



PERSGA

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

Khulood Tubaishat

MAP KEY:

Large Marine Ecosystems of the World

LME Numbers:

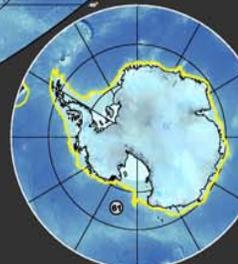
- 1 East Spring Sea
- 2 Gulf of Alaska
- 3 California Current
- 4 Gulf of California
- 5 Gulf of Mexico
- 6 Southeast U.S. Continental Shelf
- 7 Northwest U.S. Continental Shelf
- 8 Southern Shelf
- 9 Hawaiian Islands
- 10 Inular Pacific-Hawaiian
- 11 Pacific Central American Coastal
- 12 Caribbean Sea
- 13 Humboldt Shelf
- 14 Patagonian Shelf
- 15 East Brazil Shelf
- 16 West Greenland Shelf
- 17 West Greenland Shelf
- 18 Barents Sea
- 19 North Sea
- 20 North Sea
- 21 Celtic-Scotian Shelf
- 22 Celtic-Scotian Shelf
- 23 Mediterranean Sea
- 24 Black Sea
- 25 Red Sea
- 26 Guinea Current

33. Red Sea

- 28 North Australian Shelf
- 29 Northwest Australian Shelf - Great Barrier Reef
- 30 East-Central Australian Shelf
- 31 Southeast Australian Shelf
- 32 Southeast Australian Shelf
- 33 Northwest Australian Shelf
- 34 Northwest Australian Shelf
- 35 East China Sea
- 36 Yellow Sea
- 37 Kurushima Current
- 38 Sea of Japan
- 39 Okhotsk Current
- 40 Sea of Okhotsk
- 41 West Spring Sea
- 42 Chukchi Sea
- 43 Bering Sea
- 44 East Chukchi Sea
- 45 Laptev Sea
- 46 Kara Sea
- 47 Barents Shelf
- 48 Kara Sea
- 49 Arctic Ocean
- 50 Arctic Ocean

Large Marine Ecosystems

Political Borders



LARGE MARINE ECOSYSTEMS are areas of the ocean characterized by distinct bathymetry, hydrography, productivity, and trophic interactions. They annually produce 95 percent of the world's fish catch. They are national and regional focal areas of a global effort to reduce the degradation of coastal resources and environments from pollution, habitat loss, and over-fishing.

For More Information Visit: <http://www.lme.noaa.gov>

Map Sources:
 Bathymetry: (2) NOAA; (3) Smith and Sandwell, 1997
 Hydrography: (1) Smith and Sandwell, 1997
 Temperature: (1) Smith and Sandwell, 1997
 Political Borders: (1) NOAA



Large Marine Ecosystems of the World

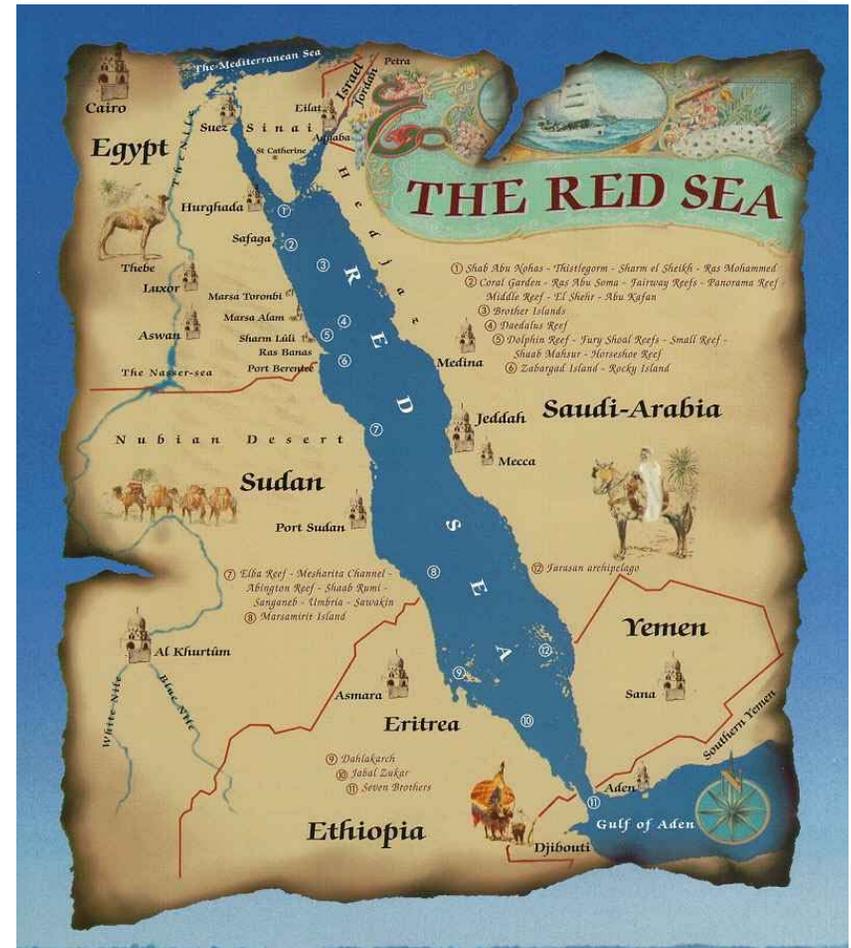


- | | | | | |
|-------------------------------------|--------------------------|----------------------------|----------------------------|-----------------------|
| 1. East Bering Sea | 14. Patagonian Shelf | 27. Canary Current | 40. Northeast Australia | 53. West Bering Sea |
| 2. Gulf of Alaska | 15. South Brazil Shelf | 28. Guinea Current | 41. East-Central Australia | 54. Chukchi Sea |
| 3. California Current | 16. East Brazil Shelf | 29. Benguela Current | 42. Southeast Australia | 55. Beaufort Sea |
| 4. Gulf of California | 17. North Brazil Shelf | 30. Agulhas Current | 43. Southwest Australia | 56. East Siberian Sea |
| 5. Gulf of Mexico | 18. West Greenland Shelf | 31. Somali Coastal Current | 44. West-Central Australia | 57. Laptev Sea |
| 6. Southeast U.S. Continental Shelf | 19. East Greenland Shelf | 32. Arabian Sea | 45. Northwest Australia | 58. Kara Sea |
| 7. Northeast U.S. Continental Shelf | 20. Barents Sea | 33. Red Sea | 46. New Zealand Shelf | 59. Iceland Shelf |
| 8. Scotian Shelf | 21. Norwegian Sea | 34. Bay of Bengal | 47. East China Sea | 60. Faroe Plateau |
| 9. Newfoundland-Labrador Shelf | 22. North Sea | 35. Gulf of Thailand | 48. Yellow Sea | 61. Antarctic |
| 10. Insular Pacific-Hawaiian | 23. Baltic Sea | 36. South China Sea | 49. Kuroshio Current | 62. Black Sea |
| 11. Pacific Central-American | 24. Celtic-Biscay Shelf | 37. Sulu-Celebes Sea | 50. Sea of Japan | 63. Hudson Bay |
| 12. Caribbean Sea | 25. Iberian Coastal | 38. Indonesian Sea | 51. Oyashio Current | 64. Arctic Ocean |
| 13. Humboldt Current | 26. Mediterranean | 39. North Australia | 52. Sea of Okhotsk | |



