

International Alliance to Combat Ocean Acidification



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- The OA Alliance brings together governments and non-governments across the globe to highlight and take action on ocean acidification as an immediate threat to coastal economies and ecosystems in their region.
- Over 80 members including national, state, municipal, and sovereign tribal, indigenous, and first nation governments along with many dedicated affiliate partners like NGOs, industry leaders, regional monitoring networks and local academia.
- The OA Alliance welcomes all members, whether they are just beginning to work on these daunting issues or are well into implementing mitigation, adaptation and resiliency strategies.



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A Global Call to Action

I. The Threat of Ocean Acidification

We, the endorsing parties to this Call to Action hereby agree as follows:

- A. Emissions of carbon dioxide (CO₂) into the atmosphere are increasing the amount of CO₂ being absorbed by the world's oceans. Increasing CO₂ levels have altered the basic chemical composition of our oceans causing them to become more acidified.
- B. Increasing acidification combined with other climate-change driven changes in ocean conditions, including warmer temperatures and reduced oxygen levels, are already causing unprecedented damage to ocean and marine ecosystems.
- C. Acidification adversely impacts commercial, recreational, subsistence, and ceremonial shellfish harvest and other seafood industries around the world, which sustain jobs, support coastal economies and feed billions of people. Species of crab, lobsters, oysters, clams, mussels, squid and species of plankton that are critically important food chain species for fish, marine mammals and other ocean life are adversely impacted.
- D. If CO₂ emissions are not reduced quickly and dramatically, acidification will worsen and further damage ocean species, marine ecosystems, and coastal economies.
- E. Several existing international networks coordinate science, research and monitoring efforts on ocean acidification regionally and around the world. Increased global participation in these science and monitoring networks are essential to understand and prepare for the risks posed to our oceans.

In 2015, 195 countries signed the historic Climate Agreement in Paris committing to take bold and timely action to reduce emissions of greenhouse gases and to increase efforts in reducing emissions in order to secure the health of the planet and the systems on which the planet depends.

- ✓ Advance scientific understanding of ocean acidification.
- ✓ Take meaningful actions to reduce causes of acidification.
- ✓ Protect the environment and coastal communities from impacts of a changing ocean.
- ✓ Expand public awareness and understanding of acidification.
- ✓ Build sustained support for addressing this global problem.



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Objectives

Advance OA Action Plans

- Action Plan Toolkit
- Webinars and Additional Support/ Resources
- Information Sharing and Workshops
- OA Action Plans

Elevate OA in Climate Agreements

- Engagement within UNFCCC and UN SDG 14
- Attend International ocean and climate conferences
- Collaborative with partner efforts and initiatives
- Demonstrate leadership of OA Alliance members

Build the Coalition

- Collaborate with other ocean and climate groups
- National, subnational, tribal and sovereign governments
- Diverse and engaged affiliate partners
- Recruit new government and affiliate members

20 OA Action Plans in 2019



COP23 | FIJI
UN CLIMATE CHANGE CONFERENCE
BONN 2017



Approaches to an OA Action Plan

- There is no one-size fits all, in framework or substance:
 - Stand alone OA Action Plan.
 - Incorporation of OA into existing Climate Action Plans or local adaptation and resiliency strategies.
 - Incorporation of OA into existing ocean ecosystem management or fisheries management plans.
 - Incorporating OA into NDCs pursuant to the Paris Climate Agreement.
 - Establishing a regional OA Action Plan through an existing intergovernmental coordinating body.

OA Alliance Toolkit and Products

Download Action Plan Toolkit



A Process for Getting Started





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1. Advance Scientific Understanding

General Action	Example Specific Actions	Gov't	Affil.
	Support convening OA professionals to participate in local, regional and	✓	✓

2. Reduce Causes of OA

General Action	Example Specific Actions	Gov't	Affil.
	Support legislative consideration of climate impacts and other	✓	✓

3. Build Adaptation and Resiliency

General Action	Example Specific Actions	Gov't	Affil.
	Support local remediation of OA impacts, such as adding shell to marine	✓	✓

4. Expand Public Awareness

General Action	Example Specific Actions	Gov't	Affil.
	Identify key findings and talking points for use by officials	✓	✓

5. Build Sustained International Support

General Action	Example Specific Actions	Gov't	Affil.
	Regularly and actively participate in OA Alliance events.	✓	✓
	Coordinate integrating OA science into adaptation frameworks and policy by incorporating the most current findings into mitigation and resilience planning.	✓	✓
	Promote scientific collaboration across agencies and organizations to coordinate and implement	✓	✓

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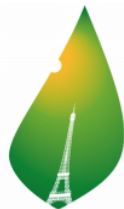
Mitig

City-Led Actions to Mitigate, Adapt and Build Resiliency to Ocean Acidification



With content from:
Dallstrom, K., Downing, J., and Kobayashi, M. 2018. University of Washington School
of Marine and Environmental Affairs, Unpublished Report

Incorporating Ocean Acidification into Nationally Determined Contributions Pursuant to the Paris Climate Agreement



**Incorporate OA Impacts
into Existing Targets**

**Assess Threats to Key
Resources**

**Establish Baseline
Measurements**

Build Adaptive Capacity

Include Funding Goals

National and Sovereign OA Action Plans

- **Partnerships with industry/ aquaculture partners by employing strategies that help to mitigate OA impacts on mussel farms through waste shell dissolution, aeration techniques, and identifying resilient families and using stocks from selective breeding.**
- Attention to terrestrial and freshwater contributors.
- Increased engagement and **support of GOA-ON along with OA forecasting and regional modelling** (involvement of our universities doing research on acidification.)
- Establishing local monitoring efforts and identifying adaptation approaches that are community driven and focus on reducing other compounding stressors.
- Communicate the need for biological monitoring and research of acidification impacts on organisms that are culturally and ecologically important.
- Incorporating OA into NDCs in 2020.

