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STAPLE FOOD CONSUMPTION PATTERNS IN URBAN ZAMBIA: RESULTS FROM THE 2007/2008 URBAN CONSUMPTION SURVEY

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Key Policy Points

- The Zambia Urban Consumption Survey, a survey of 1,865 urban households in Lusaka, Kitwe, Mansa, and Kasama, was conducted in August 2007 and February 2008 by the Central Statistical Office in collaboration with the Zambia Food Security Research Project.
- Survey results indicate that in Lusaka and Kitwe, wheat has overtaken maize as the most important staple in terms of urban consumer expenditures. Maize is no longer the dominant staple food in urban Zambia, except among the poor. This finding is consistent with broader regional trends toward declining dependence on maize for urban staple food needs.
- Hammer-milling services are readily available to the vast majority of urban households and in most cases their cheapest maize meal option is to obtain maize grain and have it custom-milled for a fee. However, maize grain is not consistently available in public markets during the lean season (December-March). GRZ could promote urban food security by ensuring that maize grain is available in public markets at all times.
- In Kasama and Mansa, and particularly among relatively poor households, cassava is an important consumption item and serves as a buffer against high maize prices and poor maize grain availability during the lean season.
- Supermarkets have only 5-17% of the market share for staple foods and are frequented mainly by wealthier households. Urban consumers are heavily dependent upon non-supermarket, informal retail outlets such as public markets and grocers for their staple food purchases. Policies and public investments to support these traditional retailers, help them operate more efficiently, and reduce the transaction costs they face may have higher payoffs for most urban consumers as well as smallholder farmers than policies presupposing the rapid takeover of supermarkets and other more formal retail channels.

BACKGROUND: After two decades of de-urbanization, population projections suggest that Zambia is again becoming increasingly urban. While the urban share of the population fell to 35% in 2000 due primarily to the decline of the copper industry, over half of Zambia's people will be residing in urban areas by 2040 (UNPD n.d.). Given this urbanization trajectory, to be effective, policies to promote smallholder agriculture and improved urban food marketing system performance in Zambia will need to take into consideration the demand patterns of urban food consumers. Urban consumption patterns will increasingly determine the opportunities available to small-scale farmers. Accurate information on urban consumer preferences can also help identify key leverage points and investment priorities to improve the performance of the food marketing system.

The last major survey of Zambian urban consumers' behavior was conducted in 1991 (the Zambian Household Expenditure and Incomes Survey). Current consumption patterns in Zambia may differ markedly from those of the early 1990s. To obtain updated information on urban consumers' behavior, the Zambia Urban Consumption Survey (UCS) was conducted in August 2007 and February 2008 in Lusaka, Kitwe, Kasama, and Mansa by the Central Statistical Office in collaboration with the Zambia Food Security Research Project. A total of 1,865 urban households were interviewed in the UCS. This policy synthesis highlights the major findings of the UCS, particularly as they relate to staple food consumption patterns.

SUMMARY OF FINDINGS: Seven findings with important policy implications emerge from the analysis.

First, urban Zambian households spent a lower fraction of their total expenditures on food in 2007/8 (46-55%) than they did in 1991 (61%). This finding indicates that urban households in general have more disposable income to spend on non-food items than they did in the early 1990s and is consistent with the decline in the extreme poverty headcount rate in urban Zambia from 32% in 1991 to 20% in 2006 (GRZ, 2008). The finding of a lower food share in total consumption pertains to a period in which food prices were at unprecedentedly high levels during the 2007/08 food crisis in the southern Africa region. Nevertheless, food budget shares among relatively poor households in Lusaka, Kitwe, Mansa, and Kasama remain very high at 60-73% (Table 1). Policies and programs to reduce marketing costs from farmers to urban consumers will be important to reduce food prices for consumers and improve their disposable incomes and living standards.

