Communicating Ocean Acidification Science to Policymakers

Workshop Worksheet October 2020

This worksheet is meant to help inform messages, themes and actions that scientists might use in communicating the science and potential impacts of ocean and coastal acidification to local and national policy makers.

Part one of this worksheet provides a framework for outlining the *story and big picture* aspects of OA in your region. What do you currently know about how OA could affect communities, ecosystems, and economies in your country? What additional scientific information is needed to better understand specific impacts? How does OA fit into the big picture of issues that policy makers are grappling with?

Part two of this worksheet focuses on which *partnerships* might be explored, and which stakeholders and decision makers may be most receptive to engagement. It helps identify *specific actions* that will advance knowledge and understanding of OA across a variety of stakeholders and provides guidance for designing communication products or hosting meetings.

The information captured by this worksheet can be translated into many products, such as a poster or two-pager that your institution or monitoring network might create for policy makers or fishing communities. It may also help inform the development of a regional action plan.

We encourage you to fill out as much of this worksheet as you are able in advance of the Communications Workshop.

For more information about this worksheet, or the ways in which initiatives like The Ocean Foundation or International Alliance to Combat Ocean Acidification can support your work, please contact:

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PART ONE

Big Picture: Identifying climate and ocean priorities in your country or region

What kinds of climate, marine or coastal issues are already priorities in your region or country? (relevant to: fisheries, aquaculture, coastal communities and shorelines, food security, tourism.)
What kind of action is being taken on these priority issues (either through your university/ organization or other bodies that you are aware of ?)
Do you see any connection between OA work and these existing priorities?

State of the Science: What is your institution doing to better understand OA in your country or region? (check all that apply)

Activities to better understand changing ocean conditions	Currently doing (now)	Plan to do (future)
Advancing own ocean and coastal monitoring (including pH and related parameters)		
Conducting research		
Collaborating with other entities doing research		
Engaging with regional or global monitoring networks like GOA-ON		

Identifying gaps in local knowledge (monitoring/modelling, vulnerability assessments or biological response studies)	
Prioritizing gaps in local knowledge (monitoring/modelling, vulnerability assessments or biological response studies)	

Identifying Gaps: What is currently known about OA in your country or region?

Chemistry: Monitoring trends and "hotspots"

- What existing monitoring data/systems do you have or rely upon? How are they being funded?
- Do you have any time series data that indicate a trend or that has identified hot spots or areas of concern?
- What are the monitoring or data gaps that could be filled?

Biology: Species and ecosystem effects

- What local species or ecosystems are most important to the region?
- What local species or ecosystems are you concerned about as a scientist or expert?
- What local species or ecosystems have been studied relative to OA impacts?
- What are the most important questions that need further study?

Management: Opportunities to mitigate locally and build resilience

 Have any adaptation or resilience building actions been recommended or studied with regards to OA? (<u>This could include</u>: limiting land-based pollutants, nutrient management, experimental hatchery operations, coastal wetland and habitat restoration, planting or conserving of mangroves, seagrass and kelp.)

PART TWO

Building Partnerships: Industries and other Stakeholders

Does your university or organization collaborate with other non-government or government actors on OA related activities? (Are there groups concerned about or already working on ocean acidification in your region?)
What are the primary fisheries or industries you believe are possibly at risk from OA?
Do you have contacts within those fisheries or industries? If yes, do you think your contacts would be willing to speak to others about the importance of their industry and the threats posed by OA and ocean change?
Do you have any partnerships with industry, private sector or NGOs that can help test or pilot adaptation or resilience building strategies?
Do you have any partnerships with community groups, NGOs or initiatives like The Ocean Foundation or OA Alliance that can help convene meetings with stakeholders or with policymakers?

The Role of Government: Agencies, Departments and Policy Structures

What government **ministries**, **agencies or departments** are responsible for climate change or ocean and coastal monitoring and management?

What committees within the **legislature** are responsible for climate change or ocean and coastal monitoring and management?

Are there any existing policy structures, either laws or committees, that are relevant to OA? Are OA projects being funded from ministry or agency budgets?

Which agencies, departments or focal points are responsible for meeting international or domestic agreements relevant to climate or ocean commitments?

- UN Sustainable Development Goals
- Intergovernmental Oceanographic Commission
- Other climate commitments

Tangible Actions and Priorities: What Actions Would Advance OA Response?

What are the top 5 actions that you think are most important to significantly increase your country's or region's ability to understand and respond to OA? Which entities, organizations or persons would be the best to engage with--or help carry out-- those top 5 priorities?

Specific Action	Entity, Organization or Person to Engage

**Example actions below:

Advance Scientific Understanding: Improve the understanding within the region, including support for research, biological impact studies and OA observations.

Reduce Causes of OA: Implement actions that will prevent or slow OA through reducing atmospheric emissions of CO₂, reducing inputs of land-based pollutants, and other measures.

Build Adaptation and Resilience: Implement actions to assist ocean-dependent communities, industries, and marine ecosystems to adapt to increasing acidity in marine waters.

Expand Awareness of the Issue: Engage policy makers, scientists, local communities/ villages and the public on the growing threat posed by OA, as well as local actions that may be taken to address OA.

Build Sustained Funding Support: Advocate for sustained funding, nationally and regionally, for ongoing, enhanced, and coordinated research and OA observation systems, to continue to inform governments and others about the increasing impacts of OA.

Next Steps: What Convenings or Products Would Advance Those Identified Priority Actions?

What events, collaborations, or knowledge building products would you be interested in organizing to help advance your goals? Which people would need to be engaged?

Event/Collaboration/ Product: Audience: Goal: Stakeholders Involved:
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