

Food security and nutrition in an urbanizing world

A synthesis of the 2017 Global Food Policy Report

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Abstract

Purpose – The paper is a synthesis of the 2017 Global Food Policy Report, and the purpose of this paper is to put into perspective the major food policy issues, developments, and decisions of 2016 and highlights challenges and opportunities for 2017.

Design/methodology/approach – The paper presents an overview of recent changes in the global context for food security and nutrition, and synthesizes research findings on major issues that arise in an urbanizing world. Based on its findings, the authors present policy recommendations and areas for future research for food security and nutrition.

Findings – Urbanization is linked with dietary changes to more energy-dense diets, and, the triple burden of malnutrition is increasing, particularly in rapidly urbanizing developing countries. Rural-urban linkages are key to improving food security and nutrition in both rural and urban areas, and traditional agricultural value chains linking farms to cities are undergoing a “quiet revolution.” Governance to enhance food security in the context of rapid urbanization faces various challenges in the institutional, administrative, and political realms, especially for the informal economy in developing countries. To address the unique challenges of urbanization, policies will need to create enabling environments, promote efficient and inclusive value chains, improve governance, and promote tailored programs. Research gaps that need to be filled include better, updated, and disaggregated data on food security and nutrition, as well as an enhanced understanding of enabling environments.

Originality/value – The paper highlights the increasingly relevant issue of rapid urbanization, especially in developing countries, for food security and nutrition, and synthesizes recent research in this area.

Keywords Food security, Nutrition, Urbanizing world

Paper type General review

Food security and nutrition under the current global context

Following a period of continued global economic stagnation, 2016 marked a year of landmark commitments to sustainable development and positive signs for future improvements. For the first time in history, less than 10 percent of the world population lives in extreme poverty (under US\$1.90 a day), yet the number of people living in poverty are still too high (World Bank Group, 2016). Similar progress was made in global hunger, with less than 11 percent of the world suffering from undernourishment, a decline from 19 percent in 1990 (Food and Agriculture Organization of the United Nations (FAO), 2016).

Global developments are particularly notable in 2016 to set the stage for the decades ahead toward sustainable development. 2016 was the first year of implementation for the United Nations’ 2030 Agenda for Sustainable Development, which houses the Sustainable Development Goals (SDGs), including the aim to eliminate hunger and poverty by 2030. The United Nations also endorsed the Second International Conference on Nutrition, and declared 2016 to 2025 a Decade of Action on Nutrition, bringing together various stakeholders to meet the goal to reduce hunger and malnutrition to achieve the SDGs. The Paris Agreement entered into force in November 2016 with 126 ratifying countries, and the New Urban Agenda was adopted at the Habitat III summit. In major regional developments, the Group of Seven (G7) recommitted to prioritizing nutrition and lifting 500 million people in developing countries out of hunger and malnutrition by 2030.



Current forecasts for 2017 indicate slightly positive economic growth of 2.7 percent for the world, an increase from 2.3 percent in 2016 (World Bank Group, 2017). Overall robust growth is expected in Asia and emerging economies, with China's economic growth expected to slow only marginally from 6.7 to 6.5 percent in 2017, while Africa south of the Sahara expects a slowdown (International Monetary Fund, 2017). Regions that are projected to experience a slowdown face threats of reversing the gains achieved in poverty and food insecurity reduction. At the same time, recent shifts in the political paradigms across the globe imply uncertainties in domestic and global growth, trade, food security, and nutrition. Rising inequality within countries in the midst of rapid globalization is also fueling uncertainties for global trade and immigration, particularly among the advanced economies (World Bank Group, 2017).

For Asia and the rest of the world, increasing urbanization, economic growth, and subsequent changes in diets will pose significant challenges to food security. Achieving sustainable growth while balancing the pressures of economic development, population growth, and climate change on the economy and environment will be the key challenge ahead.

