Strengthening the capacities for Marine Protected Areas

Subregional Workshop for West Asia & North Africa on Capacity-Building for the Implementation of the CBD PoWPA
UAE-Dubai (16 – 20 April 2012)

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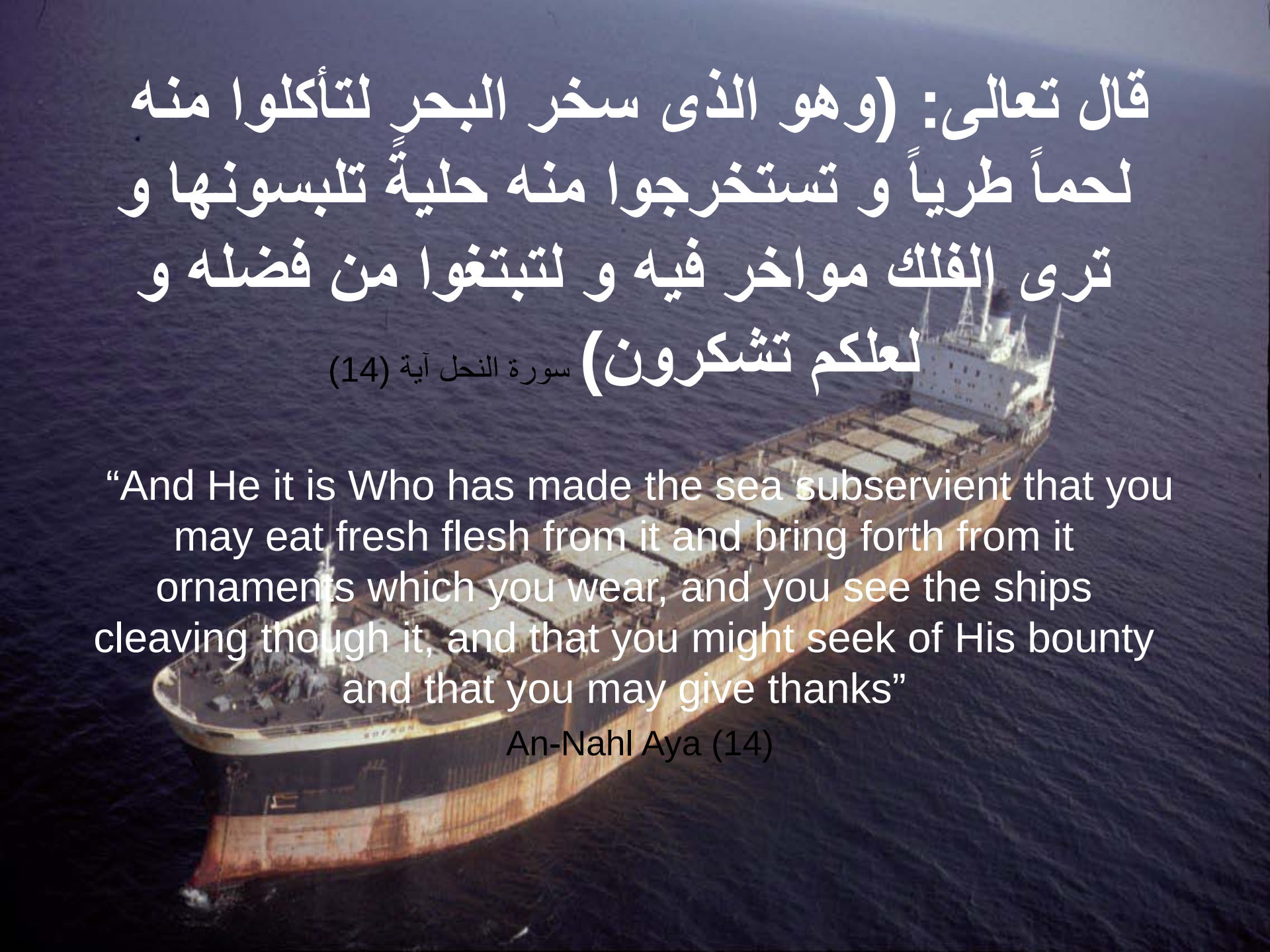
IUCN ROWA Marine and Coastal Program



قال تعالى: (وهو الذى سخر البحرِ لتأكلوا منه لحماً طرياً و تستخرجوا منه حليةً تلبسونها و ترى الفلك مواخر فيه و لتبتغوا من فضله و لعلكم تشكرون) سورة النحل آية (14)

"And He it is Who has made the sea subservient that you may eat fresh flesh from it and bring forth from it ornaments which you wear, and you see the ships cleaving though it, and that you might seek of His bounty and that you may give thanks"

An-Nahl Aya (14)


ماذا يعنى البحر لنا ؟
What the Sea mean for us?

Arabian Gulf

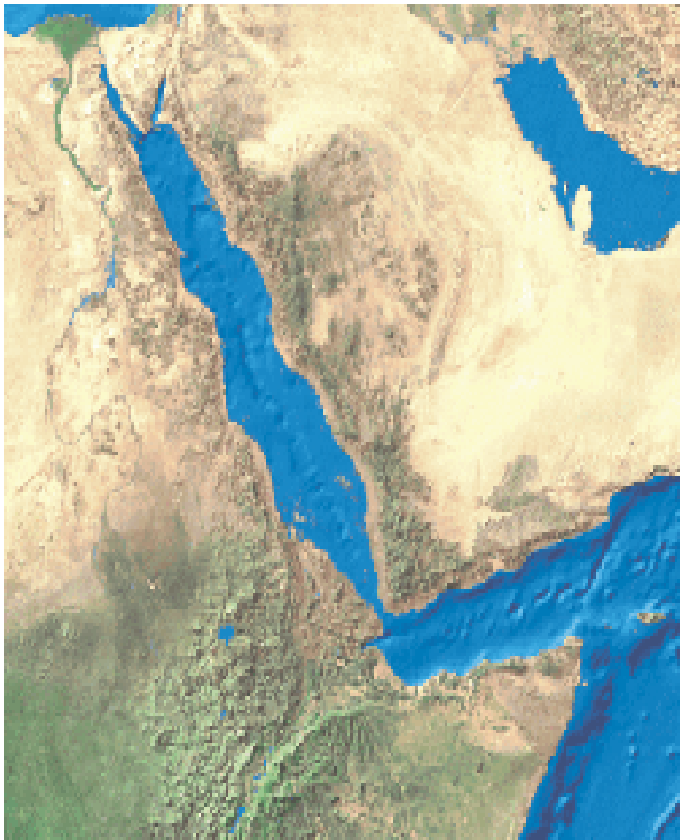
- The Arabian Gulf (1000 km by 200–300 km) is slopes from the shallow Saudi Arabian side to Iran, (80–100 m) deep with a constricted entrance at the Straits of Hormuz. It has large variations in salinity (40–70 ppt).

