The acidity of the world’s oceans has increased by 30 percent and is expected to double over pre-industrial levels by the end of this century—a result of atmospheric carbon dioxide generated by human activities. To protect our ocean, it is imperative that we significantly reduce carbon dioxide emissions across the world.

The International Alliance to Combat Ocean Acidification works with national, regional, and subnational governments to:

1. Elevate urgency and ambition for climate action.
2. Integrate ocean into climate dialogues and policy frameworks.
3. Facilitate greater knowledge of ocean acidification and encourage policy actions by governments.
Together, members are calling for emissions reductions and ocean adaptation actions under international and national climate frameworks like the United Nations Framework Convention on Climate Change (UNFCCC) and the United Nations Sustainable Development Goals (UN SDGs.)

The OA Alliance was launched by the four North American West Coast governments of California, Oregon, Washington and British Columbia, Canada in direct response to the observed impacts of ocean acidification on oyster hatchery production across the North American West Coast during the mid-2000s.

Today, the OA Alliance is comprised of over 100 members, including 13 national governments, 9 states, 2 provinces, 6 tribal and sovereign nations, and 4 cities, along with local research institutions, monitoring networks, businesses, affected industry partners and NGOs.

The rapid growth of the OA Alliance confirms the desire of policy and decision-makers to better understand climate impacts to marine resources and to implement actions that reduce impacts and build resiliency.

As the science, research and observed impacts of ocean acidification continue to grow, there is need for increased knowledge exchange and expertise on the substance and process for developing local, regional and national responses in the face of cumulative ocean change.

Ultimately, the best mitigation plan for ocean acidification is to drastically reduce carbon emissions, which requires ongoing commitments to action and international collaboration across national, subnational, sovereign and civil society leaders. In 2015, 195 countries signed the historic Climate Agreement in Paris committing to meaningful and timely action to reduce greenhouse gas emissions.

The world’s nations and subnational governments must succeed in reducing emissions in order to protect the health of our marine ecosystems and ensure communities around the world may continue to rely on the many resources, livelihoods, and identities that come from the ocean.
Highlights and Impact in 2019

- Supported the development of 15 new OA Action Plans, per voluntary commitment #15195 to implement UN Sustainable Development Goal 14. Featured at the UN SDG 14 Communities of Ocean Action progress meeting in Incheon, South Korea and further highlighted ocean acidification impacts and government led solutions through UN SDG 14.

- Showcased national, regional, state and tribal government actions at six major climate and ocean conferences this year in New Zealand, South Korea, Samoa, New York, Ecuador and Spain—continuing our work to support governments as they deliver on climate and ocean goals and elevate ocean within international climate discourse.

- 14 States and 60 people participated in the OA Alliance 2-Day State to State Workshop on Ocean and Coastal Acidification to further support new OA Action Plan development and implementation across U.S. state governments that are leading on climate and ocean policy.

- Brought together 30 Alliance members at a high-level response to the IPCC Special Report on Ocean and Cryosphere in a Changing Climate (SROCC) release as part of the UN Secretary General Climate Action Summit to advance national and subnational action to protect oceans from the impacts of rising carbon emissions. Produced a short video of OA Alliance member interviews.

- Hosted workshop “Communicating OA Science to Policy Makers” for more than 15 scientists from Latin America, Africa, Europe and Asia working to advance regional science as part of the Ocean Acidification International Coordination Centre (OA-ICC) and Global Ocean Acidification Observing Network (GOA-ON.).

- Co-authored four new publications to support national and subnational government members in OA Action Planning including, “Mainstreaming OA into National Policies: A Handbook for Pacific Islands” and “Models for Ocean Climate Action Along the Pacific Coast of North America.”

- Contributed to, “Ocean-related Measures in Climate Strategies” which provides guidance to national governments working to advance policy frameworks to address climate impacts to ocean health, resources, communities and economies.

- Hosted four regionally focused side events pushing for increased activities on ocean acidification at COP25 in Madrid.

- Programmed six member webinars across a wide variety of subjects and issued seven newsletters for government and affiliate members of the OA Alliance.

