

Blue Carbon and NDCs: Financing Blue Natural Capital as NbS

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Setting the Scene

- What is Blue?
 - Blue Carbon: ecosystems, markets and credits
 - Blue NDCs: Nationally determined contributions under the Paris Agreement
 - Blue natural capital
 - Blue Finance for Nature-based solutions (NbS)
 - Blue economy and the just transition to address climate, biodiversity, risk and resilience



Carbon Markets

- One carbon credit equal one ton CO₂e of avoided, reduced or removed emissions
 - Baseline GHG calculation plus achieved mitigation
 - 4.7 Gt Co₂e of carbon credits issued since 2007 (0.5Gt in 2021)
- Compliance markets (Kyoto, Paris Art 6.4 via NDCs, CORSIA)
 - (see TNC explainer: QUESTIONS AND ANSWERS ABOUT THE COP27 DECISIONS ON CARBON MARKETS AND WHAT THEY MEAN FOR NDCS, NATURE, AND THE VOLUNTARY CARBON MARKETS)
 - See: COP28 REPORT :“Realising the full potential of carbon pricing and markets:”
 - Art.6.2 first IMTO: Switzerland and Thailand
- Voluntary markets (VCM) based on independent verification (Verra et al)
 - Demand: Corporates and others as part of net zero commitments
 - Supply: Project developers and others, NGO partners etc
 - High Costs to development and verification
 - Limited financing options for projects and developers pre credits



Blue Carbon Markets

- Specific blue carbon credits based standards and methodologies for mangroves etc (REDD+, Tidal Wetland and Seagrass Restoration, Seascapes etc): Gold Standard, Plan Vivo, Verra etc
- Public frameworks (Australia ERF, Andalusia, France Bas-Carbone)

World Bank. 2023. Unlocking Blue Carbon Development: Investment Readiness Framework for Governments. © Washington, DC: World Bank.

- A small market to date (1m tons of credits issued in 2021, traded at \$15-30 per ton)
- A complex universe of parties involved, with high transaction cost
- Standards under development to address cost and MRV issues:
- High-Quality Blue Carbon Principles and Guidance.
- https://merid.org/wp-content/uploads/2022/11/HQBC-PG_FINAL_11.8.2022.pdf
- Mangrove Breakthrough Financial Roadmap: US\$4billion



Blue NDCs

- Nationally Determined Contributions (NDCs) are the key mechanism for States Parties to deliver on their Paris Agreement commitments
- A large number of countries have begun to include marine and coastal mitigation and adaptation commitments, using a wide variety of approaches
- The social cost of carbon (SCC), that is the present value of all climate damage of the emission of an additional ton of carbon, exceeds US\$100 per ton, US EPA suggests \$190 per ton <https://www.nature.com/articles/s41558-021-01089-4>
- To monitor the achievements of the NDCs, establishing an annual-based accounting mechanism is necessary: (Liu, J et al (2024) Blue carbon accounting to monitor coastal blue carbon ecosystems. Journal of Environmental Management 352)
- Policy commitments vs finance



COASTAL AND MARINE ECOSYSTEMS AS NATURE-BASED SOLUTIONS IN NEW OR UPDATED NATIONALLY DETERMINED CONTRIBUTIONS

- How to quantify overall impact?
- Blueing' the NDCs: An Updated Review of Ocean-Based Nationally Determined Contributions of Commonwealth Countries
- <https://ndcpartnership.org/news/blue-carbon-coastal-wetlands-ecosystems-trends-ndc-partnership-support>
- <https://www.undp.org/latin-america/publications/blue-economies-and-nature-based-solutions>
- <https://www.unep.org/gan/resources/publication/blue-nature-based-solutions-nationally-determined-contributions-booklet>



Blue Finance: Introduction

- Blue Finance as narrative, integrating ocean opportunities with sustainable financing for a sustainable blue economy
- Particularly important to those companies and areas with
 - strong interdependence with a healthy ocean
 - value chains that depend on nature-based solutions
 - financial sector taxonomies
- Addressing blue finance: (<https://oceanpanel.org/publication/ocean-solutions-to-climate-change/>)
- Impact assessment to facilitate ocean investment



Blue Natural capital

- Economic Valuation Approaches
- Ecosystem Accounting
- Blue Natural Capital as an Asset class
- Blue Carbon credits
 - Blue carbon Handbook: Schindler Murray, L., Milligan, B. et al. (2023). "The blue carbon handbook: Blue carbon as a nature-based solution for climate action and sustainable development." Report. London: High Level Panel for a Sustainable Ocean Economy
 - <https://bluenaturalcapital.org/>
 - A range of co-benefits in terms of resilience, adaptation, biodiversity, water quality