Arabian Gulf

- The wetlands, waterfowl, mangroves, fish, marine mammals, turtles, corals and other forms of life are treasures of the region.
- Its dugong population is second in global importance only to Australia's.
- There are some twenty species of dolphin and whale, all the five subtropical species of turtles, and more than a thousand species of fish, most of which, are endemic and have a high commercial value.

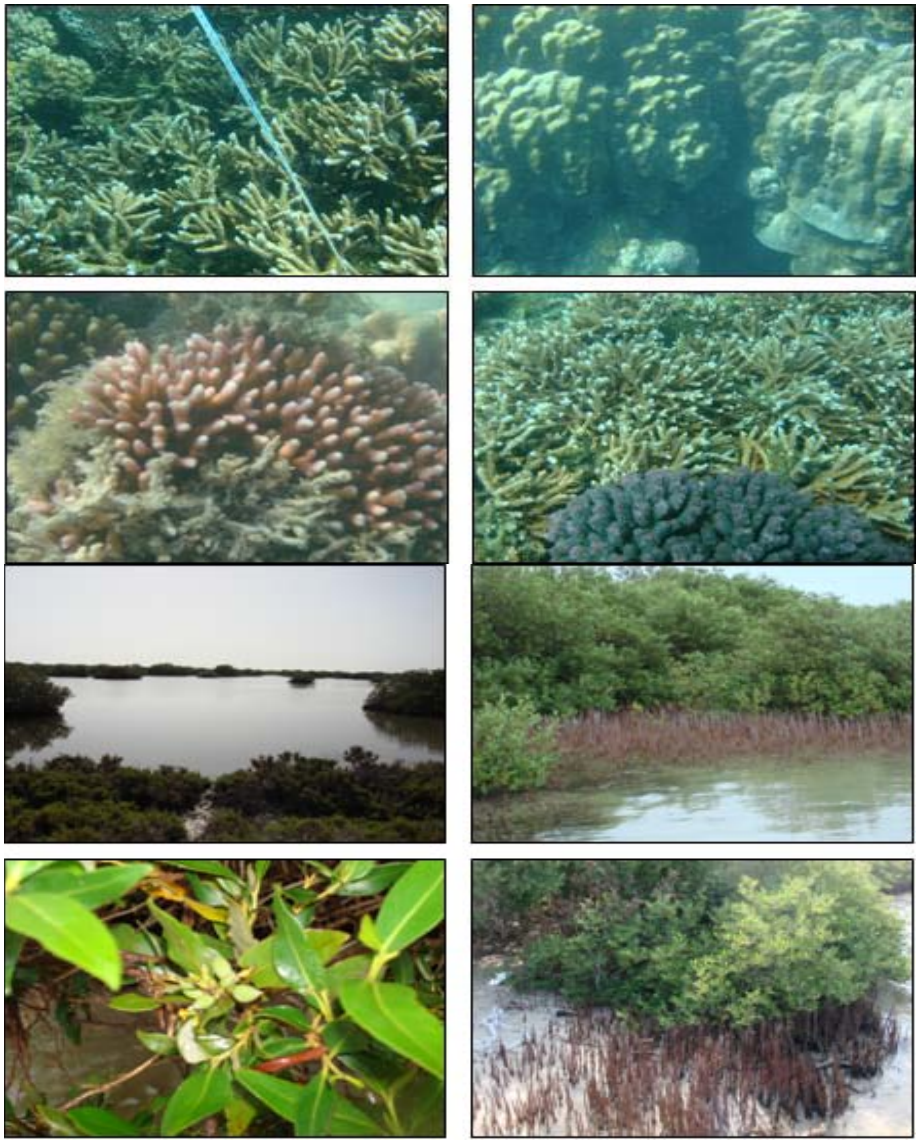
Red Sea and Gulf of Aden

- The Red Sea (2000 km by 180–360 km) is a deep flooded rift valley (maximum depth 2850 m), salinity averages 36 ppt near the Indian Ocean, to more than 40 ppt in the north.



Red Sea and Gulf of Aden

- In geological terms the Red Sea is a young ocean created through separation of the Arabian plate from Africa,
- The Region supports world-renowned coral reefs, lush mangroves and fertile seagrass beds.
- It is home to endemic species of seabirds, reef fish and invertebrates.



Mediterranean Sea

- The Mediterranean Sea covers an area of approximately 2.5 million km^2 and has an average depth of 1,500m (reaching 5,200m at its deepest point in the Ionian Sea). The coastline extends for 46,000km and is bordered by 21 countries.

- The Mediterranean Sea is one of the most diverse in terms of species despite the low concentrations of nutrients that characterise its water.
- It includes 6% of the world's species for less than 1% of the world's ocean area, and while much of the fauna is of Atlantic origin, the levels of endemism are also high (28%), including some emblematic species of global conservation concern.
- The Mediterranean encompasses about 750 species of fish, including sharks and rays, and is the main spawning grounds of the Atlantic Bluefin Tuna.
- There are about 20 species of cetaceans, from dolphins to sperm and baleen whales.
- Five species of sea turtles are present in the Mediterranean, of which two regularly nest along the eastern and southern shores.
- The critically endangered monk seal population is shared between the Mediterranean and the Mauritanian in the Atlantic.

