2021 2030 United Nations Decade of Ocean Science for Sustainable Development

THE OCEAN WE HAVE

THE SCIENCE WE NEED

THE OCEAN WE WANT

THE NEXT FIVE YEARS:
UK science-policy dialogue for the UN Ocean Decade

WORKSHOP REPORT

10 March 2025

Compiled by the UK's
National Decade Committee

2021 2030 United Nations Decade of Ocean Science for Sustainable Development

OCEAN DECADE UK

Contents

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2021 2030 United Nations Decade of Ocean Science for Sustainable Development

OCEAN DECADE UK

1 Executive Summary

The UN Decade of Ocean Science for Sustainable Development (2021-2030), the 'UN Ocean Decade' represents the most significant coordinated global ocean science initiative ever undertaken. It aims to advance ocean knowledge to better understand the ocean system and deliver science-based solutions to achieve the 2030 Sustainable Development Agenda.

Since its inception, the UK has been strongly engaged with the UN Ocean Decade through many UK-led and partnered activities[1], the 2024 UN Ocean Decade Conference, and within the Decade governance structures, including convening a UK National Decade Committee.

On 10th March 2025, the UK National Decade Committee convened a science-policy dialogue, in partnership with the UK Department for Environment, Food and Rural Affairs, the Foreign, Commonwealth and Development Office, and the Royal Society, to celebrate the achievements and engagement of the UK ocean community with the UN Ocean Decade, and look ahead at the next five years and beyond. 2025 is a significant year for many global environmental targets and the midpoint of the UN Ocean Decade, so presents a good opportunity to take stock of our engagement.

The event featured a mix of presentations, panels and workshops to discuss themes on sustainable use, management, and protection of the ocean; supporting climate resilient coastal communities; and understanding and strengthening human-ocean connections. The aim was to highlight how the UK ocean community is currently or could in the future contribute to these topics.

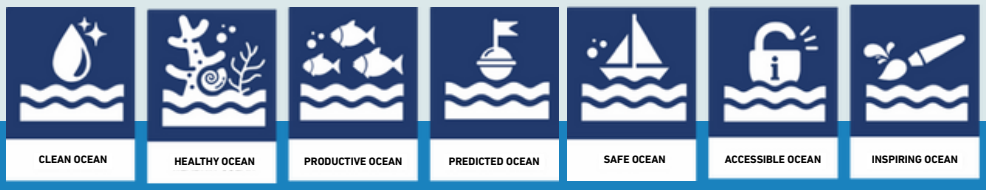
Key points emerging from the dialogue included:

- The UK has good examples of strong ocean science-public-policy collaboration across the breadth of the UN Ocean Decade challenges, including the Marine Climate Change Impacts Partnership and the Wales Coastal and Seas Partnership, as well as international examples with the Rising from the Depths initiative on marine cultural heritage in West Africa. However, greater communication of long-term policy direction, emerging evidence gaps, and opportunities for science-policy engagement would bring further improvement and co-design of science-based solutions.
- The UK Government has clear priorities on boosting economic growth and the clean energy transition whilst accelerating nature recovery, and balancing the increasing use pressure on our ocean. However, as responsibility for marine and coastal policy is shared across Departments and Devolved Administrations, greater coordination of policy-relevant marine science would be valuable to avoid duplication and gaps in responding to ocean governance needs.
- Resource mobilisation for research and implementation through the UN Ocean Decade remains a significant hurdle, with a need for long-term sustainable investment and engagement with the private sector to increase the diversity of funding sources. Discussion highlighted smaller, distinct areas for which it is more difficult to secure funding, such as project management support, outreach activities, and capacity building and skills provision. The UK Overseas Territories, and their resource and capacity needs, were also raised as a key area for UK ocean science and policy.

[1] UKNDC - UK Endorsed Actions (not featuring the significant amount of endorsed Decade Activities)

- The UN Ocean Decade has catalysed a surge of interest in ocean literacy: prioritising understanding the cultural connections between people and the ocean and raising public awareness of ocean issues to drive change. Discussions emphasised the value of the whole-society approach and the need to actively include a wide range of people. Recognising that the environmental sector is one of the least diverse in the UK, there is significantly more to be done to widen our engagement to communities that are not yet aware or able to be involved and improve our communication of science and evidence.
- The UN Ocean Decade has strongly advocated the value brought by Early Career Ocean Professionals (ECOPs)[2] by promoting the importance of their engagement in UN Ocean Decade activities, and providing funding, training and networking opportunities. However, more could be done to raise the funding requirements to support their engagement, skills development and training programmes.
- The power of the UN Ocean Decade is to provide a framework to enable cross-sector collaboration; bringing together similar activities to scale up action, facilitating and promoting data collection and knowledge sharing. More effort is needed in the UK to communicate and promote the benefits of engaging with the UN Ocean Decade to promote cross-sectoral collaboration, include different types of knowledge and build capacity for the future.

The dialogue shared successes and identified specific and cross-cutting areas for further research and policy collaboration. When discussing the role of the UN Ocean Decade in the next five years, the overarching message was that the focus should be on enablers to consolidate and embed the UN Ocean Decade culture of generating and using solutions-focussed, inclusive and collaborative ocean science and knowledge.