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DU GRAND-DUCHÉ DE LUXEMBOURG
Ministère de l'Environnement, du Climat
et du Développement durable

Blue Natural Capital Financing Facility – *Supporting the transition towards a sustainable blue economy*

Blue economy

- Blue economy - Concept and recent Developments
 - o Sectors, Transition and Innovation
 - o Sustainable Blue Economy Finance Principles
 - o Finance Approaches
 - Impact investment funds (EU Blue.Invest) and Accelerators
 - Development Finance Institutions (Cartagena Ocean Action)
 - o Ocean - Climate Solutions (OceanPanel, NET ZERO PORTFOLIOS)
 - o Regenerative Blue Economy: Ecosystem Focus
 - o Blue Infrastructure: Integrating Nature-based solutions, In-setting



National scale under UNFCCC REDD+

- Paris Agreement Article 6.2 creates a new carbon market for Parties and corporates
- It allows voluntary cooperative approaches for countries and private sector entities seeking to increase their mitigation ambition when implementing their NDCs and net zero goals.
- This will happen through the transfer of carbon reductions or removals called Internationally Transferrable Mitigation Outcomes (ITMOs).
- Few financial institutions and corporations are so far aware of ITMOs
- UNFCCC REDD+ sovereign carbon credits are the first eligible units.



Blue Carbon Market Suggestions

- A properly structured, regulated and liquid high quality blue carbon assets market, with safeguards to vet buyers and ensure prices are commensurate with the SCC, ie significantly in excess of EUR 100 per ton.
- Registries and other market bodies to be created at national and transnational level to help deliver trading and investment formats.
- Revenues from initial issuance of credits fully spent at local/ project level to ensure benefits reach restoration and protection
- National markets fully integrated with NDCs so as to exclude double-counting and to ensure that international transactions can only proceed if national goals are fully met and price signals are robust
- Need for 1.5degrees pathway alignment of participating economic actors.



Sustainable conservation finance

- Sustainable conservation finance for the blue economy, and marine and coastal NbS
 - Equity Financing tools and products
 - Debt Financing tools and products (e.g. bonds, loans etc)
 - Blended Finance approaches (public and private)
 - Role of Development Finance Institutions
 - Risk transfer concepts, including guarantees and insurance differentiating public vs private vs blended
 - Payment for ecosystem services



IFC (2023) DEEP BLUE OPPORTUNITIES FOR BLUE CARBON FINANCE IN COASTAL ECOSYSTEMS

- Voluntary carbon markets' issuances exceeded \$1 billion in 2021. Mangrove restoration and afforestation/reforestation commands prices of between \$15 and \$35 per credit.
- “Nested” blue carbon in value chains: the carbon footprint of sectors such as agriculture, aquaculture, and tourism can be substantially reduced through the use of nature-based solutions
- Blue finance: The EU sustainable finance taxonomy, the Green Bond Principles, the Green Loan Principles, and IFC's Guidelines for Blue Finance: supported by transparency provisions on risks posed by environmental degradation, identified by the Task Force on Climate-related Financial Disclosures.
- Insurance and resilience: using natural wetlands to limit storm damage in coastal areas,
- Debt instruments (including bonds): Corporations and governments use green – and more recently blue – bonds focused on nature conservation, restoration, and sustainable use

<https://www.ifc.org/wps/wcm/connect/a51d8bd5-a8e0-4f12-9d9b-b7ba9405d3e0/Deep+Blue+-+Opportunities+for+Blue+Carbon+Finance+in+Coastal+Ecosystems-Optimized.pdf?MOD=AJPERES&CVID=owse2nk>



Practical Applications

- 100% Sustainable Ocean Plans
- Finance Plans for 30by30
- NDCs
- ISSB, TNFD and other reporting
- EU Carbon Removal Certification Framework
- Business modelling relevant to conservation work
 - Blueprints and case studies (e.g. BNCFF)
 - Capacity building and leveraging grants
 - ORRAA SCIFF





**Driving investment into
coastal livelihoods and blue natural capital through
the Sea Change Impact Finance Facility (SCIFF)**



Perspectives

- Countries need to put in place robust measures to protect remaining and restore existing blue carbon ecosystems.
- IUCN & CI (2023) International policy framework for blue carbon ecosystems.
- Equity perspective, countries that contribute these benefits to the global common, local people that help to ensure their quality, deserve support and funding at scale.
- The NDCs under the Paris Agreement provide countries with an opportunity to describe specific blue carbon commitments.
- Carbon emitters need to substantiate their net zero pathways and cover interim emissions through offsets, as well as addressing biodiversity.
- Art.6 provides countries with the opportunity to develop transboundary mechanisms.
- Effective compliance markets can benefit from access to high quality credits.



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