



OCEAN VISIONS

Advancing Solutions for Ocean-Climate Restoration

Request For Proposals

Development of an Environmental Impact Assessment Framework for Marine Carbon Dioxide Removal

Ocean Visions intends to provide funding to develop an Environmental Impact Assessment Framework for application to marine carbon dioxide removal (mCDR) projects. The finished framework is intended to support planning, decision-making and execution of mCDR research and development projects, field trials, and potential deployment.

Overall support to the successful applicant will be up to \$1.5 million dollars and the project must be completed within 24 months. We expect to issue only one award.

If you are interested in applying, please review this open Request For Proposals and [submit a pre-proposal](#) by 16 October 2024, 21:00 GMT.

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1. Introduction

Marine carbon dioxide removal (mCDR) refers to a relatively new set of technologies and approaches that seek to enhance the ocean's capacity to safely remove and store carbon dioxide from the atmosphere.

The United Nations' [Intergovernmental Panel on Climate Change has made clear](#) that large-scale carbon dioxide removal (CDR) is needed this century to stay below or return to the 1.5 degrees Celsius warming threshold — the goal set out in the Paris Agreement. Further, CDR is the only tool that can remove the legacy carbon dioxide pollution that otherwise will stay in the atmosphere for hundreds of years, continuing its debilitating effects in the ocean and on the planet.

In theory, mCDR may be able to play a significant role in the CDR projected to be needed by 2050 to reach net zero. However, there are also risks to marine ecosystems and the human communities dependent upon them from mCDR technologies. Society does not yet have nearly enough information about the effectiveness or impacts of any specific mCDR approach, so it cannot make informed decisions about their potential use *at scale*. Responsible research, including field testing, must accelerate to answer critical questions about mCDR technologies, including their environmental impacts (negative and positive).

The diversity in mCDR deployment methodologies, locations, and durations makes it challenging to evaluate the environmental safety of mCDR. To address this challenge and aid in decision making on mCDR research and operations, a guiding standardized framework for assessing the environmental impacts of mCDR would be valuable.

Through this open *Request For Proposals* (RFP), Ocean Visions intends to independently choose and fund one successful applicant to develop an mCDR Environmental Impact Assessment Framework (EIAF).

EIAFs are commonly employed by governments and the private sector to ensure a systematic approach for evaluating the potential environmental impacts of proposed projects or developments before they are implemented. EIAFs can be used to identify and then minimize negative impacts on ecosystems and communities, facilitate public consultation and discussion, and ensure regulatory compliance.

The expected product will be a comprehensive, implementable EIAF that can be applied in a standardized way to all forms of mCDR approaches. While *not* part of this RFP, follow-on resources are envisioned to support an implementation phase

and to strengthen related best practices (e.g., guidelines for application and for community engagement).

In developing this RFP, the Jeremy and Hannelore Grantham Environmental Trust previously published an open *Request For Information* (RFI) to solicit feedback on the Project Scope and Applicant Criteria. Feedback from 33 respondents was integrated into this RFP with the intent to ensure that the EIAF will be sufficiently comprehensive, adaptable, and implementable by a range of users, mCDR practitioners, and others. Anonymized responses to the RFI and a list of individuals who indicated interest in engaging with the winning project team (e.g., as collaborators, advisors, experts) will be made available to the selected project team.

2. Project Scope

Purpose

The aim of this project is to create a comprehensive and overarching Environmental Impact Assessment Framework (EIAF) to support environmental evaluation and decision making on mCDR field trials and to serve as a starting point for a more formal EIAF if any mCDR approaches are operationalized at scale.

To this end, a successful EIAF must:

- Describe and detail an implementable and practical approach for evidence-based assessment of the environmental impacts (negative and positive) of specific mCDR projects and technologies proposed for field trials, with clear guidance on exactly what information and data are needed.
- Function primarily as a tool to be used in the planning, executing, and analysis phase of mCDR projects, and secondarily for identifying environmental impact research priorities more broadly.
- Provide information and data to inform emerging mCDR standards and protocols.
- Effectively accommodate and align with existing maritime, environmental, Tribal, and other applicable laws and regulations, across different scales of governance and jurisdictions, including those applicable to both national and international waters.
- Effectively accommodate and be resilient to the emergence of new knowledge, regulations, and other changes over time.
- Effectively measure and assess environmental impacts applicable to:
 - The full supply chain of mCDR approaches.
 - All activities involved in each specific mCDR approach (e.g., technology operation, infrastructure development) over the full duration of projects.
 - Operation in different geographies (e.g., specific locations, marine environments, and local communities) and valued ecosystem functions, services, and species.
- Outline procedural guidance for how to:

