Handout 1 - Food's footprint

Table 1. Greenhouse gas emissions data for different means of transport in 2018 (Doll et al., 2020). g CO_2e/t km stands for grams of carbon dioxide equivalents per one tonne of foods transported over one kilometre.

	Large truck	Plane to transport goods	Refrigerated cargo ship
Emissions (g CO_2e/t km)	137	1035	18

Table 2. Greenhouse gas emissions originating from transporting 1 kg of poultry or pork from Aalborg to Nuuk by boat. The trip includes transport from Aalborg (farm) to Aarhus (port) by truck and from Aarhus to Nuuk by boat.

	Transport by	Distance (km)	Carbon footprint for one tonne of meat (g CO_2e/t)	Carbon footprint for one tonne of meat (kg CO_2e/kg)
Transport Aalborg to Aarhus	Truck	101		
Transport Aarhus to Nuuk	Boat	2956		
Transport Aalborg to Nuuk by boat	—	—	—	

Table 3. Greenhouse gas emissions originating from transporting 1 kg of poultry or pork from Aalborg to Nuuk by plane. The trip includes transport from Aalborg (farm) to Copenhagen (airport) by truck and from Aarhus to Nuuk by boat.

	Transport by	Distance (km)	Carbon footprint for one tonne of meat (g CO_2e/t)	Carbon footprint for one tonne of meat (kg CO_2e/kg)
Transport Aalborg to Copenhagen	Truck	309		
Transport Copenhagen to Nuuk	Plane	3539		
Transport Aalborg to Nuuk by boat	—	—	—	

Table 4. Greenhouse gas emissions data for each of the animal-based food alternatives in Greenland (data from Ziegler et al., 2021). kg CO_2e/kg stands for kilograms of carbon dioxide equivalents per kilogram of food, which is a way to measure the intensity of greenhouse gas emissions.

	Pork imported by boat	Pork imported by plane	Poultry imported by boat	Poultry imported by plane	Seal hunted nearby	Seal hunted further away
Meat production (kg CO_2e/kg)	7.53	7.53	4.74	4.74	—	—
Fuel usage for hunting (kg CO_2e/kg)	—	—	—	—	1.73	4.51
Ammunition for hunting (kg CO_2e/kg)	—	—	—	—	0.01	0.01
Shipping (kg CO_2e/kg)					—	—
Total (kg CO_2e/kg)						

Food's footprint

REFERENCES IN THIS ACTIVITY

Doll, C., Brauer, C., Köhler, J., & Scholten, P., (2020). Methodology for GHG Efficiency of Transport Modes (Framework Service Contract EEA/ACC/18/001/LOT 1). Fraunhofer ISI 2020. https://cedelft.eu/wp-content/uploads/sites/2/2021/05/CE_Delft_200258_Methodology_GHG_Efficiency_Transport_Modes.pdf

Ziegler, F., Nilsson, K., Levermann, N., Dorph, M., Lyberth, B., Jessen, A. A., & Desportes, G. (2021). Local Seal or Imported Meat? Sustainability Evaluation of Food Choices in Greenland, Based on Life Cycle Assessment. *Foods*, **10**(6), 1194. https://doi.org/10.3390/foods10061194