ENOUGH
EUROPEAN FOOD CHAIN SUPPLY TO REDUCE GHG EMISSIONS BY 2050

Factsheet 11
November 2023

Mapping Greenhouse Gas emissions from the food supply chains in France

This paper presents an evaluation of emissions for France from 1990 to 2019, carried out to identify the highest emitting food chain sectors in the country and build a database. French GHG emissions were also compared to that of selected European countries (Italy, Norway, United-Kingdom, and Germany).

CO_2 is the most emitted gas and the emission is nearly constant over 1990-2019.

When comparing several European countries, GHG emissions from the food chain were the highest in Germany and the lowest in Norway. For all countries, the transport sector emitted the most, followed by the retail sector.

Calculations were done using data from the FAOstat database as well as EDGAR-FOOD database.

Transport is the most GHG emitting sector in the French food supply chain

Transport is the most emitting sector in the French food supply chain due to a high demand in gasoil. When considering electricity consumption and refrigerant leakage, retail was the most emitting sector.

Meat is the most GHG emitting commodity in the French food supply chain

From production in farm to consumption, cattle meat accounts for 35.8 kg CO_2eq / kg consumed in 2016 (ADEME, 2016) and each living animal emits 11.9 kg CO_2eq (Idèle, 2015).

When considering GHG emissions from processing to consumption (production in farm not included), 23.9kg CO_2eq / kg are consumed. Overall emissions are calculated by multiplying this factor by the consumption of meat (estimated at 1.59 × 106 tons in 2016).

The carbon footprint of meat was found to be around 38,001 kilotons CO_2eq.

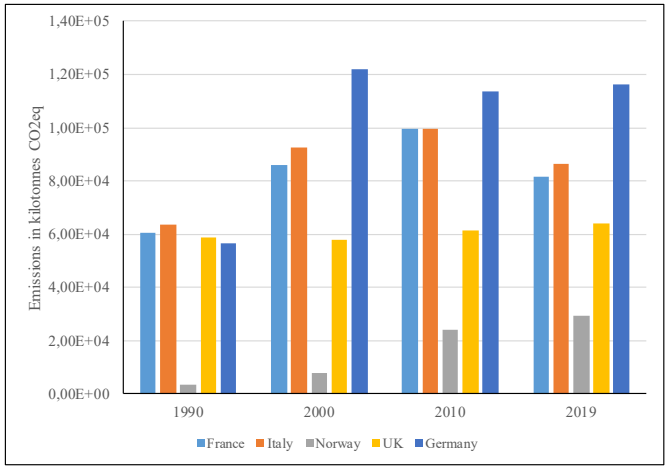

Fig1. Carbon footprint of the food supply chain in France, Italy, Norway, the United Kingdom and Germany from 1990 to 2019 (FAO, 2021a)

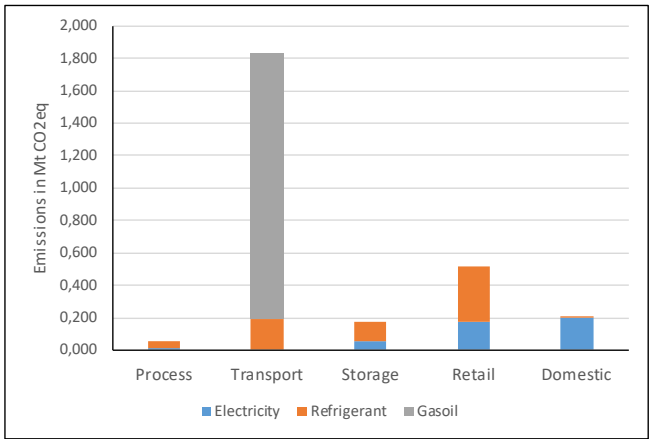

Fig2. Carbon footprint of the food cold chain in France in 2017 (Sarr et al., 2021)

Find more about this study from the original publication: http://dx.doi.org/10.18462/iir.icr.2023.0525

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