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“Global food security and food safety:
The role of universities”

The Challenge of Food System Research: Organising Interdisciplinary and Multi-Stakeholder Engagement

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Abstract

Food systems analysis is based on the systematic appraisal of different underlying processes that influence food availability, access and utilisation, as well as a detailed analysis of the roles of different stakeholders involved. It requires a thorough understanding of the structure of food system and the dynamics of food system change over time and space. Key pillars for food system analysis are:

- Household disaggregation: focus on nutritional outcomes for individual consumers;
- Food interactions: focus on dietary intake based on combination of products;
- Multiple delivery pathways of food: through open markets, restaurants, retail & food services ;
- Multiple needs: specific consumer groups with particular demands and preferences.

Taking stock of the experiences from the Wageningen Research knowledge base (KB) programme on Global Food & Nutrition Systems, we outline three strategic research interfaces that are critical for steering research into this direction:

1. Focus on Intersections: food systems are both horizontally and vertically structured, and their behaviour can be understood through systematic analysis of:
 - Transition pathways from rural to (peri)urban food system;
 - Comparison between food systems at different development stages;
 - Food flows between agents (value chain) and in space (landscape) .
2. Understanding Interactions: food systems are based on upstream and downstream linkages that enable to reach system outcomes through remote interventions:
 - Food waste reduction at upstream level creating improved margins at downstream level;
 - Healthier diets through consumer targeting or by reinforcing food environment;
 - Food safety assessment based on likelihood of risks.
3. Relying on clever Incentives : food systems change is supported by different incentives that simultaneously influence various – sometimes opposed – system outcomes:
 - Production of healthier food might lead to reduced sustainability (increased energy use);

- Healthier food choices hardly respond to market incentives and more to social norms;
- Investments in waste management tend to increase market volume and lead to lower prices.

This 3-I framework is useful to support exchange between academic disciplines and to guarantee engagement of multiple stakeholders.

Keywords: Food systems, interdisciplinarity, multi-stakeholder