



Food Climate
Partnership

Food and Climate Change Country Spotlights

May 2022

What?

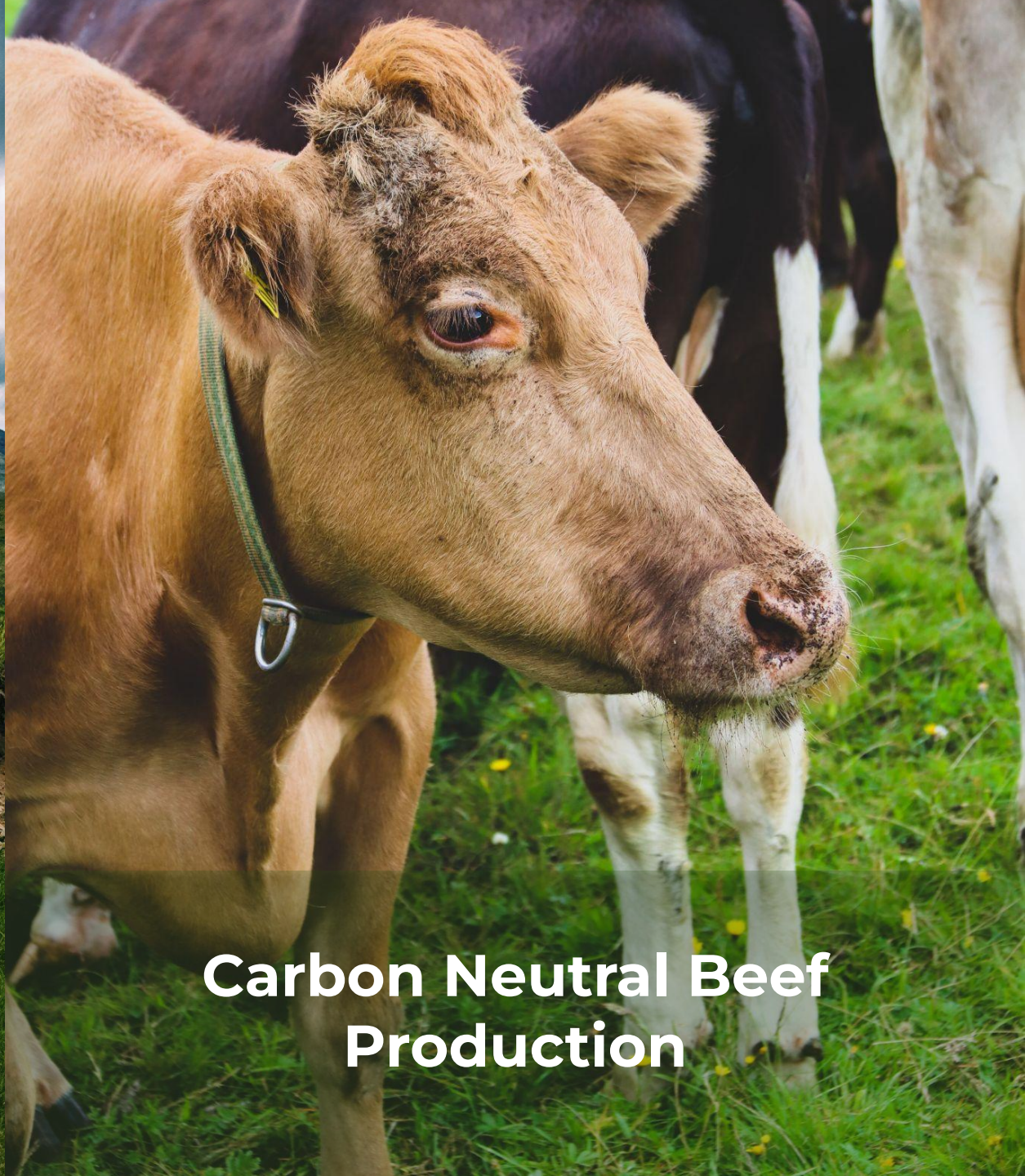
- Overview of the food system and food-climate policies
 - Food production, consumption and trade
 - Food-related GHG emissions
 - Food-related targets and policies (NDCs and others)
- Science + policy
- Standard template for all countries
- Iceland and China Spotlights complete - more to come

Why?

