



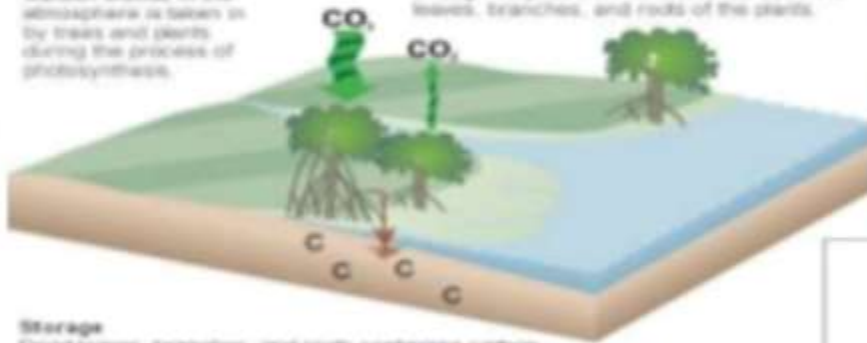
What is Blue Carbon?

- occupying only 2% of the seabed area, vegetated wetlands (seagrass, mangroves, saltmarsh) represent 20% of the carbon transfer from oceans to sediments.

Sequestration

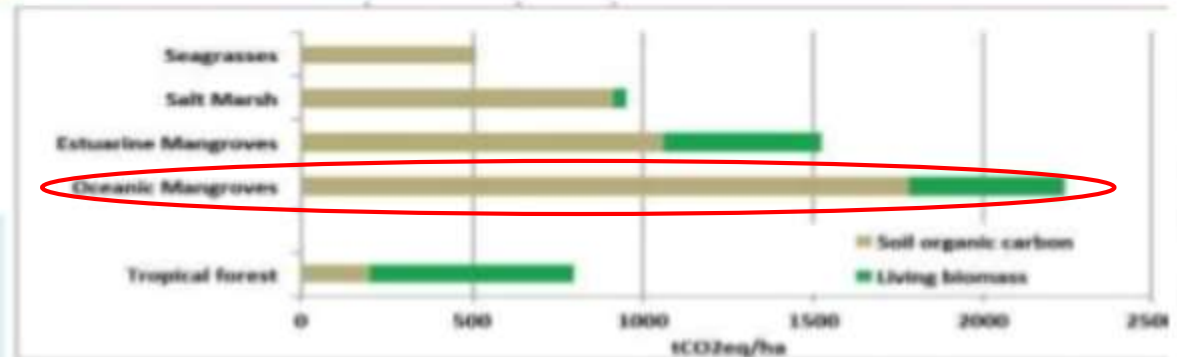
Carbon dioxide in the atmosphere is taken in by trees and plants during the process of photosynthesis.

Some carbon is lost back to the atmosphere through respiration. The rest is stored in the leaves, branches, and roots of the plants.



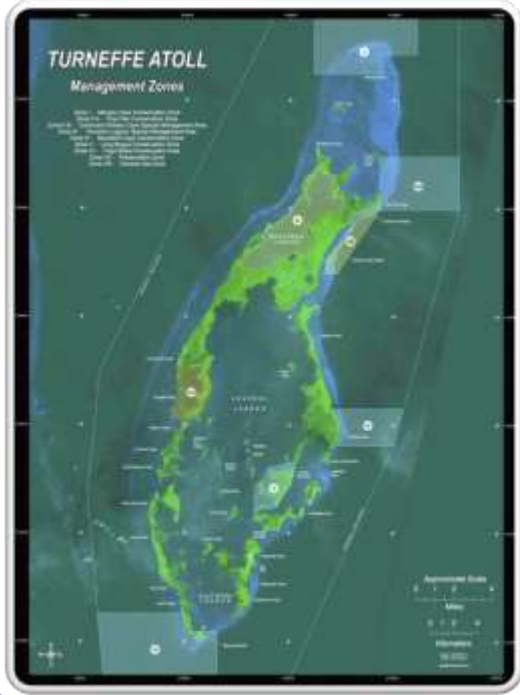
Storage

Dead leaves, branches, and roots containing carbon are buried in the soil, which is frequently, if not always, covered with tidal waters. This oxygen-poor environment causes very slow breakdown of the plant materials, resulting in significant carbon storage.



*Data is per unit area, where tCO₂eq/ha is tons of carbon dioxide equivalents per hectare

Source: Murray, Brian. Unassisted Regeneration. W. Aaron Jackson, and Samantha Moffatt. 2011. Green Payments for Blue Carbon: Economic Incentives for Protecting and Restoring Coastal Habitats. Nicholas Institute Report. NRI 11-04



Turneffe Atoll
Sustainability Association

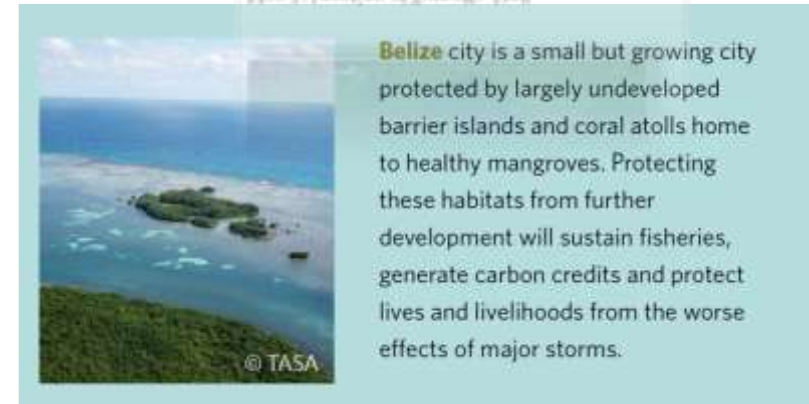
The Nature
Conservancy 
Belize



Map 1: Location of Turneffe Atoll

The annual storm protection value of mangroves, seagrasses, and coral reefs in Belize has been estimated at \$1.75 billion per year (BZ\$3.5 billion) by the Natural Capital Institute using the InVEST model.

