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Policy pointers

With food security set to become a primary urban challenge, an emphasis on food access and safety provides opportunities for action by local government.

The role of rural-urban linkages as safety nets is weakened as large numbers of rural poor are increasingly dependent on food purchase and remittances from city-workers are declining.

Urban planning that addresses food-related transport and storage, access to clean water and sanitation can greatly improve food security and make cities more resilient to climate change

To reduce urban food insecurity, local governments need better information on the priorities of the residents of low-income settlements, and to work in partnership with them to find solutions.

The role of local government in urban food security

Urban food security is an increasingly urgent priority in the face of climate change, rising food prices and growing urban populations. Most at risk are residents of low-income settlements within low- and middle-income countries. Increasing food production within urban areas has limited potential, but urban planning can play a major role by providing effective transport links, food storage facilities, adequate water and sanitation infrastructure and waste management. Local governments' support to community-led initiatives to improve food access and safety can greatly reduce food insecurity, and contribute to greater resilience to the impacts of climate change.

With the majority of the world's population now living in urban areas, food insecurity will become a primarily urban challenge in the coming decades. Poverty is the major cause of urban food insecurity, as urban residents rely on buying, rather than producing, food. Low-income groups are especially vulnerable to increasing food prices, as has been seen dramatically during and since the food price crises in 2007 and 2008. In low- and middle-income countries, as many as two-thirds of urban residents rely on low and irregular incomes and have no access to adequate housing, services or infrastructure. In these countries, food insecurity levels in low-income settlements are particularly high, and in some cases are higher than in rural areas. But hunger in urban areas has long been neglected, as has urban poverty more generally.

Perhaps one reason is the complexity of urban food security. On the supply side, food security in urban areas is the outcome of effective food systems, which encompass all activities from farm to plate — production, processing, storage and distribution. On the demand side, food

security depends on accessible markets and adequate incomes.

This briefing draws on an expert meeting held in Addis Ababa in March 2013,¹ which explored urban food security in the context of climate change, and on the ongoing initiatives developed by women-led federations of the urban poor in Accra and Nairobi.² It maps out the multiple scales of urban food insecurity and their policy implications, with special attention to the potential role of local governments in reducing food insecurity in low-income settlements.

Rural-urban linkages and food security: a weakening safety net?

Low incomes, high and volatile food prices and the inability to rely on own food production are the root causes of both rural and urban food insecurity. Debates on urban food security generally focus on food production in urban and peri-urban areas.³ Yet there are few possibilities for low-income groups to access agricultural land and water in expanding cities, and therefore their

Appropriate urban planning is crucial to reducing food insecurity for low-income groups

scope for urban agriculture is limited. Also, residents of low-income and informal urban settlements often work long hours for low wages, and spend much time travelling to and from

places of work, leaving little time for urban farming. And while urban agriculture can complement diets through the local production of vegetables, milk and meat, food security in

urban areas depends largely on the staple foods produced in often distant rural areas.

Urban food security is therefore increasingly affected by disruptions to food systems in other places and indeed globally (for example, climate-related events, national policies in large exporter countries that encourage producers to switch from food crops to biofuels, or policies that restrict exports of staple foods such as grains). Although globally up to 95 per cent of food is from domestic supply,⁴ the proportion in southern regions is generally much lower and a substantial number of countries are net food importers.

The concentration of low-income countries that are also net food importers in Africa is considerably higher than in Asia, which helps explain why between 2007 and 2008, at the peak of the food price crisis, undernourishment increased by 8 per cent in Africa compared with 0.1 per cent in Asia.⁵ Agricultural policies in Africa in the past two decades have emphasised cash crops for export, leading to growing dependence on imports of staple foods such as cereals and pulses.⁶ These policy shifts, together with accelerated land degradation and the impacts of extreme climate events, have turned significant proportions of rural residents into net food buyers (that is, who need to buy more food than they sell).

In many sub-Saharan African countries, more than 50 per cent of small-scale farmers (73 per cent in Ethiopia) are net buyers of staple grains⁷ and in Guatemala, 80 per cent of marginal farmers are net buyers of maize.⁸ But even in countries such as Vietnam, which at the national level produces enough staples, 55 per cent of rural households and 92 per cent of urban households are net rice buyers.⁹ Net food buyers are also usually the poorest groups, relying on low-paid agricultural wage labour, and are vulnerable to any price increase.

Rural and urban livelihoods are interconnected in several ways, with implications for food production and food security. Remittances from urban migrant relatives are often a main source

of cash for investment in agricultural production, especially where small-scale farmers have difficulties accessing credit. For poor rural households who are net food buyers, remittances are essential for food security,^{10,11} but the escalating costs of urban living make it difficult for migrants to save enough to send money home. In Vietnam, remittances halved between 2008 and 2011 due to increasing living costs and job insecurity; by 2012, more than half of the migrants interviewed in cities were not sending any remittances, and were relying on support from rural relatives for food and childcare.¹² So while it is often assumed that resources flow from urban to rural areas, economic insecurity in towns and cities can reverse this flow, with rural relatives contributing more than they receive.

