Ocean-Based Climate Solutions in Nationally Determined Contributions
June 2023 Update

Tracking Progress: Ocean and Climate in NDCs

Current national climate goals under the Paris Agreement – Nationally Determined Contributions (NDCs) – are not adequate for addressing the climate crisis. With the crisis more urgent than ever, we need to meet this moment by including ocean-based climate solutions in national climate commitments, which could contribute as much as one-fifth of the annual greenhouse gas emission cuts needed to limit global temperature rise to 1.5°C.

While this is challenging, there is reason for optimism. The UN Global Stocktake is a meaningful opportunity for the ocean to be better integrated into NDCs. The inextricable link between the ocean and climate is becoming better understood, ocean-climate solutions are being realized and embraced, and the Paris Agreement’s ratchet mechanism enables countries to submit new NDCs every five years, giving them the opportunity to strengthen their plans and goals. As countries update and communicate their second round of NDCs, Ocean Conservancy is tracking the inclusion of ocean-based climate solutions – to identify where gaps exist, encourage greater ambition, and assess progress.

This summary highlights key findings from the report Ocean-Based Climate Solutions in Nationally Determined Contributions, June 2023 Update and discusses the solutions that Ocean Conservancy believes have the greatest climate change mitigation potential: Advancing Offshore Clean Energy alongside the transition from oil and gas, Reducing Plastics Production and Use, and Decarbonizing Shipping. We will provide regular updates as countries submit additional NDCs.
Key Findings

For this update, we reviewed 98 submissions – 97 coastal countries and the European Union – to assess to what extent NDCs address 10 different ocean-related climate solutions. Our review found that:

15% of the countries we reviewed do not include any ocean-climate solutions in their NDCs.

2 countries – Brunei Darussalam and Canada mention reducing emissions from offshore oil and gas, and neither report timebound targets in doing so.

14% of the countries reviewed mention renewable energy, and only 3 of those set timebound targets.

23% of the countries mention plans to reduce emissions from shipping and ports, with only 6% setting timebound targets. Marshall Islands, Samoa, and Seychelles provide the most detail in describing their plans.

14% of the countries discuss advancing ocean-climate justice by addressing the needs of vulnerable communities, with 9% mentioning efforts to promote gender equality or to empower women, and only 2 countries – Cabo Verde and Uruguay – setting timebound targets.

8% of the countries address ocean-related economic development initiatives, and only 3 – Cabo Verde, Equatorial Guinea, and Seychelles – incorporate timebound targets.

16% of the countries address 5 or more ocean-based climate solutions, with 2 countries addressing 8 solutions, the greatest number that any one country addresses.

The solutions included by the greatest number of countries are:

- Protecting and restoring blue carbon ecosystems: 61 countries
- Protecting coastal communities & infrastructure: 59 countries
- Creating climate-ready fisheries: 46 countries

1 The 10 ocean-based climate solutions that form the basis for this report are: Scaling Up Offshore Renewable Energy, Reducing Emissions from Shipping and Ports, Reducing Emissions from Offshore Oil and Gas, Protecting and Restoring Blue Carbon Ecosystems, Advancing Marine Protected Areas (MPAs), Protecting Coastal Communities and Infrastructure, Protecting Coastal and Marine Ecosystems and Biodiversity, Creating Climate-Ready Fisheries, Advancing Ocean-Climate Justice, and Enhancing a Blue Economy; 2 Cabo Verde and the UK; 3 Canada, Domenica, Seychelles, and St. Lucia; 4 Argentina, Fiji, Maldives, and Namibia; 5 Antigua and Barbuda, Equatorial Guinea, Malaysia, Papua New Guinea, Uruguay, and Vanatu.

Highest-Impact Solutions

Ocean Conservancy believes we can create a future where there is no oil and gas production in the ocean, plastics and petrochemicals expansion is dramatically reduced, and the shipping industry no longer relies on dirty fuels. To realize this vision, we focus on promoting policies that support the development of offshore clean energy, lead to reduced production and use of plastics, and enable the decarbonization of the shipping sector. We see these as the ocean-based climate solutions with the greatest potential for reducing emissions and serving the economic, environmental, and social needs of coastal communities.

Advancing Offshore Clean Energy

We believe a responsible, rapid, and just transition to the ocean as a source of 100% clean energy is possible by 2050. Offshore renewables, including offshore wind, play a crucial role in achieving the energy transition, and more countries need to include them in NDC targets. We strongly support the responsible deployment of offshore wind and marine renewables that have a net-positive impact on biodiversity and are developed in concert with sustainable ocean plans.
To that end, Ocean Conservancy, as the Ocean and Coastal Zones sector lead for ocean renewable energy for the UNFCCC Marrakech Partnership for Global Climate Action, has developed a clean ocean energy breakthrough that is being launched at COP28. The breakthrough calls for installing at least 380 GW of offshore wind while establishing targets and enabling measures for net-positive biodiversity outcomes. We also advocate for mobilizing $10 billion in concessional finance to support and create the conditions for developing countries to deploy responsible offshore wind energy.

