



Science for Africa's future food security: linking agency and institutions in the food system

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Abstract

Africa is not on track to achieve SDG 2, eradicating hunger by 2030. We argue that for meaningful and sustained food security, African people and institutions must be empowered to determine how their food systems are shaped. Drawing from a conceptual framework tailored to the African food system, we emphasise that regulative, normative, and cognitive institutions play a central role in structuring food systems on the continent. Agency is the means through which these institutions are activated and transformed. The profit-driven orientation and corporate concentration in the current food system impairs institutional capacity and local agency. To advance food security, food system transformation in Africa must be shaped by institutional pluralism, contextual specificity, and locally defined priorities.

Keywords Food security · Food systems · Agency · Institutions

1 Introduction

Like the global food system, Africa's food systems are not resilient enough to ensure food security (FAO et al., 2024; von Braun et al., 2023). Current food systems deliver some food security dimensions better than others. For example, there is a greater improvement in food availability and accessibility compared to food utilisation and stability. The UN Food System Summit, the Africa Food System Summit and the Africa Climate Summit reflect the belief that fixing the food system will address food security challenges on the continent. There is a stronger focus on sustainable food systems, especially environmental and ecological sustainability, given the adverse effects of food systems on climate change and the environment (Blackstone et al., 2024).

While access and availability have improved in some regions, utilisation, stability, and sustainability indicators

are worsening. According to FAO et al. (2024), one in five Africans currently experiences hunger, and child malnutrition remains stubbornly high. The traditional four-pillar food security approaches, which identify availability, access, utilisation, and stability, have been extended to include agency and sustainability (Clapp et al., 2022). These dimensions highlight how voice, choice, and long-term viability are essential to food security outcomes.

Two critical questions for understanding agency are: Who controls the food system to deliver the dimensions of food security, and can consumers and producers in Africa make decisions about their food systems? Do African food system actors at the regional, national and local levels exercise agency over the nature and functionality of their food systems, or are these determined elsewhere?

Without institutional capacity, agency cannot be exercised. Institutions—regulative (rules), normative (values), and cognitive (worldviews), structure food systems (May et al., 2025). These institutions guide, constrain, or enable the actions of food system actors. In the African context, these institutions are hybrid, often overlapping and sometimes conflicting. Understanding and strengthening these institutional dynamics is essential to ensuring agency and fostering transformation. Locally grounded science-policy frameworks, such as the Food Systems Research Networks for Africa (FSNet-Africa) Food Systems Framework, that try to take account of the regional, country, or territorial

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context offer the opportunity for agency, both in formulating problems to be addressed, their solutions, and the agency to do so.

2 Agency

Agency generally is the perceived capacity of an individual or a group to generate workable pathways to achieve desired outcomes (Snyder et al., 2002). In other words, it is the capacity to exercise voice and make decisions about one's food systems (Clapp et al., 2022). But agency is not uniformly distributed. It is mediated by institutions, constrained by structures, and shaped by power. In Africa, exercising agency over food systems remains difficult for many. Decisions about what seeds are available, what foods are promoted, and how land is governed are often made by actors external to the community—corporations, donors, and trade negotiators. African farmers and consumers are frequently positioned as recipients rather than agents.

Structural barriers to local agency—social, economic, financial, and technological—must be removed to deepen a sustainable food system (Bryan et al., 2024). In Africa, policies and legislation promoting women's equality and empowerment in the agri-food system have led to improved agency, a reduction in gender-based violence and a shift towards more positive gender norms (Lecoutere et al., 2024). In examples from Ghana and Malawi, the role of women in the food system can be significantly enhanced to improve food security and productivity and reduce malnutrition and gender inequality through education, financial inclusion, property rights, and decision-making (Malapit & Quisumbing, 2015; Kerr et al., 2011).

The FSNet-Africa Framework situates agency not as an isolated individual attribute but as a systemic property. That is, agency must be embedded in institutions that enable voice, representation, and accountability. This shifts the question from “How can individuals make better food choices?” to “What institutional environments allow people to participate meaningfully in shaping food systems?”

3 Institutions as a structural bedrock

Institutions coordinate action by harmonising expectations, reducing conflict, and enabling cooperation (May et al., 2025). In African food systems, this coordination rarely flows from a single dominant logic. Instead, state policy, customary practices, and market forces coexist in fluid and sometimes contested ways. Land tenure, for example, is regulated by both formal legal systems and customary

norms, leading to dualities that influence access, investment, and control.

Cognitive institutions, entrenched habits of thought (Veblen, 1919), shape how people understand food security and transformation. Normative institutions determine what is seen as legitimate or desirable. Regulative institutions establish enforceable rules, both those of state and non-state actors. Together, these institutional structures define the terrain in which African food systems operate.

Often the institutions are not always neutral. They are embedded in histories of exclusion and inequality. For example, prevailing gender norms continue to limit women's participation in higher-value nodes of the food chain despite their central roles in production and nutrition (Doss et al., 2018). Similarly, young Africans struggle to access land and finance, although they make up over 60% of the population (Rocca & Schultes, 2020). Institutional transformation must therefore be part of food system transformation.

Africa's food system operates within a context of legal pluralism, where customary and formal institutions coexist. This integration can be cooperative and complementary or, as Swenson (2018) notes, combative and competitive, leading to weak governance and regulatory lapses. Local open-air markets once fostered indigenous product diversity, social ties, and community-based trade, with enforcement led by local leaders and market queens. However, efforts to formalise these systems to attract investment have eroded the role of informal actors and diminished local agency.

4 Profit-driven, corporate power and food system capture

The global food system, as presently constituted, is profit-driven. A profit-driven food system is less capable of steering the system towards agency, and inherent inertias reinforce its current unsustainability through the concentration of resources, power, and political influence in the hands of a few corporate stakeholders (Béné, 2022; Clapp, 2021).