Food security and nutrition in an urbanizing world

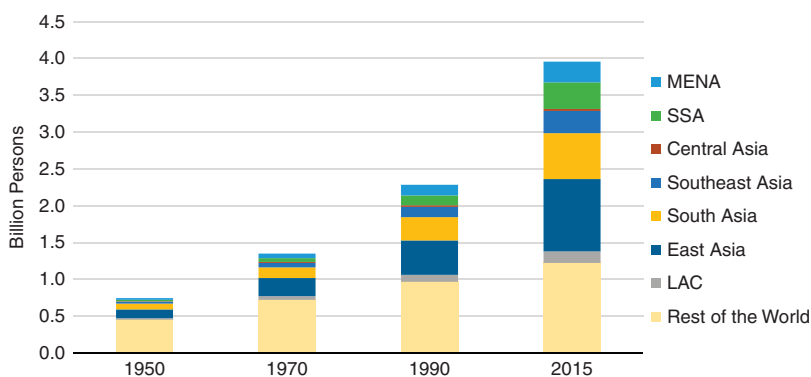
The world is increasingly urbanizing, and the global development community is taking note. Urbanization was brought to the forefront of the global development policy agenda in 2016 with the adoption of the New Urban Agenda at the Habitat III summit. The Agenda presents a new standard for sustainable urban development, encompassing basic services, resilience of cities, reduction in greenhouse gas emissions, and greener cities. In total, 132 mayors also signed the Milan Urban Food Policy Pact for sustainable, inclusive, and resilient food systems. At the regional level in South Asia, one of the most rapidly urbanizing regions, began the Open Cities initiative with the cities of Colombo, Dhaka, and Kathmandu utilizing mapping and open data to improve sustainable development and disaster preparedness.

Urbanization and nutrition transition

Urbanization is an ongoing trend shaping food security and nutrition, particularly for developing countries. In 1950, only 24 percent of the world was more than 50 percent urban, and 8 percent was more than 75 percent urban. By 2014, 64 percent of the world was more than half urban, and one third was more than 75 percent urban. Also in 2014, high urbanization level at above 80 percent largely occurred in Latin America and the Caribbean and North America, while the majority of the population in Africa and Asia resided in rural areas. Now, nearly 90 percent of the growth in urban dwellers will occur in Africa and Asia, with China, India, and Nigeria expected to account for 900 million new urban residents by 2050 (United Nations, Department of Economic and Social Affairs, Population Division, 2014) (Figure 1).

Urbanization and increases in urban incomes are linked with dietary changes, namely increased demand for animal-sourced food, fats, oils, refined grains, and fruits and vegetables. Rising urban demand for more and better food can provide opportunities for the growth and diversification of food production in rural areas, to ultimately improve the livelihood of farmers (Thanh *et al.*, 2005). Higher urban wages and urban lifestyles tend to favor processed and prepared foods over healthier foods that are often less convenient. For example, in China and Southeast Asia, which contribute significantly to the rapid urbanization of the region, the share of cereal of demand declined 12 percent between 2005 and 2015, while the share of meat and fish demand increased 8 percent and share of dairy and egg demand increased 30 percent[1].

Figure 1.
Growth of urban
population in major
developing regions



Source: Food and Agriculture Organization of the United Nations, FAOSTAT (2016)

Urban diets are thus experiencing a “nutrition transition” – referring to the dietary changes and their nutrition impacts – to more energy-dense diets with higher intake of salt, fats and oils, and sugar. This leads to growth in overweight, obesity, and diet-related diseases such as diabetes and heart disease, which is increasingly prevalent in nearly all countries (FAO, 2016). In rapidly urbanizing developing countries, the triple burden of malnutrition – the coexistence of hunger (insufficient caloric intake to meet dietary energy requirements), under nutrition (prolonged inadequate intake of micronutrients), and over nutrition (in the form of overweight and obesity) – has also increased (International Food Policy Research Institute, 2016).

At the same time, rapid urbanization and population growth increase pressure on the global food and agricultural systems, which is already stressed due to climate change, environmental degradation, and allocation of natural resources away from agriculture. Shifting diets requires more intensive use of resources such as land, water, energy, and other inputs, and adds greenhouse gas emissions from agricultural production.

Rural-urban linkages and value chains

Rapid urbanization entails challenges and opportunities for food security and nutrition in both rural and urban areas. Growth in urban areas increases food demand and drives nutrition transition, which can create opportunities for the rural population to improve their livelihoods and contribute to food security and nutrition. Weak rural-urban linkages, the connections between rural and urban areas, often pose challenges to improving food security and nutrition in both rural and urban areas. Strengthening rural-urban linkages is important to make food systems more effective and inclusive.

