



# COP 25 – FISHERIES & OCEAN SUMMARY

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*The resulting mood in the conference center alternated between frustration and resignation. However, there are still grounds for hope. One initiative is the initiative of the new European Commission the “Green Deal” aimed at achieving carbon neutrality by 2050, in order to enable a radical ecological transition in the Old Continent.*

Brief analysis of the current trends for oceans and fisheries after the COP25

## Context

**The UN Convention on Climate Change (UNFCCC) is one of the 3 adopted at the Rio Summit.** The UNFCCC specific goal is to stabilize greenhouse gas concentrations "at a level that would prevent dangerous anthropogenic (human induced) interference with the climate system." It states that "such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened, and to enable economic development to proceed in a sustainable manner."

However, emissions levels today do interfere with the climate system, through affecting its main regulator: the ocean. Furthermore, human activities have polluted and depleted the ocean, threatening food production, destroying ecosystems and threatening the sustainable continuation of marine dependent economies.

The Ocean is a carbon sink: of the three places where carbon is stored—atmosphere, oceans, and land biosphere—approximately 93 percent of the CO<sub>2</sub> is found in the oceans. Since 2009, it has absorbed 22% of CO<sub>2</sub>, and absorbed 90% of excess heat since pre-industrial years. It is fair to say that up until now, the ocean has been “taking up the heat”, and contributing to slowing down the pace at which climate change is occurring.

## Why a Blue Cop?

Excessive CO<sub>2</sub> intake leads to ocean heat waves, ocean acidification, ocean deoxygenation, sea level rise. The ocean is not capable to absorb as much carbon anymore, because it is starting to saturate. On top of this physical phenomenon, human activities other than greenhouse gas emission come into play and further diminish the ocean's sink capacities and its resilience: overfishing, ecosystem destruction through harmful fishing techniques and seabed activities and pollution. Ocean fauna and flora are essential elements in the carbon cycle; their disappearance only lowers the ocean's absorption capacities. It also worth highlighting that climate change has only recently started to become a stressor on the ocean, which means that further unprecedented changes are expected to be observed in the coming years (as soon as 2030).

## What are the implications of climate change for fisheries?

**The marine ecosystem is changing and so is life in the oceans.** The fisheries sector differs from others because it has distinct interactions and needs with respect to climate change: they are dependent on global ecosystem processes. **As sea temperature rises, the fish population are migrating north, which will completely redefine species distribution and composition. This will require changes in fishing practices and aquaculture operations.** Effective adaptation will be required across all scale of fisheries and aquaculture in order to strengthen and maintain productive and resilient aquatic ecosystem and the benefits derived from them, but particular attention needs to be given to the most vulnerable if the sector is to continue to meeting global goals of poverty reduction and food security.

**Sea level rise, glacier melting, ocean acidification will significantly affect coral reefs, wetlands, lakes, etc. requiring adaptive measures to exploit opportunities and minimize impacts on fisheries and aquaculture systems.** Climate change will become an increasingly critical development issue.

## Which topics were discussed?

*The Ocean - Climate nexus was mostly discussed in the side events and the main topics of discussion on marine issues were mitigation and adaptation.*

We have gathered below the main recommendations discussed in the side events

### 1. Mitigation

#### a. Drastic reduction of greenhouse gas emissions

The best measure we can take to protect the ocean nowadays is to cut greenhouse gas emissions. In this sense, shipping plays a major role: raising ship efficiency and slowing down ships. The fishing industry also has a role to play: ending overfishing would take out fishing gear that uses a lot of fossil fuel and allow higher sequestration by marine life.

#### b. Mitigation protecting the oceans

- A healthy ocean will be more resilient, and more able to resist upcoming changes. The current solutions on the table are the following
- Ending overfishing by removing the incentives to overfish (discipline and redirect harmful subsidies) and adopting quotas in line with scientific advice
- Improving national fisheries management
- Pushing for regional cooperative management
- Making illegal fishing unprofitable
- Creation of well managed MPAs (30 by 30 initiative, push to close the high seas to industrial fishing)
- Thinking about one global ocean.
- Linking all international processes (UNFCCC, CBD, IUCN)

### 2. Adaptation

The IPCC SROCC stated that since 90% of human excess heat has been absorbed by the ocean, climate change is nowadays irreversible. Climate adaptation is now as important as climate mitigation. The highest impacted countries will be the ones who have the less able to adapt to it. This raises several questions such as equity

(Loss & Damages, Just Transition fund, Climate adaptation fund), Gender (for example today harmful subsidies have a high impact on women).