Mangroves cover an estimated 11,000 acres of TAMR Turneffe Atoll Marine Reserve



The annual storm protection value of coral reefs, mangroves, and seagrasses on Turneffe has been estimated at \$191 million USD (BZ\$382 million) per year.

Turneffe Atoll Blue Carbon Feasibility Study Draft report



Table. Summary results over 20 years

Project area	200 hectares
Carbon offsets	106,281 tons
Carbon revenues @ \$10/ton and 5.0% p.a. growth	\$2,028,336
Carbon expenses @ 2.5% p.a. growth	-\$784,442
Carbon cash flows	\$1,243,894
NPV of carbon cash flows @ 4.0%	\$610,168

Prepared For

The Nature Conservancy

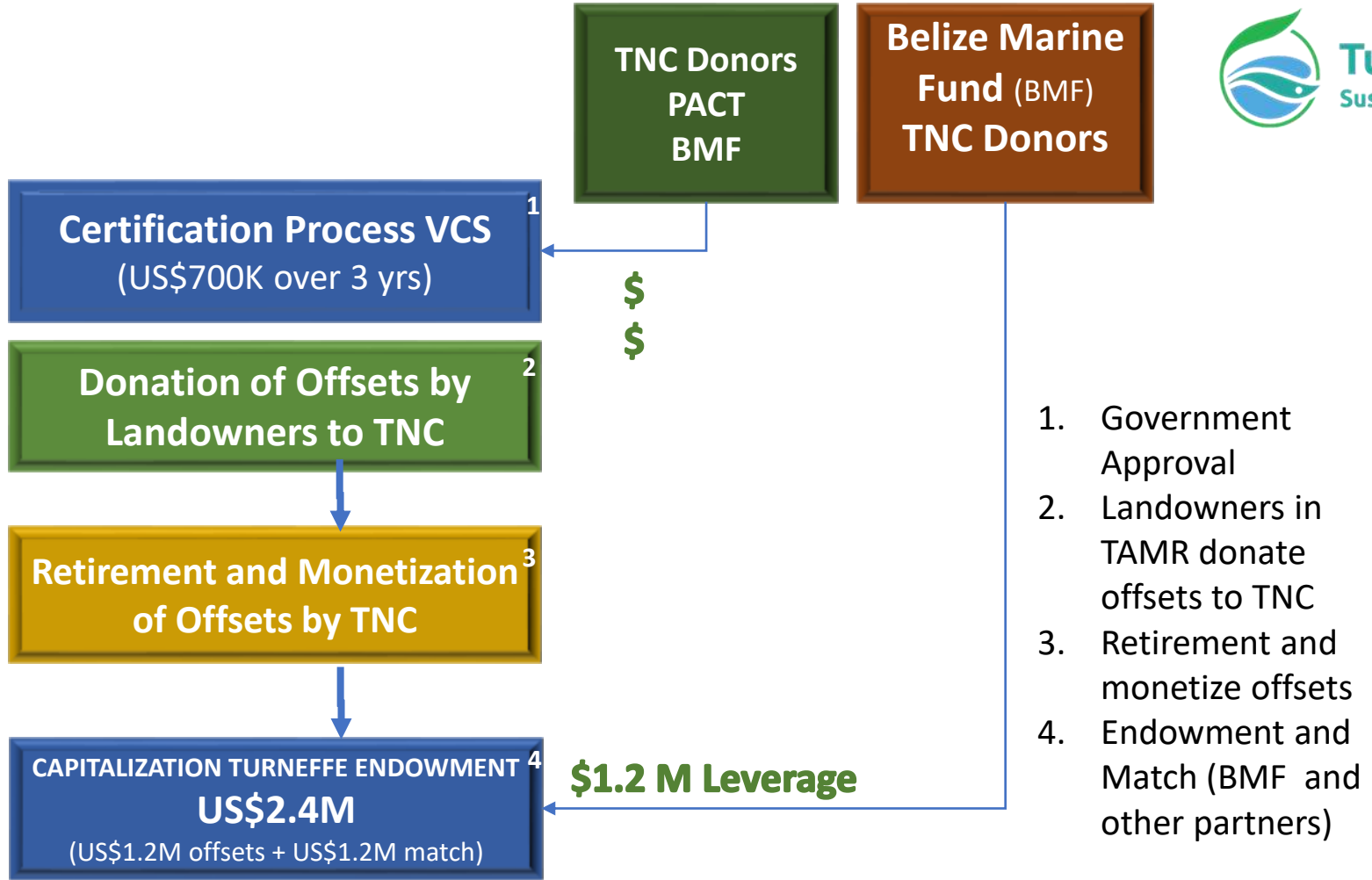
Author / S. Settelmyer

Date / February 28, 2019



Belize Blue Carbon Project Model Framework

Turneffe Private Lands



Continued Work Process

Programming the Donation of Offsets

Joint TNC – TASA Work

Landowners Donation Agreement

Retirement and Monetization of Offsets by TNC

Work by TNC

Development by Design (Full Plan)

Agreement for Registry

Agreement on Marketing

Establishment of Project Centers

Development of M and E

Work by TASA

Development of Mangrove Monitoring Plan

Blue Carbon is Part of the Future of Turneffe



Be patient.
Some things take
time.

Thank you for your attention.