- Welcomed 25 new members to the OA Alliance including Norway, Costa Rica, Seychelles, State of Maine, State of Maryland, and the Makah Tribe, all making commitments to advance actions in their regions.
"As a government member of the Ocean Acidification Alliance, New Zealand has increased international collaboration to strengthen resilience and build awareness of this emerging threat to the ocean. We have been working with experts within New Zealand to develop our own action plan. We’re proud to champion the Commonwealth Blue Charter’s Ocean Acidification Action Group, which has convened 17 Commonwealth countries from African, Caribbean and Pacific regions in an ocean acidification science and policy focused workshop. We also continue to work closely with the Secretariat of the Pacific Regional Environment Programme to strengthen coastal communities’ resilience against ocean acidification in Fiji, Tokelau and Kiribati."—Ms. Stephanie Lee, Special Adviser on Climate Change, New Zealand Ministry of Foreign Affairs and Trade.

"California is witnessing first-hand the effects of climate change on our ocean and coast and the people who rely on it. The impacts of ocean acidification threaten our fisheries, communities, and ecosystems. Inaction is not an option, which is why we are committed to a zero-carbon emissions economy that will stem the tide of alarming climate-related changes in our oceans. We are committed to implementing California’s Ocean Acidification Action Plan to adapt and build resiliency against existing climate change threats,"—Wade Crowfoot, California Secretary for Natural Resources.

"Government-led initiatives like the Ocean Acidification Alliance are vital to helping governments respond to the findings within the IPCC Special Report on Ocean and Cryosphere in a Changing Climate and to implementing the United Nations Sustainable Development Goal 14,"—UN’s Special Envoy for the Ocean, Ambassador Peter Thomson.
A Year in Review

The 2019 OA Alliance work plan outlined several objectives including:

1. Support the Development of OA Action Plans
2. Elevate Ocean Ambition Across Climate Frameworks and Inspire Leadership at Ocean and Climate Events
3. Increase Membership and Strategically Strengthen Partnerships
4. Improve Communications Efforts and Social Media to Increase Information Sharing
5. Administer New Governance and Establish A Formal Secretariat

This annual report details major accomplishments, actions and programmatic strategies that help us deliver on our objects and achieve the mission of the OA Alliance.

Support the Development of OA Action Plans

As envisioned by the Alliance, OA Action Plans describe tangible actions that Alliance members will take to respond to the threat of ocean acidification. OA Action Plans help governments identify key species and ecosystems within their region (economically, culturally, or otherwise), assess potential vulnerabilities and develop strategies to protect them. The development of OA Action Plans also engages policymakers and heads of state (ministers, governors, premiers, agency directors, mayors and tribal chairs) in leadership roles, helping to elevate climate-related impacts to our ocean and the forecasted catastrophic impacts if we do not act quickly.

The OA Alliance made international commitments with the United Nations through Sustainable Development Goal 14.3 and at the 2017 and 2018 Our Ocean Conferences to support the development of 15 OA Action Plans by the end of 2019. We have met that goal. Fifteen OA Alliance members have developed and adopted OA Action Plans, which can now be found on the OA Alliance website.

To support members, the OA Alliance has an OA Action Plan toolkit, a strategic process for initiating plan development, which has been used as the starting point for many OA Action Plans created within the OA Alliance framework. The toolkit draws from a compendium of best practices and recommendations from published state, regional, and national ocean action plans, as well as ocean acidification action plans or ocean acidification commission recommendations. The OA Action Plan Toolkit makes recommendations for actions across five categories: 1) advancing scientific understanding; 2) mitigation; 3) adaptation and resiliency actions; 4) public awareness and outreach; and 5) elevating climate related impacts to oceans within international climate frameworks.

Additionally, the OA Alliance took on additional engagements and collaborations with members and partners to help support OA Action Plan development across membership this year.
Workshops that Supported OA Action Planning in 2019:

- **Presented at the Commonwealth Blue Charter OA Workshop**, Dunedin, New Zealand (February 16-17). The workshop convened science and policy participants from Antigua and Barbuda, Australia, Cook Islands, Fiji, Ghana, Kenya, Mozambique, Solomon Islands, Samoa and Tuvalu. The OA Alliance presented the concept and process for OA Action Planning along with providing an overview of the Toolkit and existing plans. [A report out from the workshop can be found here.](#)

