



Paper: The Urban Agenda

SNV

Meeting the food and nutrition
security needs of the urban poor

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1. Abstract

The world is at an unprecedented point in the sustainable development journey. For the first time in history extreme poverty, those living on less than \$1.90 per day, has fallen below 10%. However, two years after the global commitments were adopted in New York, and after years of steady decline, world hunger appears to be on the rise. The State of Food Security and Nutrition in the World 2017 reports that 815 million are undernourished, up from 777 million in 2015. The SOFI report puts the spotlight on the convergence between conflicts, climate change and food security. The global impact of these factors has contributed to increased migration into cities by people seeking safety and services¹. Urbanisation is expected to put increased pressure on global food systems. At the same time as the world's cities expand, they are becoming home to larger numbers of malnourished people, particularly women and infants. The world's poorest remain vulnerable to undernutrition. The triple burden of malnutrition is increasingly becoming visible in the urban poor, where high rates of child undernutrition coexist with adult overweight and anaemia. Malnutrition continues to be one of the main barriers that prevent children, communities and societies from realising their full potential. Over a year ago, in October 2016, the New Urban Agenda was adopted. The set of non-binding principles and commitments will guide the efforts around urban development through to 2036. However, many questions still remain. Can the urban

agenda play a bigger role in reversing this alarming trend in food and nutrition insecurity, and more pressing, how? This paper aims to explore these questions.

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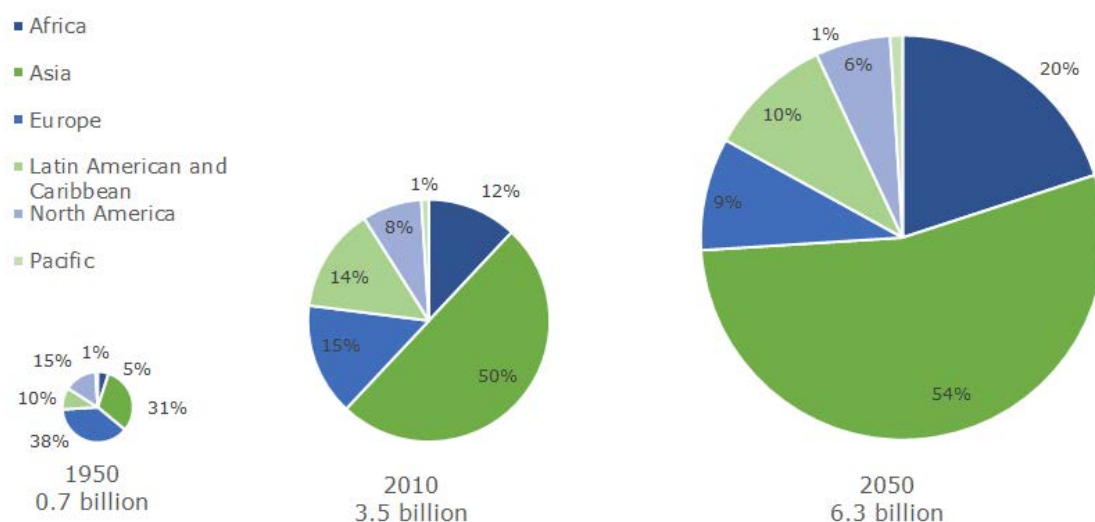


Figure 1: projected urban population growth until 2050 and regional distribution. Source: UNDESA

2. Introduction

The world's population is increasingly urban, posing new challenges for sustainability and development. By 2050 approximately 66% of the world's population will reside in urban areas, an increase from 54% in 2014 (Figure 1). The majority of this growth will take place in Africa and Asia, particularly in cities with less than 1 million inhabitants². The main factors driving these changes include decreasing mortality rates, 'natural' increases, and rural-urban migration^{3,4}. This accelerated growth in the midst of a changing global climate is putting significant pressure on food systems. According to an estimate by the Chicago Council on Global Affairs, global food production may need to increase 50 to 60% by 2050 to meet demand.⁴ This will have significant implications for the urban poor, who depend on food purchases for the majority of their diet and are vulnerable to price fluctuations.

Cities are growing but so is income inequality. According to the Habitat III Issue Paper on Inclusive Cities, more than two-thirds of the world's population live in cities whose level of income inequality has increased since 1980⁵. It is also estimated that by 2020, 1.4 billion people will be living in slum-like conditions⁶, an increase from roughly 863 million in 2013⁴. Cities certainly have advantages, as they tend to be hubs of innovation and social change as well as providing a greater abundance of goods, services, and employment opportunities. However, for those who are economically disadvantaged, cities can bring a host of challenges. Availability does not equate to accessibility. Access to healthcare and other services may appear enhanced, but may be under-resourced or expensive. Poor sanitation among densely populated informal dwellings also poses a major health risk. Aggregated statistics comparing rural-urban outcomes

may disguise these deprivations among the poorest urban dwellers⁷.

Furthermore, the 'triple burden of malnutrition' – the co-existence of undernutrition, micronutrient deficiency, and overnutrition – is increasingly becoming an urban issue⁸. Data from 11 cities from 9 southern African countries showed that over 80% of the poor households across the region experienced some degree of food insecurity⁹. Another study of 18 countries in Asia, Africa and Latin America observed that the incidence of hunger in urban areas equaled or exceeded rural levels in two thirds of them¹⁰. At the same time, urban areas across the world have been facing accelerating increases in the rates of child and adult overweight and obesity in the past decades¹¹. Among 30 low- and middle-income countries, mean body mass index and the prevalence of overweight was higher among urban than rural women in most countries in two different time periods¹². The bottom line is that in poor urban areas different forms of malnutrition can coexist within the same household or individual. Household-based surveys demonstrate that stunting in children may occur with adult overweight and anaemia, as a consequence of shared underlying determinants or physiologic links¹³. Child stunting can impose life-long effects in terms of poor physical growth, cognitive development, lower earning potential and ill-health; hence locking individuals, communities and cities into long-term disadvantage¹⁴. The co-existence of all forms of malnutrition, and its devastating impact on the health, wellbeing and development of the urban vulnerable will pose a significant challenge to the 2030 Sustainable Development Agenda and for those cities committed to the New Urban Agenda.

3. The Urban Agenda

Internationally there has been significant momentum in addressing food and nutrition insecurity of the urban poor. However, many of the most vocal agreements are voluntary, with limited apparent accountability. Moreover, the extent to which these commitments translate into policies at the local level remains in question; particularly the level of support provided to municipalities in realising the goals at the national level. It is also not an indicator of the level of financial commitment on behalf of donors, whose positions, strategies, and interventions targeting urban food and nutrition specifically are often unclear¹⁵.

Urban food and nutrition security is a cross-cutting theme relevant to several of the Global Goals, including #1 (no poverty), #2 (zero hunger), #3 (health and well-being), and #11 (sustainable cities). In addition, over 150 cities globally have signed up to the Milan Urban Food Policy Pact (concentrated in Western Europe). It has provided a platform for a city-to-city network to share best practices in implementing sustainable food systems. Social and economic equity is a key pillar of the Pact; it recommends a participatory approach to urban food policies, recognising how they are closely linked to other challenges such as poverty and health¹⁶. A set of indicators to help monitor the implementation of the recommendations is still in the early stages of development. The Pact was signed off by the Secretary-General of the United Nations in October 2015.

