



GROWING GREENER

Climate risks, solutions
and opportunities in Agro-
Food Processing

28 of November 2023



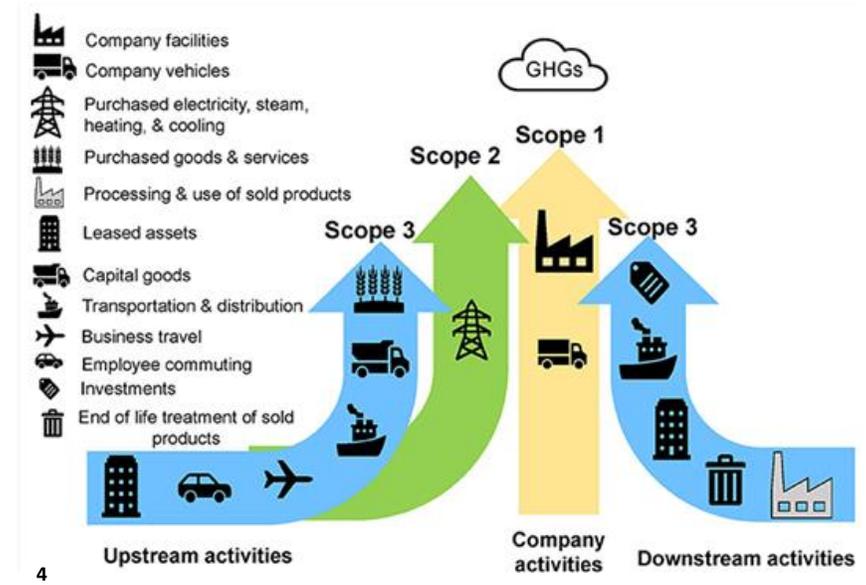
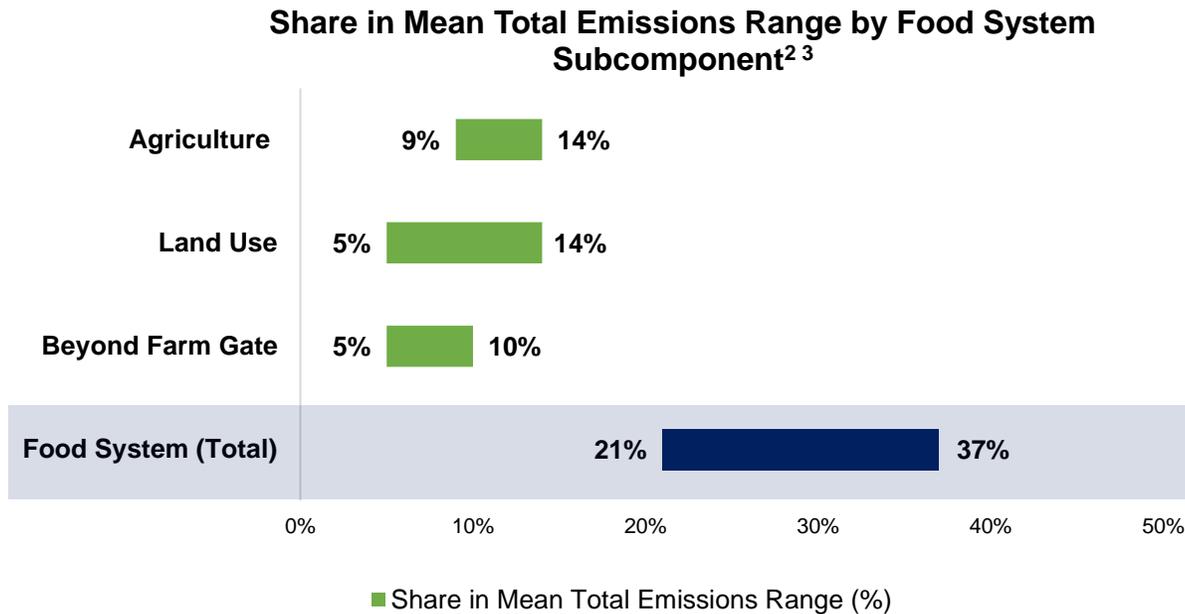
Food and Agriculture Organization
of the United Nations



European Bank
for Reconstruction and Development

Agrifood systems are some of the biggest culprits of climate change and can contribute up to 37 % of global emissions

