

Inseparable

Water, Wetlands and Life

World 
Wetlands Day

2 February 2021
Wetlands and water



Wetlands - What are they?

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Wetlands can be saltwater or freshwater, inland or coastal, natural or human made

- **Freshwater wetlands:** rivers, lakes, pools, floodplains, peatlands, marshes, swamps
- **Saltwater wetlands:** estuaries, mudflats, saltwater marshes, mangroves, lagoons, coral reefs, shellfish reefs
- **Human made wetlands:** fishponds, rice paddies, reservoirs, salt pans



Wetlands and fresh water

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Water, water everywhere... Our 'blue' planet seems awash with water

- But **only 2.5%** of water is **fresh water**, mostly stored in glaciers, snow caps or underground aquifers
- **Less than 1%** of fresh water is usable, 0.3% is in rivers and lakes

This is all the fresh water we have and wetlands provide most of it.



Inseparable: Water and wetlands

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Wetlands are vital for water

- **Capture and store** rainwater and **replenish** groundwater aquifers
- **Regulate water quantity** and **supply** by releasing water at the right time to the right place in the right amounts
- **Improve water quality** by removing and absorbing pollutants



Wetlands sustain life

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Keep us healthy

- Healthy watersheds provide safe drinking water naturally

Supply food, support food production

- Wetlands give us much of the fish we eat, rice for 3.5 billion people and water for agriculture

Important for biodiversity

- 40% of world's species live in wetlands, with 200 new fish species discovered in freshwater wetlands annually



Wetlands sustain development

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Underpin economy

- Wetlands provide more than a billion jobs and services valued at \$47 trillion a year

Protect from natural disasters

- Coastal wetlands buffer coastal communities against storms
- Each acre of inland wetlands absorbs up to 1.5 million gallons of floodwater

Solutions for climate change

- Peatlands, mangroves, saltmarshes, seagrass beds are among the most effective ecosystems for capturing and storing carbon



Water's supply and demand

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Unsustainable development, population growth, urbanization and consumption have devastated wetlands, putting unbearable pressure on freshwater supplies:

- Water use has increased sixfold in the past 100 years, and is growing by 1% each year
- **We use more water than the earth can replenish**
- 70% more food and 14% more water for agriculture needed for estimated 10 billion global population by 2050
- Industry and energy water use expected to increase to 24% by 2050



Wetland loss and water scarcity

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Loss and degradation of wetlands from changes to land and water use and climate change is **intensifying a water crisis:**

- Nearly **90%** of the world's wetlands **lost** since 1700's
- Nearly all freshwater sources compromised by **pollution and pathogens**
- **River fragmentation** and **water flow interruptions** by dams, diversions and wetland loss threaten freshwater supply
- **Nearly 75%** of natural disasters water-related



Impact on people and economies

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- **2.2 billion people** without safe drinking water, **485,000** die each year
- **Freshwater wetland loss** cost **\$2.7 trillion** a year in lost services (1997-2011)
- **166,000 people killed** and **3 billion** affected by floods and droughts in past 20 years, causing nearly **\$700 billion** of economic damage
- **Water insecurity** a major role in **conflict** in at least 45 countries in 2017
- **Hundreds of millions of people** in coastal areas face more threats from storms and floods due to mangrove, saltmarsh and seagrass loss



Wetland loss and our planet

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- **One in three** freshwater species and a **quarter** of all wetland species face **extinction** from wetland decline
 - Intensive water infrastructure development key to 35% drop in freshwater biodiversity between 1970-2005
- **Climate change** exacerbates wetland and water crisis
 - Significantly less renewable surface and groundwater forecast in already dry regions by 2050
 - New regions will be water stressed, increasing water competition between people and ecosystems



Wetlands for water sustainability

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We could have **enough water**, if we better **value** and **manage** wetlands and water – and treat both as a **collective responsibility**.

- **Stop destroying, start restoring**
 - Protection, restoration and wise use of wetlands would sustainably **support increased demands** for water
- **Integrated Water Resources Management**
 - Coordinate water, land and resources to deliver maximum social and economic welfare fairly **without compromising sustainability of ecosystems**



Wetlands: Conserve and use wisely

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What can you do ?

- **Don't dam, divert or drain**
- **Industry** has opportunities to **reduce** water use by up to **50%**
- **Agriculture** can produce food and be **wetland/water stewards**
- **Don't waste food.** Water to fill Lake Geneva **3 times each year** would be saved by cutting **1.3 billion tons of food waste** from farm to fork
- **Increase investment** in wetlands as **nature based solutions** for water resource management, currently less than 1%
- **Integrate water resource management** across all sectoral policy and planning locally, national, internationally



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2021 Theme: Wetlands and Water

- Annual opportunity to raise global awareness on the **value of wetlands**
- Celebrate wetlands' **diverse services to humanity and nature**
- **Trigger action** locally, nationally, internationally to **save the world's wetlands**

Get involved:

- Download and **share information materials** from worldwetlandsday.org
- **#RestoreWetlands**
- **Where are your wetlands? How can you help protect them?**



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