Project Tableau Food

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Introduction

Climate change has become a growing global concern, and it is widely recognized that food production accounts for approximately 25% of global greenhouse gas emissions. As a result, there is increasing awareness of how our dietary choices directly influence our individual carbon footprint. This data visualization illustrates the greenhouse gas emissions associated with various food products. For each product, it highlights the contribution of different stages of the supply chain to the overall emissions.

Data and Sources

The dataset used for this analysis and visualization originates from the most comprehensive meta-analysis of global food systems to date, conducted by Joseph Poore and Thomas Nemecek and published in Science (2018). The study aims to quantify the full extent of greenhouse gas emissions generated throughout the entire food production process.

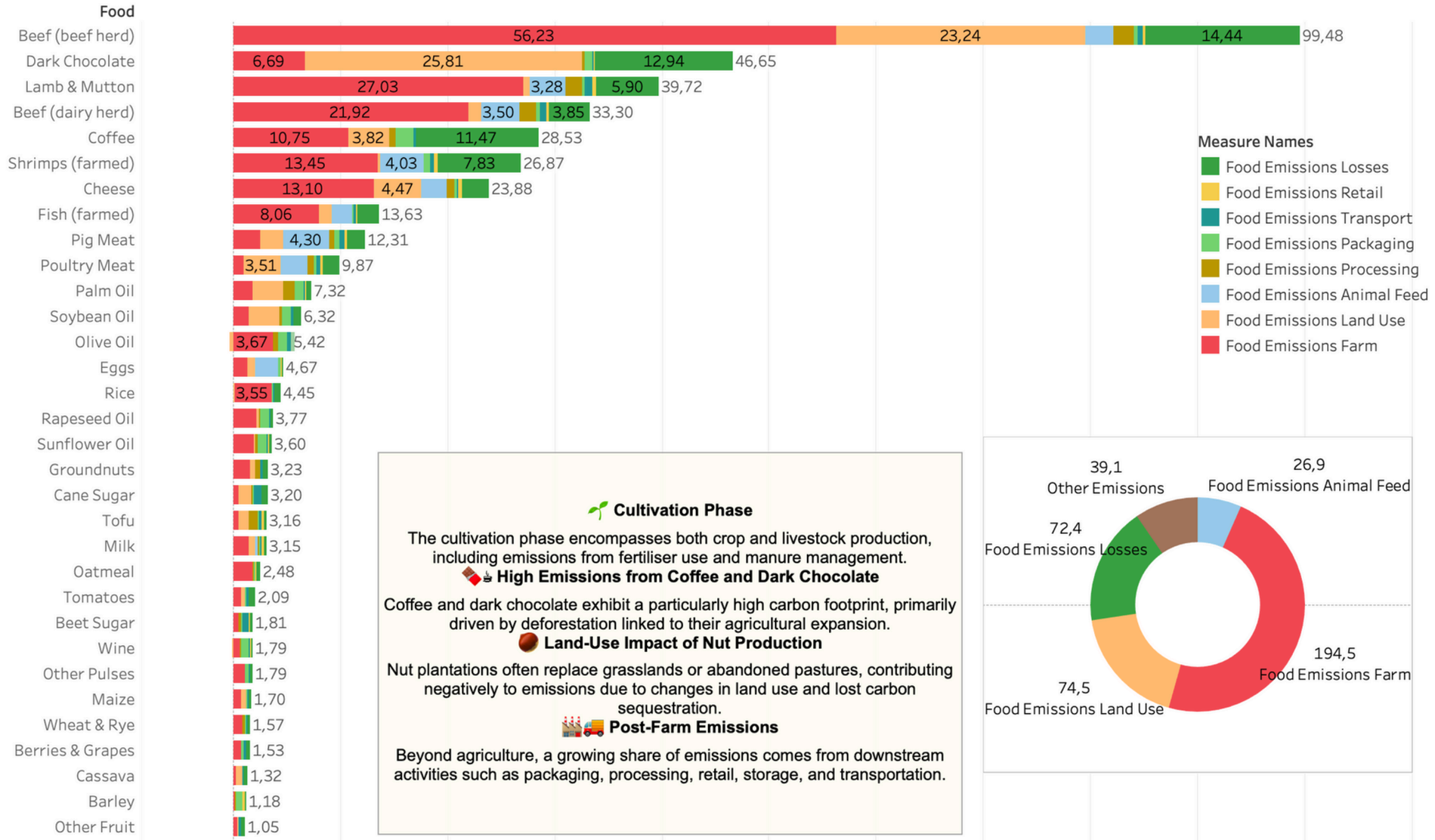
Project Link

View the interactive dashboard

Story 1

Emissions by food type | Emissions by food category | Emissions by food type

Emissions by food



🌱 **Cultivation Phase**

The cultivation phase encompasses both crop and livestock production, including emissions from fertiliser use and manure management.

