

THE STATE OF FOOD INSECURITY IN WINDHOEK, NAMIBIA

Wade Pendleton, Ndeyapo Nickanor and
Akiser Pomuti

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SERIES EDITOR: PROF. JONATHAN CRUSH

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1. INTRODUCTION

Namibia is urbanizing at a rapid rate. The 2011 Census indicates that over 800,000 people (or 42% of the national population) now live in urban areas (up from 33% in 2001).¹ The capital city of Windhoek is the major focus of urbanization, although all of the country's urban centres are increasing in size. Windhoek's urban and peri-urban population increased from 235,500 in 2001 to 318,700 in 2011 (an annual growth rate of 5%). The city has 16.2% of the national population (up from 13.7% in 2001) and 36% of the total urban population. The next four towns in the urban hierarchy are considerably smaller in size: Oshakati (46,900), Swakopmund (44,700), Walvis Bay (35,500) and Rundu (20,700). In fact, Windhoek is about the same size as the cumulative population of the next 10 largest urban centres in the country and continues to increase in primacy. The population of Windhoek will reach half a million people by 2020 if the current growth rate is maintained.²

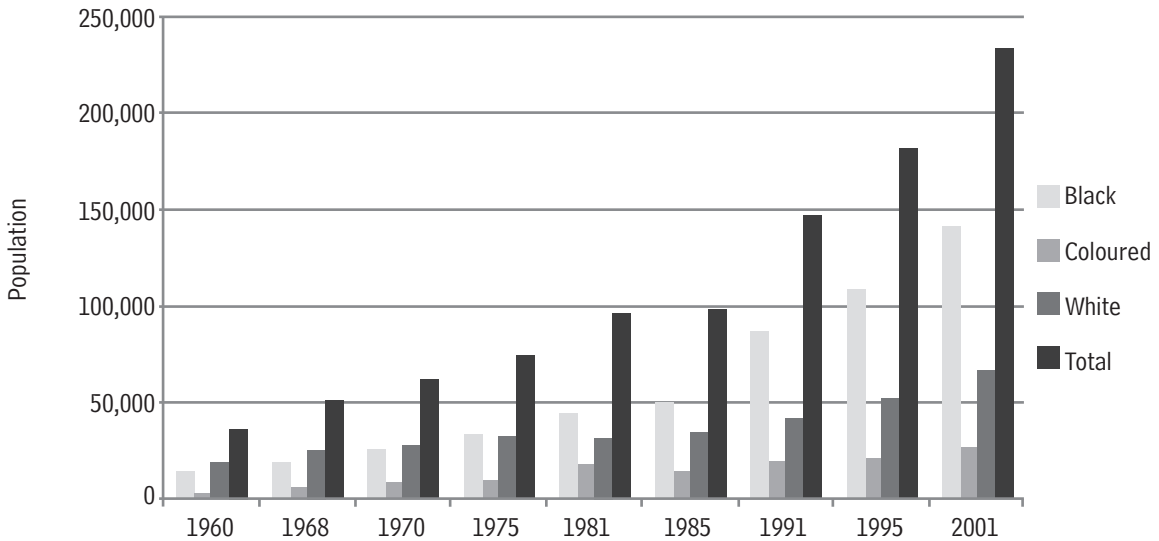
Large-scale rural-urban migration, especially from northern Namibia, is driving contemporary urbanization.³ Prior to the 1990s, there were considerable obstacles to internal migration. During the decades of South African rule before 1990, stringent controls were placed on the urbanization of the black population. In 1968, the total population of Windhoek was only 57,000 and whites out-numbered blacks. Apartheid controls were eased in the 1980s and rural-urban migration began to increase (Figure 1). In 1981, Windhoek had a population of 96,000 which had increased to 147,000 by the time of independence.⁴ A 1991 survey estimated the population of the poorer north and north-west areas of Windhoek to be about 91,000.⁵ By 1996, the number had grown to about 110,000. In 2011, the population in these areas had reached nearly 250,000.⁶

Windhoek is the dominant economic and political centre of Namibia, accounting for more than 50% of the country's manufacturing activity, over 80% of its finance and business services, and two-thirds of its community and social services. The city has a distinctive dual spatial structure which reflects its colonial and apartheid history.⁸ There is a modern and thriving central business district (CBD) with light industrial areas to the north and south. In the centre of the CBD are government offices, courts, banks, the main post office, business centres, hotels, and new modern shopping malls and supermarkets; a blend of high and low-rise modern buildings. To the east, south and west of the CBD are various suburbs housing people from primarily middle and upper socio-economic households. But there is another side to this bustling city. In the northern and



north-western parts of the city, more than 70% of the Windhoek population lives on 25% of the land in crowded formal and informal settlements.⁹

FIGURE 1: Population Growth of Windhoek⁷



The rapid urbanization of Windhoek in the last 20 years has been accompanied by a major crisis of food insecurity for the new urban poor. However, most of the research on food insecurity in Namibia has tended to focus on the rural areas of the country.¹⁰ While poverty and urban livelihoods in Windhoek have been a recurrent subject of research over the years, urban food insecurity *per se* has been a neglected topic.¹¹ Urban food security in Southern Africa has been described by both policy-makers and researchers as an “invisible crisis”.¹² In Windhoek, too, the food security of the urban poor has received insufficient research and policy attention.¹³

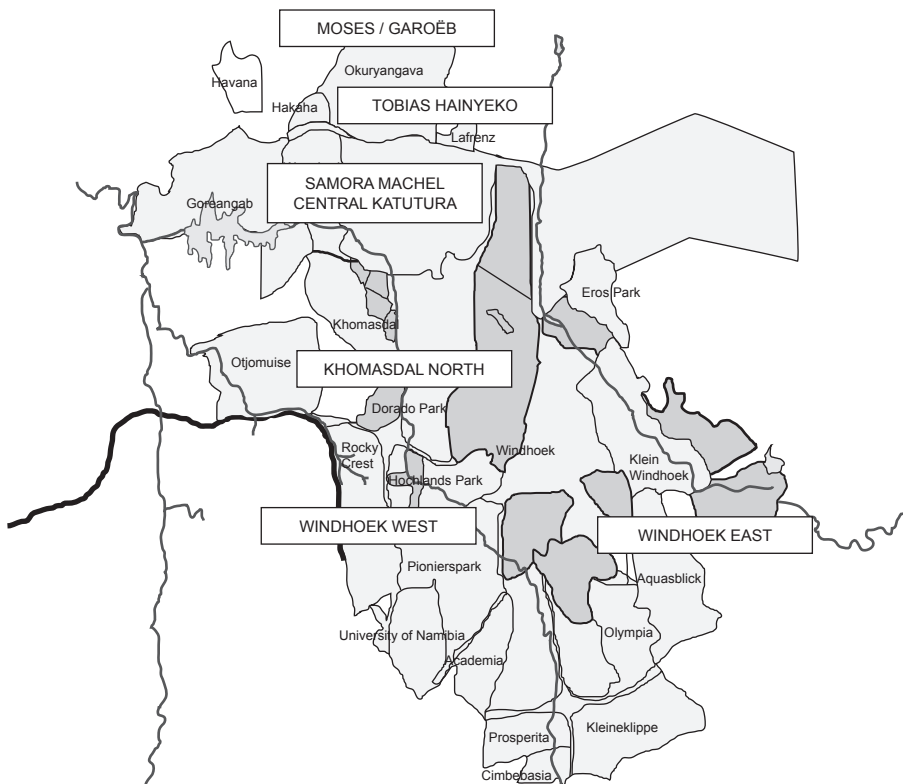
In 2008–2009, the African Food Security Urban Network (AFSUN) conducted a baseline survey of poor urban households in 11 cities in Southern Africa to better understand the seriousness of the urban food security situation.¹⁴ This report looks in detail at the research results for Windhoek and seeks to answer one central question, that is, why do Windhoek’s urban poor generally appear to be better off than the urban poor in most of the other 10 cities where the survey was conducted and why, at the same time, does Windhoek contain some of the most food insecure households in the region? As a city of migrants, the Windhoek case also presents the opportunity to examine the relationship between migration and urban food security in more depth.¹⁵



2. METHODOLOGY

The AFSUN Urban Food Security Survey was conducted in Windhoek in late 2008. The fieldwork was implemented by the Central Consultancy Bureau (UCCB) of the University of Namibia. Households in four of the poorer areas of the city were surveyed: Tobias Hainyeko (with a total population of 45,800), Moses //Garoëb (45,500), Samora Machel (49,700) and Khomasdal North (43,400) (Table 1, Figure 1). Within these four constituencies, 14 enumeration areas (PSUs) were selected and 32 households identified using a systematic random sampling technique. The selected households were located on maps, which were used by the fieldworkers to locate their target households. A total of 448 household heads or their representatives were interviewed and information on 1,848 people was collected (Table 2).

FIGURE 2: Location of Study Areas



Scale 1/100 000

Source: Windhoek Municipality



TABLE 1: Population of Windhoek, 2011

Area	Females	Males	Total
Windhoek East	11,300	11,300	22,600
Windhoek West	27,600	25,800	53,400
Tobias Hainyeko	21,100	24,700	45,800
Katutura Central	13,500	11,100	24,600
Katutura East	10,100	8,500	18,600
Soweto	8,200	6,900	15,100
Samora Machel	25,300	24,400	49,700
Moses //Garoëb	20,700	24,800	45,500
Komasdal North	23,200	20,200	43,400
Windhoek Rural	10,100	12,100	22,200
Total	171,100	169,800	340,900

Source: Namibia 2011: Population and Housing Census Preliminary Results

TABLE 2: Household Sample

Constituency	PSU	No. Households Surveyed	Type of Housing of Respondents	
			Formal %	Informal %
Tobias Hainyeko	6011501072	32	0	100
Tobias Hainyeko	6011501073	32	3	97
Katutura Central	6021001001	32	97	3
Katutura Central	6021001007	32	91	9
Katutura Central	6031001011	32	100	0
Khomasdal North	6041101025	32	100	0
Khomasdal North	6041101026	32	100	0
Moses //Garoëb	61001123	32	56	44
Samora Machel	6060601008	32	25	75
Khomasdal North	6041701039	32	100	0
Samora Machel	6060601025	32	6	94
Moses //Garoëb	6100801156	32	0	100
Moses //Garoëb	6100801163	32	0	100
Moses //Garoëb	6100801172	32	0	100
		N=448	N=214	N=228

Rather than comparing different constituencies within the city, this paper contrasts households resident in formal and informal shelter. “Formal shelter” refers here to more substantial houses built primarily from concrete bricks with metal roofs. “Informal shelter” refers to self-built housing usually consisting of a wood frame, metal sheeting for walls and



a metal roof (sometimes called “shanties” or “shacks”). Many of the areas surveyed are exclusively or predominately one type, e.g. the PSU in Hakahana is 100% informal and the PSUs in Khomasdal North are 100% formal (Table 2). A few of the areas have both formal and informal housing. A basic question addressed here is whether households living in informal areas (generally where recent migrants to the city reside) are more or less food insecure than those in more established formal housing areas, and by how much?