Second, the food group with the largest consumption share among Zambian urban households is meat and eggs, accounting for roughly 15-17% of the value of food consumption in the four cities covered in the survey. Other food groups with large consumption shares are vegetables (10.1-12.6%) and fish (7.1-11.6%), maize products (7.6-11.1%), wheat products (5.9-10.5%), and sugar and oil (6.7-8.4%).

Third, among the staple carbohydrates, although maize budget shares in 2007/8 exceeded those for other staple foods among relatively poor urban consumers, wheat was the most important staple carbohydrate in value of consumption terms among urban consumers overall in Lusaka and Kitwe, and among the wealthiest quintile of consumers in Mansa and Kasama (Table 1). Maize is no longer the dominant staple food in urban Zambia, except among the poor. This is also the case in some urban areas in Mozambique, Kenya, and South Africa where recent surveys have been conducted (Mason et al., 2009). The increasing diversification of urban staple food diets may allow for greater inter-commodity substitution potential during maize production shortfalls.

Fourth, retail grocers and market stands/stalls account for approximately 60% of the total value of staple purchases by urban households in Zambia. These small-scale retail outlets are commonly used by households across all consumption quintiles (Table 1). In contrast, supermarkets have only 5-17% of the market share for staple foods and are frequented mainly by households in the wealthier consumption quintiles. This shows the staying power of small-scale, more 'traditional' retailers and that urban consumers are heavily dependent upon non-supermarket, informal retail outlets for their staple food purchases. Policies and public investments to support these traditional retailers and to help them operate more efficiently and to lower their costs may have higher payoffs to most urban consumers as well as smallholder farmers than policies presupposing the rapid takeover of supermarkets and other more formal retail channels. That being said, a substantial share of commercially-milled maize meal purchases are made at supermarkets across all consumption quintiles in the two smaller cities, Mansa and Kasama. Overall supermarket market shares for commercially-milled maize meal are 30.1% and 53.4% for Mansa and Kasama, respectively; for the poorest consumption quintile, these market shares are 23.4% and 29.6%, respectively. Supermarkets may be gaining market share in these smaller cities by offering commercially-milled maize meal prices that are comparable to or lower than those in traditional retail outlets such as grocers and open air markets.

Fifth, urban consumers' access to hammer-milling services improved markedly between 1997 and 2007 and in most cases, urban households' cheapest maize meal option is to obtain maize grain and have it custom-milled for a fee (Table 2). However, maize grain is not consistently available in public markets during the lean season, from December through March, (Table 3) and many households who would otherwise rely on custom-milled maize meal are forced to switch to (more expensive) commercially-milled maize meal and maize meal substitutes. A crucial strategy, therefore, for GRZ to promote its objectives of improving access to food for low-income urban consumers is to ensure that maize grain is available in public markets at all times, rather than respond to national production shortfalls by supporting import contracts for large milling companies. This could be achieved through a combination of supporting regional trade and/or releases of imported grain from South Africa onto local markets. The Food Reserve Agency (FRA) could also release maize from domestic production onto local markets rather than only channeling it to large millers. Because custom-milled maize meal can be procured by consumers at roughly 60% to 85% of the cost of commercial packaged breakfast meal, policies that can effectively promote the consistent availability of grain in local markets can contribute to urban food security.

Table 1. Food shares of total value of consumption, food item shares of total value of food consumption, and market channel shares of total value of staple carbohydrate purchases, February 1, 2007 to January 30, 2008