State OA Action Plans

- Conduct a **statewide vulnerability assessment to identify the risks** OA poses to biological resources, communities, and economies, and identify priorities and options for action to **improve societal adaptive capacity**.
- Launching a state funded ocean acidification research center at local university to serve as a hub for regional research and restoration projects.
- Improving the state's understanding of the role of **mangroves, seagrass, salt marsh and kelp** in ameliorating local ocean acidification conditions.
- Initiating enhanced and widescale monitoring – with real-time sharing- to collect data and support shellfish hatchery adaptation practices.
- **Creating ocean acidification K-12 curricula** to increase awareness and literacy among the public

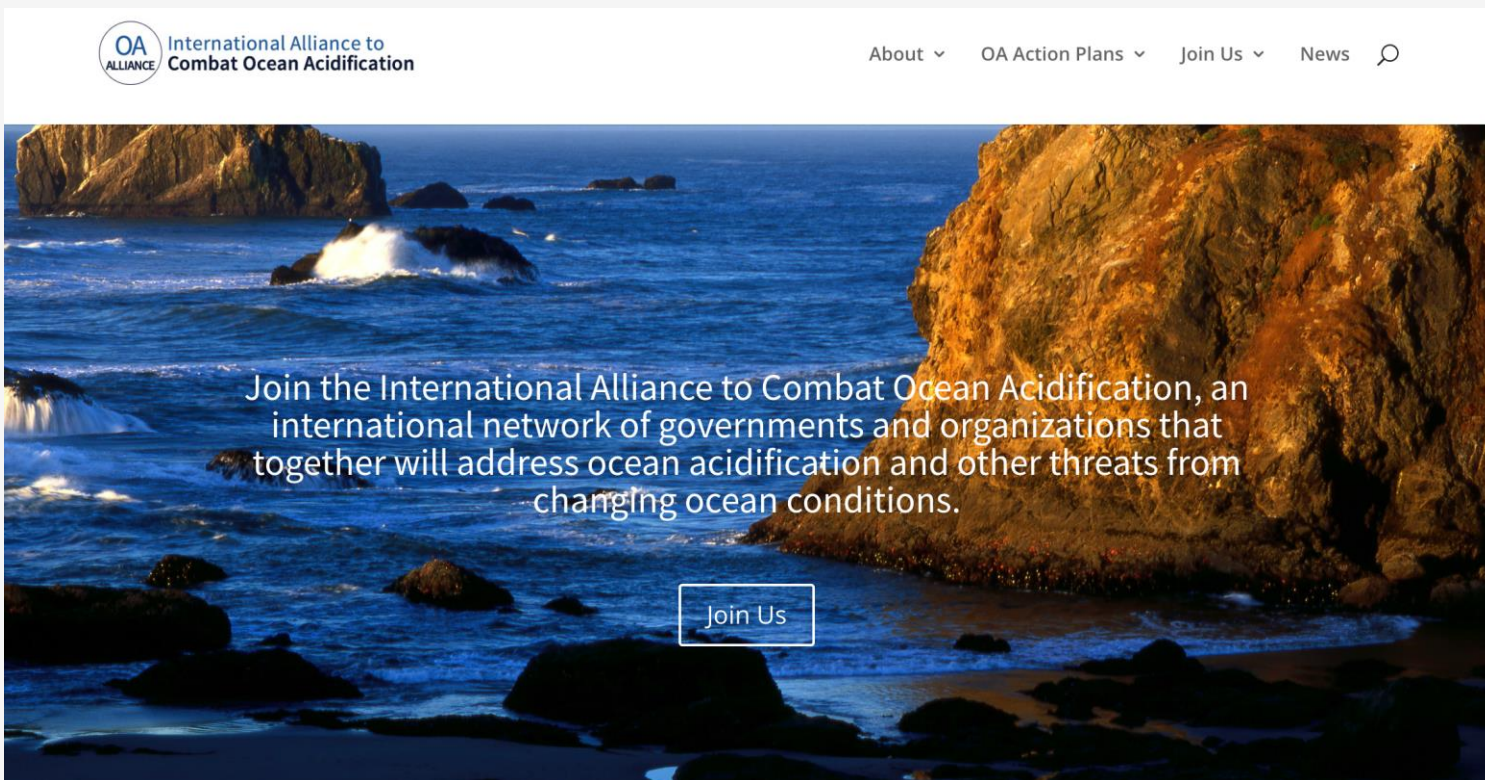
Affiliate Member OA Action Plans

- **Developing an engaged, powerful group of decision-makers and stakeholders from all levels of government** who factor OA into their decision-making and who begin to take steps to address the causes of acidification.
- Identify key findings and talking points for use by officials who will act as ambassadors on ocean acidification.
- Leverage existing education and outreach networks to disseminate key information and build support for priority actions.
- **Creating tailored communication materials for local policy makers, local industry and fisheries partners, villages and local community members and UNFCCC negotiators.**
- Serving as a resource for government members of the OA Alliance.

Lessons Learned

- Power of government and non government collaboration and partnerships ***within one region.***
- The importance of engaging ***political leadership*** at a high-level (“Politics, policy, implementation.”) This is a niche role that needs to be filled.
- Describing actions as ***relevant to meeting existing commitments*** and targets (SDG 14/ NDCs.)
- Essential to focus on ***long-term implementation*** of OA Action Plans over time (gov. authorization/direction and sustained funding.)
- **Not a single problem to be solved.** Several small, medium and large scale investments, commitments, partnerships, pilots and policy approaches in a context of multiple stressors and cumulative impacts.
- Frequent and personal ***communication and outreach.***

Thank You



www.OAalliance.org

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