### **COP27 VIRTUAL OCEAN PAVILION EXHIBITS**

### **IOC-UNESCO**



# Description

### **Our work on Climate**

The Intergovernmental Oceanographic Commission of UNESCO is at the forefront of climate science and knowledge that inform and underpin meaningful actions to counteract climate change.

# **Ocean Decade**

Leading the implementation of the UN Ocean Decade (2021-2030), with its main mission to generate transformative ocean science solutions for sustainable development, connecting people and our ocean. The Decade provides a 'once in a lifetime' opportunity to create a new foundation for the scientific community, governments, civil society, and the UN system to strengthen the management of our oceans and coasts for the benefit of humanity.

### **Climate Research**

The World Climate Research Programme (WCRP) – an endeavor of IOC, the World Meteorological Organization (WMO) and the International Science Council (ISC) – acts as an authoritative international platform to craft and implement the next generation of the research agenda on climate and climate change. WCRP is also responsible for developing the models on which the Intergovernmental Panel on Climate Change (IPCC) bases its scenarios and, therefore, negotiations and decisions on climate change are based.

# **Ocean Acidification**

IOC conducts work on the effects of CO2 emissions on ocean acidification and acts as a custodian agency for SDG Target Indicator 14.3.1 on ocean acidity. As such, IOC is responsible for the development of the corresponding methodology, the collection of data towards the SDG Indicator from Member States and the submission of annual reports to the UN.

IOC is part the **Global Ocean Acidification Observing Network (GOA-ON)** whose goals include expanding ocean acidification observations, closing human and technology capacity gaps, connecting scientists regionally and globally, and informing about the impacts of ocean acidification.

## **Blue Carbon**

IOC is engaged at the scientific and policy levels with the vision to protect, manage or restore global blue carbon ecosystems (mangroves, seagrasses and tidal/salt marshes) for addressing climate change.

The Blue Carbon Initiative (BCI) – co-organized by IOC, Conservation International (CI) and the International Union for Conservation of Nature (IUCN) – works to develop management approaches, financial incentives and policy mechanisms for ensuring the conservation, restoration and sustainable use of coastal blue carbon ecosystems.

Since 2015, the IOC is Partner of the International Partnership for Blue Carbon (IPBC) and since 2020 is sharing the Coordinator role with the Australian Government. The aim of the Partnership is to provide an open forum for government agencies, non-governmental organisations, intergovernmental organisations and research institutions to connect, share and collaborate to build solutions, and take actions.

# **Marine Spatial Planning**

IOC supports its Member States to develop and implement Marine Spatial Planning (MSP), which is a public process that aims to achieve ecological, social and economic objectives through multi-stakeholder dialogues and transdisciplinary knowledge. Its new international guide on MSP - jointly developed with the European Commission - highlights the need of MSP plans to adopt a 'climate-smart MSP' approach that includes objectives related to climate change responses, as well as uses data and knowledge about climate change impacts on marine ecosystems and human uses to develop resilient scenarios for the maritime domain. Within this context, IOC has supported the UN Global Compact (UNGC) initiative of developing a 'Roadmap to Integrate Offshore Renewable Energy in a Climate-Smart Marine Spatial Plan.'

### **Ocean Carbon**

Faced with the urgent need to find answers to this and other crucial scientific questions, five international research programmes on ocean and climate interaction (IOCCP, IMBeR, SOLAS, WCRP/CLIVAR and the Global Carbon Project) have joined IOC to develop and agree on a roadmap for future research, with the ultimate goal of providing decision-makers with the knowledge needed to implement effective climate change mitigation and adaptation policies in the next ten years.

## **Ocean Observations**

IOC, WMO, the International Science Council (ISC) and the UN Environment Programme (UNEP) co-sponsor the Global Ocean Observing System (GOOS), which provides an increasingly comprehensive platform to integrated in situ and remote observations of the status of the world ocean and climate and climate change.

### **Ocean Hazards**

The IOC portfolio of activities on early warning systems of tsunami events and other ocean hazards entails inter alia systematic observations of sea level and changes therein, which is of direct relevance to vulnerability and risks of coastal communities and ecosystems related to the effects of climate change.

# **Ocean Deoxygenation**

The **Global Ocean Oxygen Network** – IOC working group: The Network's scientific work, outreach, and capacity building efforts include facilitating communication with other established networks and working groups (e.g. IOCCP, GOOS, IGMETS, GOA-ON, GlobalHAB, WESTPAC O2NE), improving observations systems, identifying and filling knowledge gaps, as well as developing related capacity development activities. GO2NE is moreover preparing a summary on deoxygenation for policy makers.