For more information, please refer to the list of side events below and their respective reports on the following pages.

### COP25 “Blue” Side events list:

- **“Ocean for Climate”** organized by the Ocean and Climate Platform, the Because the Ocean Initiative, and the Ocean Acidification Alliance.
- **“Cryosphere and the 1.5 Degree Goal”**, organized by the International Cryosphere Climate Initiative (ICCI), the Climate Policy Center (CPC), and the Scientific Committee on Antarctic Research (SCAR)
- **Launch of the “Platform of Science-based Ocean Solutions”** organized by the Chilean Presidency and the foundation Albert II of Monaco
- **How can ending overfishing mitigate climate change?** organized by Seas at Risk
- **Ocean Action days:** 2 special days were dedicated to the Oceans: Friday 6 and Saturday 7th at the Japanese and at the European Pavilion (for more information on organizers please refer to the report)

## EVENTS REVIEW AND MAIN OUTCOMES

### **Ocean for Climate**

Organised by the Ocean and Climate Platform, the Because the Ocean Initiative, and the Ocean Acidification Alliance.

- **Valérie Masson Delmotte**, *IPCC Working Group I Co-Chair*, presented the conclusions of the IPCC Special Report on the Ocean and Cryosphere in a Changing Climate. She stressed the **need for new strategies to reinforce climate change resilience, noting that the Report highlights the impacts of ocean warming on coral reefs, forests, ocean species, mangroves and Polar Regions.**
- **Anna Zivian**, *Ocean Conservancy*, discussing ecosystem services and marine protected areas (MPAs), said marine ecosystems, such as corals, mangroves and sea grasses, also referred to as blue carbon, are an important part of climate change solutions. She highlighted options for ocean-related climate action, such as eliminating carbon emissions from the shipping industry, fisheries and aquaculture, and highlighted co-benefits from MPAs including for fisheries and combating harmful algal blooms

### **Cryosphere and the 1.5 Degree Goal**

Organised by the International Cryosphere Climate Initiative (ICCI), the Climate Policy Center (CPC), and the Scientific Committee on Antarctic Research (SCAR)

- **Pam Pearson**, Director, ICCI, moderated the event. Andrés Couve, Minister of Science, Technology, Knowledge and Innovation, Chile, lauded the COP Presidency for setting up the Cryosphere Pavilion, which focuses attention on Arctic and Antarctic research, underscored the need to improve knowledge on these areas, and stressed the importance of these regions as the sensors of climate change.
- **Veronika Veits**, Director, Oceans and Fisheries, Directorate-General for Maritime Affairs and Fisheries, European Commission, said that science and citizen's awareness are the drivers of policy change and reiterated the European Union's commitment to cryosphere research.

### **Launch of the Platform of Science-based Ocean Solution**

*Organised by Chile and Albert II of Monaco*

- **Carolina Schmidt**, *COP25 President and Minister of Environment of Chile*, explained that during its presidency, Chile wishes to offer the parties a space where they can exchange about updating their NDCs including the oceans: **The Platform of Science-based Ocean Solutions.** The aim of this platform is first and foremost to **promote the incorporation of the ocean into the Nationally Determined Contributions**, and secondly to **congregate tools and technologies in an inclusive and opened space.**

