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## No. 02: The State of Urban Food Insecurity in Southern Africa

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### AFRICAN FOOD SECURITY URBAN NETWORK (AFSUN)



# The State of Urban Food Insecurity in Southern Africa

URBAN FOOD SECURITY SERIES NO. 2

# The State of Urban Food Insecurity in Southern Africa

Bruce Frayne, Wade Pendleton, Jonathan Crush, Ben Acquah, Jane Battersby-Lennard, Eugenio Bras, Asiyati Chiweza, Tebogo Dlamini, Robert Fincham, Florian Kroll, Clement Leduka, Aloysius Mosha, Chileshe Mulenga, Peter Mvula, Akiser Pomuti, Ines Raimundo, Michael Rudolph, Shaun Ruysenaa, Nomcebo Simelane, Daniel Tevera, Maxton Tsoka, Godfrey Tawodzera and Lazarus Zanamwe.

SERIES EDITORS JONATHAN CRUSH AND BRUCE FRAYNE

#### **URBAN FOOD SECURITY SERIES NO. 2**

#### Note

Those who contributed to the development of the survey on which this paper is based include Marie Caesar, David Coetzee, Percy Toriro, Miriam Grant, Belinda Dodson, Thando Gwebu, Alice Hovorka, Susan Parnell and Cecilia Rocha. Over 200 students and community workers were trained in fieldwork methods and administered the survey. The data entry and management was undertaken by Christa Schier and her team at the University of Namibia. The Food and Nutrition Technical Assistance Project (FANTA) is acknowledged for providing questions used in this survey to measure food insecurity. The survey and this publication were supported by funding from the Canadian International Development Agency (CIDA) under its University Partners in Cooperation and Development (UPCD) Tier One Program and from Queen's University.

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# i Introduction

In 1996, Simon Maxwell observed that "it has been impossible since the early 1980s to speak credibly of food security as being a problem of food supply, without at least making reference to the importance of access and entitlement."1 Maxwell was referring to the sea-change in thinking about food security that followed the publication of Amartya Sen's seminal work, Poverty and Famines, in 1981. Sen argued that sufficient food is often available, even in the midst of devastating rural famine and acute hunger. Rather, food insecurity was more often about inability to access food rather than the absolute amount of food available.<sup>2</sup> Sen's vision of dearth amidst plenty is very relevant to the urban areas of contemporary Africa. Shelves and bins in supermarkets in most cities groan with fresh and processed foodstuffs while on the doorstep poor households are unable to access enough staples to feed themselves more than once a day. Food may be more plentiful and more diverse in the city than the countryside but it is far from being uniformly accessible. As Bryant notes: "The donor [and government] emphasis on increasing production as a response to hunger is limited, since a substantial part of the problem is that poor people cannot afford to purchase the food they need."3 That comment was made over 20 years ago but is just as pertinent today.

International organizations, donors and governments have recently reached a new consensus that the solution to food insecurity in Africa lies in massive inputs into smallholder production across the continent.<sup>4</sup> Yet, in many countries, more than enough food is already being produced. South Africa, for example, produces sufficient food to guarantee an adequate diet for all. Why, then, is the incidence of urban (and rural) under-nutrition shockingly high in that country? And, more generally, why do government and international agencies and foreign donors continue to insist that increasing agricultural production by small farmers is the solution to food insecurity, even in countries like South Africa? <sup>5</sup> Urban food security is not, and has never been, simply an issue of how much food is produced.

At the 1996 World Food Summit in Rome, the international community adopted a much broader definition of food security which has since become the industry standard:

Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.<sup>6</sup>

The definition reflects the post-Sen consensus that food production is only one element of food security. Other key elements included food availability, food accessibility, food reliability, food quality and food preference (Figure 1).

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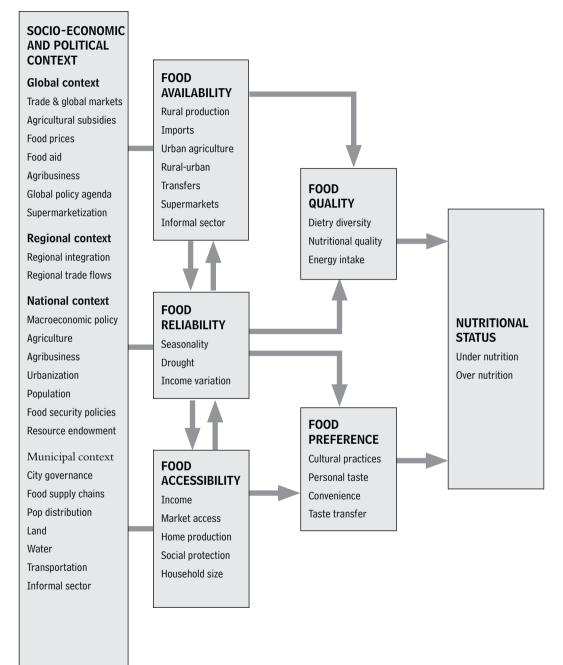
Comparative information on the various dimensions and determinants of food insecurity in Southern Africa's towns and cities is currently lacking. One of the key unanswered questions is whether the state of food insecurity varies not only between countries but between urban areas, and why. Clearly, the level of food insecurity in any particular city cannot be explained outside of its global, regional, national and local context. While these contextual factors are well beyond the control or influence of individual households, they profoundly affect their food security. The food price shocks of 2008-9 brought this home in a powerful way.<sup>7</sup> In many parts of the world, the food insecure responded to the price shocks with protests and bread riots.

In order to provide baseline information on the state of urban food insecurity in Southern Africa, AFSUN planned and implemented an eleven city survey in eight SADC countries in 2008-9. The resultant regional data base is a rich source of information for evidence-based policy-making on food security. This paper begins with an overview of the growing importance of urbanization in Southern Africa. It then discusses the methodology used in the AFSUN Survey. Basic demographic information on the urban poor follows. Then the paper presents and discusses the survey findings, focusing on the following questions:

- What are the levels of food insecurity amongst poor urban house-holds?
- What is the relationship between poverty and food insecurity?
- Where do the urban poor get their food?
- What factors influence urban household food insecurity?

The analysis focuses on the picture that emerges from the regional database but also highlights important differences between participating cities. Finally, the paper examines the SADC policy environment from an urban food security perspective, and highlights various policy implications that arise from the research.

The Dimensions of Urban Food Security



Source: Adapted from Kennedy, "Food Security in the Context of Urban Sub-Saharan Africa."

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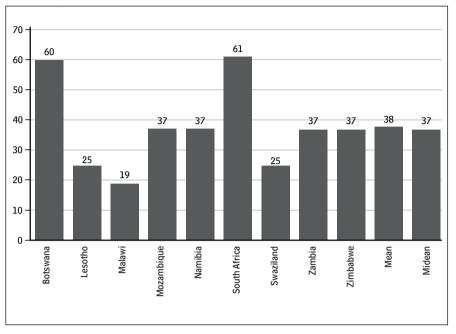
# 2 RAPID URBANIZATION IN SOUTHERN AFRICA

In 2007, the proportion of humanity living in urban areas passed 50%, marking the first time in the history of the planet that more people live in urban centres than in rural areas.<sup>8</sup> As the global population continues to grow toward a mid-century estimate of 9-10 billion, the majority of this demographic increase will be in cities; and approximately 95% of that growth will be concentrated in the cities of the developing world.<sup>9</sup> Future urban growth will be most intense in Asia and Africa, and these two regions will have the largest urban populations on the planet by 2030: 2.66 billion and 748 million respectively.<sup>10</sup> At twice the global average, the pace of urbanization is already highest in Sub-Saharan Africa (SSA). The average rate of urban growth for SSA is close to four percent and this positive trend is expected to persist for decades to come.<sup>11</sup>

The number of people living in urban areas is rising particularly rapidly in the Southern African Development Community (SADC). With an annual urbanization rate that exceeds the global average and persistent and growing urban poverty, urban development challenges are set to intensify over the coming decades. Southern Africa has a regional population of approximately 210 million, at least 100 million of whom already live in urban and peri-urban areas. By 2020, this figure is estimated to rise to 150 million and to exceed 200 million by 2030.<sup>12</sup> In the nine SADC countries in which AFSUN currently operates, more than one third of the population is already urban (Figure 2). Although this distribution is uneven between countries, more than 60% of the population of Botswana and South Africa is urban. The UN's urban population projections for SADC as a whole indicate that the city-based population of these countries will reach 40% in 2010 and climb to over 60% by mid-century (Figure 3).

Rapid urbanization is not associated with increased incomes and better standards of living in the SADC as it is in some other developing regions.<sup>13</sup> Moreover, poor urban households are facing significant pressures as a direct result of the current global economic crisis and the high price of food staples. Consequently, urban food security is an emerging area of development concern which is fundamentally different to questions of food security within the rural and agricultural sectors. Yet little is known about the extent of food insecurity in the cities and towns of Southern Africa, making it difficult for development practitioners and policy-makers to quantify the challenge and to proactively plan to reduce the food gap that exists in urban areas. There is some case study evidence

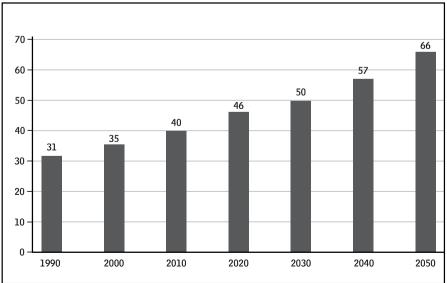
THE STATE OF URBAN FOOD SECURITY IN SOUTHERN AFRICA



**Urban Population in AFSUN Countries** 

Source: Adapted from UN, World Urbanization Prospects: 2007 Revision Population Database

#### FIGURE 3



#### SADC Urban Population Growth

Source: Adapted from UN World Urbanization Prospects: 2007 Revision Population Database

about the extent of food insecurity in some SADC cities, but the different methodologies used make comparisons difficult.