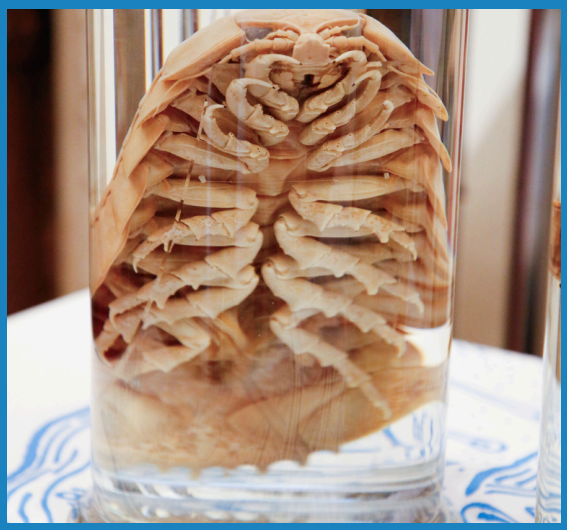


Photo credit: Syriol Jones Photography

[2] ECOP Programme – Early Career Ocean Professionals

2 Introduction

The UN Decade of Ocean Science for Sustainable Development (2021 – 2030), 'the UN Ocean Decade', is the largest coordinated global ocean science initiative ever undertaken. It has played a critical role in galvanising the global ocean community, pulling together existing frameworks, initiating new connections and accelerating action.

2025 is the midpoint of the UN Ocean Decade and the year marking many other international milestones: agreeing an ambitious, legally binding plastics treaty; working towards ratifying the Agreement under the UN Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biodiversity in Areas beyond National Jurisdiction (BBNJ Agreement) to protect biodiversity, and raising the profile of the ocean in climate action at UNFCCC COP30. There are also five years remaining until the 2030 deadline of the Sustainable Development Goals. In addition, the third UN Ocean Conference taking place in Nice, France, in June 2025 will be a key moment for the UK, and indeed the global ocean community to press for more action.

The UK's National Decade Committee (UKNDC)[3] supports the implementation of the UN Ocean Decade in the UK; amplifying the UK's collective voice and seeking to support efforts to accelerate transformational ocean science and broader research to support a healthy and sustainable ocean. The UK has high ambitions for the recovery of our seas and the future of the ocean and is committed to using our leading ocean science and knowledge to achieve our 2030 goals for the ocean.

Building on the success of the 2024 UN Ocean Decade Conference in Barcelona and the publication of the 'Barcelona Statement'[4], the UKNDC and partners held a science-policy dialogue on March 10th 2025, to convene the UK community working towards the UN Ocean Decade outcomes.

This workshop brought together researchers, policymakers, and practitioners from across the UK, representing a range of ocean disciplines and practice, to take stock of UK engagement with the UN Ocean Decade so far and to look ahead at priorities for the next five years and beyond. The event featured workshop discussions, presentations from UK-led Decade endorsed actions and a reception which incorporated an exhibition, showcasing design, photography, scientific samples, and ocean heritage objects. The event aimed to:

- Showcase examples of UK projects and initiatives related to the Ocean Decade
- Highlight where UK engagement in the Decade supports and informs domestic and international policy
- Connect and discuss new policy directions and science priorities to seek broad agreement on the UK focus for the rest of the Decade
- Promote collaboration, networking, and opportunities for co-design of future initiatives and development of the Ocean Decade's legacy for the UK

Photo credit: Syriol Jones Photography

[3] UKNDC - Ocean Decade UK
[4] Barcelona Statement identifies the priority areas of action for the Ocean Decade in coming years - Ocean Decade

3 Policy Landscape

The event featured a panel session with senior officials from five government departments to set out the policy landscape across the deeply interconnected ocean space. Representatives from the Department for Environment, Food and Rural Affairs (Defra), Foreign, Commonwealth and Development Office (FCDO), Department for Energy Security and Net Zero (DESNZ), Department for Transport (DfT) and the Welsh Government joined the UKNDC Chair to discuss ocean policy priorities, and how these could align with the priorities of the UN Ocean Decade.

Guided by the Government's Missions to kickstart economic growth and make Britain a clean energy superpower, Defra highlighted growth based on natural capital and managing enduring tensions between food security, nature and net-zero energy; FCDO emphasised UK climate and nature leadership internationally, security, and our international relationships; DESNZ outlined clear net-zero energy targets which include international action and equity in reducing emissions; DfT discussed domestic and international ambition on decarbonising shipping; and the Welsh Government highlighted marine sustainability work and the recently launched Ocean Literacy Strategy for Wales[5].

The panel stressed the role of science in supporting international processes and a need to better communicate evidence gaps in emerging policy areas. The importance of understanding the impacts and risks of climate change on both the ocean and society was underscored, as well as highlighting the potential of the ocean as a solution to climate change. They also discussed the importance of observations to measure changes in ocean health, including new technologies, sensors and artificial intelligence (AI). The need for science to engage with emerging ocean industries to understand potential environmental impacts and opportunities (e.g. nature-positive design) was identified, which could help to inform regulation and potentially speed up consenting and reduce costs. The panel also discussed the importance of equitable access to ocean science for informed decisions.

The panel recognised that different approaches across the devolved governments, the EU, and internationally provide opportunities to learn from each other. Panel members noted that geopolitical changes are common, and although challenging, the current situation presents opportunities to build on successful joint working, deepen our relationships with new partners, and do things differently.

The panel concluded by recognising the critical relationship between science and policy in addressing long term challenges under short term political cycles and celebrated the active science-policy dialogue in the UK.