Quintile of per adult equivalent total value of consumption		Food share of total value of consumption (%)	Food item share (%) of total value of food consumption (Shares sum to 100%)						Market channel share (%) of total value of staple carbohydrate purchases (Shares sum to 100%)				
			Maize	Rice	Wheat	Cassava	Other staples	Other foods	Retail grocers	Market stands/ stalls	Ka sector	Super-markets	Other outlets
Lusaka	1 lowest	60.8	16.1	1.7	9.0	0 1	2.4	70.7	47.5	20.7	21.8	1.2	8.8
	2	60.0	10.5	2.2	10.1	0 2	2 5	74.5	42.4	18.5	22.8	4.5	11.8
	3	55.5	8.3	2.3	10.2	0 2	2 1	76.9	40.8	20.4	20.3	6.3	12.2
	4	48.3	6.2	2.3	11.1	0 3	2.4	77.7	40.1	21.5	16.6	13.5	8.3
	5 highest	34.8	3.7	1.9	8.2	0 1	2.0	84.1	28.4	17.2	14.6	28.3	11.5
	Total	46.2	7.6	2.1	9.6	0 2	2 2	78.3	39.0	19.6	18.9	11.9	10.6
Kitwe	1 lowest	62.7	18.8	1.8	7.7	0.7	2 1	68.9	43.6	25.7	17.0	0.4	13.3
	2	61.4	13.0	2.6	11.9	0.6	2 3	69.6	34.8	26.7	18.6	1.6	18.3
	3	58.1	11.1	2.7	10.4	0 5	2 3	73.0	42.7	25.7	12.9	2.3	16.4
	4	52.2	9.0	2.4	11.1	0 5	2.0	75.0	39.6	24.6	15.2	4.7	15.9
	5 highest	33.6	5.2	2.2	10.4	0 3	2.0	79.9	33.9	20.2	15.2	14.9	15.8
	Total	46.6	9.8	2.4	10.5	0 5	2 1	74.7	38.3	24.2	15.6	5.8	16.1
Mansa	1 lowest	67.7	16.5	1.8	1.5	11 1	3.7	65.4	13.3	51.9	3.0	5.1	26.7
	2	68.3	14.0	2.3	3.1	6.4	3 1	71.1	21.6	44.8	4.8	7.0	21.8
	3	58.2	13.1	2.7	5.0	4 5	2.8	71.9	26.4	36.5	5.4	14.1	17.6
	4	52.3	10.1	2.3	7.3	2 2	2 1	76.0	25.4	26.1	5.2	19.1	24.2
	5 highest	40.0	7.4	2.4	10.0	1 5	2.0	76.7	20.0	19.9	4.7	25.1	30.3
	Total	50.7	10.9	2.4	6.7	3.8	2 5	73.7	22.2	31.3	4.8	16.9	24.8
Kasama	1 lowest	73.1	17.1	3.7	1.5	7 5	4 2	66.0	2.5	67.2	3.6	1.9	24.8
	2	69.8	14.1	3.7	3.3	3 9	3.6	71.4	11.2	56.5	5.2	5.3	21.8
	3	63.9	12.2	3.5	4.8	2.6	2.8	74.1	10.9	52.8	6.2	9.7	20.4
	4	59.1	10.0	3.1	7.0	1.6	2 5	75.8	22.1	39.6	9.1	11.5	17.7
	5 highest	41.0	7.9	2.4	8.4	0.7	2.4	78.2	18.1	26.2	4.5	30.4	20.8
	Total	54.6	11.1	3.1	5.9	2 5	2 9	74.5	15.1	43.3	6.0	15.1	20.5

Source: CSO/FSRP Urban Consumption Survey

Notes: Maize includes maize meal, samp, and green maize. Wheat includes flour, bread, spaghetti/macaroni/pasta, and biscuits. Cassava includes fresh cassava, cassava flour, and cassava chips. Other staples include millet, sorghum, Irish potatoes, and sweet potatoes. Retail grocers category also includes general dealers and shops. Ka sector includes ka tables, kantembas, and ka shops/kiosks. Supermarkets category includes chain and independent supermarkets, small supermarkets, and mini-marts.

