

# Policy Backgrounder: Global Food Systems

## *COP28 Puts the Food Issue on the Table*

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Nearly 200 countries met in Dubai from November 30-December 12 at the 28<sup>th</sup> Conference of the Parties (COP 28) to discuss the United Nations Framework Agreement on Climate Change (also known as the Paris Agreement). According to the UN, food systems – what people eat; how food is grown, shipped, and cooked; and how it is disposed – are responsible for [more than a third](#) of global greenhouse gas emissions. However, for nearly thirty years, food systems have been left out of the final agreements that emerge from the yearly climate summits. COP 28 marks the first in which [food is on the table](#), with the conference holding an [entire day](#) to discussions on the impact of food and agriculture on climate change.

- In signing the [Declaration on Sustainable Agriculture, Resilient Food Systems, and Climate Action](#), 158 countries (including the US) acknowledged that any path to fully achieving the long-term goals of the Paris Agreement must include agriculture and food systems.
- The Food and Agriculture Organization (FAO)'s [Global Roadmap for Achieving Sustainable Development Goal 2 \(SDG2\) without Breaching the 1.5°C Threshold](#) outlines a comprehensive strategy for the next three years encompassing 120 actions across 10 distinct focus areas. The roadmap challenges the narrative that increasing global food production is synonymous with higher emissions and further environmental degradation. (SDG 2 is “Zero Hunger.”)
- More than 25 leading agriculture and food stakeholders at COP 28 joined forces to collectively scale regenerative agriculture through the [COP 28 Action Agenda on Regenerative Landscapes](#). Regenerative landscapes prioritize the health of ecosystem functions while also supporting farmers' empowerment and livelihoods.

### Food is on the Table at COP

According to the United Nations, global food and agriculture is [responsible for](#) more than a third of greenhouse gas emissions, up to 70 percent of freshwater use, and nearly 80 percent of biodiversity loss. Despite the enormous impact of food systems on climate, the issue has traditionally been left out of the agreements that emerge from the UN's yearly climate summits. This [changed](#) this year in Dubai, when an entire day of the summit was held on food and agriculture. COP 28 opened with 158 countries, including the US, signing of the [Declaration on Sustainable Agriculture, Resilient Food Systems, and Climate Action](#), acknowledging that any path to achieving the goals of the Paris Agreement must include agriculture and food systems. The signatory countries are home to over 5.7 billion people and nearly 500 million farmers and collectively [responsible for](#) 76% of all emissions from global food systems.

“Even if you were able to fix the just energy transition and go completely renewable, you still wouldn't be able to reach the 1.5 degrees if you don't solve the food systems issue,” Mariam Almheiri, the United Arab Emirates minister for climate change and the environment, said in an interview. “Food systems will now be center stage in all future COPs.” While the declaration is not legally binding, the countries that signed the Declaration have essentially announced their [intentions](#) to integrate food and agriculture into their climate plans.

French dairy company Danone [welcomed](#) the Declaration, praising “food being on the top table for the first time.”

## FAO Unveils Food Systems Roadmap

On December 10, FAO [unveiled](#) its first comprehensive plan to bring the global food industry in line with the Paris Agreement. The [Global Roadmap for Achieving Sustainable Development Goal 2 \(SDG2\) without Breaching the 1.5°C Threshold](#) outlines a comprehensive strategy spanning the next three years encompassing 120 actions across 10 distinct focus domains. The roadmap challenges the narrative that increasing global food production is synonymous with higher emissions and further environmental degradation. Relative to 2020, it aims to reduce agrifood systems methane emissions by 25 percent by 2030, achieve carbon neutrality by 2035, and transform the global industry into a carbon sink by 2050, capturing 1.5 gigatons of greenhouse gas emissions annually. “FAO’s Global Roadmap for SDG2 and 1.5°C underscores the importance of climate financing for agrifood systems transformation to achieve good food for all, today and tomorrow,” said FAO Director-General Qu Dongyu.

FAO’s 2023 [report](#) highlights existing efforts underway and climate commitments, engaging stakeholders in creating a detailed approach for a just transition, outlining food security, nutrition objectives, and emissions implications. The approach works to build on existing efforts, noting that policy inconsistencies hinder uniform climate actions across countries, as do different understandings of agricultural practices. “Differentiating actions as either adaptation or mitigation adds to the complexities of global climate strategies,” says the report.

### Roadmap highlights

The first of the 10 focus domains concerns livestock, both a livelihood and a high-quality protein source for vulnerable and remote communities, but one which contributes up to 26 percent of agrifood system emissions directly. The roadmap asserts that actions targeting the livestock sector should prioritize enhancing the efficiency of production and reducing resource usage by steps including improved livestock genetics, feeding practices, disease surveillance, and grazing management practices. The third domain, crops, focuses on increasing the resiliency to and productivity of agriculture during climate change while contributing to mitigation efforts wherever possible. Actions in this area include improving crop breeding and genetics to produce crops that are high-yielding, resistant to pests, and resilient in changing environmental conditions; promoting crop diversification to incorporate more under-utilized crops with high nutritional value and high adaptation to climate change; and improving farming practices for rice – a key nutritional staple for over 100 countries – to reduce methane emissions. The report also calls for [financial support](#) through public-private partnerships to unlock the financing farmers need to spearhead the sustainable agriculture transition.