In collaboration with SFB754, it recently initiated the news site <u>ocean-oxygen.org</u> to provide information on deoxygenation to scientists, stakeholders and the interested public.

### Links

- 1. SDG 14.3.1 data portal https://oa.iode.org
- 2. Ocean Oxygen <a href="https://www.ocean-oxygen.org">https://www.ocean-oxygen.org</a>
- 3. IOC HAB Programme <a href="https://hab.ioc-unesco.org">https://hab.ioc-unesco.org</a>
- 4. Ocean Decade Facebook <a href="https://www.facebook.com/oceandecade/">https://www.facebook.com/oceandecade/</a>
- 5. Ocean Decade Twitter
  <a href="https://twitter.com/UNOceanDecade?ref\_src=twsrc%5Egoogle%7Ctwcamp%5Eserp%7Ctwgr%5Eauthor">https://twitter.com/UNOceanDecade?ref\_src=twsrc%5Egoogle%7Ctwcamp%5Eserp%7Ctwgr%5Eauthor</a>
- 6. Ocean Decade LinkedIn <a href="https://www.linkedin.com/company/un-ocean-decade/">https://www.linkedin.com/company/un-ocean-decade/</a>
- 7. Ocean Decade Instagram https://www.instagram.com/unoceandecade/
- 8. Ocean Decade Youtube <a href="https://www.youtube.com/playlist?list=PLWuYED1WVJIN6WMLWFpzDr9zQYvK96xBE">https://www.youtube.com/playlist?list=PLWuYED1WVJIN6WMLWFpzDr9zQYvK96xBE</a>
- 9. IOC Home https://www.ioc.unesco.org/en
- 10. Ocean Decade <a href="https://oceandecade.org">https://oceandecade.org</a>
- 11. IOC Facebook https://www.facebook.com/locUnesco/
- 12. IOC Twitter
  <a href="https://twitter.com/locUnesco?ref">https://twitter.com/locUnesco?ref</a> src=twsrc%5Egoogle%7Ctwcamp%5Eserp%7Ctwgr%
  5Eauthor
- 13. IOC LinkedIn <a href="https://www.linkedin.com/company/ioc-unesco/">https://www.linkedin.com/company/ioc-unesco/</a>

### Videos

- 1. IOC animation <a href="https://www.youtube.com/watch?v=YyiuLwhUpH4&t=3s">https://www.youtube.com/watch?v=YyiuLwhUpH4&t=3s</a>
- Ocean Decade animation https://www.youtube.com/watch?v=EO2Un-6nIS4
- 3. Global Ocean Science report video https://www.youtube.com/watch?v=bGfo9P7fY2M
- 4. GOOS video https://www.youtube.com/watch?v=Lffxe2TOfIU
- 5. OARS video <a href="https://www.youtube.com/watch?v=sbP9HU47R9A">https://www.youtube.com/watch?v=sbP9HU47R9A</a>
- 6. MSP https://www.youtube.com/watch?v=-HnhfDkcxHQ
- 7. Ocean Literacy Principles playlist https://www.youtube.com/watch?v=y-aGjNdWuQk
- 8. IOC YouTube playlist <a href="https://www.youtube.com/watch?v=FCfZ6828i7k">https://www.youtube.com/watch?v=FCfZ6828i7k</a>
- Ocean Acidification Research for Sustainability (OARS) https://www.youtube.com/watch?v=sbP9HU47R9A
- 10. Ocean Decade Challenge 1 Understand and Beat Marine Pollution https://www.youtube.com/watch?v=iVpC4yml-UM

