



Department for
Science, Innovation
& Technology

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Rt Hon James Gray MP
Chair, Environmental Audit Sub-Committee
on Polar Research
Via email

October 16 2023

Dear James,

Thank you for the opportunity to give evidence at the September 4th session of your committee's inquiry into *The UK and the Arctic Environment*. I promised to get back to you on a number of questions after consulting with other relevant policy departments.

I hope you find these answers helpful. DSIT will feed into the Government response to your report, published this weekend.

1. How does the national adaptation plan address risks, such as the sea level rise, and any subsequent flooding, or changes to the UK because of extreme weather events?

The Third National Adaptation Programme (NAP3) sets out the UK Government's plans and policies to address 61 climate risks and opportunities to the UK that were highlighted in our third Climate Change Risk Assessment, published last year. It puts in place a programme of decisive action for the next 5 years across all sectors of the economy and society to strengthen the resilience of the nation to the changing climate, including those relating to sea level rise and increased frequency and severity of extreme weather events.

This includes our long-term flood and coastal erosion risk management policy statement, which outlines five ambitious policies and supporting actions which will accelerate progress to better protect and prepare the country against flooding and coastal erosion from more frequent extreme weather as a result of climate change. We have already committed significant government investment for a range of adaptation actions, including £5.2 billion on flooding and coastal erosion management to better protect thousands of homes and businesses across England. A further £200 million is being invested in the Flood and Coastal Innovation Programme. This includes helping 25 local areas over six years to take forward wider innovative actions that improve their resilience to flooding and coastal erosion. The wide range of innovative projects includes apps alerting residents to flooding, actions to improve drainage and schemes

to protect vital sand dune beaches. Working with natural processes can also help to protect and restore the natural functions of catchments, floodplains, rivers and the coast. We are putting more emphasis on nature-based solutions to support reduction in flood and coastal risk, including natural flood management, use of flood plains and opportunities for temporary or permanent water storage to manage peak flows. We have committed to doubling the number of Government funded projects to reduce flood and coastal erosion risk using natural solutions.

NAP3 also includes significant action to cope with increasingly extreme weather as a result of climate change. Well-functioning infrastructure provides the essential services which underpin our society and economy. The government is taking action to ensure that public and private infrastructure operators can continue to deliver services in the face of increasingly severe climate impacts, creating the conditions for long-term sustainable economic growth. NAP3 sets out in detail how each infrastructure sector is approaching the challenge of climate resilience, now and in the future. These efforts focus not just on the way in which the various regulatory frameworks for each sector drive investment in resilience, but also how government is collaborating with sectors to improve our understanding of climate risk and identify and share best practice across sectors.

While NAP3 contains actions that span across different sectors, we also recognise that climate impacts are localised. We are piloting a dedicated Local Authority Climate Service which will give Local Authorities easy access to localised climate data, while generating reports and infographics for easy use, and enable them to create their own reports. This Met Office tool will help local authorities plan adaptation by informing them about climate hazards, including rainfall and extreme heat. This builds on a successful pilot to co-develop climate information with 20 UK local authorities and has already been used to support local climate change risk assessments and adaptation strategies, such as the Bristol One City Climate Strategy.

2. How is the Science Minister, and DSIT as a department, working to prioritise and focus research and science on adaptation?

Adaptation is core component of climate change research which has been a priority for the former BEIS department and will remain so for the successor departments of DSIT and DESNZ. We discuss the importance of adaptation and climate research priorities with our capable delivery partners including UKRI and the Met Office – who then drive progress towards these ambitions through the funding of specific high-quality projects – in-line with the Haldane Principle.

In parallel with our domestic research activity, DSIT has developed a new funding programme with the express aim of focussing our global research collaboration on areas of national priority – including climate change and adaptation. Our International Science Partnerships Programme (ISPF) will help ensure greater coordination and strategic direction for the UK's international research. ISPF will complement the UK's re-entry into Horizon Europe – which also emphasises climate and adaptation research as a priority and will provide further opportunities to pursue our objectives in this field.

3. What is the Government doing to encourage and support interdisciplinary research projects for increasing understanding of the impact of climate change on the Arctic?

The Canada-Inuit Nunangat-United Kingdom (CINUK) Arctic Research Programme 2021-25 is a powerful example of the potential for interdisciplinary research projects to make a real difference in understanding the impact of climate change. Funded by UK Research and Innovation, and Canadian partners, this brings the Arts and Humanities Research Council, Engineering and Physical Sciences Research Council and the Economic and Social Research Council together under the leadership of the Natural Environment Research Council in a major programme to better understand the consequences of climate-driven change on the natural environment, as well as impacts on Inuit, community health and well-being.

The 13 projects funded under the CINUK programme all have UK, Canadian and Inuit leadership and engagement. Together they address an extremely broad range of interdisciplinary questions connected to shipping, energy use, human health and well-being, animal health and country foods, safe travel on sea ice, search and rescue, plastic pollution and much more. There are over 150 programme participants from 60 organisations in this £11m+ programme. Bringing together cutting-edge science techniques together with the traditional and local knowledge of Inuit researchers and community members offers the potential for a step-change in quality, together with the creation of lasting, equitable and empowering partnerships.

