



# Technical Guidance Sheet

## Urban Food Security & Nutrition Assessments

Strengthening Emergency Needs  
Assessment Capacity (SENAC)

June 2008

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### **Author's note**

This document is intended to serve as a Technical Guidance Sheet (TGS) in the same vein as prior EFSA TGSs. As such, it is organized by topic for easy reference by users. However, it is also a de facto issues paper in that it reflects the collective insights of WFP staff and secondary sources as to what makes conducting an assessment in urban areas different than conducting an assessment in rural areas. As such, those preparing to conduct an urban assessment may well find it useful to peruse the entire document to familiarize themselves with what these issues and differences are.

- Greg Collins (June, 2008)

**Picture: Monrovia, WFP©Tobias Flaemig, 2006**

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## **1. Purpose and rationale**

The purpose of this Technical Guidance Sheet (TGS) is to identify and provide guidance for addressing a number of substantive and methodological issues associated with conducting food and nutrition security assessments in urban areas. The rationale for doing so is that, inasmuch as existing guidance within WFP is intended to be applicable in both rural and urban contexts, it tends to exhibit a rural bias. Indeed, the same may be said of WFP staff experience and expertise. Both are a reflection of the fact that - prior to recent global food and fuel price increases - most WFP food and nutrition security assessments focused primarily on rural areas.

## **2. Common theme – what makes urban different?**

A repeated theme running throughout this TGS is the diversity and complexity found in urban contexts and the extent to which this confounds attempts to fit urban poor households into the categories that WFP and others have become accustomed to using in defining relatively homogenous groups in rural settings. This is perhaps most evident in relation to livelihoods as the diversity, fluidity and complexity of income sources between and within urban households makes using livelihood zones as aggregates for analysis problematic (see 5.2). However, it also has broader substantive and methodological ramifications in terms of the diversity and complexity of other food security and nutrition related behavior in urban areas and how best to capture this during assessments.

## **3. Scope and limitations**

The intent of this TGS is complement existence assessment guidance rather than to replace or duplicate it. As such, it is highly selective in nature and only focuses on issues and concerns that are particular to - or more pronounced in - urban areas. Accordingly, it should not be misconstrued as a comprehensive overview of information needs and methodological options for planning and conducting urban assessments (see EFSA handbook). It is also worth noting upfront that - despite much of the TGS being dedicated to identifying the challenges of conducting assessments in urban areas and providing guidance to address these challenges - urban areas also present a number of assessment opportunities. As such, guidance is also given in terms of how WFP and its partners can leverage these to their advantage.

## **4. Information needs for urban assessments**

This section examines how the diversity and complexity noted above impacts information needs by subject and provides guidance for addressing the issues and concerns raised. For the most part, these issues and concerns are methodology-independent in that they are relevant regardless of the particular assessment method(s) used. However, the inherent flexibility of semi-structured key informant interviews and focus group discussions are already well suited to capturing the diversity and complexity of household behavior such that merely being aware of what these issues and concerns are is guidance enough<sup>1</sup>. By contrast, structured household surveys run the distinct risk of either masking this diversity and complexity or omitting key variables needed to understand it. As such, the examples provided under each subject heading of the types of questions that may be used to meet these

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<sup>1</sup> This provides a persuasive rationale for emphasizing the use of these methods during the initial and rapid assessment stages in cases where the diversity and complexity of urban livelihoods, vulnerability and behavior are poorly understood (see 5.4.2).

information needs are intentionally framed with household surveys in mind. Nonetheless, the questions themselves are equally suitable for use as part of a key informant or focus group discussion guide with the categories provided as data collection matrices or source codes for use with household surveys further providing a list of sub-topics to be explored. Indeed, the ideal scenario is that these generic categories and source code be refined and tailored to the local context using key informant interviews or focus groups discussion prior to conducting a household survey (see 5.4.2).

## **4.1 Household food security indicators – livelihoods, assets, and coping strategies**

### **4.1.1 Definitions**

Urban - Urban areas are typically defined by number of inhabitants or population density. However, due to national differences in the characteristics that distinguish urban from rural areas<sup>2</sup>, it is widely recognized that the distinction between urban and rural population - and thus the definition of urban itself - is not amenable to a single definition that would be applicable in all countries<sup>3</sup>. As such, the term urban can only be defined within the context of a particular assessment and as part of delineating the population of interest (and pertinent sub-groups within it) in relation to an assessment's objectives (see 5.1 and 5.2).

Households - The commonly used rural definition of a household as sharing a 'common cooking-pot' is likely to be problematic in urban areas where household members routinely take some or even most meals outside the home (see 4.1.2). Similarly, use of the criteria 'sharing a home or living space' lacks specificity in terms of defining the unit of interest as households may rent out rooms in order to generate income or decrease expenditures. To avoid these potential vagaries, it is recommended that households in urban areas be defined as 'sharing a common residence, income and expenditures'.

### **4.1.2 Food Consumption**

The primary issue related to assessing food consumption in urban areas is that individual household members are far more likely to consume food outside the home than in rural areas and to do so much more often.

#### Measurement error and FCS

This issue raises very practical concerns in terms of the potential for measurement error due to the fact that individual respondents are likely to have difficulty in recalling food consumption for the entire household. The most obvious ramification of this is that it limits ability to make direct, unqualified comparisons between rural and urban households using WFP's primary household food consumption indicator<sup>4</sup> – Food Consumption Scores (FCS). However, an even greater concern is that the degree of recall-related measurement error is likely to vary between households, raising concerns about the *contextual validity* of the standard approach to collecting FCS data in urban settings. There are a number of options for dealing with this that will still yield a valid proxy indicator of household food consumption. However, each option requires that certain conditions be present (see box 1).

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<sup>2</sup> See [http://unstats.un.org/unsd/demographic/sconcerns/densurb/Defintion\\_of%20Urban.pdf](http://unstats.un.org/unsd/demographic/sconcerns/densurb/Defintion_of%20Urban.pdf) for national definitions of urban from the UN Demographic Yearbook (2001) and

<sup>3</sup> See <http://www.fao.org/docrep/009/a0310e/A0310E05.htm> for a more detailed discussion of this issue.

<sup>4</sup> See box 7, page 19 for a more detailed discussion on rural/urban comparisons

### **Box 1 – FCS alternatives and conditions necessary for use as HH proxy**

#### **a. Individual consumption of target respondent** – either of two conditions

- (i) Foods consumed by individual respondents is generally similar to foods consumed by other household members (absolute proxy)
- (ii) Degree to which foods consumed by individual respondents differ from foods consumed by other household members similar among households (relative proxy)

#### **b. Household consumption inside the home**

- (i) Degree to which the exclusion of foods consumed outside the home understates consumption similar among households (relative proxy)

#### **c. Household consumption inside/outside the home (standard FCS approach)**

- (i) Degree of recall-related measurement error similar among households (relative proxy)

*absolute proxy* - data collected on all consumption, FCS thresholds may apply

*relative proxy* - data collected on partial consumption, FCS thresholds do not apply

*Individual consumption of target respondent (option a)* - Of these options, focusing on the individual consumption of a target respondent stands apart from the rest in that it is the only one that provides a proxy indicator of household food consumption under either of two conditions - both of which are more likely and easier to gauge than the conditions associated with other options. Moreover, it is the only viable option that provides a valid indicator of absolute food consumption when these conditions are absent – albeit for target individuals rather than households<sup>5</sup>. As such, it is the most appropriate choice in contexts where individual household members consume home outside the home on a regular basis.

The extent to which either of the conditions necessary for this alternative to provide a proxy of household food consumption is present can be gauged through key informant interviews and focus group discussions. However, a question asking respondents to describe the differences between their consumption and the consumption of other household members must also be included in the survey questionnaire itself such that households not meeting the condition used can be excluded from analyses utilizing this indicator as a proxy of household consumption. Table 1 (page 5-6) provides an example of the type of question that may be asked with an example of how the results are applied during analysis given in box 2. A final concern with using individual consumption as a proxy for household consumption is that it requires a concerted effort to reach the target respondent as failure to do so could well result in a measure that not only reflects differences in consumption between households, but within them. As with the standard FCS, the person responsible for preparing meals for the household is the most obvious choice.

*Household consumption inside the home (option b)* – Focusing on household consumption inside the home may provide a suitable alternative in contexts in which individual food consumption outside the home still presents enough of a threat to the validity of the standard FCS that it can not be applied, but is not so pronounced that focusing on a target individual's consumption (option a) is required. The clear advantage of this approach is that - despite still being a proxy measure of household food consumption - the unit of analysis is households

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<sup>5</sup> Other alternatives members are extremely labor intensive and ill-suited for use with EFSAAs.