[5] Y Môr a Ni (The Sea and Us) - framework for Ocean Literacy in Wales

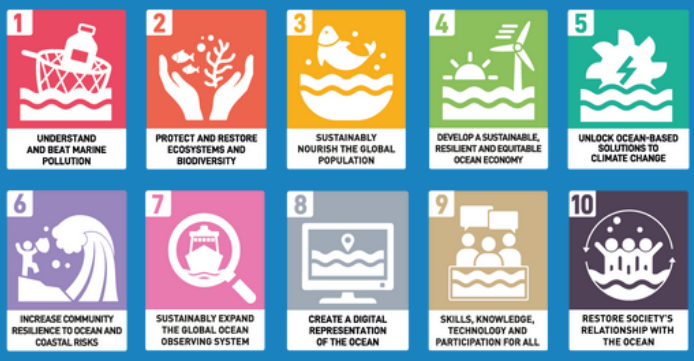
4 Workshop:

Sustainable use, management and protection

4.1 Introduction

This workshop was relevant to multiple UN Ocean Decade Challenges (such as 1, 2, 3, 4, 7, 8 - *refer Box 1*) and many of the priority areas for action detailed in the recent 'Barcelona Statement'. For example, addressing marine pollution, scaling up ecosystem-based management and marine spatial planning, protecting deep-sea ecosystems, promoting sustainable fisheries and aquaculture.

Box 1: UN Ocean Decade Challenges



1. Understand and beat marine pollution
2. Protect and restore ecosystems and biodiversity
3. Sustainably nourish the global population
4. Develop a sustainable, resilient and equitable ocean economy
5. Unlock ocean-based solutions to climate change
6. Increase community resilience to ocean and coastal risks
7. Sustainably expand the Global Ocean Observing System
8. Create a digital representation of the ocean
9. Skills, knowledge, technology and participation for all
10. Restore society's relationship with the ocean

To set up the workshop discussion, there were two presentations from UK-led Decade endorsed activities:

1. Ocean Acidification Research for Sustainability (OARS)[6]: UN Ocean Decade Programme led by the Plymouth Marine Laboratory.
2. Joint Exploration of the Twilight Zone Ocean Network (JETZON)[7]: UN Ocean Decade Programme led by the National Oceanography Centre.

The workshop which followed raised questions on evaluating the UK's progress under this theme and its representation within the UN Ocean Decade, identifying and aligning research and policy priorities, and ways to leverage the UN Ocean Decade to support the UK's ocean science community over the next five years.

[6] Ocean Acidification Research for Sustainability (OARS) - Ocean Decade
[7] Joint Exploration of the Twilight Zone Ocean Network (JETZON) - Ocean Decade

4.2 Looking ahead

While the UK has shown leadership with engaging with the UN Ocean Decade on this topic, there are still significant gaps and challenges both in our UN Ocean Decade engagement and national ambitions to improve the marine environment. The discussion noted that the UK has not achieved targets for Good Environmental Status[8], although the latest assessments of our seas show that there are some positive signs of recovery in some areas.

Participants highlighted a number of priority topics under this theme that the UK ocean community could focus on and leverage the advantages of being part of the UN Ocean Decade.

Ecosystem restoration and baselines

- We have limited data on ecosystems to assign baselines that would inform the timelines, objectives and costs of restoration work.
- There are emerging research questions about the consequences of removing pressures on ecosystems (such as fishing or decommissioning infrastructure).
- There are lessons to be learnt from the terrestrial environments, for example Biodiversity Net Gain and Marine Net Gain.
- Discussions noted the benefits of looking at 'wholescapes' or catchments to understand the full system, for example seagrass restoration efforts in areas with high agricultural run-off, combined with increased communication and engagement with upstream and inland communities around their impact on the ocean.
- Climate-smart planning of restoration and protection efforts should consider whether the changing climate will reduce the feasibility of maintaining certain landscapes.
- The Resilience of Coastal Communities (ROCC) Project[9] was highlighted as a good example of helping decision making by exploring the past and present management of the marine environment through understanding the synergies and trade-offs among resilience, wellbeing and environmental sustainability.

Marine Protected Areas (MPAs)

- Discussion reflected that the UK's plans for MPAs are in line with our 30x30 commitments[10] and there is visible join up between Devolved Administrations on the promotion of MPAs and offshore wind.
- MPA management could be significantly improved, and more work and learning could be done to define and measure effective management, for example the impacts on biodiversity and socio-economic aspects.
- More evidence on the impacts of fishing and climate change on MPAs to assess whether current MPA regulations provide sufficient protection.

Marine spatial planning and trade-off analysis

- New tools and evidence are required to support integrated marine spatial planning and trade-off analysis. For example, identifying co-location opportunities, understanding multiple pressures, and monitoring impacts on environmental and other policy targets.

[8] Descriptors under the Marine Strategy Framework Directive - European Commission
[9] New to ROCC? Start here - Sustainable Management of Marine Resources
[10] Kunming-Montreal Global Biodiversity Framework 2030 Targets

Blue Carbon

- Blue carbon and climate action are growing priorities, and the next five years could focus on research and data gathering on the role of blue carbon in climate adaptation and mitigation to inform Intergovernmental Panel on Climate Change (IPCC) assessments and marine policy.

Deep sea ecosystems

- Globally, interest in the deep sea is growing and currently much is unknown about these ecosystems and their importance for biodiversity, marine genetic resources, and as a carbon sink.

Marine heatwaves

- An emerging issue with potential acute and long-term impacts on marine ecosystems and carbon storage. Work is ongoing to characterise recent marine heatwaves and observations are critical to improve predictions and inform adaptation measures such as designations of MPAs, restoration efforts, and fisheries management plans.
- International collaboration will be critical, as well as enhancing domestic digital capabilities to enable responsive observations.

Marine pollution

- Research and policy knowledge is limited on pollution beyond plastics, for example sources and impacts of nutrient, noise and artificial light pollution. Research on these and how they interact with other stressors are necessary.

