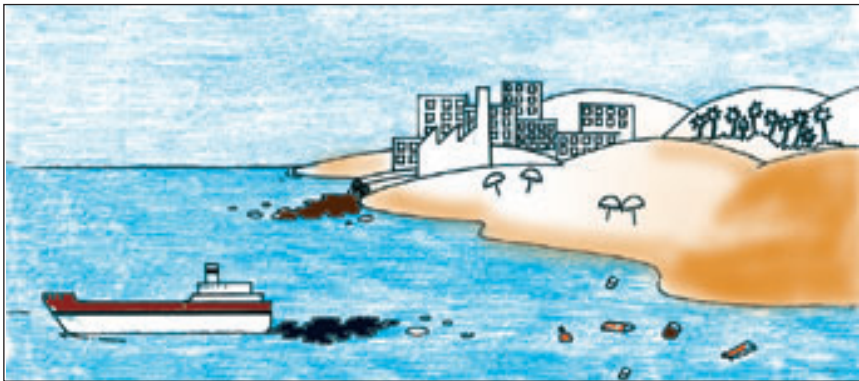




PROTECTING THE COASTLINE



Importance of protecting the Arab world's coasts

From the Ocean to the Gulf, the Arab world is circled with beautiful beaches. Touching the Pacific, Indian and Atlantic Oceans, the Dead Sea, the Red Sea and the Mediterranean Sea, and the Arabian Gulf, every Arab country has its own coastline. Also, what is unusual about the Arab seas is that they are closed or semi-closed, thus much more sensitive, and exposed, to pollution, whether this comes from the land or the open oceans or the river estuaries.

The importance of this coast, with its manifold environmental characteristics and special features, is that this is the centre of most of the urban, industrial and commercial activities. Moreover, the

main commercial, oil and fishing ports are found there; and finally, it contributes in no small measure to moderating the excessive heat of the summer, and the severe cold of the winter.

In the vicinity of this coastline are many varieties of animal, plant and aquatic birds and shells of varying sizes.

And the Arab coastline is considered as being rich in beaches and seaside resorts; the purity of its waters make tourists seek it out, and this has encouraged many Arab countries, such as Morocco, Tunisia and Egypt to promote the coast as one of their main resources.

What are the main dangers facing the coasts of the Arab world?

The Arab coastline is affected by pollution from various land sources and the draining of its halieutic wealth due to overfishing and to the deterioration of its coral reefs, for the following reasons:

1. Demographic pressure and urban development, with all that these bring about in the way of urbanization and industrial, commercial and tourist activity, which usually harm coastal species.

2. Pollution from urban waste water containing organic matter which absorbs dissolved oxygen when it decomposes, thus causing marine creatures, to suffocate. The matter also contains microbes which are harmful to marine creatures and to the people who eat them.

3. Pollution from industrial waste water which contains toxic industrial matter, such as heavy minerals, which are assimilated by marine creatures, causing their deaths and giving food poisoning to people who eat them.

4. Pollution from agricultural waste water and rainwater run-off; in many cases this water contains the residue from toxic insecticides and fertilizers which help cause eutrophy, that is, the development of undesirable species of marine plant which cause the ecosystem to deteriorate as biocenosis declines. Similarly, material that has been displaced by the process of erosion is deposited on the seabed, causing certain marine beings to die or migrate or their food sources to disappear when this sediment accumulates.

5. Oil pollution, caused by the infiltration of oil into oil ports or tankers if an accident happens. The oil spreads in the form of a

slick and this eliminates the oxygen that is necessary for marine beings to live, and often blocks out the light that is necessary for photosynthesis, or prevents light reaching the deepest waters, where numerous varieties of plants live.

6. Heat pollution from the energy-producing stations, which leads to a rise in temperature and thus a lower concentration of dissolved oxygen; both these factors have a negative effect on marine beings.

7. Dumping of solid waste at sea with the accompanying health and environmental dangers this causes to both people and marine species.

8. Leisure activities, such as the use of pleasure boats and craft on the coasts, which cause the soil to deteriorate, the dunes to disappear and the areas where plants and animals live to suffer.

9. Commercial activities, such as fishing for fish, shells and sea plants, and authorized fishing using commercial fishing fleets outside their prescribed area, generally close to Arab beach. This fishing affects the delicate balance of the sea environment.

10. Mining prospecting for minerals, or use of beach sand for building purposes.

What are marine reserves?

Frequently, marine species - especially the sensitive ones - are exposed to dangers which present a direct threat to their existence (as has happened to a number of species), which means that they have to be protected. This is generally done by creating marine reserves, that is, precisely defined sea or sea-and-land areas within which it is forbidden to do anything which may negatively affect the beings which need protection; this is done by only authorizing activity which helps promote, develop and protect the endangered species. Appropriate laws and legal devices are also instituted to guarantee that the reserve is protected and not in any way whatsoever violated. Generally speaking, places where the threatened species naturally live are chosen for the reserves; otherwise, artificial areas are created, endowed with every specific feature that the natural environment would have to make sure the protection operation is a success.

Do organizations for protecting the coast exist?

Yes, a number of Arab, regional and world organizations do exist to protect the coast, the seas and the oceans. This happens within the context of implementing the many conventions and agreements that have been signed and ratified to organise various activities so that these activities can in no way prevent the flourishing of the marine environment. Among these world programmes set up by the United Nations is the UNEP (U.N. Environment Programme) which has given rise to several programmes, particularly the Mediterranean Action Plan (MAP). Similar world programmes exist for the Red Sea, the Indian Ocean, the Arabian Gulf and the Pacific and Atlantic Oceans.

What about climatic change?

It is expected that the change in the climate will cause the temperature of the coastal and ocean waters to rise, and that their water levels will rise too. A rise in temperature will have obvious effects on the balance of the living space, due to the higher rate of vital chemical reactions, the smaller amounts of oxygen that can be dissolved, etc. As for the rise in the water level, this will cause the coastline to recede back into the land, sometimes a very long way, and this in its turn will lead to the disappearance of coastal villages and towns and forests and to the movement into the interior of a vast number of people and factories.

Furthermore, a lot of people think that hurricanes are behind climatic change, particularly in oceans, as is the case for the Indian Ocean. This danger also threatens the oceans that surround certain Arab countries.

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