### **Box 2 - Example of Individual consumption as a proxy of HH food consumption**

An assessment collecting FCS data on individual consumption of target respondents reveals that most consume less diverse foods than other adult HH members. As such, individual FCS data can be used as a relative proxy of household consumption for these households, but not an absolute proxy. During analyses utilizing this proxy, households in which target respondents indicated eating the 'same or more diverse foods' as other members are excluded as they do not meet the conditions associated with the proxy

such that the need to reach the target respondent is somewhat less dire than for option a. Accordingly, it may also be the preferred option in contexts where reaching a specific target respondents is difficult (see section 5.3.3). Another comparative strength of this approach is that the condition (see box 1) necessary for it to serve as a relative proxy of household food consumption is far more likely than the condition associated with the standard FCS approach (option c). However – and as with the standard FCS – the presence of this condition is far more difficult to gauge than either of the conditions that allow individual consumption (option a) to serve as a proxy of household food consumption.

*Standard FCS approach (option c)* - The standard FCS approach (option c) is the most appropriate and preferred option in contexts where the issue of individual household members consuming food outside the home is negligible. Put simply, the issue raised as a concern here simply does not apply. However, given both the low probability of the condition necessary for it to serve as a proxy indicator of household consumption (box 1) when this issue is a concern and the difficulty in measuring whether this condition is present, this negligibility must be determined (and supported by) key informant interviews or focus group discussions and not assumed.

### Classifying multi-ingredient street foods

Another issue raised by individual household members consuming food outside the home is that multi-ingredient street foods are likely to figure much more prominently in the diets of urban poor households. One option for dealing with this is to follow the rural assessment practice of categorizing foods by ingredients and simply classify common street foods by their main ingredient prior to data collection. This option is appropriate where street foods are expected to play a fairly marginal role in the diet. A second (and recommended) alternative is to treat common street foods as discrete food types during data collection as this allows for far greater flexibility in analysis – both in terms of how those foods are ultimately classified and the ability to gauge the contribution of street foods to household diets. Given that the additional data collection required to do so is marginal, this option is appropriate whenever street foods are likely to figure prominently in the diet or where eating street foods provides a proxy measure of household stress or well-being.

### **4.1.3 Food Sources**

The primary issue related to assessing food sources in urban areas is that the balance between 'own production' and other sources is likely to be reversed when compared to rural areas. Indeed, it is not hard to imagine a scenario in which almost all urban poor households identify 'foods purchased in the market' as their primary food source. Thus the danger in using this category and other food source categories that typically suffice in rural areas where



‘own production’ predominates is that they may mask important differences between food sources that are potentially associated with household food security and vulnerability.

This suggests that foods purchased with cash should be distinguished from foods purchased on credit to capture debt accumulation associated with meeting household food needs. In turn, there is also a need to distinguish between food purchased on credit and food borrowed from family and friends as - despite both carrying an obligation for repayment - it is important to understand when each is engaged and by whom in order to gauge the resources available to households to withstand temporary shocks. Similarly, there is likely to be a wider array of unconditional food transfer opportunities in urban areas even if many households do not have access to them or they don’t cumulatively add up to a greater amount of ‘free food’ than in rural areas. The value of distinguishing between these sources is that it provides a means of gauging the status of informal, formal and semi-formal safety nets, as well as who is able to access them and when (see 4.1.8). Examples of these using these distinctions in practice are given in table 1 as food source codes.

**Table 1– Food consumption and source information to be collected during assessments**

1. On average, how many meals per day did you eat per day during the last 7 days? _____													
2. During the last 7 days, (1) how many times did you consume each of the following food items? (2) what was the main source of each food item consumed?													
Food item <i>(treat street foods separately)</i>	Days consumed	Main source of food item Food source <i>(circle one, using codes below)</i>											
a. Bread, wheat		1	2	3	4	5	6	7	8	9	10	11	12
b. Rice		1	2	3	4	5	6	7	8	9	10	11	12
c. Maize		1	2	3	4	5	6	7	8	9	10	11	12
d. Cassava		1	2	3	4	5	6	7	8	9	10	11	12
e. Potatoes		1	2	3	4	5	6	7	8	9	10	11	12
f. Pasta, biscuits		1	2	3	4	5	6	7	8	9	10	11	12
g. Beans, lentils, peas, nuts		1	2	3	4	5	6	7	8	9	10	11	12
h. Vegetables		1	2	3	4	5	6	7	8	9	10	11	12
i. Fruits		1	2	3	4	5	6	7	8	9	10	11	12
j. Meat		1	2	3	4	5	6	7	8	9	10	11	12
k. Eggs		1	2	3	4	5	6	7	8	9	10	11	12
l. Fish		1	2	3	4	5	6	7	8	9	10	11	12
m. Milk, cheese, yogurt		1	2	3	4	5	6	7	8	9	10	11	12
n. Sugar, honey, jam		1	2	3	4	5	6	7	8	9	10	11	12
o. Oils, fats		1	2	3	4	5	6	7	8	9	10	11	12
p. Street food 1 <i>(specify to context)</i>		1	2	3	4	5	6	7	8	9	10	11	12
q. Street food 2 <i>(specify to context)</i>		1	2	3	4	5	6	7	8	9	10	11	12
r. Other street food _____		1	2	3	4	5	6	7	8	9	10	11	12
<b>Food source codes</b> <i>(probe where necessary to specify types of purchases, borrowing, and food aid)</i> 1 = own production (crops, animal products)      7 = beg for food 2 = purchase in market with cash                      8 = scavenge for food 3 = purchase in market on credit                      9 = food aid from government 4 = work for (or paid with) food                      10 = food aid from local civil society 5 = borrow from family/friends                      11 = food aid from WFP or partner 6 = gifts from family/friends                          12 = other													

3. In comparison to what you consumed during the last 7 days, did other household members eat a more diverse variety of foods, a less diverse variety of foods, or a similar variety of foods?

<i>(tick one per group)</i>	More	Less	Same	Don't Know
a. other adults				
b. children				

#### 4.1.4 Income sources

In some ways, the issues raised in relation to food sources apply equally to assessing income sources in that the balance of household income derived from ‘own production’ and other sources is likely to be inversely related to the balance found in rural areas. Moreover, incomes sources in urban areas are typically much more diverse, fluid and complex – both within and between households.

##### Capturing income source diversity

As noted earlier, the most obvious ramification of this is that it constrains the ability to use livelihood zones defined by ‘main’ income source as aggregates for analysis in urban food security assessments – an issue taken up in more detail in section 5.2. However, a related concern is that the very notion of a ‘main’ income source may be elusive or misleading in urban contexts such that there is a need to broaden information collected on income to avoid masking the diversity and complexity of urban livelihoods. In practice, this means devising tools explicitly aimed at capturing the diversity of household income sources and gauging their comparative contribution to overall income. For household surveys, allowing households to identify up to 6 income sources will suffice in most cases with proportional piling providing a useful means of gauging the contribution of each source (see table 2).

##### Prominence and varieties of self-employment and wage labor (and other sources)

Income-related information needs in urban areas are further complicated by the fact that wage labor and self-employment are likely to contribute far more to overall income than in rural areas. Indeed, in some cases this may even misleadingly appear to refute the claim made above that income sources in urban areas are more diverse. However, this is once again more a reflection of the use of inappropriate catchall categories rather than any true homogeneity in that the income generating activities within self-employment and skilled/unskilled wage labor are also likely to be far more diverse in urban settings than in rural settings. Even more importantly, the way in which these activities differ from one another may have important ramifications for food security such that use of these categories is not only likely to mask income source diversity, but confound attempts to identify vulnerable groups based on income sources.

The seemingly obvious solution to this would be to further disaggregate skilled/unskilled wage labor and self-employment by income generating activity. However, this would likely result in an unmanageable number of distinct income sources whose nuanced distinctions not only provide little analytic value, but may be a source of confusion. A far better alternative is to develop analytically useful sub-categories within wage labor and self-employment.

