Marine and Coastal Biodiversity

The World Oceans: Wealth of Biodiversity

Oceans cover 70% of the planet's surface area, and marine and coastal environments contain diverse habitats that support an abundance of marine life. Life in our seas produces a third of the oxygen that we breathe, offers a valuable source of protein, and moderates global climatic change.

Marine and coastal habitats range from coral reefs, mangrove forests, sea grass beds, estuaries in coastal areas, to hydrothermal vents, seamounts and soft sediments on the ocean floor a few kilometres below the surface.

Marine fish and invertebrates are among the last sources of wild food on the planet, providing over 2.6 billion people with at least 20% of their average per capita protein intake. Moreover, the world oceans host 32 of the 34 known phyla on Earth, and contain somewhere between 500,000 and 10 million marine species. Species diversity is known to be as high as 1,000 per square meter in the Indo-Pacific Ocean, and new oceanic species are continuously being discovered, particularly in the deep sea. It is therefore not surprising that the genetic resources in the oceans and coasts are of actual and potential interest for commercial uses.

Threats to the wealth of biodiversity:

- According to the Millennium Ecosystem Assessment, the world's oceans and coasts are highly threatened and subject to rapid environmental change
- Major threats on marine and coastal ecosystems include: land-based pollution and eutrophication; overfishing, destructive fishing, and illegal, unreported and unregulated (IUU) fishing; alterations of physical habitats; invasions of exotic species; and global climate change
- Overfishing is widely acknowledged as the greatest single threat to marine wildlife and habitats. The Food and Agriculture Organization of the United Nations reports that nearly 70% of the world's fish stocks are now fully fished, over-fished, or depleted
- About 20% of the world's reefs have been effectively destroyed and show no immediate prospects for recovery; about 16% of the world's reefs were seriously damaged by coral bleaching in 1998, but of these about 40% have either recovered or are recovering well; about 24% of the remaining reefs are under imminent risk of collapse through human pressures; and a further 26% are under a longer-term threat of collapse.

What the CBD is doing:

Adopted in 1998, and reviewed and updated in 2004, the programme of work on marine and coastal biodiversity focuses on integrated marine and coastal area management, marine and coastal living resources, marine and coastal protected areas, mariculture, and invasive alien species.

The road ahead for coastal areas lies in a more effective implementation of integrated marine and coastal

area management in the context of the Convention's ecosystem approach. This includes putting in place marine and coastal protected areas to promote the recovery of biodiversity and fisheries resources, and controlling land-based sources of pollution. For open-ocean and deep-sea areas, sustainability can only be achieved through increased international cooperation to protect vulnerable marine ecosystems, habitats and species.

The Conference of the Parties to the CBD has a key role in supporting the work of the United Nations General Assembly, with regard to marine protected areas beyond national jurisdiction, by focusing on provision of scientific and, as appropriate, technical information and advice relating to marine biological diversity, the application of the ecosystem approach and the precautionary approach, and in delivering the 2010 Biodiversity Target.

At COP 9, the Parties will consider options for preventing and mitigating the impacts of some activities on selected seabed habitats, and ecological criteria and biogeographic classification systems for marine areas in need of protection.

To find out more:

Marine and coastal biodiversity: www.cbd.int/marine

CBD COP decisions: www.cbd.int/marine/decisions.shtml

Guidelines and tools: www.cbd.int/marine/tools.shtml

Documents: www.cbd.int/marine/documents.shtml