

CHAPTER 2

SMALLHOLDERS AND URBANIZATION

Strengthening Rural-Urban Linkages to End Hunger and Malnutrition

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KEY MESSAGES

- Rural-urban linkages—including physical, economic, social, and political connections—are crucial for ending hunger and malnutrition (SDG 2) sustainably in both rural and urban areas. Rural-urban linkages also support other Sustainable Development Goals.
- Urban growth increases food demand and spurs dietary changes in urban areas—new demand can create opportunities for rural producers to improve their livelihoods.
- Broken value chains and poor coordination weaken rural-urban links and hold back progress on food security and nutrition.
- Investment in rural infrastructure and intermediate towns—quality rural and feeder roads, electricity, storage facilities, communications and information—can build connections and create hubs of economic activity benefiting smallholders and cities.

POLICY AND RESEARCH NEEDS

- What policies and investments can best develop rural-urban linkages that benefit both smallholders and other rural residents and support rural and urban food security and nutrition?
- How can policy coordination between rural and urban areas help create efficient and inclusive value chains and governance of natural resources needed for agricultural production?
- How can small- and medium-sized towns best be leveraged to link rural and urban areas?
- How can public investment best be targeted to develop rural farm and nonfarm sectors and thus reduce rural and urban poverty, increase productivity, and improve resilience?
- What policies and programs on social protection can improve household-level resilience in rural and urban areas?



The world is increasingly urban. Over half the global population lives in cities, and many more will join them: by 2050, 66 percent of the population is projected to live in urban areas. Nearly all of the increase will occur in developing countries, where some of the world's largest cities are already found.

Urbanization is reshaping the landscape within which we must pursue the Sustainable Development Goals (SDGs) of ending hunger, achieving food security and improved nutrition, and promoting sustainable agriculture. For both rural and urban areas, rapid urbanization brings profound challenges and opportunities for meeting these goals.

ENHANCED RURAL-URBAN LINKAGES TO ACHIEVE SDGS

Enhancing linkages between rural and urban areas is one of the keys to achieving the SDGs. Rural-urban linkages are the physical, economic, social, and political connections that link the most remote areas to the densest megacities, often through smaller towns and cities in between. These connections allow for flows of goods, people, social relations, information, finance, and waste across space, and also promote

links across sectors, such as agriculture, services, and manufacturing.

Strong rural-urban linkages help propel economic development and improvements in food security and nutrition. When linkages are strengthened, farmers sell increasing shares of their produce in urban markets. Laborers commute or migrate to nearby towns for seasonal work, but may keep strong ties with their family networks in rural areas through remittances. Businesses in towns, intermediate cities, and large urban areas benefit from demand for food and nonfood items and from the supply of agricultural raw materials from rural areas.¹ And urban businesses provide technical assistance, credit, and consumer demand information to small-scale farms in rural areas ([Figure 1](#)). However, where links between rural and urban spaces are broken or weak, both rural and urban areas suffer.

While the majority of the world's poor and hungry currently live in rural spaces, hundreds of millions of poor and hungry people live in cities. With

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FIGURE 1 Food from small farms to big cities

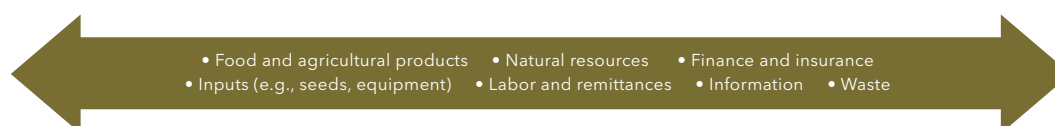
SUPPLY CHAIN ACTIVITIES AND ACTORS



RURAL-URBAN CONTINUUM



FOOD-SECTOR FLOWS



Source: Adapted from J. von Braun, “Rural-Urban Linkages for Growth, Employment, and Poverty Reduction,” presented at the Fifth International Conference on the Ethiopian Economy, Ethiopian Economics Association, Addis Ababa, June 7-9, 2007.

