

Title: Fish infection and disease in a changing world: Implications for fish resilience and food security

Proposal: The fisheries and aquaculture industries generate over £2 billion annually in the UK. As the global population is projected to grow by nearly 20%, reaching 9.8 billion over the next 30 years, the demand for fish as a vital protein source is expected to rise significantly—potentially increasing from 17% to 50% of global edible meat consumption. This trend underscores the growing importance of the UK’s fish resources on both domestic and international fronts.

However, just as we need to expand fish harvesting and production to meet this rising demand, the security of fish resources is increasingly threatened by infections caused by parasites, viruses, and bacteria across both aquaculture and wild-capture fisheries. Extensive research has demonstrated that disease reduces fish growth, reproduction, and survival rates, thereby diminishing food quality and posing a significant threat to long-term food security.

The most recent UK climate change risk assessment in 2022 highlighted the increasing threat posed by pests, pathogens, and invasive species to both freshwater and marine ecosystems. These risks are expected to escalate by 2080, with the economic loss growing from approximately £10 million annually now to hundreds of millions of pounds per annum by 2080. Globally, disease outbreaks in fisheries and aquaculture already result in billions of pounds in lost revenue annually.

Strategic action today will safeguard the sustainability of the UK’s aquatic resources for future generations. We recommend that the committee urgently strengthens environmental monitoring, enhances biosecurity protocols, and fosters cross-sector collaboration to tackle this issue.

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