Member's report on activities related to ICRI

United Kingdom (UK)

Reporting period November 2016 – November 2017

1. **Contribution to the ICRI Plan of Action 2016-2018.** *Your responses to the following questions will assist the Secretariat in assessing contributions towards the major themes of the current ICRI Plan of Action (http://www.icriforum.org/icri-secretariat/current)*

Theme 1 – "Help raise awareness of how coral reefs and related ecosystems help to fight climate change"

- *Goal 1-1: highlight the contribution of coral reefs, mangroves and seagrasses to mitigate and adapt to climate change and its impacts*

Question: Do you have examples of solutions provided by coral reefs and coastal systems to mitigate and adapt to climate change?

This is not directly relevant in the UK context as cold-water coral reefs in the UK rarely occur in inshore/coastal locations (so coastal protection benefits are limited to none), and the UK has a small seagrass resource relative to the large scale at which climate change operates and is mitigated. Cold-water coral reefs and seagrass beds in the UK are likely to sequester carbon but there is limited evidence to document and quantify this ecosystem service.

Question: Are you planning to add in your NDC the importance of coral reefs / mangroves?

Theme 3: "Help to reduce human threats to coral reefs and associated mangroves and seagrasses, by making greater use of regulatory tools"

- *Goal 3-1: promote legal frameworks for the protection of coral reefs and associated mangroves and seagrasses, with quantified targets and effective enforcement to protect these ecosystems*

Question: What are the legal frameworks for the protection of coral reefs and associated mangroves and seagrasses in place in your countries? If you already replied to the pervious request, you don't need reply

Protection is afforded to coral reefs and seagrasses under the European Commission (EC) Habitats Directive[1] which is transposed into national law through the Conservation of Habitats and Species Regulations 2017 and the Conservation of Offshore Marine Habitats and Species Regulations 2017[2] and provides for the designation, protection and management of Special Areas of Conservation (SACs). The EC Habitats Directive commits Member States of the European Union to maintain and restore European protected habitats listed under Annex I of the Directive. Annex I

[1] Council Directive 92/43/EEC, available online here: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:31992L0043

[2] The regulations transposing the EC Habitats Directive into UK law have recently been consolidated. These consolidated regulations come into force from 30th November 2017.

Reefs designated in UK SACs include examples of cold-water coral reefs. Annex I *Sandbanks which are slightly covered by seawater all the time*, Annex I *Mudflats and sandflats not covered by seawater at low tide* and Annex I *Coastal lagoons* designated in UK SACs include examples of seagrass beds.

National legislation has also been adopted to protect coral reefs (specifically *Lophelia pertusa* reefs) and seagrass beds under the Marine and Coastal Access Act 2009, the Marine (Scotland) Act 2010, and the Marine Act (Northern Ireland) 2013. Under the Nature Conservation (Scotland) Act 2004, public authorities are required to "have regard to" and "further the conservation of" biodiversity, in particular those habitats considered to be of principal importance, of which *Lophelia pertusa* reef and seagrass beds are included. Seagrass beds have also been protected in intertidal protected areas under the Wildlife and Countryside Act 1981 (and equivalent legislation in the devolved countries of the UK).

The recently introduced EU Regulations on fishing for deep sea stocks[3] set out new rules to protect Vulnerable Marine Ecosystems such as coral reefs. This has established a depth limit of 800 meters, beneath which bottom trawling is not permitted. The regulations are also set to lay down additional rules to protect VMEs below 400 meters depth. In combination, these rules will contribute towards protecting most known occurrences of cold-water coral reefs in UK waters from pressures associated with bottom-trawl fishing.

In addition to the above legislation, the UK is also a Contracting Party to the North East Atlantic Fisheries Commission (NEAFC). NEAFC has established fisheries closures in parts of UK waters (such as Hatton Bank and Rockall Bank west of Scotland) which prohibit bottom trawling and fishing with static gear, thereby also protecting the cold-water coral reefs found in these areas. Finally, the UK is also a Contracting to the Convention for the Protection of the Marine Environment of the North-East Atlantic (the 'OSPAR Convention') which identifies *Lophelia pertusa* reefs and *Zostera* (seagrass) beds as threatened and/or declining habitats in need of protection, and as such the UK has designated examples of these habitats in MPAs, through the national legal framework outlined above.

Question: Did you to set quantified targets to protect their coral reefs, mangroves and seagrasses? And are you able to provide a % of what is currently protected in your country? Please define what you mean by protection?

The UK does not set specific targets for the percentage protection of coral reefs and seagrasses, but these habitats are considered in the design of the UK marine protected area (MPA) network to ensure they are sufficiently protected.

The EC's guidance on the EC Habitats Directive indicates that at least 20% of the national resource of a particular habitat should be protected in Special Areas of Conservation (SACs), including Annex I *Reefs* (which encompass cold-water coral reefs) and Annex I *Sandbanks*, *Mudflats and sandflats* and *Coastal lagoons* (which can include seagrass beds). In 2013 the UK concluded that its marine SAC network sufficiently protects these habitats[4] and in 2016 the European Commission agreed with this conclusion. As such, there is no requirement for extra areas of these habitats to be protected within the SAC network to meet EC Habitats Directive requirements.