Marine identity and ownership

- More political and social science research would be valuable to inform and bridge the gap between technical marine science and public understanding, policy engagement, and behavioural change.
- This includes research to understand marine identity and ownership and how they inform policies, for example it was noted that UK policy does not categorise any communities as "traditional knowledge holders" which lessens the value of deep generational knowledge of ocean communities such as Scottish and Welsh fishers.

Photo credit: Syriol Jones Photography

5 Workshop:

Supporting climate-resilient coastal communities

5.1 Introduction

The focus of this workshop centred on the priorities of the 'Barcelona Statement' and UN Ocean Decade Challenges 5, 6, 7, 8 (*refer Box 1*) including research to assess the risks and vulnerabilities of coastal communities to climate change and ocean hazards, and the value of community engagement and cross-sectoral dialogue to support decision-makers to adopt sustainable, resilient and equitable policies that coastal communities support.

To set up the workshop discussion, there were two presentations from UK-led Decade endorsed activities:

1. Global Ocean Decade Programme for Blue Carbon[11]: UN Ocean Decade Programme led by the University of St Andrews.
2. Marine Prediction: multiple Decade endorsements such as ForeSea[12], and the Decade Collaborative Centre for Ocean Prediction[13] presented and supported by the Met Office.

The workshop which followed covered the impacts of climate change and ocean hazards on coastal communities, focusing on understanding resilience and options for early warnings and ocean-based solutions for adaptation and mitigation, identifying research and policy priorities, and how to leverage the next five years of the Ocean Decade to advance UK ocean science and policy for resilient coastal communities.

5.2 Looking ahead

Participants highlighted the following priority topics under this theme that the UK ocean community could focus on and leverage the advantages of being part of the UN Ocean Decade.

Emerging risks

- A significant knowledge gap is understanding multiple stresses that converge and interact with each other and their cumulative impacts on coastal communities. This information needs to be triangulated from different data sources to capture the full picture and determine the most appropriate response for management and adaptation.
- Research is identifying emerging risks, for example meteo-tsunamis and marine extremes, coupled with sea level rise and increasing coastal populations, that are difficult to capture in resilience plans and emergency protocols.

Citizen science

- Discussions highlighted many existing citizen science initiatives, such as the eOcean.app for MPA monitoring[14], GOA-ON in a Box for ocean acidification monitoring[15], beach cleaning data[16], collections from surfers[17], CoastSnap for shoreline change and seaweed influxes[18], and there is significant potential for more applications and promotion of ways for individuals to get involved.

[11] Global Ocean Decade Programme for Blue Carbon - Ocean Decade
[12] ForeSea - The Ocean Prediction Capacity of the Future - Ocean Decade
[13] Homepage | OceanPrediction DCC
[14] eOceans
[15] GOA-ON : GOA-ON in a Box
[16] The importance of beach cleaning data | Marine Conservation Society
[17] Surfers Against Sewage - UK charity campaigning for the ocean
[18] CoastSnap

- Other opportunities included eDNA collection and engaging the fishing community in ocean observations or removing end-of-life fishing gear[19].
- More work to be done to ensure the quality of the data and to keep the public engaged long-term.
- Noted that any citizen science initiatives make the data publicly available and communicate the results and impact.

Understand community relationships with the ocean

- Place-based research and understanding specific local contexts is vital to understand how different coastal communities' benefit and interact with the ocean. This includes a detailed understanding of the marine economy, the location and types of jobs, and who is the most vulnerable and exposed to climate impacts.
- Understanding what each community desires for their coast and ocean and their priorities should be considered when implementing national targets and making sure they are adapted and bespoke to local context; the Global Ocean Acidification Observing Network (GOA-ON) Regional Hubs[20] were highlighted as a good example of bringing communities together to understand specific needs.
- The ecological knowledge of local communities and professional industries often informs decisions faster than science and economics through adapting based on necessity, allowing for identification of opportunities for an area. For example, fishers in the Southwest predicted the return of bluefin tuna before they were spotted due to the return of their prey.
- There is significant heritage present in coastal communities, especially intangible heritage that we are at risk of losing, for example, Gaelic speaking communities in Scotland have a language that holds knowledge about coastal life and there is a risk that key insights will be lost with the language.
- It was noted that if the resilience of coastal communities is not sufficiently considered and improved, then this may negatively impact society's relationship with and attitude toward the ocean.
- Climate change impacts on coastal communities are different to other natural disasters, such as fires and flooding, as any displacement will be permanent. Research and guidance on culturally sensitive, community-led relocation strategies are vital, and policies should respect and manage the cultural and historical loss. There is growing research on psychological resilience from climate change and the impact of eco-anxiety and stress.

Communicate evidence, benefits and risks

- There are ongoing examples, as well as further opportunities, for two-way conversations with coastal communities and researchers and policy makers to listen to local knowledge and data from communities impacted and adapting to climate change, and effectively sharing the evidence of impacts, benefits and risks.

- Positive framing of opportunities (rather than just the costs of inaction) to benefit from the ocean (e.g. from eco-tourism, natural capital, health).

[19] Back of the net! Wales becomes first UK nation to rollout fishing gear recycling scheme | GOV.WALES
[20] GOA-ON : Regional Hubs

- There are toolkits available to help disseminate information and organisations exist to try and bridge the gaps between science, policy and the public, for example the Solent Forum[21] and Southwest Marine Ecosystems Programme[22].
- The economic and societal impacts of climate change on coastal communities remain less known, with challenges in collecting data on community risk and connecting these different types of data. For example, understanding and communicating the direct and indirect impacts of coastal erosion, such as if affecting coastal burial sites and the capability of individuals to visit or be buried with family.
- In some cases, coastal change data is available and communicated but not always understood or used (e.g. coastal flood management scenarios); in other cases, the data is available but not accessible (e.g. insurance industry records of risks).