Developing clean and renewable offshore energy should be prioritized alongside the transition from oil and gas. Offshore oil and gas extraction not only provides pollution-causing fuels that drive the climate crisis but also poses a direct threat to our oceans and wildlife through spills and leaks. To achieve a genuine clean energy transition, we must put a stop to the extraction and development of fossil fuels.

Reducing Plastics Production and Use
Ocean and coastal communities are at the forefront of both the climate and plastic crises. 99% of plastics are made from fossil fuels, and the plastics industry is on a rapid growth trajectory. Plastics generate high levels of greenhouse gas pollution – from production to disposal – and their growth will lock in continued oil and gas extraction for decades to come. This growth in production is a ballooning pollution problem for coastal communities that are already experiencing some of the damaging impacts of climate change: flooding, sea level rise, and more extreme hurricanes.

Building on our previous research, Ocean Conservancy conducted a preliminary review of 56 NDCs to assess the inclusion of plastics. Only four of the NDCs reviewed mentioned reduction of single use plastics as a mitigation strategy. Management of waste was a challenge noted by over half of the countries, with almost one third noting emissions reduction potential from waste management. Worryingly, however, almost half of the NDCs reviewed included plans to increase incineration or waste-to-energy facilities, a trend that would significantly exacerbate climate change and local pollution. One quarter of the NDCs included efforts to decarbonize plastics production through energy efficiency, carbon capture and storage and hydrogen technologies, in some cases under the heading of expanding green production. Just three countries included expansions in bio-based feedstocks and plastics, acknowledging plastics’ connection to fossil fuels.

This research further demonstrates the need for greater emphasis on reducing plastics production to address the climate impacts of plastics.

NDCs need to address the climate risks of plastics to enable the clean energy transition. Countries can tackle the dual threats of ocean plastic pollution and climate change by building a robust, truly circular economy. Key actions include reducing the production and use of plastics (along with the enabling subsidies), increasing accountability and management of plastics along their lifecycle, incentivizing product design and delivery models for reuse and mechanical recycling, and phasing out emissions-intensive, end-of-life waste management such as incineration, open-burning, chemical recycling, and waste-to-energy systems. In addition, breaking down siloes between developing the international legally binding instrument to end plastic pollution (UN Plastics Treaty) and implementing the Paris Agreement will help countries deliver economic, health, and ecosystem benefits to coastal communities.
**Decarbonizing Shipping**

Shipping is a major contributor to climate change. 90% of global trade occurs across our ocean, driving economies and delivering goods to people all around the world, but it comes at a cost to our climate and communities. The shipping industry emits roughly 1 billion metric tons of carbon dioxide each year and is responsible for 3% of global greenhouse gas emissions. If it were a country, it would be the sixth largest greenhouse gas emitter.

The shipping industry must transition to clean practices, technologies, and fuels quickly. If we don’t decarbonize shipping by 2040, it will be nearly impossible to fulfill the goals of the Paris Agreement, limit global temperature rise to 1.5C, and hit net-zero targets by 2050. To accelerate the transition, we need to utilize both policy and investment tools, including establishing domestic and international standards that will push the sector to decarbonize. We need to produce new zero-emission fuels at scale. We need vessels and propulsion technologies that can run on these fuels and maximize efficiency. We need ports that can refuel and service these vessels – and cut their own greenhouse gas emissions and air and water pollution by transitioning away from fossil fuels and toward renewable energy.

While the International Maritime Organization (IMO) revised greenhouse gas reduction strategy for global shipping, adopted in July 2023, improves on the previous strategy, it still isn’t aligned with the Paris Agreement goal of limiting warming to 1.5C. Over the next few years, the IMO must revise the existing short-term efficiency measures with accelerated emissions reduction targets and enforcement mechanisms and adopt and implement strong midterm measures. These measures include setting goal-based fuel standards and establishing an emissions levy to make funds available to developing countries, particularly least developed and small island developing states, that are at the greatest risk from both climate impacts and from being left behind during the shipping transition. In the meantime, it falls to individual countries to step up and include the decarbonization of shipping in their NDCs.


For more information about Ocean Conservancy’s NDC tracker project, please contact Whitney Berry at wberry@oceanconservancy.org or Luis Estévez-Salmerón at lestevez@oceanconservancy.org.