

Seafood Sector Carbon Footprint Study

Project Outline:

BIM has commissioned a study to look at the technical and operational efficiency of the current fleet. This study aims to build up a detailed profile of the different sectors and scenario test to see how the industry would cope with economic shocks, like the impacts of climate change and rising fuel prices.

This study has been split into two parts. The first part was conducted in 2021 and involved the gathering of technical information on the CO₂ emissions of fishing vessels across the different fleet segments currently operating, based on measurement of the emissions from the main engine, any auxiliary engines and on-board processing equipment including refrigeration and freezers of a representative sample from each fleet segment. This analysis concentrated on vessels over 12m which create most of the CO₂ emissions associated with the fleet although measurements from typical inshore vessels less than 12m will also be taken in 2022. The results of these assessments have been scaled up to the entire fleet to provide an indication of CO₂ emissions by fleet segment, allowing comparison between segments. Where relevant, the information developed from the analysis of the operational and technical efficiency of the Irish fishing fleet described in Project 20/SFS/ESS003, completed in 2020 has been incorporated. Part 1 of the current study has been completed in 2021.

The second part of this study (Part 2) will be carried out in 2022 which will review information from published reports looking at the emissions generated by similar fleet segments internationally. The findings from the literature review will be analysed to provide a relative view of the carbon footprint of the Irish seafood sector as compared to the fishery sectors in other countries. These findings will facilitate the development of key communication points on the environmental credentials of the Irish fleet based on a suite of indicators that will be developed. Part 2 of this study will also involve life cycle assessments (LCA) to assess the environmental impacts associated with all the stages of seafood production and compared. In 2022, 'carbon' case studies for key fishery and aquaculture species for Ireland will documented and included in the final report. Part 2 of this project will be completed by end of Q1 2022.

On completion of this study, it is planned to host a series of workshops to disseminate the results of this study to industry and other relevant stakeholders. This communications package would be staged during Q2 of 2022. The outputs in terms of data and information collated will be used to inform future BIM work in the area of reducing the carbon footprint of seafood.

Project Objectives:

The main objective of this study is to provide accurate baseline data on CO₂ emissions of the Irish seafood sector. The study also aims to compare this baseline data with similar fleets globally. Based on the baseline information generated a suite of indicators that can be used to monitor emissions overtime will be developed. Life cycle assessments for two key species for Ireland will be completed to assess the environmental impacts associated with all the stages of seafood production. These will be compared with life cycle assessments for other food industries.

Expected Benefits:

- Provide a detailed analysis of the carbon footprint of the catching and aquaculture sectors through Life Cycle Assessments based on case studies.
- Provide a comparison of the carbon footprint of seafood against other sectors.

Projected Cost: €40,000