Climate adaptation

- There is more focus on the role of nature-based solutions and blue carbon habitats in climate adaptation but there are still many unknowns, including whether approaches are effective and how to scale them.
- Building coastal protection infrastructure can also an impact the local economy, such as from effects of that infrastructure on tourism and house prices.
- The Maximising UK Adaptation to Climate Change Hub[23] was highlighted a good place to find information on networks and research projects, but it has little emphasis on social science and behaviour change.

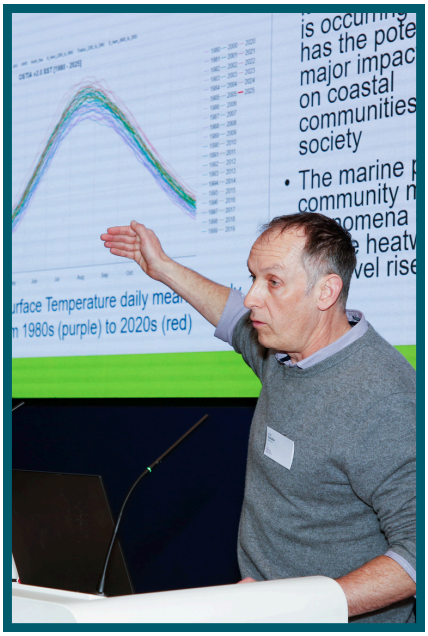


Photo credit: Syriol Jones Photography

[21] Solent Forum - Home page
[22] Home - South West Marine Ecosystems
[23] Maximising UK Adaptation to Climate Change Hub - MACC Hub

6 Workshop:

Human-ocean connections

6.1 Introduction

The priorities from the 'Barcelona Statement' which inform these workshop discussions included widening knowledge and datasets to include transdisciplinary social science and ocean literacy to improve our understanding of our connection with the ocean, foster cultural engagement, and encourage behaviour change, and improve our understanding of the links between ocean and human health.

To set up the workshop discussion, there were two presentations from UK-led Decade endorsed activities:

1. Cultural Heritage Framework Programme[24]: UN Ocean Decade Programme led by the University of Edinburgh.
2. One Ocean Hub[25]: UN Decade Contribution led by the University of Strathclyde.

The following workshop explored the UK's progress on UN Ocean Decade Challenges 9 and 10 (*refer Box 1*), highlighting global success stories addressing these challenges and the key research and policy priorities on human-ocean connections.

5.2 Looking ahead

Participants highlighted the following priority topics under this theme that the UK ocean community could focus on and leverage the advantages of being part of the UN Ocean Decade.

Ocean Literacy

- Despite the concept being 20 years old, ocean literacy has gained significant traction in recent years, but there is still progress needed to ensure integration across all levels of society to successfully deliver Challenge 10.
- In the UK, there are expectations for further iterations of the Ocean Literacy Survey questionnaire to be carried out, complemented by the Ocean and Society Survey[26], a global questionnaire designed to support global comparisons, with initial results expected to be launched at UN Ocean Conference, June 2025.
- Some examples of best practice were highlighted including a broad range of approaches and tools to support delivery of Challenge 10, including The Wave, Motion for the Ocean[27], the Hiraeth Yn Y Mor project (Marine Conservation Society)[28], Groundwork UK's work on oyster bed restoration[29], the UK wide ocean literacy assessments in 2021 and 2022[30], as well as the launch of Y Mor A Ni[31], the Welsh Ocean Literacy Strategy launched in January 2025. Further initiatives and projects include, but are not limited to: The Marine Diaries[32], Met Office's outreach activities[33], Crown Estate's Projekt Renewable[34], the Great British Beach Clean[35], Youth Ocean Network[36], SeaScapes' Tyne to Tees[37], Sea Rangers[38], Another Way[39], and the Royal College of Art's Grand Challenges student competition looking at inland communities[40].

[24] Cultural Heritage Framework Programme - Ocean Decade
[25] One Ocean Hub - Ocean Decade
[26] Ocean & Society Survey
[27] Motion for the Ocean – LGA Coastal SIG
[28] Hiraeth Yn Y Môr Project | Marine Conservation Society
[29] Wild Oysters - Groundwork
[30] Ocean Literacy Survey Results 2022 - Ocean Conservation Trust

- There were suggestions to use more stories and narratives to enhance feelings of ownership and collective responsibility, and in general more effort to tailor communication to different audiences.
- Participants raised the success of documentaries like Blue Planet and other ocean-related media to raise awareness. Other ideas include shorter engaging formats like TikTok videos or gaming, or identifying 'blue influencers', which champion a range of diverse voices and young ocean leaders.
- There were calls for STEM education to play a larger role in ocean literacy, such as through the Natural History GCSE, and wider incorporation of ocean literacy into the national curriculum.
- Finally, there were suggestions to build on the ocean literacy efforts in Wales with interest in the development of an ocean literacy strategy for other areas of the UK.

Cultural heritage

- The UK leads the UN Ocean Decade's only cultural heritage programme and there are some great examples of projects and initiatives focused on collecting evidence and engaging with cultural heritage. For example, work with local communities to share research techniques and document marine heritage sites, engagement with fishing communities to evaluate the recreational bluefin tuna fishery, and work to integrate cultural heritage in MPA plans in Scottish National Marine Plans through early community engagement.

- Some examples of future priorities included recognising the value of traditional navigation techniques and alternative energy-saving practices, the potential for explicitly considering cultural heritage within Fisheries Management Plans, especially given the mention of cultural values within the Fisheries Act, advocate and develop opportunities for international cooperation around conservation and protection of heritage assets outside UK waters, consider how the principle the common heritage of humankind could be to the seabed within the Areas Beyond National Jurisdiction (ABNJ) negotiations, and learning from other countries who have more holistic and integrated approaches.