**Table 2 – Income source information to be collected during assessments**

1. How many household members currently earn income for the household?																			
2. How many different sources of income does your household currently have?																			
3. What is each of these income sources and are they temporary/casual, seasonal or stable?																			
<b>Income Source</b> <i>(indicate up to 8 sources by circling the appropriate code)</i>	<i>(tick one per row)</i>																		
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 12.5%; text-align: center;">1</td><td style="width: 12.5%; text-align: center;">2</td><td style="width: 12.5%; text-align: center;">3</td><td style="width: 12.5%; text-align: center;">4</td><td style="width: 12.5%; text-align: center;">5</td><td style="width: 12.5%; text-align: center;">6</td><td style="width: 12.5%; text-align: center;">7</td><td style="width: 12.5%; text-align: center;">8</td><td style="width: 12.5%; text-align: center;">9</td><td style="width: 12.5%; text-align: center;">10</td><td style="width: 12.5%; text-align: center;">11</td><td style="width: 12.5%; text-align: center;">12</td><td style="width: 12.5%; text-align: center;">13</td><td style="width: 12.5%; text-align: center;">14</td> </tr> </table>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; text-align: center;"><b>Temporary</b></td> <td style="width: 25%; text-align: center;"><b>Seasonal</b></td> <td style="width: 25%; text-align: center;"><b>Stable</b></td> <td style="width: 25%; text-align: center;"><b>PP Score</b></td> </tr> </table>	<b>Temporary</b>	<b>Seasonal</b>	<b>Stable</b>	<b>PP Score</b>
1	2	3	4	5	6	7	8	9	10	11	12	13	14						
<b>Temporary</b>	<b>Seasonal</b>	<b>Stable</b>	<b>PP Score</b>																
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1 2 3 4 5 6 7 8 9 10 11 12 13 14																			
1 2 3 4 5 6 7 8 9 10 11 12 13 14																			

**Income source codes** *(for income sources not listed, add up to 2 as other)*

1 = Sale of <i>food</i> crops production	8 = Self-employed – services (taxi, carpenter, crafts)
2 = Sale of <i>cash</i> crops production	8 = Self-employed - retailer, wholesaler, trader
3 = Sale of animals/animal products (livestock)	10 = Salaried employee – NGO, private sector
4 = Fishing	11 = Salaried employee – Government, civil service
5 = Agricultural wage labor	12 = Pension or allowances
6 = Non-agricultural – skilled wage labor	13 = Remittances
7 = Non-agricultural – unskilled wage labor	14 = other _____

4. How much did each of these sources contribute to total income in the last month?

*Proportional piling - using 20 items ask respondents to indicate how many items represent the contribution of each source (must sum to 20). **Record under PP score in table above***

<sup>6</sup> The term ‘temporary’ should be defined in relation to the local context, noting that - in some contexts - seasonal income sources may be also be temporary in nature such that additional categories reflecting the various combinations of the two may need to be defined.

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These vulnerability categories can be developed as part of the data collection process when key informant interviews of focus group discussions are used. However, to use them with close-ended household surveys, they must be pre-defined. Although the choice of vulnerability criteria will be contingent on the local context, some generalizations can be made such as the comparative vulnerability of self-employment or wage labor tied to the informal economy versus the formal economy.

### Own production

There is no doubt that ‘own production’ – be it from agriculture, livestock/animal rearing or fishing – remains an important income (and food) source that must be captured during urban assessments. However, given the need to gather more information on other income sources, collecting detailed information on agricultural and livestock/animal production as typically done during rural assessments may not be warranted. Indeed, collecting this additional information may even pose a threat to data quality as urbanites are typically far less willing to participate in lengthy household surveys, focus group discussions and key informant interviews (see 5.3.3). Again, this is not intended to downplay the potential importance of ‘own production’ in urban areas, but rather to recognize that its inclusion as a food and income source already allows its contribution to household livelihoods to be gauged. Moreover, animal and land holdings can be captured under asset holdings.

### **4.1.5 Asset ownership and sales**

The most obvious issue related to assessing asset ownership and sale in urban areas is the need to expand beyond the assets typically used in rural assessments. Table 3 provides a useful – if partial – list in this regard. However, the diversity of livelihood sources in urban areas also means that the common distinction between productive and non-productive assets may be blurred such that the degree to which sale of a particular item indicates household stress may also vary<sup>8</sup>. Mobile phones provide a prominent example, though the central role they play in maintaining social networks suggests that – even when not intimately tied to income generating activities – they may well be considered a productive asset.

**Table 3 – Asset and asset sales information to be collected during assessments**

4.1 Which of the following assets does your household currently own and how many/much? How much/many of these items did you own 3 months ago? ( <i>write number</i> )					
	current	3 mo. ago		current	3 mo. ago
a. radio			j. satellite dish		
b. sewing machine			k. jewelry		
c. mobile/cell phone			l. savings		
d. bicycle			m. land (in hectares)		
e. motorbike			n. home/residence		
f. car			o. cows/cattle		
g. refrigerator			p. goats/sheep		
h. oven/range (electric/gas)			q. chickens		
i. television			r. other _____		

<sup>8</sup> This distinction between productive and non-productive assets is typically made because households typically sell off non-productive assets first as they have a lower ‘cost’ in terms of detriment to livelihoods.

A third and less obvious issue relates to the interpretation of assets as proxy measures of socio-economic status and the need to do so in relative terms. For example, assets such as radios or mobile phones that are typically associated with better-off households in rural areas may be commonplace among the urban poor and thus do little to differentiate households from one another. Indeed, in cases where comparatively better off poor households have TVs, not owning a radio may be a proxy indicator of wealth. The same obviously goes for other SES proxies such as metal roofs. In turn, this suggests the need to set aside pre-conceived (e.g. rural-biased) notions about the proxy meaning of particular assets and identify those that delineate meaningful differences in socio-economic status relevant to the particular urban context in which an assessment is taking place. This issue must also be carefully considered in the creation and interpretation composite measures such as wealth indices that combine a number of assets to produce a single indicator, particularly when such indices are used to make rural/urban comparisons (see box 7, page 19).

#### **4.1.6 Expenditures and debts**

As with assets, the most notable difference between assessing expenditures in urban and rural settings is the type of expenses likely to be encountered, particularly in regards to non-food expenditures. Table 4 (next page) provides a range of possible non-food expenditures to consider, but - as with all categorical lists provided in this TGS - should be tailored to the local context. Two different recall periods are suggested to reflect the distinction between monthly expenses and those that are intermittent or occur less frequently. In a related vein, the types of expenditure-related debts that households incur in urban areas are likely to be more diverse than in rural areas, particularly in terms of to whom households are indebted. Table 5 (next page) offers an example of how this diversity may be captured during a household survey.

A less obvious, but far greater challenge relates to household food expenditures in that this is likely to be problematic for the same reasons associated with collecting data on household food consumption (see 4.1.2). Moreover, the mere fact that much more food is likely to be purchased exponentially increases the amount of time needed to collect this information on a per item basis. In turn, this combination of concerns strongly suggests that attempts to collect data on food expenditure be limited to estimating the total amount spent on (a) food items purchased and prepared in the home and (b) prepared (or street) food purchases. For, inasmuch as the primary purpose in collecting this data is to estimate food expenditure as a percentage of total expenditure, disaggregating by these two types of food expenditures is fairly straightforward and allows for a more refined analysis of the role of street foods in the diet. It also provides a means of isolating the potential source measurement error associated with purchased and consumed by individuals outside the home during analysis (see 4.1.2)

#### **Box 3 – Proportional piling as an alternative to line item expenditure data**

If time and resources are limited, a rough estimate of the percentage of household expenditure on food versus non-food - or on food consumed inside versus outside the home - can be derived through proportional piling without collecting line item expenditures in monetary units. Although not unique to urban areas, this streamlined and time saving approach is underutilized in food security assessments in general, particularly given the inherent issues of intentional misstatement and recall error associated with collecting expenditure data.

**Table 4 – Expenditure information to be collected during assessments**

1. In the last month how much did your HH spend on :	Amount	2. In the last 6 months, how much did your HH spend on:	Amount
a. Rent		j. education	
b. transport		k. health	
c. electricity/lighting		l. clothing	
d. cooking fuel		m. housing repairs	
e. heating fuel		n. ceremonies	
f. water		o. remittances/gifts	
g. sanitation		p. entertainment	
h. food items - prepared in home			
i. prepared foods - street food, other			

**Table 5 – Information on debt/indebtedness to be collected during assessments**

1. Does your HH currently have any outstanding food/money debts? ( <i>circle one</i> )		YES	NO
If yes, to whom do you owe money or food? ( <i>tick all that apply</i> )	a. bank/other formal financial institution		
	b. informal money lender		
	c. retail or wholesale shop		
	d. landlord (more than 1 month behind in rent)		
	e. family or friends		

#### 4.1.7 Coping strategies

Once again, the most obvious issue related to assessing coping strategies in urban areas is the need to define a list of strategies that are more relevant to urban contexts (see table 6, page 12). However, the diversity and complexity of livelihood sources, available opportunities, and assets in urban areas - including social capital and access to different types of informal social safety nets (see 3.1.10) - also make the need to distinguish between consumption and livelihood coping more pronounced.

