National Plan for Marine Science in Sudan:
Collection of oceanographic data.
Assessment of pollution on the Red Sea coast.
Environmental aspects of pearl oyster cultivation in Dongonab Bay.
Environmental aspects of shrimp cultivation in salt pans.



Marine National Park at Aqaba, Jordan (with IUCN).



Evaluation of the status of marine mammals (with UNEP).

ACTIVITIES AND ACHIEVEMENTS OF PERSGA FROM 1982 TO 1999

PUBLICATIONS

- Bibliography on Oceanographic and Marine Environmental Research (with UNESCO)
- Directory of National Capabilities in Marine Sciences
- Directory of Marine Environmental Legislation
- Review of Coral Reef Geology
- Review of Environmental Legislation (with UNEP)
- State of the Marine Environment report (with UNEP)
- Assessment of Land-based Sources and Activities Affecting the Marine Environment (with UNEP)



Development of an Oil Spill Trajectory Model for the Red Sea. Establishment of a network of sea level gauges (with UNESCO & ALECSO).

Regional Training Workshops on: Environmental Impact Assessment, Surveys and Monitoring, Combating oil pollution, Marine Protected Areas, and Integrated Coastal Zone Management.



Al Sambouk newsletter, produced on a quarterly basis.



Establish a regional Marine Emergency Mutual Aid Centre for pollution incidents (MEMAC) in Hurghada (Egypt), and upgrade the centre in Djibouti to become a subregional MEMAC for the Gulf of Aden.

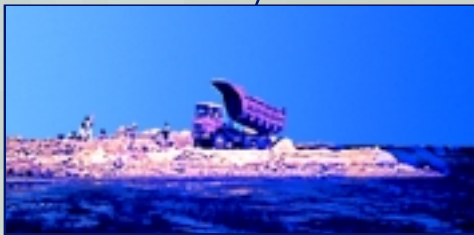
PERSGA will work to secure the accession of its Member States to MARPOL and help provide reception facilities at ports for waste materials from ships, in order to help advance the declaration of the Red Sea as a 'Special Area' - (MARPOL 1973-78).



Achieve the sustainable use of living marine resources through the introduction of a viable management and monitoring scheme, for the benefit of present and future generations.

AND VISIONS FOR THE FUTURE

Ensure implementation of sound coastal zone management in the region and help Member States develop national environmental monitoring programmes – according to regionally standardised methods.

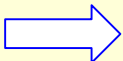


Develop new protocols to the Jeddah Convention, including a Protocol for the Prevention of Marine Pollution from Land-Based Sources and a Protocol for the Conservation of Biodiversity and the Establishment of Protected Areas. Assist member states with ratification and enforcement of international agreements.

Promote and enhance partnerships between PERSGA, local NGO's, public and private institutions.

Provide support to enhance public awareness and understanding of marine conservation and sustainable development.

Achieve active implementation of the Strategic Action Programme for the Red Sea and Gulf of Aden (SAP). PERSGA has supported the development of this major new environmental initiative since 1995. Country reports were prepared throughout the region, new environmental assessments were carried out in areas that had received little previous attention and the priorities for pollution prevention, conservation and marine management were determined. Details of the SAP programme are described on the following pages.



Strategic Action Programme for the Red Sea and Gulf of Aden

The Programme, outlined in the SAP document, identifies the *preventive* and *curative* measures required by PERSGA and the Member States to maintain the rich and diverse coastal and marine resources of the region. During the preparation of the SAP the key issues that threaten the marine environment, and the actions necessary to address them, were determined.

PERSGA, as the executing agency for the SAP, will focus on seven key issues and progress in these fields will be constantly evaluated and monitored.

- Capacity Building for Regional Cooperation
- Reducing Navigation Risks and Maritime Pollution
- Sustainable Use and Management of Living Marine Resources
- Conservation of Habitats and Biological Diversity
- Development of a Regional Network of Marine Protected Areas
- Support for Integrated Coastal Zone Management (ICZM)
- Enhancing of Public Awareness and Participation

SAP Activities

PERSGA supports a team of highly competent national experts drawn from the area and provides technical support through National Focal Points. Each component of the SAP is managed by a Working Group headed by a Lead Specialist from the region.

The Red Sea and Gulf of Aden form an important transport route for a substantial proportion of the world's oil supplies. The installation of new navigational aids and the development of Vessel Traffic Management systems for the southern Red Sea will reduce the risk of accidents. Improved port reception facilities for waste materials and enhanced training in oil spill management will provide extra benefits.



