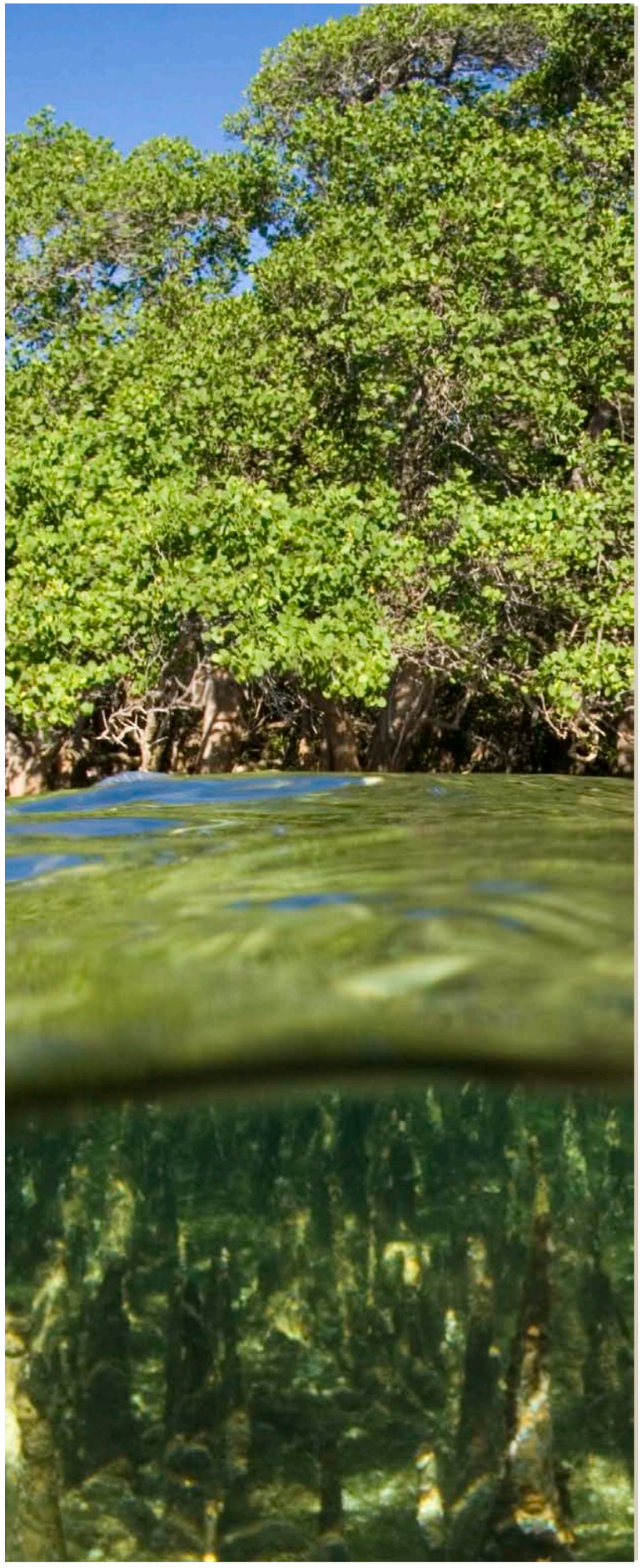


Better Coastal Management and Conservation through Blue Carbon

Progress and Plans

Emily Pidgeon
Senior Director
Strategic Marine Initatives
Conservation International