Issues, threats and trends

- Habitat degradation and destruction by pollution, coastal development and tourism,
- Over-fishing and its associated socioeconomic consequences for coastal populations,
- Lack of management action, especially the implementation of management and enforcement,
- Limited technical capacity and management experience,

Issues, threats and trends

- Limited scientific knowledge and monitoring of key habitats, species, and activities (especially fisheries-related data),
- The spread of invasive aquatic species.
- Hazardous maritime traffic.

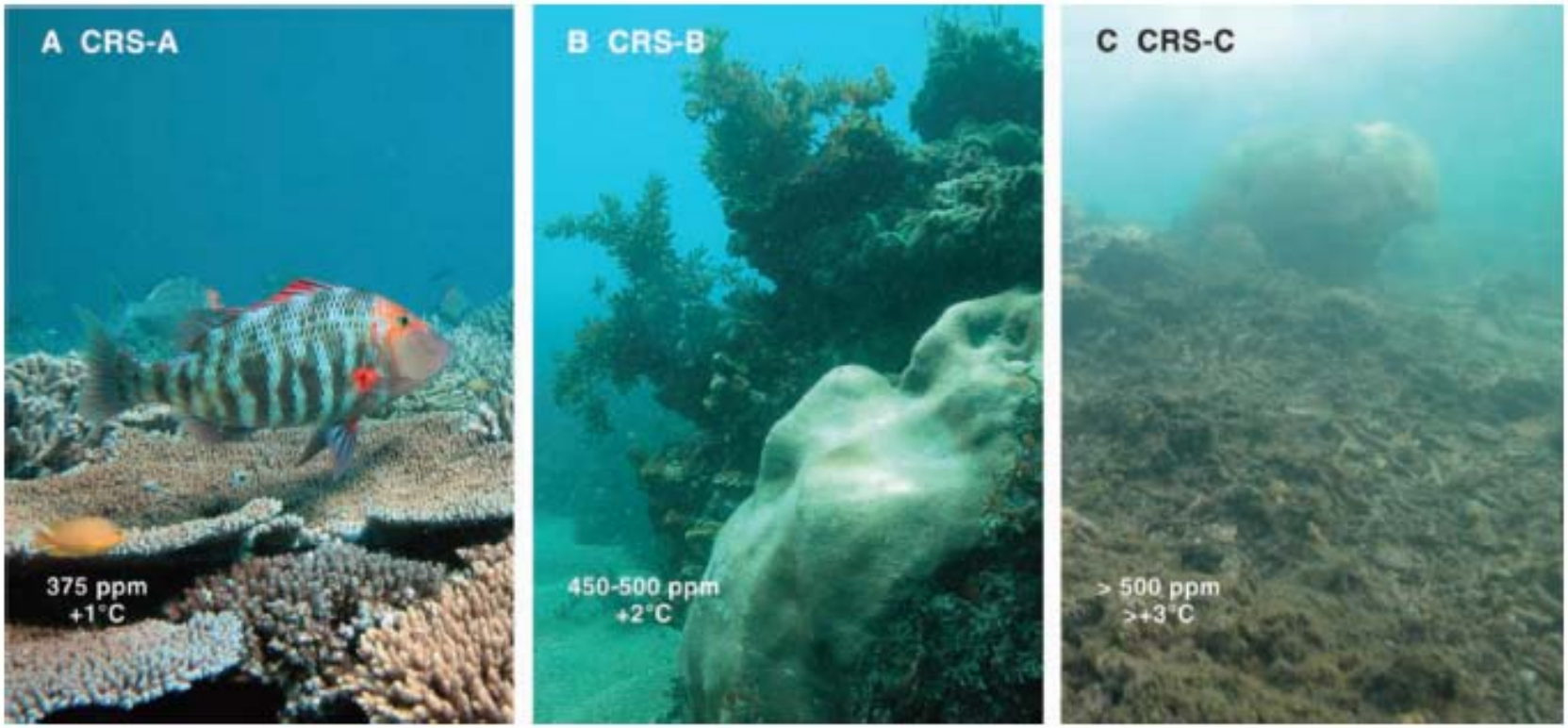
Issues, threats and trends

- The risks of further coral bleaching events and sea level rise attributed to global climate change,

Bleaching

Issues, threats and trends

Ocean acidification



Projected effects of ocean acidification (Hoegh-Guldberg et al 2007)

How can IUCN help:

- IUCN's approach is to address these complex issues utilizing a wide range of biological, political, and legal expertise available through its global networks.
- Full participation and commitment of governments, local communities, donors, Regional Organization (PERSGA & ROPME), NGOs, the private sector, resource users and scientists.
- Strategic research and monitoring programs should be an integral part because ecosystems management should be based on the most relevant scientific information.
- Developing national capacities to conserve and use sustainably marine resources.

ROWA Marine Program priorities

- Coral reef resilience (monitoring, climate change, capacity building).
- Marine species conservation (Redlists / endangered species, charismatic megafauna, invasive species).
- Marine protected areas (Ecotourism planning, Capacity Building, sensitive habitats, habitat mapping, spatial planning tools).
- Expert networks (developing a regional network / platform of marine practioners that is linked to global expertise).
- Business and marine biodiversity.

