



The food challenge

To provide a global population of 9.6 billion with healthy and nutritious food and eliminate global hunger and malnutrition, food systems must simultaneously produce more food, improve livelihoods and reduce food wastage.

According to the United Nations food production will need to nearly double by 2050 to feed the world.

[1] At the same time environmental impacts will need to be addressed, including ecosystem degradation, high greenhouse gas emissions and water scarcity. Yet agricultural productivity is growing at a slower pace than ever before, and soil fertility and the nutritional value of foods are declining. [2] Arable lands and key resources are also becoming increasingly scarce.

There is no silver bullet that will solve these issues. Instead a wide range of solutions will be needed across the food value chain. These include reducing food waste, promoting agricultural efficiencies, technological innovation and urban farming. Changes to people's dietary preferences and consumption patterns around the world will also have a role to play.

Footnotes:

1. [FAO \(2014\). Building a common vision for sustainable food and agriculture](#)
2. [The Ellen MacArthur Foundation, World Economic Forum and McKinsey & Company \(2014\). Towards the Circular Economy: Accelerating the scale-up across global supply chains.](#)

Implications

- Food is a source of potential conflict as well as innovation, and changes in both our production and consumption patterns are essential for addressing upcoming challenges and creating sustainable food systems. As such, the development and large-scale use of 'green-tech' methods that support ecosystems and watersheds – such as agroecology, intercropping and integrated pest management systems – will play a key role in improving long term agricultural productivity and global nutrition.
- Scientific evidence of climate vulnerability, extreme weather, disasters and supply chain volatility have cemented the need for businesses to act in a unified way across value chains. A variety of large organisations involved in these food value chains have now recognised that their business models depend upon a reliable base of farmers producing consistent agricultural products, and are setting sustainable agriculture goals (and following through on them) to ensure a more secure future. However, this will need to happen across the sector to make a significant difference to the global outlook.
- Increasing transparency around food supply chains, coupled with health and food quality concerns, mean middle class consumers around the world are likely to demand cleaner, healthier production systems in future. This could accelerate the push towards high levels of transparency in global food supply chains, enabled by advances in monitoring technology.

Current trajectory

- According to the UN, we currently produce enough food for everyone on the planet to have an adequate diet, but poor distribution means that 795 million people are hungry while some 1.4 billion people are overweight or obese.