In order to instate urban food security on the general food security policy agenda, and to develop evidence-led policy responses, rigorous and reliable data on the extent and determinants of urban food security is needed. A regional picture of urban food insecurity in Southern Africa requires a coordinated regional household survey with a common methodology and research instrument. No such exercise has been conducted to date, partially accounting for the relative 'invisibility' of urban food security in policy making and national food security strategies.<sup>14</sup> In order to provide a picture of the state of urban food insecurity in Southern Africa, the African Food Security Urban Network (AFSUN) undertook a baseline urban food security survey in eleven cities in nine countries in Southern Africa in 2008–9.

#### **AFSUN Survey Methodology**

The AFSUN Urban Food Security Survey was conducted simultaneously in late 2008 in eleven cities in nine countries: Blantyre, Cape Town, Gaborone, Harare, Johannesburg, Lusaka, Maputo, Manzini, Maseru, Msunduzi (Durban Metro) and Windhoek. The surveyed cities represent a mix of primary and secondary cities; large and small cities; cities in crisis, in transition and those on a strong developmental path; and a range of local governance structures and capacities as well as natural environments. These particular cities were selected on the basis of local expertise, expressed interest and engagement from policy makers and the fact that they collectively offer a wide platform from which to address the issues of urban food security more generally. In that respect, the AFSUN survey is a 'pilot project' since the standardized methodology can be applied to other urban areas within individual countries, across the region and in Africa more generally.<sup>15</sup>

AFSUN partner organizations planned the methodology and survey instrument at a Research Planning Workshop in June 2008 hosted by the University of Botswana in Gaborone. The finalized questionnaire was then pilot tested and approved by partners and ethics approval obtained. Implementation commenced in late 2008. In all cities, the project held a training course for undergraduate students in fieldwork methods as part of its commitment to local capacity-building. The fieldwork was supervised by senior faculty in each city.

One or more poorer urban neighbourhoods were identified for study in each city. In the larger cities, such as Cape Town and Johannesburg, different types of formal and informal urban neigbourhoods were chosen. Within city neighbourhoods, households were sampled using a systematic random sampling technique; when it was not possible to interview people in the designated household a substitution was made. Maps of the areas to be surveyed were prepared and used in the field for household selection. At the household level, household heads or other responsible adults were selected to answer the questions on the survey. Field supervisors and/or city partners checked completed questionnaires. To minimize data entry errors and to standardize data cleaning, all questionnaires were sent to the University of Namibia in Windhoek for entry, reliability checking and the preparation of final datasets and tables for analysis. The resulting AFSUN Urban Food Security Regional Database contains information on 6,453 households and 28,771 individuals. A data analysis workshop was hosted by the University of Witwatersrand in Johannesburg in February 2008.

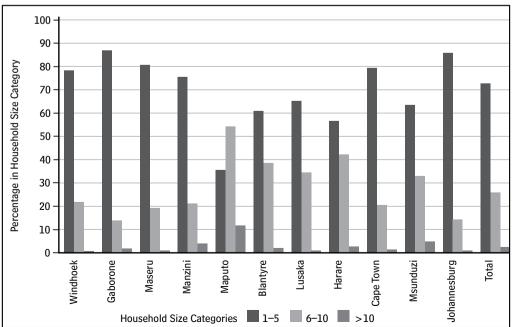
# 3 Demographic and Social Profile of Urban Households

This section of the paper provides an overview of the demographic and social characteristics of the households and individuals included in the survey. Variables considered include household size, type of household head, sex and age breakdown, and migration.

### 3.1 Household size

In the 11 cities surveyed, the average size of a poor urban household is five, with a range from 1 to 21. Average household size varies from a low of about three in Gaborone to a high of about seven in Maputo. Figure 4 shows the pattern of distribution of household size for the regional sample as a whole. Although the majority (73%) of households have between 1-5 members, this pattern is less pronounced in Blantyre, Lusaka and Harare, where only 60% are in the lowest category. Maputo is an anomaly amongst the 11 survey cities with only 35% falling into the 1-5 category, while more than half (54%) of households are larger with between 6-10 household members on average.

### FIGURE 4



#### Distribution of Urban Household Size

THE STATE OF URBAN FOOD SECURITY IN SOUTHERN AFRICA

#### 3.2 Household Headship

For convenience, households can be grouped into four main types, based on the sex and primary relationship of the household head: (a) femalecentred or headed households (usually single women, widows and separated/divorced/abandoned) without a spouse or partner; (b) malecentred or headed without a spouse or partner; (c) nuclear households of immediate blood relatives (usually male-headed but spouse or partner present) and (d) extended households of immediate and distant relatives and non-relatives (again usually male-headed with a spouse or partner also present).

Across the 11 cities, the survey found that female-headed households are most numerous (at 34% of the total) (Table 1). At the city level, femaleheaded households are most numerous in six including Msunduzi (53%), Gaborone (47%), Cape Town (42%), Maseru (38%), Manzini (38%) and Windhoek (33%). Blantyre has the lowest proportion of female-headed households (at only 19%). Only 12% of the total number of households has a male head on his own. Again there is inter-city variation from a low of 3% in Lusaka to a high of 23% in Gaborone. Males also tend to be the heads of nuclear (32% of the total) and extended (22% of the total) households. Consistent with the larger household size in Maputo, 45% are extended households. In every other city (with the exception of Windhoek), there are more nuclear than extended households.

TABLE 1:	TABLE 1: Typology of Households Surveyed (%)														
	Windhoek	Gaborone	Maseru	Manzini	Maputo	Blantyre	Lusaka	Harare	Cape Town	Msunduzi	Johannesburg	Total Regional			
Female Headed	33	47	38	38	27	19	20	23	42	53	33	34			
Male Headed	21	23	10	17	8	6	3	7	11	12	16	12			
Nuclear	23	20	35	32	21	41	48	37	34	22	36	32			
Extended	24	8	17	12	45	34	28	33	14	13	15	22			
Total	100	100	100	100	100	100	100	100	100	100	100	100			
N	448	399	802	500	397	432	400	462	1,060	556	996	6,452			

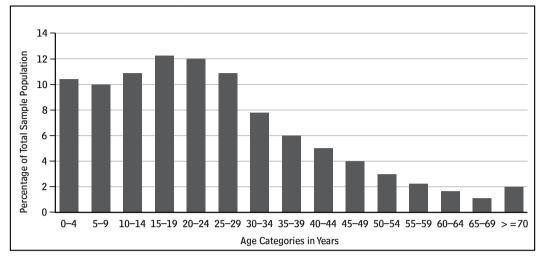
### 3.3 Sex of Household Members

A breakdown by sex of the household members in the sample shows that there are more females (54%) than males (46%) in poor urban communities (Table 2). In 10 of the 11 cities, the proportion of females is higher than males (in Blantyre the split is even). Cross-border migration in the Southern African region is male-dominated but this data suggests that, amongst the urban poor, the 'feminization' of internal migration to Southern Africa's major cities is well-advanced.<sup>16</sup>

TABLE 2	TABLE 2: Sex Breakdown of Population													
	Windhoek	Gaborone	Maseru	Manzini	Maputo	Blantyre	Lusaka	Harare	Cape Town	Msunduzi	Jobhannesurg	Total Regional		
					PERCE	NTAGE								
Male	48	43	44	47	47	50	48	47	44	44	47	46		
Female	53	57	56	53	53	50	52	53	56	56	53	54		
Total	100	100	100	100	100	100	100	100	100	100	100	100		
N	1,848	1,237	3,248	2,112	2,737	2,230	1,978	2,572	4,177	2,871	3,762	28,772		

## 3.4 Age Distribution of Household Members

The age breakdown of the sample shows the general youthfulness of the urban population in Southern Africa (Figure 5). Across the 11 cities, 32% of household members are children (0-15) and only 4% are elderly (60 years of age and over). The proportion of children (0-15 years) is around a quarter of the sampled population in four cities (Windhoek, Gaborone, Cape Town and Johannesburg) and reaches a high of 42% in Lusaka (Table 3). All of the cities of Southern Africa therefore have a significant number of children who are vulnerable to the negative physiological and cognitive impacts of food and nutrition insecurity. With 75% of the sample population below 35 years, this youthful demographic distribution mirrors the larger Southern African picture of societies undergoing a demographic transition where population growth is positive and life expectancy low. High dependency ratios are a challenge for poor households, and make the adequate provisioning of food problematic.



