

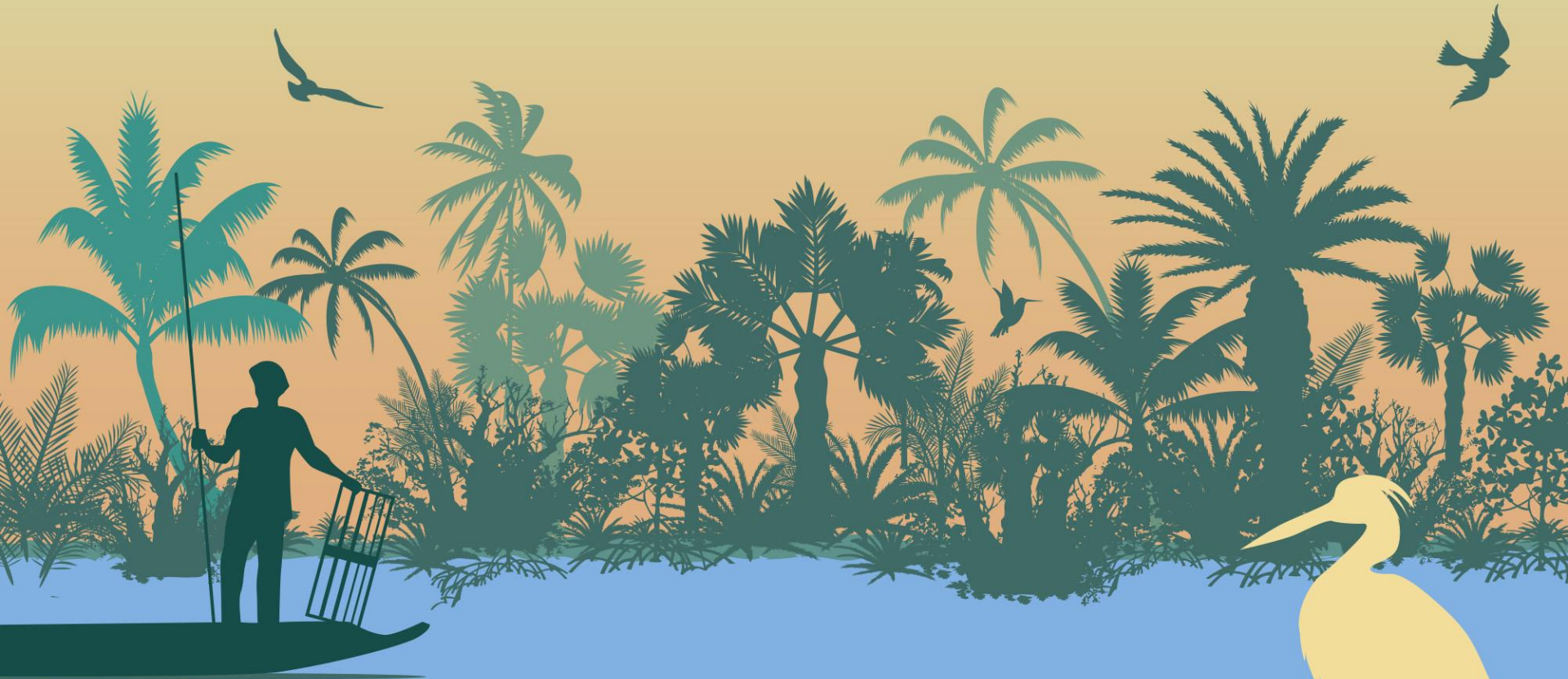
# Wetlands: A natural solution to climate change



World  
Wetlands Day

2 February 2019

Wetlands and climate change



Ramsar Convention on Wetlands



DANONE  
ONE PLANET. ONE HEALTH.



World Wetlands Day  
is made possible by the  
Danone Fund for Water.



Convention  
on Wetlands





## 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



Cottam coal-fired power station in Nottinghamshire  
Photo credit: AFP/Getty





## 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



United Nations Climate Change Conference, COP21  
Photo credit: UNFCCC



## Wetlands buffer coastlines from extreme weather

***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



Mangroves along the coastal town of Watamu, Kenya  
Photo credit: Paloma de Andrés Ródenas





## 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



Great Kemerī peatland bog, Latvia  
Photo credit: Runa S. Lindebjerg





## 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](https://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](http://www.ramsar.org/sites-countries/the-ramsar-sites)



Standing Committee 53, Gland  
Switzerland  
Photo credit: Ramsar Secretariat





## 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



Rice paddy, Myanmar  
Photo credit: Atsushi Tanabe



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