CONSERVATION INTERNATIONAL

Oceans play a vital role in controlling greenhouse gases

Deforestation

+

Fossil Fuels

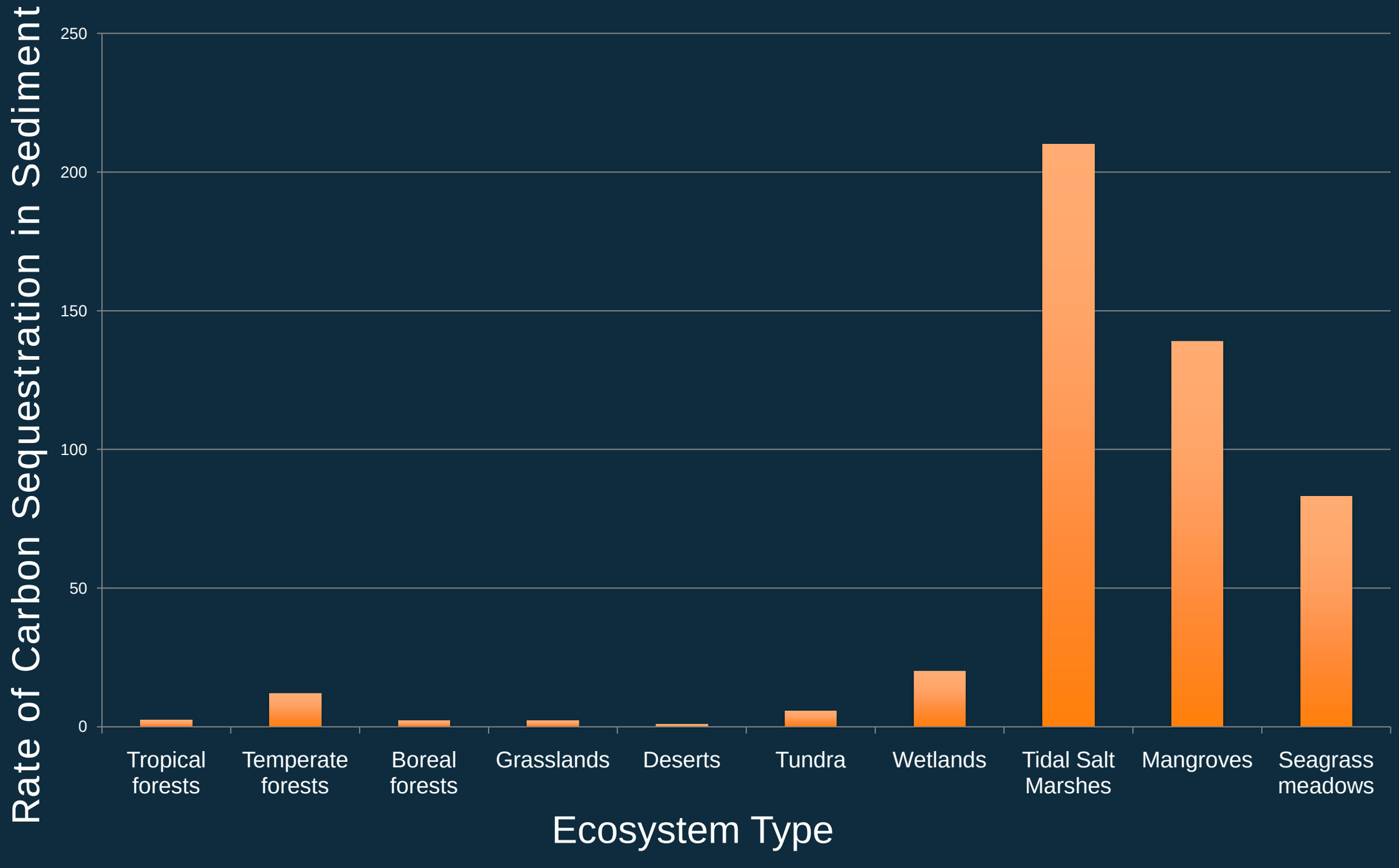
Atmosphere
46%

Land
29%

