THE OCEAN FOUNDATION

Ocean Acidification Research Priorities

Perspectives on technology, research, and capacity development needs

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Discussion Question to Keep in Mind

Are the tools we have to measure OA and HABs sufficient for the scientific questions we need to answer today?

What role can the US play in testing and defining new methodologies for assessments of sufficient quality to answer emerging questions?

The Ocean Science Equity Initiative

As our blue planet changes faster than ever before, a community's ability to monitor and understand the ocean is inextricably linked to their well being. But currently, the physical, human, and financial infrastructure to conduct this science is inequitably distributed across the world.

We work to ensure *all countries and communities* can monitor and respond to these changing ocean conditions – not just those with the most resources.

Ineffective or Inaccessible Technology

COSTLY OR REPURPOSED TOOLS HINDER NECESSARY OCEAN ACIDIFICATION MEASUREMENTS

An Example of Our Work

CREATING LOW-COST SOLUTIONS TO MEET TECHNOLOGY GAPS

GOA-ON IN A BOX KIT

PCO2 TO GO

An Example of Our Work

LAUNCHING THE PACIFIC ISLANDS OCEAN ACIDIFICATION CENTRE

Looking Ahead

Rapid public and private investment in new ocean technologies/approaches will require significantly more OA science capacity

Marine CDR and Climate Geoengineering Remain Uncertain

- We don't have the tools we need to monitor and verify proposed technologies and interventions at scale
- Many actors may focus their work outside of the US where ocean science capacity and regulatory frameworks are weaker

New Legal Frameworks Require Increased Capacity

- BBNJ and other frameworks may require environmental impact assessments at scales beyond what we currently have the capacity to conduct

NSF could sponsor or lead the development of a code of conduct or best practices related to mCDR, EIAs under BBNJ, and other time sensitive issues

What Types of Research Investments Could the US Make?

Encourage Co-Design at Inception

To ensure research investments align with societal needs, co-design both across academic disciplines and between academic and non-academic sectors should be encouraged through funding stipulations.

Strengthening International Collaboration

Global processes need to be studied globally. There are opportunities to increase international collaboration.

Rigorous Testing of New Methods

We have the infrastructure required to test emerging tools against best-in-class methods.

NSF and other agencies are well positioned to provide authoritative and unbiased best practices and codes of conduct

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Thank You

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