- 11. Ocean Decade Challenge 2 Protect and Restore Ecosystem https://www.youtube.com/watch?v=-XTi0 267eM
- 12. Ocean Decade Challenge 3 Sustainably Feed the Global Population <a href="https://www.youtube.com/watch?v=ulk2EGWEWal">https://www.youtube.com/watch?v=ulk2EGWEWal</a>
- 13. Ocean Decade Challenge 4 Develop a Sustainable and Equitable Ocean Economy <a href="https://www.youtube.com/watch?v=kujCuOngdNo">https://www.youtube.com/watch?v=kujCuOngdNo</a>
- 14. Ocean Decade Challenge 5 Unlock Ocean-Based Solutions to Climate Change <a href="https://www.youtube.com/watch?v=6xCNtci1KlE">https://www.youtube.com/watch?v=6xCNtci1KlE</a>
- 15. Ocean Decade Challenge 6 Increase Community Resilience to Ocean Hazards https://www.youtube.com/watch?v=jHZXutCxxDA
- 16. Ocean Decade Challenge 7 Expand the Global Ocean Observing System https://www.youtube.com/watch?v=Npz-5yxcm5A
- 17. Ocean Decade Challenge 8 Create a Digital Representation of the Ocean <a href="https://www.youtube.com/watch?v=bE8uFffqelE">https://www.youtube.com/watch?v=bE8uFffqelE</a>
- 18. Ocean Decade Challenge 9 Deliver Skills, Knowledge and Technology to All <a href="https://www.youtube.com/watch?v=V7XPKQSpEEU">https://www.youtube.com/watch?v=V7XPKQSpEEU</a>
- 19. Ocean Decade Challenge 10 Change Humanity's Relationship with the Ocean <a href="https://www.youtube.com/watch?v=EzaPG-cqj3Q">https://www.youtube.com/watch?v=EzaPG-cqj3Q</a>
- 20. ECOP Programme Intro <a href="https://www.youtube.com/watch?v=XvYwyFoL5-w">https://www.youtube.com/watch?v=XvYwyFoL5-w</a>
- 21. Ocean Decade Africa Roadmap An introduction https://www.youtube.com/watch?v=VbtgTs\_XHbo
- 22. Ocean Decade Africa Roadmap voices from the Decade Advisory Board https://www.youtube.com/watch?v=pYQ0WQ3 LaU

#### **Documents**

- 1. UNESCO Ocean Programmes <a href="https://unesdoc.unesco.org/ark:/48223/pf0000381648">https://unesdoc.unesco.org/ark:/48223/pf0000381648</a>
- Ocean Decade brochure
   https://vepimg.b8cdn.com/uploads/vjfnew/6281/content/docs/1634738898265198eng-pdf1634738898.pdf
- 3. Global Ocean Science Report 2020 <a href="https://vepimg.b8cdn.com/uploads/vjfnew/6281/content/docs/1634742284375147eng-pdf1634742284.pdf">https://vepimg.b8cdn.com/uploads/vjfnew/6281/content/docs/1634742284375147eng-pdf1634742284.pdf</a>
- Declining Oxygen in the World's Ocean and Coastal Waters
   https://vepimg.b8cdn.com/uploads/vjfnew/6281/content/docs/1634742448265196eng-pdf1634742448.pdf
- International Guide on Marine/Maritime Spatial Planning
   https://vepimg.b8cdn.com/uploads/vjfnew/6281/content/docs/1634742651379196eng-pdf1634742651.pdf
- 6. Ocean Literacy Toolkit <a href="https://vepimg.b8cdn.com/uploads/vjfnew/6281/content/docs/1634742795260721eng-pdf1634742795.pdf">https://vepimg.b8cdn.com/uploads/vjfnew/6281/content/docs/1634742795260721eng-pdf1634742795.pdf</a>
- Climate Change and Marine Spatial Planning Policy Brief
   https://vepimg.b8cdn.com/uploads/vjfnew/6281/content/docs/1634743113375721eng-pdf1634743113.pdf