The following year in October 2016, the New Urban Agenda was adopted at the United Nations Habitat III Conference in Quito, Ecuador. Similarly, this agreement presents a shared vision for global urban development, recognising that while rapid urbanisation poses many challenges, it also presents an opportunity for innovation. It calls on national and local governments to ensure that cities fulfil the social function of providing equal access to basic goods and services, among them notably food security and nutrition. It addresses the urban poor specifically, stating “We will promote the integration of food security and the nutritional needs of urban residents, particularly the urban poor, in urban and territorial planning, in order to end hunger and malnutrition.”¹⁷ The Agenda is not prescriptive in how to realise its ideals (neither should it be), so the fulfilment

of the objectives depends largely on the commitment of individual Member States. While it is a critical step forward, this does raise some concerns about how policies ultimately will be implemented and whether they will truly address the needs of the urban poor.

At a smaller scale in March of 2017, several development actors across academia, the public sector, and civil society came together to sign the Bellagio Communiqué. It was a set of agreements related to “harnessing urban food systems for sustainable development and well-being,”¹⁸ recognising how food systems are inextricably linked to livelihoods, especially for the urban poor. It provides recommendations for achieving the African Union’s Agenda 2063, the aforementioned Global Goals and the New Urban Agenda. These recommendations came out of extensive research, consultation, and implementation via an ESRC/DFID-funded research project.

The multidimensional nature of urban food and nutrition security will require creative data-driven insights to bridge the gaps between thematic silos in research and practice. As with the Global Goals previously mentioned, the targets for #11 (sustainable cities) make no mention of food security, while #2 (zero hunger) does not address urban challenges. To this end, the University at Buffalo launched their Global Database for City and Regional Food Policies in October 2017. This complements the World Health Organization’s Global database on the Implementation of Nutrition Action (GINA) and the set of 230 indicators tracking the Global Goals in maintaining accountability towards the above agreements.

Comparative policy and indicator databases may also bring to light the complex challenges at the local level. While many cities around the world have shared goals, no two are quite the same. For example, in Tamale, Ghana some of the most vulnerable people are those native to the area who are losing access to their cultivated land as the city undergoes uncontrolled expansion¹⁹. In other cities, it may be recent rural migrants who face discrimination and struggle to earn a living. As methods for tracking outcomes improve, and databases become more sophisticated, policymakers at

all levels will be able to make more informed decisions to help achieve their stated commitments.

Meanwhile, the momentum on urban food and nutrition security continues. In November, at the Global Nutrition Summit in Milan, the 2017 Global Nutrition Report was launched which highlights some of the unique concerns in urban areas. Most notably, the capacity for urban planning to address the rise of obesogenic environments

and the lack of infrastructure needed to prevent food contamination and poor sanitation in slums²⁰. The FAO's Food for the Cities Programme also provides assistance to local governments to help identify opportunities for sustainable urban planning, as well as strategies to improve city region food systems (CRFS). The following section details these challenges at greater length.



Photo: a vendor at an informal food market in Khulna

4. The Urban Poor Food Environment

Urban food supply systems are dependent on food imports and access to rural production. Fresh foods generally originate from rural areas. Hence, urban traders can be vulnerable to the shocks that affect agriculture such as rising food and fuel prices, conflict, effects of natural disaster and climatic changes (droughts and floods). The potential of urban-rural linkages, including peri-urban agriculture, in addressing urban malnutrition and poverty has yet to be tapped. Rural farmers can benefit from a large and stable supply for their products, while urban residents can benefit from access to fresh and diverse produce. This warrants a better understanding of how the urban poor supply chain operates. There is also strong potential for Information, Communication and Technology (ICT) as ICTs create opportunities for dialogue between previously isolated food chain actors²¹.

The relatively few studies to date indicate that the urban poor supply chain is largely informal, and highly complex and diverse in terms of the business models, the actors involved and the food traded. It is often viewed as separate from its formal equivalent, yet the two food systems intersect. For example, food may be sourced from major processors, from municipal fresh produce markets and from wholesalers. In recent times, the terms urban food deserts and food swamps for low-income contexts have emerged. The former defined as “poor, often informal, urban neighbourhoods characterised by high food insecurity and low dietary diversity, within multiple market and non-market food sources”²². The latter refer to areas where there is an overabundance of “unhealthy” foods but little access to “healthy” foods²³.

The informal food retail sector is a vital food source for the urban poor. Informal markets tend to locate closer to low-income housing settlements, and offer their products in smaller quantities and at lower prices²⁴. Urban areas can bring benefits to urban consumers through economies of scale and increased competition from many wholesalers and traders. Benefits can include more diverse and cheaper food, and if safe and nutritious this can benefit the urban poor consumer. How it impacts the livelihood of the informal trader and wholesaler is not

clear²⁵.

Additionally, these small businesses have little access to resources such as credit, training, technical advice and access to clean water. Hence the vendors tend to sell affordable staple or energy dense street food, thus contributing to poorer diets. Further insights from the perspective of the informal food traders in Khulna are outlined in Section 6.

Access to food includes both spatial and economic accessibility. For the urban poor consumer, economic access represents a greater challenge than physical access. It extends beyond the price of food but also needs to consider the impact of other costs incurred by the household. Increases in energy, fuel, and transport costs can alter the type and frequency of food consumed, as well as the food source and nutritional quality²⁶, as further discussed in sections 5 and 6. While there are several factors of the food system that influence dietary choices (Figure 2), food price is possibly one of the most significant for the urban poor. The people who go hungry are those who lack sufficient purchasing power to nourish themselves²⁷. Furthermore, food that is also safe, of good quality and nutritious can come at a higher cost²⁸. The recent Prospective Urban Rural Epidemiology (PURE) study, for example, reported that fruit and vegetable consumption is particularly low in low income countries because of affordability²⁹. Informal markets are also very sensitive to price fluctuations and this can have severe consequences for the urban poor’s nutrition security.

Urban infrastructure plays a critical role for workers at the base of the economic pyramid not just for those at the top. The informal markets, traditional and domestic in nature lack modern infrastructure which can give rise to food safety and hygiene issues. Food safety hazards exist, particularly for more perishable foods such as fruit and vegetables and animal-source foods, such as dairy. To minimise the risk of food-borne disease, appropriate infrastructure and cold chain management is needed³¹. Yet it is often less developed in low-income settings. The foods available in the informal sector can vary widely in safety and quality, but in any case, making basic infrastructure such as running water and toilets available

to vendors and consumers would help keep street markets more hygienic. Adequate shelter and storage facilities would help vendors protect their goods from spoilage and theft^{32,33}. Given the marginal status of many of these businesses, any loss due to spoilage can have a significant impact on the business viability. Research in Brazil, Kenya and Uganda, has also highlighted that food safety problems persist/ worsen when regulators impose stricter food safety rules^{34,35}. In Nairobi, the local federation of the urban poor, Muungano wa Wanavijiji, explored innovative ways, including participatory mapping, to improve food safety and work with street vendors and livestock keepers³⁶.

