Coastal wetlands: nature-based solutions for storing carbon

WETLAND BASED SOLUTIONS
www.wetlandbasedsolutions.org

Healthy wetlands have a crucial role to play in the fight against global warming. They capture carbon, storing it first in their biomass and then in their sediments – and they do it at a rate 10-20 times greater than temperate or boreal forests. But when wetlands are destroyed, not only do they stop absorbing carbon, but they also release their stores back into the atmosphere, increasing greenhouse gases.

Seagrass Bed

Seagrass Bed offers crucial fish spawning and nursery habitats as well as coastal protection and carbon sequestration

Coastal wetlands

Sequester 100-200g CO_2 per m^2 per year

200g

10g

CO_2 per m^2

Forests

Sequester <10g CO_2 per m^2 per year

Restored coastal marshes

Restoring 1 hectare of saltmarsh helps sequester 1,000-2,000kg of CO_2 annually

30%

Peat bogs

Peat bogs store 30% of all terrestrial carbon while only covering 3% of the globe

Peat bogs store twice as much carbon as all forests combined

The carbon sequestration process

- Wetland plants take up carbon via photosynthesis
- Plants build biomass
- Biomass accumulates in the soil as organic matter
- Carbon sequestered in soil

Data source: Mediterranean Wetlands Outlook 2, Mediterranean Wetlands Observatory, Plan Bleu, EEA, University of Perpignan

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