

WORKING WITH NATURE

Ecosystem-Based Approaches to Climate Change Adaptation and Mitigation

Mangrove forests capture carbon,
minimise flood damage and provide fish nurseries



Green walls and green roof cool the city, reduce
air pollution and provide space for wildlife



Case Study : Lower Danube Wetlands¹

75% of the Lower Danube's floodplains have been cut off by dykes as a result of land conversion for farming and development, causing increased pollution and flood risks - threats which are expected to be exacerbated by climate change.

In 2000 WWF created the "Lower Danube Green Corridor" in conjunction with the relevant heads of state (Bulgaria, Romania, Moldova and Ukraine). The 2,236km² corridor has made significant: improvements to water quality; increased biodiversity; lowered risks from flooding; and improved local livelihoods.

A flood in 2005 caused an estimated €396 million worth of damage. The cost of the restoration has been estimated at €183 billion. The estimated value of the ecosystem services provided is €500ha/yr and additional future earnings are estimated at €85.6 million per year. This shows that this ecosystem-based approach has been cost effective and beneficial at local and regional levels.

- **Ecosystem-based approaches are ready for use and bring multiple benefits at comparatively low costs**
- **Climate change, biodiversity and development policies all benefit from integration**
- **Investing in nature makes economic sense and is vital to tackle climate change effectively**
- **Terrestrial and marine ecosystems absorb 50% of anthropogenic CO₂ emissions**

Act now to

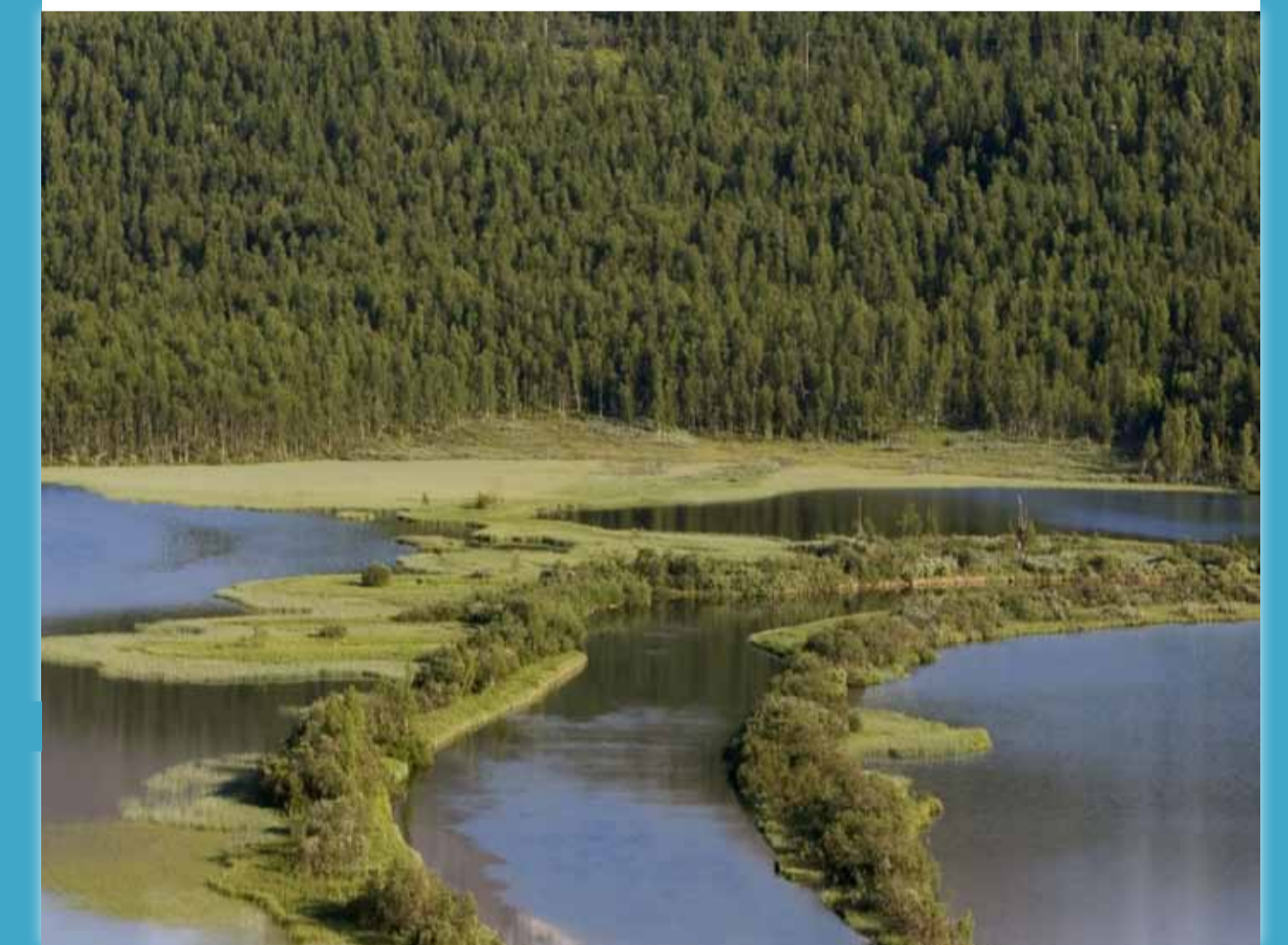
Implement ecosystem-based approaches without delay
Integrate biodiversity and climate policy
Engage all sectors as they can all benefit from ecosystem-based approaches

Direct funding towards ecosystem-based approaches
Communicate and collaborate with a wide range of partners
Increase understanding

Coral reefs provide food for 500 million people
and shelter against storms and flood waves



Flood plains store and filter water, protect
against floods and provide habitat for nature



Further reading:

Towards a Strategy on Climate Change, Ecosystem Services and Biodiversity

A discussion paper prepared by the EU Ad Hoc Expert Working Group on Biodiversity and Climate Change

See http://ec.europa.eu/environment/nature/pdf/discussion_paper_climate_change.pdf

Working with Nature to Tackle Climate Change

Report of the ENCA / BfN Workshop on "Developing ecosystem-based approaches to climate change – why, what and how"

See <http://www.bfn.de/fileadmin/MDB/documents/service/Skript264.pdf>

1. References: World Wide Fund for Nature (WWF). 2008. Water for Life: Lessons for Climate Change Adaptation from Better Management of Rivers for People and Nature. WWF International, Gland Switzerland.
World Bank. 2009. Convenient Solutions to an Inconvenient Truth: Ecosystem-based Approaches to Climate Change. The World Bank, Washington D.C.
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