Ocean and human health

- The ocean's relationship with human health was discussed briefly in the context of public engagement and a potentially evocative way to communicate the impacts of environmental degradation.
- There is also an increase in interest in social prescribing, especially focussed on nature engagement, and potentially habitat restoration projects could be linked.

Photo credit: Syriol Jones Photography

[31] Y Môr a Ni (The Sea and Us) - Natural Resources Wales Citizen Space - Citizen Space
[32] The Marine Diaries
[33] Outreach activities with young people - Met Office
[34] Plant + Paddle at Projekt Renewable | The Crown Estate
[35] GBBC events | What you can do | Marine Conservation Society
[36] Youth Ocean Network | Marine Conservation Society
[37] SeaScapes - Tyne to Tees

7 Cross-cutting themes

There were some common cross-cutting themes that were raised across all three workshops and centred on ways of working and fundamental practices that the UK ocean community could incorporate moving forward, they included:

Closer science-policy collaboration

- Increased dialogue between scientists and policymakers to communicate policy priorities and allow for science engagement with policy development and strategy reviews, noting that funding restrictions are limiting the capacity for scientists to engage with networks and committees.
- Many experts have engaged with the upcoming Environment Audit Committee report[41], and it will contain a useful evidence base for policy decisions.
- It was noted that the Marine Climate Change Impacts Partnership[42] has been a successful science-policy platform.

Including community engagement in policymaking

- As part of development environment strategies and marine plans, early engagement with communities to better understand their relationship with the ocean, perceived quality of the marine environment and aspects they value most.
- The State of the Environment Assessment by Orkney Islands Council[43] and the Citizen Assembly for the People's Plan for Nature[44] were highlighted as a good example of incorporating local knowledge and views.

Improving science communication

- The communication of key research findings and gaps could be improved to help identify actionable deliverables and ensure risks are being communicated to the public and policymakers. This will require training provision opportunities to do this science communication effectively.

Collaboration with partners

- Networks and organisations could do more to leverage existing efforts for example for outreach (such as the marine-focused initiatives of the national Wildlife Trusts), closer connections with industry and other private sectors (such as to access data in fishing, aquaculture and defence, or shared efforts on nature-inclusive infrastructure design or collaboration on testbed areas to support innovation) or supporting interdisciplinary events.

Supporting local governments and organisations

- The restricted capacity of local governments was noted as key barrier to implementation and noted that more support would be valuable for local decision making, one suggestion was to set up regional collaborations or regional centres of excellence to improve access and capacity.

Supporting UK Overseas Territories (UKOTs)

- The UK has a large marine footprint through its Overseas Territories, that faces more severe and immediate climate impacts. The UKOTs have high climate and ocean ambitions but face challenges to access funding and resource and significant ecological and socio-economic data gaps remain.

[38] Fun and adventure on and off the water | Sea Rangers
[39] Another Way: Empowering people to be kind to our planet
[40] The Grand Challenge 2023/24: Ocean & Cities | Royal College of Art
[41] Governing the marine environment - Committees - UK Parliament
[42] Marine Climate Change Impacts Partnership
[43] State of the Environment Assessment, Orkney Islands Council
[44] The People's Assembly | People's Plan for Nature

Cross-government coordination

- Marine and coastal policy is a multi-departmental area with responsibilities shared across the UK Government, with some areas being devolved. It was noted that sometimes this fragmentation can lead to grey areas, conflicts or duplication, and a central marine science coordination function would be valuable.
- Communication of this landscape would be valuable for external engagement and science-policy collaboration.

Alignment between domestic and international policy and ambition

- Sometimes there is misalignment between international agreements and domestic ambitions, such as with environmental protections and trade agreements.
- The UK shows strong global leadership which must be matched with timely funding for domestic action to align national policies with international commitments.
- International frameworks and global ambitions, such as the UN Ocean Decade goals, should be closer integrated and considered in national policies and funding calls.

Data collection and sharing

- Enhancing data sharing, investment in standardisation across sectors, data visualisation, and equitable access could significantly advance research and conservation efforts.
- Focus on reducing costs and autonomy of data gathering techniques would make research more accessible.
- Examples and lessons for making decisions in data-poor environments, applying the precautionary principle, and adaptive management approaches would be valuable to keep things progressing.
- There are good examples of data sharing initiatives across sectors on seabed mapping, such as the UK Centre for Seabed Mapping[45], and the General Bathymetric Chart of the Oceans (GEBCO)[46].

Funding and capacity building

- Projects are finding it difficult to fund areas such as capacity building and project management. Small investments, such as for meetings, conferences and secretariat functions, can be significant for impact and project success.
- It was also noted that it is difficult to apply for grants or access opportunities without a university affiliation.

Supporting innovation and horizon scanning

- Often research and policy is reactive, and space should be dedicated to horizon scanning, supporting the development of emerging technologies and areas that are not currently policy priorities.
- There is also the emerging potential of AI to support research and the processing of large complex datasets, with caution to the environmental implications and the equitable access.

Long-term vision

- Discussions recognised the conflict between shorter policy timescales and longer timescales needed for conservation efforts, there were suggestions for longer-term marine strategy and embracing multi-scale approaches.