These two categories of coping have been conceived of in a variety of different ways. However, the most straightforward way of thinking about them is that *consumption coping strategies* can be engaged by all households regardless of their livelihood source, access to available opportunities and assets holdings (including social capital), whereas the ability to engage *livelihood coping strategies* varies by these factors. For example, if a household indicates that they have not borrowed money from informal money lenders this may have very different meanings in terms of the household's food security status - either they did not need to or they lack the credit worthiness to do so<sup>9</sup>.

*Consumption coping strategies* in urban areas likely to be similar to the types of coping strategies found in rural areas, but may still differ in terms of their perceived severity - even within a single country. However, Maxwell and Caldwell (2008) have usefully identified a

<sup>9</sup> This is the reason that the Coping Strategies Index (CSI) focuses narrowly on consumption-related coping.

#### **Box 4 - Coping Strategies as proxy food security indicators**

The purpose of including coping strategy measures in food security assessments is that they provide an indication of how household's adjust short-to-medium term behavior in order to manage varying degrees of food insecurity. Moreover, household's typically engage in these behaviors sequentially – adopting mild (and usually reversible) strategies first and then adopting progressively more severe strategies once mild strategies become exhausted or the household's food security status deteriorates further. As such, knowing which behaviors households are currently engaging in - combined with an understanding of local perceptions of the relative severity of particular strategies - provides a useful proxy indicator of household food insecurity status. This can be done by treating each coping strategies as an independent indicator or combining coping strategies in a Coping Strategy Index (CSI). In either case, tailoring the list of coping strategies and gauging their relative severity can be done by talking with a number of key informants who are knowledgeable about the ways in which households with the population of interest cope with food insecurity or through more in-depth methods involving focus group discussions with the urban poor.

limited set of 4 consumption coping strategies - and 1 additional strategy classified here as a livelihood coping strategy<sup>10</sup> - that appear to be relatively uniform in terms of presence and perceived severity across a variety of contexts. These are *italicized* in tables 6 and should be included in all urban household surveys, particularly when comparisons between rural and urban areas will be made (see 5.2). Nonetheless, prominent, locally relevant strategies should also be identified and included as these enhance the sensitivity of coping strategies as a proxy measure of household food insecurity, particularly in relation to more severe types of coping.

*Livelihood coping strategies* are much more likely to differ between urban and rural contexts and even between different urban areas<sup>11</sup>. As such, developing sensitive livelihood coping strategy measures status demands that they be tailored to the local context. Failure to tailor this list to the local context will confound interpretation as it will result in indicators that reflect both food security status and the relevance of the list. Finally, it should also be noted that the willingness of respondents to talk about some livelihood coping behaviors such as engaging in illicit or high risk income generating activities will vary by context. Where, this is unlikely, they should be excluded. Strategies involving asset sales are excluded from this list as they will already be captured elsewhere (see 4.1.5).

The choice of whether to (a) focus on easier-to-interpret consumption coping strategies or (b) include both consumption and livelihood coping strategies during an assessment will depend on the objectives and the time/resources available. The first option offers a streamlined approach both in terms of data collection and analysis. Moreover, Maxwell et al. (2003) have shown the two types of coping strategies to be highly correlated, reducing need to collect information on both. The second is likely to require a greater investment in front-end qualitative data collection to establish relevant strategies and involves more complex

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<sup>10</sup> Maxwell and Caldwell (2008) classify 'borrow food' as a consumption coping strategy. It is classified here as a livelihood coping strategy as the ability to engage this strategy varies depending on a household's social capital and access to social networks capable of providing support.

<sup>11</sup> Care must be taken to distinguish between short to medium term livelihood coping strategies that are engaged when there is insufficient food for the household in the immediate future and longer-term adaptive strategies such as changes to livelihood sources.

analysis. However, it allows for a more in-depth understanding of how households manage and respond in the face of deteriorating household food security. Regardless of the option chosen, the assessment should focus on a limited number of locally relevant and commonly used strategies from mild to severe rather than striving for a comprehensive list. Recommendations in this regard are given in table 7.

**Table 6 – Coping Strategies information to collect during assessments**

1. In the past 30 days, have you engaged any of the following strategies because your household did not have enough food or money to buy food or essential non-food items? *(tick all that apply)*

<b>Consumption Coping Strategies</b> (available to all households)	
a. <i>reduce the number of meals consumed in a day</i>	
b. <i>limit the amount of food/portion size you consume during meals</i>	
c. <i>eat less preferred, lower quality or less expensive foods</i>	
d. <i>prioritize consumption for certain members and reduce consumption of others</i>	
e. <i>reduce the diversity of foods eaten</i>	
f. <i>increase consumption of street food (e.g. prepared foods)</i>	
g. <i>eat wild foods not typically consumed as part of 'normal' diet</i>	
h. <i>eat scavenged foods (e.g. discarded by others)</i>	
i. <i>beg for food or money to buy food</i>	
j. <i>skip entire days without eating</i>	
<b>Livelihood Coping Strategy</b> (livelihood, opportunity and asset dependent)	
k. <i>reduce non-essential expenditures (education, health, transport, rent rooms, etc.)</i>	
l. <i>borrow food or money from family/friends</i>	
m. <i>send household members to eat/live with family or friends</i>	
n. <i>purchase food/non-food items on credit (incur debts)</i>	
o. <i>borrow money from informal money lenders or banks</i>	
p. <i>work additional hours or take on additional casual/temporary work</i>	
q. <i>produce more of your own food</i>	
r. <i>send HH member elsewhere in search of work (exclude routine seasonal migration)</i>	
s. <i>send children or elderly to work</i>	
t. <i>engage in illicit/high risk income generating activities (prostitution, stealing)</i>	

**Table 7 – Recommended number of coping strategies by type**

		Mild	Moderate	Severe
option a	Consumption Coping	3 to 4	3 to 4	3 to 4
option b	Consumption Coping	2 to 3	2 to 3	2 to 3
	Livelihood Coping	2 to 3	2 to 3	2 to 3



### 4.1.8 Informal safety nets, social networks, and social capital

There is an assumption in much of WFP's in-house literature on urban programming that informal social safety nets are weaker in urban areas than in rural areas. Yet, as with other food security related behavior, this may be more a reflection of applying rural categories to urban areas than reality. For, inasmuch as kin and location (e.g. village) based social safety nets may in fact be weaker, urban residents typically belong to a wider array of overlapping and diverse communities such that other types of social networks and informal safety nets based on ethnicity, place of origin, occupation, religion, neighborhood, or gender may partially or wholly fulfill this role<sup>12</sup>.

The need to understand what types of informal social safety nets exist in a particular urban setting is paramount as failure to do so may not only mask potential entry points for intervention, but could lead to interventions that undermine the very mechanisms that allow communities, households and individuals to manage food insecurity on their own. As such, qualitative data collection methods such as key informant interviews and focus group discussions clearly have a role to play in this regard (see 5.1.3). Once specified, however, asking household survey respondents to identify the types of social networks and informal social safety nets on which they are able to rely - or are currently relying - provides further insight into the factors that determine access to these critical forms of support. An example of how this may be done in practice is provided in table 8.

**Table 8 – Social safety net information to collect during household surveys**

1. When your HH does not have enough food or money to buy food, what individuals/groups do you normally rely on for support? <i>(tick all that apply in column a)</i>					
2. Which have you relied on for support during the last 30 days? <i>(tick all that apply in column b)</i>					
	A	B		A	B
a. close family/kin			f. those of same ethnicity		
b. members of neighborhood			g. those of same place of origin		
c. mosque/church			h. government		
d. occupation group			i. NGOs, charity groups		
e. member of women's group			j. other ( )		

It may also be worth distinguishing between charitable support (e.g. alms) and temporary, event-merited assistance that carries with it expectations of reciprocity as this allows for a deeper understanding of the types informal social safety nets available and informal debt incurred when engaging certain types of social safety nets. Although relevant to rural areas, the need to make this distinction is particularly pronounced in urban areas as many of the social networks and informal social safety nets that households rely on in times of need are predicated on choice and expectations of reciprocity rather than obligation and kin ties. As such, the most vulnerable households whose future prospects (and thus ability to reciprocate) are dim are also likely to be among those least able to access these critical sources of support.

