

## **GEO-TREES: PIONEERING GLOBAL FOREST CONSERVATION SOLUTIONS**

GEO-TREES, a dynamic new endeavor, is transforming global forest conservation by engaging the Smithsonian's ForestGEO network of international forest study sites and collaborations with other well-established networks in tropical and temperate forests, to set the gold standard for carbon measurement. GEO-TREES combines several on-the-ground measurement technologies to calibrate global satellite-based forest carbon assessments. GEO-TREES overcomes the current uncertainties in forest carbon storage estimation, a necessary step to advance large-scale global investment in verified forest protection and restoration.

GEO-TREES isn't just a project; it's a catalyst for global change. As discussions unfold on comprehensive climate solutions, GEO-TREES showcases how technology, collaboration, and sustainability can reshape global forest conservation, offering tangible solutions to address the broader challenges of the climate crisis.

## **KEY FEATURES**

Local Knowledge for Global Good: To create a standard way to measure carbon requires skilled, local foresters who already understand the biology of forests in the most biodiverse places in the world. GEO-TREES will train biologists to use laser-scanning equipment to measure carbon in a wide variety of forest types and will create free, online databases.

Cutting-edge Technology and Collaboration: GEO-TREES integrates innovative technology like terrestrial and airborne laser scanning in alignment with global recommendations. Collaborations with ForestGEO and other forest plot networks plus a commitment to diverse governance will ensure a holistic approach.

Building the Foundation: In its initial phase, GEO-TREES will identify 100 core sites, conduct assessments, initiate training, and establish fellowships, laying the groundwork for global coverage and a standardized data portal.

Anticipated Impact: GEO-TREES aims to strengthen the measurement, reporting, and verification of forest carbon stocks and fluxes. This will de-risk forest carbon markets and attract investment in on-the-ground interventions, which are crucial for climate resilience.

Bezos Earth Fund Partnership: Collaboration with the Bezos Earth Fund provides essential resources and fosters engagement with space agencies, advancing satellite technology research.

## **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.

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