🍫☕ **High Emissions from Coffee and Dark Chocolate**

Coffee and dark chocolate exhibit a particularly high carbon footprint, primarily driven by deforestation linked to their agricultural expansion.

🌰 **Land-Use Impact of Nut Production**

Nut plantations often replace grasslands or abandoned pastures, contributing negatively to emissions due to changes in land use and lost carbon sequestration.

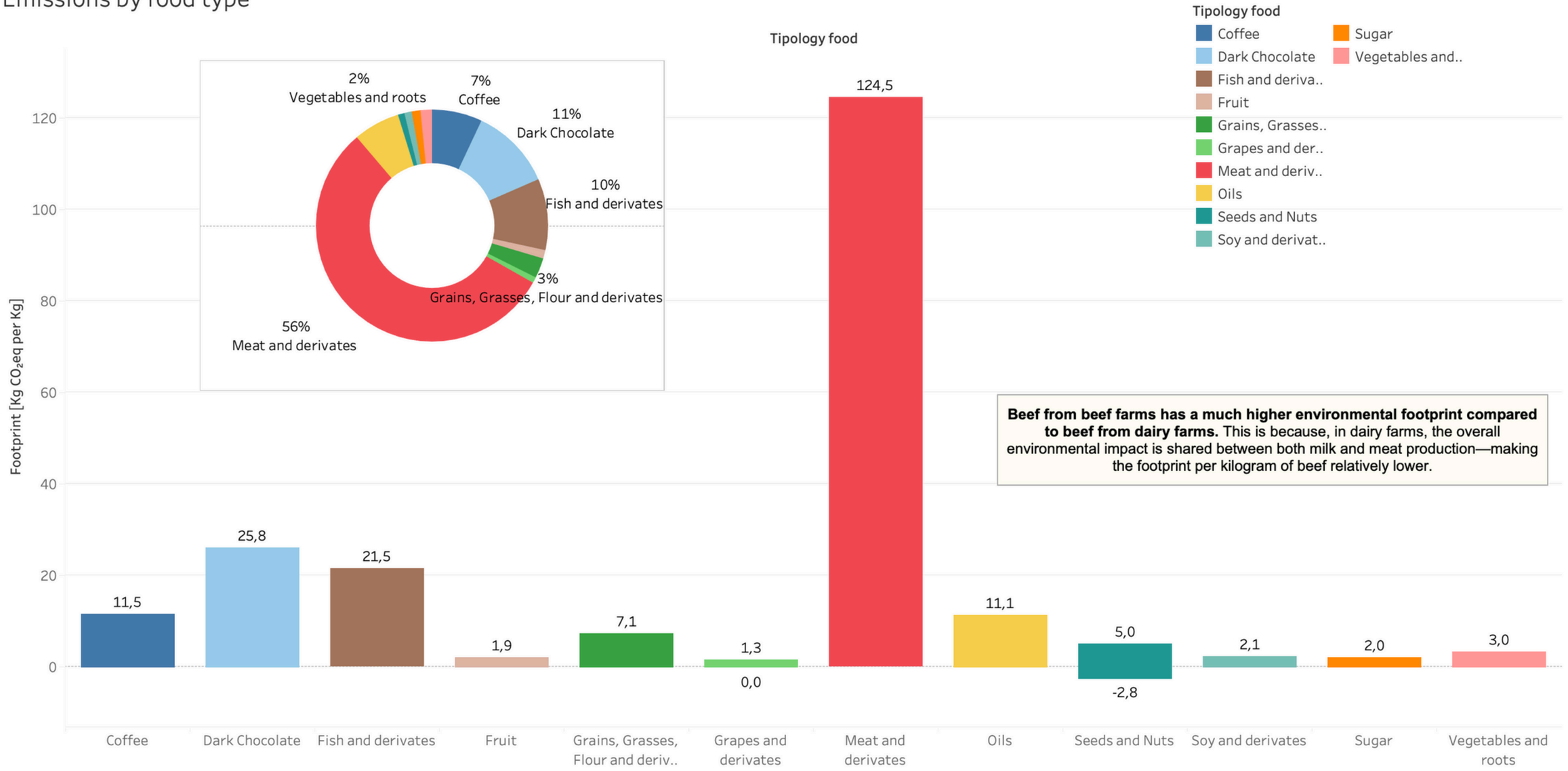
🏭🚚 **Post-Farm Emissions**

Beyond agriculture, a growing share of emissions comes from downstream activities such as packaging, processing, retail, storage, and transportation.

