



# Wetlands: why should I care?

Humans often equate wetlands with wasteland; a place to be drained, filled in, burnt off and re-purposed. In fact, scientific studies show that 64% of the world's wetlands have disappeared since 1900. Measured against 1700, an estimated 87% have been lost.

Why is this such an alarming trend? And why are wetlands actually essential to sustainable development for the human race?

## Wetlands are everywhere

- Wetlands are land areas that are saturated or flooded with water either permanently or seasonally.
- Inland wetlands include marshes, ponds, lakes, fens, rivers, floodplains, and swamps.
- Coastal wetlands include saltwater marshes, estuaries, mangroves, lagoons and even coral reefs.
- Fish ponds, rice paddies, and salt pans are human-made wetlands.
- Wetlands range in size from less than a single hectare to the Pantanal in Brazil, Bolivia and Paraguay, which covers an area three times the size of Ireland.

## Wetlands ensure fresh water for all of us

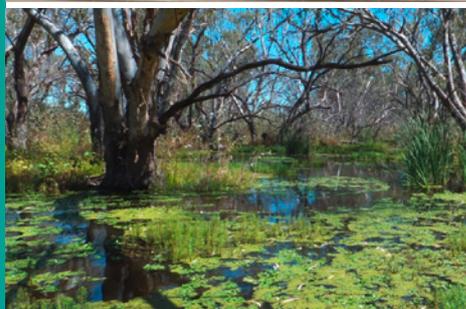
- Less than 3% of the world's water is fresh, and most of that is frozen. Yet every human requires 20-50 litres of water a day for basic drinking, cooking and cleaning. Wetlands provide our water needs and help replenish the groundwater aquifers that are an important source of fresh water for humanity.

## Wetlands guarantee our food supply

- Humans consume 19kg of fish each year on average. Most commercial fish depend on coastal wetlands for part of their life cycle.
- Rice, grown in wetland paddies, is the staple diet of nearly three billion people, and accounts for 20% of the world's nutritional intake.

## Wetlands purify and filter harmful waste from water

- Some of the pollutants from pesticides, industry and mining, including heavy metals and toxins are absorbed by wetland sediments, plants and marine life.
- Almost two billion people in Asia and 380 million Europeans depend on groundwater aquifers for their water supply.





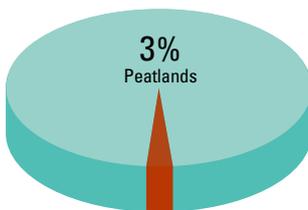
## Wetlands are nature's shock absorbers

- Peatlands and wet grasslands in river basins act as natural sponges, absorbing rainfall, creating wide surface pools and reducing floods in streams and rivers. This storage capacity also helps safeguard against drought.
- Mangroves, saltmarshes and coral reefs all reduce the speed and height of storm surges. Their roots bind the shoreline, resist erosion by wind and waves, and increase resilience against climate change.

## Wetlands are critical for biodiversity

- Wetlands are home to more than 100,000 known freshwater species alone, and this number is growing all the time. From 1999 to 2009, some 257 new species of freshwater fish were discovered in the Amazon.
- Wetlands are essential for many amphibians and reptiles, as well as for bird breeding and migration.
- Individual wetlands often hold endemic species; forms of life that are unique to one particular site such as Lake Baikal in Russia or the Rift Valley lakes of East Africa.

Total world land area



Carbon stored worldwide



Source: TEEB: *The Economics of Ecosystems and Biodiversity for Water and Wetlands*

## Wetlands store carbon

- Peatlands alone cover an estimated 3% of the world's land area, but they hold 30% of all carbon stored on land. This is twice the amount stored in all the world's forests. But when they are burned or drained for agriculture, they go from being a carbon sink to a carbon source. CO<sub>2</sub> emissions from peatland fires, drainage and extraction equate to 10% of all annual fossil fuel emissions.

## Wetlands create sustainable products and livelihoods

- 61.8 million people earn their living directly from fishing and aquaculture. Including their families, more than 660 million people depend on these sectors.
- Sustainably managed wetlands provide timber for building, vegetable oil, medicinal plants, stems and leaves for weaving and fodder for animals.

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## The Ramsar Convention



The Convention on Wetlands of International Importance, commonly known as the Ramsar Convention, is a global intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. It is the only global treaty to focus on one single ecosystem.