accelerating urbanization, particularly in low-income countries, these numbers may increase if left unaddressed. At the same time, changing dietary and lifestyle patterns associated with income growth and urbanization lead to malnutrition in the form of overweight and obesity.² In rapidly urbanizing developing countries, multiple burdens of malnutrition—overweight and obesity alongside persistent hunger and undernutrition—are becoming increasingly prevalent.³

Urbanization is transforming rural landscapes. Rising urban demand for more and better food can provide opportunities to increase and diversify food production in rural areas, thus improving farmers’ livelihoods.⁴ However, rapid urbanization can also add stress to agricultural systems through resource allocation away from agriculture, environmental degradation, migration of young farmers, and other challenges.⁵ For these reasons, urbanization has major implications for food policy and needs greater attention from policy makers, practitioners, and researchers.

Enhancing rural-urban linkages will be critical for making food systems more effective and inclusive. Doing so would also contribute to achieving multiple SDGs—especially ending poverty, hunger, and all forms of malnutrition (Table 1).⁶ The New Urban Agenda, agreed on by UN member states at the 2016 Habitat III conference in Quito, Ecuador, provides a framework for addressing the challenges of

urbanization while contributing to the eradication of hunger and malnutrition and achieving other SDGs. This will not be possible, however, if we focus strictly on urban areas. It will require harnessing the synergies between rural and urban spaces through strong physical, political, and market linkages.

WEAK LINKS BETWEEN RURAL AND URBAN AREAS

Urbanization poses challenges to sustainably achieving food security and nutrition. Weak rural-urban linkages and unsustainable use of natural resources exacerbate these challenges, and can hold back progress.

BROKEN VALUE CHAINS

Food value chains encompass all actors and activities involved in the food supply chain, and include inputs and production, storage, processing, distribution, transport, retail, and consumption.⁷ For example, value chains can bring food produced by rural smallholders to urban consumers and inputs produced in cities or towns to smallholders. However, weak links along the value chain may disrupt this flow. A lack of inputs—such as seeds and fertilizers—or physical and financial impediments to accessing inputs faced by smallholders can weaken the value chain upstream. A lack of processing, milling, cold

TABLE 1 How strengthening rural-urban linkages can help to achieve improved food systems and multiple SDGs

Activities for enhancing rural-urban linkages	Benefits to food systems and residents in		SDGs supported*													
	Rural areas	Urban areas	1	2	3	8	9	10	11	12	13	15	16	17		
Investing in rural feeder roads and cooled transportation ¹	Connects smallholders to input and output markets, generates employment, improves incomes and value-added, and diversifies food production and diets	Improves availability and accessibility of staples, high-value foods, and other agricultural products, and generates non-farm employment and incomes	●	●	●	●										
Establishing processing centers and storage facilities ²	Increases value-added of agricultural products and incomes, spurs employment, and reduces food losses	Improves availability of diverse foods and increases incomes	●	●		●	●		●			●	●			
Using information and communications technologies (such as mobile phones) to link farmers to processors, retailers, and consumers ³	Improves market participation, incomes, and livelihoods of smallholders	Improves availability of diverse foods	●	●			●		●							
Facilitating in-country movement of people while providing assistance to people who move to cities ⁴	Allows rural workers to mitigate income risk through migrant work and remittances, improving income and livelihoods	Improves food security and nutrition through social safety nets and rural-to-urban food and cash transfers	●	●		●		●							●	
Improving coordination and planning between rural and urban areas, especially as related to food and agriculture ⁵	Opens labor opportunities and markets for smallholders	Helps manage land use and reduces food insecurity and malnutrition	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Leveraging small- and medium-sized cities as key nodes to link smallholders to big cities ⁶	Allows for growth in scale of markets (such as processing, cold storage) and improves access to input, output, and credit markets and can dynamize employment generation	Increases food access, consistency, and quality and dynamizes employment generation	●	●	●	●	●									

*SDGs supported by enhancing rural urban linkages



storage, and transportation can sever value chains midstream. Poor transportation infrastructure can make it too costly for smallholders to sell their produce downstream to urban consumers and can contribute to greater food losses and waste. Strong value chains are important for improving livelihoods, food security, and nutrition.⁸