3. MOVING TO WINDHOEK

Micro-survey and case study data collected over the years by the 1996 Katutura Survey, the 1998 Namibian Migration Project and the 2006 SAMP Migration and Poverty Survey show national patterns of migration from migrant history data.¹⁶ In 2001, about 60% of the population of Windhoek were migrants (i.e. they were not born in the city).¹⁷ Several major streams of migration to Windhoek can be identified (Figure 3). The main stream is internal migration (primarily rural-urban migration from northern Namibia). This stream made up 33% of the total population of Windhoek in 2001 and 54% of the total migrant population (Table 3). The migrants came from three main areas: Owamboland (88%), Kavango (7%) and the Caprivi (5%). Other significant internal migration streams are from central Namibia (18% of migrants) and southern Namibia (14% of migrants) (primarily urban-urban migration). International migrants accounted for about 14% of Windhoek’s migrant population and 8% of its total population. The male and female population of Windhoek was very similar (50.5% male, 49.5% female). By 2011, there were marginally more females than males in the city as a whole (Table 1). Of the 152,000 migrant residents of the city in 2001, 53% were male and 47% female. There are more obvious gender differences in the migrant streams from different parts of the country. Fifty eight percent of migrants from northern Namibia were male and 42% female, reflecting the historical pattern of male labour migration from northern Namibia (although the percentage of males was much greater in the past). All of the other source regions send more female than male migrants to Windhoek. For example, 57% of migrants from the south were female and only 43% were male.¹⁸



TABLE 3: Place of Birth of Windhoek Residents, 2001

Region	Total		Female		Male	
	No.	%	No.	%	No.	%
Windhoek	98,048	39	51,327	52	46,720	48
Northern Namibia	81,381	33	34,402	42	46,979	58
Central Namibia	26,882	11	14,530	54	12,352	46
Southern Namibia	20,643	8	11,785	57	8,858	43
Outside Namibia	20,930	8	10,499	50	10,431	50
Not Stated	2,378	1	1,070	45	1,308	55
Total	250,262	100	123,613		126,648	

Source: Namibia, Central Bureau of Statistics 2005

Why are people migrating to Windhoek in such numbers? It is not difficult to understand why those with skills or professional qualifications might migrate for employment, live in fully serviced housing in neighbourhoods with a high quality of living, and enjoy the many amenities that Windhoek offers to people who can afford to pay for them. Housing in Windhoek’s more affluent areas is luxurious to the point of being ostentatious. However, large numbers of people are also migrating to the areas where unemployment rates are the highest, poverty is widespread and the quality of life is the worst. The answer is best framed by looking both at the big picture and what the migrants themselves say.¹⁹

The macro factors of poverty, environment and political history define the context within which people make decisions about migration. Namibia’s political history of colonial occupation and economic exploitation by both Germany and South Africa established radical inequalities in regional development. The white commercial farming areas in the centre and south of the country were developed and supported by cheap government-sponsored loans and access to markets and towns.²⁰ The rural communal areas remained undeveloped sources of cheap migrant labour.²¹ These regional inequalities persist to the present despite efforts at rural development since independence. The rural communal areas lack income-producing activities, and cropping and livestock production methods are basic and small-scale.

The Namibian population has an estimated doubling time of about 20 years and is unevenly distributed as a result of regional inequalities in both environmental conditions and political history. Due to poor rainfall and low carrying capacity, the rural central land is widely recognized as marginal. The location of the rural central communal areas on the west, east and south of the commercial farming area reflects a history of land

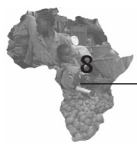


disenfranchisement; white settler farmers (primarily Afrikaners and Germans) were given or allowed to purchase land traditionally occupied by the Herero, Damara, Nama, and Bushmen. The Namibian constitution does not allow for ancestral land claims although such claims are a frequent agenda item at land conferences due to population pressure on existing communal land areas. Drought is endemic to Namibia and one of the environmental factors that impacts on migration. The migration of household members to urban areas and the sending of children to other relatives in rural and urban areas are common coping responses to drought at the household level.²²

The rural-urban migration experience is reflected in various terms and concepts found in Namibian languages and cultures. Among the Owambo, someone who has moved from a rural area and stays in town and does not visit the rural area, is referred to as *Ombwiti*. People who do not visit have broken their ties and are *Ombwiti*; they have lost their roots. People who are born in town and stay there are called *Ondakwatwa*. Someone who goes to town for the first time is called *Kashuku*. There is a saying (in Oshiwambo) that reflects the importance of maintaining rural ties when you move to town: *owu na okukala wu na omutala kegumbo* (translated as you should have a “room for sleeping” at home in rural areas).²³

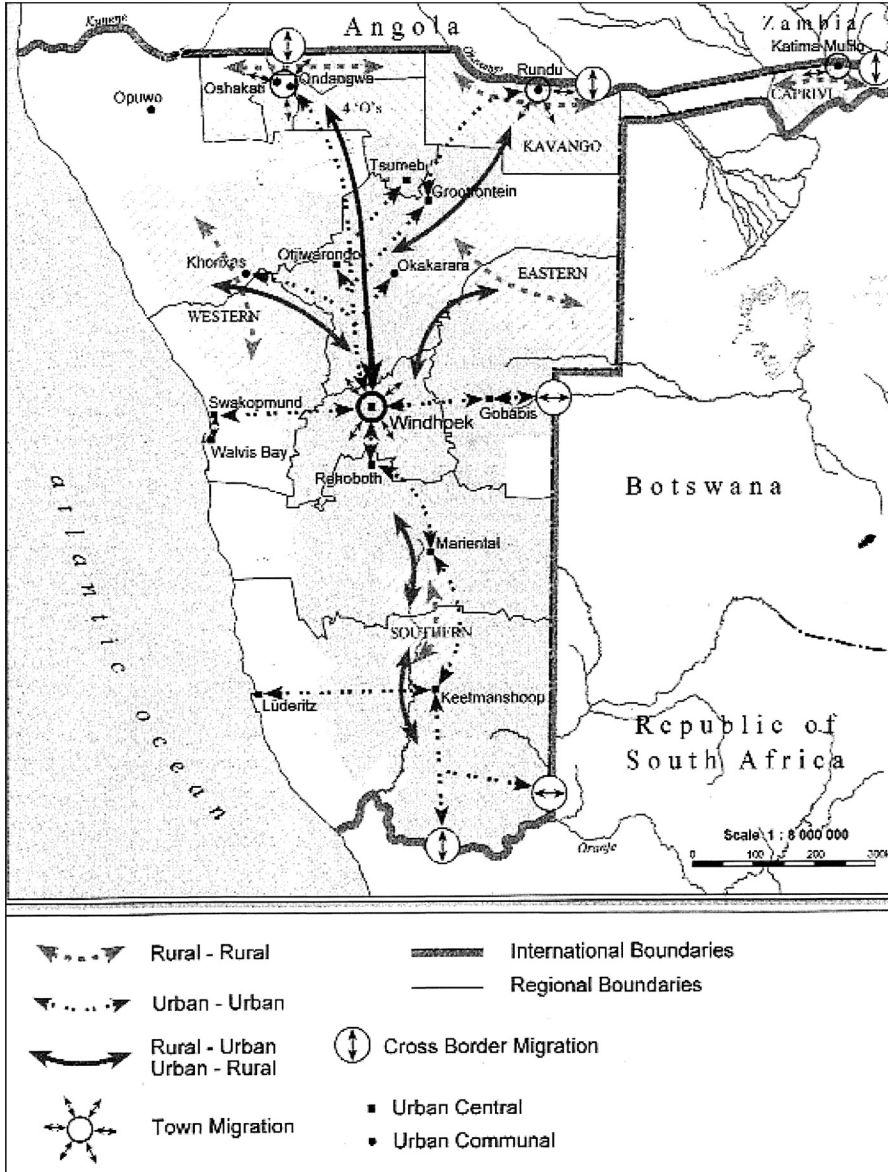
Coming to Windhoek or other towns in central Namibia to look for work is called *Uushimba* (in Oshiwambo). However, the term does not apply to Ondangwa, Oshakati, Rundu or Katima Mulilo, the towns in the north of the country. These places are not seen as “foreign” towns; they are considered local towns and are different sorts of places. This may be to a large extent because the ethnic and socio-cultural make-up of such places is both relatively familiar and homogeneous. Similar terms about the urban migration experience exist for people in the Kavango and Caprivi. However, the Herero, Damara, and Nama do not have terms like *Ombwiti*, which reflects their long experience with town life in Windhoek and central/southern Namibia.

The major reasons migrants give for coming to Windhoek include jobs and money, rural poverty, family issues (such as a change of residence due to marriage or a death in the family or simply to move in with relatives) and education.²⁴ Many migrants list multiple reasons for migration, reflecting the complex nature of their decision to migrate. Men and women migrate for the same reasons, but their relative importance is different; economics is more important to men and family/living conditions are more important to women. Of the adult female migrants in the northern and north-west areas of Windhoek, almost half have come in recent years, indicating a substantial increase in urban migration by women for



economic reasons. To some extent, the increased migration of women, especially women migrating alone from rural areas, reflects their desire for an alternative lifestyle free of the male domination typical of rural life.²⁵

FIGURE 3: Migration Streams to Windhoek



Source: Namibia, Central Bureau of Statistics 2005

Where do the people from the various migration streams settle in Windhoek? The northern (Moses //Garoëb and Tobias Hainyeko) and north-western (Samora Machel) areas of Windhoek are important destinations



for Owambo, Herero, Damara, and Nama migrants. The majority of people from the northern regions settle in the north-western areas of the city (68%) with over 90% of these from the former Owamboland (Table 4). People from the central regions divide among the northern areas (31%), the north-west areas (23%) and Windhoek West (20%). People from the southern regions head for Windhoek West (31%), Khomasdal North (21%) as well as the northern (17%) and north-west (15%) areas. The established communities of people from each region has a cumulative effect as new migrants often stay with kin or friends prior to establishing their own independent households. This helps to explain why there are fewer people from the Caprivi and the Kavango in Windhoek even though the Kavango is about the same distance from Windhoek as the former Owamboland. However, this could soon change with more tarred roads, more combi-taxis regularly traveling to Windhoek from these areas and people from these areas establishing communities in Windhoek.

