

Key Findings from the European Commission Global Food Security 2030 Foresight Study

Tine Van Crieking, Johanna Trieb

Policy analyst, Foresight and Behavioral Insights Unit, European Commission's Joint Research Centre, Brussels, Belgium

Key messages

- > The Joint Research Centre's Foresight study on Global Food Security argues that multiple components of the food system can no longer be dealt with as static, isolated elements, but rather must be addressed together as an interconnected and dynamic system. This requires a change in mindset.
- > Food security will increasingly be considered as securing food supply in response to a "new and emerging demand."
- > Securing "regular" access to adequate food for the majority of the 8–9 billion people who will live on earth in the period 2030–2050, while addressing the food insecurity of a fraction of that total, is how a future European food security policy should be approached.
- > The Joint Research Centre's Foresight study calls for an evolution of present-day policies on food and nutrition security and beyond into a Common Food Systems Policy in which both the systemic and global dimensions of food security are fully incorporated.

The humanitarian aspects of food security

Despite its multifaceted nature, the debate surrounding food security over the last few decades has largely focused on production and on the challenges facing the agricultural system. Food security, however, encompasses a far broader range of challenges, being directly associated, for example, with humanitarian concerns such as hunger and poverty.

Although agriculture and fisheries are fundamental and essential components of the food system, it is misguided to address the future of food security without looking at the system's many other determinants. The time has come to overcome this conventional approach and to look systemically at food security and its complex nature.

The Joint Research Centre's Foresight study on Global Food Security brought together a group of scientific experts and stakeholders to develop a vision for food security in 2030. This Vision was then challenged in a test of resilience to uncertainty and underestimated trends. The entire process was designed to establish a structured and inclusive discussion that could be useful for guiding future EU policies.

The report calls for an evolution of present-day policies on food security and beyond into a Common Food Systems Policy in which both the systemic and the global dimensions of food security are fully incorporated.

"The time has come to look systemically at food security"

FIGURE 1: Global Food Security Vision 2030

A world where food security is guaranteed for all on a sustainable basis via:



The significant transformation of agriculture production systems (through investments, research and training)



The maintenance of an adequate enabling environment in all rural areas (rural development)



A food system where production and consumption are balanced between local, regional and global levels (market and trade)



A largely demand-driven food system where responsible consumer behaviour shapes sustainable objectives

Credit: Joint Research Centre, European Commission

Vision 2030

Vision 2030 foresees a significant reduction in the relative number of undernourished people, and that food security will be guaranteed on a sustainable basis via:

- > The significant transformation of agriculture production systems (through investments, research and training)
- > Maintenance of an adequate enabling environment in rural areas (rural development)
- > A food system where production and consumption are balanced between local, regional and global levels (markets and trade), and
- > A largely demand-driven food system where responsible consumer behavior shapes sustainable objectives.

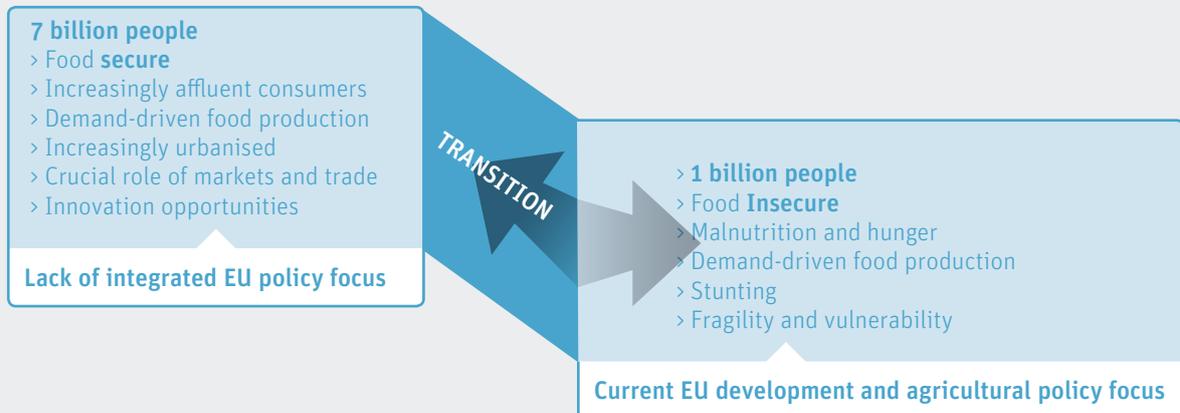
The EU could have an important role to play in working towards this vision by designing, supporting and implementing policy initiatives today that could contribute towards achieving the four features of Vision 2030.