- 8. Integrated ocean carbon research https://vepimg.b8cdn.com/uploads/vjfnew/6281/content/docs/1634802391376708eng-pdf1634802391.pdf
- 9. Blue carbon: integrating ocean ecosystems in global climate action <a href="https://vepimg.b8cdn.com/uploads/vjfnew/6281/content/docs/1634807115blue-carbon-integrating-ocean-ecosystems-october-2021a-pdf1634807115.pdf">https://vepimg.b8cdn.com/uploads/vjfnew/6281/content/docs/1634807115blue-carbon-integrating-ocean-ecosystems-october-2021a-pdf1634807115.pdf</a>
- Building knowledge to weave the protection and restoration of coastal Blue Carbon ecosystems into decision making on mitigation and adaptation to climate change <a href="https://vepimg.b8cdn.com/uploads/vjfnew/6281/content/docs/1634807184bci-ipbc-poster-pdf1634807184.pdf">https://vepimg.b8cdn.com/uploads/vjfnew/6281/content/docs/1634807184bci-ipbc-poster-pdf1634807184.pdf</a>
- 11. IPBS flyer
  - https://vepimg.b8cdn.com/uploads/vjfnew/6281/content/docs/1634807359flyer-ipbc-june-2021-pdf1634807359.pdf
- 12. OARS <a href="https://vepimg.b8cdn.com/uploads/vjfnew/6281/content/docs/1634827579oars-factsheet-pdf1634827579.pdf">https://vepimg.b8cdn.com/uploads/vjfnew/6281/content/docs/1634827579oars-factsheet-pdf1634827579.pdf</a>
- 13. Let the ocean breathe again <a href="https://vepimg.b8cdn.com/uploads/vjfnew/6281/content/docs/1635256133deox-poster-cop26-ioc-v3-pdf1635256133.pdf">https://vepimg.b8cdn.com/uploads/vjfnew/6281/content/docs/1635256133deox-poster-cop26-ioc-v3-pdf1635256133.pdf</a>
- 14. GOOS
  - https://vepimg.b8cdn.com/uploads/vjfnew/6281/content/docs/1635493405updated-goos-cop26-pdf1635493405.pdf
- 15. Coastal blue carbon ecosystems in international frameworks and conventions overview report <a href="https://vepimg.b8cdn.com/uploads/vjfnew/6281/content/docs/1635497015ipbc-overview-report-on-coastal-blue-carbon-ecosystems-in-international-frameworks-and-conventions-2021-oct-pdf1635497015.pdf">https://vepimg.b8cdn.com/uploads/vjfnew/6281/content/docs/1635497015ipbc-overview-report-on-coastal-blue-carbon-ecosystems-in-international-frameworks-and-conventions-2021-oct-pdf1635497015.pdf</a>
- 16. UNESCO marine world heritage <a href="https://vepimg.b8cdn.com/uploads/vjfnew/6281/content/docs/1636018914375565eng-pdf1636018914.pdf">https://vepimg.b8cdn.com/uploads/vjfnew/6281/content/docs/1636018914375565eng-pdf1636018914.pdf</a>
- 17. Engaging blue fishing ports in marine spatial planning <a href="https://unesdoc.unesco.org/ark:/48223/pf0000381113">https://unesdoc.unesco.org/ark:/48223/pf0000381113</a>
- 18. State of the ocean report 2022: pilot edition https://unesdoc.unesco.org/ark:/48223/pf0000381921.locale=en
- 19. Ocean decade Africa roadmap https://unesdoc.unesco.org/ark:/48223/pf0000381488
- 20. The contribution of the UN Ocean Decade of science for sustainable development to the achievement of the 2030 agenda https://unesdoc.unesco.org/ark:/48223/pf0000381919
- 21. Co-designing the science we need for the ocean we want: guidance and recommendations for collaborative approaches to designing & implementing decade actions <a href="https://unesdoc.unesco.org/ark:/48223/pf0000379563">https://unesdoc.unesco.org/ark:/48223/pf0000379563</a>
- 22. Ocean Decade progress report, 2021-2022 https://unesdoc.unesco.org/ark:/48223/pf0000381708
- 23. Ocean Decade at COP26 (not available)
- 24. Ocean observing co-design <a href="https://oceandecade.org/actions/ocean-observing-co-design-evolving-ocean-observing-for-a-sustainable-future/">https://oceandecade.org/actions/ocean-observing-co-design-evolving-ocean-observing-for-a-sustainable-future/</a>

25. Observing together

https://www.goosocean.org/index.php?option=com\_oe&task=viewDocumentRecord&docID=29420

26. Coast predict

https://www.goosocean.org/index.php?option=com\_oe&task=viewDocumentRecord&docID=29419

- 27. Multiple ocean stressors: a scientific summary for policy makers https://unesdoc.unesco.org/ark:/48223/pf0000380891
- 28. Guidelines for the study of climate change effects on HABs <a href="https://repository.oceanbestpractices.org/handle/11329/1823">https://repository.oceanbestpractices.org/handle/11329/1823</a>
- 29. ECOP Program flyer

https://vepimg.b8cdn.com/uploads/vjfnew/8144/content/docs/1665387729ecop-programme-digital-landscape-flyer-pdf1665387729.pdf

30. ECOP Program brochure

https://vepimg.b8cdn.com/uploads/vjfnew/8144/content/docs/1667484510ecop-programme-brochure-pdf1667484510.pdf