- **His Serene Highness Prince Albert the 2nd of Monaco** stressed the fact that sea levels are expected to increase in the years to come, and **will continue to do so even if we successfully attenuate climate change**. Problems are manifold, as we witness an increase of marine heatwaves, combined with a decrease of marine oxygenation. **This phenomenon, combined with overfishing and harmful fishing methods are threat to biodiversity and ecosystems. To give an example, climate induced disruptions are very likely to cause a 25% decrease of catches by the end of the century.**
- **Paul Watkinson, Chair of SBSTA** announced the two presidency and mandated events around oceans that will take place during this Cop 25:
  - **Joint IPCC-SBSTA special event on the SROCC**
  - **13th NWP Focal Point Forum on the topic of oceans**
- **Valerie Masson-Delmotte, Co-chair of IPCC WGI** thanked the 104 authors of the SROCC, coming from 46 countries. She explained that the report is based on the analysis of more than 7000 scientific papers, and complements the findings of the “1,5°” IPCC report as well as the IPBES Global Assessment on Biodiversity and Ecosystem services. Mrs. Masson-Delmotte went on to give a brief summary of the SROCC’s key findings:
  - The ocean has taken up more than 90% of the excess heat, **making climate change irreversible.**
  - Due to the warming of the ocean, the **frequency of marine heatwaves has doubled.**
  - The ocean is acidifying and the oxygen is decreasing in the upper 1000 meters of the ocean.
  - The thermohaline circulation has weakened.
  - The climate induced displacement of marine species is of **50km per decade towards the pole.** This mass displacement affects ocean ecosystems. There is already, due to overfishing, a clear decrease of catches, and climate change will only enhance it.
  - Nearly 50% of mangroves and coastal ecosystems have disappeared.
  - Harmful algae blooms have increased in frequency in coastal areas since 1980’s.
  - Marine heatwaves result in large scale coral reef bleaching and degradation, the recovery of which will take more than 15 years (if we are to stop global warming).
  - She then stressed that **“what happens in the ocean doesn’t stay in the ocean”**. Coastal hazards will increase. Coastal communities will suffer. **Economies which rely heavily on marine services and marine ecosystems will face major difficulties.** Indeed, the ocean is projected to transition to unprecedented states. There will be ocean induced hazards at least once a year in several regions of the world.
- As a matter of fact, sea level rise is projected to continue until 2100. The decrease of biodiversity is projected to happen at an intensifying rate in the tropical zones. **Further shifts in fish distribution are projected to affect income, livelihoods and survival of marine dependent communities.** On the solution side, she explained that amongst the most urgent measures we find:
  - **Rebuilding of depleted fisheries, improve fisheries management with benefits for economies and livelihoods.**
    - Intensifying coordination and cooperation across sectors.
    - Enhancing sustained long-term monitoring, and improving early warning systems for climate hazards.

## How can ending overfishing mitigate climate change?

*Organized by Seas at Risk and Good Fish Foundation*

- **Dr. Rashid Sumaila**, *Fisheries Economics Research Unit, Global Fisheries Cluster University of British Columbia* came to speak about his recently published new study, that demonstrates that ending overfishing is essential to build ocean resilience and can mitigate the impacts of climate change. Here below are listed the key messages of his intervention.
  - **The key point** is to understand that overfishing remains the greatest threat to marine ecosystems. By taking more than the annual yield, it reduces the fish biomass in the ocean and shortens the food web, as it takes too many large individuals from higher trophic levels and high value fish out of the marine ecosystem, resulting in serial depletion and fishing down marine food webs. In addition, current main fishing techniques such as bottom trawling destroy the habitat, making it even more difficult for the fish stocks to replenish. A depleted ecosystem is less resilient and will be more vulnerable to a stressor such as climate change.
  - **How can ending overfishing increase fish stock resilience to climate change?** A system already on his knees will not be able to face a new impact. Fishing at MSY (on which the EU has a policy by 2020 but needs to be implemented), reduces the extinction of the stock by up to 63%. Reducing fishing efforts will also result in gains in catch, even under climate change. It will also mitigate climate change in of itself: by taking out fishing gear that uses a lot of fossil fuel, the fishing sector will release less CO<sub>2</sub> emissions and allow for a higher carbon sequestration by marine life.
  - **How to end overfishing?** By removing the incentives to overfish: improving national fisheries management, pushing for regional cooperative management, make illegal fishing unprofitable, buying insurance by creating MPAs, discipline and redirect harmful subsidies, thinking about one global ocean. On marine subsidies, globally, 84% of the subsidies go to large scale industrial fishing, and 60% of the money given to large scale is capacity enhancing. Small scale fisheries only receive 16% out of the global fisheries subsidies. The way we give subsidies now undermines the SDGs in many ways (reducing poverty; preserve marine life, gender equality).
- **Angela Martin** *Research Fellow, Centre for Coastal Research, University of Agder, Norway* spoke about the current research on the role of fish in the carbon cycle. Fish plays a role in the carbon cycle as it is part of the trophic chain and is thus a nutrient point.
- **Dr. Martin Sommerkorn** *WWF Arctic Program, coordinating lead co-author for the polar sections of the IPCC SROCC report*, gave an overview of what is happening in the arctic and the link with fisheries. The sea ice system in the arctic has seen a 13% loss of ice per decade over the last 40 years. This loss affects primary productivity, as well as secondary productivity. The zooplankton communities became smaller. The Bering Sea has warmed the most, leading to the polarization of fishing communities, as they expand to the north. Unfortunately, they are already reaching the edge of their expansion. He concluded by explaining that fisheries management should consider long forecasted changes and apply the precautionary principle above all else.
- **Dr Monica Verbeek** *Executive Director of Seas at Risk* reminded the audience of the findings the latest IPBES report: so far, the biggest impact on marine environment is fishing, as overfishing reduces the ocean's resilience. It is nonetheless an area where quick and deliverable action is possible, an action that would give the ocean a chance to fight back. Ending overfishing would also create an economically viable fishing industry and preserve coastal communities' economy. Fishing sustainably reduces the costs, reduces fuel use, and would allow taking out more without impacting the ecosystems, because fish will be able to reproduce. The benefits are manifold, the action is direct, and has direct economical wins.