International importance

- The RSGA form an important transport route between the Far East and Europe for the carriage of oil and other commodities.





International importance

The RSGA are treasured throughout the world for their natural beauty and their biological diversity. It includes a significant number of animals and plants that are only found here.



- There is a great variety of reef types in the Red Sea with a structural complexity unmatched on Earth. The diversity of corals is greater than anywhere else, and the number of species that are confined to the Red Sea and found nowhere else is extremely high.
- The Gulf of Aden, one of the biologically least known branches of the Indian Ocean, holds fishery resources of international importance.







Endemic species in the Red Sea ...









Little Crested Terns



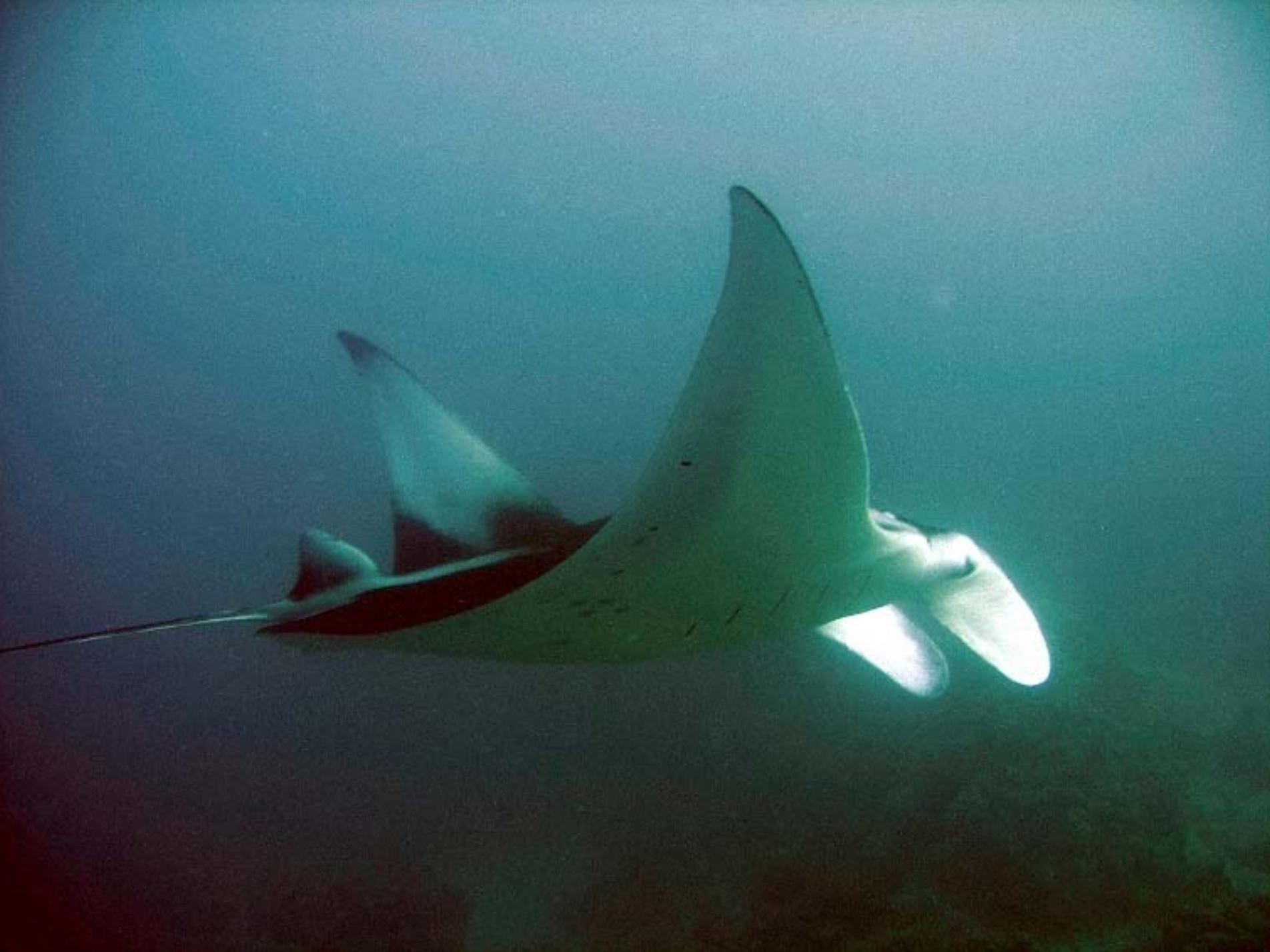
Bridled Terns



Osprey



Flamingos









Dugong dugong



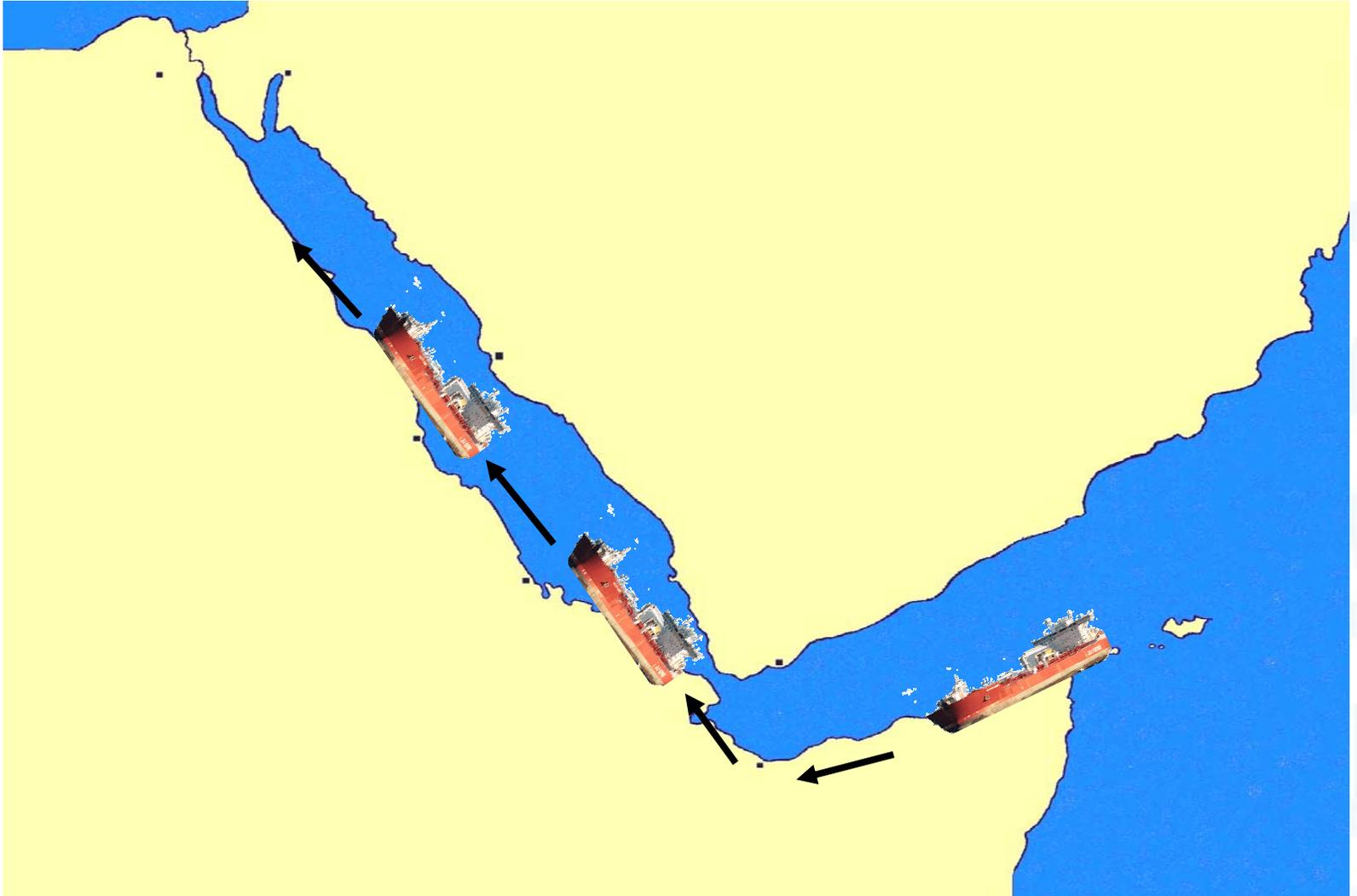


DEPARTMENT OF MARINE BIOLOGY



Although the Red Sea is still one of the least ecologically disturbed seas relative to other enclosed water bodies, it is in increasing jeopardy. There is a growing risk of marine pollution, and of environmental degradation from rapidly expanding maritime activities.

•30% of the annual trade in crude oil is carried through the Red Sea and Gulf of Aden





Economic importance

- **The relatively pristine seas offer huge tourist potential. The coral reefs of the Sinai Peninsula alone generated an estimated US\$ 1.8 billion in tourist revenue in 2000.**