<sup>12</sup> See Garrett and Downen (2001) for further elaboration on this point, including a discussion of what they term 'negative social networks' found in urban areas (e.g. gangs, etc.).

## 4.2 Integrating market analysis and urban food security assessments

WFP has long maintained the need to integrate market analysis into any comprehensive emergency food security assessment. Yet - despite the fact that most urban and rural assessments led by WFP now entail a market analysis component - the effective integration of such analyses is less common. The need for such integrative analysis is also arguably more pronounced in urban areas – both in light of the market-bound nature of current shocks related to global food/fuel price increases and because urban food and income sources are typically more intimately tied to markets (see 4.1.2 and 4.1.3).

Macro-level market profiles at the national and regional levels are a necessary component of this analysis<sup>13</sup>. However, to truly integrate the analysis of markets into food security assessments, meso-level measures that link local (e.g. sub-national) market conditions to household outcomes are also needed. Table 10 identifies a number of key indicators to be included during an urban assessment and can be collected through a combination of secondary sources (where timely and relevant), key informant interviews and focus group discussions with traders, employers and other individuals/groups that are likely to be knowledgeable about local market conditions.

**Table 10 - Key meso-level market indicators**

Indicator	Description
<i>Wage rates</i>	<ul style="list-style-type: none"><li>• wage rates for skilled/unskilled labor</li></ul>
<i>Labor markets</i>	<ul style="list-style-type: none"><li>• changes in the demand for skilled/unskilled wage labor</li></ul>
<i>Terms of trade</i>	<ul style="list-style-type: none"><li>• skilled/unskilled wage labor rates -to- staple food</li><li>• skilled/unskilled wage labor rates -to- cooking oil</li><li>• skilled/unskilled wage labor rate -to- rent</li></ul>
<i>Purchasing power</i>	<ul style="list-style-type: none"><li>• consumer price index (food and non-food basket)</li></ul>
<i>Formal and informal credit markets</i>	<ul style="list-style-type: none"><li>• availability of consumer credit</li><li>• changes in retailer/trader debt load (or debt ratio)</li><li>• interest rates, presence of usury/predatory lending at exorbitant rates</li></ul>

## 4.3 Nutrition

Nutrition related information needs and data collection methods are by-and-large the same for urban areas as they are for rural areas such that there is little need for a detailed discussion here (see box 7, page 19). Nonetheless there two issues that are likely to be more pronounced in urban settings that are worth noting. The first of these are that women are more likely to work outside the home in jobs or income generating activities that impinge upon child caring practices such as breastfeeding and disease management. Second, the combination of population density and lack of water and sanitation facilities found in many informal urban settlements and slums creates an environment prone to waterborne and sanitation-related diseases such as diarrhea. In turn, these issues only serve to reiterate the already well established need to look beyond food and recognize the role that disease and caring practices play as determinants of nutritional status, both when attempting to explain high malnutrition rates and address them<sup>14</sup>.

<sup>13</sup> In addition to WFP's own efforts, FEWSnet now provide regular (monthly) 'price watch' updates on urban food markets that provide a useful resource in this regard (<http://www.fews.net>).

<sup>14</sup> See food security and nutrition conceptual framework in the EFSA handbook

#### 4.4 Contextual information needs

As with any food security assessment, those conducted in urban areas will necessarily collect contextual information at the household, community, sub-national and national levels in order to better understand the determinants of household food security status. Part III of the EFSA handbook (table III.2) provides a fairly comprehensive list of what these contextual information needs are. However, a number of issues merit special consideration in urban areas and are outlined below.

- a. *Dependency Ratio* - Urban households are typically smaller than rural households. However, they tend to have higher dependency ratios, particularly in regards to the elderly and infirm. In terms of the latter, HIV/AIDS is likely to figure prominently in terms of exacerbating dependency ratios due to the lost income of formerly productive household members, the opportunity cost of care-taking, and orphan adoption. As such, collecting information on household gender and age composition - as well as the burden that disease places on households – is necessary for understanding which households are food insecure and why.
- b. *Immigrant/Refugee/IDP status* - Urban areas are often a landing point for economic immigrants, political refugees and the internally displaced – including those illegally in the country. Moreover, these groups are often amongst the most vulnerable urban poor as a result of social and physical dislocation. As such, a household's status in this regard is likely to be intimately related to their household food security status, as well as their ability to access informal, semi-formal, and formal safety nets.
- c. *Urban-rural linkages* - Urban-rural financial flows will be captured as income sources and expenditure. However, many households are also likely to be physically split between urban and rural areas as a risk reduction and income diversification strategy. Understanding which households maintain these linkages and why is thus critical to understanding how households manage food insecurity.
- d. *Seasonality* – There is often an assumption that issues related to seasonality are less of a concern in urban areas than in rural areas. However, the existence of rural-urban linkages (see c. above) and urban agriculture suggest this assumption may be unwarranted. Moreover, some urban income sources such as construction-related wage labor may wax and wane in relation to periods of sustained rainfall and thus are seasonal in nature. Admittedly, the variety of ways in which seasonality impacts urban food security is both poorly understood and likely to vary substantially between urban areas and urban households – a combination of factors that limits the extent to which guidance can be given here. Nonetheless, it is an issue that must be kept in mind during all stages of an assessment from situational to response options analysis.
- e. *Settlement type* - Urban areas consist of both formal/planned and informal/unplanned settlements with the urban poor often living predominantly in the latter. Such areas are typically more vulnerable to police action, changes in government policy, and disease (due to poor health/sanitation environment – see 4.3). Moreover the fact that they are often located on unstable or low lying ground near rivers and hillsides makes them more vulnerable to natural disasters such as floods and earthquakes (see 6.1). Finally, residents of such areas typically do not have access to government services such that where they are available they are often privatized, adding to a household's non-food expenditure.

- f. *Policy, regulation and political context* – Government policies and regulation related to land tenure, informal settlements, and the informal economy typically impact households in urban areas more swiftly and more directly than in rural areas. The same is also true of changes in government policy related to shocks, such as the ramping up of formal safety nets or food/fuel subsidies. As such, there is a need to more actively incorporate this information into urban food security assessments. In turn, this suggests a need to treat political context as a dynamic analytic variable rather than the more typical treatment of it as static information cut-and-pasted between ‘background’ sections of assessment reports.
- g. *Conflict and security* – Beyond the types of conflict and security concerns that impact household food security in both urban and rural areas, many urban poor neighborhoods are also riddled with crime. Such insecurity not only constrains economic opportunities, but may result in certain neighborhoods being effectively classified as ‘no go zones’ by the police, resulting in the privatization of protection and security services – often in the form of protection/security rackets by those who create insecurity to begin with. Such a scenario not only adds to the expenditure of households (e.g. bribes, protection fees, etc.), but may constrain both assessment activities (see 5.3.3) and response options (see 6.2).
- h. *Institutions and infrastructure* – Household in urban areas are likely to both have better access to government institutions and infrastructure than households in rural areas and depend on them more for their livelihoods and well being. As such, there is a more pronounced need to incorporate an understanding of the status of key institutions and infrastructure (financial, markets, transport, health, education, etc.) into urban food security assessments, as well as the factors that determine which urban poor households have access to them and why.

## **5. Planning and implementing an EFSA in urban areas**

This section examines how the diversity and complexity found in urban areas noted earlier in section 2 - and elaborated in relation to substantive concerns in section 4 - impacts methodological considerations for conducting food security and nutrition assessments in urban settings and provides guidance for addressing the issues and concerns raised. In addition, the methodological opportunities afforded by urban settings are highlighted.

### **5.1 Defining (and mapping) the population of interest: the sampling frame**

The term *sampling frame* is typically used in relation to household surveys and random (probability) sampling. However, the basic concept - that is translating the stated objectives of an assessment into a more refined definition of the population of interest for which food security (and nutrition) estimates are desired and from which a sample will be selected to generate these estimates - is applicable regardless of the particular data collection or sampling methods being used. Moreover, extending this concept is particularly useful in urban areas in that, unlike rural areas where entire populations within a defined geographic area typically serve as the population of interest, the population of interest for most urban assessments will be a subset of the total urban population – namely, the urban poor<sup>15</sup>. The reason for this is that including entire urban populations would unnecessarily include comparatively affluent neighborhoods and households that are extremely unlikely to be food insecure.

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<sup>15</sup> The urban poor may be defined using universal measures (e.g. < \$1 per person per day), relative measures (e.g. in relation to a Consumer Price Index), or through locally defined criteria.

