



# Policy priorities for the global food system

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OECD Global Forum on Agriculture  
Background brief

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The publication of this brief has been authorised by Ken Ash, Director of the Trade and Agriculture Directorate.

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## Introduction: The triple challenge

The global food system is expected to deliver on a complex triple challenge. The first is to deliver safe and nutritious food to consumers, in sufficient quantities and at prices they can afford. The second is to preserve natural resources while reducing greenhouse gas emissions and avoiding the destruction of valuable ecosystems and biodiversity. The third is to provide a livelihood to farmers and others in the food chain, and promote rural development.

The fact that these goals are a long way from being attained, has led to charges of “system failure”. Yet the scale of past achievements is as remarkable as what remains to be done.

- The world population has grown from 3 billion in 1960 to about 7.5 billion today and there is more food available per capita than generations ago. Yet globally there are over 800 million people undernourished, with an even greater number either overweight or obese, and both aspects (plus wider forms of malnutrition) are associated with a rising public health burden.
- The tripling of production since 1960 was achieved primarily through improved yields and productivity growth, with little overall change in agricultural area. Had those productivity gains not been realised, the consequences for human development and for the environment would have been devastating. Nevertheless, one-third of the world’s soils are degraded and half of agricultural area is under water stress. The agricultural sector also accounts for 11% of GHG emissions, with that share doubling once land use change is factored in.
- The process of technical and structural change has ultimately benefited many farmers who have been successfully absorbed in faster growing parts of the economy, while consumers have benefited from lower food prices. However, it has put pressure on the incomes of farmers who are not competitive, and in some countries led to distress migration to urban areas.

The challenges for the food system are a crucial aspect of the broader challenges facing humanity as a whole. Of the 17 UN Sustainable Development Goals (SDGs), nearly all link either directly or indirectly to the global food system. Food security is linked to SDG2 (zero hunger) and SDG3 (good health and well-being). Livelihoods and rural development are reflected in SDG1 (no poverty), SDG6 (decent work and economic growth), and SDG10 (reduced inequalities). Sustainable resource use and climate change mitigation are contained within SDG12 (responsible consumption and production), SDG13 (climate action), SDG14 (life below water) and SDG15 (life on land). Other SDGs will also be

important to the attainment of challenges facing the food system, including those pertaining to education, institutions and gender equality.

## Synergies and trade-offs across the global food system

There are divergent views on the kinds of production systems that need to be fostered in order to feed a growing world population, on the policies needed to tackle farm level and rural poverty, and on how best to conserve natural resources and combat climate change. Resolving those issues will require not only a better understanding of the three challenges, but also of the ways in which they are interconnected, as well as of the structures that determine how food is produced, transformed and delivered to consumers.

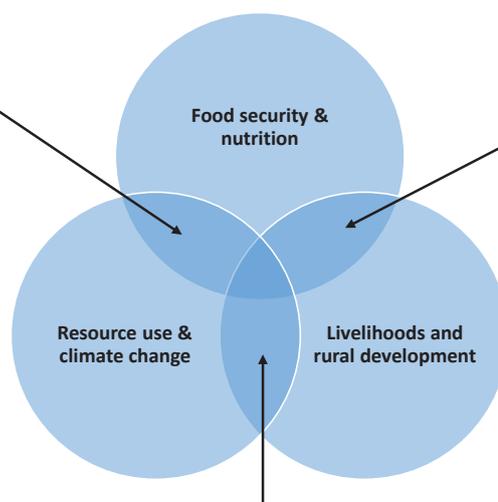
This in turn will require a perspective on the food system as a whole, i.e. “all the elements (environment, people, inputs, processes, infrastructures, institutions, etc.) and activities that relate to the production, processing, distribution, preparation and consumption of food, and the outputs of these activities, including socio-economic and environmental outcomes.” (FAO).

A critical aspect of the food system is that different aspects of the triple challenge interact, sometimes in ways that create policy synergies, but also in ways that involve difficult trade-offs (see figure). For example, there may be a benefit in terms of lower emissions from some people adopting healthy diets with limited consumption of ruminant meat (a synergy). However, policies that lead to lower livestock production could reduce protein availability in regions where it remains low (a trade-off). Similarly, policies to raise farm productivity could generate income growth in agriculture and beyond and benefit consumers through lower prices, but this will come at the expense of producers who are not able to raise their productivity. Thirdly, paying for public goods could benefit the environment and simultaneously support farm incomes, but pricing natural capital according to its social cost could lower incomes, at least in the short term.

