



BLUE CARBON EFFORTS: BRIDGING NATURE AND CLIMATE RESILIENCE

The Smithsonian's Blue Carbon efforts are an integral part of fostering climate resilience through our preservation and restoration of coastal ecosystems such as mangroves, seagrasses, and tidal marshes. These ecosystems serve as crucial carbon sinks, and their conservation could prevent nearly one gigaton of carbon dioxide emissions by 2050.

WHY BLUE CARBON MATTERS

For coastal nations, conserving blue carbon ecosystems isn't just about climate mitigation. It's a gateway to safeguarding coastal communities from storms, preserving water quality, and unlocking sustainable markets that value and rejuvenate marine resources. However, for this market to mature and flourish, there's a dire need for trusted, standardized, and centralized data.

HOW THE SMITHSONIAN IS TAKING ACTION

Data Collection & Global Partnerships

- Supporting Central American nations (Belize, Honduras, Guatemala, Costa Rica, and Panama) in estimating blue carbon stocks, and integrating into national climate commitments.
- Completed the first comprehensive national mangrove carbon assessment with 14 partner organizations.
- Partnering in Panama with the Pew Charitable Trusts to bolster the nation's climate ambitions through blue carbon stock assessments.

Expanding the Coastal Carbon Atlas

- Co-developed a premier open-source blue carbon data repository.
- Providing decision-makers with high-quality data for informed climate and conservation strategies and community-driven resource decisions.
- Establishing a gold standard for carbon accounting to encourage investment.

Creating Decision-Making Tools

- Developing a decision support framework for region-specific blue carbon initiatives.
- Launching a Toolkit combining the power of the Coastal Carbon Atlas and mangrove mapping solutions, enabling precise carbon stock estimates to support management and restoration initiatives.

Advancing a Socio-Ecological Approach

- Crafting indicators to measure management impacts on blue carbon ecosystems and local communities.
- Member of the Global Mangrove Alliance which aims to halt loss, double protection, and restore half of losses since 1996 of mangrove habitats by 2030.
- Promoting the holistic health and sustainable development of coastal environments by linking blue carbon with sustainable fisheries and other co-benefits of coastal wetlands.

The Smithsonian's blue carbon initiatives signify a deeply rooted commitment to the planet and its people, uniting scientific data, practical tools, and inclusive strategies to nurture a resilient and sustainable future.

EMBRACE OUR SHARED FUTURE

The Smithsonian Institution is committed to advancing and inspiring global engagement and environmental stewardship. In 2022, we introduced "Life on a Sustainable Planet," a pivotal initiative that fosters dialogue between scientists, students, policymakers, and the public on today's most pressing challenges. Renowned for our historical museums, the Smithsonian is equally vibrant in scientific discovery and education. With over 800 esteemed scientists conducting research on Earth and beyond, we tackle questions as broad as the cosmos' mysteries and as complex as ecosystem resilience. Our collaborative efforts are shaping the future as we work to preserve biodiversity, champion sustainable practices, and offer solutions to climate change. **Join us in this crucial conversation for a sustainable tomorrow.**