



FOOD SYSTEMS

Highlights

- Globally, food systems need to meet a daunting triple challenge of ensuring food security and nutrition for a growing population, providing livelihoods along the food chain, and improving environmental sustainability. Sustainable productivity growth will be essential.
- Better policies are needed too, but designing effective policies is complex given synergies and trade-offs between the different dimensions of the triple challenge, as well as transboundary spillovers.
- Inclusive, transparent, and evidence-based policy processes can help build trust and overcome frictions over facts, interests, and values.

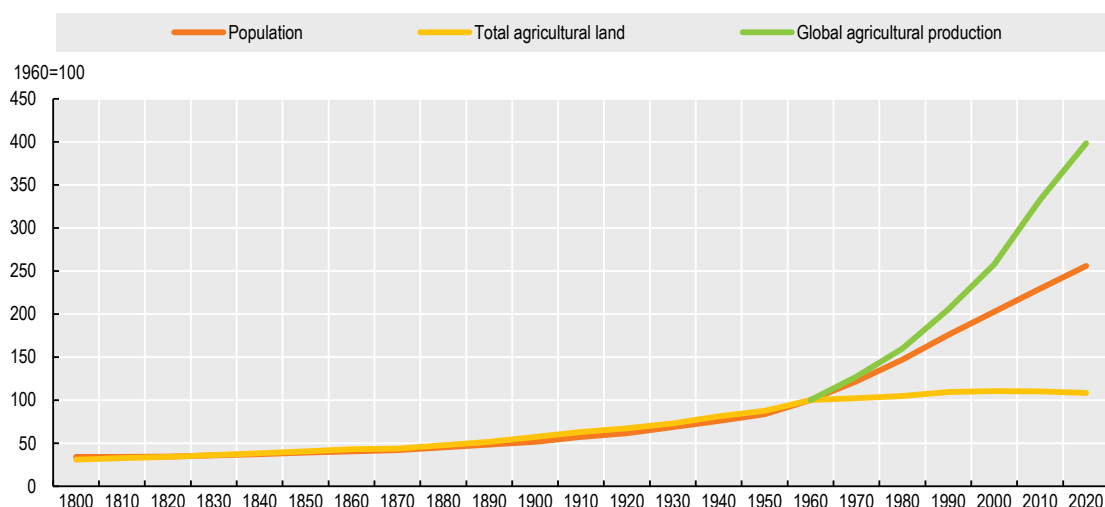
What's the issue?

Food systems consist of all elements and activities related to the production and consumption of food. This includes not only farming and fisheries, but also inputs (such as fertilisers), food processing activities, and global supply chains, as well as people's dietary choices and household food waste. Diverse food systems around the world are interconnected through international trade and global environmental challenges.

Globally, food systems are expected to deliver on a daunting triple challenge:

- providing sufficient, safe, and nutritious food to a world population that is expected to approach 10 billion in 2050,
- providing livelihoods along the food chain, including for more than 600 million farmers; and
- doing so sustainably, by using essentially the same amount of land and less water, while adapting to climate change and contributing to lower GHG emissions.
- In addition, food systems are also expected to be resilient in each of these dimensions.
- Nearly all of the 17 UN Sustainable Development Goals (SDGs) are linked to food systems. Yet, food systems are not on track to achieve the SDGs by 2030. Even before COVID-19 and Russia's invasion of Ukraine, over 800 million people were undernourished. An even greater number are either overweight or obese. Meanwhile, structural changes put pressure on the incomes of those farmers who are not able to adapt. And food production causes significant harm to the environment: food systems account for one-third of global emissions, and a majority of global deforestation, biodiversity loss, and water use and pollution.

Figure 1. Population, food production and agricultural land use in the long run



Source: OECD (2021), *Making Better Policies for Food Systems*, OECD Publishing, Paris.

But food systems have overcome enormous challenges before, and can do so again. Since 1960, world population more than doubled from 3 billion to 7.5 billion today. Over the same period, global agricultural production tripled – increasing the global availability of food per person despite unprecedented population growth. Moreover, this was achieved with a relatively limited increase in agricultural land use of around 10-15%. Innovation, efficiency gains, and technological progress made it possible to increase agricultural production while reducing the environmental footprint per unit of food produced, even if total impacts remain large.

A renewed focus on sustainable productivity growth can help food systems face the triple challenge. This in turn requires boosting investments in innovation, infrastructure, and skills. While governments provide large amounts of support to agri-food sectors, most of this is not effective at addressing the triple challenge, and is in some cases counterproductive. Effective policies will be needed in other areas, too, including efforts to reduce food loss and waste and to limit excess calorie and protein intake.

While better policies can help, agriculture and food policies have historically proven difficult to reform. This is partly due to the complexity of food systems, with many synergies and trade-offs as well as transboundary spillovers. Other common obstacles are disagreements over facts, interests, and values:

- **Facts:** On many policy issues, there is a lack of evidence about the extent of problems; the magnitude of trade-offs and synergies; and the effectiveness of various policy options. Gaps may also exist between public perceptions and the evidence.
- **Interests:** Policy reforms can create winners and losers, so interest groups try to influence the policy process.
- **Values:** People can differ in the values they emphasise, and this can make it difficult to agree on policy priorities.
- Moreover, these disagreements can reinforce each other, e.g. when people are reluctant to accept evidence which goes against deeply held values. This can lead to thorny policy controversies.

What should policy makers do?

Food systems are complex, and context matters. There is no “one size fits all” policy to address the triple challenge. Rather, policy makers need to design policies which take into account local context as well as international commitments. Robust policy processes are crucial to navigate obstacles around facts, interests, and values:

- **Facts:** Build a shared understanding of the facts, e.g. by combining regulatory impact assessments and scientific input with stakeholder processes.
- **Interests:** Ensure all stakeholders have the opportunity to voice their views, but do so in full transparency to create a level playing field. In some cases, it might also be necessary to compensate those who stand to lose from policy reforms.
- **Values:** Consider using deliberative mechanisms to help citizens reach consensus on difficult societal decisions. Several deliberative initiatives in OECD countries have covered food and agricultural policies.
- When it comes to policy controversies (combining disagreements over facts, interests, and values), prevention is better than cure: embed the above best practices into institutions and policy processes to prevent polarisation from emerging in the first place.

Doing so can build trust, which is essential in developing effective policies to address the triple challenge facing food systems.

Source: Information and graphs in this note come from OECD (2021), *Making Better Policies for Food Systems*, OECD Publishing, Paris

Further reading

Deconinck, K., et al. (2021), "Overcoming evidence gaps on food systems", *OECD Food, Agriculture and Fisheries Papers*, No. 163, OECD Publishing, Paris, <https://doi.org/10.1787/44ba7574-en>.

OECD (2021), *Making Better Policies for Food Systems*, OECD Publishing, Paris, <https://doi.org/10.1787/ddfba4de-en>.

OECD (2020), *Innovative Citizen Participation and New Democratic Institutions: Catching the Deliberative Wave*, OECD Publishing, Paris, <https://doi.org/10.1787/339306da-en>.