

WHAT IS BLUE CARBON?

Blue carbon is carbon that is captured by the world's oceans, salt marshes, mangroves, and seagrass beds.

WHY DO WE CARE?

Capturing blue carbon in the ground is a significant factor in reducing the effect of climate change.

Yes! We are worried about deforestation of tropical forests. But the oceans and coastal marshes, mangroves and seagrass beds are a better **carbon sink*** for storing carbon than trees.

HOW IS MORE CARBON STORED IN COASTAL ECOSYSTEMS?

Oceans, salt marshes, mangroves and seagrass beds absorb carbon from the air and water. This carbon is stored in their leaves, branches, and roots, which hold sediments in place. Carbon is then transferred to the sediment. Unlike the forests, there is no oxygen in waterlogged soil. This creates very efficient carbon sink.

In addition to storing carbon, these water ecosystems also provide protection from storms, prevent coastal erosion, provide bird habitat, and are nurseries for invertebrates including clams, oysters, starfish, crabs, corals, jellies, etc.

WHERE ARE THE ECOSYSTEMS FOUND?

Ecosystems are found on every continent except Antarctica. They cover between 53 and 59 million square miles. Florida, with 1,350 miles of coastline has all of the coastal ecosystems.

WHAT HAPPENS WHEN THESE ECOSYSTEMS ARE DESTROYED OR DEGRADED?

They emit the carbon they have stored for centuries into the atmosphere and become greenhouse gases. Experts estimate that as much as 1.02 billion tons of carbon dioxide are being released annually from degraded coastal systems.

WHAT IS HAPPENING CURRENTLY

Almost a third of the world's seagrass has been lost in the last century and half the world's mangroves are being lost at a rate of 2% a year. Fewer than half of the world's salt marshes now survive.

***Carbon sink** is anything natural or otherwise, that accumulates and stores some carbon-containing chemical compound for an indefinite period and thereby removes carbon dioxide (CO₂) from the atmosphere.

WHAT CAN BE DONE?

- Use mechanical methods to clear plants out of the water instead of spraying herbicides
- Talk to your HOA
- Contact legislators to oppose seagrass mitigation and oppose permits that allow developers to remove mangrove trees entirely
- Don't purchase farmed shrimp as the grocery
- Don't use toxic products
- Reduce the use of plastic
- Don't use products with excessive packaging
- Pick up trash - keep storm drains clean; stormwater drains into rivers and streams that eventually empty into our estuaries
- Volunteer to plant sea grass
- Get companies to invest in seagrass, etc. to reduce and store CO₂ emission