- **Fisheries employ 89,000 fishermen in the region and generated almost US\$ 30 million in export revenue in 2000. Marine aquaculture is a rapidly growing industry in the region.**
- **The Red Sea has extensive offshore non-petroleum mineral deposits that are thought to be of considerable value**



- **PERSGA** started back in the early 1970's when the Arab League Educational, Cultural and Scientific Organization (ALECSO) initiated the **P**rogramme of the **E**nvironment of the **R**ed **S**ea and **G**ulf of **A**den;
- In 1982 Jeddah Convention was signed
- In 1995, the declaration of the Regional Organization was made.



Consolidated Jeddah Convention

- Jeddah Convention, formally titled "Regional Convention for the Conservation of the Red Sea and Gulf of Aden Environment". – 1982
- "Action Plan for the Conservation of the Marine Environment and Coastal Areas in the Red Sea and Gulf of Aden".– 1982



Consolidated Jeddah Convention

- "Protocol Concerning Regional Cooperation in Combating Pollution by Oil and Other Harmful Substances in Cases of Emergency" was signed along with Jeddah Convention in February 1982.
- "Protocol Concerning the Conservation of Biological Diversity and the Establishment of Network of Protected Areas in the Red Sea and Gulf of Aden and - 2005;
- "Protocol Concerning the Protection of the Marine Environment from Land-Based Activities in the Red Sea and Gulf of Aden-2005.



The Region

DEPARTMENT OF EDUCATION
REGION 10



Heterogeneous group

	GDP (USD bn.)	GNI per capita (USD)	GDP per capita (PPP adjusted)
Djibouti	0.6	910	N.A.
Egypt	82.4	1390	3810
Jordan	9.9	1850	4180
Saudi Arabia	214.7	9240	12660
Somalia	N.A.	N.A.	600
Sudan	17.8	460	1740
Yemen	10.8	520	800

