



University of
St Andrews



2021
2030

United Nations Decade
of Ocean Science
for Sustainable Development



Global
Ocean
Decade
Programme
for
Blue
Carbon

Global Ocean Decade Programme for Blue Carbon

Ocean Decade Programme



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of Ocean Science
for Sustainable Development

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IOCARIBE Technical Science Meeting & Dialogue

“A Warming Ocean”

1 Recharting Blue Carbon Science: Priority Questions for the Next Decade

2

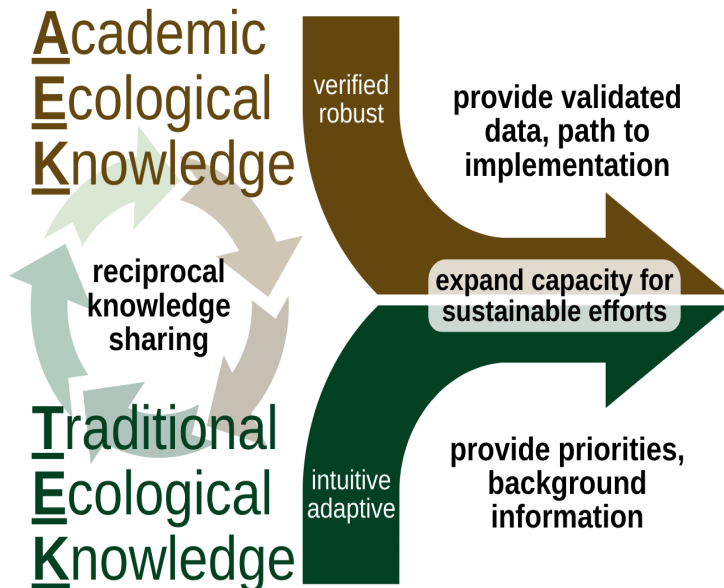
3 Peter I. Macreadie^{1, 2}, George E. Biddulph³, Pere Masque⁴, Hilary Kennedy⁵, Jimena Samper-
4 Villarreal⁶, Patrick Megonigal⁷, Hannah K. Morrisette⁷, Tania E. Romero-Gonzalez⁸,
5 Vanessa Hatje^{9, 10}, Jana Friedrich¹⁰, Sigit D. Sasmito¹¹, Kenta Watanabe¹², Inés Mazarrasa¹³,
6 Dorte Krause-Jensen¹⁴, Janine B. Adams¹⁵, Miguel Cifuentes-Jara^{16, 17}, Ariane Arias-Ortiz¹⁸,
7 Andre S. Rovai^{19, 20}, Milica Stankovic^{21, 22}, Kirsten Isensee²³, Ana M. Queirós²⁴, Luzhen
8 Chen²⁵, Jorge Herrera-Silva²⁶, Catriona Hurd²⁷, Rashid Ismail²⁸, Ken W. Krauss²⁹, Anna
9 Lafratta⁴, William E. N. Austin^{3, 30}



GO-BC Science Technical Working Group,
IAEA, Vienna (November 2023)
<https://www.go-bc.co.uk/>



Q1. *How can we manage and conserve BCEs while supporting the livelihoods of coastal communities?*



adapted from Albuquerque et al. (2021)





*Q4. How can we improve
estimates of human activities
and restoration on BC cycling?*

Coastal wetland to...
...created wetland
...cropland
...aquaculture pond

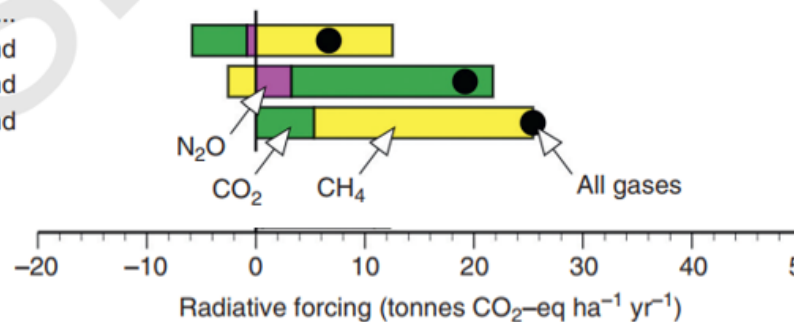


Figure 3.5 Contributions of CO₂, CH₄, and N₂O to radiative forcing due to land use/land cover change. The bar segments show the radiative forcing from each individual gas. Black circles show the overall radiative forcing from all three gases combined. Source: Data from Tan et al. (2020).