Food trade, particularly street trade is the cornerstone of

the urban retail economy in many cities. The wider informal food sector is an important provider of employment and an engine of economic growth. Understanding the informal sector is of critical importance for gender relations. The women tend to be responsible for street food and small catering operations, whereas men often sell meat or fish. For women, as caregivers, working in these jobs can impact their infant's and their own nutrition needs. The jobs and conditions are not subject to labour laws and do not offer social or medical benefits, such as childcare, and often can involve long trading hours³⁷. The time constraints faced by female urban vendors can compromise time spent on infant and care practices, as further discussed in Section 5 and the Khulna case study (Section 6). However,

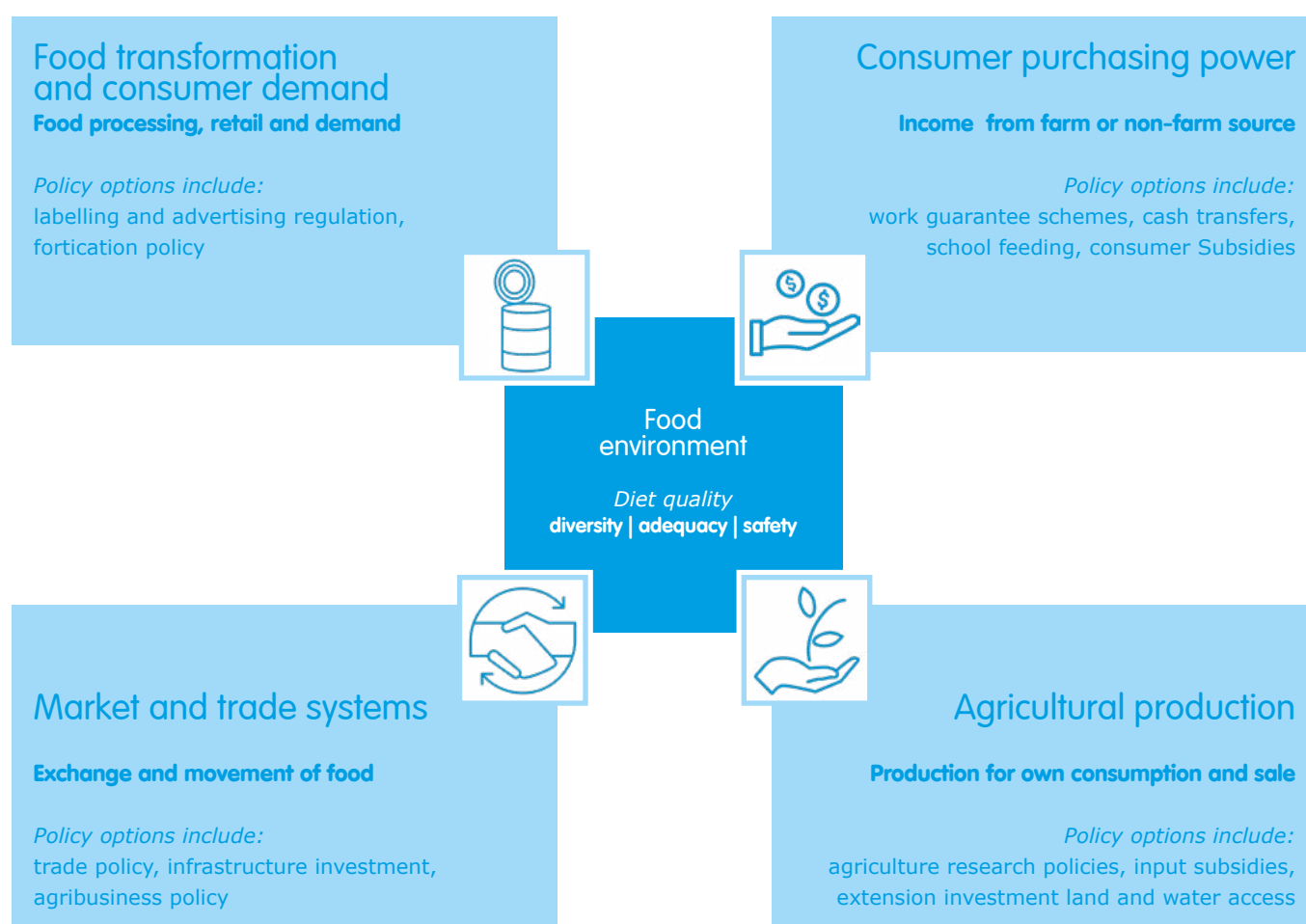


Figure 2: the elements of the food system that affect diet quality (Source: Global Panel, 2014)

informal trade can also include trading from home or trading collectively, which gives women means to engage in economic activity whilst maintaining some degree of childcare.

Street vendors, more than market workers, can also face many challenges, including abuse of authority such as police harassment or demands for bribes and lack of a secure workplace/evictions. Licenses can be difficult to acquire. In a 10-city study, 7 of 10 fruit and vegetable vendors reported that obtaining a license is an issue, while others who have a license are still subject to merchandise confiscations³⁸. On the other side of the spectrum, a lack of regulation may create a vacuum in which criminal activity may flourish. Cartels may take control over commodity distribution making interventions in certain environments very difficult even for local

authorities. In Nairobi, public-private partnerships have been setting up low-cost water kiosks to combat the “water mafia” in the slums. They have taken over public water lines and are reselling it at inflated costs. The water kiosks have become targets for vandalism and those attempting to sell water at a lower cost risk their lives³⁹.

The issues of food security is no longer just an agricultural one. It overlaps with urban planning, health, social action culture and trade. Considering that violence and insecurity may dominate some urban contexts with poor state control being replaced by informal or criminal authorities, there is an impending need to support effective urban policy development.



Photo: an informal food market in Khulna

5. Malnutrition of the urban poor

Malnutrition has many causes. Although the determinants are the same for urban and rural areas, urban poor households, particularly the most vulnerable and marginalised people, face a different set of constraints, related to access to food, health, and public services (see Figure 3)⁴⁰. This is exacerbated by poor sanitation environment and limited income. Improving the environment (food, sanitation and economic) does not automatically translate into improved nutrition. Stimulating and sustaining community and individual demand for improved dietary and nutrition practices is also key. This is dependent on knowledge, awareness, self-efficacy as well as motivation to act, which in turn may be influenced by perceptions of social norms, attitudes and beliefs.

Diets

Lower dietary diversity has been reported among urban, informal dwellers compared to their richer counterparts in Africa and Asia^{41,42}. Female headed households or those with high dependency ratios located in poorer settlements tend to consume poor diets, on a par with the rural poor⁴³. The consumption of low quality diets, characterised by a greater reliance on starchy staples, ready-to-eat and highly processed foods (i.e. ready-to-eat, packaged foods), and little or no animal-source foods and fresh foods, has been directly or indirectly associated with stunting in children⁴¹ and with being overweight or obese, diet-related non-communicable diseases (NCDs) and anaemia in women of reproductive age^{45,46}. A survey conducted with low-income households in Nairobi found that the triple burden of malnutrition can even exist within the same household or individual, with 41.5% and 74.1% of children being stunted and anaemic, respectively; while 30% of women were overweight or obese and 25.9% suffered from anaemia⁴⁷. The consequences of malnutrition are numerous and profound: both stunting and micronutrient deficiencies (i.e. iron, iodine) in children can negatively impact physical growth and cognitive development⁴⁸. This can lock individuals into long-term social and economic deprivation and cause inter-generational issues. For example, malnourished girls can become malnourished mothers, who can give birth to malnourished babies⁴⁹.

