



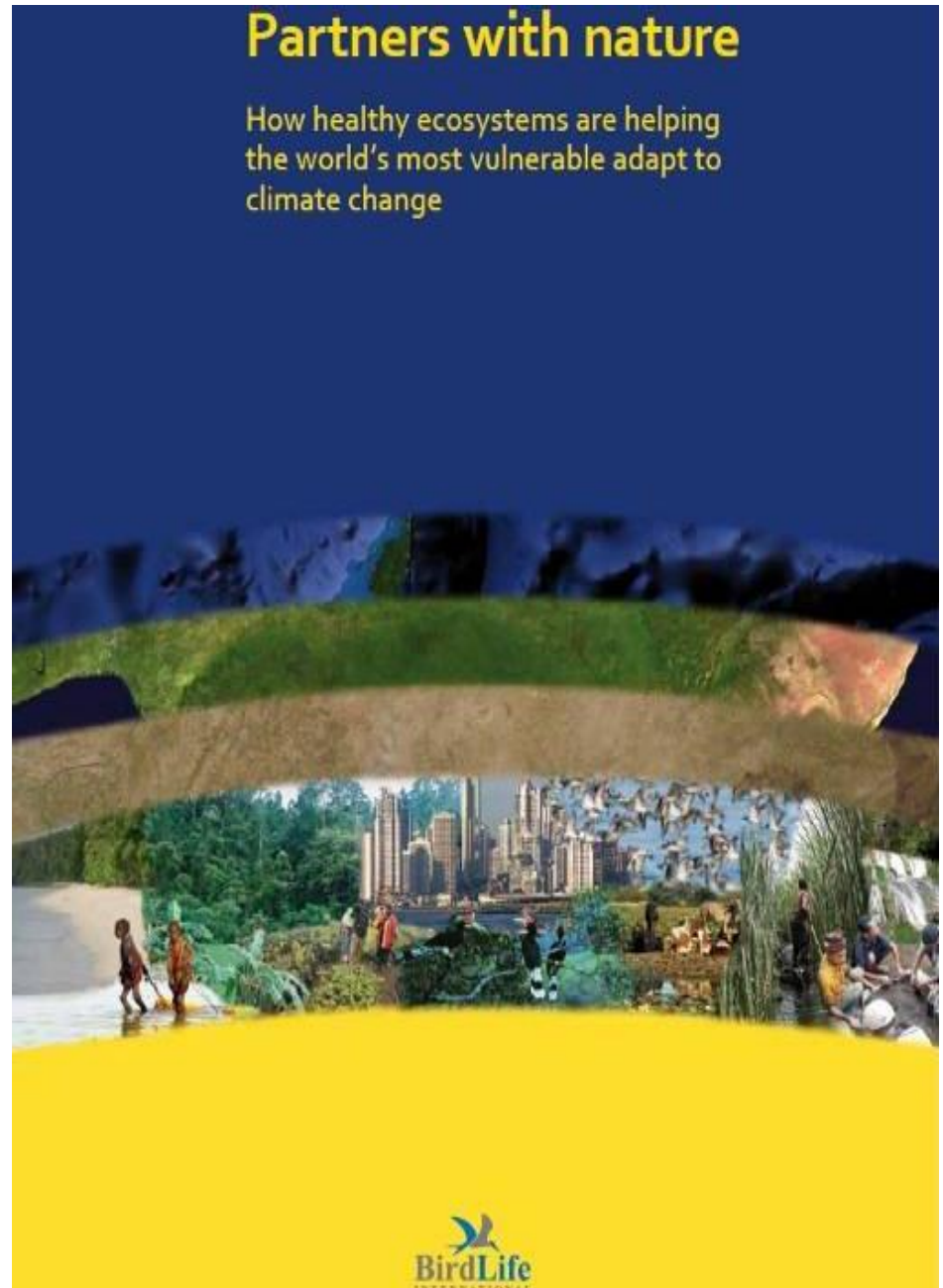
**Partners with nature:  
How healthy  
ecosystems are  
helping the world's  
most vulnerable adapt  
to climate change**

Robert Munroe

Climate Change Officer

BirdLife International

[Robert.Munroe@birdlife.org](mailto:Robert.Munroe@birdlife.org)



# Ecosystems and Adaptation

Biodiversity and ecosystems underpin the Earth's life-support system and our sustainable development