TABLE 4: Residence of Migrants in Windhoek by Area of Origin, 2001

Area of Windhoek	Khomas Region		Northern Regions		Central Regions		Southern Regions		Other Countries		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Northern*	30,021	31	8,871	11	8,398	31	3,559	17	1,579	7	52,428	21
North West**	22,844	23	54,953	68	6,228	23	3,065	15	1,565	7	88,655	36
Khomasdal North	12,995	13	4,978	6	3,451	13	4,248	21	2,037	10	27,709	11
Windhoek West	14,835	15	6,867	8	5,308	20	6,393	31	8,203	39	41,606	17
Windhoek East	11,377	12	3,084	4	1,618	6	1,987	9	1,928	9	19,994	8
Windhoek Rural	5,976	6	2,628	3	1,879	7	1,391	7	5,618	28	17,492	7
Total	98,048	100	81,381	100	26,882	100	20,643	100	20,930	100	247,884	100

Source: Namibia, Central Bureau of Statistics 2005
 * Moses //Garoëb and Tobias Hainyeko
 ** Samora Machel

The importance of migration to Windhoek is confirmed in the migration history of respondents in the AFSUN survey discussed in the following sections. Only 30% of the total survey population were born in Windhoek. Almost half were rural to urban migrants, primarily from Owambo. About 10% had moved to Windhoek from other urban areas. Fifty-seven percent of people living in informal housing were rural to urban migrants, compared to 38% of those in formal housing.

There is considerable evidence that urbanization in Africa does not involve a one-time move from rural to urban areas.²⁶ Many urban households maintain strong links with rural households in “home” communities.²⁷ Studies of remittance behaviour in Southern Africa, including Namibia,

show that urban households often send money to rural households, and periodically send goods (including foodstuffs) remittances to the rural households they maintain links with.²⁸ Several studies have shown extensive links between urban and rural households in Windhoek and the north of the country.²⁹ In 2000, one study interviewed 305 households in Katutura and found that 85% of respondents were migrants to Windhoek. Only 2% had no rural relatives. Just over 40% visited their rural “home” several times a year and another 40% once a year. Less than 10% never visited. Only 37% of migrants had sent money home in the previous year, a figure that had not increased in a decade.

4. WINDHOEK’S POOR

4.1 Measures of Poverty

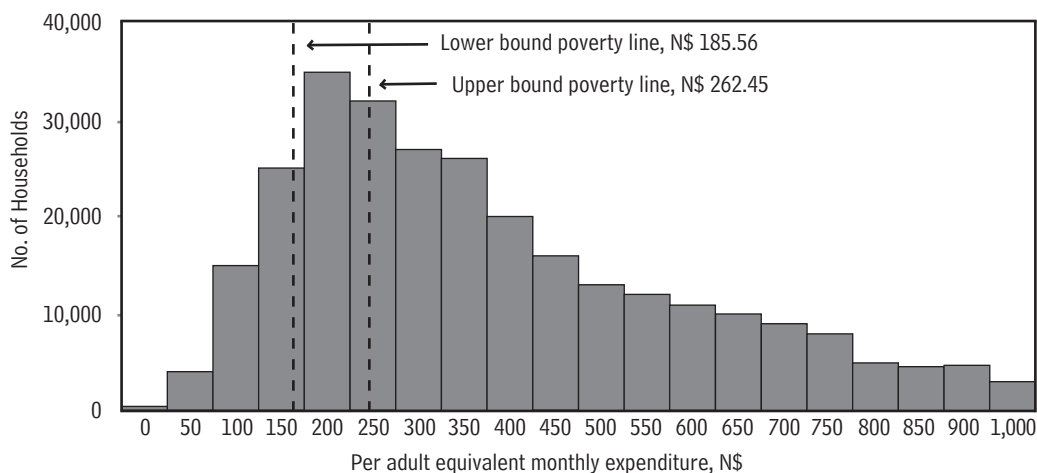
Namibia has a relatively high GDP per capita (estimated at US\$5,200 in 2007) for a developing country, but wealth is very unequally distributed.³⁰ The poorest households (in terms of income) are in the rural communal areas with female-headed households the poorest. One common measure of poverty/inequality is the Gini coefficient, which is related to household consumption: the closer to ‘0’ the greater the equality and the closer to ‘1’ the greater the inequality. The overall value for Namibia was 0.63 in 2003–4 making it “one of the most unequal and polarised” societies in the world and certainly the most unequal society in Southern Africa.³¹ About 40% of households (about half the Namibian population) account for 8% of total household expenditures, while about 10% of the wealthiest households (about 6% of the Namibian population) account for about 50% of total household expenditure.³²

Most quantitative measures of poverty are income rather than consumption based. The 2003–4 Namibian Household Income and Expenditure Survey used a different Cost of Basic Needs (CBN) approach to measuring household poverty. The CBN calculated three income poverty lines. The first was the food poverty line, which was based on the cost of a food basket enabling households to meet a minimum nutritional requirement (of 2,100 Kcal); a value of N\$127 per capita per month. The other two added in an allowance for the consumption of basic non-food items to define a “severely poor” poverty line of N\$185 and a poor poverty line of N\$262 (Figure 4). The actual numbers (which reflected incomes and expenditures in 2003–4) are not as important as the results yielded by this method. These showed that 28% of Namibian households were poor and



that half of these were very poor. The survey results also showed that 12% of urban households were poor (including 6% very poor). In the Khomas Region (in which Windhoek is located), the figures were 6% poor and 2% very poor. This would seem to imply either that poverty is almost non-existent in Windhoek or that the methodology for calculating the poverty lines might have been overly generous.³³

FIGURE 4: Distribution of NHIES Expenditure and the Poverty Lines, 2003–2004



Source: National Planning Commission, “A Review of Poverty and Inequality in Namibia” p. 5

The AFSUN survey used two different measures of poverty: household income and the Lived Poverty Index. Based on household income for the previous month, 33% of households have monthly incomes of less than N\$1,900 (about US\$8/day). With an average household size of four, that approximates to about US\$2/person/day indicating a serious poverty situation well above the 12% reported for Khomas Region above. Another third of the households had a total monthly income of N\$1,900 (US\$8) to N\$4,999 (US\$20) and the final third made over N\$5,000 (US\$20). Even a household making N\$5,000 per month (N\$60,000 per annum) is hardly wealthy but the data does illustrate that even in Windhoek’s poorer areas, there is considerable income inequality.

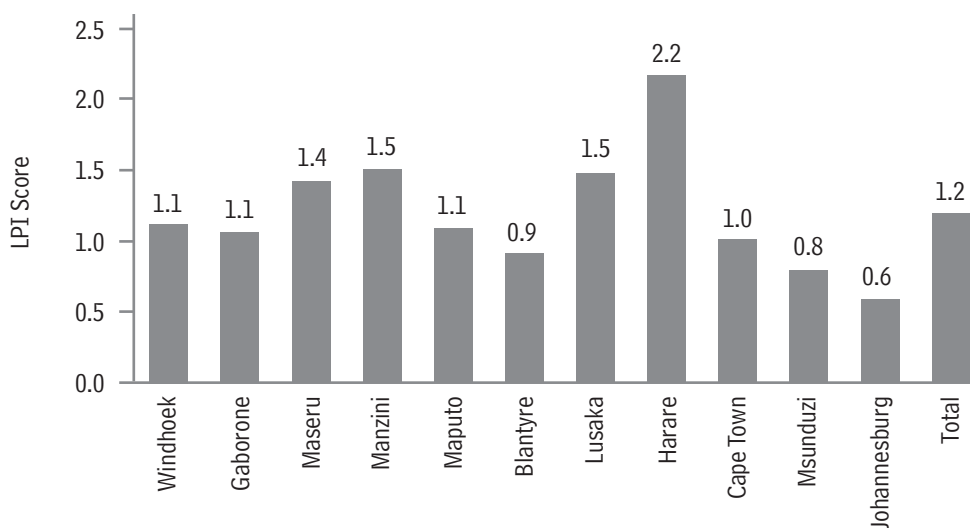
The Lived Poverty Index (LPI) tries to capture the subjective experience of poverty.³⁴ The LPI is based on answers to questions about how often a household has gone without certain basic household items in the previous year, including food, medical attention, cooking fuel and a cash income. Respondents answer on a five point scale: never; just once or twice; several times; many times; always. A mean LPI score is then computed for

each item: a mean score closer to '0' indicates fewer households 'going without' and a score closer to '4' indicates more households 'going without.' There is a marked difference in LPI scores within the Windhoek sample between households in informal and formal areas (with 18% of informal households scoring over 2.0 compared with only 9% of formal households) (Table 5).

The mean score for all the Windhoek households is 1.1 (median 1.0), which is equivalent to cities such as Gaborone and Maputo (Figure 5). Four cities have worse (higher) lived poverty than Windhoek (Maseru, Manzini, Lusaka and Harare) and four have better (the three South African cities plus Blantyre). These results do not show particularly high levels of absolute deprivation, especially when compared to cities such as Harare. In Harare, for example, 56% of surveyed households scored above 2.0 compared to only 14% in Windhoek.

Lived Poverty Index	Formal		Informal		Total	
	No.	%	No.	%	No.	%
0.00–1.00	136	66.3	97	44.1	233	54.8
1.01–2.00	51	24.9	83	37.7	134	31.5
2.01–3.00	17	8.3	34	15.5	51	12.0
3.01–4.00	1	0.5	6	2.7	7	1.6
Total	205	100.0	220	100.0	425	100.0

FIGURE 5: Mean LPI Scores for Southern African Cities





4.2 Poverty and Sources of Income

Formal sector unemployment in Windhoek is estimated at 37%.³⁵ The four major sources during the month prior to the survey were wage work (84% of households), casual work (17%), remittances (16%) and informal business (Table 6). However, households with a wage earner do not utilize alternative income producing strategies to any great extent. About 50% do not make use of any additional strategies and only 20% utilized one additional strategy. Although not used extensively, strategies most often identified were casual labour (21%), self-employment at home (20%) and informal marketing (15%). Other strategies, such as garden crops and livestock, are utilized very little.

Over half the working population in the survey have full-time (55%) or part-time employment (10%) with about 35% of the adult sampled population unemployed and looking for work. The major employment categories include skilled (26%), unskilled (23%), professional (11%), office worker/civil servant (10%) and military (9%). There are significantly more unemployed people in the informal housing areas (42% compared to 24%). The high proportion of households that derive income from wage work is not necessarily at odds with the fact that formal employment is nearly 40% since many households have more than one or two potential wage earners, not all of whom have jobs. Only 2% of households derived income from a formal business and the sale of rural and urban farm produce.

