

The Impact of our Food system on Climate Change


Short presentation of Transitions

Introduction : How does our food system have an impact on climate? - *And vice versa...*

Food systems and climate change from field to fork

Mass catering as a lever towards sustainable food systems

Conclusion

- 
- sustainable development consultancy agency
 - national and international scopes
 - local authorities, companies, cooperatives, agricultural sectors and NGOs
- promote more sustainable. inclusive and supportive development models

transitions

Stratégie, ingénierie et communication du développement durable

Introduction

How does our food system have an impact on climate?
- And vice versa...

According to the Intergovernmental Panel on Climate Change (IPCC, 2019)

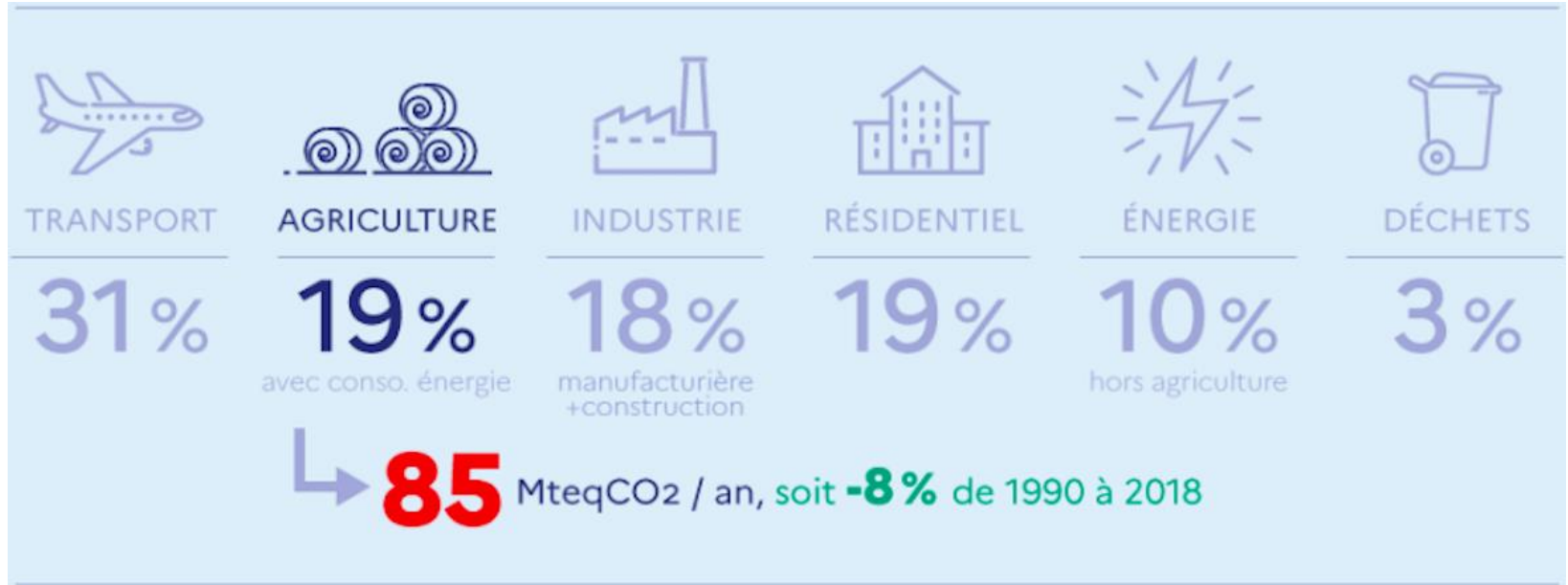
Agriculture, Forestry and Other Land Use (AFOLU) activities during 2007-2016 accounted for 23% of total net anthropogenic emissions of GHGs.

*Food production does
have an impact on climate*



23%
world
GHGs

French CO₂ emissions, 2018



Source: Citepa, inventaire Secten, éd. 2020

BUT food is a **very special challenge:**

PRIMARY NEED !