- Food systems ~ climate change
- NDC targets vs. actual policies
- Highlight our work on the data gap
 - Pre- and post-production activities
- Spark a conversation



**Climate Friendly
Agriculture**



**Carbon Neutral Beef
Production**

Why?

- Food systems ~ climate change
- NDC targets vs. actual policies
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China Country Spotlight



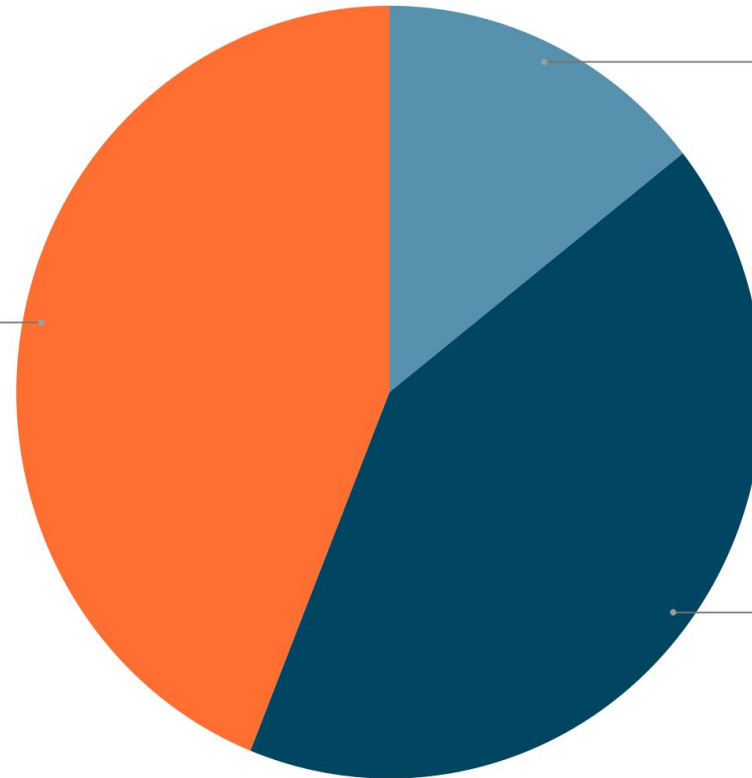
- Agricultural Land Use
- Food Production and Consumption
- Trade
- Food Related GHG Emissions
- Policies

Agricultural land makes up 56.1% of China's land area.