Story 1

Emissions by food type | **Emissions by food category** | Emissions by food type

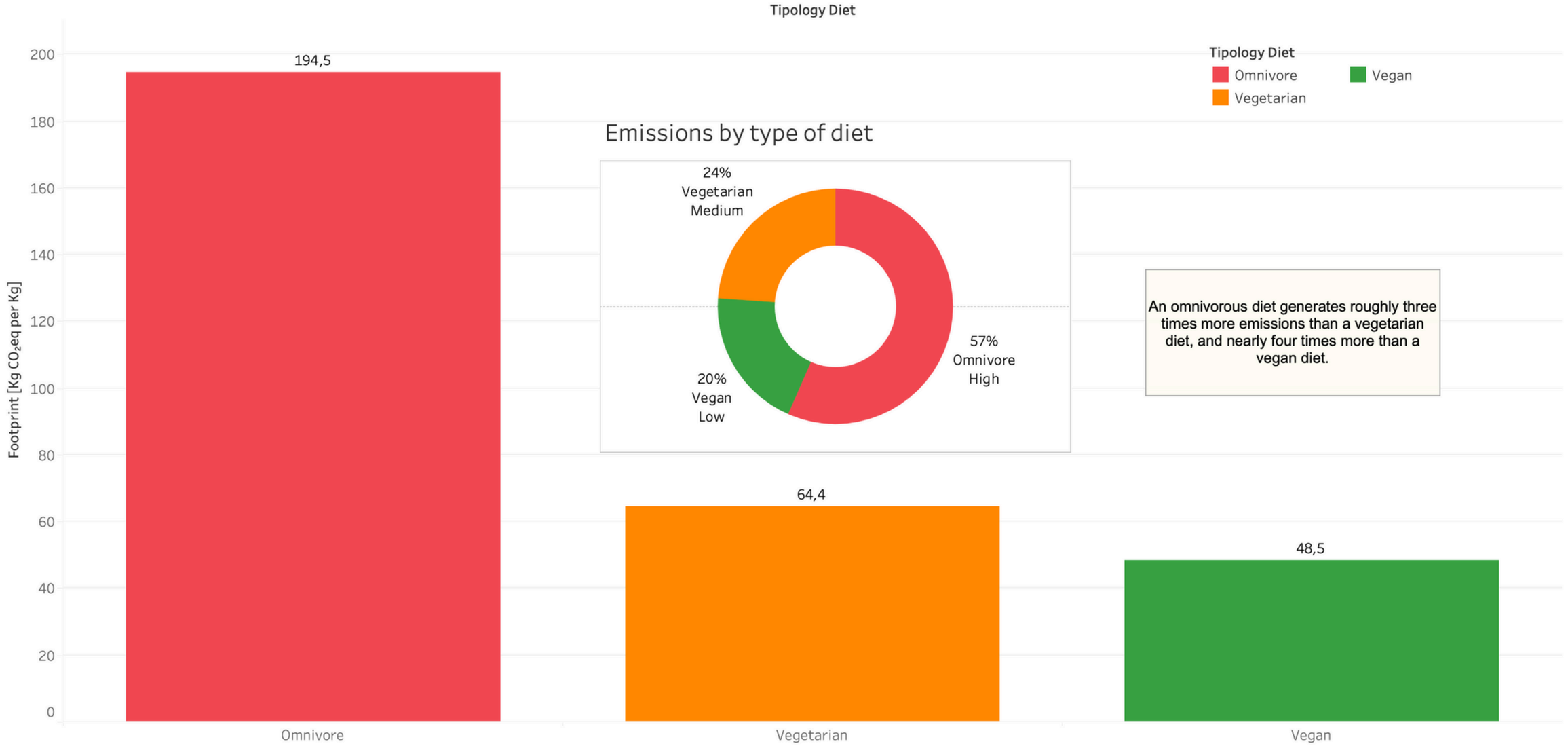
Emissions by food type



Story 1

Emissions by food type | Emissions by food category | **Emissions by food type**

Comparison by type of diet



Calcultated fields

Emissions Tipology Diet

```
CASE [Tipology Diet]
        WHEN "Omnivore" THEN "High"
        WHEN "Vegetarian" THEN "Medium"
        ELSE "Low"
END
```

Sum Emissions

```
SUM([Food Emissions Animal Feed]) +
SUM([Food Emissions Farm]) +
SUM([Food Emissions Land Use]) +
SUM([Food Emissions Losses]) +
SUM([Food Emissions Packaging]) +
SUM([Food Emissions Processing]) +
SUM([Food Emissions Retail]) +
SUM([Food Emissions Transport])
```

Zero

0

CREATION OF A DONUT CHART

Conclusions

This analysis demonstrates that vegan, vegetarian, and omnivorous diets have significantly different environmental impacts.

A vegan diet, which excludes all animal products, results in the lowest CO_2 emissions—approximately four times lowerthan those of an omnivorous diet—due to its reliance on plant-based foods.

A vegetarian diet, which includes dairy and eggs but excludes meat and fish, produces three times fewer emissions than an omnivorous diet, though dairy and egg production still contribute to its carbon footprint.

The omnivorous diet, which includes meat and fish, is associated with the highest emissions, primarily due to the resource-intensive nature of animal agriculture.

Overall, shifting towards plant-based diets offers a practical and effective way to reduce the carbon footprint of the food system.

Project Link

View the interactive dashboard