The majority of urban poor are net food buyers and as indicated in the previous section, spend a large proportion of their income on food⁵⁰. For example, in Makuru slums in Nairobi, poor dwellers could spend up to 70% of their income on basic foods, buying 90-100% of their household food⁵¹. Lack of purchasing power affects the household's ability to access food, which in turn affects household dietary diversity. These households are also vulnerable to food price fluctuations⁵² and often adopt several food and non-food coping strategies, such as reducing food intake or skipping meals; decreasing consumption of more nutritious non-staple food; switching to cheaper and lower quality staples; increasing intake of street foods or reducing other expenditure such as child care, education etc. or borrowing money/food⁴⁸. Intrahousehold dynamics come to the fore in these crises. Mothers and infants can be the most vulnerable member of the family, also reported in the Khulna case study (Section 6). Evidence from Indonesia indicated that mothers try to protect their children from the food crisis by reducing their own food intake⁵⁴. Social protection measures play a key role, when well designed, targeted and implemented. Conditional and unconditional cash transfers have improved consumption, dietary diversity and health care participation, yet they have not delivered improvements in anthropometrics measures of nutrition commensurate with their success in addressing poverty. By linking either cash transfers or in-kind supplements to behavioural change communication, as recently confirmed in a randomised controlled trial in Bangladesh, the program increased the nutritional impact^{55,56}.

Care Practices

Urbanisation have brought more women into the labour force - particularly from poor households - and it is estimated that up to 75% of them are involved in the informal and semi-formal sectors⁵⁷. Informal sector activities provide women with means to engage in economic activity whilst maintaining domestic/ care work. However, this comes at a price of a double-burden workload. Working long hours in often precarious conditions for low wages is a constant among this group, which may affect childcare, breastfeeding and infants and young child feeding (IYCF). Evidence from Guatemala shows that almost 30% of the children of low-income

working mothers investigated were being cared for by relatives or neighbours and limited childcare options were available⁵⁸. This can directly affect, for example, mother's options for breastfeeding. In Nigeria, a survey carried out at an Urban Comprehensive Primary Health Centre identified maternal employment, perceived milk insufficiency and pressure from relatives (i.e. grandmothers, mothers-in-law) to early introduce complementary feeding as the main obstacles for exclusive breastfeeding⁵⁹. At the same time, the limited time of women in the workforce to prepare meals for the family along with the lack of cooking spaces/facilities in urban poor households are associated with a greater reliance on street foods, which are generally rich in fat, sugar and salt⁶⁰.

In poor urban settings women's 'time poverty' is as important as income poverty, although it is often overlooked by policymakers. Women who access paid

labour and lack domestic support have their workload increased and are not able to join other types of employment that are more formal or better paid⁶¹. Such factors, combined with limited infrastructure (i.e. water and sanitation systems, poor shelter and restricted mobility), can negatively impact care practices, and maternal and child dietary diversity (see Khulna case study).

Understanding the challenges that a woman faces in her daily life can unmask potential interventions areas. Women are more likely to continue optimal maternal and IYCF, if they recognise the benefits, believe that they can overcome the perceived and actual barriers and feel supported.

Sanitation, Hygiene and Health

Greater exposure to environmental risks, such as those arising from poor sanitation, and the lack of access to

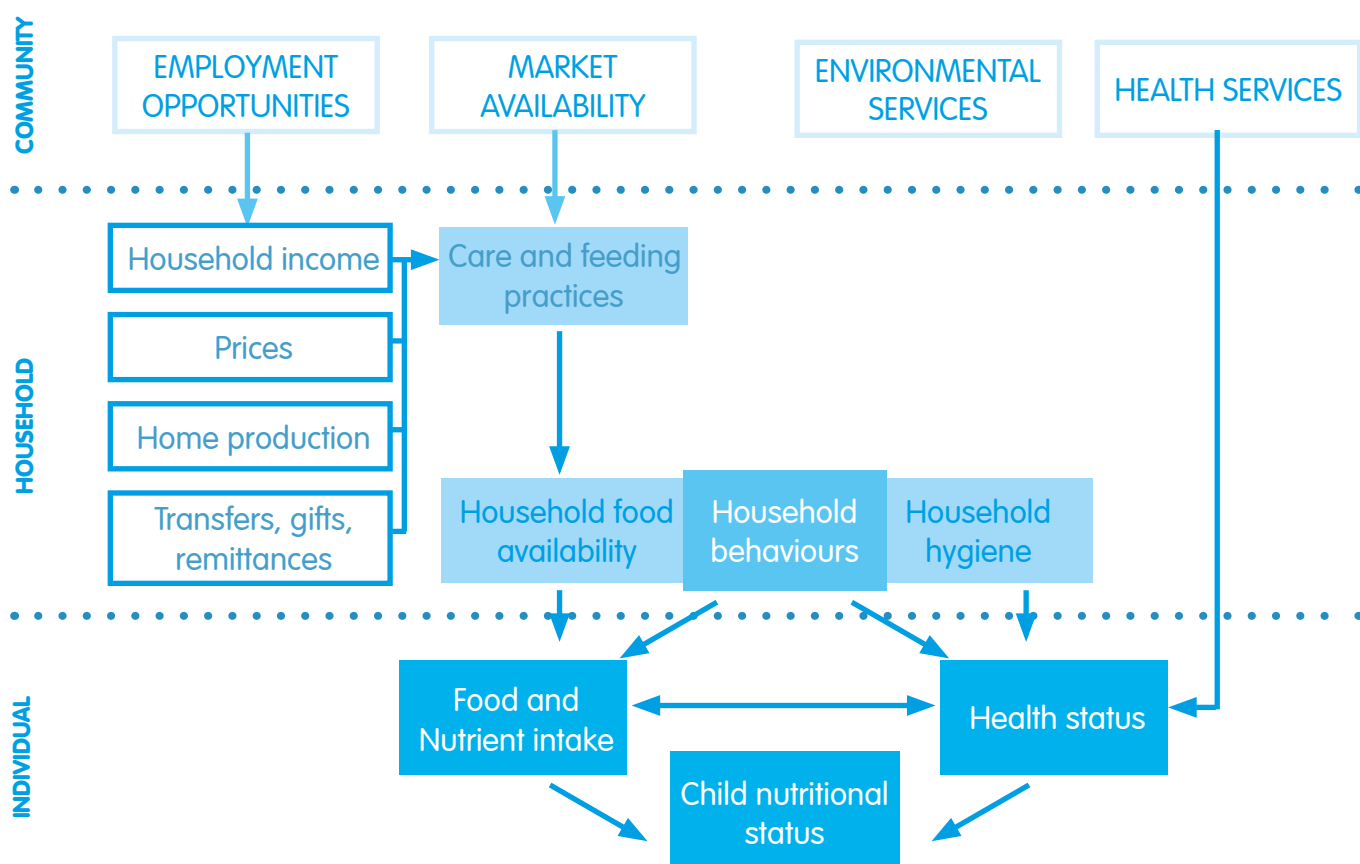


Figure 3: conceptual framework of the determinants of food, nutrition and health security in urban areas (Ruel, M.T. et al., 2010)

clean water and health services also impair nutritional and health status of the urban poor, especially those living in informal areas. Data from Kenya, Ecuador, Brazil, Haiti, and the Philippines show higher infant and neonatal mortality in slums when compared to rural areas⁶². According to a recent study published in the Lancet, “children are especially vulnerable in slums because of low breastfeeding rates, undernutrition, and poor sanitation, which predispose this group to chronic diarrhoea, stunting, and impaired cognitive development.”⁶³ In Bangladesh, data from the Urban Health Survey 2013 showed that 85% of households located in informal settlements shared toilet facilities with other households and about 60% had only water without any soap or cleaning agents available for handwashing⁶⁴.

