

Author responses to reviewer comments of “Legal Considerations relevant to the Research of Ocean Alkalinity Enhancement” (sp-2023-8)

The authors wish to thank all three anonymous reviewers for their helpful comments. The comments were all well-received, have helped to clarify certain points in the text and have enhanced the overall quality of the chapter.

Concerning specific comments of the reviewers:

- Reviewer 1: The point considering the differences between OAE as a CDR measure and as a measure to combat ocean acidification is well-taken. Combined with something that Reviewer 3 also noted, this distinction was modified. In this regard, the text was amended to reflect that projects should ensure that they fall within any agreed upon legal definition of OAE and that legal and scientific definitions might not always align.
- Reviewer 2: All “minor issues” mentioned by the reviewer have been incorporated at the relevant places in the text, including updated references to the now adopted BBNJ Agreement. As far as the initial comment of the reviewer concerning the need to distinguish deployment and research, this distinction has been elaborated on in section 5 (“Best practice guidance for OAE (field) research”). This distinction references the intention of research, the somewhat limited role of the assessment framework in practice and the importance of defining and evaluating the scale of a project, including the amount of CO₂ that a particular project intends to remove and store. These points are highlighted as some factors which might be indicative of distinctions between research and deployment.
- Reviewer 3: All “minor issues” have been incorporated into the text, including helpful suggestions associated with defining the meaning of terms such as “coherence” and what is meant when referring to UNCLOS as a framework agreement. Additionally, Reviewer 3’s comments referring to sources referred to in the text as well as including additional sources when necessary was well-take – several new references have now been cited.