COASTAL RESILIENCE

COASTALRESILIENCE.ORG

Coastal Resilience is a program led by The Nature Conservancy to examine nature's role in reducing coastal flood risk. The program consists of an approach, a web mapping tool, and a network of practitioners around the world supporting hazard mitigation and climate adaptation planning.

APPROACH

The approach consists of four critical steps:

1. **Assess Risk and Vulnerability** to coastal flood hazards including current and future storms and sea level rise
2. **Identify Solutions** for reducing flood-related risk across social, economic and ecological systems
3. **Take Action** at priority conservation and restoration sites to help communities identify and implement nature-based risk reduction solutions
4. **Measure Effectiveness** to ensure that efforts to reduce flood risk while increasing community and ecosystem resilience are successful

Coastal Resilience projects around the U.S., encompassing 17 coastal states, in the Caribbean, across Mexico and Central America, and a global effort enable planners, government officials, and communities to develop risk reduction, restoration and resilience strategies.

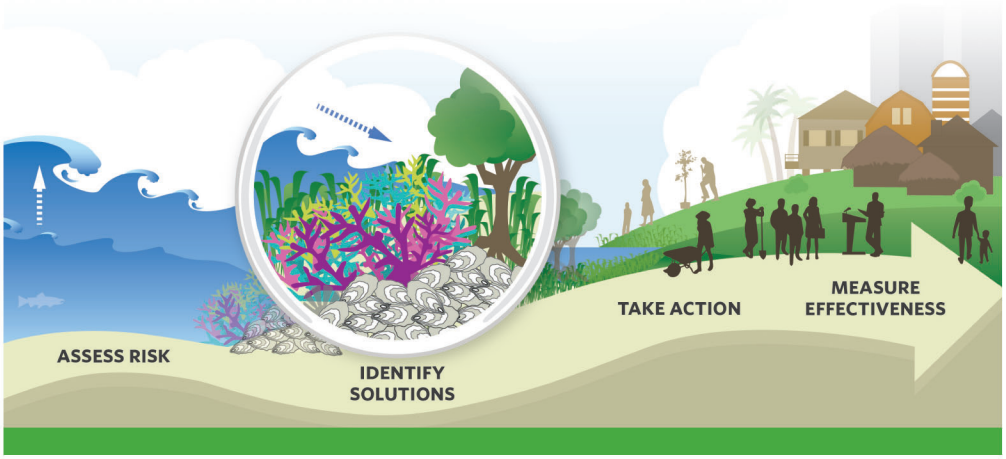
The program has trained and supported over 100 communities around the world on the uses and applications of Coastal Resilience, focusing on the identification of nature-based adaptation and risk mitigation solutions.

SOLUTIONS & ACTIONS

The best solutions may depend less on modern infrastructure, and more on rethinking how we value existing natural resources. By providing information on coastal hazards, socio-economics, habitats and ecosystems, Coastal Resilience explores nature-based solutions in:

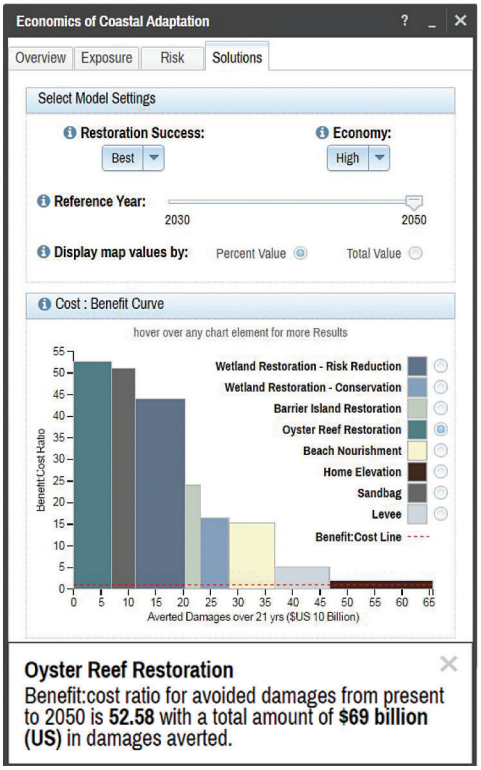
- protecting or restoring habitats as buffers to flooding in front of coastal communities
- developing hybrid approaches that link natural and built defense structures
- accommodating the landward movement of tidal marshes and mangroves as sea levels rise
- designing restored oyster and coral reefs as breakwaters that reduce wave height and power
- removing incentives to build in high-risk areas

The science of nature-based solutions in reducing coastal flood risk is growing rapidly; a Coastal Resilience communication and decision support tool examines when and where they are most effective.



