



Science and Technology Committee

House of Commons London SW1A 0AA

Tel 020 7219 7126

<http://www.parliament.uk/science>

From Stephen Metcalfe MP, Chair

Thérèse Coffey MP
Parliamentary Under Secretary of State
Department for Environment, Food and Rural Affairs
Nobel House
17 Smith Square
London SW1P 3JR

26 April 2017

Dear Thérèse,

Ocean acidification

I am writing on behalf of the Science and Technology Committee about our recent inquiry into ocean acidification. We were grateful for your evidence to us last month and wanted to draw your attention to some of the key points from our inquiry, and highlight the follow up needed by Government.

Our inquiry highlighted the breadth and scale of work undertaken by marine scientists as part of the UK Ocean Acidification Research Programme (UKOA) that ran from 2010-2015. It is clear that the programme played an important role in advancing the general understanding of ocean acidification processes, as well as highlighting its specific implications for marine life, and human society, in the UK and beyond. We note that the future impacts of ocean acidification on shellfish and finfish fisheries remain highly uncertain¹ and ask that, when the results of the Defra and UKOA-funded PLACID programme (Placing Ocean Acidification in a wider Fisheries Context) have been analysed, Government outlines its conclusions to our successor Committee, together with plans for addressing PLACID's findings.

Research programmes such as PLACID enable the UK to develop, and cement, its reputation as a world leader in scientific research. The UK should be proud of the UKOA's achievements and the international cooperation and understanding it has fostered. The ability of Defra, the then DECC and the Natural Environment Research Council to come together and fund this important research also demonstrates what can be achieved through effective cross-Government and agency collaboration.

The completion of this time-limited programme has raised a broader issue about what happens when a substantial funding stream ends. Research funding cannot be provided on an indefinite basis. Nor is it our role to tell the research councils what areas they should or should not be funding. Major public investments in key infrastructure, facilities and expertise should not risk being lost, however, and national research capacity eroded, by an absence of longer-term strategic planning. The carbonate chemistry facility at the National Oceanography Centre, for example, is a state-of-the-art facility, designed to analyse seawater samples. It was established with funding from the UKOA programme, but funding ceased following the conclusion of the programme in 2015-16. The facility can now only analyse seawater samples on an *ad hoc* basis from piecemeal, project-specific funding.²

¹ Written evidence submitted by Defra ([OAC0011](#))

² [Oral evidence](#), HC 860, Wednesday 1 March 2017, Q35



Tracking environmental change is crucial for understanding whether, and how, the oceans are changing, but monitoring of the carbonate chemistry of the UK's mainland waters also appears to have been curbed since the UKOA Programme ended and was confined to one monitoring station off the coast of Plymouth.³ We were pleased to hear that a monitoring station in Stonehaven, near Aberdeen, that was previously offline was re-opened during the course of our inquiry.⁴ While appreciating the difficulties that research councils face when prioritising their limited resources, we were concerned that marine science research might be eroded by a lack of strategic coordination and oversight by funders. It will be impossible to gauge the severity and impacts of ocean acidification if our scientists cannot continue to monitor, sample, and analyse chemical and biological marine processes.

The Government recognised that there was “scope for improved national monitoring of ocean acidification”, particularly given the strong temporal and spatial variability in pH, and other parameters, highlighted by the UKOA programme.⁵ We also note the Defra Chief Scientific Adviser's point that while he would “love to see more monitoring stations around the UK”, an analysis setting out “the rationale for how many we need, what they need to measure and where they need to be” was first necessary.⁶ We agree with Professor Boyd that this is something “the community needs to look at very carefully” but we also expect a firm commitment from Government that, when this type of analysis is produced by marine scientists, it is fully considered and responded to.⁷ We, for our part, have no doubt about the value of long-term longitudinal measurement of pH, temperature, salinity and other important parameters. We urge that any analysis of the requirement for monitoring stations should include UK overseas territories (UKOTs), as well as the UK mainland waters.

You explained to us that the UK was in “a position to provide global leadership” on ocean acidification and highlighted its work through the G7 nations and the OSPAR Commission to protect our marine environments.⁸ Ocean acidification is a global problem, albeit with local manifestations, and it is right that international initiatives are pursued. We cannot gauge progress internationally, however, unless we and other countries consistently collect and analyse chemical and biological data, across a diversity of locations. By addressing current gaps in the UK's acidification monitoring capabilities, the UK has the potential to be a global leader in producing comprehensive data that enables the development of evidence-based marine policy.

I am sure that our successor Committee will want to hear the perspectives of the Government — whatever form it takes after the Election — on these matters, and to continue to monitor developments. I would be grateful, therefore, if you could task Defra officials to provide a response to our successor Committee.

Stephen Metcalfe MP
Chair

³ Written evidence submitted by Defra ([OAC0011](#)), para 18

⁴ [Oral evidence](#), 1 March 2017, Q109

⁵ Written evidence submitted by Defra ([OAC0011](#)) para 39

⁶ [Oral evidence](#), 1 March 2017, Q113

⁷ [Oral evidence](#), 1 March 2017, Q108

⁸ [Oral evidence](#), 1 March 2017, Q106