



CLIMATE
CHANGE
& FOOD
SYSTEMS

Climate Change and Food Systems

Transformation for Adaptation, Mitigation, and Resilience

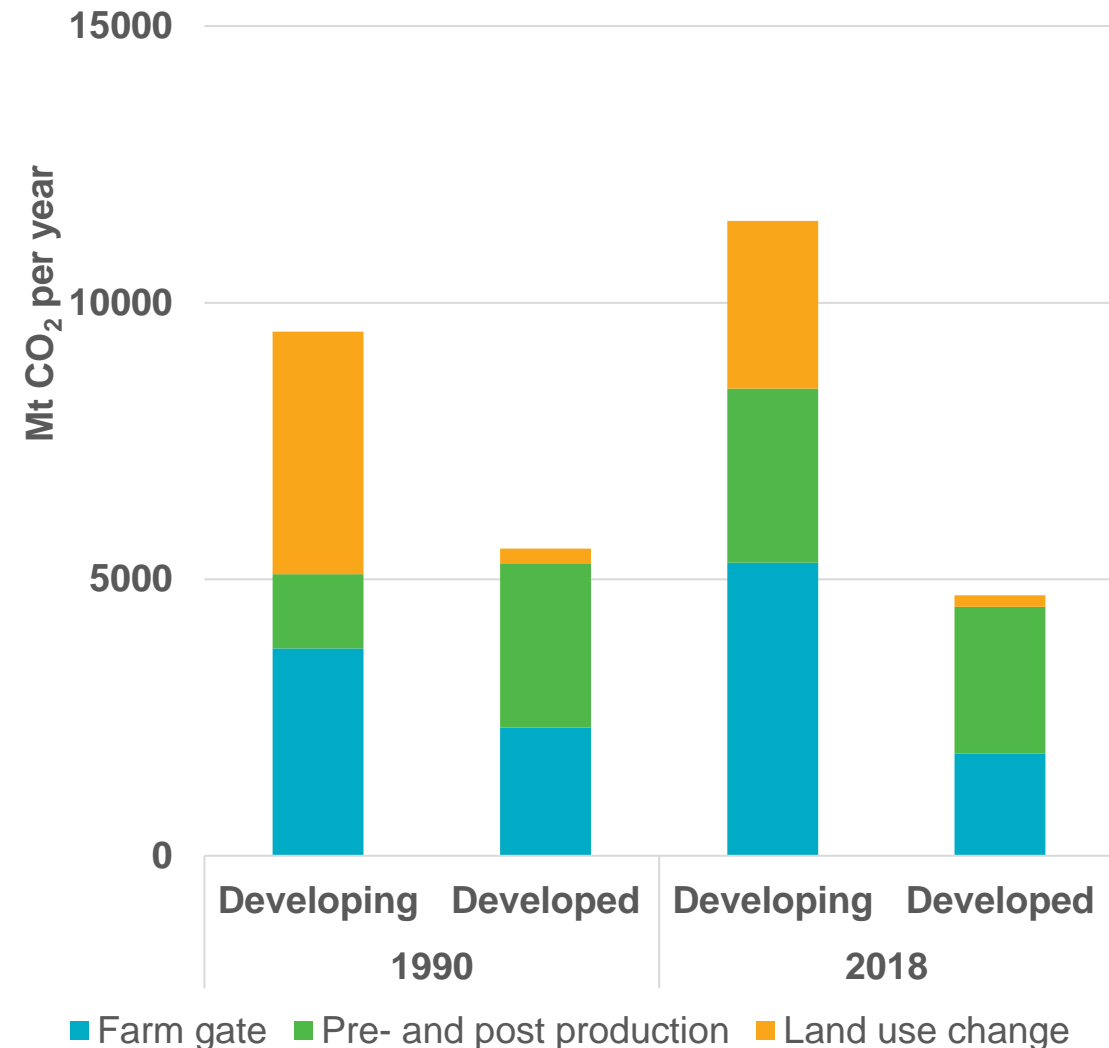
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Food systems contribute to climate change

- **Food systems** contribute more than **33%** of total emissions
- Emissions from **AFOLU** (agriculture, forestry and other land use) around **20%**.
- **Developing country** emissions from food systems are **large and rising**

