

# **Making the scientific and economic case for Ecosystem Based Adaptation**

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Climate Change Adaptation is a process, including understanding regional modes of climate variability, impacts of that variability on the environment, and societal vulnerability. Furthermore, adaptation requires careful evaluation of costs and benefits, capacity building and learning from pilot actions. The Ecosystem-Based Adaptation approach entails harnessing the natural climate resilience of ecosystems that has developed over the course of many thousands of millennia of climate variability to reduce human vulnerability. The ecosystem based approach provides multiple benefits additional to building resilience to climate change, including preserving biodiversity and sustaining ecosystem services. Sustaining ecosystems as part of an overall adaptation strategy can help communities minimize the negative impacts and benefit from the positive effects of climate variability and change. This talk will showcase UNEP's Climate Change Adaptation strategy and the ecosystem based approach.

The UNEP climate change adaptation strategy is focused in three areas: Making the case for the Ecosystem Based Adaptation approach through research and pilot demonstration projects, supporting the Global Adaptation Network as a platform for interaction amongst regional and thematic networks, and facilitating national access to multilateral and bilateral sources of adaptation funding.

Global climate change impacts both ecosystems and human livelihoods. The extent of these impacts is influenced by the regional expression of climatic forcing and the degree of vulnerability of natural and human systems. Unlike climate change mitigation efforts, which are for the most part multilateral and focused on global targets such as average temperature and greenhouse gas concentrations, adaptation measures are inherently local. Adaptation measures must respond to regional climate patterns including drought, sea level rise and extreme events. Because past regional climate variability has included dramatic and rapid changes, natural ecosystems and traditional societies have well established resilience measures. Thus, UNEP's ecosystem based adaptation (EbA) approach is grounded in management of ecosystems, and the local communities that depend on them, as a means to reduce vulnerability to climate change. An important component of Ecosystem based Adaptation is developing a research and economic case for where the approach works best, and when it is cost effective.

## **Target Outcomes**

- Build the adaptive capacity of most vulnerable countries
- Increase ecosystem resilience

- Reduce the risk of climate related disasters and conflicts
- Share knowledge for adaptation policy and planning
- Support developing countries to access adaptation finance

#### Major Activities

- Undertaking national vulnerability and adaptation assessments to provide countries with science and policy support
- Assisting countries in the integration of ecosystem-based adaptation measures into national policy-making and planning processes.
- Collaborating with UNDP, IUCN and national governments to carry out ecosystem-based adaptation pilot projects in diverse ecosystems.
- Supporting countries in accessing adaptation finance, and building capacities for direct access.
- Facilitating knowledge sharing at the global, regional and national levels, including through Regional Climate Networks in Africa, Asia and Latin America.