Urban areas are considered to be better serviced in terms of health care⁶⁵. However, availability does not equate to access. Evidence from slums in New Delhi and Mumbai shows, for example, the total absence or shortage of healthcare infrastructure⁶⁶. The adoption of some child disinvestment behaviours among the urban poor during income and price shocks can also reduce the utilisation of routine preventive health care (i.e. immunisation, growth monitoring) in an effort to save both time and money⁶⁷. Such factors create the social and environmental context that promotes nutrition insecurity among urban poor dwellers, and highlights some of the reasons why undernutrition is increasingly taking an urban character.



Photo: a group discussion with informal food market vendors (see next chapter)

6. Case Study: Insights from Khulna, Bangladesh

The case of Bangladesh shows that strong progress on nutrition can be achieved. The rate of stunting, which reflects a state of chronic undernutrition, has dropped from 55% in 1996–97 to 36% in 2014^{68,69}. The rate of wasting (low weight-for-height), which reveals the state of acute malnutrition, has not, however, improved much. In fact, Bangladesh remains off course in terms of meeting the key Global World Health Assembly (WHA) targets for exclusive breastfeeding, wasting, and anaemia⁷⁰.

Bangladesh is experiencing rapid urbanisation, with the urban population likely to exceed its rural counterparts by 2040⁷¹. This will aggravate the food and nutrition insecurity, as the urban nutrition problem exhibits a startling duality—extreme undernutrition and burgeoning overweight/obesity being manifested at the same time. To get a better understanding of the food and nutrition security issues facing the urban poor, SNV conducted a study in August 2017 in Khulna, Bangladesh. The qualitative study involved interviews with mothers from urban poor areas (pregnant/lactating); focus group discussions with informal food market vendors and interviews with local municipality responsible for health/nutrition and urban food supply. The results are presented below:

Interviews with mothers

At the household level, a number of issues and challenges related to the immediate and underlying determinants of malnutrition were recorded. Early pregnancies and marriage were common amongst the selected interviewees. Ages ranged from 19 year to 28 years with first pregnancies as young as 15 years. As presented in Table 1, the mothers and infants had poor dietary diversity scores, in some cases as low as one or two food groups for infants, with the main consumed food group being rice/potatoes. The meal frequency was poor, with breakfast being the leftovers from the previous evening dinner. The majority of the women lived with other household members, including parents or siblings in law, and for all interviewees, their husband was the main income earner. Where the husband had secure (not seasonal) employment, the food security situation was much better, as measured by the Food Insecurity

Experience Scale.

As also indicated in Sections 4 and 5, the data suggests that cultural traditions and lack of support available to women and their influencers is a significant barrier to improved nutrition. The male head of the household is the final authority on which food and non-food items are bought at the market and when they are bought, women seem to have a say in what is purchased. The mothers were familiar with the terms nutrition and stunting, as well as what constituted a good diet. It was clear that other factors affect the maternal and IYCF practices. Early introduction of food/water during the first 6 months was common, largely because of familial advice (from mother in law/sister); cultural practices; perceptions that they did not have enough breastmilk and also workload/time burden that impeded their own time to take care of the child. Purchasing food is an issue, and during food/economic shocks, the intrahousehold dynamics affect the mother's and infant's food intake - "my husband is fed first, then his parents, then my child and last is me". This also reflects findings from other studies (Section 5). All of the mothers received community health visits, however the support does not address the underlying challenges. It seems to be didactic "I don't have much of a choice but to listen to the health worker, she comes every week and I have to listen." The women did not access the health clinic unless for vaccines or if the child is ill. All the women had left school early (14/ 15 years), however one interviewee continued her education after her wedding because her husband encouraged it. All of the interviewees use a shared latrine (with 5/6 other households), but there are no handwashing facilities per se. Child faeces were disposed of in the open area. Three of the women were interested in finding work, especially as most of the current income is spent on food. None of the households were in receipt of social protection support.

Food Environment: Informal Markets

Group 1- Tea Stall Ladies: A focus group was held with 12 female tea-stall/small shop owners. The discussion aimed to gather further insight into the types and sources of food available, market prices, key challenges including access to water/capital and safety/security

issues.

The working conditions seem to be very poor. Similar to the findings in Section 5, women work long hours, waking at 6am to do house chores, setting up the stall for 8am and continuing to work until midnight to avail of the 'foot traffic'. Male customers tend to purchase the food on their way to and from work. The women work 7 days a week. If they fall ill, there are no social or medical supports/compensation that they can avail of. This situation is exacerbated by the fact that the work is labour intensive, and some of the participants said that they often have health problems such as back pains. Some of the women returned to work immediately after giving birth and often bring the child with them or leave them in the care of older siblings. Some of the women didn't have husbands to support them and even when there is a partner earning income, after the joint wages are spent on food and education there is little money left "If we had more money would we be staying and working here?" ...'It's hard to make ends meet'. One lady said during the course of the discussion, she started to 'feel bad' about what they were discussing.

The main types of food/drink sold were biscuits, puffed rice/spices, snacks such as 'chanachu', cigarettes, 'betel', tea, eggs, some fruits such as mangoes purchased from the larger fruit markets, and shrimps without the head. Some also cook the food/snacks at home. They don't change the type of snack they sell unless the consumer requests it. Market prices fluctuate regularly. The fruits are seasonal- 'during the rainy season, I have hardly an income and it's hard to pay the rent'. If prices increase, they increase the price of their product

The reason why they started the business is because it takes less money to start this type of business as they don't have licences. Local government officials however check their stall every 3 months for hygiene/cleanliness, and also to check what type of containers they are using as polythene is banned. There were no security issues mentioned apart from stolen items. However, a general consensus was that they all wished for better conditions or alternative employment.

Group 2 Male Fish Vendors: Those who were selling high priced goods such as fish and meat tend to be male

(average age 38/40 years). The first group of male fish vendors sold higher quality produce. On average they travelled 4 hours to source the fish (starting at 3 am). They sell the fish at 16.00, mostly to men. Between April and July the fish supply is low, hence the cost is high. When the prices increase similar to the female tea stall ladies, they charge more to customer. To sell in the market, they must first register with the local corporation and they rent the market space. In terms of food safety, they use ice to transport and store the fish. They chose to work in this area because it takes less money to start the business plus for some, their father(s) worked as fish vendors.

Group 3: Male/female fruit, vegetable and fish vendors (market where produce is a lot cheaper than higher end markets)

The surveyed food market had been previously supported by a UNDP project/city corporation to improve market conditions, including shelter, raised platforms for the produce and improved access to latrine and handwashing facilities. From an observational survey, the fruit and vegetables were generally in good condition. Most of the vendors selling fruit and vegetables were middle-aged or older females. Their working hours were better than the tea stall ladies, starting at 8am and finishing at lunchtime.