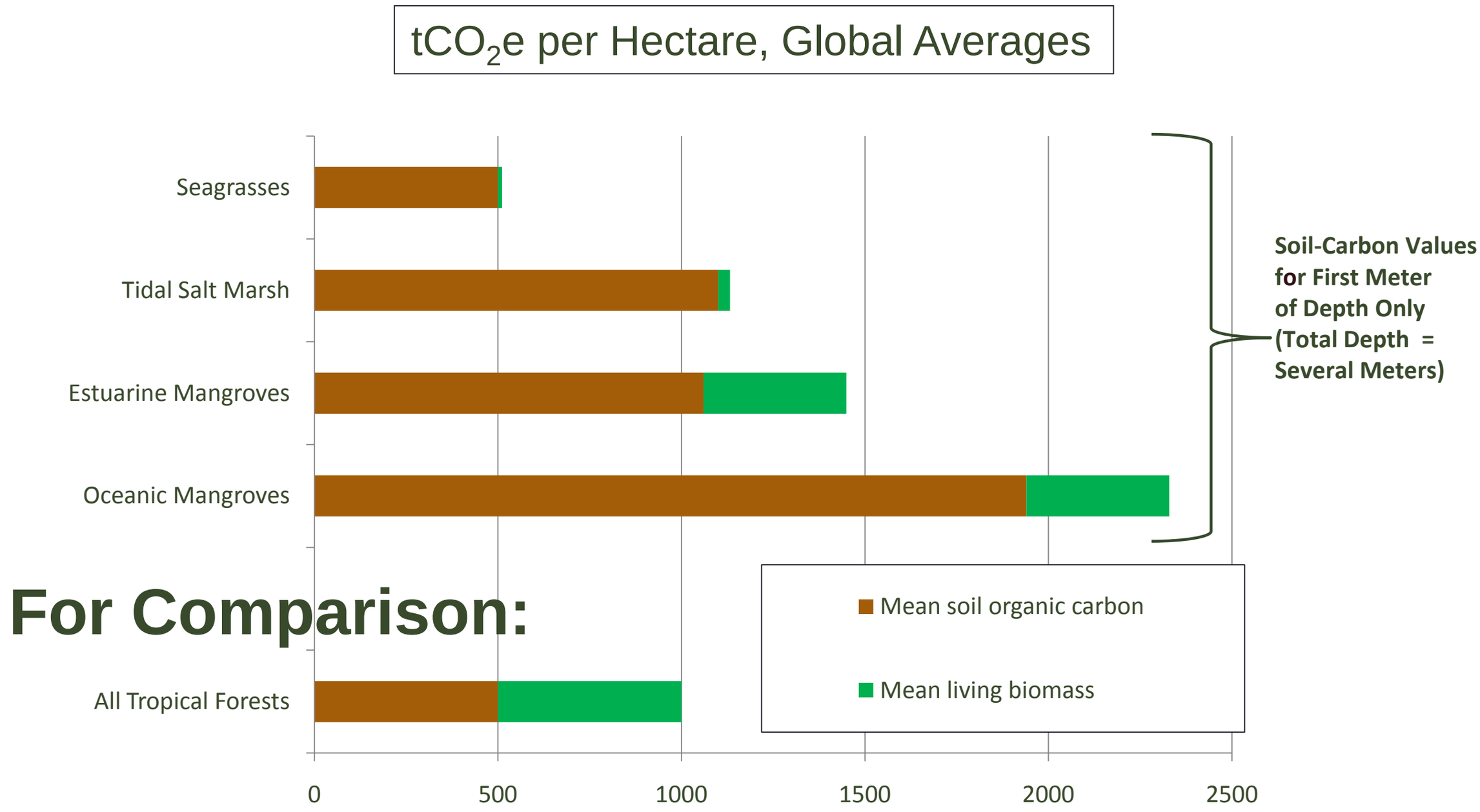
Oceans
26%

Coastal ecosystems transfer carbon from the atmosphere and ocean into sediments

Coastal ecosystems have very high rates of carbon sequestration.