MAPS & APPS

An innovative web-mapping tool consists of a data-viewing platform and web apps designed to engage key stakeholders and provide decision support.



The Coastal Resilience tool allows users to:

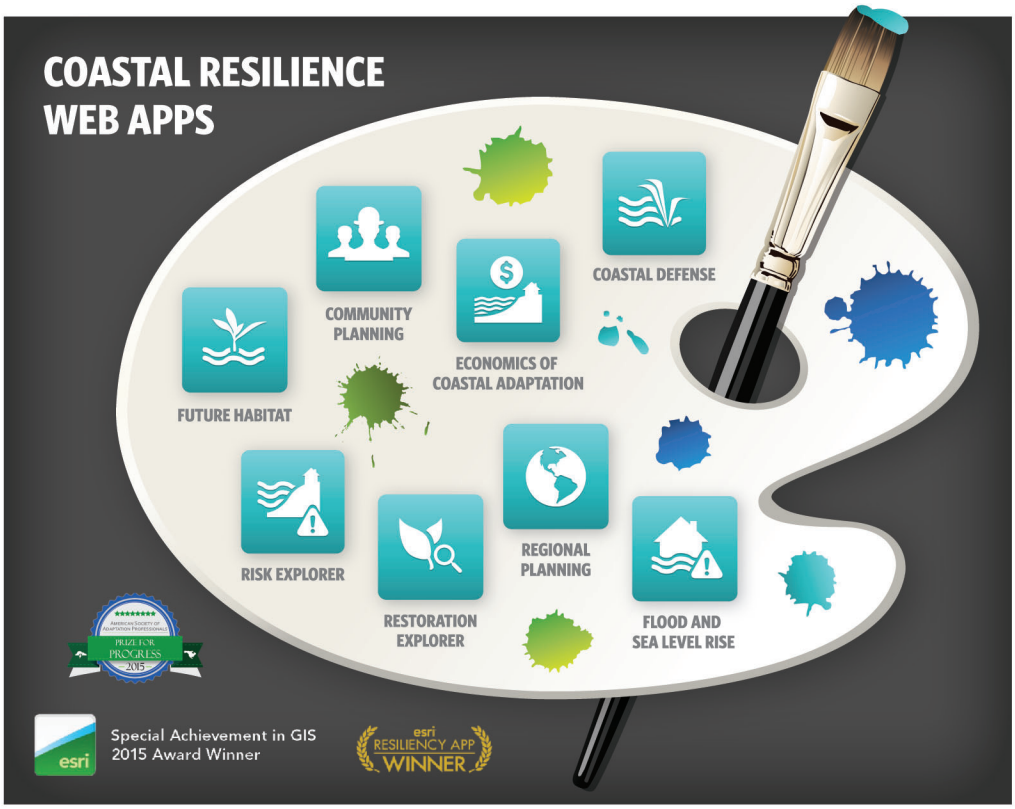
- view potential impacts of sea level rise, surge from storms and hurricanes, and inland flooding
- combine coastal habitat and exposure with socio-economic data to identify where habitat management may most reduce risks
- examine natural and built coastal defense strategies
- compare risk and vulnerabiltiy indicators across countries

Web apps are customized to meet a specific need, whether a coastal management policy, post-storm disaster decision-making, community assessment, hazard mitigation plan or cost effectiveness evaluation.

NETWORK

Coastal Resilience practitioners are collaborating with engineering firms, the reinsurance sector, aid groups and multi-national institutions to find viable nature-based solutions to climate change, for instance:

- guiding Connecticut's sea level rise policy
- developing a cooperative agreement with the U.S. Navy to actively manage strategic retreat of a naval base in Southern California
- assessing social-ecological vulnerability and prioritizing mangrove and coral reef restoration with the Red Cross in Grenada
- determining the costs and benefits of natural and built infrastructure with SwissRe in the Gulf of Mexico



Contact us at **coastalresilience@tnc.org**, discover the tool at **maps.coastalresilience.org**, and follow us **@CoastResilience**

PARTNERS INCLUDE:

International Federation of Red Cross and Red Crescent Societies

The Nature Conservancy — Protecting nature. Preserving life.

USGS — science for a changing world

Alliance Development Works

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