In addition, recent investment by NERC of ca £20m in National Capability-funded projects connected to the ecosystem of the polar system (BIOPOLE) <https://biopole.ac.uk/>; climate change in the Arctic-North Atlantic region and impact on the UK (CANARI) <https://canari.ac.uk/>; and future impacts risks and mitigation actions (TerraFIRMA) <https://ncas.ac.uk/our-science/long-term-collaborations/terrafirma/> will all – taken together - contribute significantly to a deeper and more connected understanding of change in the Arctic and beyond.

The UK's engagement in the EU Horizon programmes has been a key factor in enabling UK-based researchers to contribute their considerable experience in interdisciplinary research. Horizon-funded programmes such as ICE-ARC, Blue Action, EUPolarNet2 and others have all had extensive leadership or involvement by UK-based researchers and brought together teams of scientists from the fields of social science, economics, environmental science and many others to deliver their results. Connecting environmental and social and human impacts, developing practical mitigation responses and enabling more consistent and effective and inclusive observations have been at the heart of recent Horizon calls. It is expected that this requirement will continue to develop, with UK-based researchers now well-placed to bring their expertise to future funding calls with full access to the Horizon programme and its future editions.

4. Does the Minister have conversations with industry or like-minded nations on ensuring safe shipping for the future, and how often do those conversations take place?

Recognising the growing volumes of maritime traffic in the polar regions the International Maritime Organization (IMO) developed its Polar Code to provide

enhanced mandatory safety and environmental standards for vessels operating in those areas, the Code entered into force in 2017.

Officials from the Maritime and Coastguard Agency (MCA) continue to participate in the IMO's ongoing work on the Polar Code, in particular work to increase its application to a wider range of vessel types.

The MCA also engages with industry stakeholders and other national authorities via the Arctic Shipping Best Practice Information Forum which was established by the Arctic Council.

The MCA (HM Coastguard), in liaison with FCDO, has been sharing expertise by being observers in the Arctic Council's Emergency Preparedness and Response (EPPR) Working Group which discusses matters concerning search and rescue, pollution and accident / disaster response in Arctic waters. MCA (HM Coastguard) are also engaged with other like-minded nations, industry and research organisations via two projects, ARCSAR (Arctic and North Atlantic Security and Emergency Preparedness Network) and AI-ARC (Artificial Intelligence based Virtual Control Room for the Arctic) as well as regular work with the industry through the Association of Arctic Expedition Cruise Operators (AECO) which includes an annual workshop and exercise on search and rescue and accident / disaster response in Arctic waters.

5. When will the UK sign up to the Central Arctic Ocean Fisheries Agreement?

The UK attended the Central Arctic Ocean Fisheries Agreement (CAOFA) Conference of Parties in South Korea, as observers, in June. We would like to continue our involvement in the Agreement by observing the next Conference of Parties and its associated meetings and are delighted that our application to do so has been approved. The UK wants to accede to CAOFA and join the Agreement in our own right and we hope to be in a position to seek to join in the near future.

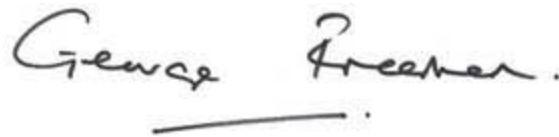
6. On Fishing: Will you comment on the science regarding species change and how we can support our industry?

Evidence underpinning climate change risks, opportunities and adaptive measures is essential for supporting effective climate adaptive fisheries management and related sustainability policies. Through the Joint Fisheries Statement, under the Fisheries Act (2020), the fisheries policy authorities have committed to work in partnership with the seafood sector to support their adaptation to the impacts of climate change and co-develop climate-adaptive management techniques to support sustainable fishing of stocks and aquaculture impacted by climate change.

7. What research has been done on the impact of tourism in the polar regions?

The environmental impacts of tourists landing ashore in the Arctic region is primarily a matter for the Arctic States. The Arctic States also agreed a legally binding treaty in 2011 to coordinate international search and rescue (SAR) coverage and response in

the Arctic. Nevertheless, given the high numbers of British nationals annually visiting the Arctic region, the UK maintains an active interest in the safety and environmental responsibility of tourism operators in the region and we provide specific consular advice to those intending to travel to the Arctic region of each Arctic State (see for example <https://www.gov.uk/foreign-travel-advice/canada/arctic-travel>). The UK also recently co-led an Arctic Council [Arctic Marine Tourism project](#) with Canada and Iceland to quantify and analyse the increasing passenger vessel trends in the Arctic region, in order to inform policy in response to challenges posed by marine tourism.

A handwritten signature in black ink that reads "George Freeman." The signature is written in a cursive style and is positioned above a short horizontal line.

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