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By now it's widely understood that climate change, environmental degradation, and agriculture are intricately linked. Yet agriculture has been an afterthought in climate discourse, receiving less than 2% of climate funding globally.¹ Smallholder farmers, many of whom are women, are at the heart of local and regional food systems. They are also on the front lines of the impact of ever-increasing extreme weather events, but their perspectives have been missing in climate negotiations and their voices not heard. COP27 is the first summit to include agriculture on the official agenda. Many official and side events will focus on food systems, food security and smallholder farmers' role in climate mitigation and their adaptation needs. It is an important opportunity for climate negotiators to hear directly from the people who feed the majority of the world's population and take targeted action to support them.

Climate change is disrupting the food system and livelihoods

The [sixth UN IPCC](#) report found that climate-related extremes have decreased agricultural yields, caused economic losses, and contributed to reduced food availability.² Food security, livelihoods and the disruption of key biological events required for food production are at risk due to global warming. At higher latitudes, while warming has expanded the area available for production, it has also altered seasons to create a mismatch in plants and pollinators. Smallholder farmers in lower latitudes, where temperatures have crossed upper tolerance thresholds, are already facing losses of crops, livestock, and fisheries. In the past several years we've seen how fragile the global food system is when exposed to shocks like Covid-19 and conflict. Climate change is no exception. As we face decreased yields, we need to consider the food and nutrition security consequences as well as those to rural livelihoods.

Food Systems Reform is Urgent

Agriculture is also a large contributor to climate change and without food systems transformation will continue to degrade soils, emit greenhouse gasses (GHGs), and pollute waterways. Some of the main culprits include clearing forests to expand agricultural land, which releases stored carbon, and the industrial livestock sector, a big emitter of methane, which

¹ "More climate finance in support of small-scale farmers is urgently needed, warns IFAD at Stockholm+50". *ReliefWeb*, 2 June 2022, <https://reliefweb.int/report/world/more-climate-finance-support-small-scale-farmers-urgently-needed-warns-ifad-stockholm50>.

² Pörtner, H.-O., et. al, "Technical Summary: Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 37–118, doi:10.1017/9781009325844.002. <https://www.ipcc.ch/report/ar6/wg2/>.



affects warming in the near term.³ In addition, agriculture uses about 69% of the planet’s freshwater⁴ and simultaneously degrades its quality due to runoff from the application of chemical fertilizers, pesticides, and herbicides, which is also very harmful to farm workers who often come in direct, prolonged contact with these chemicals with little protection and low access to health services.

Reforms across the agriculture sector can make significant advances in climate mitigation and adaptation efforts. Through agroecological management systems, a method of farming that works *with* nature, farmers can help “to protect, restore and improve agriculture and food systems in the face of climate shocks and stressors.”⁵ Transitioning to agroecological practices requires a stable and supportive policy environment to protect and assist farmers and their families.

Investing in Smallholder Farmers is Key to Sustainable, Resilient and Equitable Food Systems

In order to ensure that no one is left behind and to build resilience in local and regional food systems, climate finance must reach small-scale food producers in low and middle income countries. Small-scale food producers can help diversify food production and diets, protect agrobiodiversity, maintain and improve soil health and sustain local markets. Their relative size and proximity put them in a unique position to exponentially increase the impact of agricultural development, building resilience and improving income and health outcomes for people and the planet. With the right investments, smallholder farmers can be part of the solution to the climate crisis.

[Ceres2030](#) has identified proven, evidence-based interventions to support smallholder farmers. These include increasing participation in farmers’ organizations, improving access to social protection programs in rural communities and the affordability of environmentally friendly farming methods, supporting the adoption of climate-resilient crops, focusing research on water-scarce regions, and reducing post-harvest losses. The report found that with increased investment in these solutions, doubling smallholder farmers’ income, ending hunger, and protecting the environment are attainable goals.

Low and middle income countries are not responsible for climate change, but to build a climate resilient planet, their contributions to climate mitigation and adaptation efforts are important.

³ “Methane: A crucial opportunity in the climate fight”. *Environmental Defense Fund*, <https://www.edf.org/climate/methane-crucial-opportunity-climate-fight#:~:text=Methane%20has%20more%20than%202080,by%20methane%20from%20human%20actions>.

⁴ “Sustainable Agriculture: Overview”. *World Wildlife Fund*, <https://www.worldwildlife.org/industries/sustainable-agriculture#:~:text=Agriculture%20is%20the%20leading%20source,in%20the%20environment%20for%20generations>.

⁵ “Agroecology Knowledge Hub: Overview”. *UN Food and Agriculture Organization*, <https://www.fao.org/agroecology/overview/en/#:~:text=Agroecology%20helps%20to%20protect%2C%20restore,change%20mitigation%20and%20adaptation%20solutions>.



The international community must ensure that their path to development is just and economically and environmentally sustainable. At the 2022 Annual Meetings, IMF MD Kristalina Georgieva stressed that climate mitigation and adaptation are urgent and financially feasible. Agriculture and smallholder farmers are key to delivering multiple SDGs and must be at the center of strategies and investments. The longer we wait, the more expensive it will be and the greater consequences our food systems will face.

In addition to delivering on the promise of \$100 billion in climate finance and a doubling of adaptation finance by 2025, climate negotiators must recognize the important role that smallholder farmers play and *ensure that smallholder farmers and their organizations can access climate financing directly* to scale up sustainable practices, build resilience and improve their livelihoods.

Additional Resources:

- [A New Consensus with Small-Scale Food Producers](#)
- [Small-scale farmers feed the planet. They should not be overlooked in our fight against climate change](#)
- [UN Women wants to give African women farmers a voice at COP 27](#)
- [Open letter to world leaders at COP27 from family farmers](#)