- **Convened a two-day Coast to Coast State Workshop on Ocean and Coastal Acidification at the New York Aquarium on Coney Island (September 26-27)** to further support action plan development and implementation at the state level. The workshop brought together over 60 participants from 14 states and focused on sharing lessons learned and best practices across state governments that have undertaken or are interested in state-led actions to address ocean and coastal acidification. Participants included governor’s policy leads, state agencies and task force members, and leaders from acidification monitoring networks, particularly from the West Coast, Northeast and Mid-Atlantic regions. [A report out from the workshop can be found here.](#)

- Participated in an [OA policy workshop hosted by affiliate member Secretariat of the Pacific Regional Environment Programme (SPREP) in Apia, Samoa (September 4)](#) resulting in a guidebook for Pacific Island Countries and Territories looking to incorporate OA monitoring and adaptation/resiliency strategies into existing management frameworks.

- Hosted one-day workshop “Communicating OA Science to Policy Makers” as part of a Technical Cooperation project meeting between members of Ocean Acidification International Coordination Centre (OA-ICC) held in Guayaquil, Ecuador. The meeting brought together member governments from Latin America, Africa, Europe and Asia working to advance regional science as part of the Global Ocean Acidification Observing Network. The OA Alliance workshop focused on best practices in communicating OA science to decision and policy makers and other stakeholders, drawing upon lessons learned and experiences from our members.

Products and Publications that Supported OA Action Planning in 2019:


- Co-published, “Models for Ocean- Climate Action,” with affiliate member Ocean Conservancy, to demonstrate how subnational governments along Pacific Coast of North America are working to confront the ocean and climate crises through coordinated regional science that will inform actions to reduce impacts, improve resilience, and support adaptive management.

- Co-authored, “Mainstreaming Ocean Acidification into National Policies: A Handbook for Pacific Islands” with affiliate member, Secretariat of the Pacific Regional Environment Programme (SPREP.)
• Contributed to, “Ocean-related Measures in Climate Strategies” report published by partner, Because the Ocean Initiative, which provides guidance to governments on policy frameworks they might use to address climate impacts to ocean health, resources, communities and economies.

• In collaboration with University of Washington School of Marine and Environment Affairs, developed the following members support guides:
  
  o Recommendations for city-led actions to combat ocean acidification based on existing strategies to address climate change and related impacts in the City of Vancouver, British Columbia; City of Seattle, Washington; and City of Portland, Oregon.
  
  o Recommendations for countries seeking to incorporate ocean acidification into Nationally Determined Commitments pursuant to the 2015 Paris Climate Agreement.

Information Sharing Opportunities that Supported OA Action Planning in 2019:

Hosted six webinars for all members in 2019:

Webinar #1: Monitoring for Ocean Acidification: Tools and Methodology, Global Networks and Collaborations, Understanding Coastal Interactions and Building a Regional Inventory. (May 8)

Webinar #2: Communications and Outreach: Best Practices for Communicating the Impacts of Ocean Acidification and other Climate Related Changing Ocean Conditions. (May 20)

Webinar #3: Tribes and Indigenous Communities on the Front Lines: Understanding Tribal Treaty Rights and Actions to Advance Ocean Acidification and Ocean/Climate Management Strategies. (June 11)

Webinar #4: Coral Reefs in a High CO2 World: How coral reefs are experiencing acidification combined with additional stressors and what can governments do about it? (July 30)

Webinar #5: Unveiling OA Action Plans: OA Alliance Members will provide an overview of process and content for creating their government lead OA Action Plans, including the tangible actions they are taking to respond to the threat of ocean acidification. (August 14)

Webinar #6: Preparing for the “Blue Ocean COP25.” (November 25)

Webinars have provided government and affiliate members across the world with an opportunity to showcase their work, engage other members in policy approaches, communications and education efforts and share most recent and relevant science. Webinars also help inform members about upcoming events and high-level climate meetings where the OA Alliance will be engaging.

The OA Alliance has helped build connections across government members, scientists, regional monitoring networks, and has helped identify opportunities to expand regional capacity and collaboration.