The food value chain encompasses all actors and activities along the food supply chain, including inputs and production, storage, processing, distribution, transport, retail, and consumption (Allen *et al.*, 2016). A strong value chain can bring food produced by rural smallholders to urban consumers with help from peri-urban areas, and inputs produced in urban areas to rural farmers. However, weak links between rural and urban areas can disrupt this flow, and bar rural producers from inclusion in the evolving food system. A lack of inputs can weaken the value chain upstream, a lack of processing, milling, storage, and transportation can halt the value chain midstream. Poor infrastructure can make it challenging for smallholders to provide food downstream to urban areas (Hawkes and Ruel, 2011).

With the rapid growth of cities, traditional agricultural value chains linking farms to cities are undergoing a transformation, or a “quiet revolution,” especially in megacities in developing countries. Farms near urban cities are more likely to invest in modern inputs and technology such as fertilizers and improved seeds. Mobile phones are also allowing farmers to be better

informed and positions in the markets. Furthermore, the expansion of midstream and retail portions of the value chain, including cold storage and milling, are driving increased vertical cooperation, and infrastructure and technology seem to be contributing to low wastage levels. Modern food value chains have been associated with a rapid expansion in the number of supermarkets, which create additional demands on smallholders that make it difficult to effectively connect with the overall value chain and market. East Asia will need to better connect smallholders to these changing markets. A possible solution undertaken by China is e-commerce, directly linking farmers and consumers while providing producers greater market access and bargaining power. To encourage the introduction of e-commerce into rural areas, China has designated significant funds to construct broadband internet and e-commerce bases in rural areas (*China Daily*, 2016).

Urban and rural areas, though interdependent, are often governed by different authorities, resulting in disjointed approaches toward food security and nutrition. This challenge is compounded by misperceptions of hunger and malnutrition as largely rural issues, while development focus has tended to be biased toward urban areas, and not fully accounting for agriculture and the rural economy (Mohiddin *et al.*, 2012; Lipton, 1977). Rural policy makers also often overlook how their own constituents can benefit from strong connections with urban areas through employment or remittances (Garrett, 2005). Furthermore, limitations in land use and tenure regulation can pose challenges to urban and peri-urban agriculture in meeting food demands. In this instance, having strong rural-urban linkages and coordinated governance will help better manage the efficient use of scarce natural resources between rural and urban areas.

Governance and informal economy

Governance to enhance food security in the context of rapid urbanization faces various challenges in the institutional, administrative, and political realms. On the institutional dimension, food security policies involve coordination across numerous ministries, often led by ministries of agriculture or health. Urban issues in food security, however, requires active engagement by ministries of urban or local development, while urban development strategies are often made separately from food security policies, hindering integration of national development policies as a whole (Brown, 2014). On the administrative dimension, many developing countries are undergoing various levels of decentralization, which involve an increasing number of actors involved in various facets of urban food security and policy. Weaker subnational capacity and financing for policy formulation further challenges this.

With growing urban populations and persisting poverty, many urban poor populations rely on the informal economy for accessible and affordable food. The informal economy plays an important role in the food security of the urban poor due to proximity, food affordability, and lower barrier to entry into the value chain (Guyer, 1987). Despite the significance of the informal economy, its relationship with the government is often difficult – legislation on street vending in many countries penalize both sellers and buyers (Frimpong, 2005). Lacking institutional support, informal sector workers' associations have emerged yet struggle from fragmentation to influence the policy process (Meagher, 2011). Administrative authority over regulation of the informal sector can also be confusing as higher levels of government intervene in conflict with the actions of the lower level government.

Governance of food safety regulations also illustrates an example of a challenge rising from urbanization and the informal economy. Due to the informal nature of these markets, there are particular implications on governance and policies for food security. While the informal food sector can provide food at lower prices, there is a trade-off from minimal regulation and quality control in comparison to food value chains (Robinson and Yoshida, 2016). Local governments are usually given administrative authority to regulate various types of markets and monitor adherence to food safety regulations, yet this responsibility is often shared between local and national entities, which complicate accountability. China has put in

place several measures that could address these issues. China, in addition to revising its 2015 Food Safety Law to increase penalties for regulatory violations and to call for greater accountability by county officials, has launched pilot projects in safety certification of agricultural products (China Food and Drug Administration, 2016).

