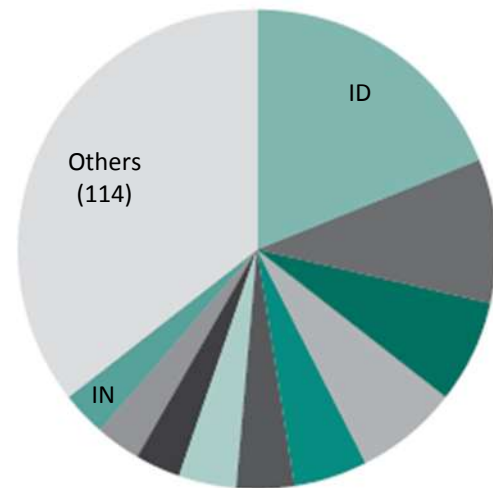# Mainstreaming mangrove potential into global CC mitigation and adaptation policy
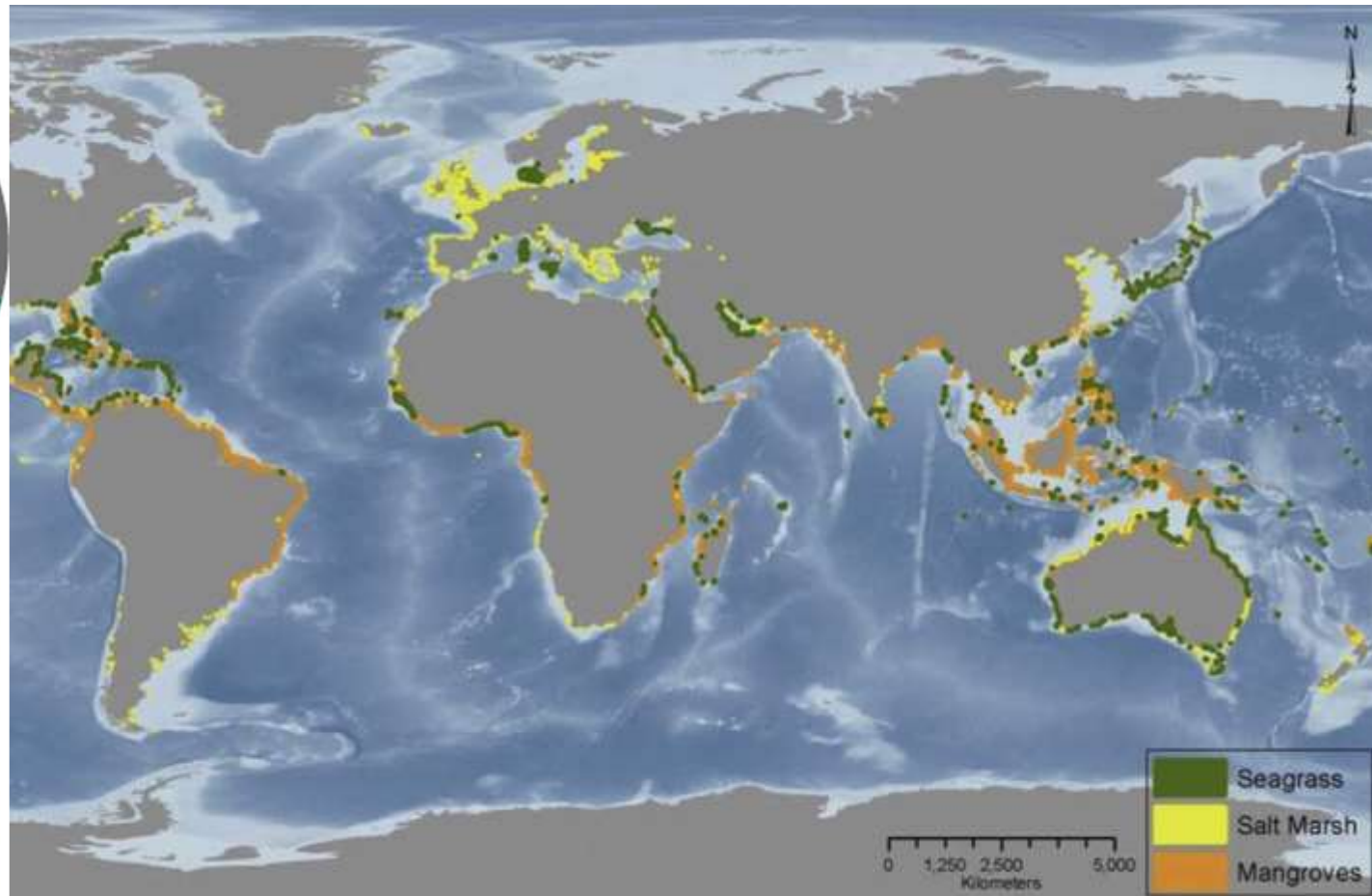
Daniel Murdiyarso