The rapid growth of the OA Alliance in just three years clearly demonstrates the strong interest from policy and decision-makers in better understanding climate impacts to key marine resources within their regions and actions to reduce impacts and build resiliency.
Elevate Ocean Ambition Across Climate Frameworks and Inspire Leadership at Ocean and Climate Events

OA Alliance members are calling for emissions reductions and ocean adaptation actions under international and national climate frameworks like the United Nations Framework Convention on Climate Change (UNFCCC) and the United Nations Sustainable Development Goals (UN SDGs.) Ultimately, the best mitigation plan for ocean acidification is to drastically reduce carbon emissions, which requires ongoing commitments to action and international collaboration across national, subnational, sovereign and civil society leaders.

The OA Alliance elevates and demonstrates leadership being taken by a diverse range of its members including national, subnational, tribal and sovereign leaders who are developing OA Action Plans.

This year, the OA Alliance made an impact at several international climate and ocean meetings by elevating ocean-climate impacts, pressing for urgent action to reduce carbon emissions and calling for the inclusion of ocean in climate commitments and frameworks. Specially, the OA Alliance:

- Presented OA Action Plans at Ocean Visions Summit, Georgia Tech, Atlanta Georgia (April 1-4, 2019) which drew hundreds of participants aiming to translate science and engineering into applications for ocean solutions, and to develop innovative research efforts that build on synergies between academic institutions, NGOs, government and industry.

- Presented at the UN SDG 14 Communities of Ocean Action meeting in Incheon, South Korea (Update on Commitment # 15195: 15 OA Action Plans by end of 2019.) The Meeting of the Communities of Ocean Action "From Commitments to Action: Implementing SDG14" provided a platform to share best practices and experiences amongst the members of different Communities of Ocean Action and any interested stakeholders, to provide partnership opportunities and to catalyze further pledges for ocean action. The OA Alliance was selected to be one of three ocean acidification commitments featured at the conference which further informed deliberations at a High-Level Political Forum on Sustainable Development in July 2019 and will contribute to the preparatory process in the lead-up to the 2020 United Nations Ocean Conference.

- Submitted Nature Based Solution (NBS) Contribution #153, “Mobilizing Global Leadership to Advance Ocean Acidification Action Plans” to the UN Environment Programme NBS contribution platform which further informed the 2019 UN Secretary General Climate Action Summit.

- Hosted a high-level response to the IPCC Special Report on Ocean and Cryosphere in a Changing Climate (SROCC) release on September 25 as part of the UN Secretary General Climate Action Summit in September, calling for national and subnational action to protect oceans from the impacts of rising carbon emissions. The event was held at the UN Foundation in New York and was co-hosted by the OA Alliance, Fiji Permanent Mission, Commonwealth Secretariat and many other partners. The OA Alliance showcased actions that governments are taking now to advance policy solutions they have developed within their regions and across climate agreement frameworks such as through OA Action Plans.

The September 25 event included speaking engagements from the following leaders:
o Honorable Inia Seruiratu, Minister for Foreign Affairs of Fiji
o Washington State Governor Jay Inslee
o Ambassador to the United Nations, Isabelle Picco of Monaco
o Dr. Robert Hallberg, IPCC Report Author
o Stephanie Lee, Special Adviser on Climate Change, New Zealand Ministry of Foreign Affairs and Trade
o Secretary Wade Crowfoot, California Secretary for Natural Resources
o Senator Eduardo Murat Hinojosa, President of the Committee on the Environment, Natural Resources and Climate Change, Senate of the Republic of Mexico
o Nicholas Hardman-Mountford, Head of Oceans and Natural Resources Trade, Oceans and Natural Resources Directorate, Commonwealth Secretariat
o UN Sustainable Development Goal’s Special Envoy for the Ocean, Ambassador Peter Thomson

• Presented—and was a featured stakeholder—at the launch of the Platform for Science-Based Ocean Solutions, created by the COP25 Presidency to bring together best practices, methodologies and tools to help national governments incorporate oceans into NDCs.