**Box 5 – Generating absolute figures for the ‘urban poor’**

Narrowing the population of interest in an urban assessment to the ‘urban poor’ makes it somewhat more difficult to use existing data on urban populations to translate percentages and proportions derived from an urban assessment into absolute numbers. However, secondary data estimating the % of urban poor are often available from sources such as the WB’s Living Standards Measurement Study (<http://www.worldbank.org/LSMS>). In turn, such data can be used to extrapolate rough absolute figures from prevalence estimates derived from an assessment focused on the urban poor – even where such data are somewhat dated. In reverse, such data also provides a means of translating estimates of the % of food secure households among the urban poor into the % of food in secure households in an urban area, assuming all non-poor are food secure.

In cases where the vast majority of urban poor households live in contiguous slums or poor neighborhoods, developing the sampling frame is fairly straightforward and can be defined geographically in much the same way it is during rural food security assessments. However, more often than not, at least some urban poor households will be geographically mixed among non-poor households such that a criteria-based (rather than solely geographic) sampling frame is required. Table 11 outlines when each is appropriate by assessment stage and context in consideration of the fact that a) most urban poor households are likely to live in urban poor areas and b) selecting a sample from a geographically defined sampling frame is far easier than from a criteria-based sampling frame.

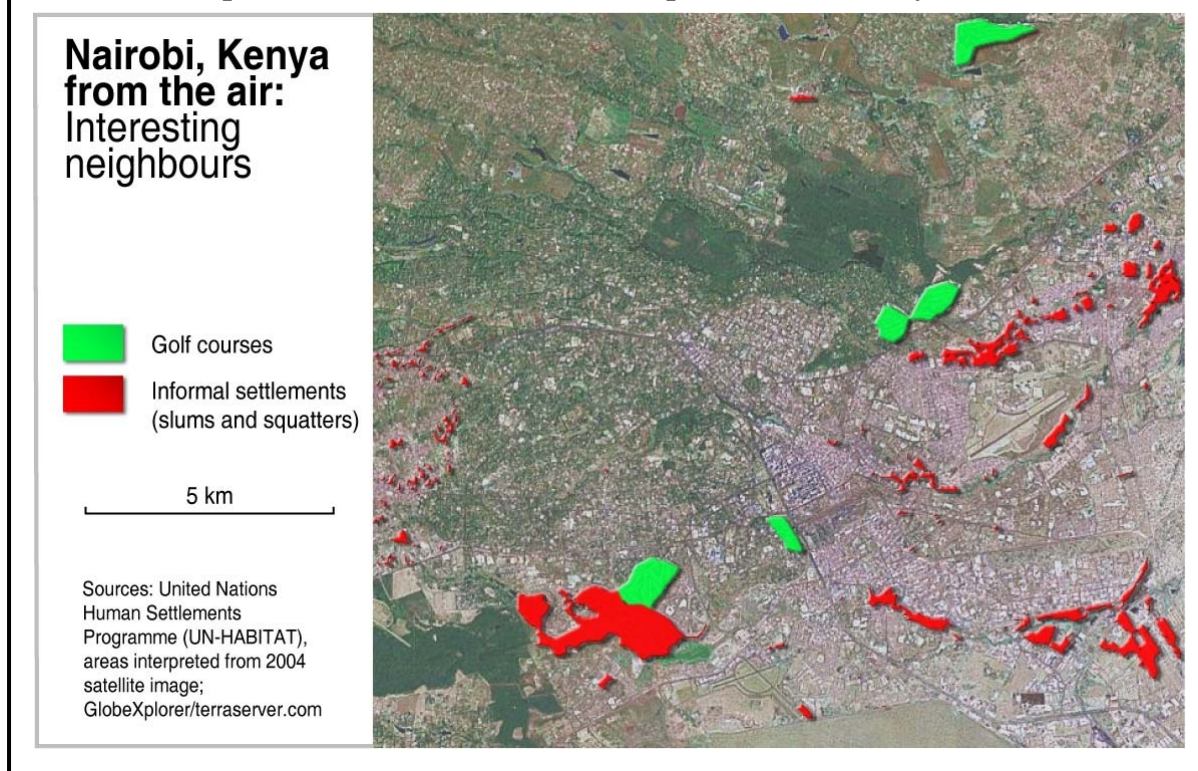
**Table 11 – Sampling frame by context and assessment type**

Context	Description	Type of Assessment		
		Initial	Rapid	In-depth
Contiguous	Vast majority of urban poor households in slums or poor neighbors	Geographic	Geographic	Geographic
Contiguous/ Mixed	Many urban poor households in slums or poor neighborhoods, some mixed among non-poor households	Geographic	Geographic	Geographic & Criteria-based
Mixed/ Contiguous	Some urban poor households in slums or poor neighborhoods, many mixed among non-poor households	Geographic	Geographic & Criteria-based	Geographic & Criteria-based
Mixed	Vast majority of urban poor households mixed among non-poor households	Geographic & Criteria-based	Geographic & Criteria-based	Geographic & Criteria-based

*Geographic sampling frame* - Beyond identifying well known urban slums, geographic sampling frames can typically be delimited and mapped on the basis of ‘rent per square meter’ with assistance from those knowledgeable about real estate values, particularly those in informal or unplanned settlements. Moreover, secondary data identifying such areas can be used as a starting point and are often available through the government planning ministry, other UN agencies and NGOs (see box 6, next page). In the absence of either of these resources, key informants from known slums and poor neighborhoods can be used to identify the location of others such that a rough map can be generated.

*Criteria-based sampling frame* – Developing a criteria-based sampling frame to capture urban poor households that are interspersed among non-poor households is more difficult than developing a geographic sampling frame in that it requires identifying a distinguishing

#### Box 6 – Example of an informal settlement map from a secondary source



characteristic (e.g. beyond location) that indicates whether a household is poor or non-poor. Although rent or income thresholds may be used, identifying households on the basis of these criteria alone is likely to prove difficult. As such, more visible proxy indicators of poverty such ‘housing type’ (defined in relation to the local context) offer a far better alternative. Still, the location of many such households is likely to be unknown, creating the problem of so-called ‘hidden populations’. In such cases, a more flexible or iterative approach to developing an assessment’s sampling frame and sampling is required (see 5.5.5).

A final point worth making in regard to criteria-based sampling frames is that they will typically only cover those segments of the population of interest that are interspersed among non-poor households (e.g. not in the population of interest) as slums and poor neighborhoods where urban poor households are congregated are much easier to deal with using a geographic sampling frame (see table 11). In contexts where, urban poor households are fairly evenly split amongst those living in ‘contiguous’ and ‘mixed’ areas, treating each of these populations as separate sub-groups of interest (e.g. strata) is also advisable, particularly where it is suspected that differences in this regard have ramifications for a household’s food security status. This issue is explored in detail in the next section (5.2).

### 5.2 Defining sub-groups of interest for comparison (including urban/rural): stratification

Stratification is the process of defining sub-groups of interest within the population of interest for which separate estimates of food security status are desired. The rationale for doing so is that it allows comparisons between sub-groups to be made and ensures differences between meaningful sub-groups are not masked by averages. To be certain, many such sub-group will be defined during analysis on the basis of variables collected. However, stratifying the sample prior to selection is the only sure way to guarantee that enough households or respondents in each sub-group are included to make valid comparisons – be they statistically



valid in the case of random (probability) sampling or subjectively valid in the case of purposive (non-probability) sampling. This guarantee comes at a cost as it requires an independent sample to be taken from each sub-group (e.g. strata) such that whatever the sample size is used – be it 200 households, 10 key informants or 8 focus groups – must be applied to each.

Stratification is most effective when it defines strata that are homogenous – that is groups in which households are more like one another than they are households in other groups in terms of the factors impacting their food security status<sup>16</sup>. Accordingly, the most common means of defining sub-groups of interest (or strata) during rural assessments is by livelihood groups or zones<sup>17</sup>. As noted earlier, however, such an approach is ill-suited to urban settings as the complexity and diversity of urban livelihoods between and within households are unlikely to fit neatly into a limited number of livelihood categories. In turn, this raises two dilemmas in terms of defining sub-groups of interest or strata during urban assessments:

- a. How to treat urban areas during joint rural/urban assessments in which rural areas are stratified by livelihood zones?
- b. How best to define sub-groups of interest within urban areas to avoid the very real risk of masking meaningful differences between groups?