Urban planning at the city-region scale

Appropriate urban planning in rapidly growing cities in low- and middle-income countries is crucial to reducing food insecurity for low-income groups. Reliable transport infrastructure is essential in ensuring that perishable foodstuffs reach markets quickly and, in combination with good food storage capacities, helps avoid waste. Worldwide, a staggering 30–40 per cent of food is lost to waste, with most of this loss in low- and middle-income countries due to inefficient harvesting, transport and storage.¹³ The high rate of loss pushes up retailer prices, making food less accessible to the urban poor. Moreover, extreme weather events related to climate change are likely to exacerbate these problems, with floods damaging food transport infrastructure and market spaces, and higher humidity and temperatures increasing spoilage of fresh and staple foods. Flooding particularly affects food-insecure groups living in hazard-prone informal settlements, stopping them working and so reducing their access to income for buying food.

Waste also affects food safety in low-income settlements with inadequate solid waste collection and often non-existing sanitation infrastructure and surface water drainage. These conditions cause food contamination, a major cause of diarrhoeal episodes, which in turn contribute to very high rates of child malnutrition. In many low- and middle-income countries, as many as one-third of children are chronically malnourished.¹⁴ Disturbingly, this lays the foundations for life-long disadvantage, as many of these children will experience challenges in their cognitive development and possibly in their future employment

Local initiatives to improve food security in Nairobi and Accra

Initiatives to reduce urban poverty often neglect the priorities of the residents in low-income and informal settlements and their capacity to organise and contribute to the upgrading of their settlements. Accra's Old Fadama and Nairobi's Mathare are both densely populated low-income settlements with severely inadequate infrastructure and housing. In both settlements, members of the federations of the urban poor, led by women's savings groups, began devising initiatives to alleviate food insecurity. First, they collected information on the main constraints faced by their fellow residents. This included mapping out the locations of street vendors and their exposure to environmental hazards, such as proximity to open-air sewers, stagnant water and garbage dumps. It also included assessing awareness of food handling and storage by street vendors, which can affect the safety of the food they sell.

The high cost of food and inadequate incomes quickly emerged as by far the main problems for all residents, though issues related to the whole settlement, such as inadequate water and sanitation infrastructure and the lack of solid waste collection, are also hugely important. Through settlement and neighbourhood meetings and exchange visits between residents of Old Fadama and Mathare, a set of priorities emerged. These build on the federations' experience of community-led projects to improve shelter options in partnership with local governments. The priorities include seeking a closer relationship with street food vendors to improve food and accessibility by focusing on the space in which they operate and, in the process, influencing infrastructure development within settlements. As a result, vendors have been involved in solid waste management initiatives, such as locating bins close to the main concentrations of food stalls and generally cleaning the spaces where food is prepared and sold, as well as the footpaths leading to these spaces. Vendors have also been given basic education on safe food storage and cooking methods and undergo regular health checks.

A specific group at risk of malnutrition are the children of single mothers, often migrants with limited support networks from relatives, who need to work long hours to support themselves and their children. Daycare centres provide a safe space for children who are otherwise often left alone in the home, exposed to risks such as the frequent fires that affect informal settlements, as well as to sanitation and waste-related environmental hazards. Providing cooked food in the daycare centres is therefore an essential element of support to the most vulnerable groups in the settlements.

All these initiatives rely on wide-based alliances that include community-based groups (such as the Old Fadama Development Association, the local federations and their support NGOs, People's Dialogue in Accra and Muungano Support Trust in Nairobi) and that aim to engage with local governments and formal waste management companies.

opportunities. As climate changes, the increasing incidence of severe floods and high temperature events affecting cities is likely to intensify these problems.¹⁵

Most low- and middle-income countries have little effective control over land-use changes from agriculture to non-agriculture. Changing land values and markets around growing urban centres, together with the absence of land-use plans or strategic planning frameworks to guide urban expansion, can have serious consequences. These include the segregation of low-income groups in illegal settlements in often hazardous locations, a patchwork of high- and low-density uses that make infrastructure and service provision difficult and expensive, and increasing competition between agricultural and non-agricultural uses of land and water.¹⁶

Governments, and especially local authorities, can play an important role in better regulating management of natural resources in and around urban centres, and this is increasingly urgent to achieve climate resilience. But care should be taken that regulation does not result in further reducing access to housing and infrastructure for low-income groups.