- Identify and select which local ecosystem functions, services, components, species, and life stages must be included in the environmental impact assessment.
- Define a baseline scenario against which environmental impacts from the mCDR project ought to be compared.
- Determine the appropriate duration of monitoring and how to consider and/or include cumulative and downstream effects.
- Integrate impacted and vulnerable communities in decision-making regarding the development of mCDR research (e.g., via meaningful participation of Indigenous Peoples and local community members and integration of local priorities in monitoring design, implementation, and analysis).
- Engage in transparent reporting, including a clear minimum standard and timeline for data sharing.
- Be broadly acceptable for implementation by the mCDR community, and specifically by:
 - mCDR project developers and implementers
 - End-users of the EIAF (e.g., various types of decision-makers such as Rights Holders, Indigenous Peoples, local communities, environmental groups, regulatory agencies)
 - Information providers (e.g., environmental impact monitoring bodies, scientists, CDR verification bodies).
- Align with guiding principles set forth in existing and forthcoming best practices (e.g., [Code of Conduct for Marine Carbon Dioxide Removal Research](#), [Ethical Framework for Climate Intervention](#), [FAIR Principles](#), [FPIC](#)).

Proposed Approach

We are seeking proposals that divide the creation of an mCDR EIAF into two phases. In Phase 1, a draft EIAF should be developed drawing on existing resources, knowledge, and expert input over a period of ~6 months. In Phase 2, the draft EIAF would be tested and revised over the course of ~18 months with deeper community engagement and field testing with real mCDR projects.

Phase 1: Draft EIAF (~6 months)

The aim of Phase 1 is to develop a complete mCDR EIAF that: is largely derived from existing resources; aligns with common and related environmental assessment tools and marine environmental regulations; is attuned to mCDR technologies; and integrates recommendations from a diversity of mCDR community sectors, practitioners, and other relevant experts and decision makers.

We envision that Phase 1 would involve extensive desktop research, expert interviews, and other activities (e.g., workshops, focus groups, field visits, surveys) to achieve broad input into the content and design of an mCDR EIAF. Components of an EIAF might include broadly applicable environmental impact monitoring targets and methodologies derived from:

- Existing EIAFs for other marine industries and activities, including mCDR if available. The process should include assessment of various regulatory frameworks for existing marine activities and industries (e.g., fisheries and aquaculture, desalination, ballast water management, aquaculture, offshore wind) to understand their respective processes and the portions that are relevant to evaluating mCDR activities. Relevant regulatory frameworks and requirements would need to be taken from countries where mCDR field trials are likely, planned, or underway.
- Environmental impacts specific to mCDR. To gain a broad and comprehensive understanding of mCDR specific monitoring targets (e.g. pH changes and impacts on primary productivity) and to develop a protocol by which to obtain location-specific input for project's known or suspected environmental impacts, proponents would:
 - Review any existing mCDR protocols and guidelines published by academic scientists, research institutions, mCDR companies, or other organizations
 - Review available environmental studies and assessments of mCDR technologies and applications.
 - Obtain input from a diversity of scientific experts (e.g., marine and fishery ecologists, earth systems modelers, ocean biogeochemists), ocean industry decision makers, local community representatives and experiential experts (e.g., traditional Knowledge Keepers, cultural advisors).
 - Engagement of experts from other marine industries is encouraged.

Phase 2: Trial and Revise the EIAF (~18 months)

With the understanding that the specifics of Phase 2 may change as a result of what is learned in Phase 1, the intent of Phase 2 is to optimize the draft EIAF by integrating extensive feedback from the mCDR community and to test and improve application of the EIAF with a range of mCDR projects, information providers, and with other intended end-users of the framework.

In general, the testing and revision process should aim to optimize the EIAF and result in a final product that, at minimum, can address the following parameters:

- Effectively allow for specific identification and measurement of all environmental processes and components that must be included for assessing and monitoring environmental impacts.
- Be relevant across the diversity of mCDR projects, technologies, geographies, and durations. Or develop variants to deal with unique attributes of certain approaches.
- Support creativity and innovation in pursuit of effective, practical, and broadly feasible approaches for measuring and monitoring environmental impacts.
- Produce credible and actionable information that facilitates decision-making on mCDR field research.
- Make revisions to increase the likelihood that the EIAF will be useful to and implemented by the mCDR community.

The approach to soliciting feedback can include facilitating a public comment period, conducting workshops, administering surveys, and any other tools deemed appropriate.

Testing the EIAF with real projects and users could also take many forms, including but not restricted to testing the:

- Regulatory practicality by participating in permit application processes with organizations planning mCDR field trials and engaging directly with regulators and other Rights Holders.
- Scientific practicality by testing the framework with existing field research projects.
- Broader community practicality by getting input from various users of the framework, including a diverse set of decision makers (including local communities and Rights Holders) and information providers.