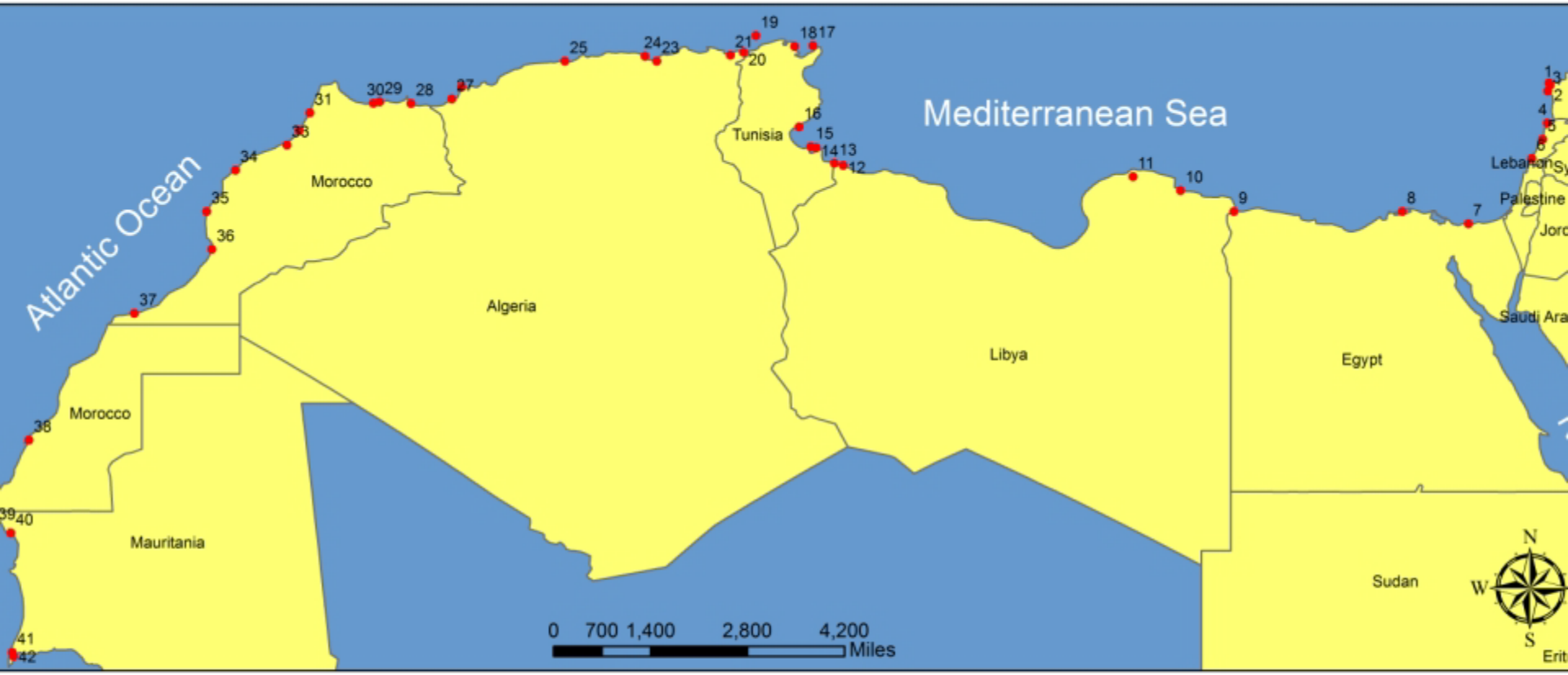
Examples of IUCN projects:

- Red Sea coral reefs and climate change addressing a global threat locally.
- Towards a biodiversity partnership of Yemen LNG, the government of Yemen and IUCN.
- Marine habitat, sensitivity mapping, and biodiversity offsets in Qatar.
- Red Sea Shark conservation program.
- MPA and PA management capacity building program for Syria and Iraq.
- Ecotourism planning in Oman (Bandar AlKhiran & Wadi Darbat).
- Environmental education of coastal communities in Egypt.

Current Marine Pipeline Projects

- Status of Marine Protected Areas report.
- Coral reef Monitoring and management
- Management of MPAs
- Blue carbon
- ICZM
- Wetland conservation
- Local community livelihood (Community-based Fishery)
- Marine Alien Invasive species.

Arab Region Marine Protected Areas in Mediterranean Sea and Atlantic Ocean



1 Om Al Toyour
2 Ras El Bassit
3 Fanar Ibn Hani
4 Palm Island
5 Deir Al Nourieyeh
6 Tyre Beach
7 Lake Bardawill
8 Lake Burullus
9 Sallum Nature reserve
10 Ain Ghazaleh
11 El Kauf
12 Farwa Lagoon
13 Hisha Nature reserve
14 Djebra Bin el Ouedian
15 Djebra Guellala
16 Iles Kneiss
17 Zembera et Zembretta
18 Lagune de Ghar el Melh
19 Archipel de Galite
20 El Kala
21 Marais de la Mekhada
22 Taza
23 Gourya
24 Tipasa-Ghenouna
25 Iles Habibas
27 Sebkha Bou Areg
28 Bokkoyas
29 Al Hoceima
30 Merja Zarga
31 Sidi bou Ghaba
32 Ile de Skhirate
33 Sidi Moussa
34 D'Essawira
33 Sidi Moussa
34 D'Essawira
35 Souss-Massa
36 Lagune de Khen
37 Baue d'Ad Dakhl
38 Cap Blanc
39 Banc d'Arguin
40 Chat Tboul
41 Diawling

Date: 4/9/2012

IUCN UNEP WCM

Marine Protected Areas at the Red Sea & Gulf of Eden

1	Aqaba	11	Makkawar Island
2	Taba Coast	12	Sanagneb Atool
3	Abu Galum	13	Archipelageo of Sept Freres
4	Dahab	14	South of Maskali Islands
5	Nabq+ Sharm el Sheikh	15	Island of Haramous
6	Sharm el Sheikh	16	Socotra Island
7	Tiran Senafir	17	Juzur Kamran
8	Ras Mohammed	18	Sharm wasm
9	Wadi el Gemal	19	Northern Farasan Island
10	Jabal Elba	20	Yanbu Conservation area