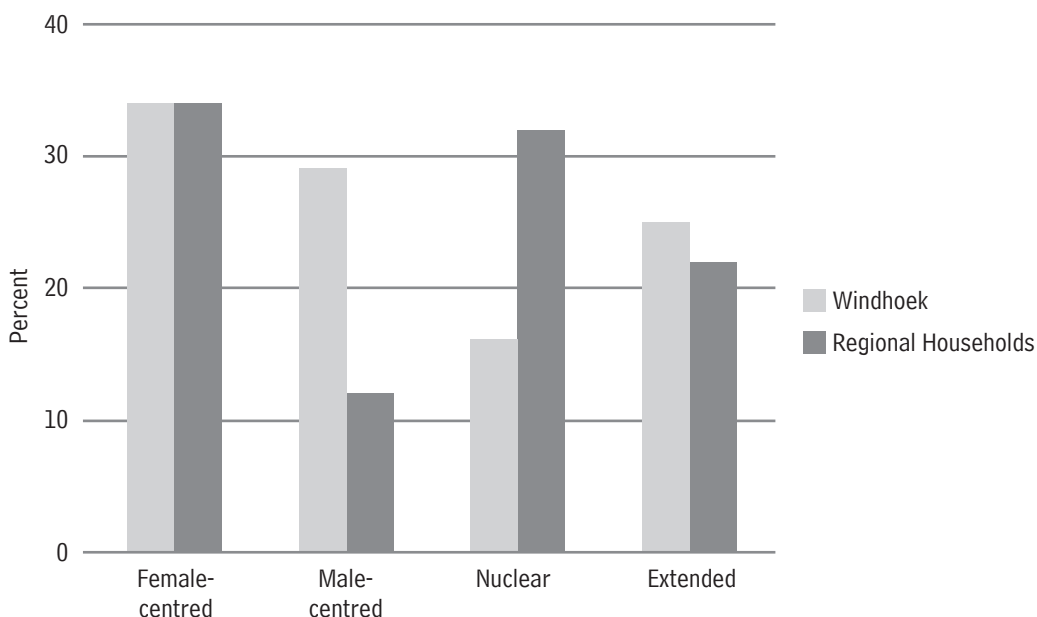
TABLE 6: Sources of Household Income

	No.	% of Households
Wage work	367	84
Casual work	73	17
Remittances	69	16
Informal business	58	13
Formal business	10	2
Rent	10	2
Urban farm products	1	-
Gifts	5	1
Other	22	5

4.3 Poverty and Household Structure

Poor households headed by women (female-centred households) have been a feature of Windhoek life for many years. These households have dependent children, relatives and/or friends, but do not have spouses or conjugal partners. A 1950 household survey of the old Windhoek location (when virtually all housing was informal) found that 19% of households were female-centred.³⁶ Later surveys of Katutura found that female-centred households made up 36% of the total in 1968, 25% in 1991 and 28% in 2000.³⁷ The 2008 Windhoek AFSUN survey recorded 34% female-centred households, suggesting considerable continuity over time. Twenty nine percent of households were headed by men, 16% were nuclear households and 22% were extended family households (Figure 6).

FIGURE 6: Household Structure in Windhoek and Region



Comparing the Windhoek results with those for the regional data set as a whole shows two interesting variations. The proportion of male-centred households is significantly higher in Windhoek (29% versus 12%) and the proportion of nuclear households is significantly lower (16% versus 32%). The relatively low proportion of nuclear households is related to the fact that non-conjugal-based households (i.e. family household types not based on a marriage or living-together union) make up about 60% of the households surveyed. This is a reflection of various pressures on household formation including the fact that getting married is expensive regardless of the type of union (traditional marriage, church marriage

or a civil ceremony). The relatively high proportion of male-centred households is a reflection of the tendency for recent male migrants to live together in male-centred households in areas with people who share the same language and culture.

5. LEVELS OF FOOD INSECURITY

Household food insecurity was measured by using various international cross-cultural scales developed by the Food and Nutrition Technical Assistance Project (FANTA):

Household Food Insecurity Access Scale (HFIAS): The HFIAS measures the degree of food insecurity during the month prior to the survey.³⁸ 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: food secure, and mild, moderately and severely food insecure.³⁹ 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 many food groups are consumed within the household over a given period.⁴⁰ The maximum number, based on the FAO classification of food groups for Africa, 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.

The HFIAS average score for the surveyed population is 9.3, which is slightly lower than the regional average score for all 11 cities (10.3). However, only two of the cities (Johannesburg and Blantyre) have lower mean and median scores on the HFIAS. In other words, according to this scale, the urban poor in Windhoek appear to be less food insecure than those in many other cities of the region. However, when the Windhoek HFIAS scores are compared by housing area a very different picture emerges. The HFIAS score in formal housing areas drops to only 5.9, almost five points below the regional average. The score for the informal housing areas, however, is 12.4, more than double the formal area score (a statistically

significant difference). In addition, Windhoek's informal area scores are worse than every other city except Harare, Manzini and Maseru. This suggests that there is widespread food insecurity in the informal areas of Windhoek (Table 7).

	Mean	Median	No.
Manzini, Swaziland	14.9	14.7	489
Harare, Zimbabwe	14.7	16.0	454
Maseru, Lesotho	12.8	13.0	795
Lusaka, Zambia	11.5	11.0	386
Msunduzi, South Africa	11.3	11.0	548
Gaborone, Botswana	10.8	11.0	391
Cape Town, South Africa	10.7	11.0	1,026
Maputo, Mozambique	10.4	10.0	389
Windhoek, Namibia	9.3	9.0	436
Formal Areas	5.9	5.0	213
Informal Areas	12.4	11.0	223
Blantyre, Malawi	5.3	3.7	431
Johannesburg, South Africa	4.7	1.5	976

The HFIAP categorizes households by different levels of food insecurity. The regional average for severely food insecure households is 57%, slightly lower than Windhoek's 63% of households (Table 8). Once again, there are many more cities with a higher proportion of severely food insecure households (only Blantyre and Johannesburg have fewer households than Windhoek in such dire straits). However, if the Windhoek sample is broken down into formal and informal housing areas, a different picture again emerges. The proportion of severely food insecure households is 50% in the formal areas and the proportion of food secure households is 29% (compared to 18% overall). When half of the households in an area are severely food insecure, this is still a source of major concern. This challenge still pales in comparison with that in the informal areas of Windhoek where 76% of households are severely food insecure (and 89% are severely or moderately food insecure). Only 8% of households in informal areas are food secure. In other words, the informal areas of Windhoek are the most food insecure in the entire region. Food storage, safety and lack of services are also issues affecting informal more than formal housing.

**TABLE 8: Windhoek HFIAP Scores Compared to Other Cities**

	Food Secure %	Mildly Food Insecure %	Moderately Food Insecure %	Severely Food Insecure %
Harare, Zimbabwe	2	3	24	72
Lusaka, Zambia	4	3	24	69
Maseru, Lesotho	5	6	25	65
Maputo, Mozambique	5	9	32	54
Manzini, Swaziland	6	3	13	79
Msunduzi, South Africa	7	6	27	60
Gaborone, Botswana	12	6	19	63
Cape Town, South Africa	15	5	12	68
Windhoek, Namibia	18	5	14	63
Formal Areas	29	7	14	50
Informal Areas	8	4	13	76
Blantyre, Malawi	34	15	30	21
Johannesburg, South Africa	44	14	15	27

The marked difference between formal and informal settlements in Windhoek also emerged in the Household Dietary Diversity Scale (HDDS), which measures the food quality and diversity dimensions of food security. The overall HDDS score for Windhoek is 5.95 (out of 12). In the formal areas, the score was over 7 and in the informal areas less than 5. These figures indicate that overall household diets are not very diverse but that they are significantly less diverse in informal areas. Further insights can be gained by combining the HFIAP and HDDS (Table 9).

TABLE 9: Household Dietary Diversity Score

		Mean	No.
Food secure	Formal Housing	8.12	75
	Informal Housing	6.39	23
	Total	7.71	98
Food insecure	Formal Housing	6.63	132
	Informal Housing	4.59	192
	Total	5.42	324
Total	Formal Housing	7.17	207
	Informal Housing	4.78	215
	Total	5.95	422

For ease of analysis, the four categories of the HFIAP are combined into two categories: food secure and food insecure. These categories are then cross-tabulated with type of housing. This analysis shows that

even amongst food secure households, the diets of households in formal areas are more diverse than those in informal areas (8.12 versus 6.39). A difference is also seen amongst food insecure households (where those in formal areas score 6.63 versus 4.59 in informal areas). The difference between food secure and insecure households is statistically significant.

Finally, it is a well-established general principle that the less income a household earns, the greater the proportion of that income that is spent on food. In Namibia as a whole, this relationship is very clear. Household data from the National Planning Commission's Review of Poverty and Inequality in Namibia shows that households in the poorest income quintile spent 57% of their annual income on food (Table 10). The proportion falls steadily with increasing income to 47% in the third quintile and only 13% in the upper quintile. Interestingly, proportional expenditure on other basic needs such as housing, education, health care and clothing does not vary significantly with income. Proportional expenditure on transportation is the opposite to food, increasing with increased income.

Annual household expenditure on:	I	II	III	IV	V	Total
Food	56.7	54.8	46.8	33.5	13.2	26.3
Housing, including utilities	23.4	21.0	20.4	20.6	24.4	23.0
Transport	2.3	2.9	4.9	9.9	19.9	14.1
Furniture and equipment	3.7	4.9	7.4	8.9	10.6	9.1
Clothing and footwear	6.6	7.6	8.0	8.7	5.1	6.3
Recreation, entertainment and sport	0.5	0.8	1.2	2.1	5.0	3.5
Communication	0.8	1.3	2.0	3.0	3.9	3.1
Education	1.5	1.3	1.8	2.5	3.6	2.9
Health care	1.2	1.3	1.4	1.7	2.2	1.9
Accommodation services	0.1	0.1	0.2	0.2	0.7	0.5
Miscellaneous expenditure	3.1	4.0	5.7	8.9	11.3	9.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of Households in Sample	1,904	1,889	2,009	2,143	1,856	9,801
Weighted Number of Households	74,306	74,376	74,344	74,304	74,346	371,678

Source: National Planning Commission, 'A Review of Poverty and Inequality in Namibia'



The AFSUN survey was conducted in late 2008 after a year of significant global and regional food price increases that had impacted on both the urban and rural poor in Namibia.⁴¹ Within Windhoek, the proportion of total household expenditures still varied significantly between formal (27%) and informal (44%) areas of the city (Table 11). Windhoek households spent less on food than those in any other city in the region (at 36%). The most plausible explanation for this is that Windhoek households are able to access food outside market channels either through urban agriculture or rural-urban food transfers. As we argue below, the second explanation makes a great deal more sense than the first.