## Transforming Food Systems for Frontline Communities

In addition, a broad coalition, including farmers and other frontline food systems actors, including businesses, cities, consumers, civil society, and philanthropies issued a [Non-State Actors Call to Action](#) in conjunction with the UN Climate Change High-Level Champions. “Climate change poses an enormous threat to farmers and food production. We need greater recognition of farmers, with a particular focus on women and youth, as equal partners in addressing this global challenge,” said Elizabeth Nsimadala, President of the Eastern Africa Farmers Federation (EAFF) and a Ugandan smallholder farmer. The Call to Action, [endorsed](#) by over 200 entities, builds upon decades of knowledge, experience, and advocacy from a diverse range of non-state stakeholders. It calls for time-bound, aligned holistic, global targets for food systems by COP29 and actionable, evidence-based, locally appropriate food systems transition pathways.

## Investing in Regenerative Agriculture to Deliver Business Value

Participants in the food value chain – farmers, agribusinesses, processors, and distributors – have consistently faced [challenges](#) in meeting rising global nutrition needs. The late 20<sup>th</sup> century saw climbing demand for nutrition as population growth significantly increased, and severe weather events, as a result of climate change, complicated food production across the globe. Overall, the FAO [estimates](#) that between 691 million and 783 million people experienced either hunger or food insecurity in 2022.

On December 4, more than 25 leading agriculture and food stakeholders at COP28, including the World Business Council for Sustainable Development, joined forces to collectively scale regenerative agriculture through the [COP 28 Action Agenda on Regenerative Landscapes](#). Regenerative landscapes prioritize the health of ecosystem functions while also supporting farmers’ empowerment and livelihoods. The initiative, led by the COP28 Presidency, the World Business Council for Sustainable Development, and the Boston Consulting Group, and supported by the UN Climate Change High Level Champions, brings together organizations across the value chain. By COP 30 in 2025, these “participants will be [required](#) to show progress across five key impact areas -- soil health, GHG emissions, biodiversity, water, and farmer livelihoods.” They will do this through greater use of regenerative agriculture [practices](#) such as cover cropping, crop rotation, no tillage, reductions in chemical usage and holistic grazing to improve soil fertility, water retention, biodiversity enhancement, carbon sequestration, and the fostering of more resilient agricultural systems.

Danone is one of 26 organizations COP28 [named](#) as “collectively working to transition 160 million hectares of land” to regenerate agriculture by 2030; other large international food and agriculture companies giants the conference cited include Nestlé, PepsiCo, ADM, Unilever, Sysco, and Olam Food Ingredients. “This Declaration is a signal to all actors to scale financing, collaboration, and policies so our food systems are more secure, equitable, and better for the planet,” said Antoine de Saint-Affrique, CEO of Danone. Ahead of the Conference, Cargill [announced](#) that it would eliminate deforestation across Brazil, Argentina, and Uruguay from its supply chains and committed to protect and revitalize land in critical ecosystems.

A possible [business solution](#) to allow the agriculture industry to meet climate targets while also generating revenue through public incentives is to remove carbon through planting cover crops. Such efforts could sequester 0.5 to 1.2 metric gigatons (Gt) of carbon of the 6.0 to 10.0 GtCO<sub>2</sub> of annual sequestration by 2050. In addition to carbon sequestration, regenerative agronomy can reduce biodiversity loss, reduce freshwater use, and decrease nutrient pollution.

Significant shifts in global food systems are necessary to meet both global nutritional needs and mitigate climate impact. Achieving a 1.5°C pathway will require actions that extend along the [entire value chain](#). While farmers are central to the sustainable agriculture transition, in many cases they do not yet have the incentives to adopt new methods and technologies. A recent [report](#) by McKinsey & Company notes that farmers need a comprehensive approach to make this transition, and nations should consider interventions such as financial incentives to spur action by farmers through subsidies, carbon markets, or rebates; ecosystem collaboration and improved tracking and traceability to bring solutions to market; and research and investment to bend the cost curve of adoption costs and support the development and scale-up of new technologies. While the path to achieving 1.5°C will not be straightforward, actions taken towards this goal can add real business value for farmers and others along the entire value chain.

## Conclusion

In Dubai, food and agricultural systems became central to the global climate change agenda, highlighting the increased interconnectedness of global food systems and climate change. Now, nations that signed the Declaration have the task of incorporating food and agriculture systems in their national climate plans -- and then presenting them to the world in two years at COP 30 for evaluation. Progress may be uneven, but the need for action is urgent as unfavorable weather patterns and extreme weather events threaten

the livelihood of farmers around the world. For these reasons, farmers and other frontline food systems workers, agribusinesses, and other food systems stakeholders are an essential part of addressing overall climate change goals. Business leaders will play an important role in this effort, particularly in promoting regenerative agriculture and other efforts at reducing greenhouse gas emissions in this sector.

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