Center for International Forestry Research (CIFOR)
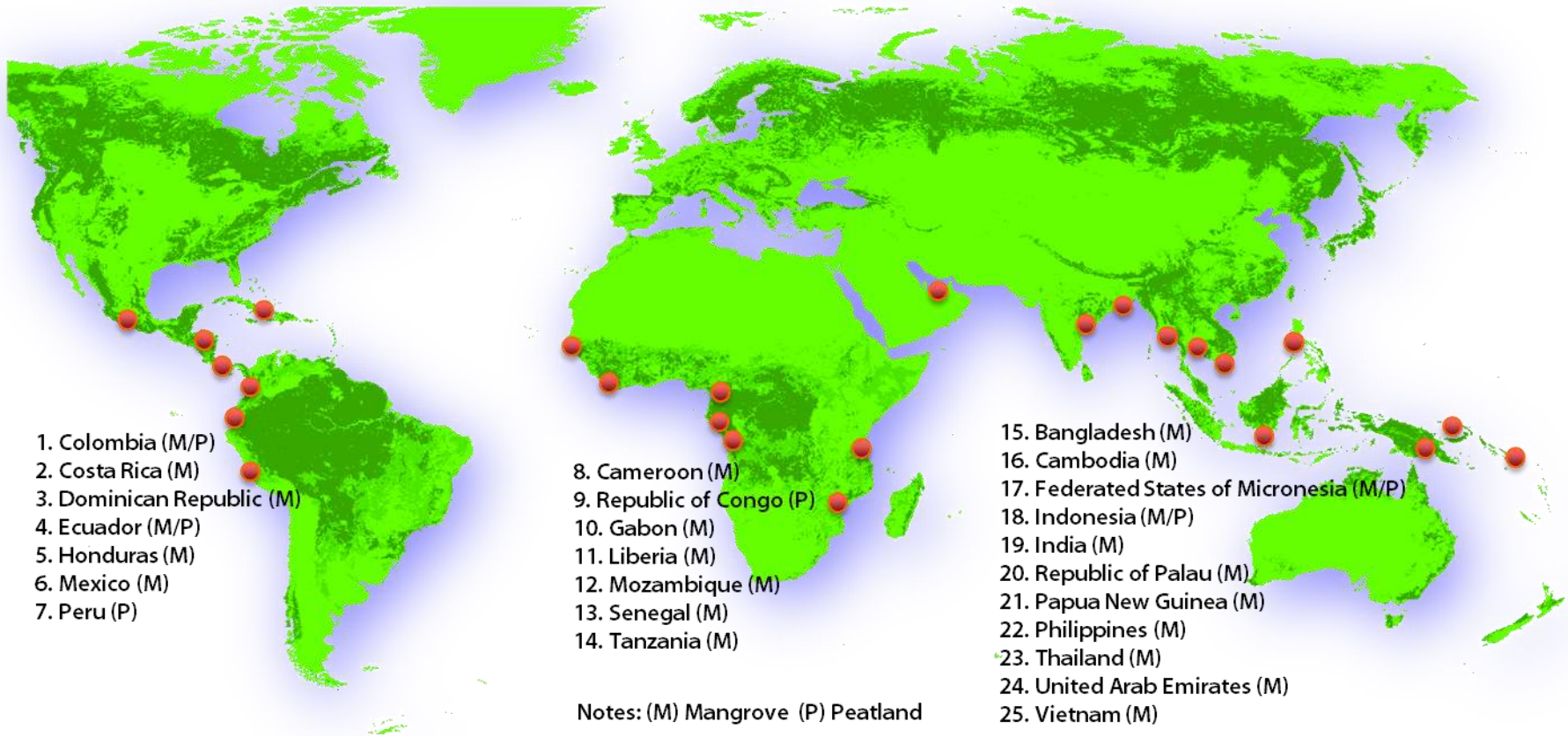
Global mangroves distribution