Age Distribution	of Urban Population
Age Distribution	

TABLE	TABLE 3: Characteristics of Population														
Age Groups	Windhoek Gaborone Maseru Manzini Blantyre Lusaka Harare Cape Town Msunduzi Johannesburg								Johannesburg	Total Regional					
	PERCENTAGE														
0-15	24	23	31	36	35	39	42	33	28	34	26	32			
16-29	38	41	35	35	37	36	35	36	34	34	36	36			
30-44	28	24	17	18	14	15	16	18	21	18	23	19			
45+	10	12	17	11	14	10	8	13	17	14	16	13			
60+	2	3	8	5	2	3	2	5	5	5	5	4			
N	1,848	1,237	3,248	2,112	2,737	2,230	1,978	2,572	4,177	2,871	3,762	28,772			

#### 3.5 Household Migration

This analysis assumes that only those who were born 'Urban' and are staying now in 'Same urban' can be considered non-migrants and the remainder can be considered migrants. As a result, there are three types of households: (1) households with no migrants (i.e. everyone born in the city in which the survey took place); (2) households with a mix of migrants and non-migrants (i.e. some household members were born somewhere other than the city in which the survey took place and migrated to/joined the current urban household); and (3) migrant households (i.e. all household members were born somewhere other than the city in which the survey took place). With the high rate of urbanization in Southern Africa, it comes as no surprise that 38% of households in the sample are 'migrant households' i.e. no one in the household was born in the city, but all migrated there during their lifetime. In contrast, only 13% of households are 'households with no migrants' (comprised of members who have not migrated during their lifetime and all born in the same city in which the survey was conducted). The largest proportion of households comprises a mix of migrants and non-migrants (50%), indicating the temporal and geographic fluidity of household structure across all cities in the region (Table 4).

TABLE 4: Lifetime Migration								
	Total Percentage							
Migrant HH	38							
Non-migrant HH	13							
Mixed HH*	50							
Total	100							

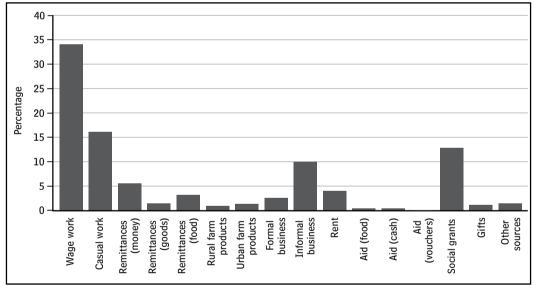
N=6,267 \* Has both migrants and non-migrants

# 4 Economic Profile of Urban Households

### 4.1 Household Income

Just over a third of total household income comes from wage employment, a clear reflection of high levels of formal sector unemployment across the region (Figure 6). Casual work contributes another 16% and social grants 13%. The informal sector contributes only 10% to total income. Income from cash remittances (at 6%) is twice that of formal businesses. Aid (food and cash) is of negligible importance as is income from rural farm produce sales (both less than 5%). The sale of urban agricultural produce is, more surprisingly, also less than 5%.

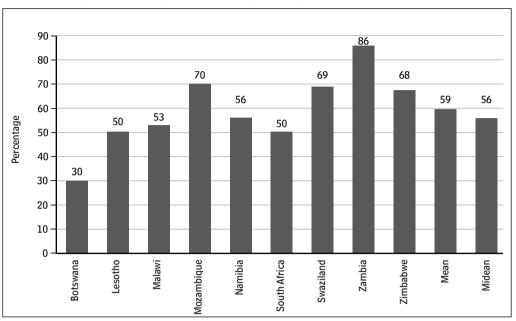
#### FIGURE 6



Sources of Urban Household Income

### 4.2 Levels of Urban Poverty

The most commonly accepted measures of global poverty are the \$1/ day (extremely poor) and \$2/day (moderately poor) lines. Recently, the World Bank has readjusted the \$1/day line to \$1.25/day.<sup>17</sup> Around 60% of households in the SADC region fall below the \$2/day poverty line (Figure 7). In every country (except Botswana at 30%), the proportion of the population below the line is more than 50% (with Zambia at 86% the highest). The mean monthly household income for the sample was USD \$193 in the previous year. This translates into a monthly per capita income of \$39 and a daily per capita income of \$1.29.<sup>18</sup>



Population Living Below \$2/Day Poverty Line, 2007

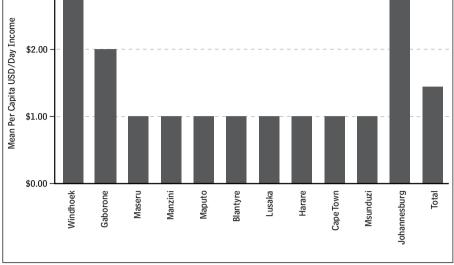
Source: Adapted from UN World Urbanization Prospects: 2007 Revision Population Database

In only three of the 11 cities (Johannesburg, Windhoek and Gaborone), however, are mean per capita incomes above \$1/day (Figure 8). At the aggregate level, 66% of households live at or below the \$1/day poverty line, and 76% live at or below the \$2/day poverty line. Given the high cost of food in African cities, it is clear that an income of \$1/day is insufficient to meet basic needs. For example, a loaf of bread in South Africa costs approximately \$1 (2008-09), a purchase that would leave the person with no other disposable income, yet with all other basic needs still to be met.

The proportion of urbanites below the \$2/day poverty line is greater (76%) than the mean national \$2/day poverty levels (59%) for the survey countries (see Figure 7). This suggests that national income levels underestimate the extent of urban poverty. Considering that food costs approximately 30% more in urban than in rural areas, income measures appear even less accurate as a proxy for food poverty.<sup>19</sup>

The Afrobarometer's Lived Poverty Index (LPI) provides an alternative, subjective experiential index of 'lived poverty.' The LPI is based on how often people report being unable to secure a basket of basic necessities of life: food, clean water, medicine/medical treatment, cooking oil and a cash income.<sup>20</sup> The LPI has proven to be a reliable, self-reported, multi-dimensional measure of deprivation. Responses are grouped together

Mean Per Capita Household Income



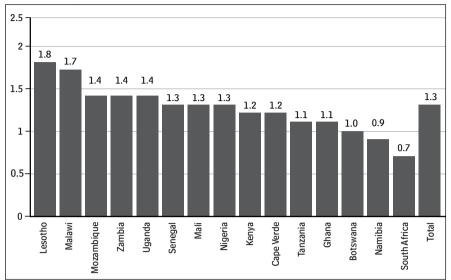
into a single index on a scale that ranges from 0 (never going without) to 4 (always going without); the higher the LPI value, the greater the degree of 'lived poverty.'

The average LPI of 15 selected Sub-Saharan African countries is 1.3 (with a high of 1.8 in Lesotho and a low of 0.7 in South Africa) (Figure 9). The average LPI for the AFSUN survey cities is very close to this, at 1.2, suggesting that the poverty that poor urban populations experience in Southern Africa is very similar to those levels 'lived' by Africans across the continent. However, there is considerable variation from city to city with Harare (at 2.2) having the highest LPI and Johannesburg (at 0.6) the lowest (Figure 10).

The Afrobarometer reports that when people across the continent were asked the question: 'In your opinion, what does it mean to be poor?', nearly half (47%) responded that it was a 'lack of food' (Figure 11); food poverty was seen as even more important than the lack of money or employment.

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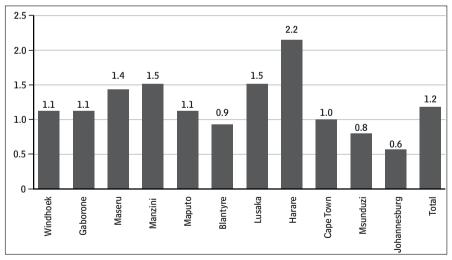
Lived Poverty Index for Selected Countries



Source: Afrobarometer, 2004.

#### FIGURE 10

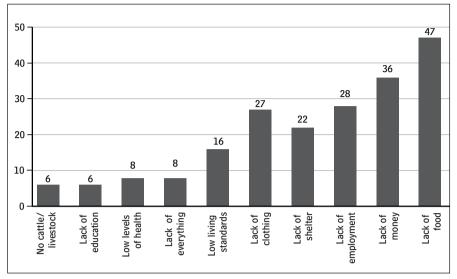
#### Lived Poverty Index for Survey Cities



### 4.3 Household Expenditures on Food

Food purchase is easily the most important item in household budgets across the region. Almost half (49.6%) of total expenditure by poor urban households is on food, a pattern that is consistent with the general rule that poorer households spend a greater proportion of their income on food (Table 5). In a number of cities, over half of household expenditure is on food, including Harare (62%), Cape Town (55%), Lusaka (54%), Maputo (53%) and Msunduzi (52%).

Perceptions of Poverty



Source: Afrobarometer, 2004.

TABLE 5: Food Purchase	TABLE 5: Food Purchase as Proportion of Household Expenditure									
City	N	% of Household Expenditure								
Harare	417	62.4								
Cape Town	985	54.8								
Lusaka	357	53.6								
Maputo	314	53.1								
Msunduzi	456	52.2								
Johannesburg	886	49.1								
Blantyre	424	46.5								
Maseru	628	46.0								
Gaborone	374	45.7								
Manzini	345	42.2								
Windhoek	430	35.9								
Total	5,616	49.6								

## 5 Sources of Food for the Urban Poor

Poor urban households in SADC cities obtain food from a wide variety of sources (Table 6). Easily the most important sources are supermarkets, the informal sector and small outlets (grocers, corner stores, spazas, restaurants and fast-food outlets.) Perhaps the most striking, and unexpected, finding of the survey was the importance of supermarkets to poor urban households. Nearly 80% of households purchase food at supermarkets, illustrating the extent to which the process of 'supermarketisation' has penetrated even the poorer urban communities of the region.<sup>21</sup> Despite this finding, the informal sector is also extremely important to households with 70% obtaining food from this source. Two thirds of households reported sourcing food from small outlets.