- **Dr. Jacob Hagberg**, *Senior Scientific Officer of Swedish Ministry of Environment* explained that climate change is not part of fisheries discussions yet. There is a need to mainstream climate change into discussions and decisions, because it will be the most important impact on catches and fish stocks redistribution. **On IUU**, he highlighted that this excuse was used by many countries to explain overfishing, but that in reality most of it happens in legal fishing. Countries should manage their fisheries better. **Climate change is a reality**: Sweden is witnessing important ecosystems changes. The composition has changed and there is a lack of big predatory fish. Fisheries management needs urgent improvement as we are far from sustainable management today.
- **Ambassador Peter Thomson**, UN Special Envoy for the Ocean closed the event by praising work that has been done so far to bring focus on oceans since the Ocean Pathway Initiative. Integrating the ocean in climate talks is of outermost importance. All existing conventions should unite around this topic (CBD & UNFCCC). Humanity is knowingly destroying its own life support's systems. No planet system will be healthy without healthy oceans.

## Oceans Action Days: 6 and 7 of December

### Oceans and Climate Nexus within the UNFCCC and Beyond

Co-organised by the Global Ocean Forum, Ocean Policy Research Institute, Sasakawa Peace Foundation, Japan, and Oceano Azul Foundation, Portugal

- **Haydée Rodríguez Romero**, *Vice-Minister, Ministry of Environment and Coastal Affairs, Costa Rica*, underlined her country's commitment to achieving the Aichi Biodiversity Target on marine protected areas (MPAs). She stressed the need for a blue outcome at this Blue COP, and shared that Costa Rica is leading the High Ambition Coalition for Climate and Nature to build ambition in combating climate change and is creating awareness on the climate-oceans nexus.
- **Manuel Barange**, Director, Fisheries and Aquaculture Policy and Resources Division, FAO, called for a common narrative encompassing the needs of all ocean-dependent people, and urged policymakers at the COP to bear in mind that the people who will never come to COPs are those that most in need of solutions to challenges on the ground.

### Incorporating Ocean-Related Options in Nationally Determined Contributions (NDC)

Organized by Because the Ocean Initiative and the Ocean and Climate Platform.

- **Monica Verbeek**, Executive Director, Seas At Risk, called for full decarbonisation of the shipping industry by 2050 noting, *inter alia*, that the reduction of ship-speed by 20% translates to a 34% reduction in carbon emissions.

### Ocean Science to Action for Adaptation and Displacement Solution

organized by the Ocean Policy Research Institute, Sasakawa Peace Foundation, Japan; Global Ocean Forum; and Coastal Zone Canada Association.



- **Javier Garat**, *Secretary General, Spanish Fishing Confederation, and Chair of the International Coalition of Fisheries Associations (ICFA)*, dedicated his speech to explain the efforts being made by the Spanish and European fishing sector to minimize the impact that this activity has on the environment and to demonstrate that there are many more benefits than the damage it may cause. "The fishing activity is not the problem, but part of the solution to mitigate the effects of climate change. It provides an essential product for the food and subsistence of humanity, as the FAO says - fish contains the healthiest animal protein, as well as minerals, vitamins and omega 3 - and creates wealth and employment throughout the value chain, with the least possible environmental impact", said Garat, who added that, according to a study by the World Resources Institute (WRI), only by increasing the intake of protein from fish products will it be possible to maintain the target level of global warming of the planet below 2 degrees Celsius. He also highlighted that fishing vessels are collecting marine litter and are part of the circular economy, and MPAs are not the only solution to marine conservation.
- **Ingrid Timboe**, *Policy Director, Alliance for Global Water Adaptation (AGWA)*, highlighted the importance of sediment flows for marine ecosystems, noting the need for appropriate ecosystem management approaches and calling for resilient water management to build and maintain coastal ecosystems to mitigate disasters.
- During the discussion, participants discussed, *inter alia*: opportunities available for cross-sectoral application of adaptation mechanisms and the use of indigenous knowledge; and the relationship that Pacific Islands have with shipping companies to ship recyclable wastes free of charge.

