



FOOD FORWARD NDCs

SUMMARY UPDATE TO 2022 REPORT

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RECOMMENDATIONS TO IMPROVE
NATIONAL-LEVEL ACTION

FOOD FORWARD NDCs: AN ASSESSMENT OF UPDATED NDCs FOR FOOD SYSTEMS TRANSFORMATION

KEY MESSAGES

1. While more updated NDCs consider food systems measures compared to 2022, most NDCs still lack a holistic approach to food systems transformation. A food systems approach to NDCs could unlock the potential to deliver at least 20% of emission reduction needed to meet the 1.5°C target of the Paris Agreement.¹
2. While sustainable food production is largely integrated in the updated NDCs, few of these national climate plans also include policy measures and targets for addressing food loss and waste or a shift to sustainable and healthy diets. However, since 2022, more countries are integrating these measures in their NDCs. A shift toward healthier diets, while reducing food loss and waste globally, can increase mitigation by as much as 2.5 GtCO₂e per year.²
3. While more countries are considering the role of Indigenous Peoples and Local Communities in updated NDCs, the majority of NDCs still lack concrete policy measures to address IPLC rights. Recognizing and supporting IPLC rights and resources would result in more than 1.5 GtCO₂e of avoided emissions per year.³

RECOMMENDATIONS

Global

1. Shift to nature-positive production
2. Reduce food loss and waste and increase in circularity
3. Transition to healthy and sustainable diets
4. Collaborate at all levels of the food systems

National

1. Include all parts of food systems in NDCs
2. Include quantified and measurable targets and milestones for food systems measures in NDCs
3. Increase inclusion of agroecology
4. Increase focus on aquatic ecosystems for food production
5. Increase post-harvest measures
6. Increase engagement

RECOMMENDATIONS IN DETAIL

At the global level, transforming food systems calls for collective efforts to:

1. **Shift to nature-positive production:** Governments should integrate nature-positive food production systems, based on the 10 agroecological principles established by Food and Agriculture Organization (FAO), into national climate pledges and actions. These sustainable and regenerative practices enhance biodiversity and rehabilitate degraded ecosystems to deliver a future in which people and nature can thrive.
2. **Reduce food loss and waste and increase in circularity:** Food loss and waste is a major cause of emissions and over-use of resources and land. There needs to be an increasing emphasis on circularity to reduce emissions and build more sustainable food systems.
3. **Transition to healthy and sustainable diets:** A transition to diets that are based on local food contexts and produced within planetary boundaries can reduce GHG emissions, protect and restore wildlife, reduce land-use, and improve health.
4. **Collaborate at all levels of the food systems:** A transformative food systems approach to climate change needs to be inclusive and collaborative, involving all stakeholders.

At the national level, all countries should strengthen their national climate plans and raise global ambition by better incorporating food systems measures in their next NDC submissions, and:

1. **Include all parts of food systems in NDCs:** From production to consumption, national policymakers should work with stakeholders across food systems to prepare and implement NDCs. This includes reducing food loss and waste and a shift to healthy diets.
2. **Include quantified and measurable targets and milestones for food systems measures in NDCs.** Clear measurable targets and milestones can help to monitor and track progress at the national level and as part of Global Stocktake under the Paris Agreement.
3. **Increase inclusion of agroecology for climate change mitigation and adaptation:** Agroecology and agroforestry both advance ecosystem diversification, which in turn provides livelihood diversification and poverty alleviation, while advancing decarbonization.
4. **Increase focus on aquatic ecosystems for food production:** Management, conservation, and restoration of all ecosystems can advance food security. This includes the greater consideration of how aquatic healthy ecosystems like wetlands, peatlands, and mangroves can contribute to mitigation, adaptation, and food systems overall.
5. **Increase post-harvest measures, including circularity, food waste and food loss prevention measures, and dietary changes.**
6. **Increase engagement with smallholder farmers, IPLC, women, youth, and other marginalized groups.**

WHY FOOD SYSTEMS MEASURES IN NDCS?

We cannot achieve the Paris Agreement goals without transforming our food systems as they account for a third of global greenhouse gas emissions. The Paris Agreement sets an ambitious goal for climate change mitigation that requires urgent action in all sectors. Parties agreed to limit the increase in global average temperature to well below 2°C above pre-industrial levels, while pursuing efforts to limit warming below 1.5°C by the end of the century. For food systems, this implies a rapid transition away from emission-intensive production and toward agricultural practices and land uses that boost carbon sinks.

Nationally Determined Contributions (NDCs) under the Paris Agreement embody efforts by each country to reduce national emissions and adapt to climate change impacts. They provide a platform to bring policy priorities together and to identify domestic mitigation and adaptation needs, measures, and gaps to tackle climate change through food systems.