One lady, about 25 years, indicated she left school at age 10 to start work. She, along with her father are the income earners in the household, and she gives all her income to the family. An older lady said that there were 9 in her household, and her son and husband also work. She has also taken on responsibility for the market, where all vendors give a small fee to maintain the conditions of the market. If someone falls ill, they contribute to support that person. As they sell produce to the urban poor, they keep the prices low and make little profit. They buy from a local wholesale market. One vendor had purchased the 'gone-off' food from the market, as it was very cheap (see photo below).

Interview with local municipality: Khulna City Corporation

Health Officer: Nutrition has garnered attention in the

health policy and programmatic area, however it wasn't clear how urban poor issues are being addressed. There is strong community health outreach. However, further training and mentoring in counselling skills are needed. Although the Khulna City Corporation recognise the need to address food and nutrition needs of the urban poor, there is a lack of finance and budget to do this. Hence most of the current work is done by NGOs. There isn't currently a platform to discuss the urban poor issues with all the relevant stakeholders, from NGOs to Government to donors.

Food: There isn't an urban food plan or policy, and aside from a food safety (externally donor funded) project there wasn't an active programme focusing on food security issues in the poorer areas. For new vendors, the main requirements are a sanitation and trade licence in compliance with the relevant food safety legislation. There is also a consumer authority to monitor food prices. However, it seems that the 'informal markets' are not considered in the above.

6.1 Discussion of Khulna Findings

The Khulna study reiterates and reflects the findings from other reports. As highlighted in Section 5, intrahousehold dynamics and issues persist, with women and infants often receiving less, diverse food. This situation is exacerbated in the event of a shock. Women's time for IYCF is often compromised by heavy workload and women's empowerment is stifled by lack of access to education and resources, and more deep-rooted social and cultural norms. Although it was encouraging to see that the husband in a young couple encouraged his wife to continue secondary education. While knowledge and awareness of malnutrition seems to be fine, there is a disconnect with actual practices and habits. In the case of not practicing exclusive breastfeeding, it seems that the familial influence, particularly from the mothers-in-law is very strong. There is potential for local governance staff to provide counselling and support to address the challenges.



Photo: a street vendor sells 'gone-off' food on the informal market

As discussed in Section 4, informal food markets are an important source of employment for the urban poor. The profiles of food vendors varies, from female tea stall ladies to male fish vendors. In terms of food and nutrition security, where informal markets provide better conditions, in terms of working hours, infrastructure etc., it can benefit the vendor, particularly female vendors. Most notably in providing sufficient income to purchase diverse, good quality food and having adequate time for IYCF. Improved market infrastructure (roof, raised platforms, improved WASH, sourcing of food) also seem to improve the quality of nutritious food available and as identified in Khulna, opportunities exist at the community level in the urban area, and with support from local

municipalities can prove to be sustainable.

Although, as reported in Khulna and elsewhere, there is an interest amongst the government officials to develop a coordination platform to discuss urban food policy and programming for the poor, but they currently do not exist at a local level. There are many challenges including a lack of resources and support to do this. Moving forward, improving the governance and enabling environment and strengthening urban-specific nutrition skills offers great potential to address the grave picture of food insecurity and malnutrition in the urban poor area, and meet the needs of those most vulnerable, as highlighted in Khulna and previous sections.

Interviewees	Minimum diversity			
	score for women (MDD-W) ⁷²	Minimum diversity score for infants 6 - 23 months ⁷³	Exclusive breastfeeding ⁷⁴	Food insecurity ⁷⁵
Mother 1 (19 years), 3 month old baby. First pregnancy at 17 years and her first child died	Adequate - 7/10 food groups	n/a	No, gives water	Mild
Mother 2 (21 years), son 18 months. First child died when she was 16 years. Second time, she miscarried	Inadequate - 4/10 food groups	Inadequate - 2/7 (only grains and veg.)	No, gave food i.e. 'a sweet dish'.	Severe (June/July, husband can't work)
Mother 3 (18 years). 5 months pregnant with her first child.	Adequate - 6/10 food groups.	n/a	n/a	Mild
Mother 4 (19 years), one son aged 23 months	Inadequate - 3/10 food groups	Inadequate - 1/7 food groups ** her child has always been underweight according to the health worker/clinic. Food group is rice/potatoes.	Yes, but started complementary feeding at 8 months.	Severe
Mother 5 (28 years), daughter 11 years, 23 month old. (First pregnancy at 16 years)	Inadequate 4/10 food groups	Inadequate - 2/7 food groups.	Gave water before 6 months.	Severe

Table 1. Maternal and child dietary diversity, exclusive breastfeeding practices and household food insecurity in urban poor areas, Khulna.

7. Discussion & Interventions

Significant strides have been made in understanding the determinants of multiple forms of malnutrition among the urban and rural poor within a rapidly changing development context. As urbanisation accelerates in the developing world, infrastructure and institutions must adapt in order to prevent the deepening of socio-economic inequality. The marginalisation of the urban poor has proven to have consequences for health and nutrition outcomes and prevents them from sharing in the benefits that cities have to offer. It is understood that proximity does not equate to access, and that the challenges of the urban poor will not be addressed without a concerted effort among all levels of government, and actors, including the private sector, civil society and research. Food security and nutrition are influenced by a complex web of factors throughout the entire food system and across the disciplines of urban planning, waste management, education, agriculture, business, and more.

However, there is much more to be understood and put in practice in order to ensure that urban citizens in low-to-middle income countries improve their nutrition and gain access to a reliable supply of affordable, healthy foods. Firstly, citizens should demand clarity from their governments as to how they plan to achieve their commitments under international agreements, and take an active role in developing the policies that affect them (see Section 3). This warrants a local urban platform where the needs of the urban poor can be voiced. Secondly, development actors must refine their intervention approaches to be appropriate for the needs of the urban poor. Understanding the barriers that exist within the household, particularly for the more vulnerable women and infants, is key to identifying priority areas for intervention. With the right support, the vulnerable can shape the solutions. Also, a focus solely on food production does not necessarily translate to healthier and more accessible foods in urban areas. There must further be recognition of the complexity of urban contexts and the need for a sustainable long-term vision. Thirdly, informal markets have proven to be essential to the economy in the provision of both food and employment. Efforts to improve this sector must be mindful of the role it plays for all stakeholders involved.

Governments and policymakers have a responsibility to maintain their commitments to the vision of sustainable and inclusive economies. They must recognise that barriers to regional integration and the strengthening of rural-urban linkages must be addressed in order to reduce price volatility, buffer the potential impacts of climate change and build networks to ensure affordable and nutritious foods for all. Putting a spotlight on the urban poor as consumers can empower citizens and help shape innovative approaches to many of the challenges they face. With these concerns in mind, the following key areas provide potential intervention pathways towards addressing urban food and nutrition security in a concrete manner:

Governance

In shaping the inclusive cities of the future, policymakers at all administrative levels will need to adopt a long-term vision. Within this vision, all citizens should be taken into account and not only the influential elite. The consequences of giving into such biases are already visible, with poorly serviced urban slums expanding globally. City planners must embrace these residents as a permanent part of the urban fabric, rather than a temporary phenomenon within the margins of the urban landscape. A critical part of embracing a long-term vision is the use of predicted growth figures, which challenges authorities to plan for the populations they have and not the “populations they hope for”⁷⁶. Part of this planning will require dysfunctional land markets and uncontrolled expansion to be addressed. As urban areas expand, farmers in peri-urban areas may lose access to their croplands and experience greater competition for water and other resources⁷⁷. This directly affects and can destabilise the urban food supply.