Phase 2 is complete when the EIAF has been revised, published, and ready to be implemented by decision makers and other users of the framework. The format and platform are to be determined by the grantee.

Deliverables

Minimum expected deliverables (following the proposed approach above) would include:

- Draft EIAF (end of Phase 1)
- Research design for trialing the EIAF (start of Phase 2)
- Implementable and published EIAF (at the end of Phase 2)

Timeline and Budget

The overall duration and budget for this project is up to 24 months and USD \$1,500,000. We anticipate that Phase 1 will be no more than 6 months and less than \$500,00 and Phase 2 no more than 18 months and \$1,000,000.

Out of Scope

- **Implementation of the EIAF.** A dedicated implementation phase is envisioned after the completion of this project. A strategy for implementation will be scoped by Ocean Visions accordingly.
- **Environmental impact research.** This RFP does not include support for field trials, lab experiments, or modeling research on environmental impacts of mCDR.

2. Applicants

The development of a comprehensive mCDR EIAF will require diverse expertise, and collaboration between multiple organizations is encouraged. To facilitate the formation of teams, Ocean Visions has created this [Networking Tool](#) to discover collaborators and form teams; the [Networking List](#) will be deleted after full proposals are due.

Desired Skills and Expertise

- Experience in environmental assessment and monitoring frameworks.

- Familiarity with leading mCDR approaches, while being impartial to specific approaches or technologies.
- Sufficient connection to and understanding of the mCDR sectors and dynamics to know how to identify and engage individuals with the relevant technical, scientific, regulatory, and community engagement expertise, across a range of geographies and jurisdictions.
- Experience with product development and managing large multi-member and international projects.
- Familiarity and expertise in best practices of consultative public engagement in an EIAF or natural resource management framework.
- Demonstrated experience in working with an international audience and the capacity to achieve broad international engagement.
- Experience with obtaining social license and regulatory approval for an existing technology and/or marine activities.

Eligibility Criteria

Applicant teams may be from any one or more countries. Organizations and individuals may participate in more than one proposal but may only lead one.

Teams may change composition between Phase 1 and Phase 2, with details to be provided later for Phase 2 if needed.

There must be one overall lead organization who will be administratively responsible for the entire effort and who will facilitate and manage the overall team working on creation of the mCDR EIAF. This lead will also receive and be accountable for funds from Ocean Visions. This organization may need to be able to regrant funds to partner organizations and other project participants, as needed to support engagement of individuals external to the core team (e.g., via subcontracts, grants, and honoraria). Overhead for the lead organization and any subsidiary partners is limited to 10%.

3. Application Process

The application process consists of two phases: a pre-proposal and a full proposal. Interested applicants will first need to [submit a pre-proposal here](#).

Only a subset of pre-proposal applicants will be invited to submit a full proposal.

All pre-proposal and full proposals will be evaluated and selected internally at Ocean Visions and may include involvement of experts from within and outside Ocean Visions.

For questions, please write to us at EIAF-RFP@oceanvisions.org.

Timeline

Stage	Date
Pre-proposals due	16 October 2024, 17:00 EDT
Invitation for full proposals	25 October 2024
Full proposals due	20 December 2024
Award announced	1 February 2025

4. About the Funder

Ocean Visions is a non-profit organization that catalyzes innovation at the intersection of the ocean and climate crises. We facilitate multisector collaborations from within our Network and beyond, working with leading research institutions, the private sector, and public-interest organizations to fully explore and advance responsible and effective ocean-based climate solutions. In short, we work to stabilize the climate and restore ocean health. To learn more, visit www.oceanvisions.org.

For this RFP, Ocean Visions received funding from [The Jeremy and Hannelore Grantham Environmental Trust](#), a U.S. public charity and 509(a)(3) supporting organization focused on reducing and reversing global environmental degradation. Its independent (majority) trustees are the CEOs of Rare, The Nature Conservancy, World Wildlife Fund US and Rocky Mountain Institute.

Additional funding comes from a pool of aligned grant makers as the Grantham Trust is the implementing partner for the Ocean Resilience and Climate Alliance's "Advancing Marine Carbon Sequestration" pillar. The [Ocean Resilience and Climate Alliance](#) (ORCA) is a philanthropic initiative seeking to identify and fund

ocean-climate solutions across mitigation, sequestration, adaptation, and resilience. ORCA's principal function is to provide a surge of more than \$300 million dollars in grants over five years to catalyze work across a handful of immediate ocean-climate priorities. These priorities have been developed in consultation with the ocean and climate donor community and honed in collaboration with potential grantees.