	N	% of Income Spent on Food
Harare, Zimbabwe	417	62
Cape Town, South Africa	985	55
Lusaka, Zambia	357	54
Maputo, Mozambique	314	53
Msunduzi, South Africa	456	52
Johannesburg, South Africa	886	49
Blantyre, Malawi	424	46
Maseru, Lesotho	628	46
Gaborone, Botswana	374	46
Manzini, Swaziland	345	42
Windhoek, Namibia	430	36
Formal Areas	204	27
Informal Areas	220	44
Total	5,616	50

6. DETERMINANTS OF HOUSEHOLD FOOD INSECURITY

Clearly, whether a household is living in an informal or formal housing area has a major influence on its chances of being food insecure as well as the depth of that insecurity. However, not all households in formal areas are food secure and not all households in informal areas are food insecure. To probe in greater depth why there is such a range within the poor areas of Windhoek, this section uses the HFIAP measure of food insecurity to investigate the relationship between food security and a number of potentially important demographic variables. These include household type

and size, household income, employment, poverty and education and sources of food. Statistical tests were run on the analysis tables presented in this section of the paper. Both chi square and contingency coefficients (cc) were run to assess the extent of food insecurity for nominal/nominal and nominal/ordinal tables; a means test and eta coefficient were run for interval/nominal or ordinal tables. Valid cc and eta scores are given to assess the strength of the association.

6.1 Household Structure and Food Insecurity

Does household structure make a difference to food insecurity? All four household types in Windhoek have large percentages of food insecure households. Female-centred households were clearly the most food insecure (at 82%) followed by male-centred households (78%), extended family households (77%) and nuclear family households (63%) (Table 12). When the formal/informal distinction is included, the same pattern is replicated. In informal areas, for example, 93% of female-centred households are food insecure (compared with 90% for extended, 88% for male-centred and 82% for nuclear households). The differences are more significant in formal areas where 73% of female-centred households are food insecure (compared to only 65% of male-centred, 64% of extended and only 44% of nuclear households). In other words, female-centred households are more food insecure than other household types in both formal and informal areas. The difference is statistically significant for formal housing but not significant for informal housing. It is also worth noting that 18% of female-headed households were food secure and that the majority of these households were in formal rather than informal areas.

		Household structure				Total %
		Female-centred %	Male-centred %	Nuclear %	Extended %	
All	Food secure	18	22	37	23	23
	Food insecure	82	78	63	77	77
Total		100	100	100	100	100
Informal	Food secure	7	12	18	10	11
	Food insecure	93	88	82	90	89
Total		100	100	100	100	100
Formal	Food secure	27	35	56	36	36
	Food insecure	73	65	44	64	64
Total		100	100	100	100	100

6.2 Household Income, Employment and Food Insecurity

Since urban households purchase so much of their food, and food is the major expenditure item in household budgets, it is likely that the level of household income has a major impact on food security. For ease of analysis, household income is divided into three levels. There is very little difference in levels of insecurity amongst households in the poor (<N\$1,900 per month) and less poor (N\$1,901 to N\$4,999 per month) categories (87% and 86% food insecure respectively) (Table 13). However, only 54% of the least poor (>N\$5,000) households are food insecure. In other words, there appears to be a threshold income above which more households are able to achieve food security and below which the vast majority are not.

		Terciles of Household Income			Total %
		Poorest (< N\$1,900) %	Less Poor (N\$1,900–4,999) %	Least Poor (≥ N\$5,000) %	
All	Food secure	13	14	46	24
	Food insecure	87	86	54	76
Total		100	100	100	100
Informal	Food secure	12	8	38	12
	Food insecure	88	92	62	88
Total		100	100	100	100
Formal	Food secure	17	22	47	36
	Food insecure	83	78	53	64
Total		100	100	100	100

The general relationship between income and food security holds in both informal and formal areas of the city. But there are absolute differences between the two. For example, the proportion of food secure households in the least poor income group is 47% in the formal areas and only 38% in the informal areas. Even amongst the poorest income group there is a difference, with 17% of households in the formal areas and only 12% in the informal areas being food secure. The differences between food secure and insecure households are all statistically significant. What this means, in effect, is that households in informal areas are likely to be more food insecure than those in formal areas even when their incomes are roughly the same.

Having full-time employment is closely related to household income and to food security. Food secure households have 18% more full-time employment; food insecure households have more part-time employment (about 5% more) and more unemployed people (12% more) (Table 14). People living in formal housing have more full-time employment (23% more) and those in informal housing have more part-time employment (8%) and unemployment (15%) (Table 14).

	Work Status		
	Working full-time %	Working part-time/casual %	Unemployed %
Food secure	68	6	26
Food insecure	50	11	38
Formal	66	6	28
Informal	43	14	43

The education level of household members is also related to household income and food security. The proportion of food secure households increases with the level of educational attainment of the household members (from 15% of those with members with no schooling, to 18% of those with primary education, 27% with high school and 29% with tertiary education) (Table 15).

In general, the same pattern can be observed when income is factored into the calculation although there are some unexpected anomalies. For example, poor and less poor households tend to be more food secure if no-one has any schooling as opposed to a primary education. This may reflect the fact that the uneducated could be more likely to accept the most menial employment shunned by those with some education. Or again, in the least poor category, households with a member with secondary education tend to be more food secure than those with a member with tertiary education (50% versus 32%). This could be because it is more difficult for those with a university degree or diploma to find employment commensurate with their training and skills.



Level of Education		Food secure %	Food insecure %
No Schooling	Poorest	9	91
	Less poor	10	90
	Least poor	29	71
	Total	15	85
Primary Schooling	Poorest	5	95
	Less poor	8	92
	Least poor	38	62
	Total	18	82
High School	Poorest	13	87
	Less poor	14	86
	Least poor	50	50
	Total	27	73
Tertiary	Poorest	17	83
	Less poor	27	73
	Least poor	32	68
	Total	29	71
Total		23	77

7. SOURCES OF FOOD

Households regularly obtain food from three main sources (Figure 7). Supermarkets are patronised by the greatest number of households (83%), followed by small outlets such as grocers and fast-food outlets (73%), and the urban informal economy (66%). The importance of supermarkets for food purchase highlights the regional tendency for supermarkets to expand into poorer urban areas where previously only small locally-owned shops were found.⁴² In previous years, people from these areas would shop at the supermarkets in central Windhoek on Saturday mornings. Now many people make use of the supermarkets closer to where they live. Food insecure households are slightly less likely to patronise supermarkets than food secure households (82% versus 87%) (Figure 7). However, households in informal areas are just as likely to buy food at supermarkets than those in formal areas (Figure 8).

FIGURE 7: Food Sources by Level of Household Food Security

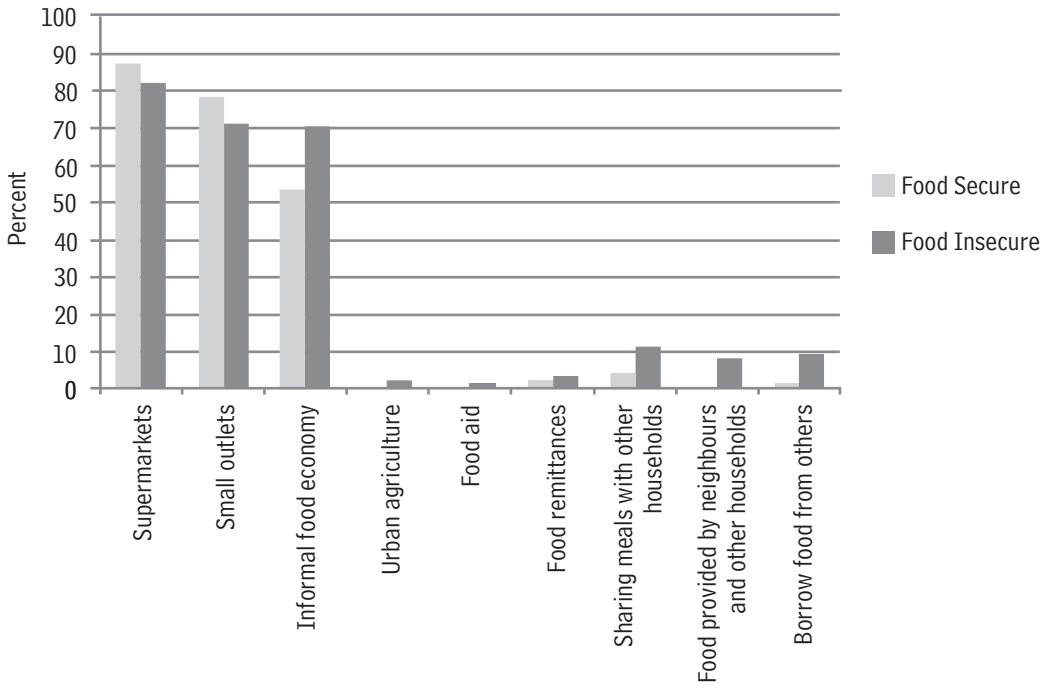
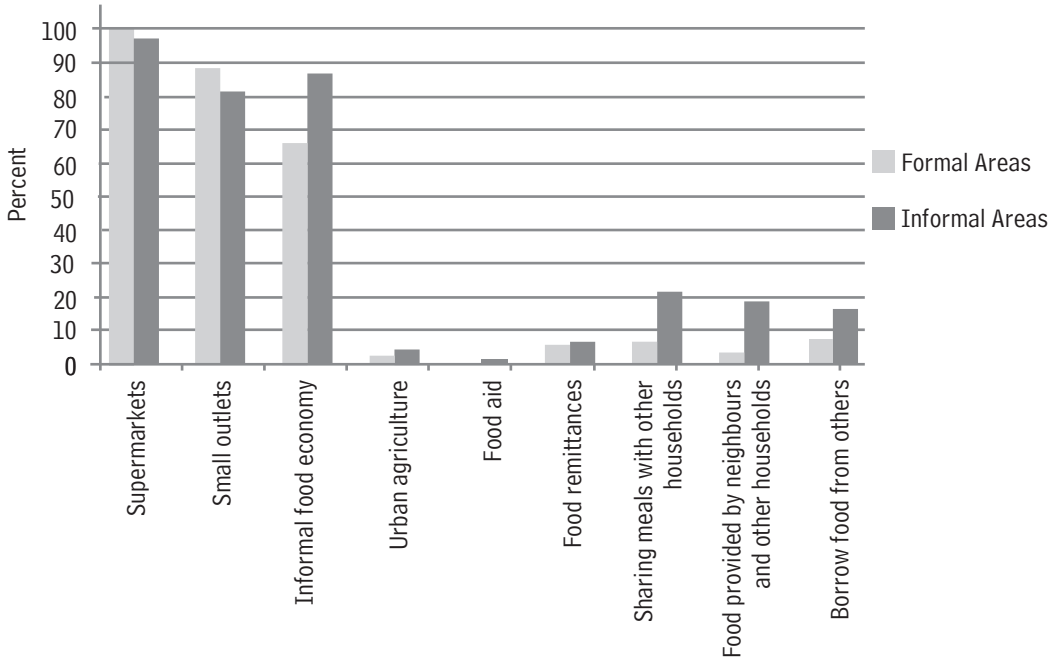


FIGURE 8: Food Sources by Housing Area



The proportion of households sourcing food from the informal economy (66%) is high but lower than in most of the other cities in the AFSUN survey. This, in turn, is a function of the fact that the urban informal economy is smaller than in many of the other cities.⁴³ The impact of the penetration of supermarkets on the informal food economy may be one of the reasons for this but more research on this point is necessary. What is clear is that food insecure households are far more likely to patronise informal suppliers than food secure households (70% versus 53%) (Figure 7). Similarly, households in informal housing areas rely more on the informal food economy than those in formal housing areas. The latter are slightly less likely to patronise supermarkets (82% versus 87%) and small outlets (71% versus 78%) and more likely to source food from the informal economy (86% versus 66%).