TABLE 6: Household Sources of Food									
	% of Households Using Source	% of Households Using Source on Daily Basis*							
Supermarket	79	5							
Informal market/street food	70	31							
Small shop/ restaurant/take away	68	22							
Grow it	22	3							
Shared meal with neighbours/ other HHs	21	2							
Food provided by neighbours/ other HHs	20	2							
Borrow food from others	21	2							
Remittances (food)	8	0							
Community food kitchen	4	1							
Food aid	2	0							
Other source	2	0							

\*At least five days per week

Note: Multiple responses permitted; N=6,453

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The relative importance of the three main sources of food shifts somewhat when households were asked how frequently they buy food from each source. The informal sector is most often frequented (with 31% of households sourcing food every day from informal markets and street vendors), followed by small outlets (22% of households every day). Supermarkets are frequented on a daily basis by only 5% of households. Individual supermarket purchases may be larger (and therefore less frequent) than purchases made from other outlets. Nonetheless, the heavy use of ad hoc sources of food on a regular, almost daily, basis is consistent with the behaviour of people with limited food income.

Urban agriculture is generally seen as an important source of income and food for poor urban households in Africa.<sup>22</sup> The survey findings show that the importance of urban agriculture to food security has various dimensions: first, there are the households who grow food for their own consumption (22% of households in total). However, only 3% of households consume home-grown food on a daily basis. The proportion of households growing some of their own food varies considerably from city to city. Cities in which more than half of the households grow some of their own food include Blantyre (66% of households) and Harare (60%), with Maseru at 47%. Cities at the other end of the spectrum include Johannesburg (9%), Cape Town (5%), Gaborone (5%) and Windhoek (3%). Some households use urban agriculture as a source of income. However, across the region only 3% of households derive income from urban agriculture, with the highest being Blantyre at 8%. These low figures in the context of fairly widespread use of urban agriculture as a source of household food point to the inadequacy of the market as a mechanism of getting household level produce to the commercial consumer.

At least a fifth of the households obtain food from sources that may collectively be described as 'coping strategies' (food aid, remittances, sharing meals with neighbours and/or other households, food provided by neighbours and/or other households, community food kitchens, and borrowing food from others). However, few source food in this way on a daily basis. Widespread reliance on informal coping strategies to obtain food, particularly in emergency situations of acute hunger, is characteristic of food-poor communities generally and pervasive in all of the cities surveyed.

In addition to these intra-urban food sources, households also report receiving food transfers from elsewhere. Although a more seasonal and less regular source of food than provided by urban retail outlets, and fostered by the extensive social networks that underpin migration, 28% of the regional sample received food transfers from households living elsewhere over the past year (Table 7). Windhoek has the highest proportion of households receiving food transfers (47%), which is consistent with other studies conducted in Namibia, and Johannesburg the lowest (14%).<sup>23</sup> Of those households that had received food transfers, the vast majority (89%) received cereals; other significant food types received include vegetables (40%), beans, pulses and nuts (31%), meat (29%) and roots and tubers (25%).

TABLE 7: Food Transfe	TABLE 7: Food Transfers to Households over the Past Year									
City	Ν	% Receiving Transfers								
Windhoek	209	47								
Lusaka	169	42								
Harare	190	41								
Maseru	294	37								
Blantyre	154	36								
Manzini	171	34								
Msunduzi	129	23								
Gaborone	87	22								
Maputo	77	19								
Cape Town	180	17								
Johannesburg	139	14								
Total	1,798	28								

# 6 Levels of Food Insecurity in SADC Cities

Standard measures of food insecurity at household level include proxy measures such as income and caloric adequacy. There is no simple and direct correlation between household income and food security, however, since there are many intervening variables including the price of food, the cost of other necessities such as clothing, shelter and transport, household size and so on. Caloric data is a more direct measure but is often technically difficult and costly to collect.<sup>24</sup> For ongoing evaluation and monitoring of the food security situation of the urban poor in SADC cities, a simpler but methodologically rigorous set of indicators of household food insecurity is needed. Given that this is a baseline survey, and likely to be repeated at regular intervals and expanded to other centres, it is important to discuss what we understand by food insecurity and describe how we measure it.

After investigation of various alternatives, AFSUN selected the food security assessment methodology developed by the Food and Nutrition Technical Assistance (FANTA) project.<sup>25</sup> FANTA conducted a series of studies exploring and testing alternative measures of household food insecurity in a variety of geographical and cultural contexts and developed various indicators and scales to measure aspects of food insecurity. These scales and indicators are designed to measure food access and dietary diversity and have already been successfully used in rural Southern Africa:<sup>26</sup>

*Household Food Insecurity Access Scale* (HFIAS): The HFIAS score is a continuous measure of the degree of food insecurity (access) in the household in the previous month.<sup>27</sup> An HFIAS score is calculated for each household based on answers to nine 'frequency-of-occurrence' questions. The minimum score is 0 and the maximum is 27. The higher the score, the more food insecurity the household experienced. The lower the score, the less food insecurity a household experienced.

*Household Food Insecurity Access Prevalence Indicator* (HFIAP): The HFIAP indicator categorizes households into four levels of household food insecurity (access): food secure, and mild, moderately and severely food insecure.<sup>28</sup> Households are categorized as increasingly food insecure as they respond affirmatively to more severe conditions and/or experience those conditions more frequently.

Household Dietary Diversity Scale (HDDS): Dietary diversity refers to how

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many food groups are consumed within the household over a given period.<sup>29</sup> The maximum number is 12. An increase in the average number of different food groups consumed provides a quantifiable measure of improved household food access. In general, any increase in household dietary diversity reflects an improvement in the household's diet.

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*Months of Adequate Household Food Provisioning Indicator* (MAHFP): The MAHFP indicator captures changes in the household's ability to ensure that food is available above a minimum level all year round.<sup>30</sup> Households are asked to identify in which months (during the past 12 months) they did not have access to sufficient food to meet their household needs.

# 6.1 Household Food Insecurity Access Scale (HFIAS)

The average household score is 10 on the 0-27 HFIAS scale (Table 8) which, when read within the context of the HFIAP indictor (below) reveals widespread urban food insecurity.<sup>31</sup> Johannesburg is the least food insecure with a mean score of 4.7; yet with a median score of only 1.5, it is clear that there is substantial variation in food security status across the sample. This variation reflects the diversity in income levels between the three areas sampled in Johannesburg, namely Orange Farm, Alexandra and the inner city. In contrast, in the other 10 cities, the mean and median scores are close together, indicating little variance in food security status within the city sample. The HFIAS is highest in Manzini and Harare (a mean of 15). In the case of Harare, this was expected given the dire food shortages at the time of the survey (late 2008). In the case of Manzini, Swaziland's devastating HIV and AIDS epidemic may be a significant factor.

TABLE 8	TABLE 8: Average HFIAS Score by City														
	Windhoek	Gaborone	Maseru	Manzini	Maputo	Blantyre	Lusaka	Harare	Cape Town	Msunduzi	Johannesburg				
No of HHs	442	391	795	489	389	431	386	454	1,026	548	976				
Mean	9.3	10.8	12.8	14.9	10.4	5.3	11.5	14.7	10.7	11.3	4.7				
Median	9.0	11.0	13.0	14.0	10.0	4.0	11.0	16.0	11.0	11.0	1.5				

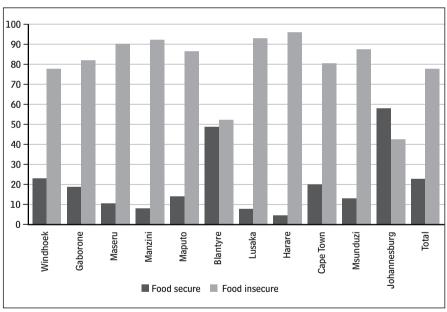
#### 6.2 Household Food Insecurity Access Prevalence Indicator (HFIAP)

The HFIAP allows us to make a basic distinction between 'food secure' and 'food insecure' households. Table 9 shows the distribution of households in the survey between the four HFIAP food security categories for each of the 11 cities. On average, only 17% of households can be categorized as 'food secure' using this indicator; more than half (57%) of all households surveyed were found to be 'severely food insecure'. However, given that households that fall into the 'mildly food insecure' category experience food deprivation relatively infrequently ('seldom' going without food), it was decided for the purposes of this analysis to include this category in the 'food secure' category. Similarly, the two categories of 'moderately food insecure' and 'severely food insecure' have been recoded into one category representing the 'food insecure' households in the survey. While this recoding of the data from four to two food security categories slightly over-represents the levels of food security in the survey (by 7%), it usefully simplifies the presentation of the data without significantly changing the regional urban food security picture that the survey reveals.