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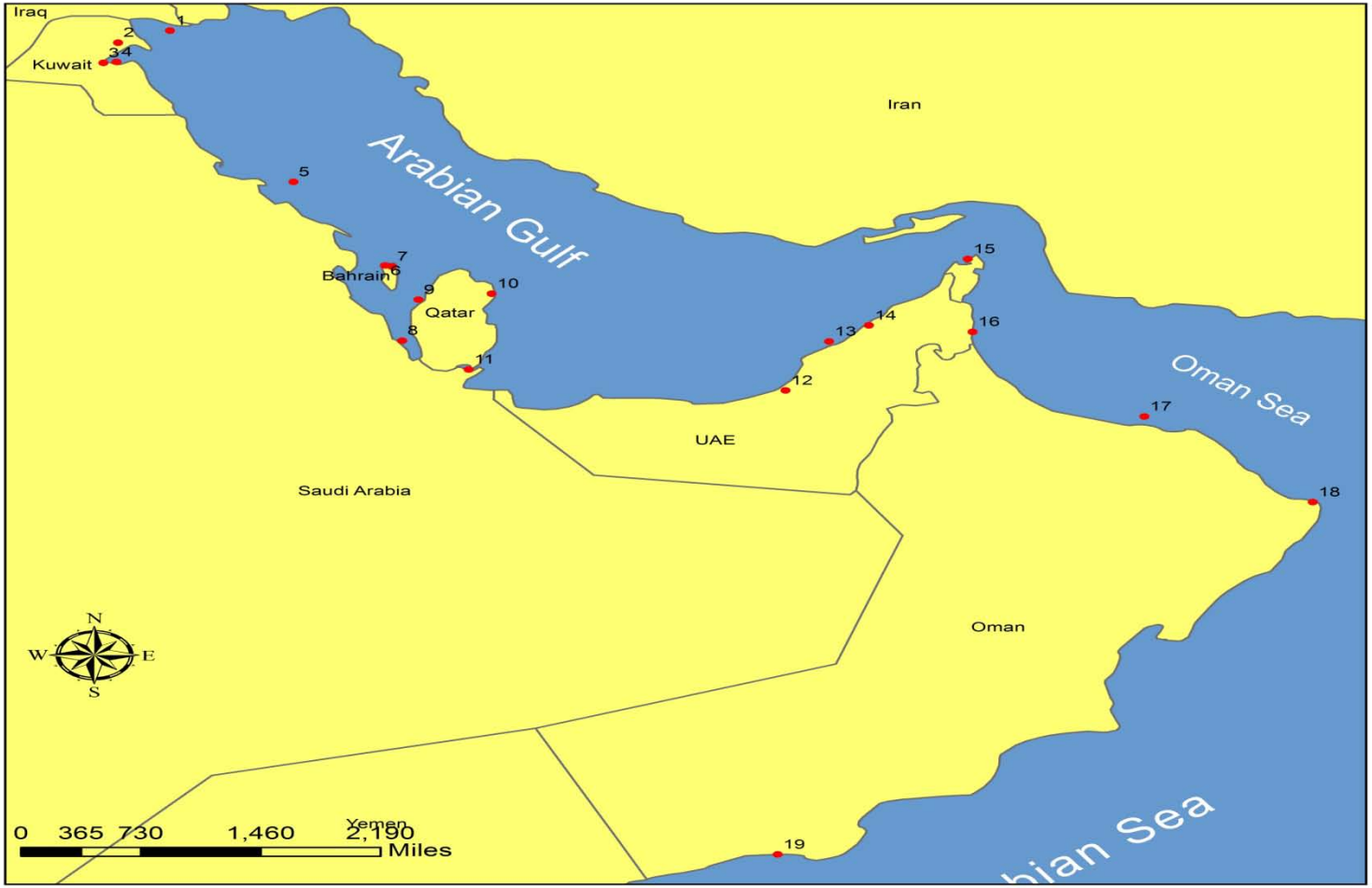
Arab Region Marine Protected Areas in Arabian Gulf and Arabian Sea



1 Mubarak Island reserve
2 Ahmad Al Subah Reserve
3 Al Jahra Bird reserve
4 Ad Doha
5 Dawat al Musallamyah & Coral Island
6 Ras Sand Mangarove
7 Al Tulbi Bay
8 South Gulf of Salwah
9 Hawar Island
10 Al Dhakhira Mangarove reserve
11 Khor Al Udeid fish Sanctuary
12 Jazirat al Marwah
13 Jabal Ali Wildlife Sancturay
14 Ras al Khor Wildlife Sancturay
15 Jabul Letub
16 Khor Kalba
17 Dimaniyat Islands
18 Ra's al Hadd
19 The Kawrs Reserve of Dhofar

Date: 4/13/2012

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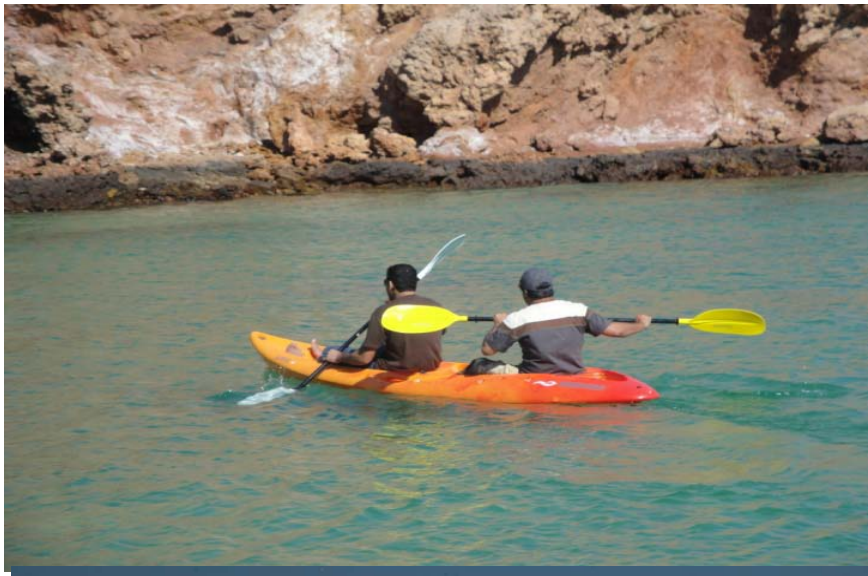
Part Two

Target 11

“By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas; especially areas of particular importance for biodiversity and ecosystem services; are conserved through; **effectively and equitably managed; ecologically representative; well connected systems of protected** areas; other effective area-based conservation measures; **integrated into the wider landscapes and seascapes.”**

Values of Marine Ecosystems

- Biodiversity
- Fisheries
- Tourism
- Shoreline protection
- Beach replenishment
- Climate change mitigation
- Medicinal products
- Minerals



تعريف IUCN للمحميات البحرية

هى أى مساحة من منطقتى المد والجذر أو فوق منطقة أعلى مد مع المياه التى فوقها والنباتات والحيوانات والمظاهر التاريخية والثقافية المصاحبة لها والتى تحمى بقانون أو أى وسائل أخرى للحماية جزء أو كل البيئة المقفلة

Any area of intertidal or subtidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment.