	Indonesia	19%
	Australia	10%
	Brazil	7%
	Nigeria	7%
	Mexico	5%
	Malaysia	4%
	Cuba	4%
	Myanmar	3%
	Bangladesh	3%
	India	3%
	Others	35%

Seagrass
Salt Marsh
Mangroves

Source: FAO (2007)

UNEP-WCMC, ISME 2011

Where we work?

1. Colombia (M/P)
2. Costa Rica (M)
3. Dominican Republic (M)
4. Ecuador (M/P)
5. Honduras (M)
6. Mexico (M)
7. Peru (P)

8. Cameroon (M)
9. Republic of Congo (P)
10. Gabon (M)
11. Liberia (M)
12. Mozambique (M)
13. Senegal (M)
14. Tanzania (M)

15. Bangladesh (M)
16. Cambodia (M)
17. Federated States of Micronesia (M/P)
18. Indonesia (M/P)
19. India (M)
20. Republic of Palau (M)
21. Papua New Guinea (M)
22. Philippines (M)
23. Thailand (M)
24. United Arab Emirates (M)
25. Vietnam (M)

Notes: (M) Mangrove (P) Peatland

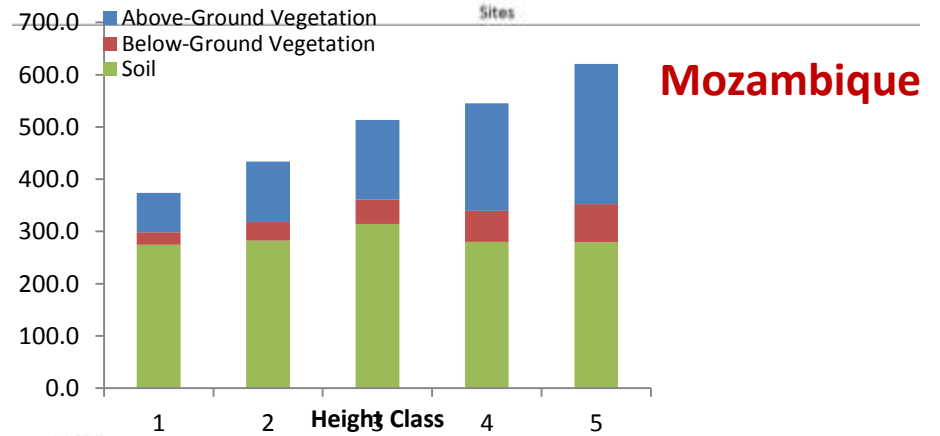CIFOR — CENTER FOR INTERNATIONAL FORESTRY RESEARCH
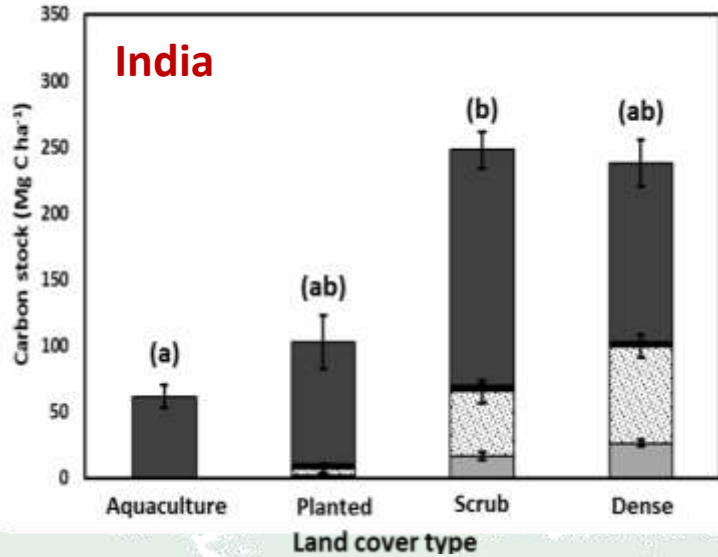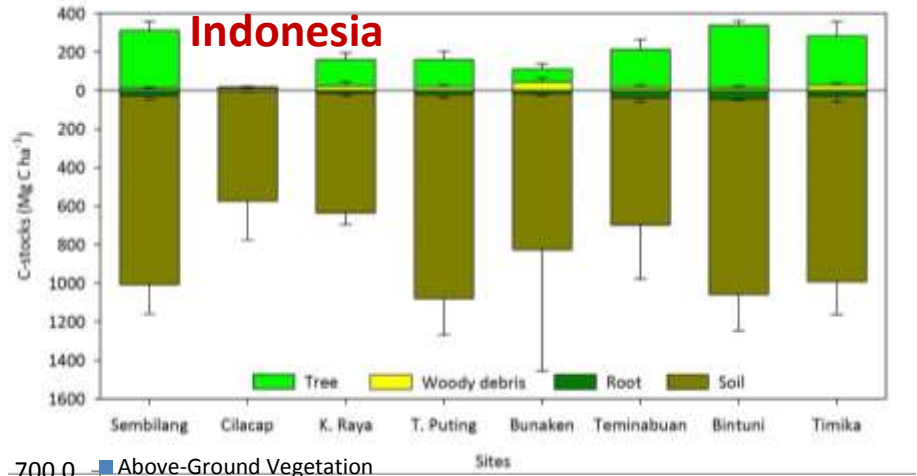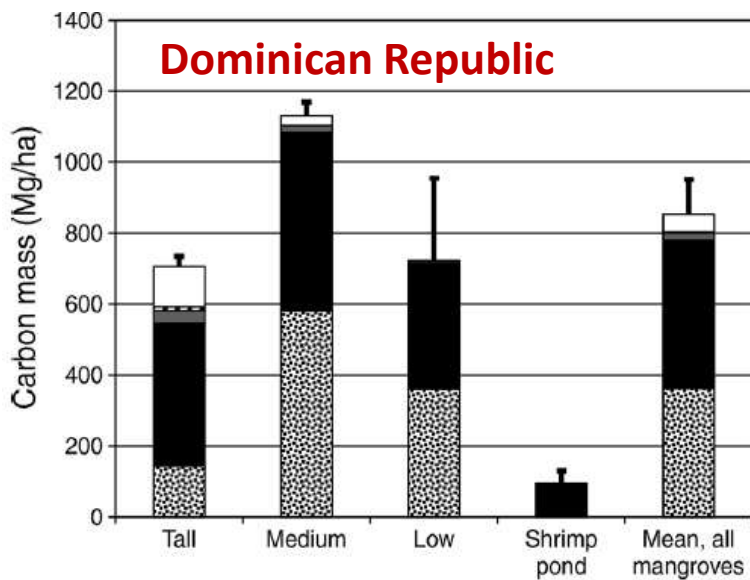
CGIAR