Concerning the first (a) it is strongly recommended that urban areas be considered a separate sub-group of interest and thus treated as a separate strata (table 12). Although urban areas are not a livelihood as such, this may be thought of as treating urban areas as a quasi-livelihood group so that comparisons can be made with rural sub-groups of interest defined by livelihood zone (box 7). Another alternative is to stratify by rural/urban areas *within* each livelihood group. However, this

**Table 12 – Urban areas as a quasi-livelihood group**

Strata	Description
1	Pastoralist
2	Agro-pastoralist
3	Agricultural
4	Urban

### **Box 7 – Urban-rural comparisons: contextual validity and qualifications**

Section 4.1 outlined a number of issues that distinguish food consumption, food/income sources, expenditure and assets, coping strategies, and social safety nets in urban areas from rural areas that should be considered in designing and conducting urban assessments in order to maximize the *contextual validity* of the measures used. Indeed, inasmuch as applying a uniform approach in urban and rural areas would appear to enhance comparability, doing so actually confounds comparability in that estimates derived reflect both true differences and differences in the relevance of the measures used. Nonetheless, the use of contextually valid measures that reflect urban/rural differences also means that comparisons made between urban and rural areas will carry with them a number of qualifications. Indeed, the only indicators for which direct, unqualified comparisons are appropriate are those that are biological rather than social in nature such as diarrhea prevalence, anthropometric measures of acute malnutrition amongst children under 5 (weight-for-height, MUAC) and the like.

<sup>16</sup> In technical terms, this is referred to as intra-strata homogeneity being greater than inter-strata homogeneity.

<sup>17</sup> Stratifying by administrative units such as districts or provinces has the advantage of producing sub-groups where estimates of population size are more likely to be available. However, defining strata by administrative units is only advisable when such units roughly correspond with or are contiguous in terms of livelihood zones.

approach substantially increases the number of strata (and thus sample size) required. For example, defining rural and urban sub-groups in each of the 3 rural livelihood strata in table 12 would result in 6 strata instead of 4. As such, this approach is only recommended where resources allow and urban poor households located in different livelihood zones are expected to differ substantially from one another in terms of factors affecting their food security status.

Concerning the second (b), the diversity and complexity of urban areas noted throughout this TGS makes the need to define sub-groups of interest (e.g. strata) prior to sample selection even more pronounced. When a small sample of purposively selected respondents are to be chosen for use as key informants or for participation in focus group discussions, up to 8 or 10 such sub-groups may be defined (see box 8). However, for comparatively large samples of randomly selected respondents selected for participation in household surveys, the cost of each additional sub-group of interest is a limiting factor as the sample size must be applied to each of these sub-groups or strata (see 5.4.1). As such, defining more than 2 strata during urban household surveys using random (probability sampling) will rarely be possible.

#### **Box 8 – Sub-groups of interest (strata) in Bulawayo, Zimbabwe urban assessment**

The following 6 sub-groups of interest (strata) were defined by settlement type during an assessment utilizing focus group discussions. Within each, specific neighborhoods were purposively selected on the basis that they well represented that sub-group\*.

- a. Informal (illegal) squatter settlement – *Killarney*
- b. Peri-urban settlement – *St. Peters*
- c. Older high-density, low income settlement close to the city – *Makokoba*
- d. High-density, low income settlement – *Njube*
- e. Newer, high-density, low income settlement - *Nkulumani*
- f. Middle class residential area – *Mahatshula*

\* Targeting specific types of neighborhoods based on the fact that they are likely to differ in terms factors affecting their food security is stratification (e.g. defining sub-groups of interest). Purposive sampling refers to the purposeful selection of respondents within these groups based on a subjective determination that these respondents ‘represent’ the group from which they are being selected.

In turn, this makes the thoughtful selection of criteria used to define these sub-groups of interest all the more important when household survey methods are being used. Although it is impossible to identify a universal set of criteria that will be relevant across contexts, table 13 offers a range of bi-variate options – that is, stratification criteria that define two groups. The choice between these should be based on a combination of the likelihood that it defines sub-groups in which households are more like one another than they are households in other groups in terms of factors affecting their food security status and the ease with which it allows households to be identified as discretely belonging to each group.

### **5.3 Methodology choices for collecting primary data in urban areas**

The types of methodologies that are likely to be used to collect primary data during urban food security assessments are by and large similar to those used in rural food security assessments and include key informant interviews, focus group discussions, observation, and household surveys. The EFSA handbook already provides guidance on the relative strengths and weaknesses of each method (see EFSA handbook part IV). However, a number of methodological considerations particular to urban food security assessments merit mention.



**Table 13 – Example criteria for defining sub-groups of interest (strata) in urban areas**

<b>Criteria</b>	<b>Description</b>
<i>urban &amp; peri-urban</i>	divide urban poor households into those living in the core urban areas and peripheral or peri-urban areas
<i>settlement type</i>	divide urban poor households into those living in planned/formal settlements and unplanned/informal settlements (or large/small informal settlements)
<i>size of urban area</i>	divide urban poor households into those living in larger cities and those living in smaller cities (locally defined)
<i>type of urban area</i>	Divide urban poor households into those living in capital city/commercial center and those living in other cities (or port/non-port, mining town/non-mining town)
<i>social marginalization</i>	divide urban poor households into those in the majority and those belonging to socially marginalized groups (defined by ethnicity, place of origin, immigration status, other)
<i>contiguous &amp; mixed</i>	See discussion in 5.1

### 5.3.1 Sequenced, multi-method assessments

The now familiar refrain concerning the diversity and complexity of urban areas suggests that qualitative data collection methods (such as key informant interviews and focus group discussions) will play a far more critical formative role during the initial and rapid urban food security assessments than in rural areas. This is particularly true where the diversity and complexity of urban livelihoods, vulnerability and behavior are poorly understood.

Inasmuch as this recommendation is consistent with existing guidance provided in the EFSA handbook, it runs counter to the tendency within WFP to favor the use of quantitative data collection methods such as household surveys even during early assessment stages. This approach may be possible in rural areas where knowledge about the context, livelihoods and vulnerabilities already exists. However, the lack of such knowledge for urban areas suggests that - in the absence of front-end qualitative methods needed to build an understanding of the diversity and complexity of urban livelihoods, vulnerabilities and behavior - conducting large sample household surveys using close-ended questionnaires is likely to mask this diversity and complexity or omit key variables needed to understand it.

This TGS partially fills this knowledge gap. However, it only does so in generic terms. As such, an understanding of how the various substantive issues raised play out in relation to a particular urban context is required. Indeed, this is as true for identifying criteria to define sub-groups of interest as it is for issues such as income sources, coping strategies, expenditures, assets and the types of social networks and informal social safety nets households rely on in times of need.

### 5.3.2 Urban key informants and stakeholder consultations

A critical point worth making in relation to key informants in an urban context is that there is likely to be a far greater range of individuals with knowledge relevant to an assessment's objectives than in rural areas. These individuals may include municipal councilpersons and other local government representatives, residential association and informal community

representatives, and a host of individuals from other UN agencies, NGOs and civil society – including various civic, social, and religious organizations.

Beyond providing a potential wealth of information, this also creates a ripe opportunity to bring key informants and other stakeholders together in a consultative process that - much like a focus group discussion - serves as a data source in its own right. This is true both in terms of drawing on the knowledge of these individuals and providing a forum for debating divergent views (primary data), as well as for identifying assessment-relevant information that already exists (secondary data). Moreover, such a process provides a forum for collecting information on what others are doing - and have the capacity to do - in terms of assessment activities and responses. If sustained through the planning, data collection, situational analysis and response options analysis steps of an assessment, this consultative process can also play a key role in consensus building and stakeholder ‘buy-in’<sup>18</sup>.

A final point worth making is that market-related key informants such as retailers, wholesalers and traders are likely to be more accessible in urban areas than in rural areas – at least in terms of proximity. Indeed, engaging these informants is critical for integrating market analysis into urban food security assessments as described in section 4.2. Nonetheless, it must be kept in mind that these informants are vested actors who may stand to lose from WFP interventions. As such, it is particularly critical to triangulate information collected from them (see 4.2, table 7) with other sources.

### **5.3.3 Cross-cutting practical considerations**

*Timing of data collection and security* - The first of these is the timing of data collection stemming from the fact that adults in urban settings often work during day time hours. Scheduling data collection for days when many households do not work (e.g. weekends) presents a potentially viable solution to this problem, but will result in data collection efforts being spread out over weeks to the limited number of such days available. As such, it may be necessary to collect data in the evenings when more household survey respondents, key informants and focus group discussion participants are likely to be available. This preference must be balanced against concerns about the assessment team’s safety on a case-by-case basis as it may be unsafe for assessment teams to travel in urban slum areas after dark.