Weak links in the rice value chain in Nigeria provide an example. Rice has become one of Nigeria's most-consumed staples, and the country has made boosting rice production a priority.⁹ Yet 60 percent of rice purchased in urban areas is imported because of consumer concerns about locally produced rice. These concerns include inconsistencies in quality, labeling, and taste—problems that arise from poor vertical integration in the domestic rice value chain.¹⁰ For rice, postharvest processing (milling, parboiling, and cleaning) and marketing (weighing, bagging, and branding) play key roles. Yet with a highly fragmented domestic value chain, the many small- and medium-sized rice millers that process 80 percent of Nigerian rice have varied skills and degrees of access to services and information, and little scope for upgrading varieties or technologies.

The result is wide variation in the quality of the final product in Nigeria, including unfavorable properties such as discoloration and the presence of stones. Lack of traceability along the value chain leads to inconsistencies between variety names and the final product, preventing a link between production and consumer preferences. That consumers prefer the quality, taste, and texture of imported rice over domestic rice—in large part due to the broken rice value chain—is not surprising.

POOR COORDINATION ACROSS LOCALES

Although rural and urban areas are interdependent, they are often governed by distinct local entities. When faced with problems of achieving food security and nutrition for their constituents, policy makers may look for solutions solely within their own locales, without recognizing the potential of rural-urban linkages. For example, urban policy makers often turn to urban agriculture to address food insecurity, despite little evidence that urban agriculture alone can substantially reduce urban food insecurity or malnutrition.¹¹ Rural policy makers may not consider how rural households benefit from connections to urban areas as a means of

diversifying income sources, such as the potential of remittances from seasonal or permanent migrants to urban areas.¹²

Lack of shared governance of natural resources tends to weaken links between rural and urban areas. With existing predominant production methods, rising food demand will increase pressures on natural resources and the environment. These pressures will be exacerbated by shifts in land use for livestock production (including in peri-urban areas) that are associated with changing dietary patterns.¹³ Lack of land use planning and proper regulation of land tenure will also affect development of urban and peri-urban agriculture. Urban sprawl will affect food security and natural resource availability in places where it causes significant loss of productive peri-urban agricultural land and contributes to degradation of environmental resources.¹⁴ The expected increases in the urban population in the developing world will be accompanied by a tripling in the built-up area of cities—from 200,000 to 600,000 square kilometers between 2000 and 2030.¹⁵ The way in which cities are built up will have major implications for establishing connectivity and securing adequate rural-urban linkages.

A lack of shared governance of food security and nutrition and shared management of natural resources may arise from misperceptions about rural and urban areas. Urban food insecurity and malnutrition have been overlooked in low- and middle-income countries—hunger and malnutrition have typically been considered rural problems.¹⁶ On the other hand, a disproportionate focus on urban areas can bring about an “urban bias” against agriculture and the rural economy in the allocation of development resources and prioritization of policies to address poverty.¹⁷

LACK OF INVESTMENT IN RURAL AND NON-URBAN INFRASTRUCTURE

Rural infrastructure, including quality rural and feeder roads, electricity, and storage facilities, is essential for pro-poor growth, agricultural development, and improved livelihoods.¹⁸ Inadequate rural infrastructure leads to isolation of communities and is significantly associated with poverty and poor nutrition.¹⁹ Weak transport infrastructure is a major constraint in many countries in Africa south of the Sahara, despite the potential for rural roads to pave the way for other investments that can improve

nutrition—such as schools, health services, and security services.²⁰ Lack of paved roads and electricity also contributes to postharvest food losses along the value chain.²¹

The Democratic Republic of the Congo (DRC) illustrates the importance of infrastructure for economic and agricultural development. The economic potential of agriculture in the DRC is handicapped by dilapidated transport systems.²² Access to markets there is among the weakest in Africa. Poor market access raises costs and reduces the scope for profitable trade and on-farm investments. Long travel times related to poor infrastructure contribute substantially to Congolese poverty. Investment in infrastructure is clearly needed, but it is important to note that the type of infrastructure matters. Research suggests that city access combined with access to ports is more beneficial than city access alone.²³

Investments along the continuum between rural and urban—in small towns and medium-sized cities that constitute the hidden (and sometimes non-existent) geographic middle—can play a key role. Rural townships and medium-sized cities can serve as important intermediary points to connect hinterlands to urban centers while providing social and economic benefits.²⁴ They can act as service delivery nodes for rural areas and link the rural economy to markets, thereby reducing transaction and transportation costs. Towns and intermediate cities can also foster nonfarm rural growth, affording smallholders access to employment in agroprocessing or other commercial or industrial activities.

