Wetlands: A natural solution to climate change

Ramsar Convention on Wetlands

World Wetlands Day
2 February 2019
Wetlands and climate change
World Wetlands Day
Get involved:

Celebrated every 2 February to mark the adoption of the Ramsar Convention in 1971

**Wetlands and climate change**, the theme for 2019 highlights the important role of wetlands as a solution to climate change

**Ways you can participate:**

- Organize an event to educate others about wetlands
- Register and upload your event to [www.worldwetlandsday.org](http://www.worldwetlandsday.org)
- Share the information materials on social media to raise public awareness
Climate change is occurring

The science is clear:

- Global greenhouse gas (GHG) emissions due to human activities have grown since pre-industrial times
  - Annual emissions of carbon dioxide, the most significant GHG, grew by about 80% between 1970 and 2004
  - The level of GHGs in the atmosphere has increased 40% since pre-industrial times
  - The principal reasons: fossil fuel use and changes in land use, including an increase in agriculture and ranch lands, water diversion from dams and infrastructure development
- 35% of the world’s wetlands have been lost since the 1970s
Climate change is occurring

Human wellbeing is at risk:

Temperatures are rising—from 1880 to 2012 average global temperatures increased by 0.85°C

- Oceans are warming, snow and ice are melting, and sea levels are rising
- From 1901 to 2010, the global average sea level rose by 19 centimeters as oceans expanded due to warming

Extreme weather is intensifying

- Rain/drought patterns are shifting

The frequency of disasters worldwide has more than doubled in just 35 years

- 90% of these disasters are water-related—mainly flooding, and water shortage and scarcity

Floating house, Mamiraua Sustainable Development Reserve, Amazon
Photo credit: Aline Fidelix
Climate change is occurring

The world is acting:

Stabilize and reduce GHG emissions

- The Paris Agreement seeks to limit the increase in global average temperature this century to below 2°C
- Sustainable Development Goal 13 on Climate Action encourages all to take action to reduce the impacts of climate change

Limit the impacts of climate change

- Countries are called to integrate climate change measures into national policies, improve education and awareness, and promote mechanisms for raising capacity
Coastal wetlands, such as salt marshes, mangroves, seagrass beds, and coral reefs:

- Act like shock absorbers
- Reduce the intensity of waves, storm surges and tsunamis
- Shield the 60% of humanity living and working along coastlines from flooding, property damage and loss of life
Wetlands reduce floods and relieve droughts

*Inland wetlands such as flood plains, rivers, lakes and swamps:*

- Function like sponges
- Absorb and store excess rainfall, reducing floods
- Store and release water, delaying the onset of droughts

Gabaldon floodplain of Neuva Ecija, Philippines
Photo credit: Gabriel B. Mejia
Wetlands naturally absorb and store carbon

*Peatlands, mangroves, and seagrasses:*

- Are the most effective carbon sinks on Earth
- Absorb and store vast amounts of carbon (when drained, they emit vast amounts of carbon)
- Peatlands cover 3% of our planet’s land yet store approximately 30% of all land-based carbon—twice the amount of all the world’s forests combined
Stop the loss of wetlands

- Restore
- Conserve
- Use wisely
- Don’t drain
- Don’t build over
- Don’t degrade
Help protect our wetlands

Here’s how:

• Include wetlands in policies that address climate change
• Develop financing sources for wetlands conservation
• Restore wetlands that have been degraded or destroyed
• Educate others about how wetlands help mitigate climate change
• Ensure that all our remaining wetlands are used wisely

Visit Ramsar’s online library of free, downloadable handbooks at:
ramsar.org/resources/ramsar-handbooks
The Ramsar Convention on Wetlands: Working to reverse wetland loss and degradation:

- Only global treaty to focus on a single ecosystem
  - Adopted in Ramsar, Iran in 1971

- Contracting Parties: 170

- Contracting Parties commit to:
  - Designating wetlands of high value onto list of Wetlands of International Importance (Ramsar sites)
  - Wise use of wetlands and cooperation on transboundary issues

- Ramsar Sites: 2,326
  - Total surface of designated sites: 249,579,562 ha (slightly larger than Mexico) www.ramsar.org/sites-countries/the-ramsar-sites
Wetlands
Diverse, productive ecosystems:

The Ramsar Convention defines wetlands as land areas flooded or saturated with water, either seasonally or permanently.

**Inland wetlands**: aquifers, lakes, rivers, streams, marshes, peatlands, ponds, flood plains, and swamps.

**Coastal wetlands**: coastlines, mangroves, saltmarshes, estuaries, lagoons, seagrass meadows, and coral reefs.

Coral reefs, Tonga
Photo credit: Glenn Edney
Wetlands
Provide multiple benefits:

• Source of the water we drink
• Enable the agriculture and aquaculture that produce the food we eat
• Support a tapestry of biodiversity upon which we all depend
• Provide us with a multitude of recreation, tourism and cultural opportunities
• Help us mitigate the impacts of climate change, whose intensity and frequency are increasing
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