In the Gulf of Aden, upwelling cold water rich in oxygen supports a valuable offshore fishery. Stocks of sardine, anchovies, tuna, Spanish mackerel, shark, jack and marlin need to be managed sustainably to ensure their continued survival.

The rapid depletion of valuable fisheries, coupled with the loss of important spawning, nursery and feeding grounds due to destructive fishing methods and inappropriate coastal development, have become serious threats to the sustainable development of



Mangrove ecosystems are highly productive. They form valuable nursery grounds for juvenile fish, act as sediment traps, and can be harvested sustainably for fodder and timber. They also help to reduce coastal erosion.



Shoreline at Ghubbat Qadub, Socotra.

living marine resources. To address this problem the SAP will develop management strategies for several target species. Stock assessments of fish, shrimp and lobster, the development of fisheries research and training centres and an enhanced capacity for the enforcement of current regulations is planned.

The region is rich in habitats and biological diversity. The coastal ecosystems such as mangrove, salt marsh, rocky, sandy and muddy shores border shallow seas, seagrass beds, coral reefs and abyssal depths. A large number of endemic species is found particularly in coral reef habitats. Endangered species such as turtles and dugongs roam across international boundaries in their search for food and breeding sites. Management plans, legislation and international cooperation will assist in the conservation of these valuable resources.

In 1998 many of the world's coral reefs suffered an episode of 'coral bleaching', a condition characterised by the loss of symbiotic algae from the coral tissue. This phenomenon, linked to rising seawater temperatures, has affected many of the reefs in the southern Red Sea. The SAP will develop a regional coral reef action plan to address this issue.

Various international reviews have recommended sites that should be set aside as

marine protected areas. These locations will act as havens for threatened species and as permanent sources of juveniles that can restock areas depleted through continuous exploitation. During the development of the SAP, a consensus was reached among participating countries that many causes of environmental problems in the region could be traced back to the lack of effective Integrated Coastal Zone Management (ICZM). One of the priorities of the SAP will therefore be to develop and reinforce the capacity of national governments in this field. This will be a participatory process allowing for an exchange of experience and will provide assistance to those countries that do not have national ICZM plans.



A staghorn coral species clearly showing signs of 'coral bleaching'. Corals affected in this way may recover, if environmental conditions become favourable again.

To bring about broad-based participation in the SAP, multi-level awareness programmes targeting different groups within the community (fishermen, ship owners, tourism operators, harbour workers) and decision makers from national to village and household levels are essential. Educational materials focusing on the regional issues discussed, TV

documentaries and an Internet webpage are foreseen to complement PERSGA's current newsletter.



The anemone fish retreats from potential predators, safe amongst the tentacles of its host.

SAP Implementation

In December 1998, the Secretary General of PERSGA and representatives of the three Global Environment Facility (GEF) partners, – UNDP, UNEP and The World Bank – launched the SAP in a widely publicised ceremony in Jeddah, attended by the Members of the PERSGA Council and numerous high ranking regional and international guests. (See photograph on page 5). The implementation of the SAP, which started immediately after the ceremony, will require approximately US\$ 36 million over a five-year period. It is anticipated that the countries of the region, the Global Environment Facility and selected international and bilateral donors will provide the necessary funding.

For further information about PERSGA and the SAP

PERSGA can be contacted at the address given below. Queries concerning PERSGA should be addressed to either Dr. Nizar Tawfiq (Secretary General) or Dr. Mohamed Fawzi (Deputy Secretary General). Questions about the SAP should be directed to either Dr. Fareed Krupp (Chief Technical Advisor) or to Dr. Dirar Nasr (PERSGA/SAP Co-ordinator).

PERSGA produces a quarterly newsletter called *Al Sambouk*. Interested parties should request that their names be added to our mailing list.

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Abbreviations:

IUCN	World Conservation Union
MARPOL	International Convention for the Prevention of Pollution from Ships, and its related Protocol (MARPOL 73/78)
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational Scientific and Cultural Organization
MEPA	Meteorological and Environmental Protection Administration, Saudi Arabia



Jellyfish

قنديل البحر



Nudibranch

حيوان رخوى من عاربات الخيشوم



Coral shrimp

سربيان المرجان



Coral crab

سرطان المرجان