In some cases, there are complex synergies or trade-offs across all three dimensions (the kernel of Figure 1). Thus lower meat consumption in some countries could lead to improved public health and lower GHG emissions. But it would likely lower the incomes of farmers (unless new markets can be found), reconfigure rural landscapes and affect biodiversity in complex ways. A single-issue perspective on any objective is unlikely to make headway in the face of these interactions, and could lead to unintended side effects.

### Trade-offs and synergies across all three dimensions

Lower livestock numbers and protein availability  
Healthy diets and lower emissions



Higher farm incomes versus lower consumer prices  
Income generation and food security

Pricing natural capital versus farm incomes  
Paying for public goods

Note: Examples of synergies are noted in green; examples of trade-offs in red.  
Source: OECD Secretariat.

Ideally, a holistic approach would take into account all relevant synergies and trade-offs in designing the optimal policy mix. In reality, the number of possible interactions is vast. Moreover, scientific evidence about these interactions may not always be available; there may be no consensus about which policy objectives deserve to have priority; interest groups may organise to block policies which would be disadvantageous to them; and coordinating across various government agencies on such a wide range of policy issues may lead to high transaction costs. Faced with these obstacles, how can policymakers achieve more coherent policies for the food system?

## Targeting

A first step is to try to reduce complexity through *targeting*. Complexities and trade-offs often arise because a single policy instrument is used to achieve different policy objectives, or because an inappropriate policy instrument is used. More direct targeting can reduce complexity and can even sidestep some trade-offs altogether.

Efficient targeting typically implies that policies should address market failures as directly as possible, in order to avoid unintended secondary distortions. Similar arguments apply with respect to social transfers, which increasingly can be targeted to those in greatest need. Moreover, it is important that the social justification for income and welfare support is not conflated with efficiency arguments. For example, there are concerns that agricultural markets may not be functioning competitively or fairly because of processors' ability to offer depressed (monopsonistic) prices to farmers. Yet that is essentially an issue best addressed by competition policy. Using price support or farm-level payments to offset the imbalance introduces its own trade-offs (with consumer welfare and other budgetary priorities, respectively). It would also be an inefficient and costly way of restoring farm incomes, as it would leave the underlying competition problem unresolved.

A core principle for effective policy targeting is therefore that you ideally need as many instruments as you have objectives (Tinbergen, 1952). Indeed, many objectives for the food system may be best pursued independently, with little need for formal coordination. For example, specific advice to combat poor nutrition may be most effective if pursued by specialists. Equally, targeted agro-environmental policies may be of unambiguous benefit viewed in their own terms. Even when one policy can help in achieving two or more objectives, the amount of policy intervention required to obtain one objective is unlikely to be the same as the amount required for the other. Thus, a policy that leads to a "healthy" level of meat consumption is unlikely also to yield exactly the desired degree of reduction in GHG emissions from the livestock sector. Other policies such as those promoting reduced emissions intensity are also likely to be needed.

Since targeting with dedicated instruments may be the most effective way of balancing competing objectives, policies that seemingly work in different directions are not necessarily inconsistent, but rather serve to revealed social preferences. Thus, policies that discourage high levels of meat consumption can logically coexist with payments to livestock farmers for ecosystem services.

## Identifying synergies and trade-offs through consultation and coordination

The principles of targeting can go a long way in avoiding trade-offs. Even so, there are often important interactions implicit in Figure 1 that still need to be addressed explicitly by policymakers; and even when policies exhibit only limited connections, there may be issues of prioritisation in the allocation of budgetary resources that need to be confronted. Policy makers therefore need a way to come to grips with complexities. However, it is difficult to "solve" for the optimal amount of different policies required to address a broad multiplicity of objectives. A more practical approach is to start from a qualitative assessment of where there are

synergies and trade-offs across different policy objectives, with a view to identifying the need (or otherwise) for mediation across alternative policy choices. Coordination across government and consultation with stakeholders can help to identify these interactions. At a second stage, policymakers may then be able to adapt policies to avoid or minimise negative spill-overs and to exploit synergies where they exist, and to calibrate the appropriate “dose” of intervention once these interactions are factored in.