TABLE 9: Household Food Insecurity Access Prevalence											
	Windhoek	Gaborone	Maseru	Manzini	Blantyre	Lusaka	Harare	Cape Town	Msunduzi	Johannesburg	Total
Food secure (%)	18	12	5	6	34	4	2	15	7	44	17
Mildly food insecure (%)	5	6	6	3	14	3	3	5	6	14	7
Moderately food insecure (%)	14	19	25	13	30	24	24	12	27	15	19
Severely food insecure (%)	63	63	65	79	21	69	72	68	60	27	57
Total (%)	100	100	100	100	100	100	100	100	100	100	100

Using these two computed categories of 'food secure' and 'food insecure' households, the level of household food insecurity for the eleven cities surveyed is 76% (moderately and severely food insecure), and the difference between insecure and secure households is statistically significant (p<0.001, cc=0.392; Figure 12). This means that about four out of five poor urban households do not have enough to eat at any given time. Johannesburg has fewer food insecure households than any of the other cities (at 42%, again a result of sampling very different areas). In the cities of Maseru, Manzini, Lusaka and Harare, 90% or more households are food insecure. Even Cape Town (80%) and Msunduzi (87%) have higher than average levels of food insecurity, despite South Africa being the wealthiest country in the region with an extensive social protection system.

#### FIGURE 12



Levels of Household Food Insecurity (%)

### 6.3 Household Dietary Diversity Scale (HDDS)

The HDDS shows that dietary diversity is inadequate for most households in the study, with a median value of only five, indicating that people are eating food from five different food groups. The median score for food insecure households is also five. However, when the non-nutritive food items of sugar and beverages are removed from the dietary intake of the sample, the dietary diversity score drops to three. In contrast, the dietary diversity score for food secure households is eight; the difference between secure and insecure households is statistically significant (p<0.001, eta=0.399).

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For both food secure and insecure households, the dominant food type eaten by the majority are starch staples (96%), with less than half of the sample reporting eating any form of animal protein. Table 10 shows the proportion of households in each HDD category. With the exception of some households in Windhoek, Gaborone, Cape Town and Johannesburg, no city reported households eating from all the major food categories. The data suggests that given the types of foods eaten and the limited diversity, poor households have a nutritionally inadequate diet for normal growth and development.<sup>32</sup> Although a more diversified diet is an important outcome in and of itself, other research has shown that a more diversified diet is associated with a number of improved outcomes in areas such as birth weight, child anthropometric status, and improved hemoglobin concentrations. In addition, a more diversified diet is highly correlated with such factors as caloric and protein adequacy, percentage of protein from animal sources (high quality protein), and household income. Even in very poor households, increased food expenditure resulting from additional income is associated with increased quantity and quality of the diet.33

TABLE 10: Household Dietary Diversity					
HDD Score	Percentage				
1	2				
2	11				
3	10				
4	11				
5	14				
6	13				
7	12				
8	10				
9	7				
10	4				
11	2				
12	3				
Total	100				

N=6,453

#### 6.4 Months of Adequate Household Food Provisioning Indicator (MAHFP)

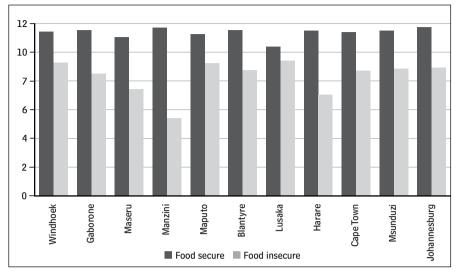
In many rural areas, food insecurity has a seasonal dimension with communities experiencing 'hungry seasons' before the new crop is harvested. Since urban food chains are generally able to overcome seasonality in food supply through diversification in the supply system, it is often assumed that urban food provisioning is non-seasonal. However, the AFSUN survey found that food security does vary throughout the year in SADC cities.

The MAHFP shows that on average food insecure households go without adequate food for four months of the year (Figure 13). There is a statistically significant relationship between food security status and months of adequate provisioning (P>0.001, eta=0.369), with food secure households experiencing almost 12 months of adequate food. In some cities, the deficit months may well be related to the agricultural cycle, especially where household food transfers from rural to urban areas are important. In Windhoek and Lusaka, for example, 47% and 44% of households respectively report receiving food transfers, and nearly one third of all households sampled in the region get similar food transfers. However, in cities like Cape Town and Johannesburg the figures are much lower, with 18% and 14% receiving food transfers from elsewhere.

The variation over the calendar year in food provisioning for households in all 11 cities is marked (Figure 14). The annual period of lowest urban food shortages does seem to coincide with the harvest and post-harvest period in agricultural areas, from March to May. Thereafter, through the dry and unproductive winter months, the levels of inadequate food provisioning rise once again, as they do in the rural areas.<sup>34</sup> Part of the explanation for the apparent similarity between rural and urban cycles lies in the fact that urban agriculture also has a seasonal dimension. More important is the fact that urban households receiving food direct from rural smallholdings do so during the harvest and post-harvest season when there are likely to be disposable surpluses. The most important factor, however, is probably that food prices (especially in the informal sector) tend to fall during this period as there is greater food availability and more competition.

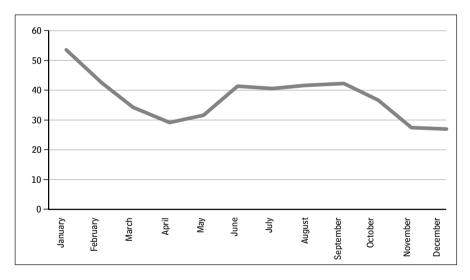
The urban cycle is certainly not identical to the rural. For example, a second improvement in urban food security occurs in what are normally lean months in the rural areas – from September to December. This anomaly may be related to increases in spending on food towards the end-of-year holiday season and the payment of annual bonuses for those in employment. Also, the final quarter of the year is when many urbanites

Months of Adequate Household Provisioning



### FIGURE 14

Adequate Household Provisioning by Month



return home to rural areas for their annual holiday, in turn reducing the number of mouths to feed in the urban household. The worst levels of urban food insecurity occur directly after the holiday period, in January, right after the high levels of spending during the festive season. The decline in the incidence of food insecurity begins almost immediately, with the situation improving each month. This is different to the rural areas where the pre-harvest season is often the hungriest.

# 7 Determinants of Urban Household Food Insecurity

This section of the paper cross-tabulates levels of food insecurity with a number of key demographic, social and economic variables. Although the correlations vary in terms of the strength of their statistical significance, there is a consistent pattern of difference between food secure and food insecure households.

### 7.1 Household Type and Food Insecurity

The statistical relationship between household type and food security status is surprisingly weak. The distribution of households between the two categories of food security status (secure/insecure) closely mirrors the proportion of household types sampled (Tables 11 and 1). The most food secure are nuclear households, with a slightly higher proportion of the total sample in the food secure category. Female-centred households are under-represented in the food secure category, but only by five percent.

When looking at the results for individual cities, however, there are some important differences that support the notion of greater vulnerability to food insecurity for female-centred households. For example, female-centred households are most under-represented in the food secure category in Maseru and Msunduzi (both by 14%). As argued below, income poverty and food insecurity are related, with the poorest households experiencing the greatest levels of food insecurity. Gender therefore becomes an important variable when viewed in relation to income and food security status.

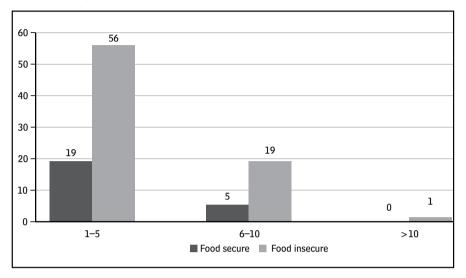
### 7.2 Household Size and Food Insecurity

Given that the average household size is 4.6 for the regional sample, it follows that the majority of food insecure households are in the smallest category with between 1-5 members. However, there are proportionately fewer households that are food insecure in the 1-5 household size category, with proportional levels of food insecurity rising in the 6-10 household size category, and beyond (Figure 15). This relationship is not statistically significant, however, suggesting that household size is not a good predictor of a household's food security status.

TABLE 11: Household Type and Food Security Status													
		Windhoek	Gaborone	Maseru	Manzini	Maputo	Blantyre	Lusaka	Harare	Cape Town	Msunduzi	Johannesburg	Total
	Female headed	28	45	23	33	24	13	20	19	36	39	33	30
	Male headed	18	21	13	13	9	8	3	10	13	14	15	13
Food secure	Nuclear	32	30	43	43	26	40	53	33	30	31	38	36
	Extended	22	4	21	13	41	39	23	38	21	17	14	21
	Total	100	100	100	100	100	100	100	100	100	100	100	100
	Female headed	34	48	39	39	27	24	21	23	43	55	32	37
	Male headed	23	23	10	18	8	4	3	7	10	12	17	12
Food insecure	Nuclear	19	18	35	30	20	42	46	38	34	20	35	31
	Extended	24	8	16	13	46	29	30	32	12	13	16	20
	Total	100	100	100	100	100	100	100	100	100	100	100	100
Total	Female headed	33	47	37	39	27	19	21	23	42	53	33	35
	Male headed	22	23	10	18	8	6	3	7	11	12	16	12
	Nuclear	22	20	36	31	21	41	47	38	33	22	37	32
	Extended	24	7	17	13	45	34	29	33	14	14	15	20
	Total	100	100	100	100	100	100	100	100	100	100	100	100

N=6,325

Food Security and Average Household Size (%)

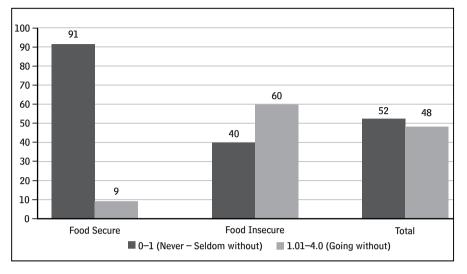


### 7.3 Poverty, Incomes and Food Insecurity

The survey found a direct relationship between poverty and food insecurity. When the food security status of the sample is cross-tabulated with the LPI, it is clear that food insecurity and lived poverty are closely related. The relationship between the household LPI and food security status scores is statistically significant (p<0.001), with a moderately strong correlation (cc=0.395). The cities in which this poverty-food security status relationship is strongest are Blantyre (p<0.001, cc=0.503) and Gaborone (p<0.001, cc=0.405). Although the sample is split about equally between households who 'go without' on the LPI scale and those who do not, more than 91% of food secure households have an LPI score of 0-1 (never/seldom go without) (Figure 16). In contrast, 60% of those households that are food insecure are also those that 'go without' (LPI score of 1.01-4.0).