The future of cities should be shaped by its citizens. Informal settlements must not be regarded as a blight on the city but as an integral part that can help shape and inform the future in a way that responds to the needs of residents. Providing meaningful opportunities for citizen participation and engagement within multi-sectoral government coordination platforms is a necessary step in planning for a sustainable urban future and addressing issues that affect the poor. However, barriers preventing

such a participatory approach at the local level must first be identified. There may be a number of political and practical reasons making such engagement seem unrealistic. Still, there are plenty of success stories from which to draw inspiration⁷⁸.

Authorities should also take steps towards improving regulations and policies in support of urban food and nutrition, including social support systems. Considering that the urban poor are highly dependent upon food purchases, subsidies or other initiatives to buffer the impact of price shocks are critical. Inclusive formalisation of food markets are key. Capacity strengthening is needed among frontline nutrition educators, such as health workers where counselling skills may be weak. Nutrition coordination committees, active in many countries at the provincial and district levels, could be replicated in an urban context, and widened to include civil society organisations/NGOs, private sector and research. Supportive national mechanisms to oversee the accountability, coordination and monitoring of urban food policies must also be established, with dedicated bodies managing these processes at the local level and promoting engagement between government and community actors. Creating these linkages helps to align urban and national objectives and promote transparency⁷⁹.

Food Environment

The food environment in markets refers to all aspects surrounding the availability, affordability and accessibility

of food from the urban consumer perspective. Within the development discourse there has been an emphasis on the production side. While this is indeed critical (particularly in the face of population growth), it does not address the obstacles of the urban context. As highlighted in sections 4 and 6, women play a significant role in informal markets, but are burdened by long hours and a lack of support (financial, child care, etc.). Food sellers are vulnerable to price shocks and pass the costs onto consumers. The cost of safe, and nutritious food is a barrier to urban poor. Poor infrastructure and inclusive food safety regulations may put consumers at risk, many of whom may only be able to afford spoiled produce. Nonuniform food distribution throughout urban areas may lead to the creation of “food deserts” or “food swamps” - areas where unhealthy processed foods are all that is available (Section 4). Poor sanitation and lack of modern cooking facilities also present health and safety risks to sellers and consumers alike. Interventions to improve the food environment are necessary but must also be conscious of the importance of this sector for employment and food security. Ensuring affordability and nutritious supply should be a priority and should tie in with opportunities for employment and economic growth. Innovations in cold storage may be viable solutions for preventing food spoilage, promoting food safety, and reducing waste. Renovations to the physical market infrastructure or the creation of new markets may also be beneficial, and can be adapted to suit a wide range of needs, such as: the inclusion of waste collection points, shelter and raised platforms for produce, handwashing

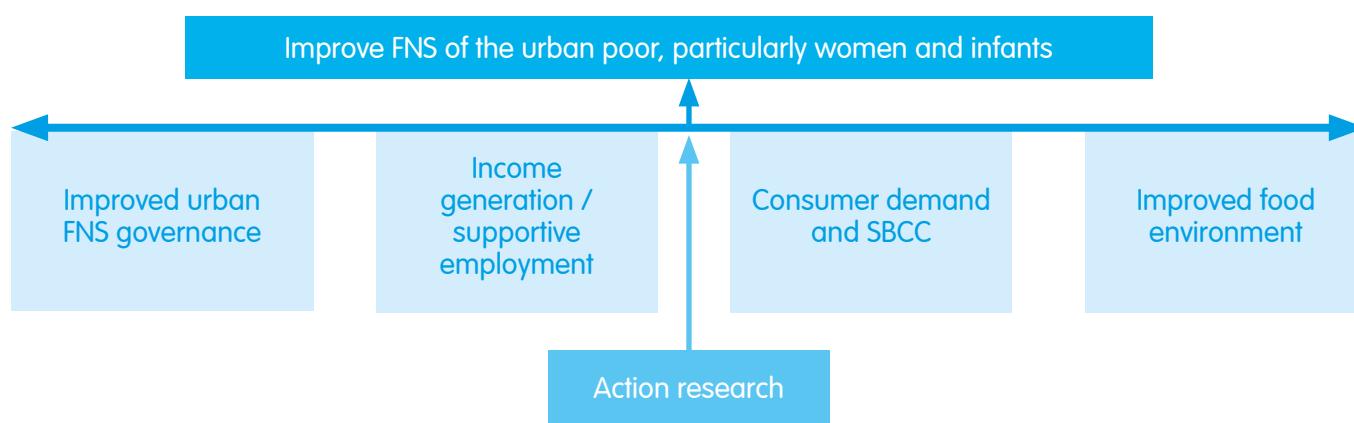


Figure 4: urban poor food and nutrition security approach

stations, bathrooms, or childcare facilities. However, to prevent costly failure, needs must be determined by the end-users and greater priority should be given to understanding why retailers locate where they do.

Behaviour Change

While there are several contributing factors to nutrition outcomes as mentioned in Sections 4, 5 and 6, from efficiency of supply chains to safety regulations, it ultimately comes down to the consumers (Section 5 and 6). Poor urban residents must be supported to make healthy food choices, within the constraints of their budgets. Inadequate care and feeding practices, inequitable gender relations, an unhealthy household environment are all contributors to early childhood malnutrition. Each of these underlying factors of undernutrition is heavily influenced on the one hand by external factors in the food environment, but also by behaviours related to food production and purchase, intrahousehold food distribution, care practices and hygiene. Behaviour is complex. Currently, one of the best known strategies for improving is Social and Behaviour Change Communication. It is a behaviour centred approach to facilitating communities, households and individuals in understanding, adopting and sustaining improved nutrition-related practices. Interventions can apply this approach, working at the individual level but also aiming to “influence the influencers” such as fathers and grandmothers.

Interventions targeted towards behaviour change are difficult to employ within the urban context. Rural community initiatives cannot easily be replicated into urban areas as it is often unclear how a “community” is defined. Urban areas are also subject to much higher rates of migration within the population so the “community” is always changing. There is a constant need to adapt and conduct thorough context-specific analyses prior to intervening. Schools, churches, places of work (e.g. factories or the food markets highlighted in the Khulna case study - Section 6.0) offer entry points for intervention within complex urban networks. Leveraging mass media awareness campaigns, where radio and television tend to be more accessible in the urban areas, could support the nutrition interpersonal communication commonly provided by community health workers. In any case there is a need to reach both men and women, to leverage the positive nutrition practices, and address the challenges through counselling or improved access to resources and social supports.