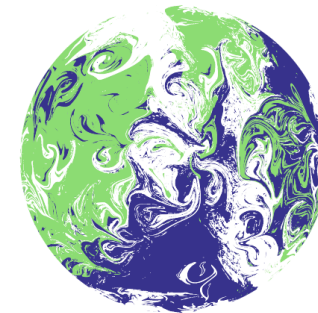


International spotlight on food systems and climate change

- Events in 2021 cemented food systems in the climate change and SDG agenda
 - The **UNFSS** produced new commitments and coalitions to pursue the SDGs with a food systems centered approach
 - 2021 **Tokyo Nutrition for Growth Summit** highlighted link between climate change and nutrition challenges
 - At **COP26**, 137 countries pledged to halt and reverse land degradation by 2030
- 2021 commitments will require concrete follow-up
 - Need a significant **shift in public and private investment**
 - **UN Conference on Biodiversity, WTO ministerial conference, COP27, ...** provide further opportunities to advance action



UNITED NATIONS
FOOD SYSTEMS
SUMMIT 2021



UN CLIMATE
CHANGE
CONFERENCE
UK 2021

IN PARTNERSHIP WITH ITALY

NUTRITION
FOR GROWTH
Food, Health, & Prosperity for All

Effective policies are critical for food systems transformation

Appropriate design of policies, institutions and governance systems at all scales can contribute to land-related adaptation and mitigation while facilitating the pursuit of climate-adaptive development pathways – IPCC 2019

- Innovation and change require an **enabling environment** of supportive policies and institutions
- Collaboration is needed from the **local to international level**
- Change must be **inclusive** and have safeguards in place to protect vulnerable communities

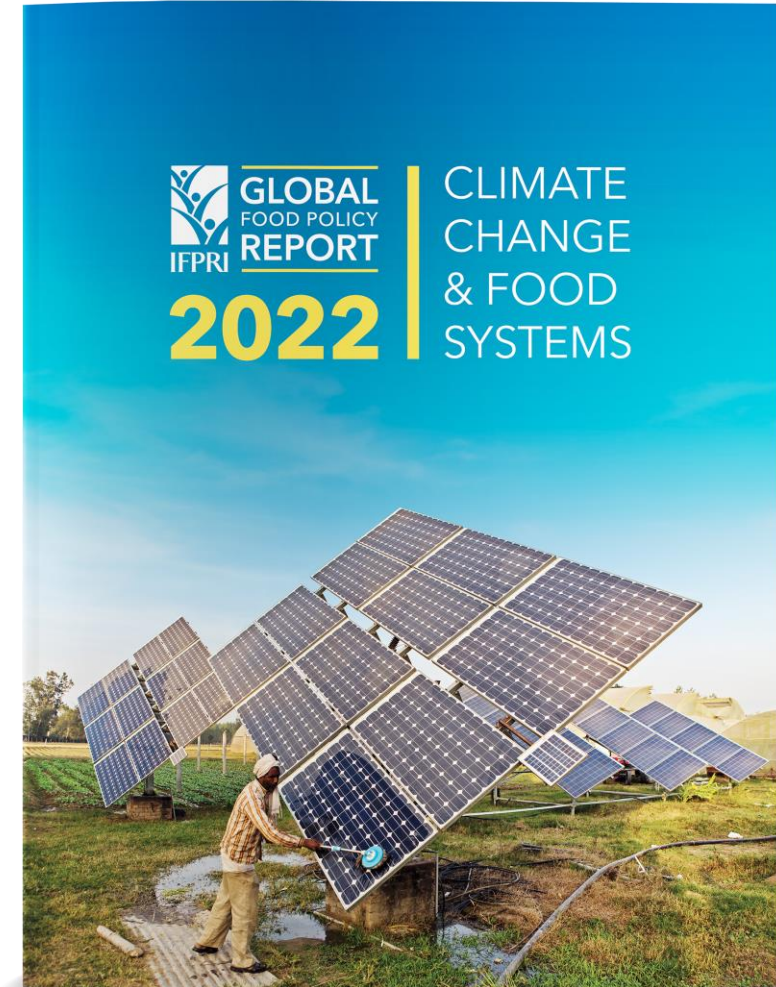
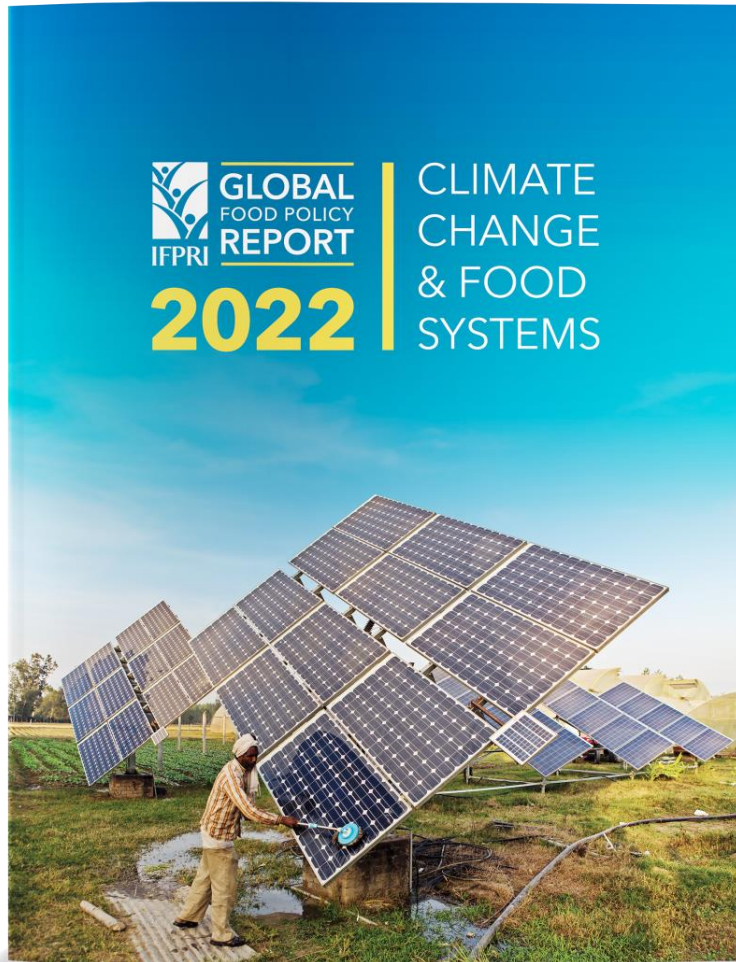