UNDESIRABLE CHANGES IN FOOD CONSUMPTION PATTERNS

Urbanization and higher urban incomes are associated with a broad dietary transition marked by increased demand for animal-sourced food, fats and oils, refined grains, and fruits and vegetables. Production of these foods is more intensive in the use of land, water, inputs, and energy, tends to generate more greenhouse gas emissions, and increases pressures on natural resources. Consumers with higher urban wages and urban lifestyles also tend to favor processed and prepared food products, such as fast food, store-bought convenience foods, and foods prepared and marketed by street vendors. With these changes, the nutrient content of diets is changing. Typically, diets are becoming more energy-dense and

are characterized by higher intake of salt, fats and oils, and sugar, a pattern that leads to an increase in overweight and obesity as well as diet-related diseases.²⁵

Despite these trends, strong rural-urban linkages can help to achieve food security and improved nutrition in the context of rapid urbanization. They can reduce the price of healthy foods, such as fresh fruit and vegetables, in urban markets through improved transport or storage.²⁶ This can contribute to a healthier diet in urban populations, particularly for the poor, who are often limited to cheaper, unhealthy, and less nutritious diet options. Greater affordability and availability of healthy food options can also help address the challenge of rising obesity in rapidly urbanizing areas. The existence and quality of these linkages, as well as the extent to which they are inclusive of poor and vulnerable populations, are key for all rural and urban residents to benefit from rapid urbanization.

DO EXPERIENCES SO FAR PROVIDE INSIGHTS FOR PROGRESS?

Three case studies illustrate how enhanced rural-urban linkages can play a critical role in helping countries improve food security and nutrition.

CASE 1: IMPROVED INFRASTRUCTURE IN THE RED RIVER DELTA IN VIET NAM

Rising food demand and dietary shifts resulting from rapid urbanization provide well-linked rural producers with opportunities to enhance their livelihoods and contribute to better diets in both rural and urban areas. In Nhat, an agricultural village in the Red River Delta in Viet Nam, strong rural-urban linkages—an improved road and transport system, good communications infrastructure, and strong connections to agricultural service suppliers—spurred agricultural intensification and diversification.²⁷ With increased access to nearby urban markets and export markets, farm households successfully diversified agricultural activities beyond subsistence rice production toward intensive, high-value production of fruits and vegetables.²⁸ The growth of high-value agricultural production was boosted by income diversification in most households from nonfarm employment sources, such as handicrafts, trade and services, and wage labor. The returns from these nonfarm activities in large part allowed for investments in

farm expansion, thus helping to reduce poverty and improve food security and nutrition.

CASE 2: THE ROLE OF SMALL- AND MEDIUM-SIZED TOWNS AND CITIES IN ETHIOPIA

Small- and medium-sized towns and cities can act as economic hubs that create strong synergistic and mutually beneficial links between the farm sector in rural areas and the nonfarm sector in large urban centers.²⁹ Isolation of rural areas or absence of transport infrastructure connecting rural areas to nearby towns and intermediate cities has been shown to negatively affect agricultural productivity and nutrition.³⁰

A major element in Ethiopia's urban development policy was development of small towns as key entry points. The country's Plan for Accelerated and Sustained Development to End Poverty for (2005–2009) prioritized improvement of rural access roads, telecommunications access, and market infrastructure as central components of its strategy to maximize synergistic growth and opportunities for towns and surrounding rural areas.³¹

Empirical findings from Ethiopia point to the importance of local market towns.³² These urban centers account for about 50 percent of agricultural input purchases and up to 75 percent of agricultural produce sales. Over half of household food and nonfood spending and the bulk of artisanal product sales, especially by women, occur in these towns. Additionally, proximity to local market towns influences rural economic activities, and better access to these towns, for example through improved roads, had positive impacts on household welfare.