[45] UK Centre For Seabed Mapping | ADMIRALTY
[46] GEBCO - The General Bathymetric Chart of the Oceans

8 Role of the UN Ocean Decade:

The next five years and beyond

The workshops proposed the following areas where the UN Ocean Decade's platform and extensive network could be leveraged for greater impact:

a. Leveraging networks to strengthen ecosystem restoration and conservation efforts

Closer connection to the UN Decade for Ecosystem Restoration would provide opportunities for collaboration, promotion of the ocean in biodiversity activities, and enable a source-to-sea approach, bringing a broader range of stakeholders and telling the story of the need for a system approach from catchment to coast and the impacts of inland activities.

b. Empowering Early Career Ocean Professionals (ECOPs)

The UN Ocean Decade has strongly advocated the value brought by ECOPs[47], promoting the importance of their engagement in UN Ocean Decade activities, providing meaningful funding, training and networking opportunities. However, more could be done to raise the funding requirements to support their engagement (e.g. conference attendance and paid internships).

c. Advancing Ocean Literacy and Public Engagement

The UN Ocean Decade could guide and support Decade Actions on ways to broaden participation, accessibility and understanding barriers to engagement to reach the whole ocean community making ocean health a matter of public interest and collective responsibility. A step towards this would be to improve the accessibility of the Ocean Decade language for those outside the UN system.

d. Scaling up for impact

As a convening framework, the UN Ocean Decade can proactively bring together groups and networks that are working on similar activities globally, for example, the collection and sharing of seabed mapping data or understanding the complexity of coastlines and coastal communities, and promote cross-sectoral interlinkages and involve more diverse perspectives.

e. Demonstrate successful science-policy collaboration

The UN Ocean Decade could share best practices and examples of ways that national governments are integrating science into policy development and highlight policy-driven research priorities to help researchers make the clear funding justification for their work.

f. Support data collection and sharing

Global sharing and accessing of data and other types of knowledge between countries and sectors is a significant barrier to efforts. The UN Ocean Decade supports many global data collection activities and provides a useful platform to raise awareness of these initiatives and advocate for the sharing of data and the value of different data and knowledge sources.

[47] *ECOP Programme – Early Career Ocean Professionals*

h. Overcoming funding and financial challenges

Whilst the UN Ocean Decade is not a funding mechanism, it could help Decade Actions to navigate the complex public-private-philanthropic funding landscape, attract private financiers, influence funders to develop interdisciplinary and systems-focussed opportunities, advocate for more investment in global capacity building and signpost support for 'difficult to fund' areas such as coordination and project management of Decade programmes.

i. Establishing a legacy for the UN Ocean Decade

Transformative change will take more than a decade, so the next five years should turn to consolidating the advances of UN Ocean Decade and determining how current projects and approaches that support equitable and inclusive research and innovation can be embedded within the marine sector and continue longer-term.

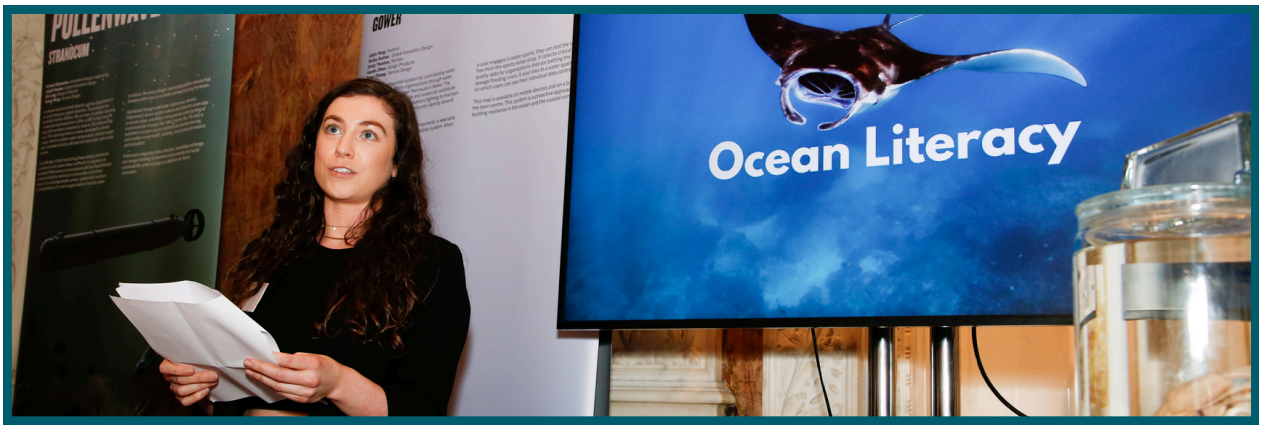


Photo credit: Syriol Jones Photography

Annex 1: Programme

09.30 - 10.00 **Registration – Tea & coffee**

10.00 - 10.15 **Welcome**

- Prof. Matt Frost, UK National Decade Committee Chair
- Prof. Sir David Baulcombe FRS, Biological Secretary, The Royal Society
- Emma Hardy MP, Minister for Water and Flooding (pre-recorded speech)

10.15 - 11.00 **Opening Panel: UK ocean policy directions for the next five years**

Moderator: Prof. Matt Frost, UK National Decade Committee Chair
Panellists

- Mike Rowe, Director Marine & Fisheries, Defra
- Alice Teague, Deputy Director, Marine and Biodiversity, Welsh Government
- Lowri Griffiths, Head of Ocean Policy Unit, FCDO
- Dr Sarah Honour, Deputy Director, Climate Science and Research, DESNZ
- Alexandra Beaumont, Head of Strategy and R&D, Maritime Environment, DfT

11.00 - 12.30 **Workshop 1: Sustainable use, management and protection of the ocean**

Moderator: Dr Sarah Giles, The Royal Society

Speakers

- Prof. Helen Findlay, Plymouth Marine Laboratory
- Dr Adrian Martin, National Oceanography Centre