Such an approach can also help uncover whether a particular issue is best addressed via a targeted intervention at a single stage of the food chain (for example, soil erosion), or whether it requires explicit coordination across the food chain, for instance through participation by food chain stakeholders in devising or implementing policy (for example in reducing food loss and waste).

In many policy areas, not least climate change mitigation, there are important spill-overs across borders. In these circumstances, designing a national policy in isolation is not likely to be optimal from the point of view of the global food system. Consultation and coordination should in those cases take place not only within, but also across, national borders.

A systematic consideration of synergies and trade-offs across food and agriculture can contribute to more coherent analysis and policy advice. That approach can be described as “holistic” in the sense that it takes a whole-of-system view, but in policy terms it implies separating and targeting problems when they can be separated and targeted, coordinating loosely when that is sufficient to address synergies and trade-offs, and formulating more integrated plans when those synergies and trade-offs demand it.

## **Making tough choices and striking grand bargains**

Identifying trade-offs through consultation and coordination will often highlight fundamental differences of opinion about how different objectives should be weighed against one another. These differences could reflect conflicting views on what is in society’s wider interests, or narrow resistance from interest groups to policies that disadvantage them. In either case, avoiding gridlock will require making tough choices or striking a “grand bargain” across different policy domains to overcome opposition. A particularly difficult issue can be overcoming opposition that derives from a gap between beliefs and scientific evidence.

## **The many challenges in designing coherent policies**

Achieving coherent policies for the global food system therefore faces major challenges. Among the issues that need to be confronted are:

- The relevant domain over which policies should be “holistic”, including the degree to which national policies should take account of spill-overs onto international markets and resulting impacts on food security, resource use and livelihoods elsewhere. For example, a global view on how best to reduce GHG emissions may imply a different set of national strategies towards livestock development than one based purely on a national accounting.
- How to make policies in the face of imperfect information. The long-term answer may be to collect more information, but many policies have to be made in the here and now and decisions cannot always wait.
- The “optimal” degree of targeting that can be achieved in practice, given information needs and administrative requirements.
- The appropriate degree of coordination. Light touch coordination could lead to more coherent policies, but heavy administrative procedures risk overburdening bureaucracies, and in the limit could lead to “paralysis by analysis”.
- How to mediate between inherently conflicting interests, for example by striking “grand bargains” in order to ensure that the broad social benefits from policy reform are not blocked by the veto of a losing constituency.
- Addressing gaps between beliefs and the evidence base. Such gaps may lead to the emergence of myths, for example about the science behind specific technologies, or the causes of low producer prices. Vested interests have the potential to exploit myths, and even to produce “fake news”.

Success in designing coherent policies for the global food system will not only depend on scientific and economic analysis; it will importantly require ways to overcome such challenges.

## **Questions for discussion at the Global Forum on Agriculture**

The goal of the 2019 Global Forum on Agriculture is to contribute to a shared understanding of the challenges facing the food system, and of how more coherent policies can be achieved. Some of the questions to be discussed at the Global Forum are therefore:

- What are the major challenges facing the global food system and what are the obstacles policymakers face in addressing them?
- What is the rationale for using a food system approach and what policy areas may particularly benefit from this perspective, in contrast to approaching them in isolation?
- How are the challenges that the food system is expected to address interrelated, in particular with regard to food security and nutrition, livelihoods for farmers and other agents along the food chain, and sustainable resource use?
- What are some of the major trade-offs and hard choices for food and agriculture policy across different policy domains and how can they be mediated?
- How can governments achieve an optimal degree of coordination without excessive bureaucracy or other costs?
- How should governments engage with stakeholders, in order to raise political legitimacy and respond to social concerns, but avoid capture by organised interests?
- What can policy makers do to balance domestic objectives with international considerations and to avoid domestic policies that create negative international spill-overs? In which areas is there a need for strengthened international cooperation?