CASE 3: GLOBAL VALUE CHAIN DEVELOPMENT AND URBAN GROWTH IN GHANA

Growing demand for higher value-added food, processed through integrated global value chains, is fueling Ghana's process of accelerated urbanization and structural transformation. For instance, cocoa production increasingly contributed to average farm incomes over the last two decades. Expansion of cocoa production, processing, and trade from the traditional areas in the eastern coastal region to the western parts of Ghana increased revenue. The expanding cocoa business also stimulated urban economic activity, especially through increased trade and business services and greater demand

for consumer goods and services. This expansion gave rise to what have been labeled "consumption cities"—where wealth created in non-urban sectors is spent in urban sectors—as seen elsewhere in Africa.³³

This structural transformation occurred in only some parts of the country. The more isolated north still lags behind, largely as a result of poor infrastructure and social services, low education and agribusiness skills development, and lack of access to technology.³⁴ These factors hamper value chain development and keep rural-urban linkages weak in northern Ghana.

IMPROVING RURAL-URBAN LINKAGES

As the world continues to urbanize, achieving food security and nutrition for all depends on interventions and approaches that build, strengthen, or transform rural-urban linkages.

IMPROVE POLICY COORDINATION BETWEEN RURAL AND URBAN AREAS

Working together effectively across rural, peri-urban, and urban spaces—typically governed by different local entities—requires policy coordination. Policies that cut across rural and urban areas should account for each area's contribution in order to leverage their different strengths. Urban policy makers should look beyond urban agriculture to meet their food security and nutrition needs, and coordinate with their rural counterparts to facilitate the flow of agricultural products into cities. Rural policy makers should recognize the opportunities provided by urbanization and promote market opportunities for smallholders, traders, processors, and other actors in the food value chain.

Political entities should work together to enhance linkages that span politically distinct locales as a means to facilitate sustainable production, storage, transport, and marketing of safe and nutritious food to urban consumers while reducing food loss and waste. Establishing policy coordination in planning and regulating the use of land, water, and other resources critical to food production in urban, peri-urban, and rural areas is also important for efficiency and win-win outcomes. Doing so is not easy, as pointed out by a recent review of territorial approaches to the governance of food security and nutrition.³⁵ In addition to political

will, effective allocation of financial resources and decision-making power are required to secure better horizontal and vertical coordination across central and local governments and policy domains.

Rural-urban partnerships have the potential to create effective frameworks for cooperation and joint governance.³⁶ But such partnerships are a new approach, and other governance models for policy coordination should also be explored. The development community should continue to support the implementation plan for the New Urban Agenda, which commits to enhancing coordination of urban and rural development strategies and programs.

SUPPORT EFFICIENT AND INCLUSIVE RURAL-URBAN VALUE CHAINS

Increasing demand for food and increasing scarcity of land near urban areas can lengthen food value chains. Moreover, changing consumption patterns can shift employment within the food system from agriculture to midstream segments such as transport, wholesaling, retailing, food processing, and vending. All this has implications for the burgeoning youth population that will increasingly seek employment, especially in Africa south of the Sahara.³⁷

To take advantage of these changes, support should be provided to make rural-urban value chains more efficient and inclusive and to improve vertical coordination. For example, vertical cooperatives—such as the coffee unions of Ethiopia that provide marketing and input-supply services and connect producers to export markets—improve vertical coordination. Establishing mechanisms such as commodity exchanges and warehouse receipts should be considered, though strategies to mitigate the costs of the necessary services for a commodity exchange—warehousing, operations, and communications—as well as potential barriers to adoption by smallholders, such as high minimum deposit quantities, require more study.³⁸

LEVERAGE TOWNS AND INTERMEDIATE CITIES

Strategies to better connect rural and urban areas should address the specific challenges facing those living in different places along the rural-urban continuum. Each area has a role to play in addressing rapid urbanization and finding synergies to strengthen food systems. Rural townships and

medium-sized cities can facilitate economic and social connections between rural and urban areas.³⁹ Decentralization can play a key role in allowing local governments and other local actors to identify needs and priorities and to respond appropriately.⁴⁰ Local decision making should be supported by adequate resources, and local development strategies should be well-integrated in national planning. Some areas—including isolated regions, mountainous areas, degraded environments, and indigenous settlements—may require greater attention and tailored strategies and policies to link them to urban areas.