Followed by breakout sessions

12.30 -13.30 **Lunch**

13.30 - 15.00 **Workshop 2: Supporting climate-resilient coastal communities**

Moderator: Dr Sien van der Plan, University of Southampton

Speakers

- Prof. Bill Austin, University of St Andrews
- Dr Andy Saulter, Met Office

Followed by breakout sessions

15.00 - 15.30 **Break**

15.30 - 17.00 **Workshop 3: Human-ocean connections**

Moderator: Dr Emma McKinley, Cardiff University

Speakers

- Dr Georgia Holly, University of Edinburgh
- Dr Milica Prokic, University of Strathclyde

Followed by breakout sessions

17.00 - 17.30 **Closing Plenary: Reflections and next steps**

- Fiona Charlesworth, Head of Marine Environment, Defra
- Dr Iain Williams, Director of Strategic Partnerships, NERC
- Prof. Matt Frost, UK National Decade Committee Chair

17.30 -19.30 **Evening Reception & Exhibition**

- Emily Cunningham MBE, Motion for the Ocean
- Rebecca Daniel, The Marine Diaries

Exhibition pieces from the Royal College of Art, Historic England, the National Oceanography Centre, and SeaVoice

Annex 2: List of attendees

Chair: Prof. Matt Frost, Plymouth Marine Laboratory
Caroline Allison, IMarEst
Dr Laurent Amoudry, National Oceanography Centre
Prof. Bill Austin, University of St Andrews
Prof. Sir David Baulcombe FRS FMedSci, The Royal Society
Alexandra Beaumont, Dept. for Transport
Frances Bird, Dept. for Environment, Food & Rural Affairs
Amy Bray, Another Way
Holly Brooks, ICF Consulting Ltd
Joanna Buckley, Global Fishing Watch
Bernadette Butfield, RSPB
Iona Cargill, Wessex Archaeology
Dave Carlin, Dept. for Environment, Food & Rural Affairs
Nadiya Catel-Arutyunova, Southampton Marine and Maritime Institute
Fiona Charlesworth, Dept. for Environment, Food & Rural Affairs
Nancy Cross, HELCOM
Dr Caroline Culshaw, Dept. for the Environment, Food & Rural Affairs
Emily Cunningham MBE, Motion for the Ocean
Gareth Cunningham, Marine Conservation Society
Yvette Curtis, Wave Wahines CIC
Dr Aline da Silva Cerqueira, Dept. for Environment, Food & Rural Affairs
Tom Dallison, International Coral Reef Initiative
Rebecca Daniel, The Marine Diaries
Francesca d'Enno, Dept. for the Environment, Food & Rural Affairs
Niru Dorrian, IMarEST
Dr Victoria Edwards OBE, Ocean Generation
Ahu Ilknur Ergun, Goldsmiths University of London
Dr Lynne Falconer, University of Stirling
Prof. Helen Findlay, Plymouth Marine Laboratory
Dr Antony Firth, Historic England
Natalie Fox, ECOP Programme
Dr Michelle Frost, Edinburgh Napier University
Dr Sarah Giles, The Royal Society
Gabriella Gilkes, The Crown Estate
Lowri Griffiths MBE, Foreign, Commonwealth and Development Office
Dr Simon Harding, Independent Consultant
Dr Elise Hodson, Royal College of Art
Dr Georgia Holly, University of Edinburgh
Dr Sarah Honour, Dept. for Energy Security and Net Zero
David Hughes, Cefas
Dr Usama Kadri, Cardiff University
Charlotte Kipreos-Clarke, Howell Marine Consulting
Alyssa Liu, Royal College of Art
Jennifer Lockett, Plymouth Marine Laboratory
Dr Adrian Martin, National Oceanography Centre
Dr Natalia Martini, Lifescaped
Ian McFadzen, Ocean Conservation Trust
Dr Emma McKinley, Cardiff University
Laura Meyer, IOC-UNESCO
Margaux Monfared, International Coral Reef Initiative
Emily Murphy Gray, Orkney Islands Council
Bisola Oyedele, The Royal Society
Georgia Park, The Royal Society
Dr Misha Patel, House of Commons
Dr Elvira Poloczanska, Plymouth Marine Laboratory
Dr Milica Prokic, University of Strathclyde
Roger Proudfoot, Environment Agency
Prof. Gina Yannitell Reinhardt, University of Essex
Liesbeth Renders, Natural Environment Research Council
Dr Arturo Rey da Silva, University of Edinburgh
Nuria Rico Seijo, Nekton Mission
Dr Julian Roberts, ICF Consulting Ltd
Mike Rowe, Dept. for Environment, Food & Rural Affairs
Katrina Ryan, Mindfully Wired Communications
Gail Sant, University of Edinburgh
Dr Kate Salmon, Met Office
Dr Andy Saulter, Met Office
Conor Savage, ECOP Programme
Rory Shepherdson, UK Hydrographic Office
Matthew Skelhorn, Ministry of Defence
Maura Smyth, Cefas
Will Steen, Ocean Generation
Alice Teague, Welsh Government
Dr David Tudor, Ocean and Coastal Futures
Dr Sien van der Plank, University of Southampton
Rebecca Walley, British Ecological Society
Dr Iain Williams, Natural Environment Research Council
Prof. Willie Wilson, Marine Biological Association
Sarah Wren, The Crown Estate

Compiled by the UK's
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2021 2030 United Nations Decade of Ocean Science for Sustainable Development

OCEAN DECADE UK

www.uk-ndc.org

ndc.secretariat@cefas.gov.uk

www.linkedin.com/company/uk-ndc