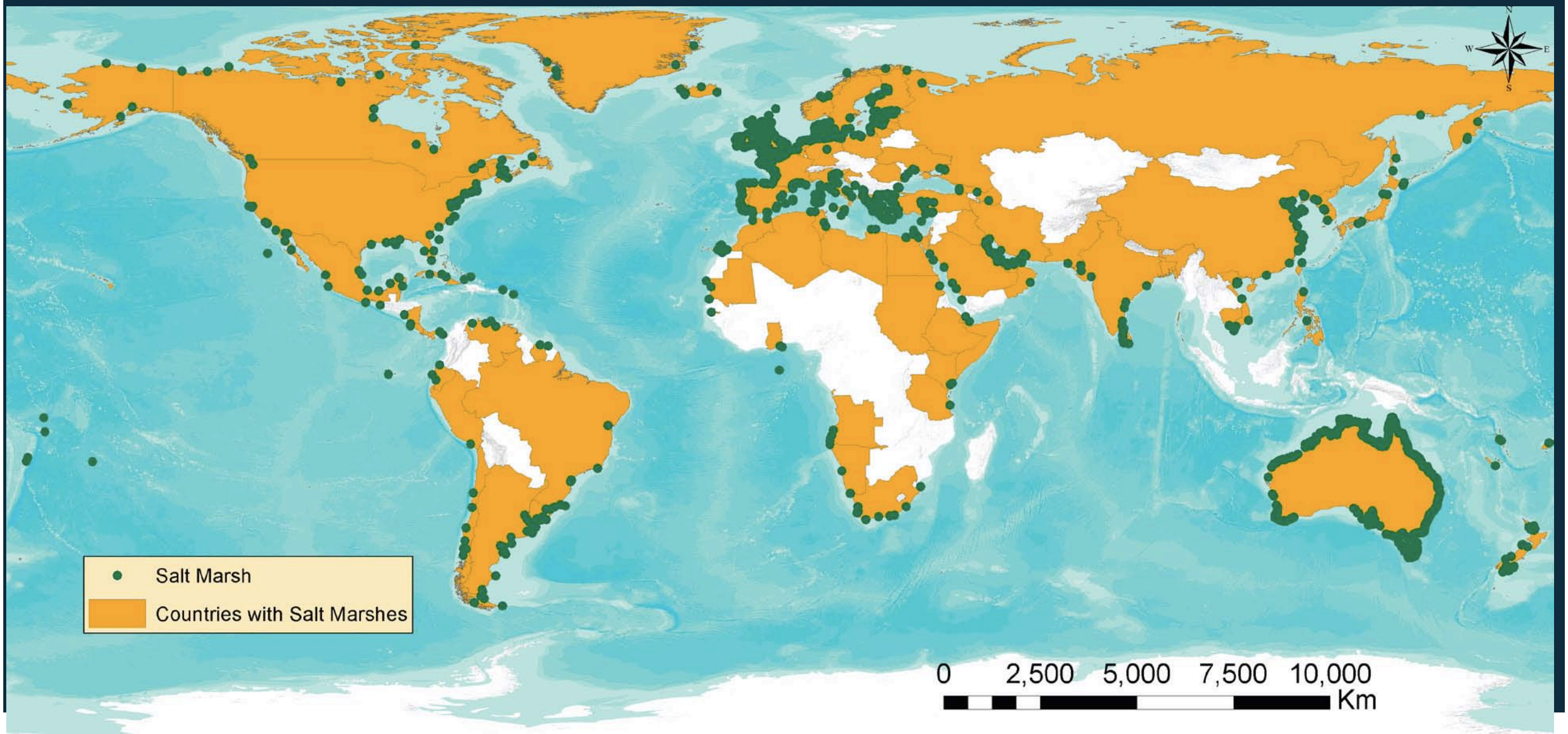
Coastal ecosystems are rich with carbon



Sources: IUCN, Duke Nicholas Institute

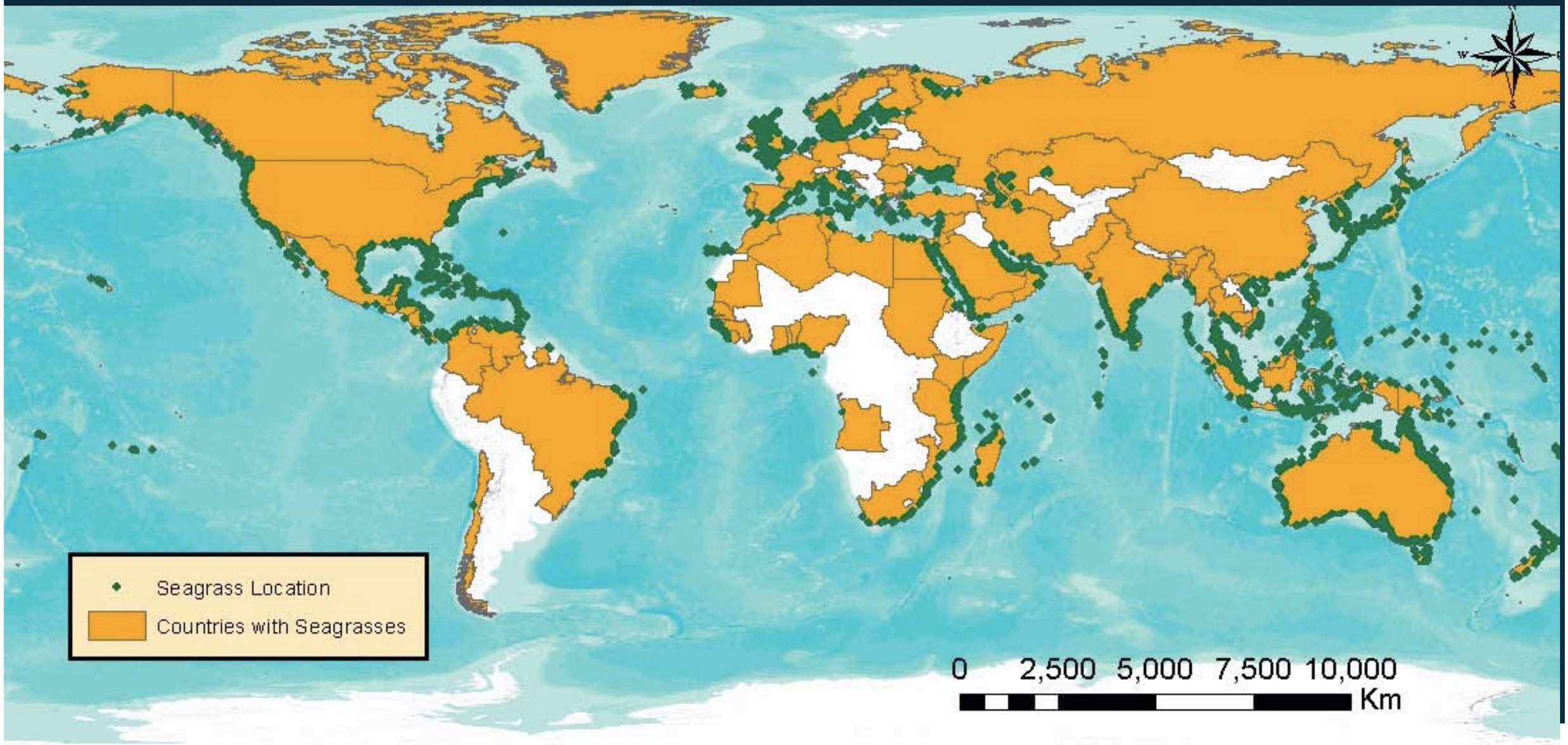
Global Distribution of Tidal Marshes

From Murray et al (2011) with UNEP-WCMC data



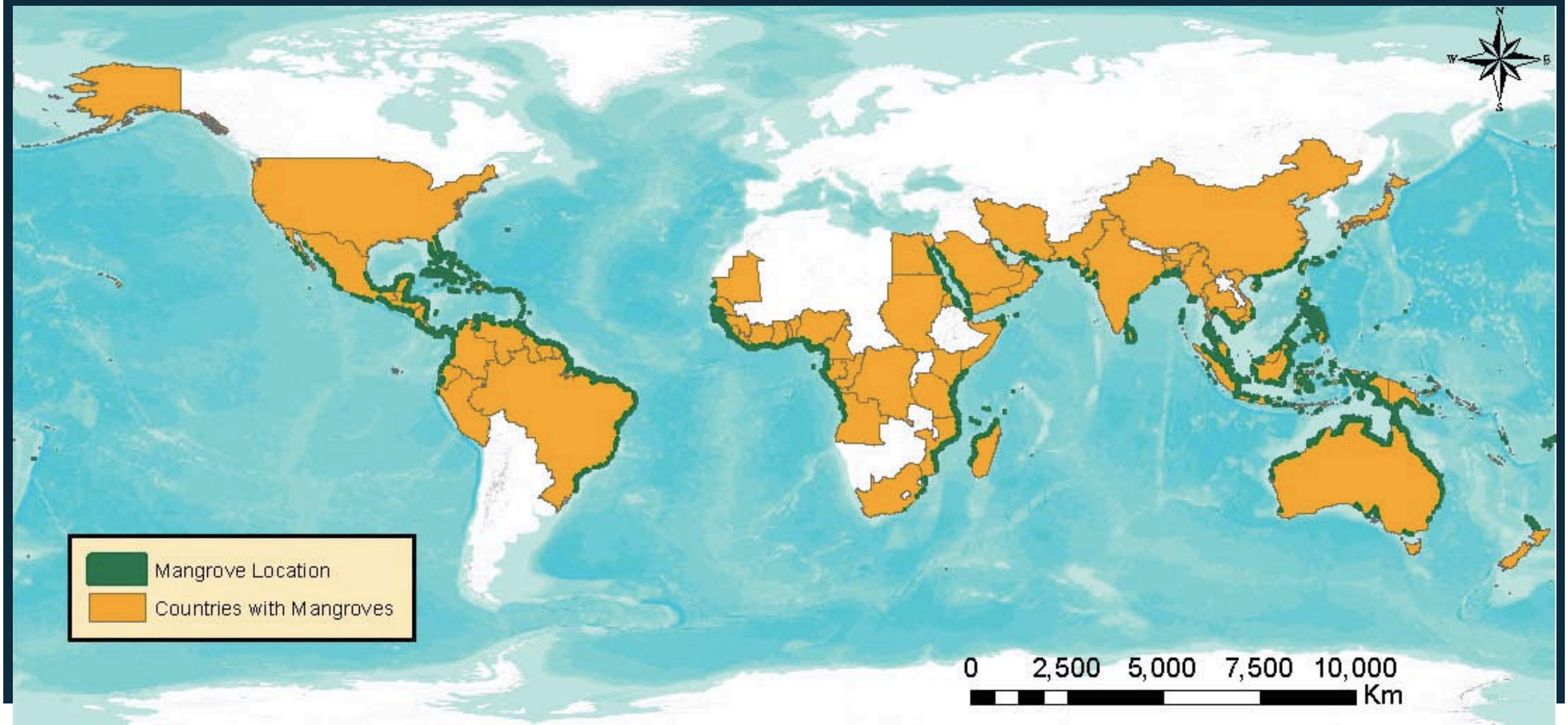
Global Distribution of Seagrasses

From Murray et al (2011) with UNEP-WCMC data



Global Distribution of Mangroves

From Murray et al (2011) with UNEP-WCMC data



These coastal systems are being rapidly lost and degraded

Coastal Habitat	Estimated Global Area (km^2)	Annual Loss	Total Loss
Seagrass	300,000	2%	29%
Salt Marsh	400,000	2%	50%+
Mangrove	152,000	1.8%	35%

GHG Sequestration and Emissions from Terrestrial Ecosystems

Tropical forests absorb about 18% of all CO_2 emissions
Tropical forests are being lost at ~0.5% per year

- Carbon offset projects are planting millions of trees per year to reforest tropical lands
- Increased recognition of the importance of forests for GHG sequestration
- Market/financial incentives to reduce GHG emissions from deforestation and degradation (REDD+ etc.)