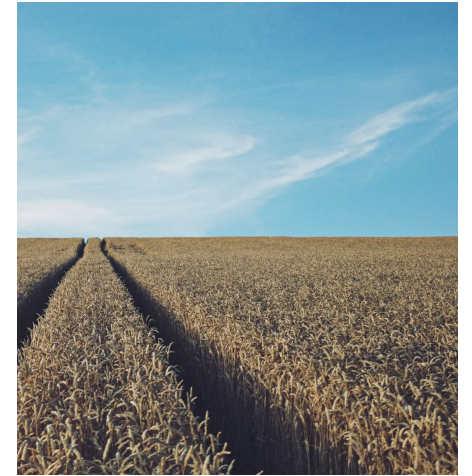
China Land Area



Non-agricultural land
43.9%



Cropland
14.4%



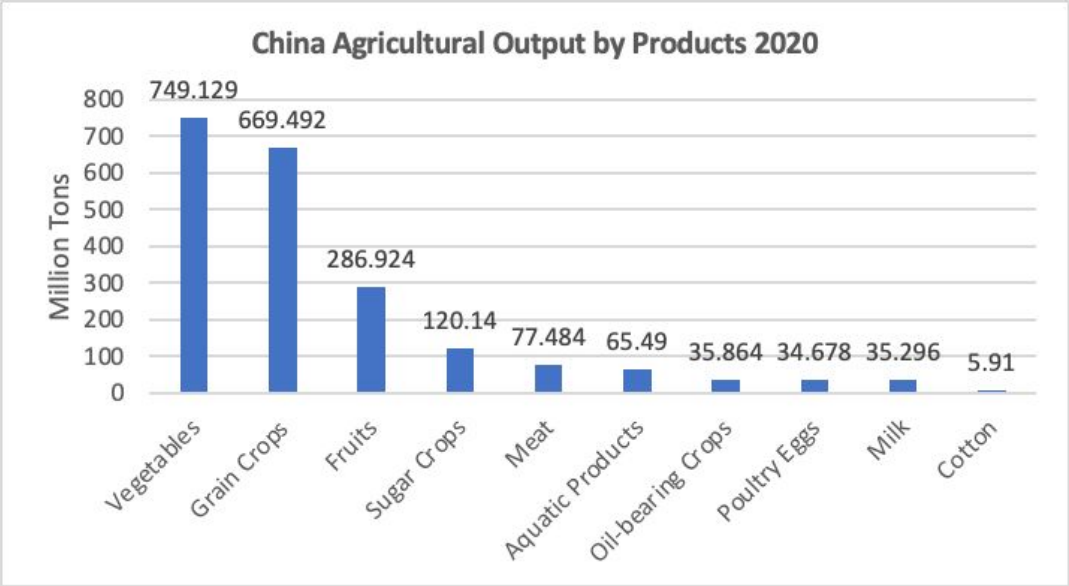
Permanent meadows and pastures
41.7%



China is the world's largest agricultural producer, contributing to 25% of the global agricultural production by value.



| Product | Global % (by weight) | Year |
|------------------------------------|----------------------|------|
| Grapefruits, pears, and tangerines | 76% | 2020 |
| Vegetables | 52.9% | 2019 |
| Fish | 36.7% | 2019 |
| Meat | 22.9% | 2020 |
| Soybeans | 5.5% | 2020 |



Source: World Bank; China Statistical Yearbook

China's meat consumption grew 4.7 times as fast as grain consumption between 1975 and 2018.

Consumption (2020)

| | |
|-------------------------|----------------------|
| Total domestic supply | 2.29 billion tonnes |
| Human food availability | 1.45 billion tonnes |
| Total food losses | 118.9 million tonnes |
| Per capita | 987.66 kg |
| Daily calories | 3,340 kcal/capita |
| Daily protein | 105.11 g/capita |



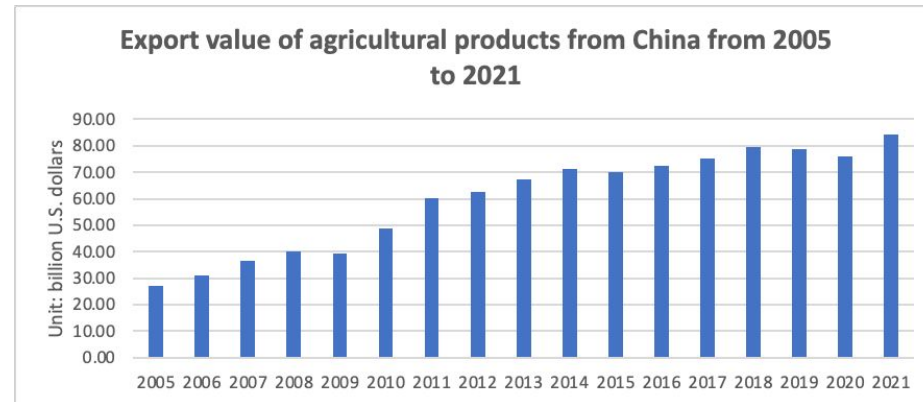
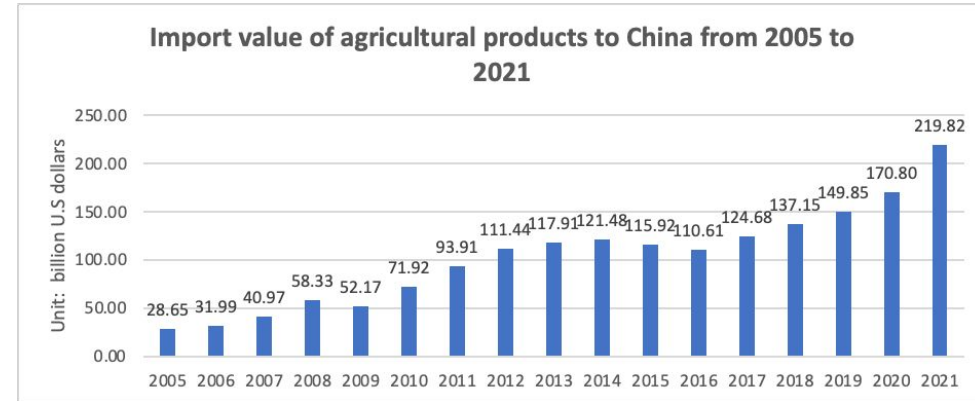
Top Human-Consumed Items by Calorie Intake (2019)

1. Rice and products
2. Wheat and products
3. Pigmeat
4. Vegetables
5. Potatoes and products

China is a net food importer in recent years.