The important of MPAs

- Conserve biological diversity and associated ecosystems:
- Buffer impacts:
- Protect critical spawning and nursery habitats:
- Serve as an educational node:
- Provide recreation:
- Provide sustainable livelihoods:
- Provide reference sites:
- Reduce poverty:

IUCN MPA Categories

Category Ia: Strict Nature Reserve

- Strictly protected areas set aside to protect biodiversity and under strict control to ensure protection of the conservation values.
- Example: The Preservation Zones declared in the Great Barrier Reef in Australia are small 'no-go' areas set aside as scientific baselines, largely undisturbed by human activities.

Category Ib: Wilderness Area

- Usually large unmodified or slightly modified remote areas which are protected and managed to preserve their natural condition.
- Example: Kiribati’s Phoenix Islands Protected Area in the Pacific Ocean is regarded as a marine wilderness due to its remoteness.

IUCN MPA Categories

Category II: National Park

- Large natural or near natural areas set aside to protect large-scale ecological ocean processes, providing environmentally and culturally compatible spiritual, scientific, educational, recreational and visitor opportunities.
- Example: No fishing or collection of sea life of any kind is allowed in the no-take area of Lundy Marine Nature Reserve in the UK.

IUCN MPA Categories

Category III: Natural Monument

- Set aside to protect a specific natural monument (e.g. ship wreck), landform (e.g. sea mount, submarine cavern) or living component (e.g. coralline feature). They are generally quite small protected areas and often have high visitor value.
- Example: Truk (Chuuk) Lagoon Underwater Fleet, in Micronesia, has extremely high visitor value being a world renown dive site and has been designated as a US National Historic Landmark, only one of two such designations in the Federated States of Micronesia.

IUCN MPA Categories

Category IV: Habitat/ Species Management

- Aim to protect particular species or habitats and management reflects this priority.
- Example: Montague Island Habitat Protection Zone in New South Wales, Australia, was specifically set up to protect Grey Nurse Shark critical habitat.

Category V: Protected Landscape/ Seascape

- Areas where the interaction of people and nature over time has produced an area of distinct character with significant ecological, biological, cultural and scenic value.
- Example: Apo Island, in the Philippines, mixes traditional use of marine resources with ecotourism, generating revenue for communities.

IUCN MPA Categories

Category VI: Protected Area with Sustainable Use of Natural Resources

- Areas that conserve ecosystems and habitats, together with associated cultural values and traditional natural resource management systems.
- Example: Misali Island Marine Conservation Area, Zanzibar, Tanzania was set up to protect important marine corals and other biodiversity whilst allowing sustainable use.

Activities that typically may be permitted in an MPA	Category						
	IA	IB	II	III	IV	V	VI
Waste discharge	No	No	No	No	No	Yes	Yes
Mining and/or renewable energy generation	No	No	No	No	No	Yes	Yes
Commercial and/or recreational fishing	No	No	No	No	Sometimes	Yes	Yes
Aquaculture	No	No	No	No	Sometimes	Yes	Yes
Shipping	No	No	Yes	Yes	Yes	Yes	Yes
Commercial tourism	No	No	Yes	Yes	Yes	Yes	Yes
Non-extractive recreation (e.g. diving)	No	Yes	Yes	Yes	Yes	Yes	Yes
Traditional fishing in accordance with cultural practices	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Non-extractive research	Yes	Yes	Yes	Yes	Yes	Yes	Yes

MPA network

- MPA network is the suite of marine protected areas in coastal, near-shore and open waters within a particular country or region.
- The primary goal of an MPA network is to conserve marine biological diversity.
- Sustainable livelihoods, food security, coastal zone protection, carbon management, tourism revenue and sustainable fisheries.

Marine gap assessment

- A gap assessment is an examination of the extent to which an existing protected area network is fully comprehensive, and meets the protection goals set by each nation.
- A gap assessment should identify areas that are important to include in the protected area network.

- **Uniqueness or rarity:** Areas containing species or populations that are unique, rare, or endemic or have distinct habitats or ecosystems.
- **Special importance for the life history of species:** Areas required for a population to survive and thrive, particularly areas related to feeding and breeding.
- **Threatened, endangered, or declining species and/or habitats:** Areas containing habitats for the survival and recovery of endangered, threatened, or declining species.

