

Response to the “2030 Strategic Framework for International Climate and Nature Action” call for evidence

26 April 2022

Executive summary:

This is a submission from University of Southampton expert academics in response to the Department for Food and Rural Affairs' call for evidence on [2030 Strategic Framework for International Climate and Nature Action](#). It responds to the following questions posed by the Department

- Relative to other nations or international organisations, what do you consider are the most impactful and strategic interventions that the UK Government can take for climate change mitigation internationally?
- Relative to other nations or international organisations, what do you consider are the most impactful and strategic interventions that the UK Government can take for climate change mitigation internationally? (250 words)
- What are the most important interventions the UK Government can take to deliver co-benefits for climate, nature and people? And which are the trade-offs to consider?
- Do you have any evidence regarding particular regions or countries we should be focusing on, both in the immediate and long term, given expected trends?

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1) Relative to other nations or international organisations, what do you consider are the most impactful and strategic interventions that the UK Government can take for climate change mitigation internationally? (250 words)

Environmental mitigation means an action or activity intended to remedy, reduce or offset known negative impacts to the environment. Relative to other nations, the UK is relatively small in terms of physical size, and we are not at the frontline of climate change yet in the same way as other countries (e.g. small island nations). Therefore, any practical strategic climate intervention would have to be around technology development or proving, scientific advance, or international legislation. This could include interventions and inventions in the technology of Carbon Capture and Storage, either sub-seabed (<https://bit.ly/3vgND66>) or through geochemical weathering (<https://bit.ly/3L60UpU>), the development of biofuels (<https://bit.ly/3L61h3M>) for shipping (<https://bit.ly/3viSa9z>) and aviation, as well as the development of scientific interventions and evidence for the robust deployment of nature-based solutions by other nations at the frontline of climate change. Furthermore, the sustainable diversification and intensification of local markets and food production and becoming less reliant on food imports from climate-vulnerable countries would. for example, reduce the UK's transport emissions and use of water resources elsewhere in the world.

2) Relative to other nations or international organisations, what do you consider are the most impactful and strategic interventions that the UK Government can take to support international climate change adaptation action? (250 words)

Globally, we are seeing increases in drought and flooding, in addition to rising temperatures. In response to these challenges, key actions should include the development, validation and long-term monitoring of nature-based solutions or ecosystem-based management approaches to support adaptation and the sustainable management of resources. This could be achieved through leading in the development of science and technological advances that support the identification of climate resistant/resilient crops (<https://bit.ly/3JWEZAp>) and livestock (including aquaculture), or development of approaches to support the restoration and co-management of coastal ecosystems (<https://bit.ly/3xTb5KM>) in the context of climatic change. The development of climate resilient/resistant terrestrial and aquatic crops also need to consider other long-term impacts of environmental change and include, in addition to temperature resistant crops, crops that are resistant to for example drought or high/low salinity. Again, adaptation could include changing the internationally focused supply chains to local solutions, thereby reducing the reliance on international food trade and tackling the issues of demand and supply of alternate food sources, including aquatic production.

3) What are the most important interventions the UK Government can take to deliver co-benefits for climate, nature and people? And which are the trade-offs to consider? (250 words)

The interventions which the UK Government can take include the sustainable development and intensification of climate resilient food production systems in the UK (crops, feedstocks, farmer training, agriculture technology, agriculture disease intervention and treatment [see <https://bit.ly/3xQ7mh1>; <https://bit.ly/3kefwrE>; <https://bit.ly/3xU4tvV>; <https://go.nature.com/38nAx0a>]). This would involve societal re-alignment of expectation of the permanent availability of certain foods (including bananas, pineapples, and oranges) to seasonally available traditional foods (carrots, peas, apples, pears). See <https://go.nature.com/3O1WL8B> and <https://go.nature.com/3LZL9AV>.

4) Do you have any evidence regarding particular regions or countries we should be focusing on, both in the immediate and long term, given expected trends? (250 words)

Small Island Developing States (SIDS), or “Large Ocean States” as some prefer to be known, are at a critical juncture: they are reliant on reforms in global institutions that need to happen quickly. SIDS have immense potential to innovate and adapt to global conditions, but they are highly vulnerable to climate change impacts and other external shocks and face significant structural challenges in managing these risks. Younger generations of SIDS citizens face the triple jeopardy of crippling debt, a degraded natural environment and frequent, devastating disasters. SIDS have a high need for climate finance – particularly for adaptation and resilience – but they often have the weakest capacity to access it and are far from obtaining the volumes they need. UN Member States have acknowledged that the SIDS are a special case for sustainable development, but this needs to translate into greater support and coordination of climate and development cooperation. Reforms are needed across development assistance, debt and climate finance, using common definitions and criteria for eligibility and towards the common goals of honouring commitments made under the Paris Agreement and the Small Island Developing States Accelerated Modalities of Action (SAMOA Pathway) and to improving aid effectiveness. The UK is uniquely placed to drive these reforms as it is the only country with a territorial presence and historical legacy in all three SIDS regions—the Caribbean, Indian Ocean and the Pacific. See more here <https://bit.ly/3vBgCmu>.