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# Training webinar

## Wetlands as Nature-based Solutions (NbS) for Nationally Determined Contributions (NDCs)

10 December 2020





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# Presenters

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- Dr. Jamison Ervin, Manager for Global Programme on Nature for Development, UNDP
- Ms. Nicole DeSantis, Policy Specialist, UNDP
- Ms. Reiko Iitsuka, Senior Advisor, Secretariat of the Convention on Wetlands





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- Wetlands as NbS for climate change adaptation/mitigation (presented by the Secretariat)
- Strengthening NbS within NDCs (presented by UNDP)
- Overview of the NbS policy briefs (developed by UNDP)
- Opportunities and benefits of NbS within NDCs (presented by UNDP)
- Case studies (presented by UNDP)



# Wetlands as Nature-based Solutions for Climate Change Adaptation and Mitigation

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# Nature-based Solutions (NbS) (1)

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## Nature-based solutions are:

- Actions to protect, sustainably manage and restore natural and modified ecosystems in ways that address societal challenges effectively and adaptively, to provide both human well-being and biodiversity benefits.
- Underpinned by benefits that flow from healthy ecosystems and target major challenges like climate change, disaster risk reduction, food and water security, health and are critical to economic development.

(<https://www.iucn.org/theme/nature-based-solutions/about>)

# Nature-based Solutions (NbS) (2)

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## NbS contribution to livelihood

### ❖ Climate change

NbS provide around one-third of the cost-effective climate mitigation needed between now and 2030 to stabilise warming to below 2°C (Griscom et al. 2017).

### ❖ Infrastructure

NbS contributes to averting flood damages.

### ❖ Smart investment

Global benefits, estimated as US \$170 billion, in ecosystem services from NbS focused on climate.

(<https://www.iucn.org/theme/nature-based-solutions>)

# Roles of wetlands as NbS for climate change



- ❖ Wetlands naturally absorb and store carbon
  - Peatlands, mangroves, and seagrass store vast amounts of carbon.
  - Peatlands store approximately 30% of all land-based carbon.
  
- ❖ Wetlands reduce floods and relieve droughts.
  - Inland wetlands function like sponges, absorbing and storing excess rainfall and reducing flood surges. During dry seasons, wetlands release stored water.
  
- ❖ Wetlands buffer coastlines from extreme weather.
  - Coastal wetlands such as salt marshes, mangroves, seagrass beds, and coral reefs act like shock absorbers.

# How can wetlands contribute to meet Nationally Determined Contributions (NDCs)? (1)

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- The Paris Agreement (effective from 2016) is seeking to stabilize and reduce GHG emissions, and limit the increase in global average temperature this century to below 2°C.
- A central element for implementing the Paris Agreement are the nationally determined contributions (NDCs) of each Party.
- NDCs are national climate plans highlighting climate actions. This includes climate related targets, policies and measures governments aim to implement in response to climate change and as a contribution to global climate action.



# How can wetlands contribute to meet Nationally Determined Contributions (NDCs)? (2)

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## Examples of measures:

- Avoid draining wetlands  
(example: promotion of sustainable agriculture practices)
- Conserve and restore wetlands  
(example: implementation of wetlands management plans including wetland restoration plans)
- Identify important wetlands  
(example: conducting a wetlands inventory)

## Example (1) - Mangrove restoration

- A mangrove reforestation project in the Casamance and Sine Saloum regions of Senegal.
- To plant 79 million mangrove trees on more than 10,000 hectares, helping to restore a portion of the 45,000 hectares that have been lost since the 1970s.
- With the restoration of these wetlands, coastal areas will be buffered against storms, rice paddies will flourish, up to 18,000 extra tons of fish will be produced annually.
- 500,000 tons of carbon dioxide (CO<sub>2</sub>) over 20 years will be stored.



## Example (2) - Peatland restoration

- Restoration of the Nordic-Baltic region's peatlands has been taking place, with more than 20,000 hectares already restored.
- Initiated by the Nordic Council of Ministers' commitment to "preserving peatlands for climate change regulation."
- The council is working to restore the 45% of peatlands in Nordic and Baltic countries that have been drained responsible for almost 25% of the region's total annual CO<sub>2</sub> emissions.



# For more details...

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❖ Ramsar Briefing Note 10: Wetland Restoration for Climate Change Resilience

[https://www.ramsar.org/sites/default/files/documents/library/bn10\\_restoration\\_climate\\_change\\_e.pdf](https://www.ramsar.org/sites/default/files/documents/library/bn10_restoration_climate_change_e.pdf)

❖ Ramsar Policy Brief 1:

[https://www.ramsar.org/sites/default/files/documents/library/rpb\\_wetlands\\_and\\_drr\\_e.pdf](https://www.ramsar.org/sites/default/files/documents/library/rpb_wetlands_and_drr_e.pdf)



**Thank you very much!**