Blue Carbon in the NDC

Maps produced by Elsa Lindevall, GRID-Arendal

Carbon burial rates and stocks
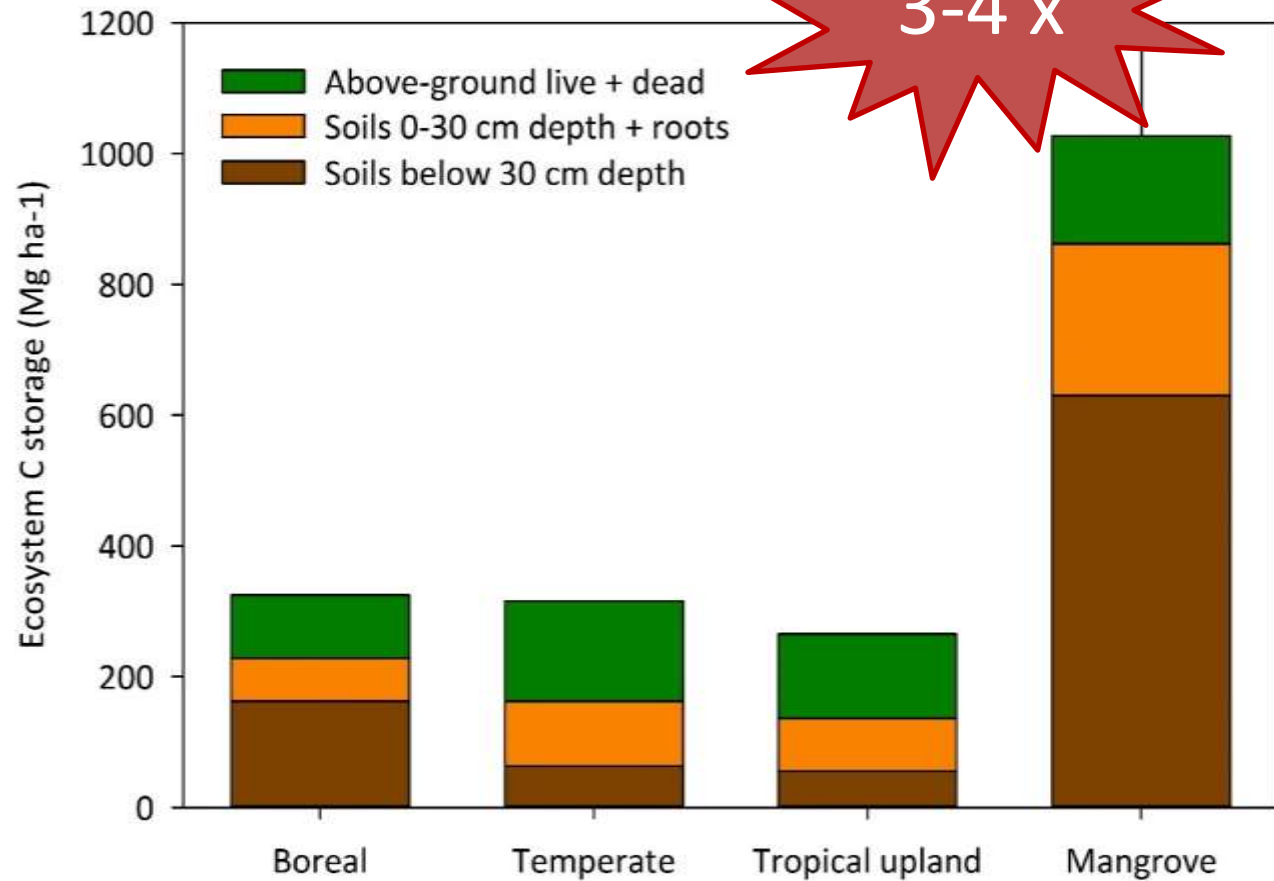
Source: Donato et al. (2011). *Nature Geoscience.*

