Wetlands Meeting the Challenges of the Future

The future of humanity depends on wetlands. Wetlands are some of the most important biodiverse areas in the world. Many of the challenges of the future can be met through conserving and sustainably using wetlands, such as food and water security, human health, disaster risk reduction and climate change resilience. However, wetlands are experiencing rapid decline. Newly-published estimates show that 64% of the world’s wetlands have disappeared since 1900. In Asia, the loss is even higher. This means that access to fresh water is eroding for 1-2 billion people worldwide, while flood control, carbon storage and traditional wetland livelihoods all suffer. Biodiversity has also been affected, as populations of freshwater species have declined by 76% between 1970 and 2010 according to WWF’s Living Planet Index.

**Drivers of wetland loss.** Often viewed as wastelands to be drained, filled and converted to other purposes, the main causes of wetlands loss and degradation include major changes in land use, especially an increase in agriculture and grazing and urban infrastructure development, air and water pollution and excess nutrients, and water diversion (dams, dikes and canalization).

**Wetlands ensure fresh water for us all.** Only some 3% of the world’s water is fresh, with most of that frozen. Only 1% of that, or 0.03% of total water, is available for direct use by people. Yet every human needs 20-50 litres of water a day for basic drinking, cooking and cleaning with astronomically higher requirements to grow the food eaten. Wetlands provide that water, and help replenish groundwater aquifers.

**Wetlands purify and filter harmful waste from water.** Plants from wetlands help absorb harmful fertilizers and pesticides, as well as heavy metals and toxins from industry. The Nakivubo Swamp in Kampala, Uganda, for example, filters sewage and industrial effluents for free; a treatment plant would cost $2 million per year.

**Wetlands feed humanity.** Rice, grown in wetland paddies, is the staple diet of nearly three billion people. The average human consumes 19 kg of fish each year. Most commercial fish breed and raise their young in coastal marshes and estuaries. 70% of all fresh water extracted globally is for crop irrigation.
Wetlands burst with biodiversity. Wetlands are home to over 100,000 known freshwater species. That number is growing. In just 10 years, 272 new species of freshwater fish were discovered in the Amazon alone. Wetlands are essential to bird life, breeding and migration.

Wetlands act as nature’s sponges. Peatlands, wet grasslands and floodplains in river basins act as natural sponges by absorbing rainfall and creating wide surface pools that ease flooding in rivers. The same storage capacity can also safeguard against drought.

Wetlands help fight climate change. Peatlands alone store more than twice as much carbon as all the world’s forests. Faced with rising sea levels, coastal wetlands reduce the impact of typhoons and tsunamis. They also bind the shoreline and resist erosion.

Wetlands provide sustainable livelihoods and products. Some 62 million people depend directly on fishing and fisheries for a living. Timber for building, vegetable oil, medicinal plants, animal fodder, and stems and leaves for weaving can all originate from sustainably managed wetlands.

Information sourced from the Ramsar Convention on Wetlands and the Secretariat of the Convention on Biological Diversity

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Important links

- Convention on Biological Diversity: www.cbd.int
- Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets: www.cbd.int/sp
- CBD Programme of Work on Inland Waters Biodiversity: www.cbd.int/waters
- Global Biodiversity Outlook 4: www.cbd.int/gbo4
- Convention on Wetlands of International Importance (Ramsar Convention): www.ramsar.org
- World Wetlands Day 2015: www.worldwetlandsday.org