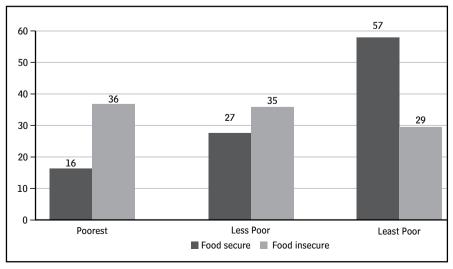
The level of income and the food security status of the household are positively correlated. Income terciles were computed against food security status, and the data shows that those households with the lowest incomes experience the greatest levels of food insecurity (Figure 17). More than half (57%) all food secure households are in the highest income category, while the greatest proportion of food insecure households (36%) are in the poorest income tercile. Although income levels and currencies vary by country and city, by using the three income categories (least poor, less poor, poorest) this variance is accounted for, thus allowing good inter-city comparability.

Food Security and Lived Poverty Index (%)



The pattern is a strong one: food security increases with a rise in household income across all types of households, and this relationship is statistically significant (p<0.001, cc=0.250) at the regional level. Blantyre has the strongest correlation between income and food security status (p<0.001, cc=0.406) and Harare the weakest (p<0.023, cc=0.132). This is an interesting finding, reflecting the collapse of the Zimbabwean economy and the generally poor levels of real income. In cases where households had hard currency (for example, Rands or US Dollars) at the time of the survey, there was an absolute lack of available food to purchase.

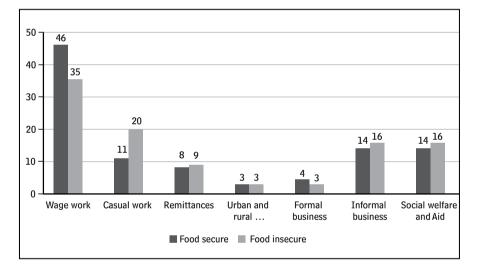
## FIGURE 17



Food Security and Household Income (%)

The findings support the hypothesis that the lack of a reliable cash income is an important household level food security variable. Although weak, the correlation between wage work and food security status is statistically significant (p<0.001, cc=0.167). Some 35% of households receiving a regular wage income are still food insecure. There is no statistically significant relationship between food security and all other sources of income. Casual work is particularly associated with food insecurity, with 11% of households with income from casual work being food secure, compared with 20% of households who are food insecure (Figure 18).

### FIGURE 18



Food Security and Source of Income (%)

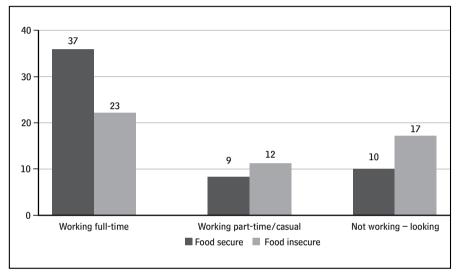
Social protection payments are not correlated with higher levels of food security. This may be because welfare income is relatively small and households receiving welfare are generally poor to begin. This observation even holds for social protection income in the three South African cities of Cape Town, Msunduzi and Johannesburg, where about 30% of households surveyed receive social protection grants (mainly pensions and child grants).

# 7.4 Employment, Education and Food Insecurity

Having a household member(s) in full-time work (income) is positively correlated with greater levels of food security for that household. The greatest proportion (37%) of food secure households have income from full-time work, whereas households that derive an income from part-time and casual work have greater food insecurity (Figure 19). As expected, the trend is similar for households with unemployed members who are looking for work, with higher levels of insecurity. The relationship between work status and household food security is statistically significant (p<0.001), although the strength of the relationship is weak (cc=0.141).

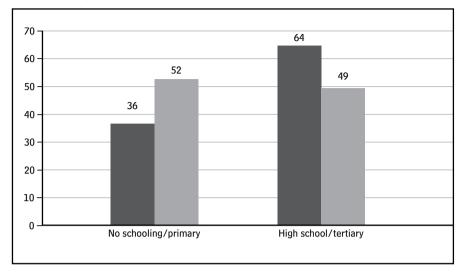
#### FIGURE 19

Food Security and Employment Status (%)



Education is associated with access to employment and higher incomes. Households with members who have high school and/or tertiary education also have the greatest proportion of food secure households (64%); the reverse is true for households whose members have no schooling and/ or primary schooling only (Figure 20). For the regional sample, this relationship is statistically significant (p<0.001, cc=0.214). The same trend is evident for all of the cities, although the strength of association is weakest in the poorest cities (suggesting a poorly developed formal economy which is unable to absorb an educated workforce). The data also show that education and income together influence household food security status (Table 12). Interestingly, for every level of education, the proportion of food insecure households declines from the poorest to the least poor income terciles. For those households with members that have high school and tertiary education, the proportion of food insecure households declines for each level of income and the proportion of food insecure households is the lowest.

TABLE 12: Education and Income Levels and Food Security Status						
Education	Income Terciles		Household Food Access Prevalen	Total		
			Food secure	Food insecure		
		Poorest (lowest income)	8	92	100	
No Schooling P<001 cc=0.175		Less Poor (middle income)	10	90	100	
		Least Poor (highest income)	22	78	100	
	Total		12	88	100	
		Poorest (lowest income)	8	92	100	
Primary P<001 cc=0.192		Less Poor (middle income)	15	86	100	
		Least Poor (highest income)	26	74	100	
	Total		17	83	100	
High School P<001 cc=0.233		Poorest (lowest income)	12	88	100	
		Less Poor (middle income)	17	83	100	
		Least Poor (highest income)	35	65	100	
	Total		23	77	100	
		Poorest (lowest income)	29	71	100	
Tertiary P<001 cc=0.205		Less Poor (middle income)	36	64	100	
		Least Poor (highest income)	56	44	100	
N=5,375						



Food Security and Level of Education (%)

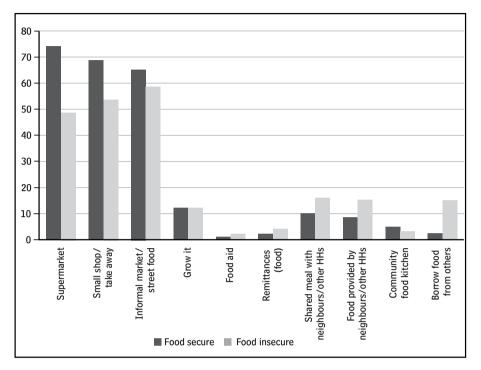
## 7.5 Food Insecurity and Sources of Food

The analysis reveals a statistically significant (p<0.001, cc=0.214) relationship between food security status and supermarket use, with greater numbers of food secure households using supermarkets, compared to food insecure households (Figure 21). The correlation between supermarkets and food security status is the strongest of all the sources of food in this survey. Notwithstanding the dominant role played by supermarkets, it is important to note that as the source of food becomes more informal, so the proportion of food insecure households relying on these less formal sources increases. This demonstrates the income-effect on household food security status, with greater income resulting in improved food security.

In the regional sample as a whole, 77% of households that engage in urban agriculture are food insecure. This figure matches the total proportion of households that are food insecure across the 11 cities, suggesting a strong association between the practice of urban agriculture and household levels of food poverty. The survey shows that food insecure households are far more likely to use urban agriculture than are food secure households (Figure 22). Although this urban agriculture-food poverty relationship is vividly illustrated by the data, this does not yield a statistically significance correlation between the practice of urban agriculture and food security status (p<.004; cc=.036).

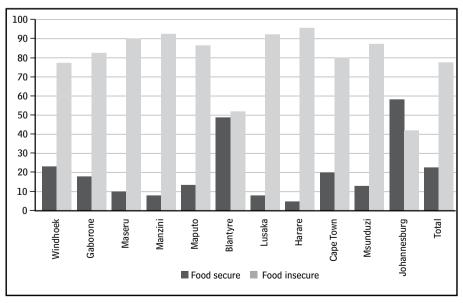
Various non-agricultural formal and informal coping strategies (social grants, borrowing food, sharing food, remittances) are an important

Food Security and Sources of Food



## FIGURE 22

Urban Agriculture and Food Security



means of accessing food. Two-thirds of households in the sample have adopted such alternative livelihood strategies. The proportion of food insecure households that use these strategies is the same as the regional total of food insecure households (77%), and this relationship is statistically significant (p<.001; cc=.114).

Food aid is typically associated with rural communities, although it is also being used in a number of cities in Southern Africa. However, only seven percent of households in the regional sample were receiving food aid at the time of the survey. As might be expected, about twice as many food insecure households were receiving food aid than were food secure households (Table 13). While all cities have some households receiving food aid, the greatest number are in Msunduzi, one of the most food insecure cities in the survey. Households in Windhoek receive the least food aid.