Can “blue” carbon leverage better management, conservation and restoration of coastal ecosystems?

Increase recognition of mitigation value

- National policy and action
- International policy through IPCC, UNFCCC

Improve management and regulation

- actions that maintain stored carbon, minimise emissions

Provide basis for incentives to conserve or restore

- philanthropic giving
- conservation / development incentive agreements
- financial incentives for carbon credits (e.g. Voluntary Carbon Standard)

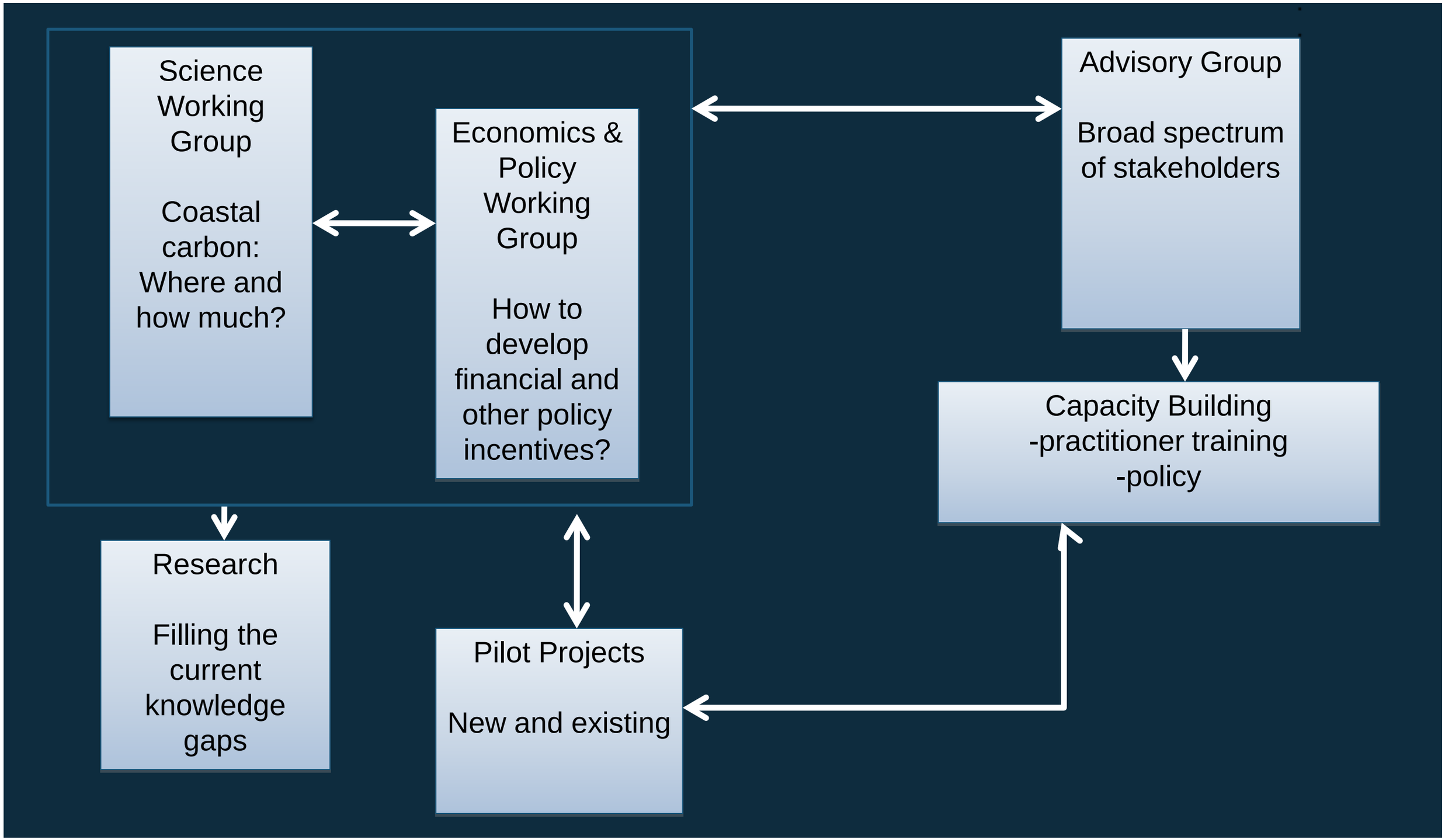
International Blue Carbon Initiative