For much of the year, the dry climate and limited water availability in Windhoek makes growing crops a difficult proposition. That said, two studies from early in the last decade paint very different pictures of the prevalence and significance of urban agriculture in Windhoek. A report for the FAO in 2002 implausibly claimed that urban and peri-urban agriculture was practised by 79% of households and over half of households in the informal settlements of the city.⁴⁴ According to the report, there was “evidence of intensive farming activities both commercial and micro scale in backyards, open spaces and along river courses.”⁴⁵ Exactly what this “evidence” consisted of is unclear. These claims are sharply at odds with findings from a larger survey of households conducted around the same time:

Urban agriculture does occur in Windhoek, despite the climatic constraints. Five percent of the sample was involved in some form of urban agriculture, and a further 4% know of someone else in the city that grows some food themselves (total of 9%). General observation in the area supports this finding, and although evident, the incidence and scale of urban agriculture is limited.⁴⁶

Less than 1% of respondents reported keeping urban livestock (within a 10km radius of the city). Around 3% said they knew of friends or neighbours who kept livestock within the city. Frayne concluded that “the quantity of food being produced in the city suggests that urban agriculture does not play an important role in ameliorating urban food insecurity at the household level as yet in Windhoek.”⁴⁷ The AFSUN survey confirms the bleak picture (for urban agriculture advocates) painted by Frayne. While he held out the possibility that urban agriculture might increase in importance in the poorer areas of the city, the AFSUN survey suggests that it has actually declined over the last decade. In 2000, Frayne found that 6% of households were engaged in urban agriculture (crop-

ping and livestock), a figure that appears to have dropped to only 1.4% of households in 2008. This was the lowest figure amongst all the 11 cities surveyed by AFSUN. In other cities, food insecure households are more likely to be involved in urban agriculture than food secure households. In Windhoek, urban agriculture is clearly not a procurement strategy for the food insecure.

More important to the most food insecure households are a variety of informal social protection mechanisms, such as sharing meals with neighbours (11% of households), borrowing food (9%) and obtaining food from neighbours or others (8%). Here again, there is a clear distinction between food secure and insecure households and between households in formal and informal areas (Figures 7, 8). Few of the food secure households rely on any of these social protection strategies. Households in informal areas are far more likely than households in formal areas to obtain food in this manner. For example, 21% of households in informal areas share meals with neighbours and others (compared with only 6% of households in formal areas). Or again, 17% of informal households borrow food from other households, compared with only 6% of formal households.

8. INFORMAL FOOD TRANSFERS

In 2000, Frayne found that as many as 62% of poor households in Windhoek received food from relatives in the rural areas.⁴⁸ These transfers were critical to the livelihoods of urban households. The AFSUN survey provided the opportunity to see if these transfers had increased or declined in importance in the intervening years.⁴⁹ It found that 72% of households received food transfers from relatives and friends in rural and other urban areas. The main produce included millet, meat, milk products, fish and spinach. The significance of informal food transfers varies across the region, but they are clearly more important in Windhoek than in any other city surveyed by AFSUN (Table 16). The relative importance of food transfers to Windhoek households varies with two factors: whether the household is in a formal or informal area and whether the household is food secure or insecure. Households in informal areas receive more food transfers than those living in formal areas (63% versus 39%). And more food insecure households receive food transfers than food secure households (84% versus 16%). This suggests that food transfers do not make households food secure but rather that they are a common response to food insecurity.

TABLE 16: Informal Food Transfers		
	No.	% of Households
Windhoek, Namibia	323	72
Formal Areas	81	39
Informal Areas	135	63
Food Secure Households	16	16
Food Insecure Households	272	84
Gaborone, Botswana	279	70
Manzini, Swaziland	265	53
Maseru, Lesotho	393	49
Lusaka, Zambia	156	39
Blantyre, Malawi	164	38
Harare, Zimbabwe	171	37
Johannesburg, South Africa	239	24
Maputo, Mozambique	91	23
Msunduzi, South Africa	83	15
Cape Town, South Africa	139	14
Total	2,273	35

9. CONCLUSION

This report clearly shows the dynamic relationship between migration, urbanization, poverty and food security. Windhoek has experienced significant rural-urban and urban-urban migration in recent years, especially since independence. Many migrants have settled in the northern and north-western areas of the city. Poverty is widespread in Namibia and Windhoek but unevenly distributed and polarized. The poorest are in informal urban areas of the city. Many of these poor households in areas such as Samora Machel (Goreangab, Katutura and Wanaheda), Tobias Hainyeko (Okuryangava) and Moses //Garoëb (Hakahana) are food insecure.

Are the urban poor in Windhoek poorer and more food insecure than the poor in the other 10 AFSUN project cities? It would appear so. On the HFIAS, the regional average is 10.3; for those in informal housing it is 12.4 (the fourth highest for the region). For the HFIAP, the regional average is 77% food insecure; for Windhoek, those in informal housing are 89% food insecure (the third highest food insecure for the region). On the LPI, the regional average is 1.2; for those in informal housing in Windhoek the average is 1.4 (the fourth highest). The overall picture is

that those who are better off and more food secure are living in formal houses and those who are poorer and more food insecure are only able to live in informal housing. In an effort to mitigate their insecure food situation, food insecure households make use of various strategies including receiving food transfers, obtaining food from informal markets, and other informal methods such as borrowing food with neighbours.

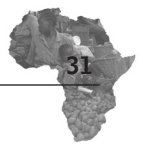
Why are Windhoek's urban poor in informal housing poorer and more food insecure than those in formal housing, and among the poorest of the 11 cities surveyed? Looking at the housing situation in the other 10 cities surveyed, most urban poor live in houses with the exception of Khayelitsha and Philippi (Cape Town 40%), Msunduzi (Durban 19%) and Manzini (Swaziland 19%). The poorest households in these cities (Windhoek, Cape Town, Durban and Swaziland) are unable to afford or access formal housing. In the case of Windhoek, the relatively recent history of urban migration and the inability of the municipality to provide formal housing for poor people is a partial explanation; the same is probably true for the other cities mentioned above. For the other cities in the survey, urban migration has been going on for a longer period of time and people have had a chance to improve or adapt to their urban accommodation.

Windhoek represents a typical policy challenge facing any city undergoing particularly rapid growth through in-migration. In that respect, Windhoek is a prototype for many other cities in SADC and beyond. However, while myriad challenges facing such cities (e.g. employment, housing, service provision and transport infrastructure) are well-recognised, food insecurity is not. The international, continental and national food security agenda (including in Namibia) has a decidedly rural bias with little attention given to the specific challenges of feeding the residents of African cities.⁵⁰ Food availability is not an issue in a city like Windhoek and is likely to become even less so over time as more supermarkets open and the city becomes more firmly integrated into modern global and regional food supply chains. What is more important is the whole issue of food access and that, in turn, depends on incomes and food pricing. Unlike in other cities, it also depends on whether rural-urban food transfers are sustainable and can be made more organised and efficient. What is certainly required is a systematic national and city strategy for reducing the high levels of food insecurity amongst the urban poor in general and in informal settlements in particular.

ENDNOTES

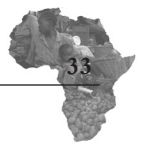
- 1 Government of Namibia, *Namibia 2011: Population and Housing Census Preliminary Results*, National Planning Commission, Windhoek, 2012.
- 2 Windhoek Municipality, “Constituency Map of the Khomas Region and Population Figures for Windhoek’s Urban Localities/Suburbs from the 2006 Population Census” Central Bureau of Statistics, Windhoek, 2010.
- 3 W. Pendleton and B. Frayne, “Report of the Results from the Namibian Migration Project” SSD Research Report No. 35, Multi-Disciplinary Research Centre, University of Namibia, Windhoek, 1998.
- 4 D. Simon, “Recent Trends in Namibian Urbanization” *Tijdschrift voor Economische en Sociale Geografie* 73 (1982): 237-49; B. Frayne, *Urbanisation in Post-Independence Windhoek: With Special Emphasis on Katutura* (Windhoek: NISER, 1992).
- 5 H. Melber, “Urbanization and Internal Migration: Regional Dimensions in Post-Colonial Namibia” In G. Bächler and K. Spillman, eds., *Environmental Degradation as a Cause of War* (Zurich: Ruegger, 1996); W. Pendleton, “Katutura in the 1990s” SSD Research Report 28, Multi-Disciplinary Research Centre (MRC), University of Namibia, Windhoek, 1997; A. Pomuti and I. Tvedten, “Namibia: Urbanization in the 1990s” Publication No. 6, Namibian Economic Policy Research Unit, Windhoek, 1998.
- 6 Government of Namibia, *Namibia 2011: Population and Housing Census Preliminary Results*, p. 52.
- 7 Beginning in 1981 ‘racial’ group designations were not used for Municipal areas and people were free to live anywhere in the city; however, because of the relatively homogeneous character of the areas (e.g. Khomasdal was primarily occupied by ‘coloured’ people) it is possible to designate areas as primarily occupied by particular ‘racial’ groups. After independence some areas previously occupied by whites have become more integrated. Figure 1 should thus be viewed as suggestive rather than definitive.
- 8 Simon, “Windhoek” *Cities* 12 (1995): 139-47.
- 9 W. Pendleton, *Katutura: A Place Where We Stay* (Athens: Ohio University Press, 1996).
- 10 See, for example, S. O’Keefe, J. Rund, N. Marot, K. Symmonds and G. Berger, “Nutritional Status, Dietary Intake and Disease Patterns in Rural Hereros, Kavangos and Bushmen in South West Africa/Namibia” *South African Medical Journal* 73 (1988): 643-50; S. Devereux, “Drought and Survival in Rural Namibia” *Journal of Southern African Studies* 22 (1996): 421-40; C. Matanyaire, “Farmers’ Production Practices and Perceptions of Problems as a Guide for Research on Rainfed Food Crops in Northern Namibia” *Development Southern Africa* 13 (1996): 681-91; L. Vähätalo, V. Mikkilä and L. Räsänen, “Schoolchildren’s Food Consumption and Dietary Intake During the Dry Season in North-West Namibia” *International Journal of Food Sciences and Nutrition* 56 (2005): 367-75; B. Fuller and D. Van Zyl, “Silently Starving: A New Form of Famine among Small Scale Farming Households Affected by the HIV Epidemic?” Working Paper No. 107, Namibia Economic Policy Research Unit (NEPRU), Windhoek, 2006.
- 11 D. Simon, “Responding to Third World Urban Poverty: Women and Men in the ‘Informal’ Sector in Windhoek, Namibia” In J. Momsen and J. Townsend (eds), *Women’s Roles in Changing the Face of the Developing World* (London: IBG, 1983),