TABLE 13: Food Aid and Food Security Status				
	%			
	Received	4		
Food secure	Did Not Receive	96		
	Total	100		
	Received	8		
Food insecure	Did Not Receive	92		
	Total	100		
	Received	7		
Total	Did Not Receive	93		
	Total	100		

N=6,209

## 7.6 Price Hikes and Food Security

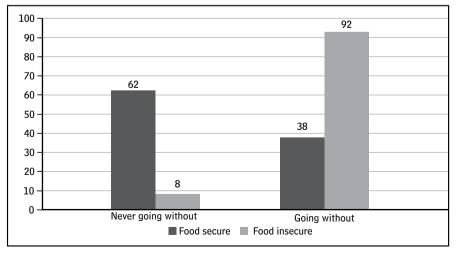
The majority of households sampled reported a worsening in their economic circumstances over the previous year because of rising food prices. When asked about the impact of recent food price increases on food availability, 78% of households in the region reported going without food in the past six months as a direct outcome of food price increases. While price rises had the least impact on households' food security in Johannesburg because of higher average incomes, more than half of the sample in that city still reported a negative impact on their food consumption (54%). Almost all (92%) food insecure households have had to go without food as a result of food price increases (Figure 23). The fact that

more than one third (38%) of households categorised as food secure also go without food is a reflection of the reality that although relatively better off, the food secure in our sample are still largely poor and therefore very sensitive to price shocks. This relationship between going without food as a result of price increases and food security status is statistically significant (p<0.001, cc=0.480).

In South Africa, where good data is available, food inflation (at 16.7%) for the period October 2007 to October 2008 outstripped overall inflation (12.1%).<sup>35</sup> The prices of staples and meat both increased substantially in the year prior to the survey. As an indication of what this means for poor households, it is estimated that the poorest households in South Africa would have had to raise their incomes by a minimum of 22% to maintain the same food basket over the period April 2007 to October 2008.<sup>36</sup> This would be equivalent to an additional average monthly household income of about USD \$61 in the three South African cities sampled and is more than one third of the median household income in Msunduzi.<sup>38</sup> The South African situation is similar to the other countries in the survey, and is indicative of the scale of the recent increase in food prices. Lesotho, Swaziland and Namibia are all subject to the same monetary and food price pressures as South Africa, so would have experienced similar food inflation. In Maseru - the poorest city in the survey - poor urban households would have had to increase their income by more than two thirds in real terms in order to maintain their food purchasing power at pre-April 2007 levels.

#### FIGURE 23

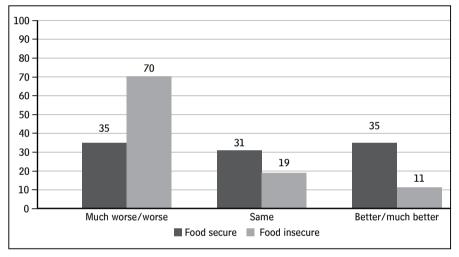




*Note: Frequency of households going without food (unaffordable) in past six months* 

When asked to compare their household's economic conditions today to one year ago, almost two thirds (62%) of the total regional sample felt that they were worse off; only 17% said that their economic situation was better or much better than it had been. Some 70% of food insecure households reported that economic conditions had got worse over the past year, whereas only 11% of food insecure households felt conditions had improved. In contrast, 35% of food secure households felt conditions had improved, with a similar proportion reporting a worsening of conditions (Figure 24). This pattern is statistically significant for the regional sample (p<0.001, cc=0.349).

#### FIGURE 24



Economic Condition of Household Compared to a Year Ago (%)

# 7.7 Transfers, Remittances and Food Security

Rural-urban food transfers are particularly important for food insecure households, and this finding is statistically significant for the regional sample (p<0.001; cc=0.102). Although the correlation is weak, it is note-worthy that only 16% of food secure households receive food transfers, compared with 84% of food insecure households.

Of those households that receive food transfers, 81% considered these to be important/very important to the household's food budget, with a further nine percent regarding these food transfers as critical to their survival. Interestingly, these figures mirror those obtained in Windhoek in similar research in 2000, when 81% of that sample also reported rural-urban food transfers to be important/very important, with a further 11% considering the food transfers to be critical to their survival.<sup>38</sup>

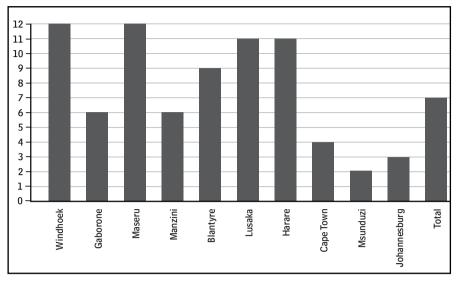
From a food security perspective, it is noteworthy that 77% of receiving

households said that this food is sent to them to help the household feed itself, and another 20% are sent food as a gift. The importance of this food for household survival is further reinforced by the fact that 92% of households use the food entirely for home consumption, with only 3% selling it on at a market or from home; there is little difference in the use of food by household food security status.

Although there are significant variations in food transfers between cities in the survey – Johannesburg is the lowest, with 14% of house-holds receiving food transfers – these findings reinforce the importance of migration in understanding spatially 'stretched' households, and the strong social capital that creates these food pathways between households that are geographically diverse.<sup>39</sup> Food transfers are therefore very important, and it is in this way that the migration process plays a significant role in household food security within the cities of Southern Africa.

In addition to food transfers to households in urban centres, remittances from elsewhere in the form of cash and goods also feature. Urban households in Lesotho and Zimbabwe, for example, are known to regularly receive remittances of cash and food from household members working in South Africa.<sup>40</sup> Overall, seven percent of households reported receiving cash and goods as an income remittance in the past month (Figure 25). The highest levels of remittances received were reported in Windhoek and Maseru (12%), and Lusaka and Harare (11%). The three South African cities had the lowest levels of remittance income (cash/goods). When remittance receiving households are cross-tabulated by household food security status, there is no statistically significant correlation, and food secure and food insecure households receive about the same level of remittances. These figures only represent one month of remittance income, and as remittances are known to be seasonal, the overall contribution to household income may be greater over a longers time scale. For example, migration studies in Southern African indicate that remittances are an important source of household income for both urban and rural households, and that this kind of income is used for food purchases as well as other essentials.<sup>41</sup>

Remittances of Cash and Goods (% of HH)



# 7.8 Migration and Food Insecurity

Migration has a long history in Southern Africa, and is also associated with urbanization and economic development. At the household level, migration has played an important role in terms of income diversification and is often considered an important livelihood strategy within the contemporary context of SADC.<sup>42</sup> Given this large scale migration process evident across the region – 88% of households in the sample included migrants - the question then is to what extent migration influences household food security status? Perhaps surprisingly, the data does not show a clear association between these two variables; migration makes no significant difference to the food security outcome of the household (Table 14).

What about households which have migrant workers (people who live and work away from the household but are still considered members of the household)? Are households with migrant workers more food secure? As with the lifetime migration of household members, having a migrant worker in the household makes no difference to the food security situation (Table 15). Where migration does play a role is in the facilitation of food transfers between households.

TABLE 14: Migrant Households and Food Security Status					
		96			
	Migrant HH	36			
Food secure	Non-migrant HH	19			
Food Secure	Mixed HH	45			
	Total	100			
	Migrant HH	38			
Food insecure	Non-migrant HH	11			
FUULINSECULE	Mixed HH	51			
	Total	100			

N=6,267

48

TABLE 15: Migrant Workers in Household and Food Security Status				
		96		
Faad Casura	Migrant Worker in HH	7		
Food Secure	No Migrant Workers	93		
Food Insecure	Migrant Worker in HH	8		
	No Migrant Workers	92		

N=6,326

# 8 CONCLUSION

The analysis highlights the strong links between urban poverty and high levels of food insecurity at the household level in major SADC cities, with 77 percent of poor urban households surveyed reporting conditions of food insecurity. These findings demonstrate that chronic food insecurity is pervasive in urban centres in Southern Africa. Dealing with urban food poverty will therefore be a major policy and development challenge to city and national governments across the SADC region over the coming decades. Persistent urbanization and poverty mean that governments, urban managers and civil society have a significant challenge ahead in relation to improving food security for the poor while also addressing the currently unsustainable functioning and growth trajectory of the country's resource hungry cities. While this is a daunting challenge, it is also a major opportunity. Tackling ecological sustainability from the food security vantage point provides a direct and tangible approach to creating wealthier, healthier and less environmentally consumptive cities.

In conclusion, the discussion and analysis makes clear the following important points in relation to urban food insecurity:

- Four out five households sampled in all 11 cities are food insecure.
- There is a temporal dimension to urban food security.
- Dietary diversity is poor.
- Poverty and food insecurity are directly correlated.
- Food price increases have negatively impacted four out of five households surveyed.
- Food security has a gender dimension to it, with female centred households the most food insecure (although by a small proportion).
- Inter-household food transfers are important, especially for food insecure urban households.
- Urban agriculture is an important source of food amongst poor households.