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(+ Six Regional Chapters)

Policy recommendations (1)

- **R&D for “disruptive” innovations in production practices**
 - Investment in R&D equivalent to 1% of agricultural output could **increase food production** by 30%
 - Adopting “green” innovations in LMICs could **reduce AFOLU emissions** by over 40%
 - Double current levels of public investments to reach ~ \$15 billion for innovations in LMICs
- **Holistic governance**
 - Provide **incentives** for local governance and integrated landscape management (e.g. multistakeholder platforms for CC)
 - Strengthen land **tenure rights** for individuals as well as communities to encourage long-term investment and sustainability
 - Identify **productive-use locations** that can jointly support energy, water, and food security



Policy recommendations (2)

- **Improve efficiency of value chains, facilitate trade, and reduce food loss and waste**
 - **Promote** free and fair **trade**, while **accounting for climate effects** of food trade (e.g. pricing carbon)
 - Invest in efficient and safe food **storage and transport** such as **low-emissions** cold chains to prevent food loss (currently 8% of emissions)
- **Promote sustainably healthy diets**
 - Use proven **fiscal measures** to reduce consumption of unhealthy foods and **improve access and affordability** of healthy foods for over 3 billion people who cannot afford a healthy diet
 - Assist countries in adopting food-based **dietary guidelines** (e.g. recommended 400 grams of fruits and vegetables per day)
 - Promote a **healthy food environment** through standards, labeling, and certifications



Policy recommendations (3)

- **Ensure inclusion and expand social protection**
 - Invest in **inclusive soft infrastructure** (e.g. digital climate services, insurance, advisory and financial services)
 - Strengthen **women's participation in clean** energy systems, water, systems, landscape governance, etc.
 - Make **social protection “climate smart”** by incorporating incentives for sustainable activities and combining with climate investment
- **Reorient and innovate in financial flows**
 - **Repurpose** a portion of agricultural subsidies (\$620 billion per year) toward R&D on **green innovations**
 - Explore **innovative** tools (e.g. publicly guaranteed green funds, carbon markets, or CC transparency requirements for banks/investors) to increase food systems **climate investment** to \$350 billion per year