Many of world's 2.7 billion poor depend on natural resources most directly for livelihood and survival

Ecosystems = First line of defence against climate change impacts for most vulnerable

Healthy, bio-diverse environments:

- Maintain and increase resilience to climate change
- Reduce climate-related risk and vulnerability

# BirdLife International's Work on Ecosystems and Adaptation

BirdLife's experience shows that supporting the application of local knowledge and community engagement can:

- Build natural and societal systems resilience
- Deliver locally appropriate solutions to help communities, countries and economies adapt to climate change

100+ national Partners, 60+ in low income countries

Partners are working in areas:

- Already impacted by climate change
- Where climate change will add to current vulnerabilities

# BirdLife International's Work on Ecosystems and Adaptation

Initiatives include:

- Conservation and restoration of forests to stabilise slopes and regulate water flows
- Healthy and diverse agroforestry systems to cope with varying climatic conditions
- Sustainable management of upland wetlands and floodplains for maintenance of water flow and quality
- Maintenance and/or restoration of mangroves and other coastal wetlands to reduce coastal flooding and coastal erosion
- Integration of 'green' or 'nature-based' infrastructure and technology approaches into hard-engineering approaches
- National guidance and best practice on community engagement on sea-level rise

## Case study: Kikuyu Escarpment Forest IBA, Kenya



Provides water, fuelwood, herbal medicine and building materials for 200,000+ people

Catchment for drinking water for parts of Nairobi

Extended dry periods – may worsen

- Reduced crop yields and water levels → illegal timber harvesting, overgrazing, charcoal burning, resource conflicts

## To help address this...

BirdLife Local Conservation Group (Kijabe Environment Volunteers), Nature Kenya (BirdLife in Kenya), Kenya Forest Service have developed:



- community awareness on diverse strategies for coping with drought
- sustainable activities that conserve and create diverse ecosystems and improve water conservation and filtration:
  - Agroforestry
  - Crop diversification
  - Bee-keeping
  - Grazing management
  - Ecotourism
  - Livestock better adapted to harsh climate

# Benefits

- Helps protect natural resource base
- Accessible to rural and poor communities
- Cost-effective and enduring
- Local benefits
- Locally managed and maintained
- Alternative livelihood options in face of climate change uncertainty
- Contribute to conservation and sustainable use of biodiversity
- Contribute to climate change mitigation by maintaining carbon storage

## Case study: Hadejia- Nguru Wetlands IBA, North Eastern Nigeria

Provide essential ecosystem  
services to 1.5million people:



- Water outside of wet season for irrigation of export products and dietary staples
  - Livestock grazing
  - Fishing
  - Groundwater reservoirs
- Diverse nature of services ensure flexibility in resources and income

Climate change  
compounded  
wetland shrinkage  
caused by upstream dams  
built in response to droughts:



Did not consider downstream effects

- water levels dropped
- velocity in rivers decreased
- *Typha* reed has thrived and blocked waterways
- prevented natural flooding regime used in irrigation + flooding productive farmland upstream

- ‘Wings Over Wetlands’ Project – Nigerian Conservation Foundation (BirdLife in Nigeria) empowered local communities to clear *Typha*

# Benefits

- Healthy, bio-diverse wetlands play a vital role in regulating floods and as a vital store of water during droughts
- Balance immediate needs with preparation for long-term impacts
- Combine indigenous and local knowledge with external expertise
- Helps prevent ‘mal-adaptation’
- Support ‘no regret’ and ‘multiple benefit’ measures

# Making it happen.../BirdLife's asks

BirdLife is calling for:

- The importance of healthy ecosystems to be effectively written into local, national, sectoral, regional and international climate change and development policy
- *All* adaptation responses should be environmentally sound and specifically recognise the value and importance of healthy ecosystems as critical to building resilience and adaptive capacity

# Making it happen.../BirdLife's asks

To create a climate-resilient society, adaptation priorities need to be agreed **in-country**, through **nationally-led, inclusive** and **participatory** processes

**Governments** should:

- Recognise ecosystems as cross-cutting and underpinning for adaptation
- Address them within national adaptation frameworks, strategies and plans that integrate with other strategic plans

BirdLife is contributing to this by:

- Developing partner capacity to engage in national adaptation planning processes

# Making it happen.../BirdLife's asks

**Local communities** should be fully involved in adaptation

They should be enabled to:

- Share knowledge
- Undertake participatory appraisals
- Become actively involved in local and national government adaptation processes

BirdLife is supporting this through:

- Local Conservation Groups
- Developing climate-proofing guidance for existing projects

# Making it happen.../BirdLife's asks

**Sectors** such as agriculture, water, energy and transport should:

- Pilot ecosystem approaches to adaptation and their cost effectiveness
- Cross-sectoral climate change risk assessment and adaptation solutions

e.g. *Energy*: ensure mitigation responses do not undermine long-term adaptive capacity (i.e. biofuel expansion should not cause deforestation)

BirdLife is supporting this through:

- Long Pong sugar factory EIA of Lower Martha Brae watershed, Jamaica

# Making it happen.../BirdLife's asks

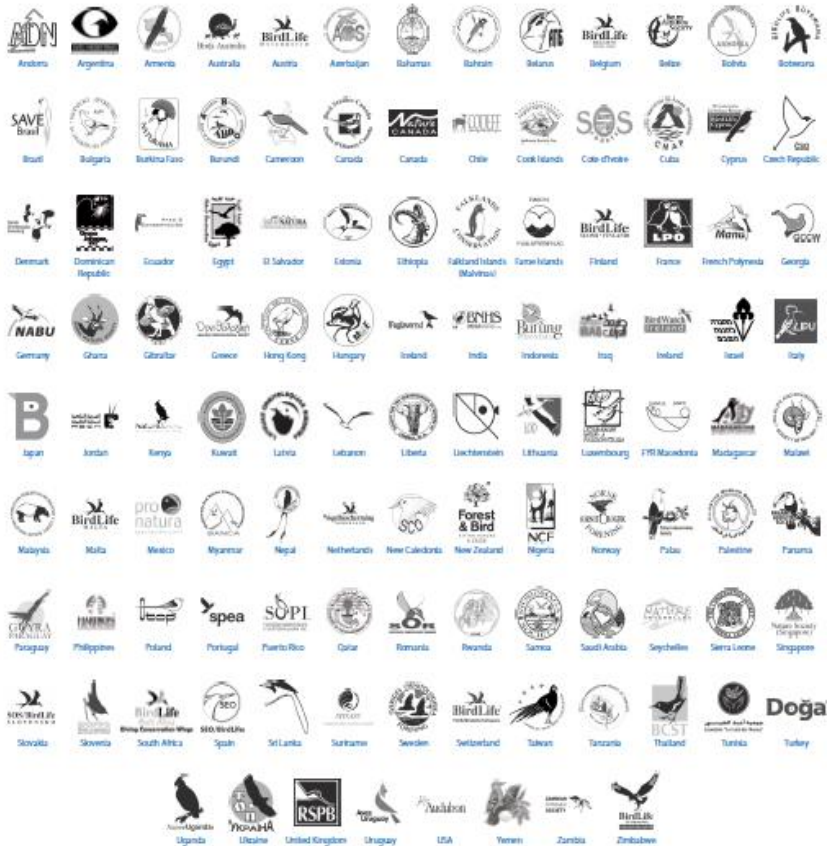
## BirdLife's work in the **international community**:

- Advocate for recognition of the role of ecosystems in adaptation in UNFCCC adaptation text
- and for adaptation projects to undertake EIAs to prevent mal-adaptation through environmentally sound adaptation
- Develop stronger link between CBD and UNFCCC processes to recognise biodiversity needs in climate change policy and practice
- Influence UNFCCC financial criteria – build in environmental safeguards to finance for adaptation

# Issues faced

- How are ecosystem services impacted by climate change?
- Difficulties in downscaling climate change projections
- Working with vulnerability assessment and risk management tools
- Developing climate-proofing guidance for existing projects
- Ensure cross-sectoral approaches
- Synergies between environmental conventions

BirdLife comprises more than 100 conservation organisations working together to promote sustainable living as a means to conserve biodiversity



For more information on BirdLife's work on ecosystems and adaptation in Africa please refer to:

*Partners with nature: How healthy ecosystems are helping the world's most vulnerable adapt to climate change*

Available at:

[http://www.birdlife.org/climate\\_change/adaptation/index.html](http://www.birdlife.org/climate_change/adaptation/index.html)



[www.birdlife.org](http://www.birdlife.org)

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