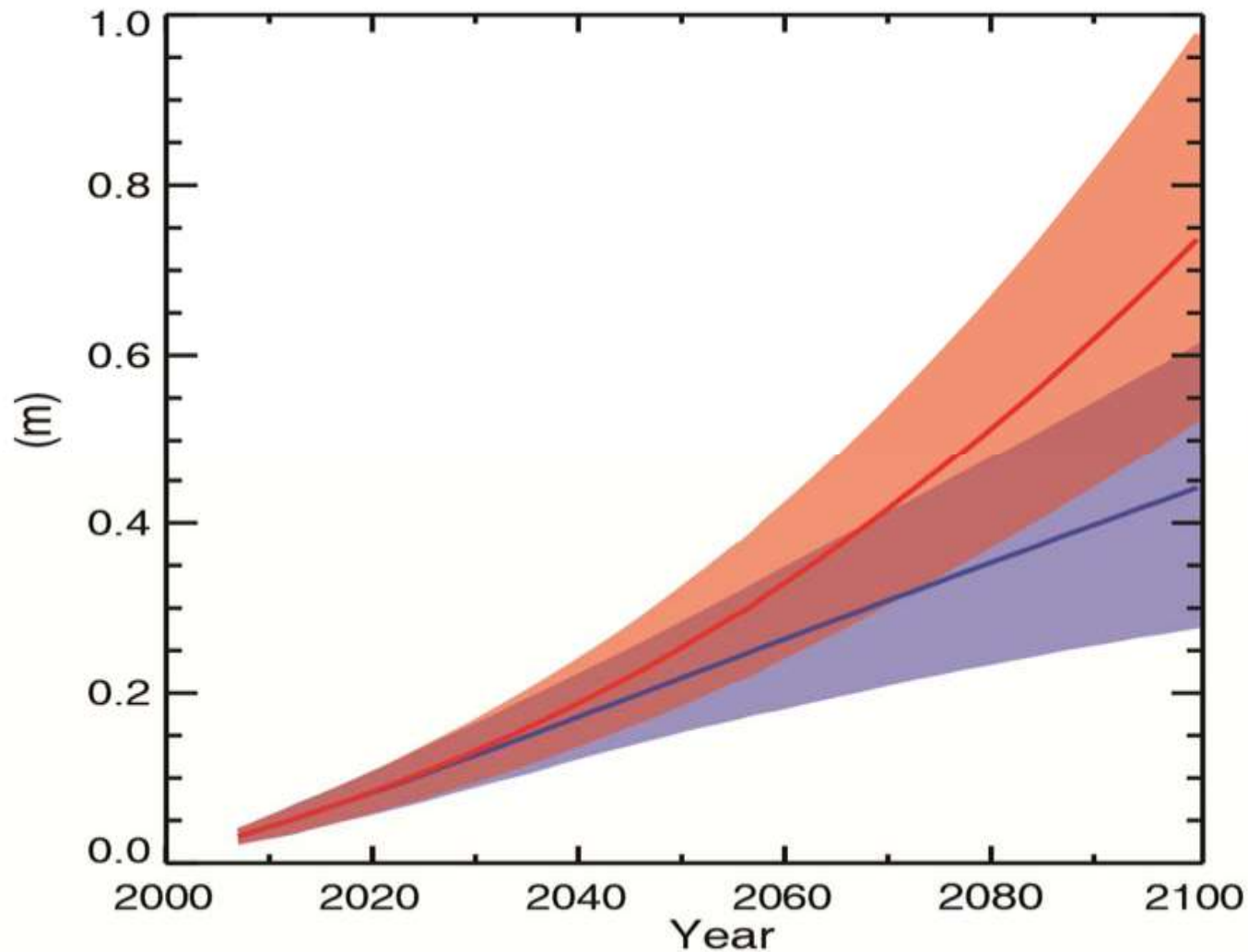**Dominican Republic**

Indonesia

India

Mozambique

Vietnam

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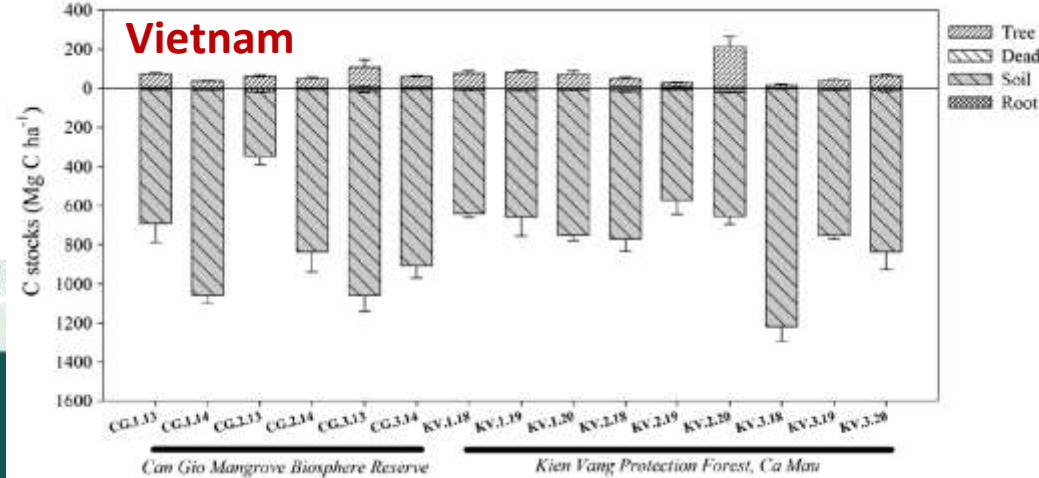
Mitigation potential - 40,000,000 fewer cars