MPA designation processes to further the development of the UK MPA network under national legislation have adopted specific criteria for the protection of cold-water coral reefs and seagrass beds. These MPA selection or 'network' criteria require that cold-water coral reefs and seagrass beds are represented in MPAs in every region of UK waters where they occur, and that more than one example of the feature is protected in MPAs (replication). These targets have now been met

[3] EU regulations on fishing for deep sea stocks. Available online here: http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R2336&qid=1483951220985&from=EN

[4] JNCC. 2013. Progress towards completion of the UK network of marine Special Areas of Conservation for Annex I qualifying features. Available online here: http://jncc.defra.gov.uk/PDF/Comm13P03_v1.1.pdf

through the designation of Marine Conservation Zones in England, Wales and Northern Ireland and Nature Conservation MPAs in Scotland.

At a broader scale, the UK is required to deliver 'Good Environmental Status' (GES) in the wider marine environment under the EC Marine Strategy Framework Directive[5] and Good Ecological Status in estuarine and coastal waters under the EC Water Framework Directive[6]. The UK has established quantitative habitat extent, distribution and condition targets for biogenic reef habitats (including cold-water coral reefs) and seagrass beds to assess the achievement of Good Environmental Status across the UK, as well as a water quality target for which intertidal seagrasses are a key indicator. These targets help to ensure that UK coral reefs and seagrass beds are conserved through a range of measures, from MPAs (as described above) through to marine spatial planning and environmental impact assessment.

The UK is yet to map the full extent of benthic habitats within its waters and therefore accurate figures are not available for the percentage of coral reefs and seagrass beds protected. Most of cold-water coral reefs found in the UK occur in deep-sea areas very far from shore, and therefore mapping the seabed in detail while also achieving complete coverage is difficult and resource-intensive. However, based on current evidence, cold-water coral reefs are protected in 8 MPAs and seagrass beds are protected in over 40 MPAs in the UK.

- *Goal 3-2: encourage a ban on plastic microbeads in cosmetic products*

Question: How did you implement the recommendation to reduce plastic microbeads pollution in marine environment?

The UK has sought to implement a ban on both the manufacture and sale of plastic microbeads in cosmetic products in order to reduce their entry into the marine environment. To do so the UK sought scientific evidence to underpin the legislative directive (scope of potential bans), undertook public consultation processes in accordance with UK law and consulted the EU and World Trade Association in accordance with standard protocol. The UK then developed an Impact Assessment including advice/evidence supplied from Industry and recommendations from economists before engaging within government and across associated governments (devolved administrations) on the potential impacts of such a ban. The UK is currently working to implement this legislative ban and expects to do so in 2018.

- *Goal 3-3: improve regulation and enforcement to reduce direct anthropogenic damage due to dredging and physical alteration of reef structures*

Question: are you working on this topic? If yes, could you please share with us your work. Please note that the information provided will help us to develop a recommendation for the next ICRI General Meeting. Please send us information as soon as possible,

As most of the UK's cold-water coral reefs occur in the deep-sea they are not typically exposed to dredging activity. However, the UK has a marine licensing system to ensure that dredging (and other regulated industry activities) do not adversely affect priority habitats and species, including coral reefs. The licensing process identifies potential adverse impacts of activities and developments and where appropriate will refuse consent, or impose license conditions to monitor or mitigate impacts. If a project is likely to have a significant effect on the environment an Environmental Impact Assessment (EIA) must be carried out before a license can be granted; most

[5] Directive 2008/56/EC of the European Parliament and of the Council. Available online here: http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1401265930445&uri=CELEX:32008L0056

[6] Directive 2000/60/EC of the European Parliament and of the Council. Available online here: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32000L0060

aggregate dredging applications require an EIA. There is also a strict set of rules concerning adverse effects on the designated habitats of SACs, such as cold-water coral reefs and seagrasses. This 'Habitats Regulations Assessment' process requires developers (e.g. dredging companies) to demonstrate no impact of the activity on the protected habitats, or to put in place mitigation measures if an impact is anticipated.

The Marine Management Organisation and Marine Scotland are responsible for licensing of dredging activities in the UK. Please get in contact if further detail on the UK licensing process would be useful to ICRI.

Benthic habitats and species need to be considered within the relevant EIA, where this is required. This includes all habitats and species listed as Annex 1, SSSI or UK or local BAP designations and the OSPAR list of threatened and/or declining species and habitats. Consideration is also given to whether or not the effects of activities requiring a licence might affect the 78 Descriptor 1 and 6: Benthic habitats conservation objectives of sites designated under the EU Natura Directives. Where there is a risk of such an effect a formal assessment of the potential activity is made in relation to the sites conservation objectives. The Strategic Environmental Assessment and Environmental Impact Assessment (EIA) Directives both require the effects of developments to be assessed for their impact on the environment, including seabed habitats. The objective of these directives is to ensure no significant impacts, and to ensure all relevant considerations are made before developments occur.

