

Aquatic ecosystems

Aquatic ecosystems are ecosystems present in a body of water. These can be further divided into two types, namely:

1. Freshwater Ecosystem

2. Marine Ecosystem

Freshwater Ecosystem

The freshwater ecosystem is an aquatic ecosystem that includes lakes, ponds, rivers, streams and wetlands. These have no salt content in contrast with the marine ecosystem.

Wetlands are special ecosystems in which the water level fluctuates dramatically in different seasons. They have expanses of shallow water with aquatic vegetation, which forms an ideal habitat for fish, crustacea and water birds.

Marine Ecosystem

The marine ecosystem includes seas and oceans. These have a more substantial salt content and greater biodiversity in comparison to the freshwater ecosystem.

Marine ecosystems are highly saline, while brackish areas have less saline water such as in river deltas. Coral reefs are very rich in species and are found in only a few shallow tropical

seas. The richest coral reefs in India are around the Andaman and Nicobar islands and in the gulf of Kutch. Brackish water ecosystems in river deltas are covered by mangrove forests and are among the world's most productive ecosystems in terms of biomass production. The largest mangrove swamps are in the Sunderbans in the delta of the Ganges.

What are the threats to aquatic ecosystems?

Water pollution occurs from sewage and poorly managed solid waste in urban areas when it enters the aquatic ecosystem of lakes and rivers. Sewage leads to a process called eutrophication, which destroys life in the water as the oxygen content is severely reduced. Fish and crustacea cannot breathe and are killed. A foul odour is produced. Gradually the natural flora and fauna of the aquatic ecosystem is destroyed. In rural areas the excessive use of fertilisers causes an increase in nutrients, which leads to eutrophication. Pesticides used in adjacent fields pollute water and kills off its aquatic animals. Chemical pollution from industry kills a large number of life forms in adjacent aquatic ecosystems. Contamination by heavy metals and other toxic chemicals affects the health of people who live near these areas as they depend on this water.