Q7. Can we simplify BC crediting, while also maintaining appropriate integrity standards?

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TECHNICAL ADVANCE

Global Change Biology WILEY

The Coastal Carbon Library and Atlas: Open source soil data and tools supporting blue carbon research and policy

James R. Holmquist¹ | David Klimes^{1,2} | Michael Lonneman¹ | Jaxine Wolfe¹ |
Brandon Boyd³ | Meagan Eagle⁴ | Jonathan Sanderman⁵ | Kathe Todd-Brown² |
E. Fay Belshe² | Lauren N. Brown⁶ | Samantha Chapman⁷ | Ron Corstanje⁸ |
Christopher Janousek⁹ | James T. Morris¹⁰ | Gregory Noe¹¹ | André Rovai¹² |
Amanda Spivak¹³ | Megan Vahsen¹⁴ | Lisamarie Windham-Myers¹⁵ | Kevin Kroeger⁴ |
J. Patrick Megonigal¹

Blue Carbon Database Report

Coastal Carbon Network
Database Version 1.2.0

April 22, 2024

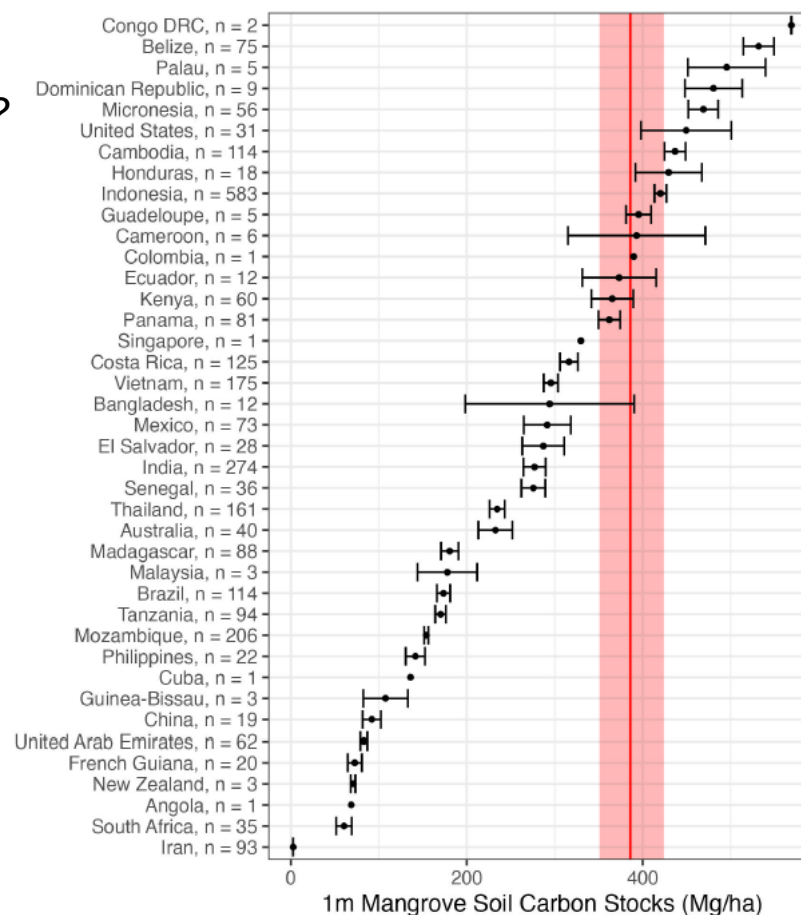


Figure 6. Mangrove soil carbon stocks standardized to the top one meter of soil by country compared to our database's calculated global average.



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FOR
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Foreign, Commonwealth
& Development Office



Department
for Environment
Food & Rural Affairs

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IOCARIBE Technical Science Meeting & Dialogue

“A Warming Ocean”



South Clarendon, Jamaica (March 2025)



UK Blue Carbon Evidence Partnership Evidence Needs Statement

June 2023



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Global
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Kingston, Jamaica (March 2025)



CALL FOR DECADE ACTIONS NO. 09/2025 IS OPEN!

The vision of the Ocean Decade is ‘the science we need for
the ocean we want’.

GO-BC is seeking to support a regional Blue
Carbon HUB in the wider Caribbean for
possible endorsement as a new action within
the UN Ocean Decade Programme.

Please contact:

Professor William (Bill) Austin

wena@st-andrews.ac.uk