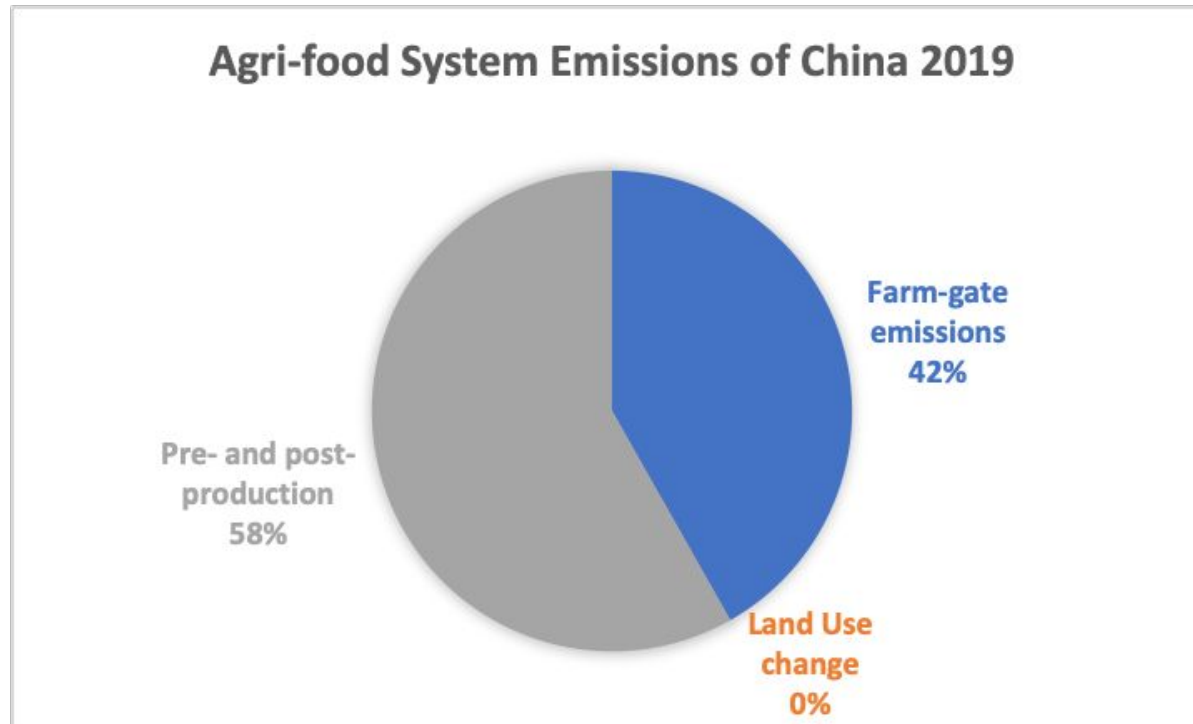
Top Food Commodities by Weight 2021

| Import | Export |
|-------------------|-------------------|
| Soya Beans | Vegetables |
| Cassava and Maize | Fishes |
| Pelagic Fish | Rice and Products |
| Palm Oil | Fruits |



Food system emissions come from farming, land use change, and pre-and post-production activities.

- In total, China produced 1.89 billion tonnes of CO₂eq emissions from the agri-food systems in 2019, which is 14.36% of China's total emissions of that year.



China produced 791.8 Mt CO₂eq of farm-gate emissions in 2019 (8.3% of China's total GHG emissions).

