

OCEAN CONSERVATION APPG: THE OCEAN AND CLIMATE CRISIS

QUESTION AND ANSWERS

Date: 18/01/2021

YOUR QUESTIONS ANSWERED

Question 1)

Sean Clement

A WWF report recently found that halting the loss of coastal habitats and embarking on a programme of restoration across the country could absorb emissions equivalent to 1/3 of the UK's 2018 emissions by 2050, as well as securing their flood defence services - showing the immense value of blue carbon habitats. What does the panel think needs to be done to raise the profile of these habitats and their capabilities so that we can secure their protection and restoration over the next decade and beyond?

Mark Parry, Ocean Conservation Trust

The most powerful lobby for seagrass conservation within Australia is commercial and recreational fishing communities. These communities hold state government and unsustainable coastal practices that impact on these natural resources to account. The fishing community within Australia understands very clearly the link between these coastal habitats and the nursery function for the fish that they rely upon for livelihood.

These coastal habitats serve many ecosystem services, targeting the groups that most benefit from each of the services and having that group champion the protection of these habitats I believe would be the best way to protect them. Within the UK we understand where these communities are and what they stand to gain, we need to bring them along with the science to create a voice for these valuable spaces.

Question 2)

Megan Randles

The UK is a fantastic place to lead on ocean restoration, although we have to get our own house in order first. With the G7 in Cornwall a few days after World Environment Day this June, how do the panel think that the UK can show global leadership on ocean restoration this year?

Hugo Tagholm, Surfers Against Sewage

I agree.

With the UK hosting both the G7 and COP26 the UK has a brilliant opportunity to show global leadership in ocean restoration.

To do this we want the government to ensure that the ocean plays a central role in climate conversations at COP26.

But we also need to see an example set here in the UK. We want all governments of the UK to recognise the importance of a thriving ocean, for the planet and people, and to utilise its capacity as a solution to the climate crisis.

We need to see increased investment, and associated targets, in ocean rewilding to allow blue carbon habitats to thrive and actively remove carbon dioxide from the atmosphere in order to achieve negative carbon emissions.

We want to see the implementation of HPMA's to fully protect marine species from human disruption and to allow ecosystems to recover. We need marine areas where deep sea mining is banned, commercial fishing is prevented, oil and gas exploration is ceased and pollution inputs are tightly regulated.

Question 3)

Peter Richardson

Can you describe those ocean-based solutions to mitigate climate change that can also provide jobs and support deprived coastal communities? Should coastal communities be looking to the ocean for future business opportunities and economic improvement?

Hugo Tagholm, Surfers Against Sewage.

Ocean-based solutions such as Highly Protected Marine Areas which enable marine ecosystems such as kelp forests to fully recover not only help to store carbon and tackle climate change but they also come with a host of co- benefits for people and communities.

They allow fish stocks to recover which is good news for sustainable fishing industries when shoals spill out into the surrounding waters. They mean more biodiversity so more whales and dolphins which is good news for tourism sectors. And they can also provide natural flood defences which is good news for coastal communities.

Restoring the ocean also brings health and wellbeing benefits for surfers, swimmers, divers, sailors and many more who use the ocean for recreation.

Question 4)

Peter Richardson

Can you comment on the value of the vast carbon stores in the sediment in our shelf seas and what needs to be done to ensure that it is not disturbed by archaic fishing techniques such as heavy bottom-towed gear?

Heather Koldewey

- Marine sediments play a vital carbon sink role in the regulation of climate change
- Marine sediment carbon stocks vary spatially across depths and regionally, but hotspots generally occur along continental shelves (Atwood *et al.* 2020)
- The economic value in conserving these carbon stores in the shelf seas outweighs the costs of damage inflicted in these areas (Luisetti *et al.* 2019)
- In the UK, due to the area that these sediments cover, the shelf sea sediment carbon store is larger than the coastal carbon stores of our seagrass and saltmarsh habitats combined (Luisetti *et al.* 2019)
- Marine protected areas with well-enforced restrictions should help to reduce the threat of human activities and exploitation in these areas that could disturb carbon stores and remineralise the carbon, leading to the release of more CO₂
- Communicating the importance of these sediment areas as carbon sinks would help the public, stakeholders and policy makers, to better understand the need for their protection and careful consideration in fishing practices since they have been greatly overlooked in their potential as a carbon store
- These important areas should be given an accurate economic value reflective of the ecosystem services that they provide and protected through international mechanisms like their terrestrial carbon store counterparts under REDD and REDD+

Atwood TB, Witt A, Mayorga J, Hammill E and Sala E (2020) Global Patterns in Marine Sediment Carbon Stocks. *Front. Mar. Sci.* 7:165. <https://doi.org/10.3389/fmars.2020.00165> (Open Access)

Luisetti, T., Kerry Turner, R., Andrews, J.E., Jickells, T.D., Kröger, S., Diesing, M., Paltriguera, L., Johnson, M.T., Parker, E.R., Bakker, D.C.E., Weston, K. (2019) Quantifying and valuing carbon flows and stores in coastal and shelf ecosystems in the UK. *Ecosystem Services*: 35. 67-76. <https://doi.org/10.1016/j.ecoser.2018.10.013> (Open Access)

Question 5)

Mirella von Lindenfels

Are there opportunities to fully integrate the ocean into the UN climate process, rather than treating it as an add on?

Hugo Tagholm, Surfers Against Sewage

Yes, in fact we have many opportunities.

Firstly, this year marks the start of the United Nations Ocean Decade which provides an opportunity to engage the ocean science community in achieving the Sustainable Development Goals including tackling climate change.

Secondly, with the UK hosting COP26 in November of this year the government has the opportunity to put the ocean at center of climate negotiations. That's why we have launched our [ocean and climate petition](#) calling on the government to recognise the importance of a thriving ocean, for the planet and people, and to utilise its capacity as a solution to the climate crisis.

Question 6)

Lampitt, Richard S.

Marine geoengineering to enhance CO₂ sequestration has potential benefits and risks. Funding to assess this has to date been trivial. Should this be enhanced so we can, in the future make evidence-based decisions?

Heather Koldewey

Marine geoengineering, like other anthropogenic technological solutions to climate change are becoming increasingly appealing since we are not on track to meet the requirements of reducing CO₂ emissions such that it limits our planet to only 1.5 °C of warming. If marine geoengineering is a path we wish to explore further, then gathering as much evidence as possible for and against this is pivotal. With each of the geoengineering solutions, we should be carefully considering which of those could impact on marine life, exactly what other side effects could occur and their realistic capacity to positively impact the climate crisis. Those which have minimal impact on the marine environment and even provide co-benefits to marine life and have the potential to work on a large scale should be prioritised funding to explore more in scope, working with a gradualist approach to gather evidence.

Overall, I would be hesitant that funds should be put to this path first and believe that funding is better prioritised elsewhere, like in the protection and restoration of our marine ecosystems and species that are naturally effective in drawing down CO₂, instead of trying to alter the balance of this with potentially damaging consequences.

[High Level Review of a Wide Range of Proposed Marine Geoengineering Techniques | GESAMP](#)