Technical Outcomes

The vulnerability assessment process engaged stakeholders and experts, which enabled community support for the project and facilitated crucial data contributions by local institutions. The results of this process were used to develop an adaptive management framework that guides future actions. This project provided the first vulnerability assessment to climate change in the region.

The cost-effectiveness analysis of an EbA approach to coral reef protection to maintain coastal protection is currently ongoing.

Policy Implications + Scalability

In December 2014, the federal government of Brazil showed its shared concern for protecting the blue parrot fish when it issued a decree to protect the species. This was the first time such a protection measure had been issued for a marine species in Brazil. The project has also set an example for other regions in the country, leading to the development of similar initiatives.

The Atlantic Forest municipal plan in Porto Seguro, the first of its kind to include climate change adaptation information, now serves as an important 10-year guide to development in the region. This plan is being used as a model in other municipalities in the state of Bahia.

CI—IKI Project

CI-Brazil's pilot projects are part of a larger CI—IKI Project, which is funded by the German Ministry for the Environment, Nature Conservation, and Nuclear Safety. This project aims to build and link lessons learned to local, national, and international climate adaptation planning and policy.

Increasing Climate Resilience

As climate change intensifies, the negative effects on marine and terrestrial systems are becoming more pronounced, especially in coastal and forest communities where people's livelihoods directly depend on the goods and services of these ecosystems. Conservation International (CI) is implementing projects to help people adapt through Ecosystem-based Adaptation (EbA)—the use of ecosystem services and biodiversity as part of an overall climate change adaptation strategy.

In the state of Bahia, Brazil, CI’s projects take an integrative approach to terrestrial, coastal, and marine system adaptation. Bahia contains the Discovery Coast, home to the largest tract of Atlantic Forest in the northeast region of Brazil, and the Abrolhos Seascapes, a mosaic of important ecosystems including coral reefs, mangrove estuaries and coastal habitats with the highest marine biodiversity in the South Atlantic. In the Abrolhos, CI-Brazil's work aims to increase the resilience of coral reefs to promote coastal protection, in Discovery Coast's Porto Seguro municipality. CI-Brazil worked to include climate change adaptation information into the municipal plan of conservation and restoration of the Atlantic Forest.
PROJECT OUTCOMES IN BRAZIL

With more than 100,000 people dependent on the ecosystem services provided in the target region, EbA approaches to conservation and sustainable management of natural resources are critical. Ci-Brazil completed two EbA pilot projects to increase climate resilience through:

- Improving the health of coral reefs to increase protection of coastal areas from erosion and to maintain healthy fisheries in the Abrolhos Seascape region.
- Engaging municipal policy makers to establish climate change adaptation guidelines and priorities for projects and public policies in the Discovery Coast.

Key Climate Change Vulnerabilities

- Decline in near-shore fisheries due to ocean acidification of coral reefs and increased ocean temperatures
- Increase in sedimentation of reefs due to increased terrestrial rainfall and associated runoff
- Increased vulnerability of coastal areas to erosion
- Increased salinity of freshwater estuaries as a result of sea-level rise

Successful Implementation

of the management plan for blue parrot fish—a crucial species in keeping algae from overgrowing and damaging the reef, which, in turn, protects the local communities against coastal erosion.

Successful implementation

Ci-Brazil, with the participation of more than 200 stakeholders, developed Porto Seguro's municipal plan for protection and restoration of the Atlantic Forest. For the first time in Brazil, this type of municipal plan incorporates climate change adaptation considerations, including EbA solutions.

Input Outcome

Input provided to the National Adaptation Plan, through the submission of potential subsidies to the plan's process, and the Coral Reef National Action Plan, which included information acquired through the vulnerability assessment.
Technical Outcomes

The vulnerability assessment process engaged stakeholders and experts, which enabled community support for the project and facilitated crucial data contributions by partners at universities and research institutions. The vulnerability assessment results were expressed in an innovative storyline format to better explain the integration of the different systems, resulting in an excellent public communication tool. This project provided the first vulnerability assessment to climate change in the region.

The cost-effectiveness analysis of an EbA approach to coral reef protection to maintain coastal protection is currently ongoing.

Policy Implications + Scalability

In December 2014, the federal government of Brazil showed its shared concern for protecting the blue parrot fish when it listed the species as endangered for the first time. CI-Brazil is currently working on a proposal for the protection of other herbivorous reef fishes.

The Atlantic Forest municipal plan in Porto Seguro, the first of its kind to include climate change adaptation information, now serves as an important 10-year planning tool for the municipal council for the environment. This plan is now being used as a model in the development of nine other municipal plans in the target region, with technical input from CI-Brazil.

CI — IKI Project

CI-Brazil’s pilot projects are part of a larger CI project, funded by the German Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB), under the International Climate Initiative (IKI), to implement EbA in marine, terrestrial and coastal regions to improve livelihoods and conserve biodiversity in the face of climate change. This 5-year project aimed to increase the resilience and adaptive capacity of people vulnerable to climate change in the Philippines, South Africa and Brazil through the implementation of EbA solutions. Project outcomes now inform growth in the application of EbA through capacity building and linking of lessons learned to local, national and international climate adaptation planning and policy.