While food supply is generally adequate at the city level in Southern Africa, citizens do not have equal or universal access to sufficient food, and food that is consumed is often highly processed and devoid of good nutrition. Supporting local food production is therefore important in promoting livelihoods and health within the city, reducing costly food imports, using local waste productively and contributing to sustainable urban development. An increase in local food production necessitates the development and support of local level, neighbourhood-accessible marketing systems to distribute produce throughout the city, to wealthy and poor alike. Links to higher order production systems and retail value chains are also required. In order to realize these goals of creating a healthy, vibrant and prosperous city around the basic need of food an enabling and supportive environment is required. Food (in all is complexity) must be fully integrated into the planning and management systems of the city, further enabled and supported by provincial and national level line ministries. The findings of AFSUN Urban Food Security Baseline Survey provide the starting point for quantifying prevailing urban food security conditions in SADC cities and defining the central policy and development questions that arise.

# END NOTES

- S. Maxwell, "Food Security: A Post-Modern Perspective" Food Policy 21(2) (1996), p. 157.
- 2 A. Sen, *Poverty and Famines: An Essay on Entitlement and Deprivation* (Oxford: Clarendon, 1981).
- 3 C. Bryant, ed., *Poverty, Policy and Food Security in Southern Africa* (London: Mansell Publishing, 1988), p. 11.
- 4 J. Crush and B. Frayne, *The Invisible Crisis: Urban Food Insecurity in Southern Africa*, AFSUN Urban Food Security Series No. 1, Cape Town and Kingston, 2009.
- 5 Department of Agriculture, "The Integrated Food Security Strategy for South Africa" Pretoria, 2002.
- 6 World Food Summit Plan of Action, Rome, 1996, Clause 1.
- 7 M. Ivanic and W. Martin, "Implications of Higher Global Food Prices for Poverty in Low-Income Countries" *Agricultural Economics 39*(2008): S405–416; C. Arndt, R. Benfica, N. Maximiano, A. Nucifora and J. Thurlow, "Higher Fuel and Food Prices: Impacts and Responses for Mozambique" *Agricultural Economics* 39(2008): S497-511; M. Cohen and J. Garrett, "The Food Price Crisis and Urban Food (In) Security" Human Settlements Working Paper Series: Urbanization and Emerging Population Issues No 2, IIED and UNFPA, London and New York, 2009; M. Ruel, J. Garrett, C. Hawkes and M. Cohen (2010), "The Food, Fuel, and Financial Crises Affect the Urban and Rural Poor Disproportionately: A Review of the Evidence" *Journal of Nutrition 140* (2010):S170–6.
- 8 UN-HABITAT, State of the World's Cities Report 2006-2007 (Nairobi: UN-HABITAT, 2007).
- 9 UNESA, "World Population Prospects: The 2006 Revision" and "World Urbanization Prospects: The 2007 Revision" Population Division of Department of Economic and Social Affairs, UN, New York at http://esa.un.org
- 10 UN-HABITAT, State of World's Cities Report, pp. viii, 4.
- 11 UN-HABITAT, The State of African Cities, 2008: A Framework for Addressing Urban Challenges in Africa (Nairobi, 2008).
- 12 Ibid.
- 13 M. Ravillon, S. Chen and P. Sangraula, "New Evidence on the Urbanization of Global Poverty" *Population and Development Review* 33(4) (2007): 667–702.
- 14 Crush and Frayne, The Invisible Crisis.
- 15 Organizations or individuals wishing more information about possible use of the survey instruments in other urban areas are invited to contact Prof Jonathan Crush at *crushj@queensu.ca*
- 16 B. Dodson, "Gender, Migration and Livelihoods: Migrant Women in Southern Africa" In N. Piper, ed., New Perspectives on Gender and Migration: Livelihood, Rights and Entitlements (New York: Routledge, 2008), pp. 137-58.
- 17 M. Ravallion, S. Chen and P. Sangraula, "Dollar a Day Revisited" World Bank Economic Review 23(2) (2009):163-184.
- 18 This figure is calculated using a median household size of 5 and national currency exchange rates at the time of the survey. Parity purchasing power has not been calculated for each city, and these figures are only intended to provide a generalized picture of the poverty situation.
- 19 M. Ravallion, "Urban Poverty" Finance and Development 44(3) (2007): 15-17.

- 20 Afrobarometer, "Lived Poverty in Africa: Desperation, Hope and Patience" Briefing Paper No. 11, Cape Town, 2004.
- 21 C. Hawkes, "Dietary Implications of Supermarket Development: A Global Perspective" *Development Policy Review 26*(6) (2008): 657-92.
- 22 See L. Mougeot, ed., Agropolis: The Social, Political, and Environmental Dimensions of Urban Agriculture. (London and Ottawa: Earthscan and IDRC, 2005); M. Redwood, ed., Agriculture in Urban Planning: Generating Livelihoods and Food Security (London and Ottawa: Earthscan and IDRC, 2009).
- 23 B. Frayne, "Migration and Urban Survival Strategies in Windhoek, Namibia" Geoforum 35(2004): 489-505.
- 24 P. Webb, J. Coates, E. Frongillo, B. Rogers, A. Swindale and P. Bilinsky, "Measuring Household Food Insecurity: Why It's So Important and Yet So Difficult to Do" *Journal of Nutrition 136* (2006): 1404S-1408s.
- 25 A. Swindale and P. Bilinsky, "Development of a Universally Applicable Household Food Insecurity Measurement Tool: Process, Current Status, and Outstanding Issues" *Journal of Nutrition 136* (2006): 1449S-1452S.
- 26 M. Faber, C. Schwabe and S. Drimie, "Dietary Diversity in Relation to Other Household Food Security Indicators" *International Journal of Food Safety, Nutrition and Public Health* 2(1) (2009): 1-15.
- 27 J. Coates, A. Swindale and P. Bilinsky, "Household Food Insecurity Access Scale (HFIAS) for Measurement of Food Access: Indicator Guide (Version 3)" Food and Nutrition Technical Assistance Project, Academy for Educational Development, Washington DC, 2007, p.18.
- 28 Ibid., pp. 21-2.
- 29 A. Swindale and P. Bilinsky, "Household Dietary Diversity Score (HDDS) for Measurement of Household Food Access: Indicator Guide (Version 2)" Food and Nutrition Technical Assistance Project, Academy for Educational Development, Washington DC, 2006.
- 30 P. Bilinsky and A. Swindale, "Months of Adequate Household Food Provisioning (MAHFP) for Measurement of Household Food Access: Indicator Guide" Food and Nutrition Technical Assistance Project, Academy for Educational Development, Washington DC, 2007.
- 31 A recent food security study completed in 2008-9 in two municipal areas in Gambia found that almost half (42.3%) of the sample had combined HFIAS scores of 0 and 1 (A. Bah, I. Jeng-Ngom, M. Phall, C. Chazaly, B. Dembele and E. Becquey, "Food Vulnerability in the Urban Area of Banjul and Kanifing Municipality (The Gambia)" Report for National Nutrition Agency, The Gambia, 2009. By way of comparison, the AFSUN survey sample had only 18% of sample households in these two 'food secure' categories.
- N. Steyn, "Nutrition and Chronic Diseases of Lifestyle in South Africa" In K.
  Steyn, J. Fourie and N. Temple (eds), *Chronic Diseases of Lifestyle in South Africa: 1995* 2005 (Cape Town: South African Medical Research Council, 2006), pp. 33-47.
- 33 J. Hoddinott and Y. Yohannes, "Dietary Diversity as a Household Food Security Indicator" Food and Nutrition Technical Assistance Project, Academy for Educational Development, Washington D.C., 2002.
- 34 The annual cycle of food insecurity in rural areas is not simply a function of the agricultural seasons as many rural households throughout Southern Africa also depend on cash remittances and food purchase for survival.
- 35 National Agricultural Marketing Council (NAMC) "Food Price Monitor" November 2008.

- 36 Ibid., p.14.
- 37 Using a Rand US Dollar exchange rate of 8:1 applied to the dollar value of the mean household income for the South African cities of Cape Town, Msunduzi and Johannesburg.
- 38 B. Frayne, "Survival of the Poorest: Migration and Food Security in Namibia" PhD Thesis, Queen's University, 2001, p. 236.
- 39 A. Spiegel, V. Watson and P. Wilkinson, "Domestic Diversity and Fluidity in Some African Households in Greater Cape Town" *Social Dynamics* 22 (1) (1996): 7–30.
- J. Crush and W. Pendleton, "Remitting for Survival: Rethinking the Development Potential of Remittances in Southern Africa" *Global Development Studies* 5(3/4) (2008-9): 1-28.
- 41 Ibid.
- 42 J. Crush and B. Frayne, "Perspectives on the Migration-Development Nexus" Development Southern Africa 24(1) (2007): 1-23.

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# The State of Urban Food Insecurity in Southern Africa

The number of people living in urban areas is rising rapidly in Southern Africa. By mid-century, the region is expected to be 60% urban. Rapid urbanization is leading to growing food insecurity in the region's towns and cities. This paper presents the results of the first ever regional study of the prevalence of food insecurity in Southern Africa. The AFSUN food security household survey was conducted simultaneously in 2008-9 in 11 cities in 8 SADC countries. The results confirm high levels of food insecurity amongst the urban poor in terms of food availability, accessibility, reliability and dietary diversity. The survey provides important insights into the causes of food insecurity and the kinds of households that are most vulnerable to food insecurity. It also shows the heavy reliance of the urban poor on informal food sources and the growing importance of supermarket chains.