In many cases, municipal authorities formulate and implement zoning and bylaws and regulate issues around health and sanitation, decisions that implicitly affect the locations of food outlets and whether informal food vendors are tolerated. Purchasing cooked food from street vendors is increasingly common for the residents of low-income settlements, as low incomes (often from casual work), lack of time and inadequate storage and cooking facilities make preparing food at home a challenge. In Nigeria, urban residents spend up to half their food budget on street foods, while in Accra street foods account for 40 per cent of low-income families' purchases. Consumption of street foods tends to increase when food and cooking fuel costs rise, as vendors can buy in larger quantities than individual households and so keep costs down.¹⁷

But street vendors are exposed to the same food safety hazards as their clients: limited storage facilities, inadequate water and sanitation infrastructure, and lack of solid waste collection. Long distances from food markets and the cost of transport also constrain their ability to sell fresh food. Recognising the important role of street vendors and supporting them to improve

the safety and quality of their products is a major opportunity for increasing urban food security.

What role can local governments play?

Urban food security is a major challenge that requires action at all levels – global, national and local. As long as policy debates continue to focus only on production, however, the role local governments can play will remain limited. Yet the priorities of the residents of low-income settlements highlight the importance of urban planning and infrastructure in ensuring access to safe food and suggest a number of ways for local governments to act on the urban space. For example, improving access to clean water and sanitation, reducing exposure to floods and

other extreme weather events, and ensuring effective transport and storage in order to reduce food waste. Of course, such efforts are part and parcel of making cities more climate-resilient. Experiences in Nairobi and Accra demonstrate the key role local government can play in partnership with organisations of the urban poor.

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Notes

¹ Food Security in an Urbanizing World workshop report. See: <http://start.org/download/2013/addis-workshop-report.pdf>. / ² The federations of the urban poor in both settlements are part of a wider network that builds on local savings groups to encompass citywide and national federations, as well as an international umbrella organisation, Shack/Slum Dwellers International. For more details on how the federations work, see: D'Cruz, C., Mudimu, P. 2013. Community savings that mobilise federations, build women's leadership and support slum upgrading. *Environment and Urbanization* 25(1), 31-46; and Satterthwaite, D., Mitlin, D. 2013. *Reducing Urban Poverty in the Global South*. Routledge, London and New York. / ³ For example: FAO. 2012. *Growing Greener Cities in Africa. First status report on urban and peri-urban horticulture in Africa*. Food and Agriculture Organization of the United Nations, Rome. / ⁴ Reardon, T., Timmer, C. P. 2012. The economics of the food system revolution, *Annual Review of Resource Economics* 4, 225–264. / ⁵ FAO, WFP, IFAD. 2012. *The State of Food Insecurity in the World 2012. Economic growth is necessary but not sufficient to accelerate reduction of hunger and malnutrition*. FAO, Rome. / ⁶ Moseley, W.G. et al. 2010. Neoliberal policy, rural livelihoods, and urban food security in West Africa: A comparative study of The Gambia, Côte d'Ivoire, and Mali. *Proceedings of the National Academy of Sciences* 107(13), 5774–5779. / ⁷ Galtier, F. 2013. Managing food price instability: critical assessment of the dominant doctrine. *Global Food Security* 2, 72–81. / ⁸ de Janvry, A., Sadoulet, E. 2010. The global food crisis in Guatemala: what crisis and for whom? *World Development* 38, 1328–1339. / ⁹ Thanh, H.X. et al. 2013. *Food security in the context of Vietnam's rural-urban linkages and climate change*. IIED, London. / ¹⁰ van der Geest, K. 2009. *Migration and natural resources scarcity in Ghana*. EACH-FOR – Environmental Change and Forced Migration Scenarios, Bonn and Vienna. / ¹¹ Mariscal, B. et al. 2011. *Cambio climático-crisis económica-políticas estatales, factores constitutivos de las migraciones rurales en Bolivia. Análisis de los Casos: Norte de Potosí y San Julián*. IIED, London. / ¹² Thanh, H.X. et al. 2013. *Urban Poverty in Vietnam – A View from Complementary Assessments*. IIED, London. / ¹³ IMECHE. 2013. *Global Food: Waste not, want not*. Institution of Mechanical Engineers, London. / ¹⁴ Mitlin, D., Satterthwaite, D. 2013. *Urban Poverty in the Global South: Scale and nature*. Routledge, London and New York. / ¹⁵ IPCC. 2012. Summary for policymakers. In: Field, C.B. et al. (eds) *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation*. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, UK and New York. / ¹⁶ Satterthwaite, D., McGranahan, G., Tacoli, C. 2010. Urbanisation and its implications for food and farming. *Philosophical Transactions of the Royal Society B* 365, 2809–2820. / ¹⁷ Cohen, M., Garrett, J.L. 2010. The food price crisis and urban food (in)security. *Environment and Urbanization* 22, 467-482.