CONSERVATION INTERNATIONAL

IUCN

United Nations Educational, Scientific and Cultural Organization

Intergovernmental Oceanographic Commission



International Blue Carbon Scientific Working Group

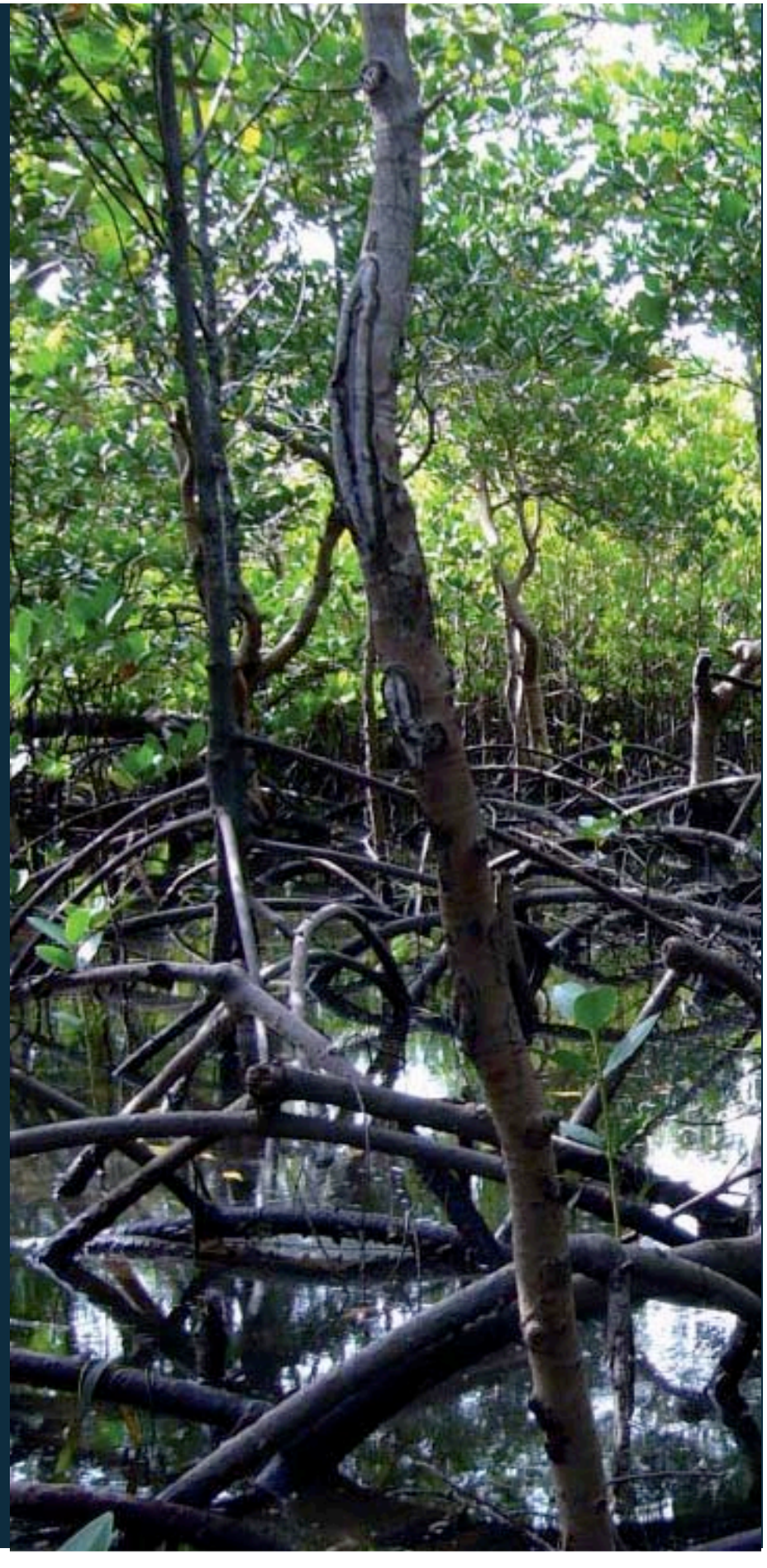
- Detail global relevance of coastal carbon
- Create standards for quantifying and monitoring blue carbon sequestration and emissions.
- Develop coastal conservation, planning, and management guidelines
- Support policy and other processes (IPCC, UNFCCC, VCS)
- Identify priority geographic areas and activities for demonstration projects.