Food systems contribution to global emissions

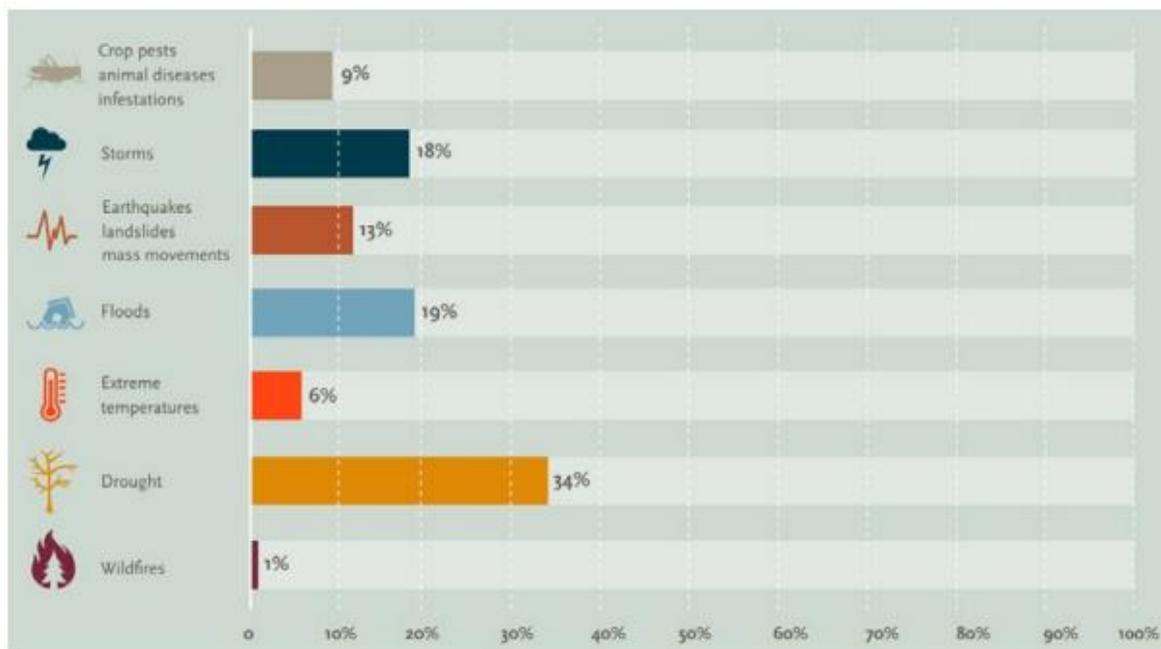


Source: 1. & 2. IPCC. 2019. Climate Change and Land. Available from: <https://www.ipcc.ch/srccl/>
 3. IPCC rounding of emissions
 4. Image sourced from: Reavis et al, 2022 <https://www.frontiersin.org/articles/10.3389/fsufs.2021.789499/full>

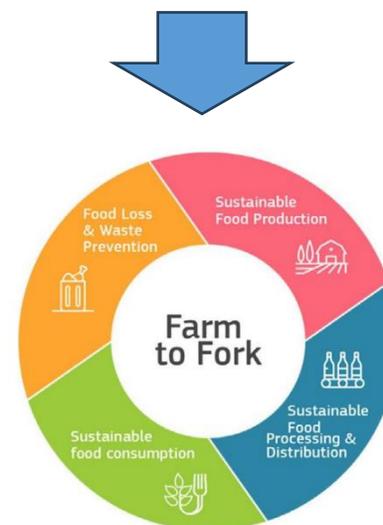
...at the same time, agrifood systems are also victims of climate change

Food systems need to adapt

- Traditional agriculture practices are no longer sufficient to food systems 2.0. **Agriculture planning, practices and investments need to factor in CC**
- Processing and retail will also be affected with **changes in the supply chain, cost and quality of raw materials** as well as by the **need of competing in new areas** such as sustainability carbon neutrality, carbon markets and others.
- Agriculture has received **marginal regulatory attention**. Its nonlinearity increases the complexity of intervention. Higher **exposure and emission factors** (e.g. Scope 3) **may depend on variables external** to agrifood systems.



Adaptation responses during production and handling may increase complexity for processors and retailers to effectively contribute to CC mitigation



Food systems can play a key role in moving CC into an opportunity

Potential role of agrifood systems

- **Around 90% of NDCs refer to the agriculture sector** signalling countries recognition of its importance
- **IPCC (2020):** major role for land-based mitigation and land-use change => total technical potential from crop, livestock, agroforestry: **2. - 9.6 GtCO₂eq** by 2050

Potential opportunities

- Back-of-the-envelope: potential **economic value** of mitigating emissions through offsetting is **USD 45 - 300 billion**¹
- Potential annual societal return of **USD 5.7 trillion** by 2030²
- Generation of business opportunities of **USD 4.5 trillion**, annually³

Sustainable investing is the 'new normal'

>30 % of assets under management follow **ESG factors** and...

Source: 1. Given assumed shadow price and offset costs

2. Annual societal return: includes emission reductions, halting/ restoring biodiversity loss, ameliorating nutrition and achieving inclusive growth

2. & 3. The Food and Land Use Coalition. 2019. Growing Better: Ten Critical Transitions to Transform Food and Land Use. Available from: <https://www.foodandlandusecoalition.org/global-report/>



Greening business and embedding climate related actions is a process

Before investing....

- Understanding climate trends and projections along with exposure of specific value chains will allow planning and better control of processes.
- Understanding your supply chain, your processes, your partners and ensuring well designed data collection is necessary to reduce the adaptation deficit of your business as well as in reducing emissions.
- Know your supply chain and involve your partners in the process may also contribute reducing scope 3 emissions.

Where to invest...

- No one fit all solution but tailored processes...but:
- Optimization and knowledge
- Transparency, accountability and data



- Technology, IT or any other investment need to result from the above

Thank You

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