Data Availability

There have been clear efforts to assemble datasets and indicators that measure progress and the effectiveness of policies in urban areas. Those mentioned in Section 3 are evidence of this. However, there remains significant gaps in data collection particularly with regard to disaggregation across urban/rural areas, by income level, or by gender and age. As mentioned previously, challenges unique to poor urban residents are often lost when observing urban averages. According to the Global Nutrition Report 2017, better data on adolescents in particular is needed, as well on diets, since “if we do not know what people are eating, we will not be able to design effective interventions to improve diets”⁸⁰. In the Khulna case study (Section 6.0), adolescent marriage and pregnancy were frequently reported. Interventions, combined with operational research, are crucial to prevent or reduce adverse nutrition outcomes among adolescent females in LMICs, as well as to build a robust evidence base.

With current technologies available there remains untapped potential for using data to improve urban well-being (especially with a participatory approach, as mentioned in the Governance section). One example of this is the “balloon mapping” technique, used in the Mathare slum of Nairobi to capture aerial photography of food vending areas, to help identify health and safety hazards⁸¹. Community-led data collection offers an opportunity to empower citizens and hold their government representatives accountable. It also provides unique insight to local issues and can shed light on common challenges such as food price volatility or the geographic availability of certain commodities. Real-time market information can help people in the food economy reduce their risk and enhance shock preparedness. Data provides a reliable basis to inform decision-making, and will be critical to shaping the inclusive cities of the future.

8. Recommendations for Intervention

A strong case for action has been made in this paper, to address the food and nutrition security needs of those most vulnerable in the urban setting. Even if interventions focus on a more localised model, based on individual needs, it is possible to leverage supportive governance structures and collective action through for example trade associations⁸². Addressing structural weaknesses in for example, access to improved sanitation or food safety mechanisms can reap benefits. To what extent an intervention will focus on individual needs versus wider urban population will depend on the resources available and priorities of the donor, Government and development organisation(s). There is also a need to develop clearer strategies of working with the private sector for service delivery and scale up.

With this, four key inter-related intervention pillars have been identified in this paper (Figure 4). Recommendations in the four strategic areas of Governance, Food Environment, Employment and Community Behaviour Change are proposed below:

- Develop clear urban strategy and municipal food policy, led by Government and involving UN, NGOs, civil society, private sector and research. These should also include the emerging thoughts of donors on the development of comprehensive urban interventions. Collaborate with associations of food vendors/markets and representative of urban poor community groups where established;
- Apply operational research in urban programmes. Critical disaggregate data on urban poor food and nutrition security, particularly at the household level and amongst more vulnerable groups is needed to further inform and develop scalable interventions;
- Inclusively develop informal food markets, with tested interventions such as investment in basic infrastructure (such as running water and toilets) and storage, or microcredit programmes. 'Light touch interventions' centred around training and behaviour change in food safety can yield positive improvements in food safety and quality⁸³. Training and mentoring programmes can provide a platform for improving dialogue between small businesses and government agencies;
- Incentivise more widespread use of technologies to allow sharing of information on costs of production and prices of food;
- Consider targeting foods that consumers already know to be healthy and make them more accessible, affordable and consistent. Interventions that can improve the efficiency of the chain are more likely to yield substantial impacts. Franchising also represents a special case of interventions targeting the informal sector.
- Support community driven development and SBCC approaches to design effective SBCC interventions, it is essential to understand and address barriers at multiple levels;
- Improve working conditions and income generating opportunities for informal vendors, particularly women, who are disproportionately represented in the informal sector. Careful consideration must be given to their role as caregivers and mother. Generate employment opportunities in the food sector through credit access and in-service/vocational training.

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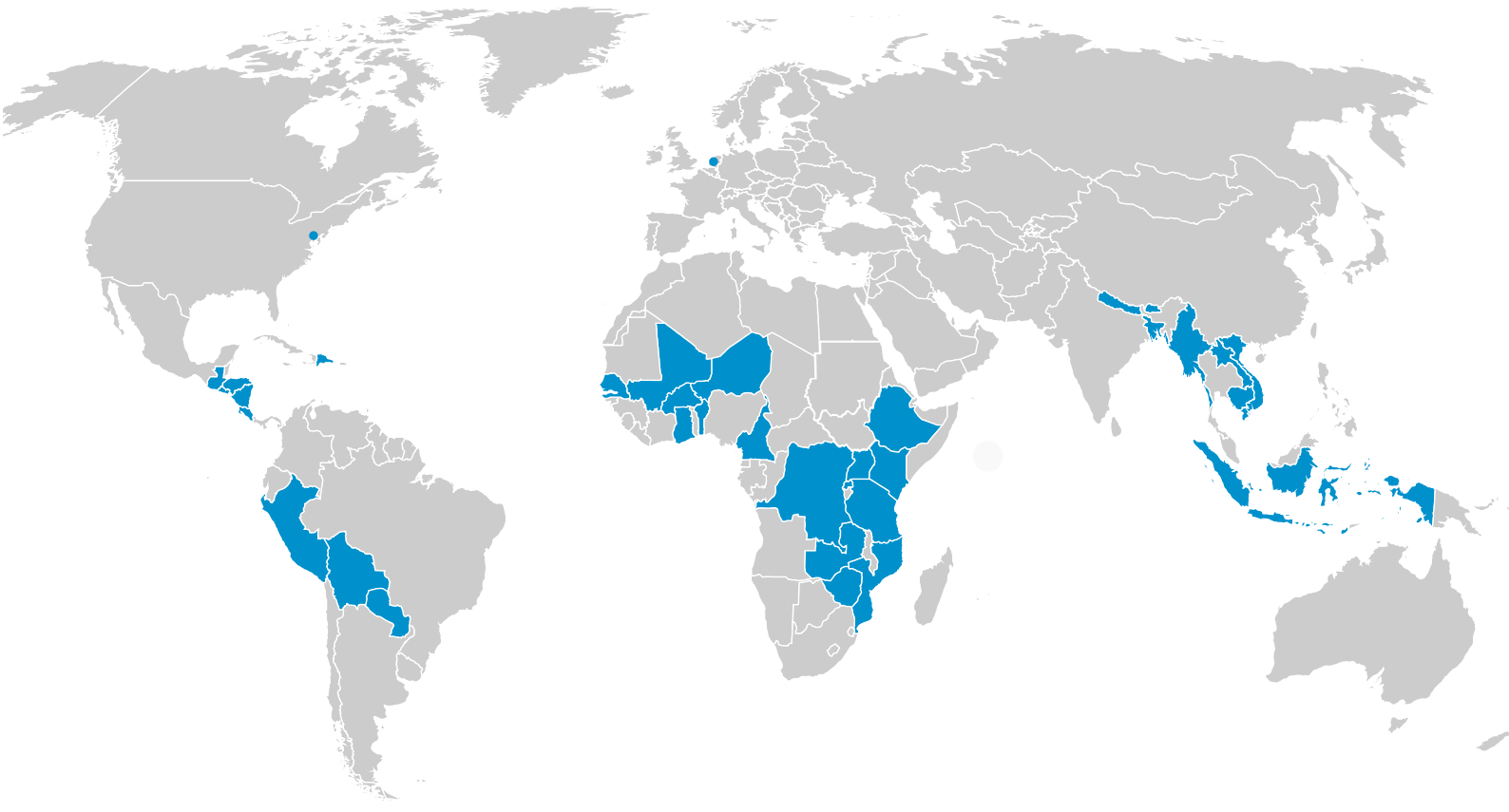
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