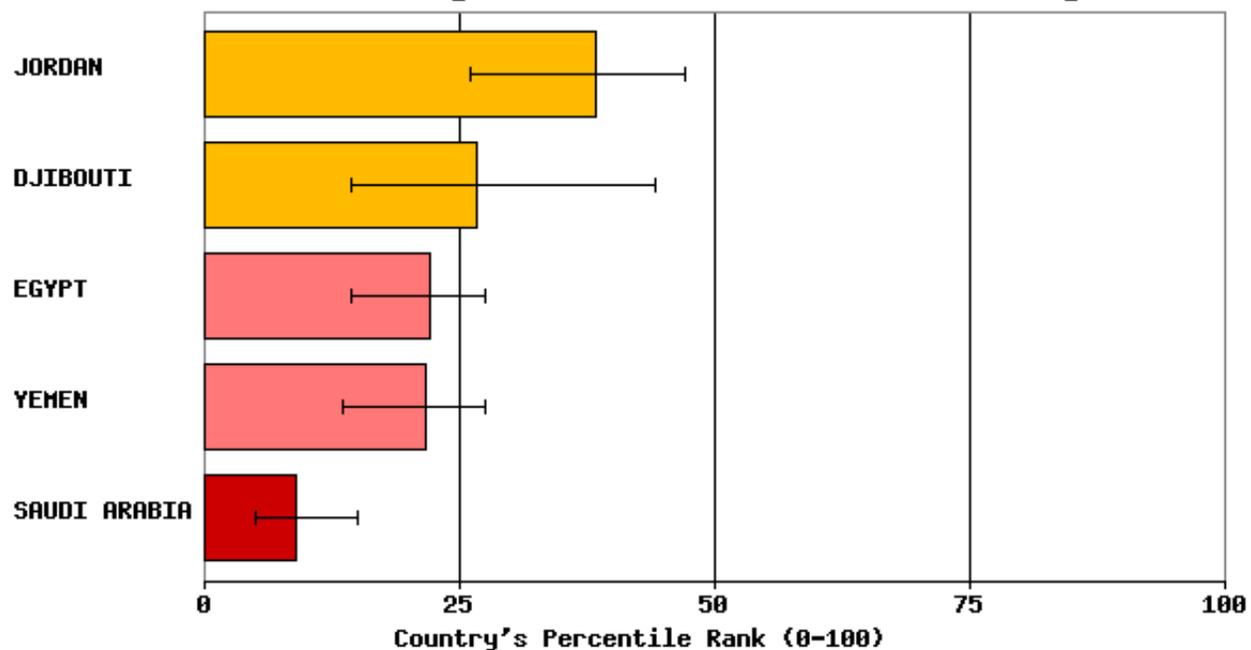


Socioeconomic and Marine Industry Activity Indexes for LMEs

LME	LME #	Socioeconomic Index (HDI)	Fishery aquaculture Index	Tourism Index	Ship and Oil Index	Marine Industry Activity Index
Red Sea	33	62.564	0.268	5.583	1.381	1.999

Governance

Voice and Accountability (Middle East & North Africa region, 2002)

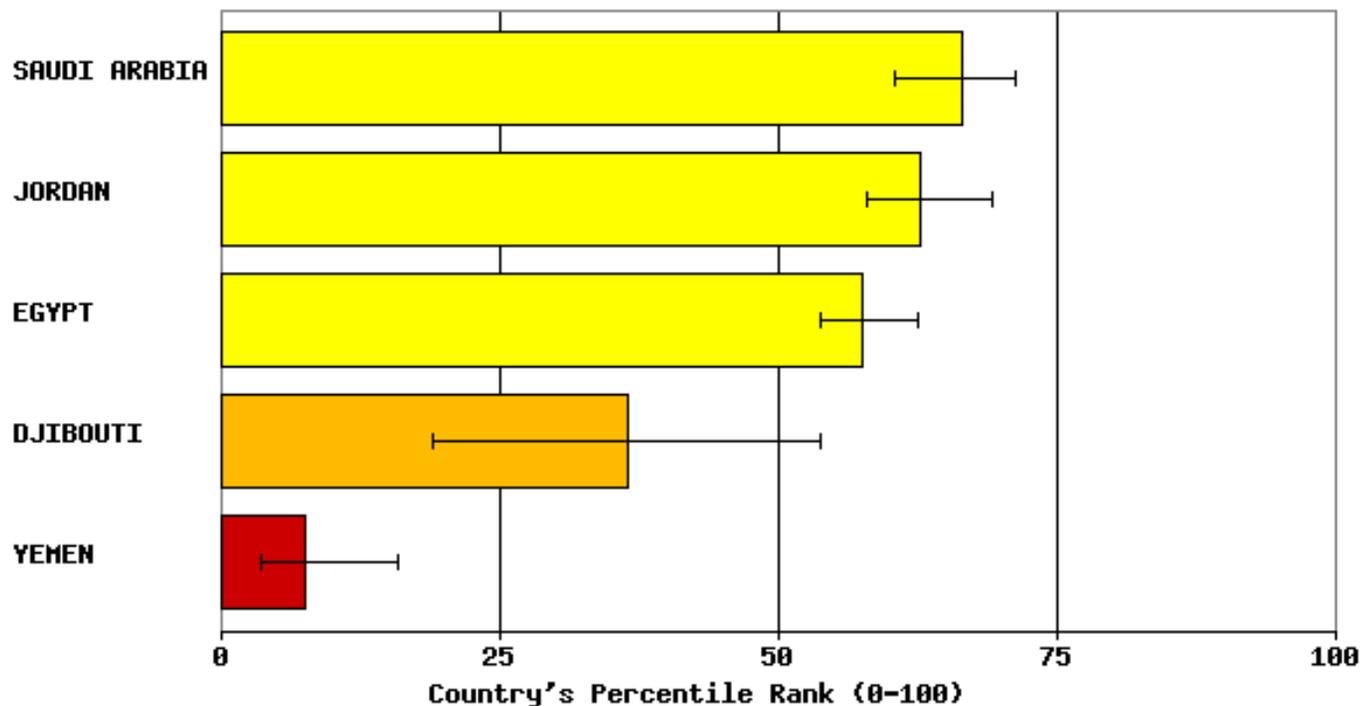


Source: D. Kaufmann, A. Kraay and M. Mastruzzi, 2003: Governance Matters III: Governance Indicators for 1996-2002 (<http://www.worldbank.org/ubi/governance/pubs/govmatters3.html>)



Governance

Rule of Law (Middle East & North Africa region, 2002)