821 million people are still undernourished

2 billions adults are overweight or obese

25–30% of total food produced is wasted

(IPCC, 2019)



Food systems and climate change from farm to fork

1) Food systems and climate change from field to fork

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« **Food systems** (FS) encompass the entire range of actors and their interlinked value-adding activities involved in the **production, aggregation, processing, distribution, consumption and disposal** of food products that originate from agriculture, forestry or fisheries, and parts of the broader economic, societal and natural environments in which they are embedded. »

Food and Agriculture Organization of the United Nations

1) Food systems and climate change from field to fork

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The *dominant* food system has a big **impact on climate change...**

Globalized food system : global supply chain, productivity (fertiliser...), intensive livestock production, highly specialized production, free trade, transnational companies...

- 23% of global **GHGs emissions** (AFOLU)
- 70% of global **fresh-water use**
- Loss of natural **ecosystems**, declining **biodiversity**

1/3

of the food we produce is either lost or wasted

Global food loss and waste generate about

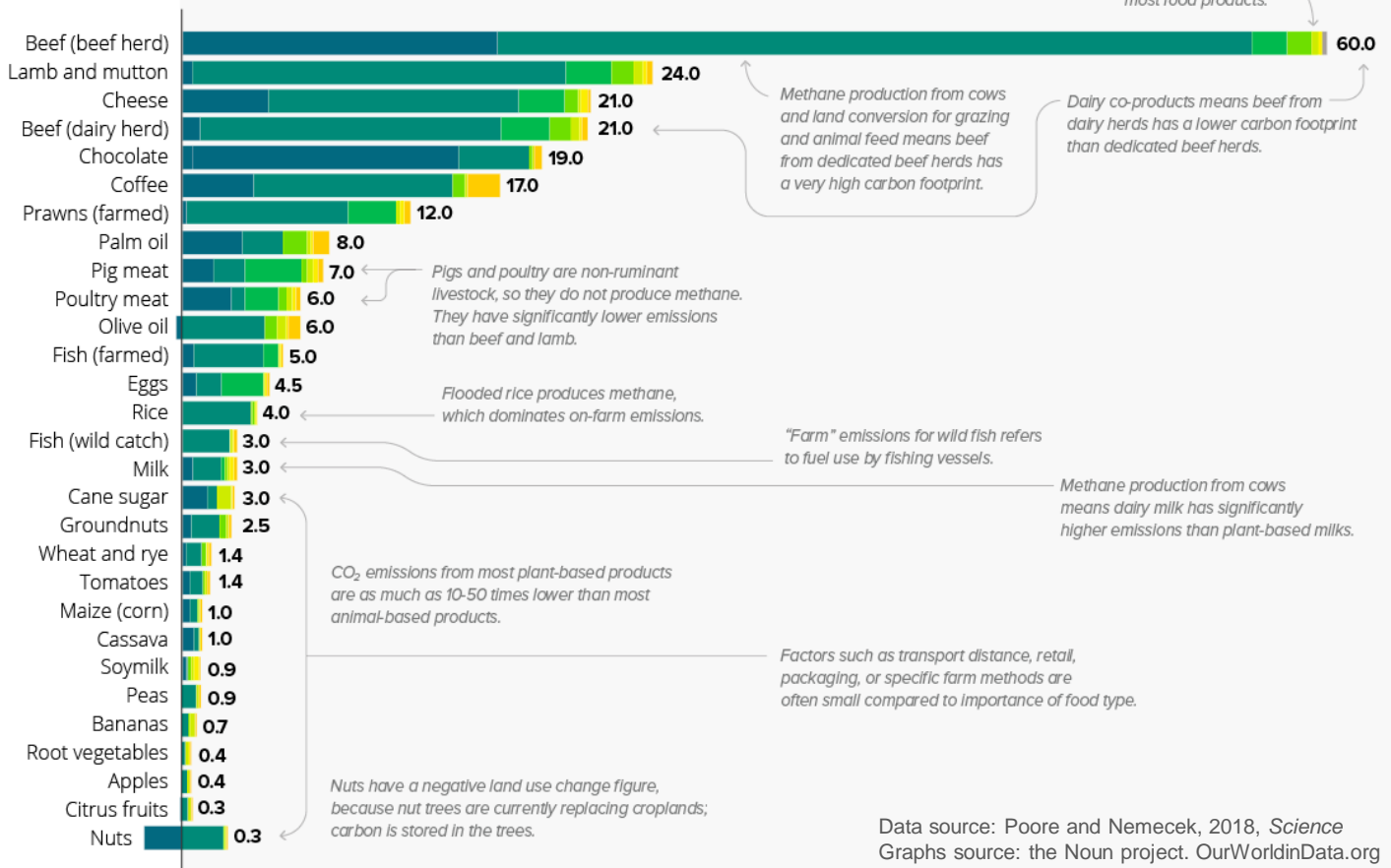
8%

of GHG emissions

119 countries



GHG emissions per kilogram of food product
(kg CO₂-equivalents per kg product)



Major impact on climate change:
food
PRODUCTION

Livestock contributes nearly
2/3
of agriculture's greenhouse

Source FAO

Data source: Poore and Nemecek, 2018, *Science*
Graphs source: the Noun project. OurWorldinData.org

1) Food systems and climate change from field to fork

If our food system has an **impact on climate change...**
climate change has an **impact on our food system** too !

- **Local and pedoclimatic conditions** are very sensitive to climate changes
- **Water scarcity** is threatening food systems
+ Context of **increasing demand and growing pressure** on lands



FOOD SECURITY !

1) Food systems and climate change from field to fork

However, food systems can also be an **opportunity** if sustainably managed !

- **Climate change mitigation** : carbon sequestration in soils = about 25% of CO2 emissions captured by earth's forests, farms, and grasslands
- **Landscape** and habitat protection of biodiversity
- **Food sovereignty** : employments, resilient local systems, affordable access to food, stock management...

Towards a transition from an unbalanced global food system to sustainable local food systems