• Hosted several events at COP25 focused on ocean acidification including:
  o From Knowledge to OA Action: Mobilizing Global Leadership to Protect Coastal Communities and Livelihoods from a Changing Ocean- Perspectives from the NE Atlantic featuring speakers from France, Canada, Sweden, United Kingdom, Commonwealth Blue Charter and the Ocean Climate Platform. (December 5, 2019 - French Pavilion)
  o Pacific Leadership and International Cooperation to Advance Regional Science and Mainstream Ocean Acidification into National Policies featuring speakers from New Zealand, Tokelau, Fiji, Pacific Community and Secretariat of the Pacific Regional Environment Programme. (December 6, 2019 - Moana Blue Pacific Pavilion)
  o Understanding Changing Ocean Conditions and Impacts to Marine Species and Ecosystems: Global Networks that Are Advancing Regional Science, Monitoring and Response featuring speakers from California, Chile, Washington, Scripps Institution of Oceanography, the IAEA International OA Coordinating Center, and Pacific, African and Latin American Hubs of the Global Ocean Acidification and Observing Network. (December 7, 2019 - Chilean Pavilion)
  o Ocean-Climate Leadership at the Blue COP featuring speakers from California, Washington, Hawaii and the Ocean Conservancy. (December 9, 2019 - U.S. Climate Action Center)
  o The OA Alliance was also proud to take part in events during Ocean Action Day, hosted by Global Ocean Forum and several other partners on December 7, 2019.

Increasingly, the OA Alliance is seen as an organization capable of delivering tangible and government-led mitigation, adaptation and resiliency actions on the ground. This helps governments further demonstrate the types of comprehensive and integrated science, policy actions, pilot projects, and investments that are required to deliver on the high-level commitments made through platforms like the UN Sustainable Development Goals, UNFCCC, Our Ocean Conferences and the Global Climate Action Summit.
Increase Membership and Strategically Strengthen Partnerships

Since its launch, the OA Alliance has prioritized collaboration with other international ocean leaders like Ocean Conservancy, Ocean Foundation, Because the Ocean Initiative, Ocean and Climate Platform, Ocean Pathway Partnership, the United Nations Sustainable Development Goals Communities of Ocean Action, the UN Foundation and the COP23 and COP25 Presidencies.

This year, the OA Alliance grew and strengthened partnerships with other critical initiatives that are looking to further elevate ocean within climate discussions and policy frameworks like the Commonwealth Blue Charter or elevate the role of subnational governments in achieving international climate targets like the Under2MOU and U.S. Climate Alliance.

Additionally, the Alliance has collaborated with international organizations like the IAEA’s Ocean Acidification International Coordination Centre (OA-ICC) and the Global Ocean Acidification Observing Network (GOA-ON) that are working to increase scientific knowledge and understanding as well as grow capacity to measure ocean acidification and pH trends around the world.

By continuing to advance and deepen these partnerships, the OA Alliance is able to better connect emergent science directly to decision makers.

Since December 2016, the OA Alliance has grown to over 100 members, including 13 national governments, 9 states, 2 provinces, 6 tribal and sovereign nations, and 4 cities, along with local research institutions, monitoring networks, businesses, affected industry partners and NGOs.

The OA Alliance has strategically identified and built relationships with strong partners and potential new members each month, ultimately securing commitments to collaborate across organizations and increasing commitments to join. The OA Alliance is committed to increasing the number of government and affiliate members that are regularly engaged with OA Alliance efforts and to ensuring diversity of membership.

The more voices, perspectives and experiences at the table, the more successful the OA Alliance’s approach to member-to-member information sharing continues to be.

The following members joined the OA Alliance in 2019:

**Improve Communications Efforts and Social Media to Increase Information Sharing**

Strong communications strategies help further the mission and goals of the OA Alliance. In 2019, the OA Alliance engaged in a number of communications activities in order to help members advance OA Action Plans, showcase their ocean climate leadership efforts, educate the public and policy makers about ocean acidification, and elevate ocean within international climate agreements. Specifically, the OA Alliance:

- Released seven e-newsletters for members and partners. E-newsletters help ensure that members and prospective members hear from the OA Alliance regularly, and are seeing examples of how effective the Alliance can be in addressing their own in-region concerns. Newsletters were distributed every other month and typically included: event announcements, member profiles highlighting specific actions, new members, release of OA Action Plan or other policy advancements, and updates on ocean and climate agreements.

- Partnered with Mania Productions to produce a short film capturing interviews and remarks from OA Alliance members in response to the IPCC Special Report on Ocean and Cryosphere in a Changing Climate. The video was filmed during the OA Alliance side event, “Climate and Ocean Action” hosted on September 25 during the UN Secretary General Climate Summit and was shown across OA Alliance events at COP25. The video will continue to be utilized and showcased on the website and at events throughout 2020.