International Blue Carbon Scientific Working Group

25 international experts
mangroves, seagrasses, tidal marshes,
carbon accounting, conservation
incentives, and remote sensing.

Meetings:

1st	Paris	15-17 February, 2011
2nd	Bali	26-28 July, 2011
3rd	Costa Rica	January 2012




Minimizing Carbon Emissions and Maximizing Carbon Sequestration and Storage by Seagrasses, Tidal Marshes, Mangroves
Recommendations from the International Working Group on Coastal "Blue" Carbon
The natural coastal ecosystems of seagrasses, tidal marshes, and mangroves sequester and store large quantities of carbon in both the plants and in the sediment below them. If destroyed, degraded or lost these coastal ecosystems become sources of carbon dioxide emitted into the ocean and atmosphere. Much of this emitted carbon is thousands of years old and other processes in the ecosystem do not balance its rapid release into the oceans and atmosphere. Given the large quantity of carbon in coastal ecosystems relative to their area, these emissions are likely of global significance. This loss of a globally significant carbon pool is additional to the other recognized critical ecosystem services provided by coastal ecosystems.
Seagrasses, tidal marshes, and mangroves are being degraded and destroyed at a rapid pace along the world's coastlines. There is a need for active and effective measures to protect the large and vulnerable carbon pools stored in these systems, and to restore and reestablish their carbon sequestration capacity. Immediate steps can be taken now by coastal communities, managers, policy makers and the scientific community.
03/11

Current Activities

Support IPCC process

- Peer-reviewed science
- IPCC Task Force on National Greenhouse Gas Inventories

Global Costal Carbon Data Archive (GCCDA)

- Support data management practices,
- Standardize data
- Collate, in a common format, all available carbon data for coastal ecosystems.

Partnership with UNEP-WCMC

Blue Carbon Field Manual

International Blue Carbon Policy Working Group

Provide guidance for “blue carbon” policy development that supports and finances management of coastal ecosystems for climate change mitigation

Build integrated Blue Carbon Community supporting the implementation of priority activities

Meeting
July 2011 VA, USA
March 2012 Paris?

Relevant International Agreements and Fora

Climate Change

UNFCCC

NAMAs

IPCC

REDD +

CDM

Forest Carbon Partnership Facility

REDD-Plus Partnership

UN-REDD

Voluntary Carbon Market

Verified Carbon Standard

Ocean/conservation

Convention on Biological Diversity

Ramsar Convention on Wetlands

UN Conference on Sustainable Development (Rio +20)

United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea

UNEP Global Programme of Action for the Protection of the Marine Environment from Land-based Activities

General outcomes

"Blue Carbon" concept not necessarily useful in policy context.

Different policy mechanisms may be needed for the three different ecosystems.

Integration & demonstration into existing policy mechanisms preferable rather than big policy change

Integration into the IPCC process is essential (data & methodologies must be made available)

Blue Carbon Policy Framework

1. Integrate coastal conservation, sustainable use and restoration activities into existing financial incentive mechanisms for climate change mitigation.

2. Develop a network of demonstration projects

3. Integrate coastal ecosystem conservation, sustainable use and restoration activities as a mechanism for climate change mitigation in international and regional policy

4. Integrate coastal ecosystem conservation, sustainable use and restoration activities as a mechanism for climate change mitigation in national, sub-national and sectoral policy

5. Facilitate the inclusion of the carbon value of coastal ecosystems in the accounting of ecosystem services

Immediate Policy opportunities

- Ensure latest science is published by cut-off date for IPCC AR5 (July 2012) and IPCC Task Force on supplementary guidelines for wetlands (October 2012)
- IPCC Task Force on National Greenhouse Gas revising guidelines for GHG reporting
- Science summary for policy-makers
- UNFCCC SBSTA submission on developments in research activities relevant to the needs of the Convention (19 September)

Other ongoing activities

Carbon finance mechanisms

Verified Carbon Standard

- VCS Technical Working Group on Wetlands (Restore America's Estuaries)
  - Revising requirements of the VCS AFOLU standard to include wetlands
  - Additionality test – RAE team funded by NOAA
- Peat rewetting methodology (VCS)

Clean Development Mechanisms (CDM) methodology for mangrove restoration

National level activities: next priority

Need to demonstrate viability of “Blue Carbon” as incentive mechanism for coastal conservation.

National level accounting (NAMAs etc.)

Potential **pilot project** sites:

- Significant carbon deposits
- Political/social conditions for developing incentive mechanism
- National governments supportive of coastal carbon – potential to leverage national and international policy from site level actions

For more information
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