

The 2026 Starfish Barometer by Lévy et al submitted to State of the Planet

Review (Elva Escobar)

I would like to congratulate the group for putting together this manuscript that describes the second edition of the Barometer. It is a great example of how efforts can be collectively made and deliver useful information based on peer-reviewed evidence for different stakeholders on the continued degradation of the ocean systems learn from opportunities.

The manuscript is publishable; it requires minor edits and changes and attend simple comments enclosed:

1. It is important transmitting that the five dimensions do not act in isolation and add describe what is being lost with the increasing changes described. As example “The number of threatened marine species has risen to 1,685 with intensifying level of threat” however policy makers, educators, civil society actors, and the public may not know if the number is large. May I suggest that this loss is identified with an example of people’s live, what is meant by threat and this threat intensifying.

2. Evidence shows that coral reefs are threatened not only by bleaching-level heat stress, but also by the combined impacts of Sargassum in the Atlantic, along with eutrophication and fishing in other tropical locations—all acting in synergy with global climate change.

3. The manuscript suggests expanding marine protection under the 30x30 initiative, coupled with effective monitoring, enforcement, and climate-adapted governance. The section mentions widespread unsustainable fishing practices and major shortcomings in transparency and governance. Expanding marine protection faces significant challenges, as only about 8-9.6% of the ocean is currently designated as protected, with far less (estimated at 2.8-2.9%) effectively managed or highly protected. The core challenges lie in transforming paper parks that are being created by trying to achieve 30x30 into active conservation zones, maintaining enforcement in remote areas, especially in ABNJ, and adapting to rapid climate change.

The authors mention that “protection efforts continue to expand”. However, these are not enough for resilience. I am not quite sure that “The stronger protection rules require to be implemented” if widespread unsustainable practices and major shortcomings in transparency and governance are increasing. Political will is needed, education at all levels since most of the conservation efforts involve larger participation and decision making by local communities that in many cases prefer to extract, have better opportunities and income that lead to loss of biodiversity.

4. I suggest highlighting monetary valuation of the losses from tropical storms and floods catalyzing behavioral changes to reduce human pressures. How to overcome that in this process a complex paradox is often created where the economic focus can simultaneously heighten geopolitical instability, aggravate poverty, and shift focus away from long-term environmental research.

5. I would suggest considering that not only major in-situ ocean observing systems are shrinking. There is less financial support to generate new knowledge (science to defray the cost of working at sea), knowledge that is required to improve skills and metrics for forecasting the risks to human health and the support system for the ocean.

6. "A treaty for the High Seas has been adopted". I suggest using instead Biodiversity Beyond National Jurisdiction Agreement that highlights Biodiversity and mention that the agreement has been ratified in September 2025 and entered into force on January 17, 2026.

7. Financial commitments remain insufficient to meet all challenges of impact to the ocean and will not remediate or restore what is being lost.

8. "Ocean sustainability objectives, including SDG 14". I think these are the same, or are there other? They are certainly crosscutting among the other 16 SDG.

9. If the Barometer is designed for a non-specialist audience while remaining grounded in established scientific evidence its translation to diverse languages is urgently required for the policy makers, educators, civil society actors, and most importantly the public that may not read or speak English language. Although the report series "State of the Planet" is an open access journal, to reach the different stakeholders and readers specific open access initiatives and institutional programs need to facilitate it. How can this be improved?

10. "Reliable accountability for a sustainable Ocean" will require a shift from voluntary commitments to transparent, data-driven, and legally binding mechanisms that ensure that policy makers, educators, civil society actors, and public take responsibility for their impacts on marine ecosystems too. Opportunities for action would be interesting.

Figure:

Improve quality of Fig. 1, symbols hardly visible. Some boxes may require text in black font to avoid glaring. Some texts in the boxes can be reduced significantly to transmit the message and be more attractive.