- pp. 95–103; W. Pendleton and B. du Bois, “Health and Daily Living Survey of Windhoek, Namibia” Research Report, NISER, Windhoek, 1988–9; C. Frohlich and B. Frayne, “Hawking: An Informal Sector Activity in Katutura” Discussion Paper No. 7, Namibian Institute for Social and Economic Research, University of Namibia, Windhoek, 1991; D. Simon, “Urban Poverty, Informal Sector Activity and Inter-Sectoral Linkages: Evidence from Windhoek, Namibia” *Development and Change* 15 (1994): 551–76; B. Frayne, “Migration and Urban Survival Strategies in Windhoek, Namibia” *Geoforum* 35 (2004): 489–505; B. Seibes-Bock, “A Study of Social Constraints and Economic Survival Strategies of Female Heads of Households Operating in the Informal Sector of Katutura, Windhoek, Namibia” M.A. Thesis, University of Western Cape, Cape Town, 2004; I. Tvedten, “‘A Town Is Just A Town’: Poverty and Social Relations of Migration in Namibia” *Canadian Journal of African Studies* 38 (2004): 393–423.
- 12 J. Crush and B. Frayne, *The Invisible Crisis: Urban Food Security in Southern Africa* AFSUN Urban Food Security Series No. 1, Cape Town and Kingston, 2010, pp.19–35.
 - 13 S. Dima, A. Ogunmokun and T. Nantanga, “The Status of Urban and Peri-Urban Agriculture in Windhoek and Oshakati, Namibia” Report for the FAO Integrated Support to Sustainable Development and Food Security Programme, University of Namibia, 2002; B. Frayne, “Rural Productivity and Urban Survival in Namibia: Eating Away from Home” *Journal of Contemporary African Studies* 23 (2005): 51–76; B. Frayne, “Migration and the Changing Social Economy of Windhoek, Namibia” *Development Southern Africa* 24 (2007): 91–108; B. Frayne, “Survival of the Poorest: Migration and Food Security in Namibia” In L. Mougeot, ed., *Agropolis: The Social, Political, and Environmental Dimensions of Urban Agriculture* (Ottawa: IDRC, 2005), pp. 31–50; H. Nangombe and L. Ackermann, “Subsistence and Protection Needs of the Elderly Living in Katutura, Windhoek (Namibia)” *Research on Aging* 34 (2012): 1–19.
 - 14 J. Crush, B. Frayne and W. Pendleton, “The State of Urban Food Security in Southern Africa” *Journal of Hunger and Environmental Nutrition* (forthcoming).
 - 15 Frayne, “Migration and Urban Survival Strategies in Windhoek”; J. Crush, *Migration, Development and Urban Food Security*, AFSUN Food Security Series No. 9, Cape Town and Kingston, 2012.
 - 16 Pendleton, “Katutura in the 1990s”; Pendleton and Frayne, “Report of the Results from the Namibian Migration Project”; W. Pendleton and B. Frayne, “Namibia; Regional Migration and Poverty Report (MAPS)” Report for SAMP, Cape Town, 2007.
 - 17 Migration figures for the 2011 Census were not available at the time of writing.
 - 18 Central Bureau of Statistics, 2005. 2001 Population and Housing Census, Khomas Region, Windhoek; Pendleton and Frayne, “Report of the Results from the Namibian Migration Project”; W. Pendleton, “Migration and Urban Governance in Southern Africa: The Case of Windhoek” In C. Limprecht and M. Biesele, eds, *Heritage and Culture in Modern Namibia: In-Depth Views of the Country* (Windhoek and Gottingen: Klaus Hess Publishers, 2005), p. 8.
 - 19 B. Frayne and W. Pendleton, “Migration in Namibia: Combining Macro and Micro Approaches to Research Design and Analysis” *International Migration Review* 35 (2001): 1054–85.
 - 20 W. Schmokel, “The Myth of the White Farmer: Commercial Agriculture in



- Namibia, 1900–1983” *International Journal of African Historical Studies* 18 (1985): 93–108; W. Elkan, P. Amutenya, J. Andima, R. Sherbourne and E. van der Linden, “Namibian Agriculture: Policies and Prospects” Working Paper No 73, OECD Development Centre, Paris, 1992.
- 21 D. Pankhurst, “Similar but Different? Assessing the Reserve Economy Legacy of Namibia” *Journal of Southern African Studies* 22(1996): 405–20.
 - 22 T. Næraa, S. Devereux, B. Frayne and P. Harnett, *Coping With Drought in Namibia* (Cape Town: Clyson Printers, 1993).
 - 23 A. Nikondo, “Migrants to Cities and Towns in Namibia: The Dynamics of Investing in Urban Versus Rural Areas” Unpublished Report, Polytechnic of Namibia, Windhoek, 2011.
 - 24 Pendleton and Frayne, “Report of the Results from the Namibian Migration Project”; Pendleton and Frayne, “Namibia; Regional Migration and Poverty Report (MAPS).”
 - 25 D. LeBeau, “The Changing Status of Women in Namibia and its Impact on Violence against Women” In I. Diener and O. Graefe, eds, *Contemporary Namibia: The First Landmarks of a Post-Apartheid Society* (Windhoek: Gamsberg Macmillian, 2001); D. LeBeau, D. Hubbard, E. Iipinge, G. Spence, E. Zimba, M. Conteh and G. Reimers, *Women’s Property and Inheritance Rights in Namibia* (Windhoek: Pollination Publishers, 2005).
 - 26 D. Potts, *Circular Migration in Zimbabwe and Contemporary Sub-Saharan Africa* (Oxford: James Currey, 2010).
 - 27 Crush, *Migration, Development and Urban Food Security*; C. Greiner, “Can Households be Multilocal? Migration and the Domestic Unit in Namibia” *Die Erde* 3 (2012).
 - 28 J. Crush and W. Pendleton, “Remitting for Survival: Rethinking the Development Potential of Remittances in Southern Africa” *Global Development Studies* 5 (2009): 1–28.
 - 29 B. Frayne, “Survival of the Poorest: Food Security and Migration in Namibia” PhD Thesis, Queen’s University, 2002; C. Greiner, “Patterns of Translocality: Migration, Livelihoods and Identity in northwest Namibia” *Sociologus* 60 (2010): 131–61; C. Greiner, “Migration, Translocal Networks and Socio-Economic Stratification in Namibia” *Africa* 81 (2011): 606–27.
 - 30 H. Jauch, L. Edwards and B. Cupido, “Inequality in Namibia” In H. Jauch and D. Muchena, eds., *Tearing Us Apart: Inequalities in Southern Africa* (Johannesburg: OSISA, 2011), pp. 181–255.
 - 31 National Planning Commission, “A Review of Poverty and Inequality in Namibia” Central Bureau of Statistics, Windhoek, 2008, p. 33.
 - 32 Ibid., pp. 34–7.
 - 33 Ibid., p. 38.
 - 34 Afrobarometer, “Lived Poverty in Africa: Desperation, Hope and Patience” Briefing Paper No. 11, Cape Town, 2004.
 - 35 African Development Bank, “Namibia Country Strategy Paper, 2009–2013” Tunis, 2009, p. vii.
 - 36 G. Wagner, “Ethnographic Survey of South West Africa. Part I, District of Windhoek” Unpublished report, 1951, p. 148.

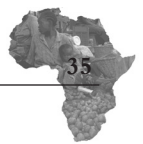
- 37 Pendleton, “Katutura in the 1990s”; Frayne, “Survival of the Poorest.”
- 38 J. Coates, A. Swindale and P. Bilinsky, “Household Food Insecurity Access Scale (HFIAS) for Measurement of Food Access: Indicator Guide (Version 3)” Food and Nutrition Technical Assistance Project, Academy for Educational Development, Washington, D.C., 2007.
- 39 Ibid.
- 40 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, D.C., 2006.
- 41 S. Levine, “The 2007/2008 Food Price Acceleration in Namibia: An Overview of Impacts and Policy Responses” *Food Security* 4 (2012): 59-71.
- 42 R. Emongor and J. Kirsten, “The Impact of South African Supermarkets on Agricultural Development in the SADC: A Case Study in Zambia, Namibia and Botswana” *Agrekon* 48 (2009): 60-85; C. Abrahams, “Transforming the Region: Supermarkets and the Local Food Economy” *African Affairs* 109 (2010): 115-34; J. Crush and B. Frayne, “Supermarket Expansion and the Informal Food Economy in Southern African Cities: Implications for Urban Food Security” *Journal of Southern African Studies* 37 (2011): 781-807;
- 43 Frayne, “Migration and Urban Survival Strategies in Windhoek, Namibia.”
- 44 S. Dima, A. Ogunmokun and T. Nantanga, “The Status of Urban and Peri-Urban Agriculture: Windhoek and Oshakati, Namibia” Report for the Integrated Support to Sustainable Development and Food Security Programme of FAO, Windhoek, 2002, p. 15, 17.
- 45 Ibid., p. 7.
- 46 Frayne, “Migration and Urban Survival Strategies in Windhoek, Namibia” p. 499.
- 47 Ibid.
- 48 Ibid.; Frayne, “Rural Productivity and Urban Survival in Namibia”; Frayne, “Migration and the Changing Social Economy of Windhoek, Namibia.”
- 49 B. Frayne, “Pathways of Food: Mobility and Food Transfers in Southern African Cities” *International Development Planning Review* 32(2010): 83-104.
- 50 J. Crush and B. Frayne, “Urban Food Security and the New International Food Security Agenda” *Development Southern Africa* 28 (2011): 527-44.



