



Instituto Fome Zero at COP 28: Agroecology, food security and climate change adaptation

Instituto Fome Zero (Zero Hunger Institute) presents at the COP 28 a Manifesto proposing measures to reduce the impacts of climate change on food and nutritional security. Countries recognize that climate change is causing a substantial impact on agricultural production and Brazil is also experiencing the consequences of global warming with current rains and floods in the South and drought and aridity in the North, situations that are followed by hunger and food insecurity.

Instituto Fome Zero

Instituto Fome Zero (Zero Hunger Institute) is a non-governmental, non-profit organization that aims to support policies to combat hunger and all forms of malnutrition and make them one of the highest priorities of Brazil and international community.

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Clayton Campagnolla & José Graziano da Silva

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The Amazon rainforest is in the North region and has an area of more than 7 million km² of which 60% is located in Brazil. Deforestation already affects about 20% of the biome and the country has adopted strategies to contain deforestation with the Action Plan for the Prevention and Control of Deforestation in the Legal Amazon, focusing on command-and-control measures, which in the 2006-2012 period reduced deforestation rates by 80%. However, it has been recognized by researchers and government that this type of measure has reached its limit, requiring further actions to support sustainable production activities to complement and deepen the battle against deforestation.

The drought in the Western Amazon has caused a considerable increase in fires, threats to navigation, low access to drinking water and food, leading thousands of people to go hungry. In all 55 municipalities, a state of emergency was declared due to the drought.

In the South, on the contrary, the storms and floods – in addition to leaving thousands of homeless and displaced people – have brought food insecurity and hunger and raised the alarm for a future problem: small family farmers have lost their crops and this will place the food supply in the region at risk.

As usual, the greatest deprivation is on the most vulnerable, but that cost will not just be paid by them.

Although the poorest are the majority, climate change affects everyone - including the richest nations - in limiting access to nutritious food.

The 2023 edition of the report on the State of Food and Nutrition Security (SOFI) shows that around 740 million people have experienced hunger in the world, a number that has been increasing since 2019, due to the economic crisis accentuated by the Covid-19 pandemic and repeated climate shocks and armed conflicts. In addition, billions live with the consequences of micronutrient deficiencies, which weaken the immune system and cause preventable diseases. It is projected that nearly 600 million people will be undernourished by 2030 if the current situation persists. In this scenario of advancing global warming, with wars and the persistence of chronic hunger in many countries, it is unlikely that the commitment to end hunger by 2030, as foreseen in SDG 2, will be achieved.

In addition to the sordid problem of hunger and insufficient income of many to buy food, the world will also suffer from issues such as obesity, because the habit of high consumption of ultra-processed, out-of-home foods in urban centers is increasingly spreading to peri-urban and rural areas.

IFZ fully recognizes the grave consequences of greenhouse gas emissions on food systems and increased food insecurity. Because of climate change some areas of food production will become progressively inadequate – 10% by 2050 and more than 30% by 2100. It is projected that staple foods will decrease protein and mineral concentrations by 5-15% and B vitamins by up to 30%, if CO₂ concentration doubles from the pre-industrial level. Such a situation would generate 175 million people deficient in zinc and 122 million people deficient in protein.



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IFZ considers agroecology as one of the most suitable choices for the sustainable transformation of family farming, as being at the same time climate-change resilient and low-carbon, and proposes that the international community take into consideration the following actions:

1

Adopt agroecology as one of the most promising approaches to climate change adaptation and resilience, with the provision of diverse, safe and nutritious food to eradicate hunger and malnutrition. Agroecology is a scientific discipline, an agricultural practice, or a political or social movement that can facilitate the diversification of production by offering a variety of local healthy foods to consumers while decreasing post-harvest losses.

2

Develop and implement public policies that support the transition to sustainable and resilient agroecological production, respecting farmers' local knowledge, culture and values. Such policies should generate measures and mechanisms that benefit family farmers, particularly during the transition process, by providing incentives, subsidies and social protection. In addition, public agroecological policies should be integrated with other policies that address inequalities and with social protection measures to promote access to adequate food and nutrition for all. Most importantly, farmers should be involved in the entire process of formulating, implementing and evaluating policy outcomes.

3

Create and expand street markets and short marketing circuits to facilitate access to healthy food by the local population at affordable prices, reducing the consumption of ultra-processed foods, rich in calories, additives, flavourings and preservatives, but poor in nutritional value. This initiative should be structured and implemented by local governments, with the engagement of family producers and consumers. Governments should also promote agroecological markets by prioritizing healthy food in public procurement (e.g., in school feeding programs and food provision to the poor).

4

Invest in scientific research and innovation to develop and evaluate agroecological technologies and practices. Current practices known as composting and soil health management, water management, biological control of pests and diseases, seed banks of traditional varieties and landraces adapted to each reality, intercropping and crop rotation, agroforestry and silvopastoral systems, and integration of crops with local animal breeds, among others, must be tested, validated, and expanded to different agroecosystems and social conditions. Traditional knowledge of farmers combined with innovation in practices and the sustainable use of technologies should be at the heart of an agroecological system production.

5

Promote family farmers' access to digital information systems to promote the adoption and expansion of agroecology and support product traceability. Digital systems will support fair market relations and facilitate access for family farmers to productive advisory services (e.g. climate change information, climate adaptation technologies, agroecological practices and geo-referenced information) and financial and insurance services. Governments should prioritize investments for projects that improve internet connectivity in rural areas; ensure accessibility for mobiles, sensors, and drones; and increase the skills of family farmers, especially women and youth, in the use of such devices. Particular attention should be paid to the involvement of farmers during the development and initial validation of such information systems and mobile applications.