IMPROVE TARGETING OF PUBLIC INVESTMENT

Investing to develop rural areas—for both farm and nonfarm sectors—can strengthen rural economies and reduce poverty in rural and urban areas. Investments in rural physical infrastructure (such as feeder roads, electricity, transportation, communications, and cold storage) as well as in education and health are crucial for small farms to increase incomes and for rural residents to access rural nonfarm jobs. Along with investments in information and communications infrastructure, investments should be made in providing producers with reliable agronomic information, including prices and information on production technologies.⁴¹ For urban dwellers, the impact of rural investment extends to reducing urban poverty through growth in the national economy and reduced food prices.⁴² Investments in rural areas and less-favored areas can provide win-win outcomes for both the rural and urban poor.

Investments in rural infrastructure will also enhance resilience at the household level. For farmers and those working further down the food value chain, investments in cold storage, transportation, and energy infrastructure for processing help smooth income shocks from seasonality, market volatility, and weather variability.

MITIGATE RISKS BY PROMOTING SOCIAL PROTECTION IN RURAL AND URBAN AREAS

Rapid urbanization can bring about economic and social dislocations that leave some people behind. Social protection measures for both rural and urban contexts can ease these risks by reducing social and economic inequalities, promoting decent work, and fostering inclusive and sustainable growth.

Well-targeted, productive safety nets can help recipients mitigate risk while building productive assets.⁴³ In particular, policies to help rural small-scale farmers increase productivity and move up to commercially oriented systems or to participate in nonfarm economic activities are important. Integrating nutrition education into social safety net programs can boost nutritional outcomes.⁴⁴ Brazil's flagship program, Bolsa Família, which was focused on poverty reduction and food security, used cash transfers to promote improved education and healthcare for beneficiaries. Bolsa Família successfully incorporated education and health components through integration with other social programs and policies for food security and nutrition.⁴⁵ The program contributed substantially to decreases in childhood mortality, and in particular lowered deaths attributable to malnutrition.

Remittances from migrant workers can increase incomes of rural residents, diversify incomes, and provide investment capital for the rural nonfarm economy and small towns.⁴⁶ To help realize the potential of remittances, formal and informal institutional and policy barriers that restrict in-country movement of people should be removed. Key barriers include poor infrastructure and lack of education and access to information.

STRENGTHENING LINKS FOR WIN-WIN OUTCOMES

Rapid urbanization brings new challenges for achieving food security and nutrition for all: it increases pressure on the food system to produce resource-intensive foods and can contribute to undernutrition through a lack of access to crucial water, sanitation, and hygiene services. At the same time, urban lifestyles and dietary preferences are associated with increased prevalence of overweight and obesity and diet-related disease. Developing rural-urban linkages can help to address those challenges while promoting the benefits of rapid urbanization for food security and nutrition. These include more diverse diets and greater income for rural residents, greater food access and availability for urban residents, and greater national economic growth.

To strengthen rural-urban linkages, policy coordination between rural and urban spaces must be improved; food value chains strengthened with due attention to the role of small towns and intermediate cities; rural infrastructure investments better targeted; and productive social safety nets promoted. Taking these steps is crucial to help end hunger and malnutrition, and to achieve multiple SDGs in a time of rapid urbanization.

A person wearing a turban and traditional clothing is standing in a field, looking down. The image is overlaid with a green filter. A white-bordered box contains a quote in white text.

“Urbanization is reshaping the landscape within which we must pursue the Sustainable Development Goals of ending hunger, achieving food security and improved nutrition, and promoting sustainable agriculture.”