




# ecosystem- based adaptation for terrestrial, marine and coastal regions

Climate change is already having many negative effects on agriculture and fisheries. We must seek innovative solutions to adapt to these changes. In the Philippines, South Africa and Brazil, CI is pioneering the implementation of ecosystem-based adaptation efforts to buffer the impacts of climate change, improve livelihoods and conserve biodiversity.





Ecosystem-based adaptation (EbA) is a new concept, which capitalizes on the ability of natural systems to assist in human adaptation to climate change. EbA has been defined as “the use of biodiversity and ecosystem services as part of an overall adaptation strategy to help people to adapt to the adverse effects of climate change.”

In many cases, because natural systems provide multiple adaptation benefits, they are potentially much more cost-effective than hard-engineered solutions. Yet, they are often overlooked.

**Conservation International (CI) is implementing ecosystem-based adaptation in marine, terrestrial and coastal regions as a means of improving livelihoods and conserving biodiversity in the face of climate change. The aim is to use EbA to buffer impacts of climate change in three countries where we have strong track records, partners and relationships with government—Philippines, South Africa and Brazil. Specifically, our work consists of these five components:**

## vulnerability assessments

Climate change vulnerability assessments determine the likely impacts of climate change, prioritize which impacts need to be addressed first, and determine the appropriate ecosystem-based adaptation actions needed to address those impacts.

## pilot projects

Pilot projects are a means of testing the feasibility and effectiveness of implementing the recommendations that result from the vulnerability assessments.

## monitoring

Tracking the implementation and results of activities is essential for assessing the cost effectiveness of EbA as well as the impacts of EbA on communities and biodiversity.

## national policy

Through engagement with national-level policy makers, the vulnerability assessments are designed and implemented to be most useful and relevant. In addition, results of pilot projects inform national policy, which amplifies their impact.

## international policy

Through engagement with international policy fora, lessons from the project can inform the global dialogue on EbA, influencing how standards are developed and how EbA is implemented worldwide.





## Philippines

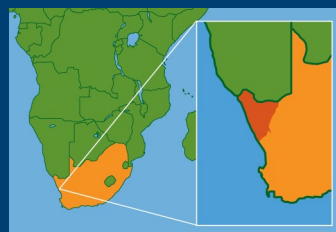
In the Philippines, the target region is the Verde Island Passage marine corridor, more precisely its coastal ecosystem where 830,000 people live and depend on its marine resources for livelihoods including fishing, aquaculture and tourism. With a rising population, pressures such as overfishing, clearing of mangroves for aquaculture, development and logging will result in erosion and degradation of the natural coast. The vulnerability assessment for this region was completed in 2009 and resulted in a series of recommendations. Based on this, CI is working with partners to implement two initiatives to enhance coastal protection and strengthen fisheries resilience. Key actions include mangrove reforestation, training local communities and government in EbA coastal management techniques, application of best fishing practices and technologies, and income diversification strategies.



Verde Island Passage

## South Africa

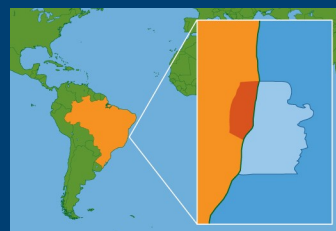
In South Africa, the Namaqua District of Northern Cape Province is a semi-arid savanna with a population of 126,500. In the face of climate change, this region could move from semi-desert to a desert in the next 50 years. As farmer and cattle rancher numbers will likely increase, adaptation strategies will be critical for dealing with water scarcity and land degradation. In this context, CI is focusing on integrating EbA information into policy frameworks, budgeting and government staff capacity, as well as piloting Improved livestock grazing and freshwater management in lands. Results, case studies and lessons learned will inform national policy plans and be profiled in global conventions.



Namaqualand

## Brazil

In Brazil, CI is working at the interface of the marine and terrestrial realms, focusing on the Southern Bahia/Abrolhos region, which has the largest remnant of tropical forest within the northeast range of the Atlantic Forest and the largest and richest coral reefs in the Southern Atlantic. Nearly 500,000 people are supported by these two ecosystems but overfishing, deforestation for cattle ranching, agriculture and human settlement impact these ecosystems and make them vulnerable to climate change. In this context, CI is conducting a climate change vulnerability assessment for EbA design followed by implementation of EbA strategies for fisheries and forest. The vulnerability assessment results will inform coastal land-use planning, guide expansion of a marine protected area network and help plan forest restoration.



Southern Bahia + Abrolhos





## OUR VISION

We imagine a healthy, prosperous world in which societies are forever committed to caring for and valuing nature, our global biodiversity, for the long-term benefit of people and all life on Earth.

## OUR MISSION

Building upon a strong foundation of science, partnership and field demonstration, CI empowers societies to responsibly and sustainably care for nature, our global biodiversity, for the well-being of humanity.

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