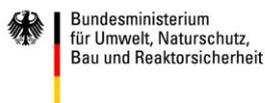


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# EbA Programme

## Strategies for ecosystem-based adaptation to climate in Colombia and Ecuador

### Context

The coastal regions of Colombia and Ecuador are feeling the impacts of climate change more and more. Both of these countries are particularly vulnerable to extreme climate events. By the end of the century, Colombia is expected to experience an increase in average temperatures of more than two degrees Celsius, which will lead to rising sea levels, the disappearance of coastal strips and higher rainfall. These changes will not only have a negative impact on the natural environment, but also on the people, infrastructure and economic activities that benefit from coastal ecosystems and the services that they provide. Mangrove forests, for instance, act as natural barriers against flooding and storms. Their destruction exposes people more to the effects of wind and water. Ecosystem-based adaptation (EbA) to climate change constitutes a promising alternative or supplement to conventional technical 'grey' measures. The primary objective of this approach is to promote the conservation and sustainable use of ecosystems, such as tropical and mangrove forests, in order to strengthen the resilience of humans and the natural environment as well as to mitigate the impacts of climate change. Institutions and organisations in Colombia and Ecuador have considerable potential to effectively implement EbA strategies and measures.

### Objective

Communities in coastal regions of Colombia and Ecuador are less vulnerable to the impacts of climate change. National and local authorities integrate ecosystem-based adaptation as a permanent approach in their policies and planning instruments.

Commissioned by	German Federal Ministry for the Environment, Nature Conservation, Construction and Nuclear Safety (BMUB)
German contribution	EUR 3,000,000
Lead executing agency	Ministry of Environment and Sustainable Development of Colombia (Ministerio de Ambiente y Desarrollo Sostenible, MADS); Ministry of Environment of Ecuador (MAE)
Implementing organisation	Institute for Marine and Coastal Research (INVEMAR); Cartagena de Indias local government, Santa Ana local government in Manabí Province; Jipijapa local government in Manabí Province
Project area	Cartagena de Indias (Colombia), Manabí Province (Ecuador)
Planned overall term	September 2014 – February 2018

### Method

The project supports national and local authorities in Colombia and Ecuador with integrating the approach of ecosystem-based adaptation to climate change into relevant policies, plans and strategies. It works in four areas of activity:

1. The project works together with partners to plan and implement measures targeting ecosystem-based adaptation. Climate risks and vulnerabilities have been previously assessed on the ground.
2. National and local authorities, communities and other stakeholders acquire the knowledge they need to understand the impacts that climate change has on their daily lives and



*Working with local people to restore mangrove forests*

to increase their resilience, for instance in individual and institutional training.

3. Public authorities, private sector companies and communities outside the project regions of Cartagena de Indias in Colombia and Santa Ana and Jipijapa in Ecuador's Manabí Province also integrate EbA-based approaches into their planning.

4. The team assesses and collates progress, results and successful models emerging from the first three fields of activity and disseminates these nationally and internationally.

In addition, the project aims to develop strategies for securing additional funds to finance ecosystem-based adaptation measures after the project has ended. In Ecuador, the activities are being implemented by the non-governmental organisation International Union for Conservation of Nature (IUCN).

## Results



The Colombian Ministry of Environment and the National Planning Department have adopted ecosystem-based adaptation as a method. The project team has advised these two institutions in formulating the national climate change policy and the national plan for climate change adaptation. Two tangible measures currently under way in the Colombian coastal city of Cartagena are the restoration of the natural stream and river flows in the urban area and the conservation of the nearby mangrove forests. Both are vital for flood control and, as such, for preserving Cartagena's old city centre, which is a UNESCO world heritage site. In the future, these measures are to be refinanced through the city's own fee collection scheme for ecosystem protection. Further measures for the department of Córdoba in Colombia and for the coastal province of Manabí in Ecuador are currently in the first phase of implementation.

*The programme strengthens the resilience of the population in Colombia in dealing with extreme weather events, such as droughts and flooding.*

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