Inland Waters Biodiversity

Water supports all life on Earth. Freshwater is the most important natural resource on the planet. Inland waters include all kinds of inland water bodies, fresh or saline, as well as groundwater. They are also closely interconnected with terrestrial ecosystems.

The biodiversity of freshwater ecosystems is declining faster than that of any other biome. Unsustainable practices lead to loss of habitat through construction, land conversion (mainly for agriculture) and pollution. Unsustainable use of water and invasive alien species also negatively impact biodiversity.

Inland water ecosystems provide services vital to human development and for reducing poverty. These services include food, fibre, medicine, climate regulation, flood and natural disaster mitigation, nutrient recycling, purifying our drinking water. These ecosystems are also essential for production of energy, transport, recreation, tourism, and as habitat for animals and plants.

These services are taken for granted, yet they can be expensive to replace. For example, building and maintaining water treatment plants is often more costly than maintaining ecosystem infrastructure to provide clean water.

Inland water ecosystems are particularly important regarding climate change as its main impact is felt through water. For example, wiser use of freshwater ecosystem infrastructure can help us cope with the increasing frequency and severity of both droughts and floods.

In order to stop or reverse the decline in inland water biodiversity, we need to raise awareness of the importance of these systems. It’s urgent to act now, by applying the ecosystem approach when managing both land and water.
Fast Facts

- Aquatic and terrestrial systems are tightly linked and interrelated
- Less than 3% of the world’s water is freshwater
- Of the 29,000 known fish, about 30% are freshwater species
- Peatlands cover about 3-4% of the world’s land area, yet they hold about 25-30% of the carbon contained in terrestrial ecosystems. They store twice the amount of carbon as the world’s forests.
- Wetlands, such as mangroves and river floodplains, protect human communities from natural catastrophes such as Tsunamis and floods
- Aquaculture development and the introduction of invasive alien species are major causes of mangrove loss
- Clearing, transformation, drainage and water use for agricultural development is the main cause of wetland loss worldwide. Agriculture accounts for about 70% of all water taken from rivers
- An estimated 1.8 billion people will be lacking water by 2025, and two-thirds of the world population could be under water-stress conditions
- Nearly half of the world’s large cities obtain some if not most of their drinking water supplies from protected or managed forested areas
- Two million tons of human waste (untreated sewage) are dumped into water courses each day, and 70% of industrial wastes in developing countries are dumped untreated into waters
- Habitat loss and degradation is the primary cause of extinction of freshwater species.

Learn More

Ramsar Convention on Wetlands ➤ www.ramsar.org
COP decisions related to inland waters ➤ www.cbd.int/waters/decisions.shtml
Related websites ➤ www.cbd.int/waters/websites