EU policy alignment

Currently, EU policies are aligned with meeting the first two objectives: agricultural transformation and the creation of an enabling environment. These interventions put smallholder farmers in the most food-insecure regions at the center of the strategies and rely on the transformation of their own activities into a competitive and sustainable agri-business which is expected to enable the achievement of three objectives:

1) Ensuring food security; 2) escaping the poverty trap; and 3) fostering the sustainable use of natural resources. Within this approach, global food markets provide an arena for new fruitful opportunities for smallholder farming, as long as infrastructure, risk-management mechanisms and information systems are put in place. A special focus on malnutrition is also a major component of these interventions, as is global coordination between public and private stakeholders.

For the other two – a balanced and demand-driven food system – the policy framework on food security will need to adopt a more comprehensive and integrated food-systems approach if it is to tackle the challenges ahead and the opportunities that arise. In this regard, EU food security policies seem neither to fully consider, nor to address, the challenges and opportunities that are likely to arise from the changing demographic and socioeconomic trends that could significantly transform the future food system. Instead, current food security policies focus mainly on targeting those pockets of food insecurity, where hunger and malnourishment persist now and may or may not do so in the future. While such policies are certainly worthwhile and commendable, they seem to miss the bigger picture – namely that food security will increasingly be considered as a means of securing food supply in answer to new and emerging trends in demand. This requires that the role of trade and markets in securing this supply, and the extent of these changing trends in demand, should increasingly be considered and integrated into EU food security policy.

FIGURE 2: Approach to achieving a balanced and demand-driven food system

Coordinated and coherent approach to achieving a balanced and demand-driven *food system* according to Vision 2030

“Food security will increasingly be considered as a means of securing food supply for new types of demand”

Uncertainty in trade and markets

Domestic and international trade plays a fundamental role in global food security. It also allows countries with a comparative advantage in the production of agricultural commodities to specialize in these activities and to sell and export food and agricultural commodities and to purchase other products with the resulting revenues. The same applies within the agricultural sector itself, since most countries export agri-food commodities and import other products. Trade in food and agricultural products has evolved strongly in recent decades: traded volumes and values of agricultural products have increased; trade flows in terms of origins and destinations have changed; and international trade agreements have enabled freer trade between nations.

In Vision 2030, the development of a balanced food system assumes steady economic growth; further liberalization of markets and trade; and increased transparency and governance of the food system. In reality, however, such a transformation is mired in uncertainty. What would happen if there were a reversal in the trend towards autarky rather than the globalization of agriculture and food? What possible trade-offs exist when envisioning the future of trade and its implications for food security? In policy terms, what role can the EU play in shaping and effectively participating in this future system, and how will

it address the trade-offs that are certain to occur? Such issues have yet to be thoroughly addressed at the level of EU policy on food security – indeed, much of the discourse seems to be based on the assumption that the trade system will invariably continue to become more liberalized and integrated. However, any considerations of Europe’s role in the quest for global food security in the future will certainly need to take greater account of the uncertainty surrounding the evolution of trade and markets.

“Any considerations of Europe’s role in the quest for global food security must take greater account of the uncertainty surrounding the evolution of trade and markets”

Changing demand and urbanization

As regards the development of a demand-driven food system in Vision 2030, we also see uncertainty arising from the changing socioeconomic and demographic drivers. A rapidly growing middle class, mostly in Asia and Africa, is likely to put significant pressure on the food system, with an increasing demand for meat and dairy products. The expansion of the middle class is closely linked to the continuing urbanization of the world’s population, 60% of whom will be living in cities by 2030. Urbanization, along with growing incomes, brings substantial changes in demand for food products, and redefines how the food system will cope with growing demand.