Today's African food systems are increasingly shaped by global agribusinesses and corporate retailers. These actors control seed markets, input supply chains, and distribution networks. As Béné (2022) and Clapp (2021) argue, corporate concentration enables pricing power, distorts trade, and marginalises smallholders. These firms can define what gets produced, who produces it, and who gets to consume it.

Sustainability narratives increasingly call for reducing consumption of animal-sourced foods (ASFs) to lower environmental footprints. The Planetary Health Diet (Willett et al., 2019) recommends shifting toward plant-based diets globally. While justified from an ecological standpoint, these recommendations can be problematic in most African

countries. A rights-based approach to sustainability must consider who defines sustainability and for whom. Prescribing global dietary standards to African consumers without consideration for the local food systems and equivalent behavioural shifts in the Global North is counterproductive.

ASFs play crucial roles in reducing malnutrition, particularly among children (Khonje & Qaim, 2024). In many African societies, livestock and animal products have deep cultural, social, and nutritional significance. Blanket prescriptions to reduce ASF consumption ignore this complexity and risk undermining agency. African diets are already predominantly plant-based; hence, promoting flexitarianism rather than vegetarianism may better align with health and sustainability goals (Khonje & Qaim, 2024).

Arguments have been made for food self-sufficiency and food sovereignty to promote sustainable food security. In contrast, others argue that trade liberalisation promotes access to low-cost food and more diversified food products, cautioning against protectionist policies. However, Africa's trade liberalisation comes with hidden costs: dependency on food imports, vulnerability to global shocks, dumping, unhealthy foods, and erosion of domestic production capacity. The liberalisation agenda, supported by structural adjustment programmes in the 1980s and 1990s, restructured African food systems around export crops and import dependence (McMichael, 2013).

The advocacy for food sovereignty and self-sufficiency approaches can be limiting if interpreted narrowly. The solution lies not in rejecting trade but a transformative approach in ensuring that domestic food system actors—including farmers, traders, and civil society—are engaged in decisions about trade policy, dietary guidelines, and production systems. Only through participatory institutions can trade policy be aligned with food security and sustainability goals.

5 The illusion of choice

The expansion of supermarkets and fast-food chains across African cities, “supermarketisation” (Reardon et al., 2003), has had significant effects. Supermarkets often prefer standardised products and long shelf-life items at the expense of indigenous, perishable, or culturally significant foods. Local diets are increasingly replaced by ultra-processed foods high in sugar, salt, and fats (Mockshell & Ritter, 2023). Food environments have been structurally transformed without proportional gains in nutrition or inclusion. Moreover, these transformations are often driven by exogenous logics—global supply chains, donor initiatives, foreign investment—rather than domestic institutions. This undermines agency and further entrenches dependency.

Even when consumers appear to have a choice, these choices are often structured by systemic constraints. Supermarkets promote what is profitable, not necessarily what is healthy or sustainable. Global brands dominate shelf space, marginalising local products. Convenience and advertising shape consumption patterns, especially among the growing urban middle class. This creates a disconnect between individual agency and systemic control. African consumers with higher incomes may demand imported and ultra-processed foods, reinforcing the very systems that erode local agency. Clapp (2021) argues that consumers face an “illusion of choice” when structural power determines availability and access.

To realign the system, African institutions must regulate food environments, support local value chains, and promote public awareness. This requires capacity, not just technical, but institutional and political. African governments have often responded to food crises and insecurity reactively, prioritising short-term hunger relief over long-term investment in resilience (Pernechele et al., 2021). Fiscal constraints, political cycles, and global pressures limit the scope for long-term strategic planning. As development agencies' programs are project based, they are short term and limited in scope, and often not adequately embedded in local institutional structures. Yet long-term food security requires sustained systemic investments: irrigation, seed systems, storage infrastructure, extension services, and social protection. These must be domestically owned and institutionally anchored.

Similar dynamics apply at the household level. Food insecurity pushes families into coping strategies, reduced dietary quality, reliance on fast foods, or skipping meals that undermine long-term health. Preventive approaches are often seen as unaffordable or intangible. Strengthening agency requires shifting incentives toward long-term planning and resilience-building.

6 Conclusion

Resilient African food systems must be institutionally pluralistic, contextually grounded, and agency-enhancing. Institutional pluralism can provide contextually grounded pathways to desired food security outcomes, while agency thinking (motivation) can be fostered by strengthening local governance and voice. The FSNet-Africa experience shows that conceptual frameworks are most effective when developed iteratively through locally grounded evidence-based research, application, and feedback.

Transformation is already underway. Digital innovations, agroecological movements, and value chain development are reshaping African food systems. However, these gains

are fragile unless institutional capacity is reinforced. Governance must be polycentric—engaging national ministries, municipal governments, farmer associations, traditional authorities, private sector and consumer movements.

Therefore, we recommend that: (1) national and sub-national government can convene stakeholder groups and establish food councils in which issues of governance, duties and rights, standards and practices can be discussed, roles assigned, and agreements reached; and (2) all stakeholders can build better and more resilient connections between institutions and resources, and develop scenarios about plausible futures to co-design strategies and co-develop interventions based on agency.

Food security is not just a matter of calories or hectares. It is about who controls the food system, whose voices count, and whose values are represented. Institutions are not background variables; they are the terrain on which food system challenges are contested.

Agency depends on institutional capacity, historical redress, and power redistribution. African researchers, policymakers, and citizens must reimagine and co-author their food futures, while not jettisoning international collaboration. Strengthening African institutions and enabling agency is an important path toward a food system that is sustainable, just, and resilient.

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Declarations

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