



The Scientific Group for the
UN Food Systems Summit
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Scientific Group Report Summary

FOOD SYSTEMS – DEFINITION, CONCEPT AND APPLICATION FOR THE UN FOOD SYSTEMS SUMMIT

by

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As we head toward the Summit, the very concept of food systems needs to be clearly understood for fruitful deliberations and ultimately actions. Therefore, the main purpose of this paper is to inform about concepts and *definitions of food systems*.

Food systems exist at different scales: global, regional, national and local. The local food systems around the world are very diverse and location-specific. They share some key features, but any attempt to change them should reflect their uniqueness. Change in food systems comes about through external and internal drivers as well as through feedback mechanisms between these drivers. These feedback mechanisms may be short-term or long-term, and some may come with long delays, such as the impact of greenhouse gas emissions manifesting in climate change. External drivers are forces outside of the food systems, for example, forces in climate or health systems. Internal drivers are forces within the food systems, for example productivity gains as a consequence of innovations.

Definitions of Current and Future Food Systems

Food systems embrace the entire range of actors and their interlinked value-adding activities involved in the production, aggregation, processing, distribution, consumption, and disposal (loss or waste) of food products that originate from agriculture (incl. livestock), forestry, fisheries, and food industries, and the broader economic, societal, and natural environments in which they are embedded (building on definitions by FAO (2018) and others).

A *sustainable food system* is one that contributes to food security and nutrition for all in such a way that the economic, social, cultural, and environmental bases to generate food security and nutrition for future generations are safeguarded.

The concept of *food systems transformation* has been linked to the aspirations of the 2030 Agenda and refers to the objective of pursuing fundamental change of food systems, for instance, to aim for climate neutrality and achieving the SDGs. For analytical and monitoring purposes we suggest a more neutral, evidence-based terminology, which may distinguish between status and systems dynamics by referring to evolution, transition, and transformation. The idea of transformation as commonly used can refer to any large-scale change, whether intended or not, and whether beneficial or not to a specific goal, context, or geography. *Transformation* is a never-ending process in food systems. *Transition* is the movement from one state to another. And *evolution* is the process of change. These are not interchangeable terminologies. Most food systems need all three.

Concept of Food Systems

Conceptualizing food systems entails defining systems boundaries and systems building blocks and linkages among them, while simultaneously being connected to neighbouring systems such as health, ecological, economy and governance, and the science and innovation systems (see figure 1). The concept here is in support of developing sustainable food and nutrition systems, to deliver health and well-be-

ing, embedded in the transformation towards a sustainable circular bioeconomy. Science and R&D play a role within each element and in the intersections among them for the food systems performance, and the science and innovation system impacts the functioning of system as a whole.

Considering Culture and Values

Food systems are closely related to people's values and cultures. Society demands from government and industry to make sure that food systems can be trusted. Considering and respecting people's values and their differences is therefore important for the Food Systems Summit in order to facilitate agreements on actions.

Concluding Remarks

Food systems transformation has to have a perspective on where we want to be headed. We then need to understand what is entailed in the transition to desirable food systems, and how to facilitate the evolution of such food systems. Thus, a vision for food systems transformation is required, and pursued with a strong sense of urgency. The vision is based on the SDGs. Yet, the time horizons of the food systems transformations need to reach far beyond 2030, given demographic change, climate change, technological change and people – nature linkages in the Anthropocene.

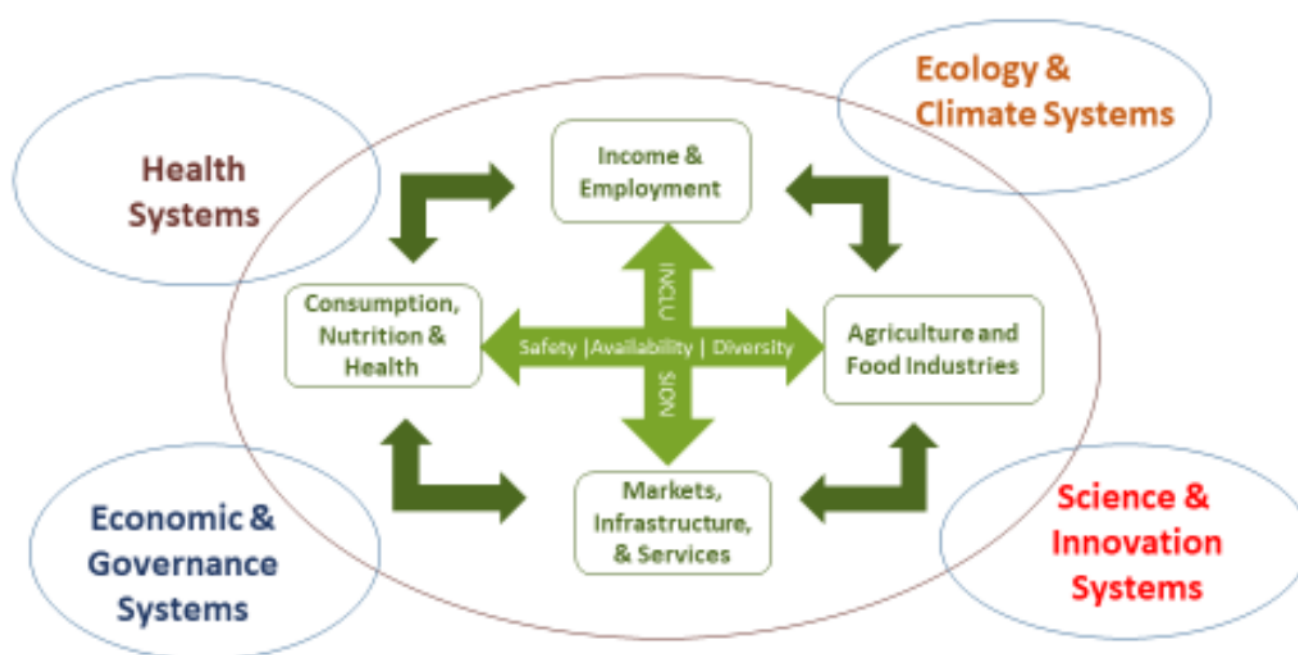


Figure 1. The food system in the context of other systems (positive systems concept)

Source: Adapted from InterAcademy Partnership (2018) and von Braun (2017).

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