Urbanization can be a source either of additional constraints or of new opportunities for enhancing food security both in urban and rural areas, yet it has hardly been seen as a key driver for food security and, in fact, is a largely underestimated phenomenon in terms of its potential impact. The underlying rationale for this focus is that more than 65% of the poor live in rural areas, that agriculture has been underfunded for decades in developing countries, that agriculture offers the best return for investment, and that there is a structural “urban bias” in favor of cities. Although the current focus makes perfect sense – which is why there is a general consensus on it – it fails to acknowledge three things: first, that there is already a high level of urban food insecurity; second, that the ratio between rural and urban poor seems likely to be reversed soon, which is a situation that should not be overlooked; and third, that there are usually “two cities within a city,” and many urban dwellers do not benefit from any such urban bias in terms of food security.

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“A wide-ranging program of research and policy dialogue is urgently needed to uncover the dimensions and complexities of urbanization”

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From the EU policy perspective, urbanization and, indeed, changing demand dynamics, have not been thoroughly consid-

ered as potential game-changers for the future of global food security. Indeed, there are many knowledge gaps, and a wide-ranging program of research and policy dialogue is urgently needed to uncover the dimensions and complexities of the phenomenon.

Achieving Vision 2030

Lack of EU policy intervention or, indeed, failure to consider uncertainty in trade and markets, and/or changing demand and demographic trends, could lead to significant challenges in the future, or even a missed opportunity for Europe. Indeed, as regards the major transformation foreseen in Vision 2030 – namely the development of a more balanced and demand-driven food system – it is apparent that current trends and major uncertainties could jeopardize the achievement of the latter two features in Vision 2030. This is likely to be the case if a more comprehensive and integrated approach to food security does not materialize into policy actions that consider the opportunities found in changing trends.

A comprehensive food-systems approach is necessary, which focuses on tackling pockets of food insecurity while, at the same time, being prepared for the challenges and opportunities related to feeding a more affluent, demand-driven, and increasingly urbanized majority of the population. While uncertainties will persist and transformations will occur regardless of EU policy intervention, policy interventions made today at all levels of governance, including EU level, could help secure our society and environment in such a way that ensures sustainable provision of safe and nutritious food to our citizens in the future.

FIGURE 3: Food security is influenced by a variety of dynamics



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Transformation of agriculture production systems, the maintenance of an adequate enabling environment, a food system in which production and consumption are balanced, and a demand-driven food system together create the preconditions for sustainable food security.

Credit: Joint Research Centre, European Commission

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Systems-thinking

The multiple components of the food system can no longer be dealt with as static, isolated components, but rather must be addressed together as an interconnected and dynamic system. This requires a change in mindset. While the dialogue on food security should continue to focus on the issue of hunger – i.e., those scattered pockets of food insecurity which persist even in our plausible yet optimistic Vision 2030 – the real challenge of feeding a world of 8.5 billion people in 2030 consists in addressing the idea of a changing food system, characterized by consumption and demand-side challenges, such as a growing and increasingly affluent population and rising urbanization. Europe may want to carefully consider tackling food security challenges by continuing policies that address hunger and diet-related diseases while integrating new policies that simultaneously address food systems focusing on the needs that will arise from future global markets.

Future policies need to fully consider and address the challenges and opportunities that are likely to arise from such changing demographic and socioeconomic trends that will significantly transform future food systems. Current food security policies that focus on targeting those pockets of food insecurity will need to be revised.

Securing “regular” access to adequate food for the majority of the 8–9 billion people who will live on earth in the period 2030–2050, while addressing the food insecurity of a fraction of that total, is how a future European food security policy should be approached. To do so, the EU needs to streamline its policies into addressing the various aspects of global food chains. At the same time, Europe will continue to pay particular attention to the eradication of hunger and malnutrition through special anti-poverty, rural development and food aid actions. In line with this, and as an ultimate goal, the report calls for an evolution of present-day policies on food and nutrition security and beyond into a Common Food Systems Policy in which both the systemic and global dimensions of food security are fully incorporated.

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Correspondence: *Tine Van Criekinge, Policy Analyst, European Commission, DG Joint Research Centre, Foresight and Behavioural Insight, Rue de Champs de Mars 21, 1050 Brussels, Belgium* **Email:** *JRC-DDG-02-FBIU@ec.europa.eu*

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