There is increasing consideration for food systems in international policies on climate change mitigation and adaptation. For example, while the Global Stocktake does not explicitly include food systems in its mitigation section, it does call for the “implementation of integrated, multi-sectoral solutions, such as land use management, sustainable agriculture, resilient food systems,” and for “climate-resilient food and agricultural production and supply and distribution of food, as well as increasing sustainable and regenerative production and equitable access to adequate food and nutrition for all” in the adaptation section of the decision. Similarly, the [Global Goal on Adaptation text](#) also sets a target for “attaining climate-resilient food and agricultural production and supply and distribution of food,” which could help drive further focus on food systems and adaptation in the future.

The [COP28 Declaration on Sustainable Agriculture, Resilient Food Systems, and Climate Action](#) while voluntary commits signatory countries to a food systems approach to climate change and biodiversity calling to scale up adaptation and resilience for farmers, fishers and food producers; to promote food security and nutrition through social protection systems, school feeding programs and more; and to support workers in agriculture and food systems to maintain inclusive, decent work. The declaration sets a 2025 target to integrate agriculture and food systems into their NDCs as well as national adaptation and biodiversity plans and long-term climate strategies.

As of September 27, 2024, 172 Parties to the UNFCCC (which includes the EU-27 representing 27 member states of the European Union) have submitted 146 updated or revised NDCs. An analysis of these updated NDCs shows that while more and more countries are recognizing that food systems are a crucial part of climate action through their international pledges compared to their previous NDCs, additional measures and implementation of these plans are needed.

PROGRESS IN INTEGRATING FOOD SYSTEMS MEASURES IN THE NDCS

In 2022, we reviewed 134 updated NDCs submitted by October of that year. From these, 12 countries updated their NDCs again in 2023 and 2024 and another 12 countries submitted updated NDCs bringing the total updated NDCs to 146 as of September 27, 2024. The following findings are from the review of updated and previous NDCs of all 146 member states. The findings highlight trends in how integration of food systems in NDCs changed compared to our analysis of 2022 ([see here](#)).

Overall trend

Overall, there is a positive trend in the recognition of food systems as part of climate solutions. Most of the 146 updated NDCs (94%) include at least one measure related to food system. This trend is similar to findings in the 2022 assessment when 93% of 134 countries had at least one food systems measure in their updated NDCs. However, more countries are integrating a food systems approach in their NDCs compared to 2022. See below:

While only few NDCs consider a holistic food systems approach, there is an increase compared to 2022:

- Only 25 updated NDCs include measures for both sustainable food production and for reducing food loss and waste which is an improvement compared to 19 updated NDCs that included these measures in 2022.
- Only 9 updated NDCs include measures for both sustainable food production and consumption compared to 5 updated NDCs in 2022.
- Only 5 updated NDCs have measures for sustainable food production, addressing food loss and waste, and shifting to sustainable and healthy diets compared to 2 updated NDCs in 2022.

Sustainable Food Production:

- 125 updated NDCs include specific mitigation measures for agriculture, an increase from 94 NDCs in 2022. 123 updated NDCs include adaptation measures for agriculture, an increase from 101 NDCs in 2022.
- 76 updated NDCs have mitigation measures that consider sustainable livestock, compared to 63 NDCs in 2022.
- 19 updated NDCs explicitly include agroecology, compared to 15 NDCs in 2022.
- 76 updated NDCs include agroforestry, compared to just 70 NDCs in 2022.
- 59 updated NDCs have fish and aquaculture in the adaptation measures, an increase from 54 NDCs in 2022.

Food Loss and Waste and Sustainable Diets:

- 40 updated NDCs consider post-harvest food systems measures that may reduce food loss, compared to 36 NDCs in 2022.
- 28 updated NDCs include reducing food loss and waste explicitly, compared to 19 NDCs in 2022.
- 10 updated NDCs include measures for sustainable and healthy diets, compared to five NDCs considering this in 2022.

Ecosystems considered:

- 94 updated NDCs consider marine or coastal ecosystems, compared to 86 NDCs in 2022.
- 88 updated NDCs include wetlands, compared to 77 NDCs in 2022.
- 102 updated NDCs include mitigation measures for forests, an increase from 93 NDCs in 2022.
- 38 updated NDCs consider savannahs or grasslands, an increase from the 33 NDCs in 2022.

Equity considerations

- 69 updated NDCs explicitly consider the role of IPLCs compared to 64 NDCs in 2022.
- 54 updated NDCs explicitly mention the role of smallholder farmers, compared to 50 NDCs.
- 96 updated NDCs include food security considerations, compared to 85 NDCs in 2022.

For more information

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