

Ecosystem-based Adaptation in a changing climate: from Practice to Policy?

Implementing climate change adaptation
programmes: an EU perspective on the
role of EbA

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- Extractive Farming
- Excessive Grazing

- Depletion of SOC Pool
- Decline in Soil Structure

• Loss of Water and Nutrients
for the Ecosystem

• Accelerated Runoff
and Erosion by Water
and Wind

- Loss of Biodiversity
- Failure of Succession
- Decline in NPP

- Decline in Soil Quality
- Reduction in Crop Yields
- Reduction in Income
- Political Unrest
- Civil Strife

Severely Degraded

and Desertified Lands

LESS BIODIVERSITY – MORE CLIMATE CHANGE IMPACTS





Improved Soil, Ecosystem, and Social Resilience

- Increasing Productivity
- Enhancing Income
- Improving Standards of Living
- Creating Political Stability

• Enhancing Soil Quality and Ecosystem Services

• Improving SOC and Nutrient Pools

• Increasing Vegetation Cover

• Conserving Water and Nutrients

Dual Role

- **Adaptation for Biodiversity**
 - Preserving biodiversity resources
- **Adaptation with Biodiversity**
 - Ecosystem-based approaches to climate change adaptation – short: Ecosystem-based adaptation, EbA
 - Working, building with nature
 - Green Infrastructure

Working with nature part of the solution

Ecosystem-based approaches

- are ready for use and easily accessible
- involve people and build responsibility
- **bring multiple benefits**
- are cost efficient and make economic sense
- **are to be an integral part of the overall adaptation and mitigation effort**

Water Retention & Land Use related Measures

Measures

Reforestation and afforestation
Riparian forests and vegetation
Meadows / Pastures restoration
Buffer strips, Tillage, Terracing
Crop practices, Green Cover
Filter strips, Swales, Ponds
Permeable surfaces, Filter Drains
Floodplain restoration
Restoration and management of
Lakes and Wetlands
Revitalisation of flowing waters
Bank stabilisation and re-meandering

Direct Impacts

improving soil's water storage capacity
limiting soil erosion
increasing groundwater recharge
conserving water in natural systems
decreasing speed, controlling runoff
increasing retention time
smoothing peaks

ESS

Flood prevention
Water provision
Water purification
Connectivity
Recreation
Carbon storage

Investing in ecosystem-based approaches - green infrastructure

- provides business and job opportunities
- contributes to green economy and sustainable development
- contributes to maintaining and restoring healthy ecosystems
- promotes creativity
 - discover “undiscovered solutions”
- valorises traditional knowledge
- helps building trust and partnerships

What does the EU do?

- Policy development
 - EU biodiversity strategy
- Implementation
 - BEST Scheme (Biodiversity and EcosystemS in EU Territories)
 - Global Climate Change Alliance (GCCA)

EU Policy

- COM(2011)244 (adopted 5 May 2011)
Our life insurance, our natural capital: an EU biodiversity strategy to 2020
 - ... a more climate resilient, low carbon economy:*
 - *ecosystem-based approaches to climate change mitigation and adaptation can offer cost-effective alternatives to technological solutions,*
 - *while delivering multiple benefits beyond biodiversity conservation ...*
- Ecosystem based Adaptation
- Recognised in EU white paper on adaptation
- And in subsequent Council conclusions

Implementation (1): BEST scheme

to promote conservation and sustainable use of biodiversity and ecosystem services in the European Outermost Regions and Overseas Countries and Territories

- Specific objectives include – *inter alia* –
... “addressing the wider ecosystem challenge by maintaining healthy, resilient ecosystems and fostering green infrastructure and ecosystem-based approaches to climate change adaptation and mitigation which often bring multiple benefits” ...

Open call for Proposals BEST-2011

8 proposals shortlisted including:

- **Piloting the Development and Implementation of National level Joint Activities between the Rio Conventions in support of ecosystem-based approaches to climate change adaptation and mitigation**
- **CORAIL - Coral Reefs in a changing world – ecosystem services from coral reefs : public policy tools for decision making in New Caledonia and French Polynesia**

Maintaining and restoring mangroves, coral reefs and flood plains contribute to flood and storm protection and capture and storage of carbon



Implementation (2): GCCA

GCCA: built around 2 pillars

1. Political and policy dialogue
2. Support for implementation

Some examples of GCCA programmes

Which include Ecosystem-based approaches:

- Senegal: coastal zone management
- Tanzania: agriculture, land management
- Guyana: mangrove restoration
- Lower Mekong basin: watershed management
- ...

What next

- **Green Infrastructure Strategy** (green paper) upcoming in 2012
 - Studies
 - Expert Working Group
- **Contribution to the Adaptation Framework** upcoming in 2013