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OCEAN WITHOUT MYSTERIES: BLUE CARBON OF MANGROVES

Excessive carbon dioxide (CO_2) emissions into the atmosphere significantly contribute to **climate change** caused by global warming. Extreme weather events are becoming increasingly common, bringing major disasters and suffering to entire populations. This reality highlights the importance of understanding these phenomena and finding ways to address them.

Human activities, such as the use of fossil fuels, deforestation, agriculture, and industrial processes, are responsible for a significant portion of CO_2 emissions. Some of **this carbon is captured by vegetation** and stored in its trunks, branches, roots, and leaves, helping to balance the atmosphere and minimize climate impacts. When it occurs in coastal and marine environments, this process is called **blue carbon**. In this context, the carbon sequestration potential of mangroves is extraordinary!

In addition to acting as allies in carbon storage, mangroves play an essential role in **ecological balance**, **coastal protection**, **maintaining fish stocks**, and **supporting economic activities** such as fishing and tourism.

This publication highlights the **importance of mangroves** from various perspectives, presenting **unprecedented data on the stock and valuation of blue carbon in Brazilian mangroves** and its relationship with the promising carbon credit market. The information presented stems from the results achieved by the **Cazul project**, supported by the **Boticário Group Foundation for Nature Protection** and developed in partnership with the **NGO Guardians of the Sea**. This document also updates data from the first volume of the Ocean Without Mysteries collection, published in 2021, used to illustrate guidelines on communicating scientific content in an accessible and engaging way.

Based on the knowledge generated, this publication seeks to inspire concrete actions towards protecting and conserving this vital coastal-marine ecosystem for the health of the planet and its communities.

The English version of the document will soon be available at this same link.