- **Vulnerability, fragility, sensitivity, or slow recovery:** Areas containing a relatively high proportion of sensitive habitats, biotopes, or species that are functionally fragile or have a slow recovery rate.
- **Biological productivity:** Areas containing species or populations with comparatively higher natural biological productivity.
- **Biological diversity:** Areas containing comparatively higher genetic diversity.
- **Naturalness:** Areas with a low level of disturbance or degradation by human activity.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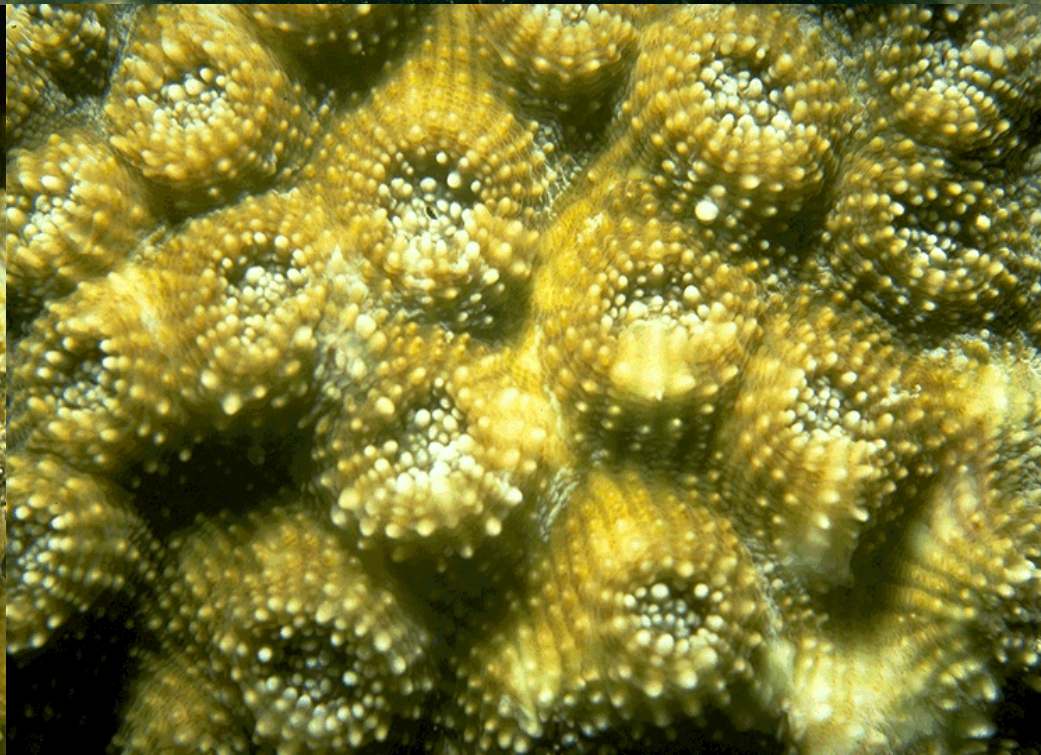