- Offered members several high-profile speaking opportunities, panel sessions, and workshops at international meetings, conferences and summits which included tailored media advisories and news releases around these events. For the “Climate and Ocean Action” event at the UN Secretary General Climate Summit on September 25, the OA Alliance worked with news outlets to issue a press release and develop an “experts list” comprised of diverse government members which was offered to national science and environment reporters. Because of this effort, OA Alliance member the Northwest Indian Fisheries Commission was featured in a National Public Radio short interview as part of their coverage of the UN IPCC SROCC.

- Increased OA Alliance presence on Twitter. The OA Alliance continues to grow a Twitter feed that is aimed primarily at raising the organization’s profile at international conferences and with partners. Twitter is heavily used by elected officials, policy makers, businesses and NGO’s.

- Updated OA Alliance website to include a more developed OA Action Plan page that showcases tools, examples and case studies of current members approaching OA Action Planning. Additionally, the OA Alliance authored short posts to high-light major events, workshops and publications.

- Developed materials that allowed for new members and partners to learn about the OA Alliance and its work including:
  - Updated 2-pager
  - Postcards in English, Spanish and French
Models for Ocean Climate Action, a publication that highlights how North American subnational governments are addressing the causes of ocean acidification and changing ocean conditions while increasing the resilience of coastal communities

- Engaged more frequently in the Ocean Acidification Information Exchange which allowed the Alliance to build a larger network within the OA science and policy community.

A strong communications strategy is critical to helping the OA Alliance achieve its objects and support Alliance members in leveraging their work. In 2020, communications needs will be re-evaluated, and an updated communications plan will be created.

**Administering New Governance and Establishing A Formal Secretariat**

This year, the OA Alliance expanded its governance structure and increased member leadership by creating an Executive Committee made up of 12 governments charged with:

- Reviewing and approving the annual work plan;
- Providing input on OA Alliance programming (webinars, trainings, meetings, tools and products);
- Setting the long-term commitments of the OA Alliance;
- Setting the direction for OA Alliance activities at high-level international ocean/climate events such as United Nations SDG 14 Conferences, Our Ocean Conferences, COPs and others;
- Helping to identify funding sources, review potential grants or seek funding to secure needed resources;
- Engaging in 4-6 annual teleconference meetings, provide input and vote on/make decisions on action items; and
- Serving as a member of the Executive Committee for a term of 12 months.

The newly established Executive Committee was announced in December 2018 and convened 5 times in 2019. In 2020, the Executive Committee will consider bringing on new government members to serve a 12-month term.

**OA Alliance Secretariat and Support Staff:**

The OA Alliance receives facilitation and project management support from Ms. Jessie Turner, a consultant and project manager at Cascadia Law Group and its new consulting firm, Cascadia Policy Solutions. In 2019, the Executive Committee officially confirmed Cascadia Policy Solutions to serve as the Secretariat of the OA Alliance.

The Secretariat sets the strategic direction of the OA Alliance, recruits new members and supports members in the development of OA Action Plans. Additionally, the Secretariat manages day-to-day operations of the OA Alliance which has included interactions with members, communications and newsletters, convening webinars, and planning participation at high-level events throughout the year. With guidance from the Executive Committee and Ocean Conservancy, the Secretariat is also responsible for seeking grants and funding to support the implementation of the annual work plan, which may require commissioning and overseeing additional staffing or contracted support as determined by the Executive Committee and the OA Alliance work plan as the initiative continues to grow and evolve.
Thank You

We thank you for your commitment to this work and for your leadership advancing ocean and climate issues.

The increasing science and lived experiences of globally changing ocean conditions makes clear that there is a need for shared knowledge and expertise on the substance and process for developing local, regional and national OA Action Plans to address the causes and to build resilience in the face of these changes.

A special thank you the Rockefeller Brothers Fund, Resources Legacy Fund and Ocean Conservancy for your partnership and leadership.

Finally, none of the OA Alliance’s work would be possible without the passion, expertise and commitment of all our members and partners. Thank you to everyone who has lent time and consideration to this important initiative—it is invaluable.