Table 2. Mean and median prices for different types of maize meal (ZMK/kg), August 2007

Type of maize meal	Price / Number of locations	Lusaka	Kitwe	Mansa	Kasama
Breakfast meal – commercially packaged (based on price per 25 kg bag)	Mean price (ZMK/kg)	1,391	1,412	1,505	1,373
	Median price (ZMK/kg)	1,373	1,399	1,530	1,360
	Number of locations	53	23	6	6
Breakfast meal – repackaged (based on price per pamela in Kitwe/Lusaka; per ka BP/plate in Mansa/Kasama)	Mean price (ZMK/kg)	1,799	2,379	2,040	2,643
	Median price (ZMK/kg)	1,807	1,989	1,887	2,643
	Number of locations	38	20	8	2
Roller meal – commercially packaged (based on price per 25 kg bag)	Mean price (ZMK/kg)	915	975	1,093	1,000
	Median price (ZMK/kg)	900	1,020	1,027	1,000
	Number of locations	33	8	6	2
Roller meal – repackaged (based on price per pamela in Kitwe/Lusaka; per ka BP/ka plate in Mansa)	Mean price (ZMK/kg)	1,656	1,721	1,927	--
	Median price (ZMK/kg)	1,795	1,721	1,933	--
	Number of locations	4	2	26	--
Consumer-made maize meal (based on per MEDA custom-milling fee and price of maize grain*)	Mean price (ZMK/kg)	1,063	912	910	941
	Median price (ZMK/kg)	1,047	911	898	952
	Number of locations	7	6	21	7
Straight-run hammermilled maize meal from vendor (based on price per ka BP/ka plate)	Mean price (ZMK/kg)	926	1,781	1,823	1,955
	Median price (ZMK/kg)	926	1,667	1,667	1,963
	Number of locations	1	3	42	8

Source: CSO/FSRP Urban Consumption Survey

Note: *Assumed extraction rate of 0.98 kg straight-run maize meal per kg of maize grain. -- Not available in markets in this city at the time of price collection.

Table 3. Maize Grain Availability (Responses from February 2008 Survey)

	Lusaka	Kitwe	Mansa	Kasama
% of households reporting that there are months of the year when they would wish to buy maize grain to mill into mealie meal, but grain is not available in their area	61.5	67.2	59.9	75.9
Months when maize grain not available	% of households citing this as one of three most common months			
	Lusaka	Kitwe	Mansa	Kasama
January	85.3	70.6	90.1	76 1
February	94.6	67.8	78.1	92 2
March	77.0	24.4	26.3	74.8
April	14.7	8.6	2.4	0 3
May	0.0	20.6	0.0	0.8
June	0.0	24.8	0.0	0.8
July	0.0	16.9	0.0	0.8
August	0.0	7.9	0.0	0.0
September	0.0	2.0	0.0	0.0
October	0.0	2.0	1.8	0.0
November	5.4	3.0	19.5	4 9
December	23.0	48.8	65.2	19.4

Source: CSO/FSRP Urban Consumption Survey
Note: This question was only asked of households that use mainly consumer-made maize meal.

A ***sixth*** and related finding is that many urban households that consume mainly commercially-manufactured mealie meal expressed a willingness to consume maize meal from hammermills, which is generally less expensive. However, inconsistent availability of maize grain during the lean season prevents many households from pursuing this cost-saving option, as do concerns about the quality and packaging of mugaiwa (hammermilled maize meal) sold by vendors. There appears to be an unmet demand for hammer-milled breakfast meal (i.e., double dehulled maize meal). Therefore, policies and programs to improve the hygienic conditions at hammermills, to improve the quality of mugaiwa itself as well as its packaging, and to offer more types of mugaiwa (e.g., double dehulled) could help hammermills gain a larger share of the maize meal market and offer a cost-saving alternative to commercially-milled maize meal.

Finally, UCS results indicate that in Kasama and Mansa, and particularly among relatively poor households in those cities, cassava is an important consumption item (Table 1) and that it serves as a buffer against high maize prices and poor maize grain availability during the lean season. Policies to support own production of cassava by urban households and to promote the availability of cassava products in public markets could therefore contribute to improved urban food security.

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This policy synthesis draws on a study with the same title and authors, downloadable at: http://www.aec.msu.edu/fs2/zambia/wp42.pdf

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