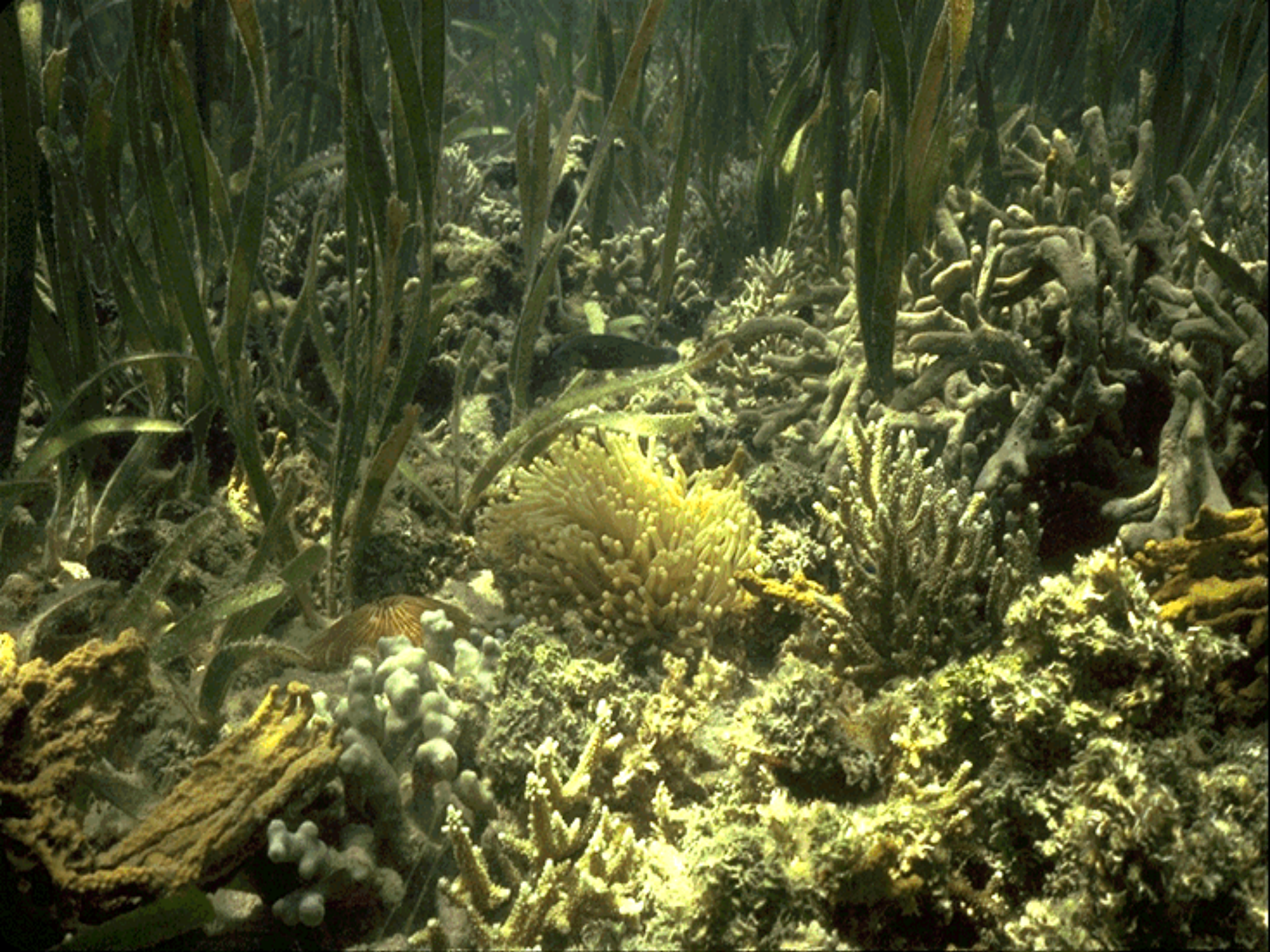


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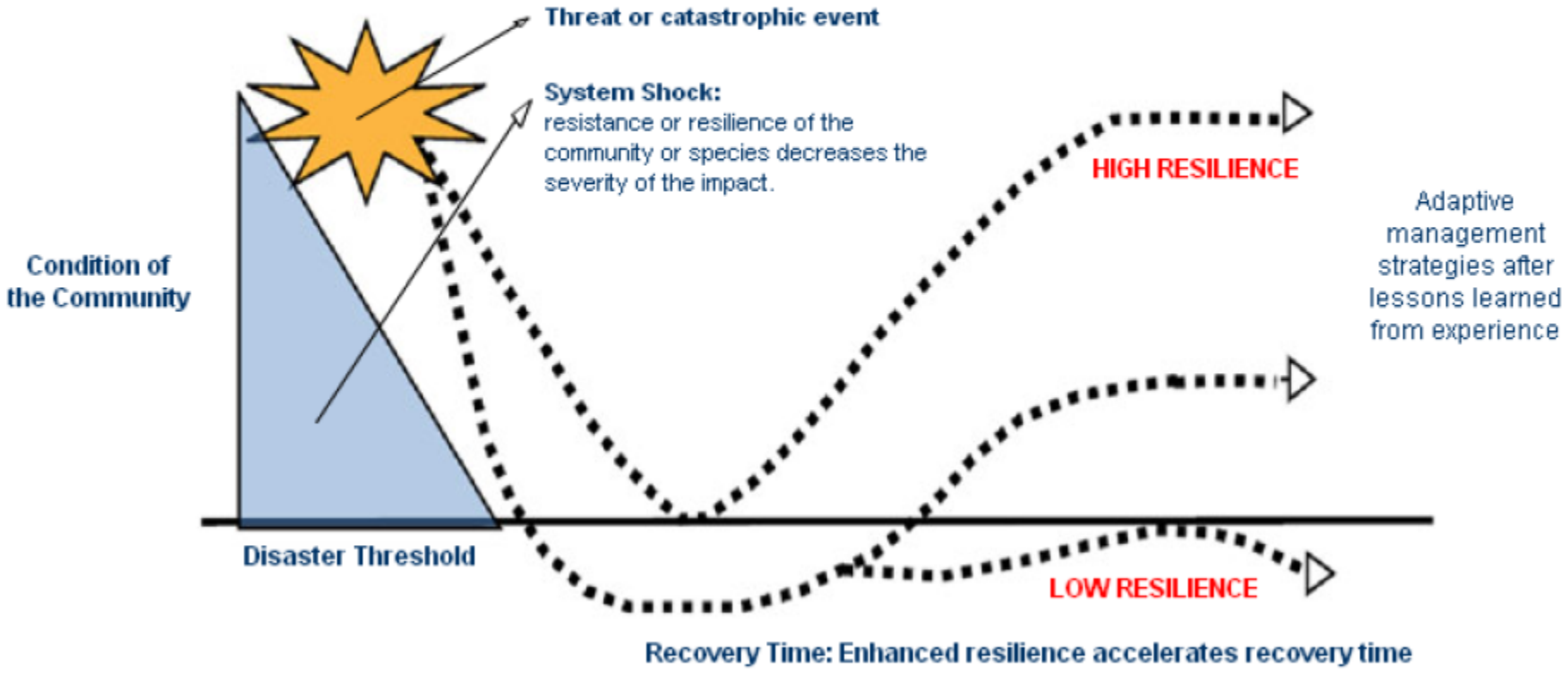
Benefits of a well-designed MPA network

- **Spatial links:** MPAs provide important spatial links needed to maintain ecosystem processes and connectivity.
- **Resilience :** MPAs foster ecosystem resilience to climate change by allowing for areas of refugia to be protected.

A highly resilient MPA network can rebound from environmental fluctuations or unexpected catastrophes and support populations which can potentially replenish other damaged populations.



Benefits of a well-designed MPA network

- **Risk mitigation:** MPAs spread risk from impacts of localized natural disasters, climate change and other pressures.
- **Management diversity:** MPAs allow for a variety of management approaches and categories, thus increasing the range and types of benefits.

Transboundary Protected Areas

The IUCN defines a transboundary protected area as “an area of land and/or sea that straddles one or more borders between states, sub-national units such as provinces and regions, autonomous areas and/or areas beyond the limit of national sovereignty or jurisdiction, whose constituent parts are especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed cooperatively through legal or other effective means”.

مساحة من الأرض و / أو البحر المتاخمة لواحد أو أكثر من الحدود بين الولايات، والوحدات تحت الوطنية مثل المقاطعات والمناطق، مناطق الحكم الذاتي و / أو المناطق الواقعة خارج حدود السيادة الوطنية أو الولاية القانونية، والتي تتكون من أجزاء مخصصة لحماية وصيانة التنوع البيولوجي والموارد الطبيعية والثقافية المرتبطة بها، وتدار بشكل تعاوني من خلال القوانين أو وسائل فعالة غيرها

Benefits of marine transboundary protected areas.

- The enhancement of conservation and management of shared natural resources, ecosystems, habitats and species across boundaries
- The increased likelihood of an ecosystem-based approach to coastal and marine areas
- The promotion of international cooperation and shared responsibilities (including education and outreach, enforcement, monitoring and capacity-building)
- Improved engagement of stakeholders at multiple levels through increasing commitments
- The harmonization of legislation and management
- Increased financing mechanisms

Group exercise

Objective: exchange ideas and prepare country-specific future work plans regarding marine protected areas

Questions:

- What are the **specific Action in your country for achieving the Aichi target** 11 for coastal and marine areas?

Group exercise

1. ***Increased coverage: identification of new MPA*** (e.g. number, location, specific objectives)
2. *Improving the* ***representativeness of ecosystems: (e.g. identify critical*** *coastal and marine ecosystems not yet or not sufficiently protected e.g. mangroves, seagrass beds)*
3. Improving the ***effective and equitable management (***e.g. improved management of specific MPAs, management planning and training, ME, creating policy frameworks for community management etc..)
4. ***Integration into broader seascapes / links with other sectors*** (fisheries, tourism, land use planning) e.g. ICM, networks or transboundary


Thank You