## **Galvanizing Support for Oceans and Climate Action**

Organized by the Government of Chile and the Global Ocean Forum

- This session, co-chaired by **Biliana Cicin-Sain**, President, Global Ocean Forum, and **Richard Delaney**, Global Ocean Forum, brought together stakeholders to discuss pre-2020 climate action, and raising ambition to achieve the Paris Agreement goals on oceans and coastal zones.
- **Gustavo Fonseca**, Global Environment Facility (GEF), announced new project funding, to be considered by the 58th GEF Council Meeting in 2019, aimed at strengthening MPAs to address carbon sequestration, biodiversity, and fisheries.
- **Virginijus Sinkevičius**, European Commissioner for Environment, Oceans and Fisheries, urged building momentum from 2020 events and activities including the 2020 UN Ocean Conference and the IUCN World Conservation Congress 2020, among others.
- Amb. **Álvaro Mendonça e Moura**, Ministry of Foreign Affairs, Portugal, reported on preparations for the 2020 UN Ocean Conference, to be held in Lisbon, Portugal, from 2-6 June, which will be an opportunity to reinforce the ocean-climate nexus, assess progress, and chart the way forward.

## **EU Ocean Day during the UN Climate Change Conference (COP25)**

Organized by the European Commission

*The event was held on Saturday. And brought many speakers together such as: Virginijus Sinkevičius, European Commissioner for Environment, Oceans and Fisheries, Peter Thomson, UN Secretary General's Special Envoy for the Ocean, Suzanne Camelia – Romer, Minister of Health, Environment and Nature, Curaçao, Sébastien Willemart, Youth4Nature's Regional Coordinator for the UN Region 'Western Europe and Others, Esmeralda Wirtz, Belgian UN Youth Delegate for Climate, Veronika Veits, Director International Ocean Governance and Sustainable Fisheries, DG MARE, European Commission, Biliana Cicin-Sain, President, Global Ocean Forum, Manuel Barange, Director of the Fisheries and Aquaculture Policy and Resources Division at the Food and Agriculture Organization,*



*Healthy oceans are a priority in the fight against climate change. The EU Ocean Day highlighted the role of science in policy-making and the opportunities provided by oceans in tackling the climate challenge globally.*

- **Virginijus Sinkevičius**, *European Commissioner for Environment, Oceans and Fisheries* attending the COP25 as one of his first international engagements, said that “fighting climate change and protecting marine life biodiversity is a centerpiece of the EU’s ocean policy. Due to climate change, our oceans are facing serious challenges, which require an urgent and comprehensive response. But oceans are also a part of the solution. The conference is an opportunity for mobilizing support for coherent international action and better ocean governance.”
- In November, EU member states adopted conclusions on oceans and seas, stressing that climate change is a direct and existential threat to life in the oceans and seas globally. Member states called for increased action at all levels of government to protect marine and coastal ecosystems.
- In its proposal for a future multiannual budget of the EU (2021-2027), and in line with the Paris Agreement and the commitment to the United Nations Sustainable Development Goals, the Commission sets an ambitious goal for climate mainstreaming across all EU programmes, with a target of 25% of all EU expenditure contributing towards climate objectives.

### Reports to read

- The review report "[Ocean deoxygenation: Everyone's problem](#)" is the largest peer-reviewed study so far into the causes, impacts and possible solutions to ocean deoxygenation. Ocean oxygen loss, driven by climate change and nutrient pollution, is a growing menace to fisheries and species such as tuna, marlin and sharks. Ocean regions with low oxygen concentrations are expanding, with around 700 sites worldwide now affected by low oxygen conditions – up from only 45 in the 1960s. In the same period, the volume of anoxic waters – areas completely depleted of oxygen – in the global ocean has quadrupled, according to the report.
- [The State of the Global Climate in 2018](#): 2018 is on course to be the fourth warmest year on record. This means that the past four years—2015, 2016, 2017 and 2018—taken together are the four warmest years on record. In contrast to the other top warmest years, 2018 began with La Niña conditions, which are typically associated with lower global temperatures. The key findings of the provisional Statement were presented at several high-level events, including the 25th Conference of the Parties to the United Nations Framework Convention on Climate Change.
- IPCC [Special Report on the Ocean and Cryosphere in a Changing Climate](#)