Factsheet
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The potential of agroecology and organic

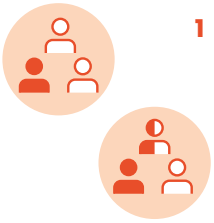
Insights from scientific evidence in the tropics

Agroecology and organic agriculture have the potential to facilitate the transition towards inclusive, healthy and sustainable food systems. An increasing number of high-level experts find the evidence for agroecology and organic agriculture compelling, and farmers worldwide have shown it is possible: 30 percent of farms have transitioned to agroecology, and nearly 3.7 million farmers are certified organic.

Despite technological advancements, food systems are failing to meet the needs of society and the environment. The challenges and hidden costs of food systems are most evident in the tropics, where disproportionate food insecurity, malnutrition, and the impacts of climate change pose significant threats.

This factsheet dispels misconceptions about agroecology and organic agriculture, showing that they 1) can nourish a growing population, 2) are profitable and affordable, and 3) are scalable. It highlights key information for policy makers, derived from a comprehensive, evidence-based policy dossier.

Note: The terms agroecology and organic agriculture are defined in the policy dossier. Only references that are not included in the policy dossier are cited in-text. See last page for more information.



1 in 3 individuals worldwide face **hunger** or malnutrition. If current trends continue, **1 in 2** individuals are projected to be malnourished by 2030.

Hidden costs of the current agricultural system add up to almost **10%** of global GDP.

The food system is responsible for **1/3** of global **greenhouse gas** emissions.

Agroecology and organic can nourish a growing population

Diverse agroecological and organic production systems produce a wide variety of crops, contributing to food and nutrition security in rural communities as well as diversifying income. This is exceedingly important as poverty and inequality are at the root of hunger, rather than a global food shortage. Currently, the majority of grain produced is used for fuel and animal feed[1], while food waste accounts for up to 40 percent of total food produced globally. With proper strategies we can, therefore, already feed a future population of 10 billion people with the food we produce today.

Furthermore, studies show that the "yield gap" between conventional and organic agriculture has been largely overestimated in the literature and is minimal for many crops. In fact, diversified systems can produce twice as much yield per hectare as monocultures in low and middle-income countries and can support yield in the face of environmental stress. With 33 percent of soils worldwide already degraded and more than 90 percent at risk of degradation by 2050, agroecological and organic approaches are essential. These systems foster soil health, crucial for ensuring future yields and sustainable food production.

Given the potential of agroecology and organic agriculture to produce sufficient, nutritious and diverse food, discussions about "feeding the world" should shift away from the "yield gap" between agroecology/organic and conventional. Instead, we must look at the whole food system from farm to fork, considering inequality and long-term resilience. Efforts to address hunger should focus on equalising access to food, markets, resources and other opportunities, while also reducing food waste and re-evaluating the priority given to animal feed and fuel.

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