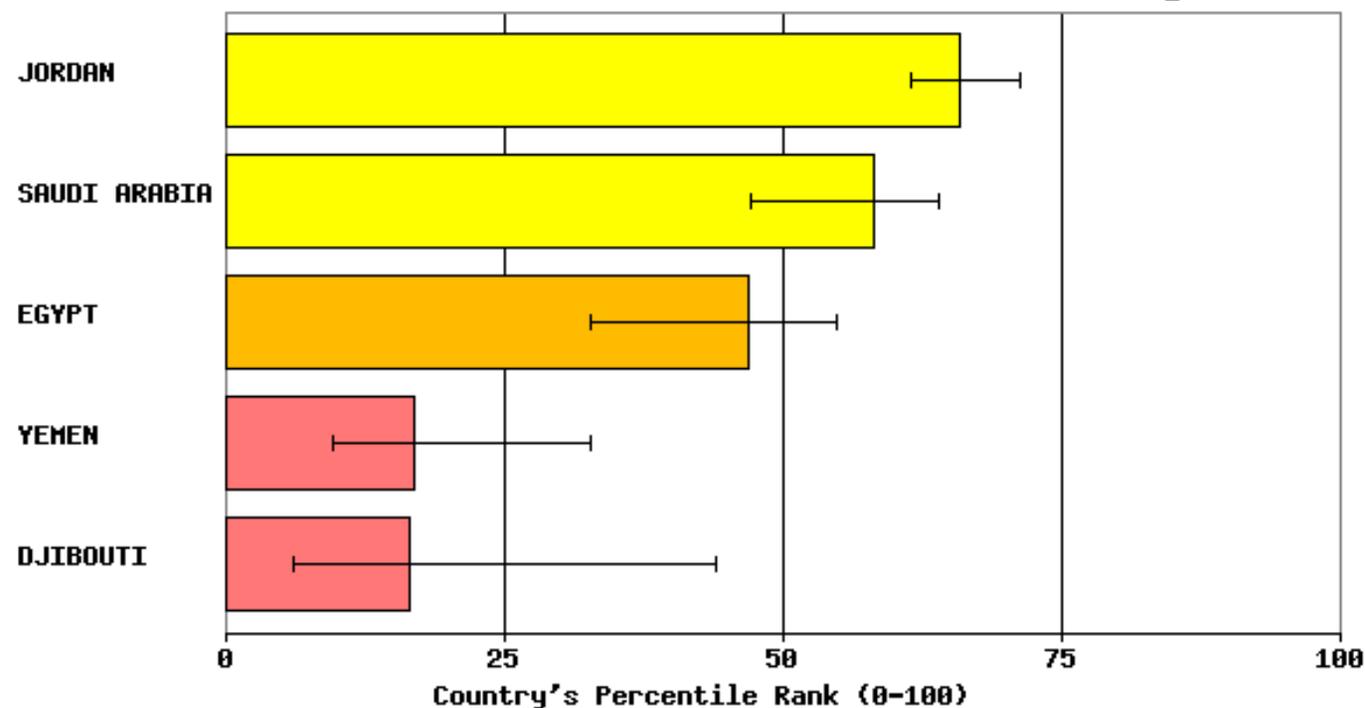


Source: D. Kaufmann, A. Kraay and M. Mastruzzi, 2003: Governance Matters III: Governance Indicators for 1996-2002 (<http://www.worldbank.org/ubi/governance/pubs/govmatters3.html>)

Governance



Government Effectiveness (Middle East & North Africa region, 2002)

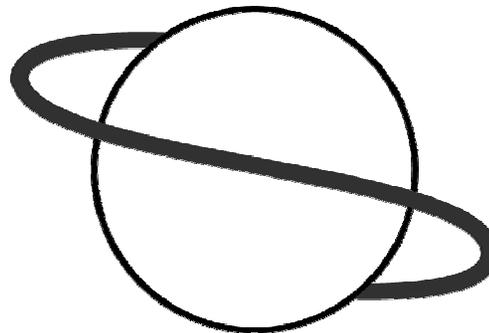


Source: D. Kaufmann, A. Kraay and M. Mastruzzi, 2003: Governance Matters III: Governance Indicators for 1996-2002 (<http://www.worldbank.org/ubi/governance/pubs/govmatters3.html>)