Sea Level Rise – IPCC AR5
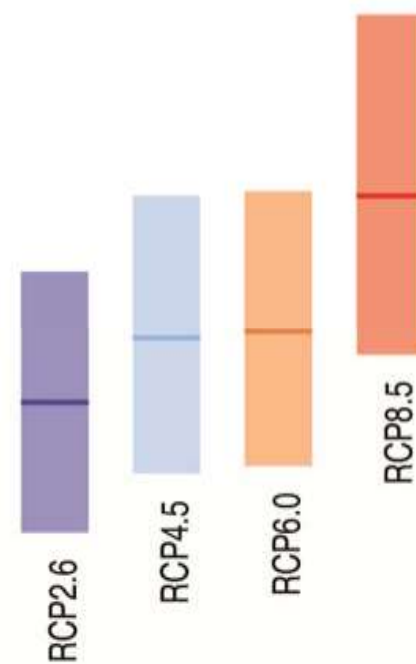
Source: IPCC (2013)

Adaptation potential

Sedimentation rates (mm year^{-1})

- mudflat: 4.3
- fringe: 5.6
- interior: 3.7

Regional sea level rise
4.2 mm/yr

Global sea level rise
2.9 mm/yr

Caccumulation rate (g-C m-2 year-1)

- mudflat: 40.16
- fringe: 50.12
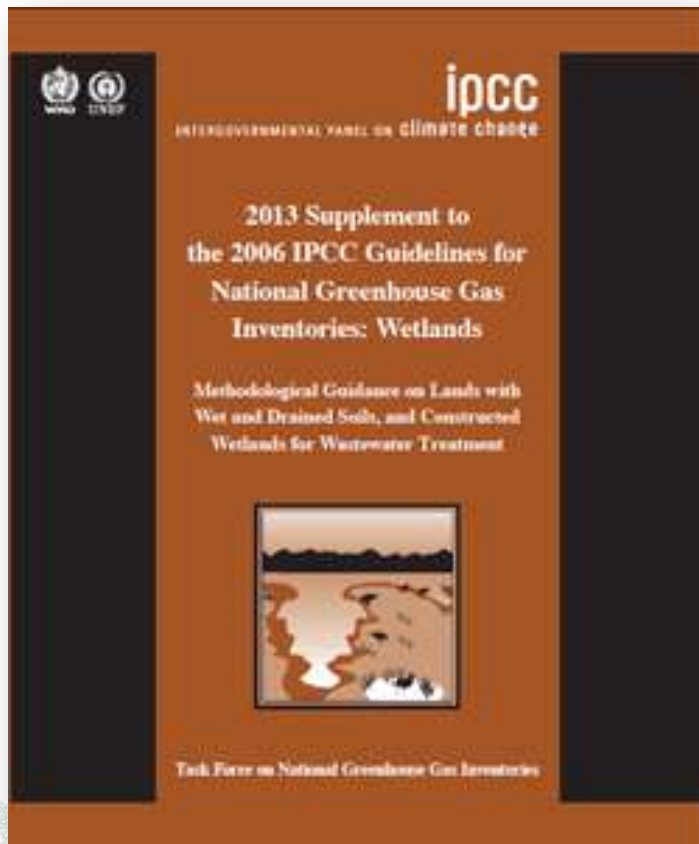- interior: 47.72
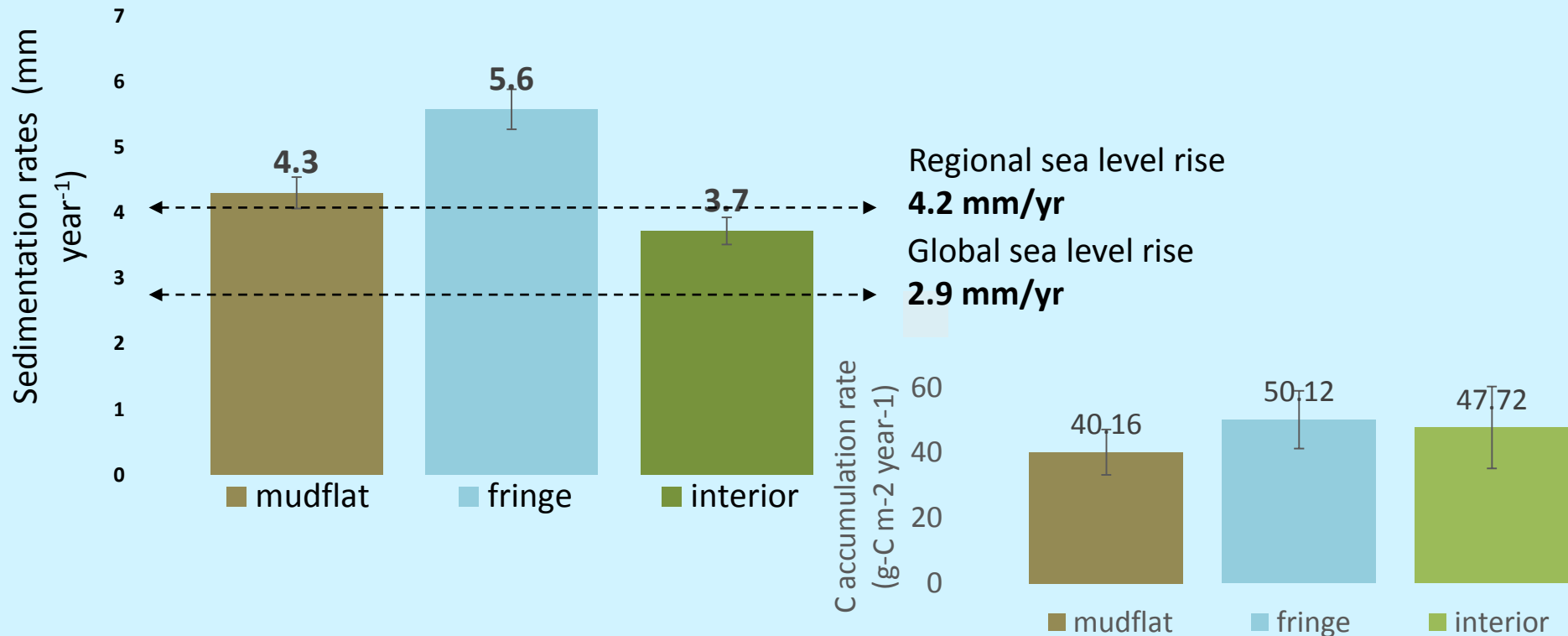
Methodology - reporting

1. Introduction
2. Drained Inland Organic Soils
3. Rewetted Organic Soils
4. Coastal Wetlands
5. Inland Wetland Organic Soils
6. Constructed Wetlands for Wastewater Treatment
7. Cross-cutting Issues and Reporting

2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands

Methodological Guidance on Lands with Wet and Drained Soils, and Constructed Wetlands for Wastewater Treatment

Task Force on National Greenhouse Gas Inventories

Mainstreaming mangroves in PA

- NDC (Art.4)
- REDD+ (Art.5)
- Adaptation (Art.7)
- Loss and Damage (Art. 8)
- Financial mechanisms
  - Special Climate Change Fund (SCCF)
  - Global Environmental Facility (GEF)
  - Green Climate Fund (GCF)

Mainstreaming mangroves into the SDG

By 2020, sustainably manage and protect **marine and coastal ecosystems** to avoid significant adverse impacts, including by <u>strengthening their resilience</u>, and take action for their <u>restoration</u> in order to achieve <u>healthy</u> and productive oceans

Thank you

www.cifor.org/swamp