Mass catering as a lever towards sustainable food systems

2) Mass catering as a lever towards a sustainable food system

We need **mitigation *and* adaptation** solutions to achieve resilient food systems.

- MITIGATION: carbon storage, agroforestry, mixed farming cropping/breeding, organic production... → **sustainability**
- ADAPTATION: relocation of production/consumption, territorial based approach, fair trade, democracy... → **resilience**

Possible solutions:

- Value chain management***
- Dietary choices***
- Territorial based approach***



2) Mass catering as a lever towards a sustainable food system

According to the Intergovernmental Panel on Climate Change (IPCC, 2019)

***Policies** that operate across the food system, including those that reduce food loss and waste and influence **dietary choices**, enable more sustainable land-use management, enhanced food security and low emissions trajectories.*

PUBLIC POLICIES can positively shape food systems



2) Mass catering as a lever towards a sustainable food system

One of the most **important lever** in terms of **food policy** ?

CATERING !

Catering in France ?

Schools, health institutions, public institutions, companies...

- **2nd most important segment** of out of home sector
- **23%** of the out of home sector, **23** billion net sales, **3** billion meals/year
- **2 major companies** : Elior, Sodexo



Catering sector
= **23%**
of the French
out of home
sector

Source : Gira Conseil 2017

2) Mass catering as a lever towards a sustainable food system

Institutional catering

- **Public sector facilities** : schools, universities, hospitals, institutional facilities...
- **A lever to structure** sustainable food chains at a local level and reduce GHGs
- **2018 EGalim Law** : by 2020, +50% quality label products → +20% organic products in institutional catering

2) Mass catering as a lever towards a sustainable food system

Catering policies and sustainable solutions from field to fork

- Food systems **relocation** and food chain **structuring**
- **Territory-based** food system policies
- Development of **agroecology**
- **Affordable, organic and quality** food
- Dietary diversification : **plant-based** food + **sustainable animal-source** food



Example of publicly-run farming for school catering



Conclusion

AFOLU =
23%
world
GHGs

Environmental impact of food production

Food systems \longleftrightarrow Climate

Catering as an impacting sector

A lever for structuring food policies

Towards resilient local food systems

Catering =
23%
French out
of home
sector