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

1999 - 2005

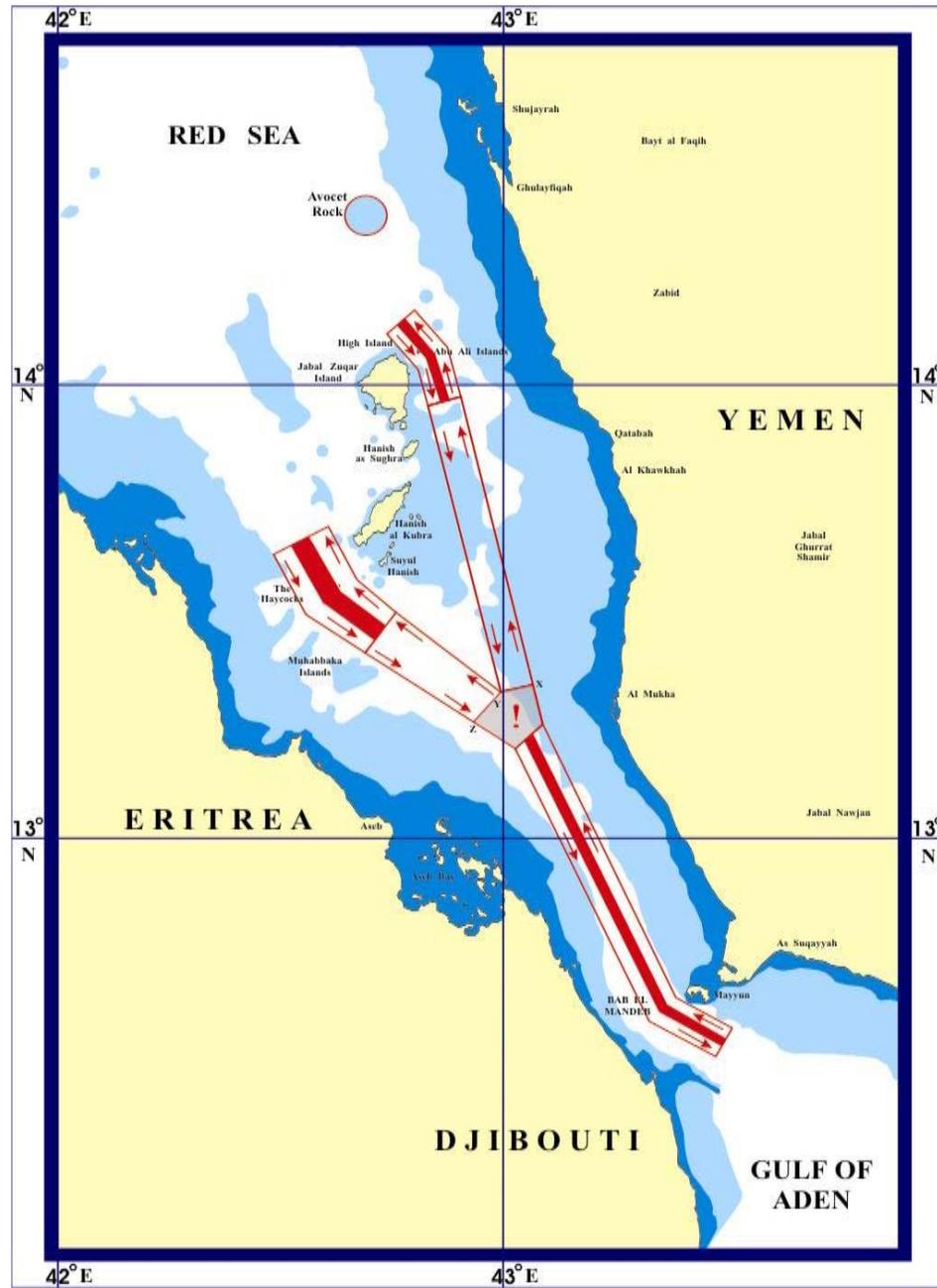


GEF

ROUTEING MEASURES – SOUTHERN RED SEA
GENERAL LAYOUT OF MEASURES



New traffic Separation Scheme – Southern Red Sea



إن ساد النظام... ساد السلام



الهيئة
للمحافظة
البحر الأحمر
وخليج
عدن

PERSGA

تم أهدافنا في الهيئة الإقليمية للمحافظة على البحر الأحمر وخليج عدن التقليل من مخاطر الملاحة واحتمالات حوادث التلوث البحري و قد تم القيام بمسح هيدروغرافي شامل للتأكيد على أن نظام فصل مسارات السفن سيضاهف
اتخذ البحريه في عام ٢٠٠٣ بعد الموافقه عليه من قبل المنظمات الدولية البحريه
لبحريه الفريده بمواهبها الطبيعيه وتنوعها الحيوي في خطرآن الأوان لقوانين فعّاله من أجل إنقاذ حياة البحر.

www.persga.org زوروا



PERSGA

مساعدات المتبادلة للطوارئ البحرية
Marine Emergency Mutual Aid
(PERSGA / MEMAC)
منظمة للمحافظة على بيئة البحر الأحمر وخليج عدن
The Regional Organisation for the Conservation of the Environment of the Red Sea and Gulf of Aden





- Port State Control
- Navigation aids, including lighthouses
- The Regional Contingency Plan
- MEMAC
“article III of the Combating Oil Pollution Protocol: to establish the Marine Emergency Mutual Aid Centre (MEMAC).”



Living Marine Resources

The Status of Living Marine Resources in
the RSGA Region - 2002

RESOURCES





Living Marine Resources

Shark fisheries management

Preparation of an Identification Guide to the Sharks and Batoid Fishes of the RSGA

Training in shark identification and the measurements required for stock assessment (standardisation of methods with the region)





Living Marine Resources

The establishment and enhancement of a regional training centre in Aden (MSRRC/FTI)





EIA Guidelines for Ornamental Fish Trade



Habitat & Biodiversity Conservation



- Standardised Regional Survey Methods - A comprehensive Manual
- Habitats and Biodiversity surveys
- Regional and national conservation Plans







PERSGA



The Regional Strategy for the Conservation of Coral Reefs in PERSGA and ROPME Regions

2001



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

(PERSGA)

*Regional Action Plan for the
Conservation of Marine Turtles
and their Habitats in the Red Sea
and Gulf of Aden*



Network of Marine Protected Areas

Regional Master Plan for a Network of Marine Protected Areas now complete

Rapid Assessment Surveys have been carried out at the proposed MPAs in Somalia and site-specific surveys at the MPAs in Djibouti, Somalia, Sudan and Yemen

Site Specific Master Plans were prepared



Hawksbill Turtle



Communities





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COLUMBIA





Integrated Coastal Zone Management

**Regional Integrated Information
Management System - IIMS**

INTEGRATED
COASTAL
ZONE
MANAGEMENT
SYSTEM - IIMS



BRIDGE



- ICZM Model Activities in Yemen, Djibouti and Sudan:
 - National ICZM Plans were produced and adopted as national regulation



- The ICZM Hand Book for the PERSGA Region- 2006

PERSGA

Environmental School Clubs Network





BR
D





The Environmental Education Learning Supplement - EELS

“Because I care”





....about the conservation of the environment of the Red Sea and Gulf of Aden

Target Group:

Students age: between 12 to 16 years old;

Female and male schools



Teacher training workshops





Teacher training workshops: pre-testing of the materials





Training workshops - Teacher and students together: pre-testing of the materials





Training workshops - Teacher and students together: in the field pre-testing the experiments





Training workshops - Teacher and students together: in the field pre-testing the experiments



- A **Teacher's Book**
(Reference Book)



- A **Student Book**
(5 copies in each kit)





Contents:

- An E-learning version of the student book that cover each of the lessons in an interactive way

Contents of the e-Learning Version of the EELS:



Games



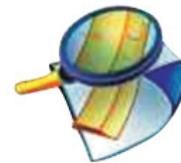
Questions



References



Films



Activities



Lessons



LIBRARY



تكون البحر الأحمر و خليج عدن نتيجة انكسار الكتلة الأرضية الإفريقية



خطاً

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Contents:

- Some experiments tools (thermometer, PH measurement instrument, transparency instrument)
- Glossary book
- Album of related pictures that reflects the beauty of the RSGA





Contents:



Educational Video

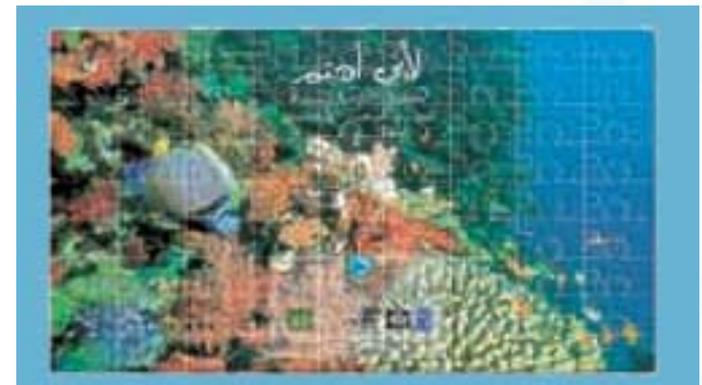


Promotional materials

Five posters



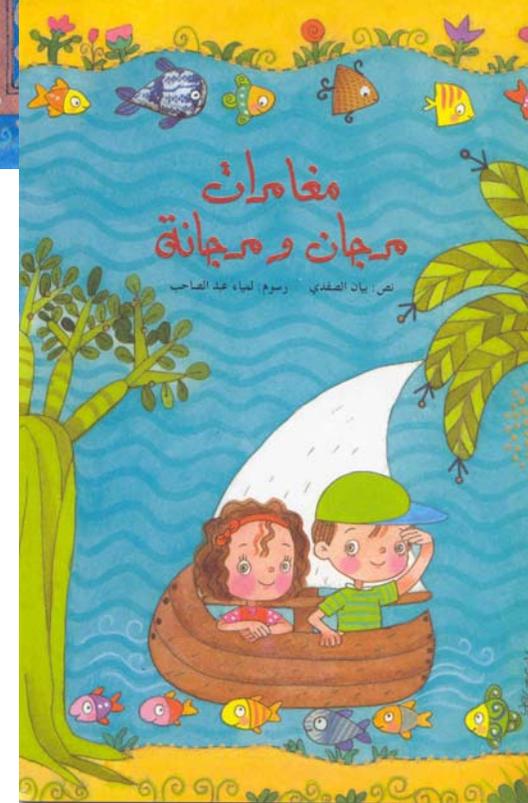
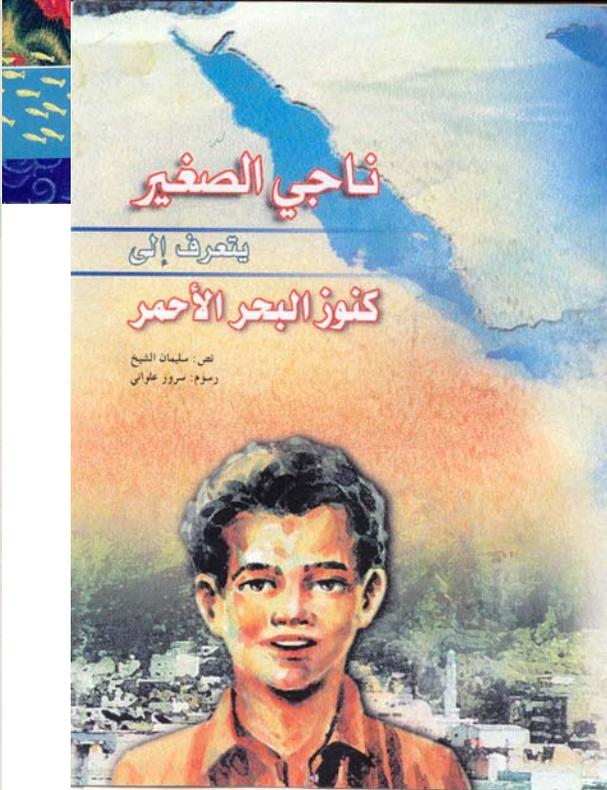
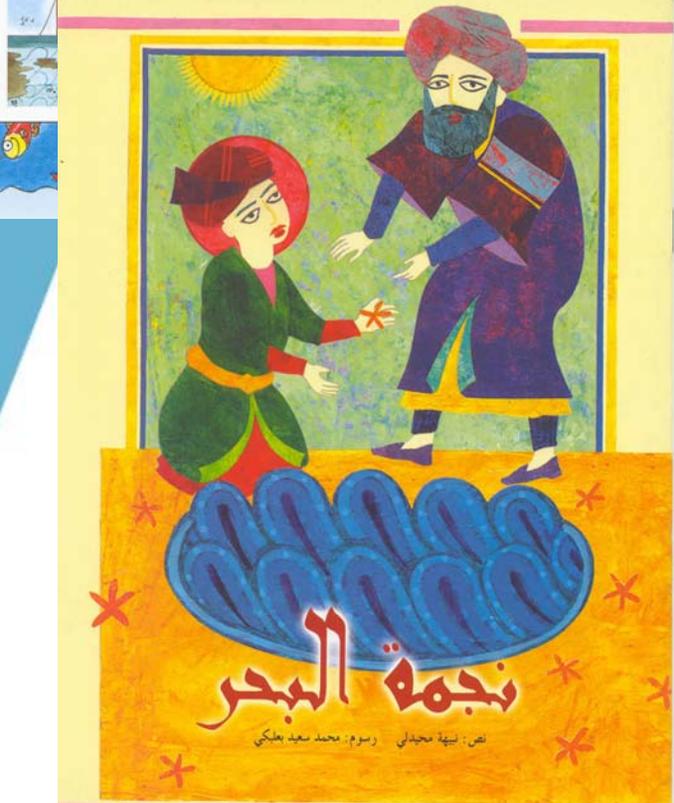
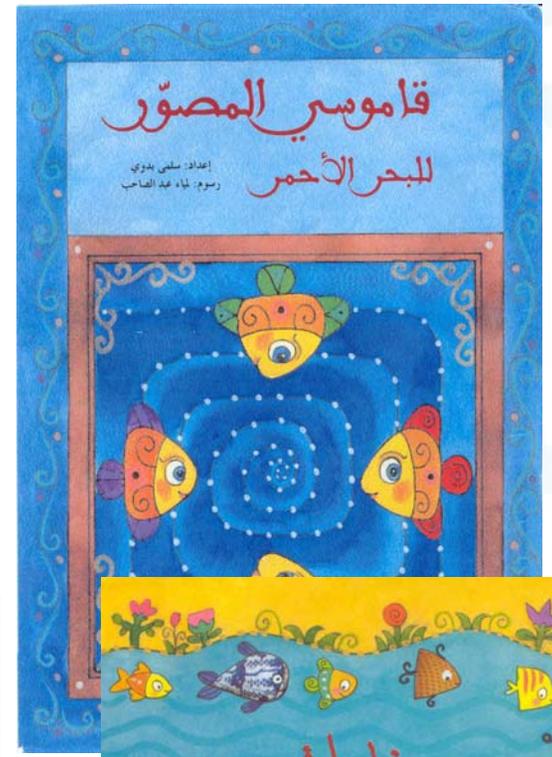
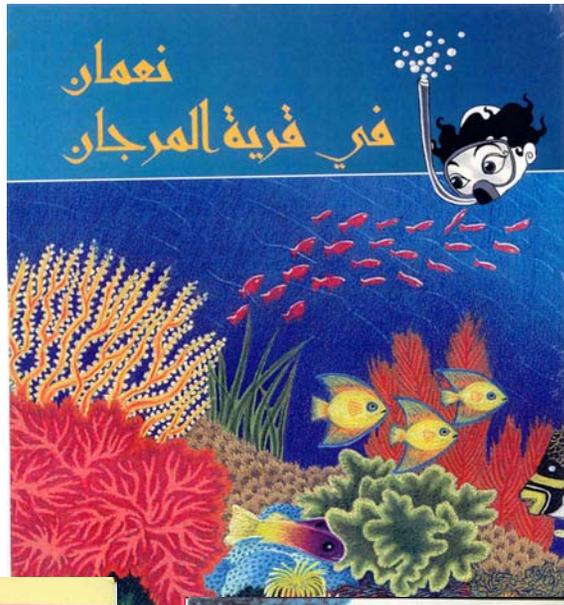
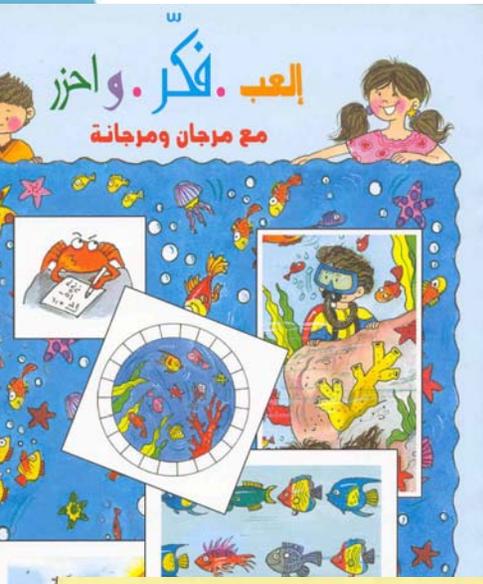
An educational puzzle





