

2022 GLOBAL DEEP-SEA CAPACITY ASSESSMENT

KEY FINDINGS

1

Many who consider deep-sea exploration & research important do not have deep-sea tools & technologies

Respondents for numerous subregions, particularly Micronesia, Melanesia, Western Africa, and Eastern Africa, felt that deep-sea exploration & research were considered important in their location but did not have access to the tools needed to do deep-sea work.

2

In many places, there is expertise but not technology

In every subregion, respondents indicated that the presence of in-country individuals with deep-sea expertise exceeded the availability of deep-sea tools. More access to vessels, DSVs, sensors, and data tools would activate available expertise to conduct locally-led deep-sea exploration and research.

3

More deep submergence vehicles are needed globally

Deep submergence vehicles were the technical capacity that had the lowest presence, access, and satisfaction worldwide. More access to lower-cost, easy-to-use technologies suitable for deep water would be transformative globally.

4

Non-research assets could be available for deep ocean research

While vessels were the technical capacity with the most extensive presence worldwide, in general, vessels were the technical capacity to which respondents had the second-lowest access. Unlocking access to additional vessels for use in research would be transformational.

5

Funding is the top challenge

Survey respondents identified funding as the single greatest challenge, followed by human capacity and knowledge, access to vessels, and access to deep submergence vehicles to undertake deep-sea research. Low-cost solutions are key to increasing access to the deep sea.

6

Prioritizing deep-sea exploration is essential

Many respondents felt that their countries did not consider deep-sea research and exploration important. Making stronger internal cases for why deep-sea exploration is critical in each location could be beneficial in securing support.

7

Tailored strategies are needed for each location

Better understanding the physical environment can help ensure the greatest return on investment. For example, in Central America, Melanesia, and Western Asia, 75% of all EEZs lie between 200 to 4,000 m, and all African EEZs are less than 6,000 m. Creating deep-ocean technologies and strategies tailored to each location would be more efficient than a one-size-fits-all approach.

8

Detailed research and inclusion matter

The results of this study were more nuanced than expected. We documented previously underreported details, from the available human capacity to possible vessel access. The very act of including and reaching out to people in locations often under-resourced and overlooked in many global studies created a community and a sense of inclusion that made the effort and detail of this report and future studies of its kind valuable in many ways.