



BioProtect

# BioProtect CO<sub>2</sub> Calculator



Description of solution

MATIS



## Summary

---

A first version of an application, called the BioProtect CO<sub>2</sub> Calculator, will be developed and deployed to vessel operators in the Norway and Iceland Demonstration Sites (DSs). This app will calculate CO<sub>2</sub> emissions during fishing operations. It will use information about the vessel and gear characteristics, the fuel, lubricant, and coolant used, and the weight of the catch. The app will calculate the kg of CO<sub>2</sub> eq. per kg of landed fish and offer simple reporting and graphing features.

## Detailed description of what it is

---

From earlier full Life Cycle Assessments (LCAs) of different fishery supply chains, the key factors influencing CO<sub>2</sub> emissions have been identified, including the use of fuel, lubricant, and coolant, with fuel generally contributing more than 95% of the emissions. The vessel and gear characteristics also had some impact, as the associated emissions had to be distributed over their lifetime. Based on that data a European good practice recommendation (CWA 16960:2015 "Batch-based Calculation of Sustainability Impact for Captured Fish Products") was developed, where CO<sub>2</sub> per kg landed product could be estimated for every trip based on recording a limited amount of data. A proof-of-concept Excel tool was also developed to do this estimation, which saw limited use.

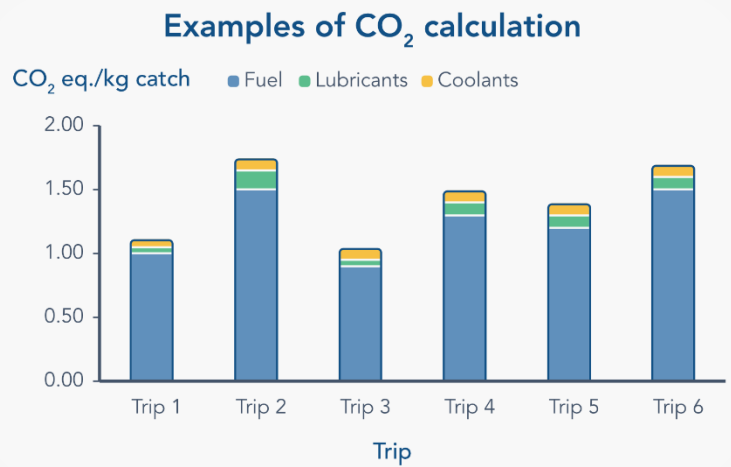
## What it provides

---

The BioProtect CO<sub>2</sub> Calculator app will be deployed on multiple vessels, enabling benchmarking, identification of trips with particularly high or low emissions, and contributing to the identification, quantification, and reduction of emissions from fishing vessels per batch / catch / trip. The novelty coming from that it is batch specific. Recommendations and conclusions will be formulated, outlining opportunities and limitations related to using this approach to reduce CO<sub>2</sub> emissions from fishing vessels.

## How it is applied or should be used

The first version of the app will be available in M18 and can then be tested, improved and validated, before the final version is made available. The app will require some basic information to be initially entered for each vessel, after which the data for each fishing trip will either be manually entered or automatically, depending on each vessel's onboard technology.



**Figure 1.** Example of a graphical reporting from the app.



## Stay connected



@BioProtect\_EU



BioProtect Project



info@bioprotect-project.eu

[www.bioprotect-project.eu](http://www.bioprotect-project.eu)