Capacity Building





Community Participation Programme













DEBSCA





DEPARTMENT OF FISHERIES



Sea to Sea Forum





There I am standing by the shore of a swiftly flowing river and I hear a cry of a drowning man. So I jump into the river, put my arms around him, pull him to shore and apply artificial respiration. Just when he begins to breath, there is another cry for help.

Zola, I.K. 'Helping-Does it Matter?'



***So I jump into the river, reach him, pull to shore,
apply artificial respiration, and then just as he
begins to breath, another cry for help.***

Zola, I.K. 'Helping-Does it Matter?'



***So back in the river again, reaching ,pulling ,applying,
breathing, and then another yell.
Again and again, without end goes the sequence.***

Zola, I.K. 'Helping-Does it Matter?'



I suddenly realize that I am so busy jumping in, pulling to shore, applying artificial respiration, that I have no time to see who the hell is upstream pushing them all in”

Zola, I.K. ‘Helping-Does it Matter?’



The effectiveness and added value - Synthesis and lessons learned:

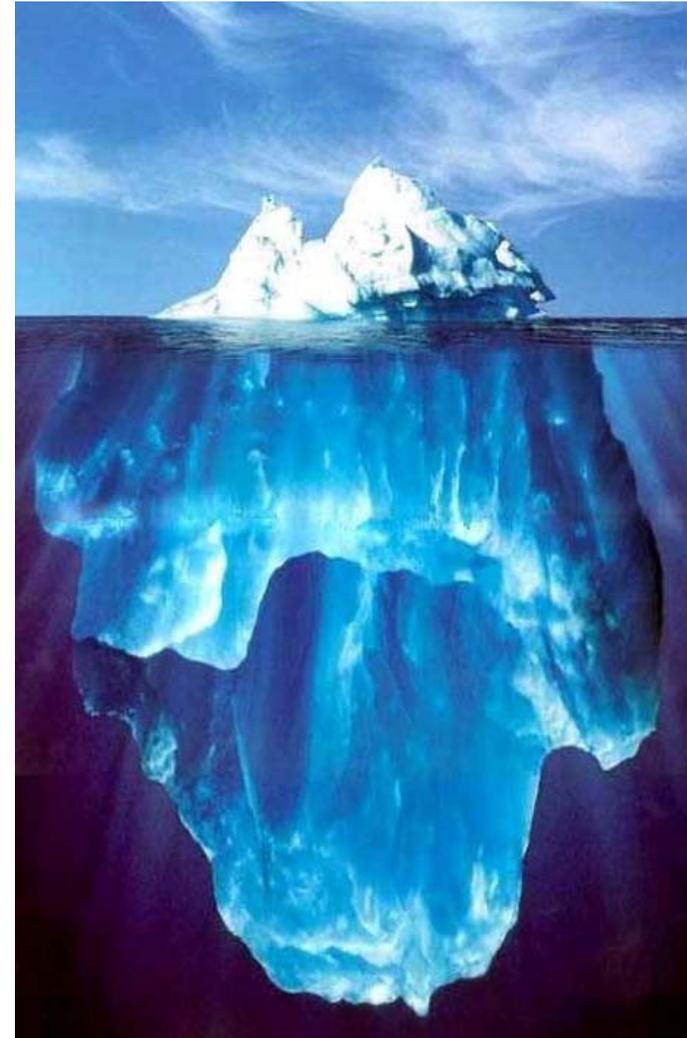


- The hidden intangibles of local power structures and cultural factors are most difficult to manage in development projects.

Through adaptive management, we have absorbed these intangibles and used them as part of the process

Objectives
Actions
Technical Data
GIS
Strategy

Assumptions
Values
Emotions
Power
Spirit
Beliefs
Agendas
Interests





- Human factor in project management
- Leadership... Champions

UNIVERSITY OF THE PHILIPPINES
DILIGEN



- The relevance of a regional programme depends on its convincing rationale for countries to work together; only programmes with a strong, self-evident rationale for adopting regional approach can overcome the challenges posed by multi-country efforts



- The SAP has helped to generate and share knowledge, but necessarily to translate that knowledge into national policies and plans;
- Lack of clarity about the role of PERSGA and the national organizations has impeded implementation;
- To succeed, a regional programs need to link to national institutions;
- It takes time to build effective between regional and national activities;
- Programs work best when implemented at a national level, and planned and coordinated at a regional level;
- We have been active, *but... how effective?*



- There is no mechanism to evaluate a programme as whole (on regional level) rather than on country level;
- Accountable governance arrangements



PERSGA Operational Framework 2006-2010

PHILIPPINE
COAST
GUARD



**The groundwork for regional cooperation
has been carried out**

Strategies and plans have been prepared

**It is the time for implementation and on
ground activities and national
interventions**



Classification

	Low Socioeconomic development	Medium socioeconomic development	High socioeconomic development
High marine industry			
Medium marine industry			
Low marine industry		33. Red Sea	



How to mainstream biodiversity conservation in economic development and poverty alleviation efforts

Economic Valuation



**A comprehensive research and
monitoring programme for
environment, habitats and biodiversity**

**Leadership forum for coastal
Governance**

Pollution from land base activities