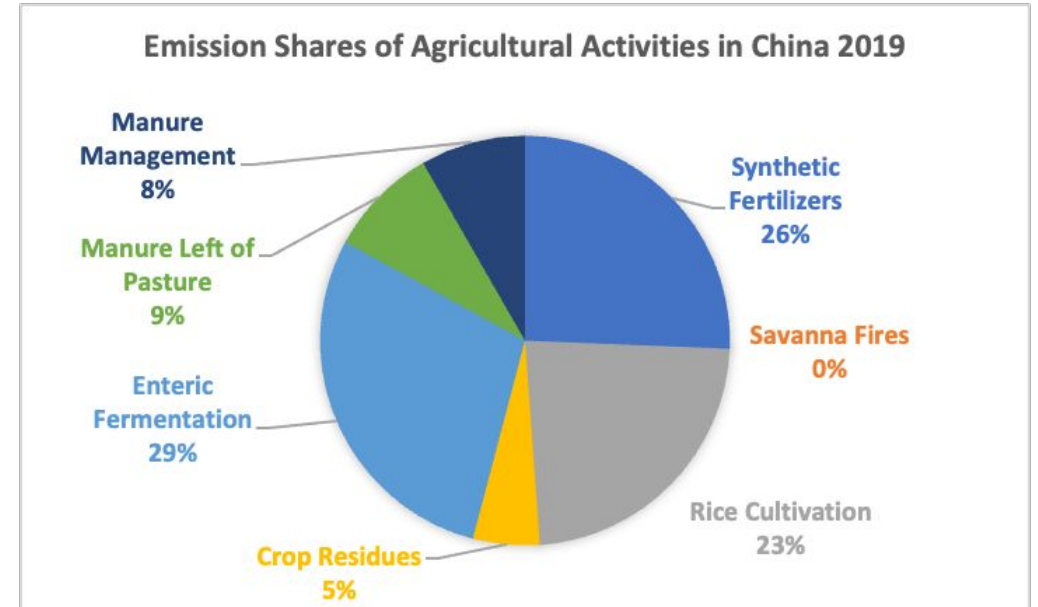


Farm-gate Emissions

- In 2019, China was second largest agricultural emitter in the world, topped by India and followed by Brazil and the United States.

| Source | Year | Agricultural Emissions (Mt CO ₂ e) |
|-----------------------|------|---|
| Chinese Official Data | 2014 | 830 |
| FAO | 2014 | 698 |
| FAO | 2019 | 667 |

- China produced 122.7 million tonnes CO₂e of greenhouse gas emissions from on-farm energy use (including fisheries), including 112.2 million tonnes of CO₂, 0.191 million tonnes of CH₄, and 0.019 million tonnes of N₂O.

