

Wetlands and climate change adaptation



Wetlands International has a long standing history in investigating the role of wetlands in relation to, among others, the provision and regulation of water supplies, the prevention floods and increasing coastal resilience. In the light of climate change, we ask for recognition of these values and offer assistance on the incorporation of wetlands values into adaptation policies and plans.

Building on many years of work, we underline the role that wetlands can play to attenuate the impacts of climate change. Marshes and lakes for example store more water than any other fresh-water ecosystem. These areas are increasingly crucial to store excessive water caused by less predictable and more extreme precipitation and by glacial melt. Coastal wetlands such as mangrove forests show a high potential to reduce the impacts of waves and storms and to cope to some extent with sea level rise by accumulating silt and reducing erosion.

At the same time, we highlight the risk of mal-adaptation. For example we notice the ambitions to build dams, reservoirs and levees to respond to changing river discharge patterns. Although being effective coping measures in some cases, in other cases these hard-engineering solutions might destroy wetland areas and their natural values for adaptation.

UNFCCC-Agenda

- We ask Contracting Parties to ensure incorporation of a Strategic Environmental Assessment (SEA) in any plan that is supported by the Adaptation Fund and Least Developed Country Fund.
- We call for increased attention on the role of wetlands in relation to climate change under the SBSTA and Nairobi Work Programme.
- We aim for inclusion of knowledge about the role of ecosystems for adaptation in the technology transfer and in capacity building under UNFCCC.

What we offer individual countries

With a range of research and restoration projects, we develop and use our knowledge to reduce the impacts of climate change. On the back of this paper, we show our work in different countries. In addition we offer:

- A capacity training programme to inform those involved in adaptation in southern country governments and FCCC delegations;
- Assistance to investigate the regional significance of wetlands for adaptation;
- Assistance on the development of wetland related proposals under the various adaptation funds.

More information:

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Or our network of offices around the world
(see links to websites at the back).





Our current research and field projects on wetlands and adaptation

Global

<http://www.wetlands.org/>

Shape the contours and provide figures on the impacts of climate change that affect wetlands and that could be attenuated by climate change.

Asia

China

<http://www.wetwonder.org/>

Investigating the potential of the peat swamps in the Rouargai marshes to regulate downstream flows; ensure incorporation of wetland services into national climate adaptation policies and planning.

India

<http://south-asia.wetlands.org/>

Assessing role of wetlands in Jhelum Basin in accommodating to glacial melt and regulating flow regimes; quantifying the changes induced by wetland degradation; and promoting strategies for wetland conservation and management as part of climate adaptation.

Indonesia

<http://www.wetlands.or.id/>

- Aceh (Sumatra) and Pemalang (Java): Investigating the potential of mangrove coasts for protection against storms, sea level rise and salt water intrusion; restoring mangrove belts in these areas.
- Showing the role of peat swamps for climate mitigation and adaptation (preventing salt water intrusion; impact of sea level rise) in lowland and coastal areas and provide input on Reducing Emissions from Deforestation and forest Degradation - Indonesia (REDD-I) Guideline and the Greenhouse Gas (GHG) Working Group of the Roundtable on Sustainable Palm Oil (RSPO).



Africa

<http://afrique.wetlands.org>

Kenya

Investigating the role of wetlands in relation to climate change (increased evaporation, melting of Mount Kilimanjaro snowcap, changing rainfall patterns): case study Amboseli wetlands below Mount Kilimanjaro.

Guinea Bissau (West African coast)

Investigating the potential of mangrove coasts for protection against extreme storms, sea level rise and salt water intrusion.

Mali

To demonstrate the role of the Inner Niger Delta to regulate extremes in river flows and to continue to provide sufficient water to people in this arid region; even when rainfall becomes less predictable and evaporation will rise.

Malawi

Investigate the optimal use of the 'dambo' wetlands in the light of less predictable rainfall and higher temperatures and evaporation.

South America

<http://lac.wetlands.org>

Argentina

- Investigating the role of peatlands in Patagonia for mitigation and adaptation.
- Including wetlands and their services into the National Adaptation Programme of Action (NAPA) of Argentina.

Guatemala & El Salvador

Investigating and helping to develop measures to reduce the vulnerability of coastal communities to climate change in the lower basin of the Paz River.