



# The Fisheries Society of the British Isles (FSBI)

5<sup>th</sup> October, 2021

## **The United Nations Climate Change Conference in Glasgow**

Dear Mr Sharma

In advance of the United Nations Climate Change Conference (COP26) in Glasgow, the Fisheries Society of the British Isles, would like to make you aware of the global consensus of aquatic science societies on the effects of climate change on fisheries and other aquatic resources. It is very clear that there is an urgent need to reduce carbon emissions to ensure the sustainability of this vital global food source. We also seek to underscore the importance of protecting the integrity of healthy aquatic ecosystems and restoring degraded systems, in order to maintain their crucial role in the storage of carbon as one part of halting, and eventually reversing, the effects of climate change. We applaud the current government commitments to the reduction of greenhouse gas emissions but we urge you to use the leadership opportunity provided by COP26 to persuade others to commit to the ambitious emissions targets that put in place actions that will deliver these targets.

The Fisheries Society of the British Isles (FSBI) is an international, non-political, learned society (UK registered charity number: 256475) that brings together academics, researchers and practitioners in the field of fish and fisheries biology. Although based in the UK, it draws on a membership from 50 countries across the world. It publishes one of the top international scientific journals in the field.

Towards the end of 2020 the FSBI joined 111 other societies, representing 80,000 scientists across the world to call for urgent action to reduce emissions to avoid catastrophic impacts to commercial, recreational and subsistence fisheries, aquatic ecosystems, human health and global economies. Please find attached the statement that details the irreversible impacts to freshwater and marine ecosystems, fish and fisheries from climate change that are projected to occur without swift and determined action on greenhouse gas emissions.

### The Urgency of Carbon Emission Reductions

Scientists are already observing significant changes to freshwater and marine species resulting from climate change. Fish species, already imperiled as a result of pollution, habitat loss and invasive species, are being, and will be further, stressed by the effects of accelerating climate change. These changes will result in species range reductions, species extinctions and the expansion of invasive species to the detriment of our native species. Climate change is already warming rivers, lakes and streams and altering precipitation patterns resulting in reducing habitat availability for fish, particularly for coldwater species. Climate change is also altering marine and coastal ecosystems with significant implications for wild capture fisheries and marine based economies. Projected increases in ocean temperature are expected to reduce the maximum catch potential in Europe and this trend is anticipated around the world. Many harvested fish stocks are already shifting towards cooler and deeper water, with implications for seafood supply, fisheries and the many associated industries in this sector. Global loss of habitat will result from rising sea level, leading to declines in many commercially and recreationally harvested marine finfish and shellfish that are dependent upon estuaries and coastal systems for some stage of their life cycle. Increased carbon dioxide absorption is already changing ocean chemistry, rendering some waters too acidic for marine organisms with calcium-based shells, such as oysters and clams, thus threatening whole food webs in some marine systems.

Many of these changes are, and will be, irreversible. They will continue to worsen if we persist on our current trajectory with a mounting toll on vulnerable ecosystems, human societies and local and global economies. Globally, fisheries provide quality protein sources not easily replaced by terrestrial sources. According to the Food and Agriculture Organisation of the United Nations, fish provides 17% of animal protein consumed

globally; fishing and aquaculture directly employ nearly 60 million people and the global trade in fish products is valued at £111 billion per annum. The loss of fish and fisheries resources will have serious consequences for international food security and the international food trade industries.

#### Mitigation and Adaptation to Help Protect Aquatic Resources

As part of any climate solution, we must protect the integrity of our healthy aquatic ecosystems and work to restore degraded systems in order to maintain their role in the storage of carbon as a crucial part of halting and eventually reversing the effects of climate change. Land and water-based conservation solutions are critical to capture carbon and to make our rivers, lakes and streams, forests, grasslands, wetlands and coastal systems more resilient to the impacts of climate change. Thus we must mitigate the impacts of climate change on fish and fisheries and plan for the adaptation required to ensure the long-term health of freshwater, coastal and marine ecosystems.

The economic and environmental value of the ecosystem services provided by global aquatic resources is of the utmost importance to the future of us all and safeguarding these resources must be of the highest priority. We applaud the commitment of the UK government to achieve significant reductions in greenhouse gas emissions to address the climate crisis and urge you to further exercise your leadership on the global stage to achieve even greater progress in the face of this climate emergency.

Yours sincerely,



Prof Colin E Adams  
Honorary President  
The Fisheries Society of the British Isles