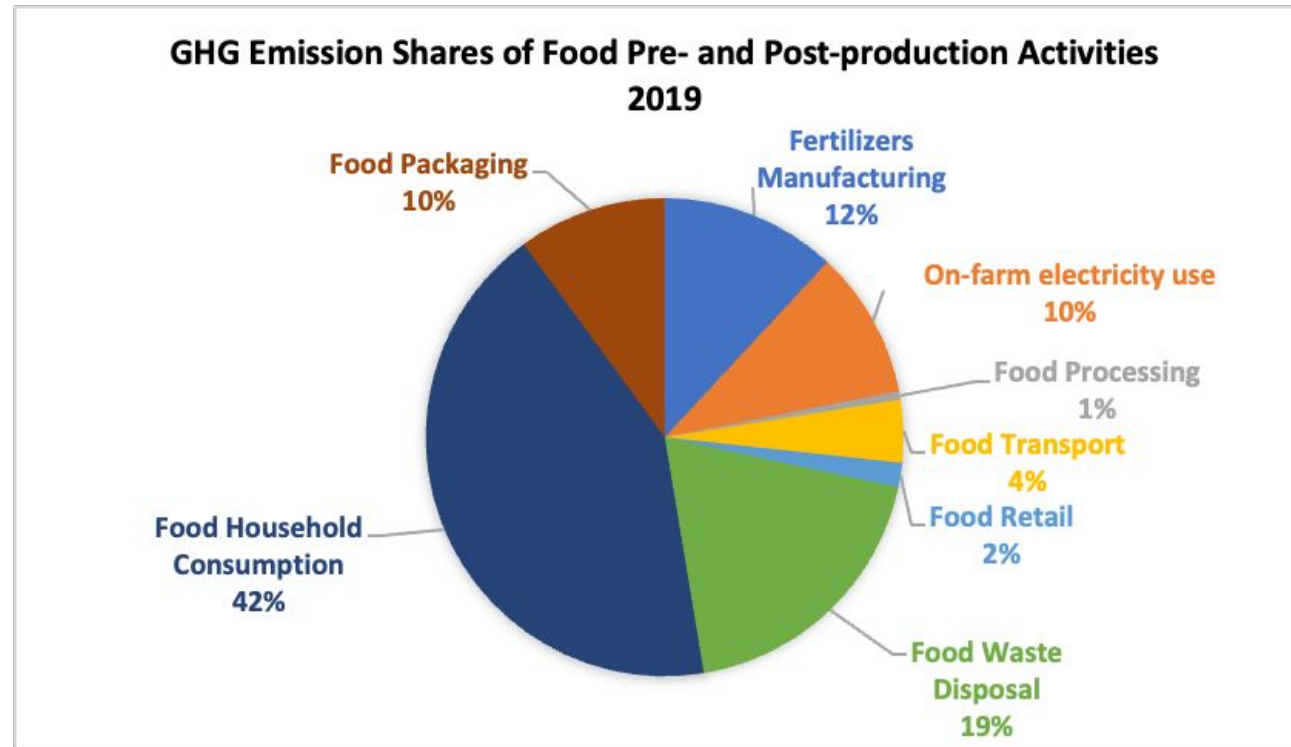


Land Use Change

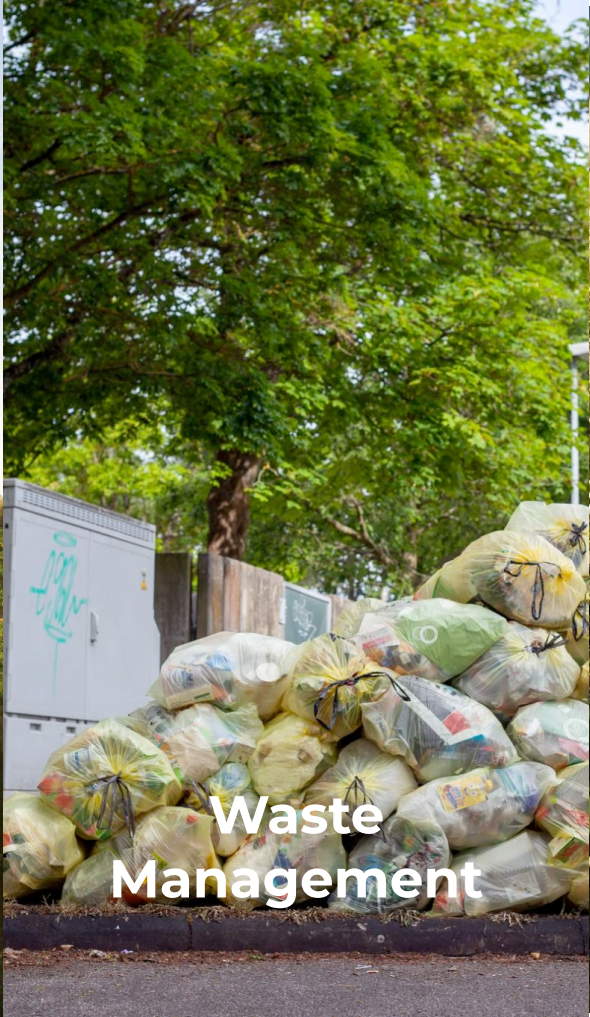
- Agri-food related LULUCF accounted for 1.66 million tonnes of CO₂eq emissions in 2019, representing 0.01% of China's total greenhouse gas emissions.

Food-related pre- and post-production activities contributed more emissions than farm-gate activities.

- In 2019, China produced 1.1 billion tonnes CO₂e of greenhouse gas emissions from food related pre- and post-production activities, representing 8.3% of China's total GHG emissions of that year.



China's NDCs and the Food System



China's Food related Policies



| Policy | Year |
|--|--------------|
| National Food Security and Mid- and Long-term Planning Outline | 2008 |
| Clean Plate Campaign | August 2020 |
| Anti-Food Waste Law | April 2021 |
| Action Plan for Carbon Dioxide Peaking Before 2030 | October 2021 |

Lessons Learned So Far...

- Each country is different!
- A systematic and integrated food systems approach
- Per capita vs. total numbers
- Consumption vs. production
 - How are “imported” emissions accounted for?
 - Do NDC targets take that into account?
- Data can tell an interesting story



Thank you!