Policy recommendations

Addressing urbanization's unique challenges allows for opportunities to sustainably achieve food security and improved nutrition.

Create an enabling environment for better nutrition and food security

The nutrition transition is a result of changes in behavior, food environment, and food systems arising from rapid urbanization. By addressing these drivers, policies can create an enabling environment to improve nutrition and food security. Food environments can encourage individuals to make healthier food choices by placing disincentives through labeling or taxation of unhealthy food options, as well as regulating food options at schools. The food retail sector, though often overlooked, has a key role to play in establishing healthy food environments and to engage and harness the potential of the private sector to contribute to nutrition and food security.

Promote efficient and inclusive value chains

The increase in demand for food in urban areas and growing scarcity of land in close proximity will continue to lengthen the food value chain. Furthermore, changes in diets can also entail shifts in demand for labor within the food system thus, it will be important to ensure efficient and inclusive value chains involving all actors. This will require vertical coordination along the value chain between rural and urban areas. Greater attention should be directed to the evolving "quiet revolution" in the traditional agriculture value chains, particularly in their post-farm gate segment, which have important implications for employment, prices, and ultimately food security of both rural and urban dwellers. It is also important to consider the role of the private sector and incentivize its contribution to food security, as it accounts for much of the activity in agricultural value chains.

Improve governance of rural and urban areas, especially on the informal economy

In a world of rapid urbanization, horizontal cooperation across sectors and vertical cooperation across tiers of government, as well as policy coordination across rural, peri-urban, and urban spaces will be important. Urban policymakers will need to coordinate with rural counterparts to support the flow of products into cities, and rural policy makers should fully harness the opportunities available from growing urbanization and aid the integration of small holders, traders, and others into the urban markets along the full food value chain. In addition to these market improvements, it will be important to proactively incorporate the informal economy to harness its potential to support the livelihoods of the poor. As food and agricultural markets evolve with urbanization, quality and food safety standards, better governance and management of these standards will become increasingly important.

Promote tailored policies and programs, particularly for the urban poor

Policies and programs to develop both the farm and non-farm sectors will be key to benefiting the rural economy as well as to reduce poverty in rural and urban areas. Better targeting public investments to areas with proven returns, such as infrastructure, health, and education are crucial for rural dwellers to improve their productivity, livelihoods, as well as access to nonfarm income generating opportunities. At the same time, social protection systems need to provide support in both rural and urban contexts to ease risks and reduce inequalities, promote decent

work, and foster inclusive and sustainable growth. Providing a safety net can also help rural small scale farmers to increase productivity and move up to commercially oriented systems or on to nonfarm economic activities. As there are unique challenges in urban poverty, food security, and nutrition, measures to increase access of the urban poor to healthy and nutritious foods and promote healthy choices will be important complements to proving access to basic services.

Further areas of research

Current literature indicates a need for more data and research to understand the opportunities and challenges in rapid urbanization to inform effective policy design and implementation. Much of the data and evidence available around urbanization and food security are either outdated or incomplete. The state of poverty, insecurity, and malnutrition in rural and urban areas, as well as the factors that influence food choices, current nutrition gaps and dietary patterns, and various impacts of food environments are among key areas that are in need of high-quality data. Furthermore, it is important for such evidence to be disaggregated by city size, gender, age, and income to be able to better inform policies that are designed and tailored to particular needs.

In addition, further research on the enabling environments for improved food security and nutrition are needed. Enabling environments operate in a wide span ranging from the individual to national levels and involve social, policy, institutional, and spatial dimensions. A better understanding of what drives malnutrition and food insecurity across this wide span, for example, the impact of shops and markets on dietary choices, would allow policies to address the underlying roots. Research in this regard will also need to go beyond the public sector to shed light on the important role of the private sector. In particular, the private sector can play an important role in creating incentives and can be a key partner to improve access and affordability of healthy foods. Potential areas for the private sector to take a lead in addressing food security and nutrition requires further research.

Note

1. Calculations based on Sulser *et al.* (2015), Robinson *et al.* (2015).

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