Proceedings of the 6th International
Scientific and Practical Conference
«Society and Science: Interconnection»

(September 6-8, 2025).
Porto, Portugal

No
262

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Food security in the context of local self-government: interconnections and practices

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Abstract. The article explores the link between food security and local self-government, emphasizing the municipal level as a key arena for managing food availability, access, stability, and utilization. It presents a conceptual framework and a multidimensional model for analysis, adaptable to any "average" municipality. The paper discusses specific factors such as social structure, market organization, infrastructure, and climate risks that influence food security. Guidelines are outlined for strategic planning and policies supporting sustainable and equitable food systems at the local level.
Keywords: *food security, local self-government, municipality, food availability, food access, supply stability, utilization, model, indicators, risk management.*

Over the last four decades, the global number of hungry and undernourished people has fluctuated between approximately 800 million and 1.2 billion – a scale that remains unacceptably high and places food security at the heart of public policy. Despite visibility, the concept is often confused with "food safety," and food insecurity is mistakenly attributed only to developing countries. In reality, undernourishment and vulnerability to shocks are also present in developed economies, albeit with different profiles.

This paper adopts the classic four-dimensional approach to food security – availability, access, stability, and utilization – and examines them through the lens of local self-government. Local authorities are the closest layer of governance to citizens, with real competences in infrastructure, markets, social services, spatial planning, public health, education, and risk management. The municipality thus becomes the arena where global goals and national policies translate into everyday practices.

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The aim of the article is to propose a multidimensional model of food security at the municipal level, valid for an "average" municipality, and to outline a methodology for its construction, validation, and application in support of strategic planning and operational management.

The specific objectives are:

1. To build a theoretical and conceptual framework of the model.
2. To propose a methodology for identifying predictors and quantitative modeling.
3. To validate the methodology through empirical research.
4. To formulate conclusions and guidelines for municipal practices and further research

1. Theoretical Foundations and Debates on Definitions

Food security is generally defined as a situation where people have regular and long-term access to sufficient, safe, and nutritious food that meets dietary needs and preferences for an active and healthy life. Behind this apparently simple notion lies a variety of institutional (FAO, UN, USAID, USDA, EU), academic, and applied definitions with nuances around adequacy, acceptability, safety, and productivity.

The four pillars are:

- Availability: presence of food in farms, warehouses, markets; dependent on production, imports, logistics.
- Access: economic and physical access; income, prices, transport, social transfers, community support.
- Stability: resilience against shocks (climate, economic, health, conflict), seasonality, price volatility.
- Utilization: ability to biologically absorb food, linked to health, sanitation, cultural practices, knowledge.

Food security is thus an interdisciplinary field, drawing on agriculture, economics, sociology, public health, logistics, climatology, and risk governance.

2. Conceptual Framework and Proposed Municipal Model

Scope: municipal level (urban, rural, mixed territories).

Thesis: a multidimensional model of food security can be designed as valid for the "average" municipality, adaptable through parameters.

Methodology:

1. Identify predictors (infrastructure, production, trade, income, social services, health, education, climate risks).
2. Research framework (indicators, data sources,

territorial coverage, periodicity, vulnerable groups, analytical techniques).

3. Econometric/system analysis (link predictors to outcomes like food adequacy, volatility, child nutrition; validate robustness).

Logic: Inputs → Processes → Results → Impacts, supported by risk management and governance modules.

3. Relationship Between Food Security and Local Self-Government

3.1 Food Security as a Strategic Dimension of Local Self-Government

- Strategic planning: integrate food security into municipal strategies, spatial plans, climate adaptation.
- Territorial planning: zones for urban agriculture, protection of fertile lands, markets, storage.
- Economic development: support short supply chains, SMEs, cooperatives, digital trade platforms.
- Public procurement: criteria for seasonal, local, nutritious, sustainable food in schools, kindergartens.
- Social policy: vouchers, kitchens, mobile markets, integrated services for vulnerable groups.
- Public health: sanitation, nutrition campaigns, preventive healthcare, school meals.
- Risk management: early warning, reserves, climate-smart agriculture, diversification.
- Infrastructure/logistics: roads, markets, cold chains, energy, ICT, PPPs.
- Circular economy: reduce food waste, donation schemes, composting.
- Participation: municipal food councils, open data dashboards, participatory budgeting.

3.2 Specifics of Food Security at Municipal Level

- Territorial heterogeneity: urban vs rural vs mixed.
- Demography: ageing, migration, poverty clusters.
- Institutional capacity: staff, budget, data systems.
- Climate/ecology: droughts, floods, soil degradation.
- Market structures: presence/absence of markets, cooperatives, logistics hubs.
- Culture/behavior: dietary habits, food literacy, waste.

Examples: remote areas → mobile shops; child poverty → school feeding; seasonal shocks → local reserves; urban agriculture → resilience.

4. Indicator Framework for Monitoring at Municipal Level

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Dimension	Example Indicators	Data Sources
Availability	Local production volume; import share; storage capacity	Agricultural reports, trade data
Access	Household income vs. food prices; % of population using social transfers	Household surveys, social services
Stability	Food price volatility; frequency of climate shocks; emergency response time	Market data, meteorological reports
Utilization	Child malnutrition rates; access to clean water; health service coverage	Health surveys, municipal records

Conclusion

Food security is a global phenomenon, yet it materializes locally through availability, access, stability, and utilization. Municipalities are central actors in integrating policies and resources for sustainable food systems. The proposed model offers a framework for strategic planning and empirical research, valid for the "average" municipality. Policy guidelines stress territorial planning, social services, infrastructure, and risk governance as essential components.

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