- *Goal 3-4: promote the deployment of mooring devices limiting the mechanical destruction of coral reefs and seagrasses*

A 'Marine Biodiversity Impacts Evidence Group' led by the Department of Environment, Food and Rural Affairs (Defra) has nearly completed a review of eco-mooring techniques using case studies of where these methods have been explored and tested in England and Wales. The review considers whether these devices would provide a suitable approach for managing recreational mooring activities in MPAs and explores potential funding mechanisms for their implementation. We will happily share the project report with ICRI as soon as it becomes available.

Eco-mooring projects are being piloted at a number of seagrass bed sites in the UK. The Porthdinllaen Seagrass Project in North Wales is trialling ways to reduce impacts on seagrass while allowing people to continue recreational and economic activities. This project will: trial helix anchors to replace concrete moorings; design adaptations for chain mooring; and consider establishing designated anchoring zones away from seagrass beds. In Pembrokeshire Marine SAC in south-west Wales, a voluntary no-anchor agreement has been established in sensitive habitat zones and visitor moorings have been provided outside of key seagrass areas. This has successfully deterred anchoring on seagrass beds and further steps are now being considered, such as trialling seagrass-friendly moorings that can also benefit sea users (e.g. through better protection in adverse weather and greater boat density in mooring zones). The UK can share experiences and lessons learned from these projects as they continue to develop.

Question: are you working on this topic? If yes, could you please share with us your work. Please note that the information provided will help us to develop a recommendation for the next ICRI General Meeting. Please send us information as soon as possible,

- *Goal 3-5: review issues related to the impact of sunscreens and other endocrine disruptors on coral reefs, and encourage the production of sunscreens that are proven not to damage coral reefs*

Question: are you working on this topic? If yes, could you please share with us your work. Please note that the information provided will help us to develop a recommendation for the next ICRI General Meeting. Please send us information as soon as possible.

Sunscreens are regarded as cosmetics and as such are regulated under EU Regulation 1223/2009. The legislation requires that products are notified to the EU Commission and safety assessments carried out by safety assessors. The EU Commission is required to update this regulation to cover endocrine disrupting effects.

Theme 4: "Monitor the state of reefs in order to better manage them"

- *Goal 4-2: better monitor the phenomena of coral bleaching*

Question: How did you implement the recommendation on addressing the decline in coral reef health due to global bleaching events?

Bleaching events are not directly relevant to the UK because the cold-water coral reefs in UK waters do not have the symbiosis with algae that is adversely affected by temperature change. Nevertheless, the coral reefs protected in UK MPAs will be monitored in line with their conservation objectives, so impacts from temperature change and other threats can be assessed.

Theme 5: "Progress via education"

- *Goal 5-1: prepare for the 2018 International Year of the Reef (IYOR)*

Question: How did you implement the Recommendation designating 2018 as the third International Year of the Reef? Please let us also know what are you planning to celebrate IYOR2018.

The UK welcomes the designation of 2018 as the International Year of the Reef. The UK is exploring ways to raise awareness of threats to coral reefs and associated eco-systems as well as currently undertaking an ocean acidification research program.

Please also list the educational material that you've developed in the past, so we can share it on the IYOR website.

Question: Would you like to report on one of your activities during the ICRI GM meeting?

The UK will not be reporting on its activities during the ICRI GM.

2. **Publications.** Please list relevant publications/reports (related to the ICRI plan of action) you have released during this reporting period.

Huvenne et al. 2016. Effectiveness of a deep-sea cold-water coral Marine Protected Area, following eight years of fisheries closure. *Biological Conservation* 200: 60-69.

Unsworth, R., Bertelli, C., Robinson, M., Mendzil, A., Pratt, L., & Unsworth, R. (2017). Finding some seagrass optimism in Wales, the case of *Zostera noltii*. Marine Pollution Bulletin. DOI: doi.org/10.1016/j.marpolbul.2017.08.018

Unsworth, R., Cullen-Unsworth, L. C., Unsworth, R. K. F., & Frid, C. 2016. Strategies to enhance the resilience of the world's seagrass meadows. *Journal of Applied Ecology*, 53(4), pp. 967-972. DOI: 10.1111/1365-2664.12637

Unsworth, R., Unsworth, R. K. F., Williams, B., Jones, B. L., & Cullen-Unsworth, L. C. 2017. Rocking the Boat: Damage to Eelgrass by Swinging Boat Moorings. *Frontiers in Plant Science*, 8. DOI: 10.3389/fpls.2017.01309

Vad, J, Orejas, C, Moreno-Navas, J, Findlay, HS & Roberts, JM 2017. Assessing the living and dead proportions of cold-water coral colonies: Implications for deep-water Marine Protected Area monitoring in a changing ocean' *PeerJ*, vol 2017, no. 10, e3705. DOI: 10.7717/peerj.3705

3. **General Information.** (Note that this information will be posted on the ICRI website on your member page: http://www.icriforum.org/about-icri/members-networks.)

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