REFERENCES

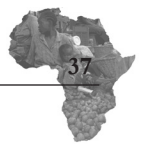
1. Abrahams, C. (2010), "Transforming the Region: Supermarkets and the Local Food Economy" *African Affairs* 109: 115-34.
2. African Development Bank (2009), "Namibia Country Strategy Paper, 2009-2013" Tunis.
3. Afrobarometer (2004), "Lived Poverty in Africa: Desperation, Hope and Patience" Briefing Paper No. 11, Cape Town.
4. Central Bureau of Statistics, (2005). 2001 Population and Housing Census, Khomas Region, Windhoek.
5. Coates, J., Swindale, A. and Bilinsky, P. (2007), "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, D.C.
6. Crush, J. and Frayne, B. (2011), "Urban Food Security and the New International Food Security Agenda" *Development Southern Africa* 28: 527-44.
7. Crush, J. and Frayne, B. (2011), "Supermarket Expansion and the Informal Food Economy in Southern African Cities: Implications for Urban Food Security" *Journal of Southern African Studies* 37: 781-807.
8. Crush, J. and Frayne, B. (2010), *The Invisible Crisis: Urban Food Security in Southern Africa* AFSUN Urban Food Security Series No. 1, Cape Town and Kingston, pp.19-35.
9. Crush, J. and Pendleton, W. (2009), "Remitting for Survival: Rethinking the Development Potential of Remittances in Southern Africa" *Global Development Studies* 5: 1-28.
10. Crush, J., Frayne, B. and Pendleton, W., "The State of Urban Food Security in Southern Africa" *Journal of Hunger and Environmental Nutrition* (forthcoming).
11. Crush, J. (2012), *Migration, Development and Urban Food Security*, AFSUN Food Security Series No. 9, Cape Town and Kingston.
12. Devereux, S. (1996), "Drought and Survival in Rural Namibia" *Journal of Southern African Studies* 22: 421-40.
13. Dima, S., Ogunmokun, A. and Nantanga, T. (2002), "The Status of Urban and Peri-Urban Agriculture in Windhoek and Oshakati, Namibia" Report for the FAO Integrated Support to Sustainable Development and Food Security Programme, University of Namibia.
14. Elkan, W., Amutenya, P., Andima, J., Sherbourne, R. and van der

- Linden, E. (1992), "Namibian Agriculture: Policies and Prospects" Working Paper no 73, OECD Development Centre, Paris.
15. Emongor, R. and Kirsten, J. (2009), "The Impact of South African Supermarkets on Agricultural Development in the SADC: A Case Study in Zambia, Namibia and Botswana" *Agrekon* 48: 60-85.
 16. Frayne, B. and Pendleton, W. (2001), "Migration in Namibia: Combining Macro and Micro Approaches to Research Design and Analysis" *International Migration Review* 35: 1054-85.
 17. Frayne, B. (2010), "Pathways of Food: Mobility and Food Transfers in Southern African Cities" *International Development Planning Review* 32: 83-104.
 18. Frayne, B. (2007), "Migration and the Changing Social Economy of Windhoek, Namibia" *Development Southern Africa* 24: 91-108.
 19. Frayne, B. (2004), "Migration and Urban Survival Strategies in Windhoek, Namibia" *Geoforum* 35: 489-505.
 20. Frayne, B. (2005), "Rural Productivity and Urban Survival in Namibia: Eating Away from Home" *Journal of Contemporary African Studies* 23: 51-76.
 21. Frayne, B. (2002), "Survival of the Poorest: Food Security and Migration in Namibia" PhD Thesis, Queen's University.
 22. Frayne, B. (2005), "Survival of the Poorest: Migration and Food Security in Namibia" In L. Mougeot, ed., *Agropolis: The Social, Political, and Environmental Dimensions of Urban Agriculture* (Ottawa: IDRC), pp. 31-50.
 23. Frohlich, C. and Frayne, B. (1991), "Hawking: An Informal Sector Activity in Katutura" Discussion Paper No. 7, Namibian Institute for Social and Economic Research, University of Namibia, Windhoek.
 24. Fuller, B. and Van Zyl, D. (2006), "Silently Starving: A New Form of Famine among Small Scale Farming Households Affected by the HIV Epidemic?" Working Paper No. 107, Namibia Economic Policy Research Unit (NEPRU), Windhoek.
 25. Government of Namibia (2012), *Namibia 2011: Population and Housing Census Preliminary Results*, National Planning Commission, Windhoek.
 26. Greiner, C. (2012), "Can Households be Multilocal? Migration and the Domestic Unit in Namibia" *Die Erde* 3.
 27. Greiner, C. (2011), "Migration, Translocal Networks and Socio-Economic Stratification in Namibia" *Africa* 81: 606-27.
 28. Greiner, C. (2010), "Patterns of Translocality: Migration, Livelihoods and Identity in northwest Namibia" *Sociologus* 60: 131-61.
 29. Jauch, H., Edwards, L. and Cupido, B. (2011), "Inequality in Namib-



- ia” In Jauch, H. and Muchena, D., eds., *Tearing Us Apart: Inequalities in Southern Africa* (Johannesburg: OSISA), pp. 181-255.
30. LeBeau, D., Hubbard, D., Iiping, E., Spence, G., Zimba, E., Con-
te, M. and Reimers, G. (2005), *Women’s Property and Inheritance
Rights in Namibia* (Windhoek: Pollination Publishers).
 31. LeBeau, D. (2001), “The Changing Status of Women in Namibia and
its Impact on Violence against Women” In Diener, I. and Graefe, O.,
eds, *Contemporary Namibia: The First Landmarks of a Post-Apart-
heid Society* (Windhoek: Gamsberg Macmillian).
 32. Levine, S. (2012), “The 2007/2008 Food Price Acceleration in
Namibia: An Overview of Impacts and Policy Responses” *Food
Security* 4: 59-71.
 33. Matanyaire, C. (1996), “Farmers’ Production Practices and Percep-
tions of Problems as a Guide for Research on Rainfed Food Crops in
Northern Namibia” *Development Southern Africa* 13: 681-91.
 34. Melber, H. (1996), “Urbanization and Internal Migration: Regional
Dimensions in Post-Colonial Namibia” In Bächler, G. and Spillman,
K., eds., *Environmental Degradation as a Cause of War* (Zurich:
Ruegger).
 35. Næraa, T., Devereux, S., Frayne, B. and Harnett, P. (1993), *Coping
With Drought in Namibia* (Cape Town: Clyson Printers).
 36. Nangombe, H. and Ackermann, L. (2012), “Subsistence and Protec-
tion Needs of the Elderly Living in Katutura, Windhoek (Namibia)”
Research on Aging 34: 1-19.
 37. National Planning Commission (2008), “A Review of Poverty and
Inequality in Namibia” Central Bureau of Statistics, Windhoek, p.
33.
 38. Nikondo, A. (2011), “Migrants to Cities and Towns in Namibia: The
Dynamics of Investing in Urban Versus Rural Areas” Unpublished
Report, Polytechnic of Namibia, Windhoek.
 39. O’Keefe, S., Rund, J., Marot, N., Symmonds, K. and Berger, G.
(1988), “Nutritional Status, Dietary Intake and Disease Patterns
in Rural Hereros, Kavangos and Bushmen in South West Africa/
Namibia” *South African Medical Journal* 73: 643-50.
 40. Pankhurst, D. (1996), “Similar but Different? Assessing the Reserve
Economy Legacy of Namibia” *Journal of Southern African Studies*
22: 405-20.
 41. Pendleton, W. and du Bois, B. (1988), “Health and Daily Living Sur-
vey of Windhoek, Namibia” Research Report, NISER, Windhoek.
 42. Pendleton, W. and Frayne, B. (2007), “Namibia; Regional Migration
and Poverty Report (MAPS)” Report for SAMP, Cape Town.

43. Pendleton, W. and Frayne, B. (2007), "Namibia; Regional Migration and Poverty Report (MAPS)" Report for SAMP, Cape Town.
44. Pendleton, W. and Frayne, B. (1998) (, "Report of the Results from the Namibian Migration Project" SSD Research Report No. 35, Multi-Disciplinary Research Centre, University of Namibia, Windhoek.
45. Pendleton, W. (1997), "Katutura in the 1990s" SSD Research Report 28, Multi-Disciplinary Research Centre (MRC), University of Namibia, Windhoek.
46. Pendleton, W. (2005), "Migration and Urban Governance in Southern Africa: The Case of Windhoek" In C. Limprecht and M. Biesele, eds, *Heritage and Culture in Modern Namibia: In-Depth Views of the Country* (Windhoek and Gottingen: Klaus Hess Publishers).
47. Pendleton, W. (1996), *Katutura: A Place Where We Stay* (Athens: Ohio University Press).
48. Pomuti, A. and Tvedten, I. (1998), "Namibia: Urbanization in the 1990s" Publication No. 6, Namibian Economic Policy Research Unit, Windhoek.
49. Potts, D. (2010), *Circular Migration in Zimbabwe and Contemporary Sub-Saharan Africa* (Oxford: James Currey).
50. Schmokel, W. (1985), "The Myth of the White Farmer: Commercial Agriculture in Namibia, 1900-1983" *International Journal of African Historical Studies* 18: 93-108.
51. Seibes-Bock, B. (2004), "A Study of Social Constraints and Economic Survival Strategies of Female Heads of Households Operating in the Informal Sector of Katutura, Windhoek, Namibia" M.A. Thesis, University of Western Cape, Cape Town.
52. Simon, D. (1982), "Recent Trends in Namibian Urbanization" *Tijdschrift voor Economische en Sociale Geografie* 73: 237-49.
53. Frayne, B. (1992), *Urbanisation in Post-Independence Windhoek: With Special Emphasis on Katutura* (Windhoek: NISER).
54. Simon, D. (1983), "Responding to Third World Urban Poverty: Women and Men in the 'Informal' Sector in Windhoek, Namibia" In J. Momsen and J. Townsend (eds), *Women's Roles in Changing the Face of the Developing World* (London: IBG).
54. Simon, D. (1994), "Urban Poverty, Informal Sector Activity and Inter-Sectoral Linkages: Evidence from Windhoek, Namibia" *Development and Change* 15: 551-76.
55. Simon, D. (1995). *Windhoek. Cities*, 12(3), 139-147.
56. Swindale, A. and Bilinsky, P. (2006), "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, D.C.
57. Tvedten, I. (2004), “‘A Town Is Just A Town’: Poverty and Social Relations of Migration in Namibia” *Canadian Journal of African Studies* 38: 393-423.
58. Vähätalo L., V. Mikkilä and L. Räsänen (2005), “Schoolchildren’s Food Consumption and Dietary Intake During the Dry Season in North-West Namibia” *International Journal of Food Sciences and Nutrition* 56: 367-75.
59. Wagner, G. (1951), “Ethnographic Survey of South West Africa. Part I, District of Windhoek” Unpublished report.
60. Windhoek Municipality (2010), “Constituency Map of the Khomas Region and Population Figures for Windhoek’s Urban Localities/ Suburbs from the 2006 Population Census” Central Bureau of Statistics, Windhoek.



THE STATE OF FOOD INSECURITY IN WINDHOEK, NAMIBIA

AFSUN recently conducted a survey of poor urban households in eleven major cities in Southern Africa to better understand the seriousness of the urban food insecurity situation. This report looks in detail at the results for Windhoek and seeks to answer one central question, that is, why do the urban poor in Namibia's capital generally appear to be better off than the urban poor in most of the other ten cities where the survey was conducted and why, at the same time, does Windhoek contain some of the most food insecure households in the region? As a city of migrants, Windhoek's case also presents the opportunity to examine the relationship between migration and urban food security in more depth. Among the key findings is that access to food, which depends on incomes and food pricing, is critical in Windhoek, where food availability is not an issue. What is required is a systematic national and city strategy for reducing the high levels of food insecurity amongst the urban poor in general and in informal settlements in particular.