Clearly, such security concerns outweigh the desire to optimize data collection. In extreme cases, some neighborhoods may even be inaccessible during the day due to insecurity. Select neighborhoods in Mogadishu (Somalia) and Baghdad (Iraq) provide prominent examples. Given that the reasons why such neighborhoods are inaccessible (e.g. violence, crime, insecurity, conflict, etc.) almost certainly has a negative bearing on household food security status, the assessment report must make clear which neighborhoods have been excluded and why. Failure to do so is likely to understate the extent of food insecurity.

*Non-response and replacement* - Household survey assessment teams are also likely to encounter a far greater degree of non-response in urban areas than in rural areas due to the fact that adult members of some households may work evenings and the greater likelihood of households simply choosing not to participate. If the former, an effort should be made to reschedule data collection with the selected household and target respondent, leaving a

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<sup>18</sup> In terms of process, this approach may be viewed informal, locally-relevant version of the consensus building associated with the Integrated Phase Classification (IPC) without many of the contentious issues and rigidity related to attempts to make the IPC universally applicable.

message with neighbors or those present in the household and determining from them when the target respondent is likely to be home<sup>19</sup>. The reason for this is that failure to make at least one follow-up attempt to interview selected households is likely to introduce bias in that it systematically eliminates those who spend significant time away from the home or are away from the home during specific data collection hours due to work or other commitments – that is, factors that may be causally related to household food security outcomes.

In the event repeated attempts to interview a respondent fail or a selected respondent opts not to participate - a replacement protocol must be used and households serving as replacements documented<sup>20</sup>. Again, the rationale for this is that either (or both) of these forms of non-response may have a relationship with a household's food security status such that excluding them creates potential for bias. Households serving as replacements should be identified as such on the questionnaire and the extent of replacement documented in the assessment report.

*Duration of interviews and discussion groups* - Although a concern during any assessment, the duration of interviews and discussion groups is likely to pose an even greater threat to data quality and participation in urban areas than in rural areas. Put simply, the faster pace of urban life and the multiple factors competing for the time of urban respondents (or discussion group participants) requires that brevity be considered equally alongside breadth when planning and designing an assessment. This issue is particularly concerning for household surveys as 10+ page questionnaires that take over an hour to administer are likely to present significant threats to data quality and participation. As such it is recommended that questionnaires should take no longer than 30-40 minutes to administer with this confirmed during pre-testing exercises.

As noted in the discussion on agricultural production data (4.1.4.3), this requires making compromises in terms of the depth of information collected and forces assessment teams to narrow in on the information required rather than the information desired. Where the issues and concerns outlined in this TGS in relation to a particular substantive topic are so pronounced that they are likely to result in indicators of dubious analytic value, consideration should also be given to removing these topics from the questionnaire.

*Privacy and crowd control* - Conducting assessments in urban areas also present a challenge in terms crowd control. This is particularly true in relation to focus group discussions and the desire to maintain optimal participation levels (e.g. 6 to 8 persons per group), but may also apply to household interviews due to the close proximity of households to one another. Failure to account for this factor can quickly lead to crowds that either disrupt the data collection exercise or inhibit open discussion by target respondents/participants.

In terms of household surveys, informing community leaders of the assessment's objectives and household selection process is likely to help in this regard. However, all assessment teams should be prepared to explain the assessment objectives and selection process in order to alleviate tensions among those not selected. Similarly, it is highly recommended that focus group discussions be held indoors – either in schools, churches/mosques or other community facilities to avoid the potential of drawing a crowd. Doing so requires pre-planning – both in terms of securing access to such facilities and informing participants of the time and location for the discussion.

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<sup>19</sup> In some context, the fact that even poor households own mobile phones may also assist in rescheduling.

<sup>20</sup> The exact procedure used for replacing non-response households is less important than ensuring this procedure is applied uniformly by enumeration teams and documented in the assessment report.

## 5.4 Sampling

The range sampling options for urban assessments are largely similar to those for rural assessments. As these are already covered in the EFSA handbook (see part IV, section 2.7) a comprehensive discussion of sampling is not warranted here. However, there are a number of sampling related issues that do require special consideration when conducting a food security and nutrition assessment in urban settings, particularly in relation to multi-stage, random sampling for use with household surveys and snowball sampling as a means of dealing with ‘hidden populations’ and criteria-based sampling frames. Each of these is examined below.

### 5.4.1 Multi-stage random (probability) sampling for use with household surveys

The most common - and most advisable - sampling approach for use with close-ended household surveys is multi-stage, random (probability) sampling as this allows estimates from the sample to be extrapolated to the population of interest with a known degree of confidence and precision (see boxes 9 and 10). However, it should be stated up front that such an approach can only be applied in cases where the sampling frame is defined geographically or, in cases where the sampling frame is geographic for some portion of the population of interest and criteria-based for others, those portions of the population of interest for which the sampling frame is defined geographically<sup>21</sup> (see 5.1).

#### **Box 9 – Multi-stage purposive (non-probability) sampling\***

The term *multi-stage sampling* is typically used in reference to random (probability) sampling for use with household surveys. However, like the term *sampling frame*, it can be usefully extended to any type of sampling, including purposive (non-probability) sampling. Indeed, the EFSA handbook does so indirectly, referring to the stages as selecting locations and selecting respondents. In turn, this raises the question of whether random (probability) sampling and purposive (non-probability) sampling can be combined at different stages to select households for inclusion in a household survey.

In general, this is ill-advised as random (probability) and purposive (non-probability) rely on different logics for extrapolating estimates for a population of interest (N) from a sample taken from that population (n); the former doing so objectively via statistical (e.g. probability) theory and the latter doing so subjectively - determining the locations, households and respondents selected on the basis that ‘well represent’ the population of interest from which they are selected\*. The intent here is not argue that one approach is more sound than the other, but rather to recognize that mixing the two runs the distinct risks of undermining both the subjective validity of purposive (non-probability) sampling and the objective validity of random (probability) sampling. As such, this approach is only recommended when supported by a sampling expert who understands the ramifications involved in terms of how the data can be interpreted. For, inasmuch as the inability to quantify confidence intervals and precision noted in the EFSA handbook are important limitations of this approach, the ramifications go well beyond this.

\* Purposive sampling vs. stratification – stratification identifies sub-groups of interest that are suspected of differing from one another in terms of food insecurity outcomes and causes. Purposive sampling refers to selecting a sample from within these groups on the subjective basis that that the locations, households or individuals chosen ‘well represent’ these groups. Thus targeting an area for inclusion in an assessment because it is suspected of being worse off than other areas is stratification, not purposive sampling.

<sup>21</sup> Alternatives for dealing with such populations are outlined in the next section (5.5.2)

### Box 10 – Method-Sampling Combinations

As suggested in the EFSA handbook, it is possible to mix and match various data collection methods and sampling approaches. However, the reason that particular combinations are typically used goes beyond convention in that these combinations maximize the strengths and minimize the weakness of the various methodological and sampling options available. For example, close-ended questionnaires used in household surveys constrain data collection by limiting answers to numeric or categorical data for the very reason that random (probability) sampling requires a comparatively large sample size and doing so is necessary to ease data management and manipulation burden. In turn, constraining data collection in this way is seldom warranted in the absence of the objective (e.g. statistical supported) basis for extrapolating findings from the sample (n) to the population of interest (N) associated with random (probability) sampling (box 9).

Data collection method	Sampling
HH surveys	Random (probability)
Key informant interviews	Purposive (non-probability)
Focus group discussions	Purposive (non-probability)

#### First (and second) stage: selection of locations (or clusters)

*Defining neighborhoods or sub-units within neighborhoods as clusters* - Neighborhoods found in urban areas provide an obvious and apt substitute for the use of villages as clusters during rural assessments. However, neighborhoods that are substantially larger than 1,000 households are simply too large to be manageable as clusters. To be certain, many large slums and informal settlements are already sub-divided into a number of recognized sub-neighborhoods (see box 12). Yet, even in cases where this is true, these neighborhoods may still be too large. As such, it will often be necessary to use smaller aggregates such as blocks or sub-divisions within neighborhoods as clusters. Where these are identifiable (and map-able) prior to data collection, two-stage cluster sampling can still be used (see *selecting neighborhoods* below). Where they are not, an additional sampling stage is required (box 11)

### Box 11 - Dividing Large Neighborhoods into Manageable Clusters (3 stage sampling)

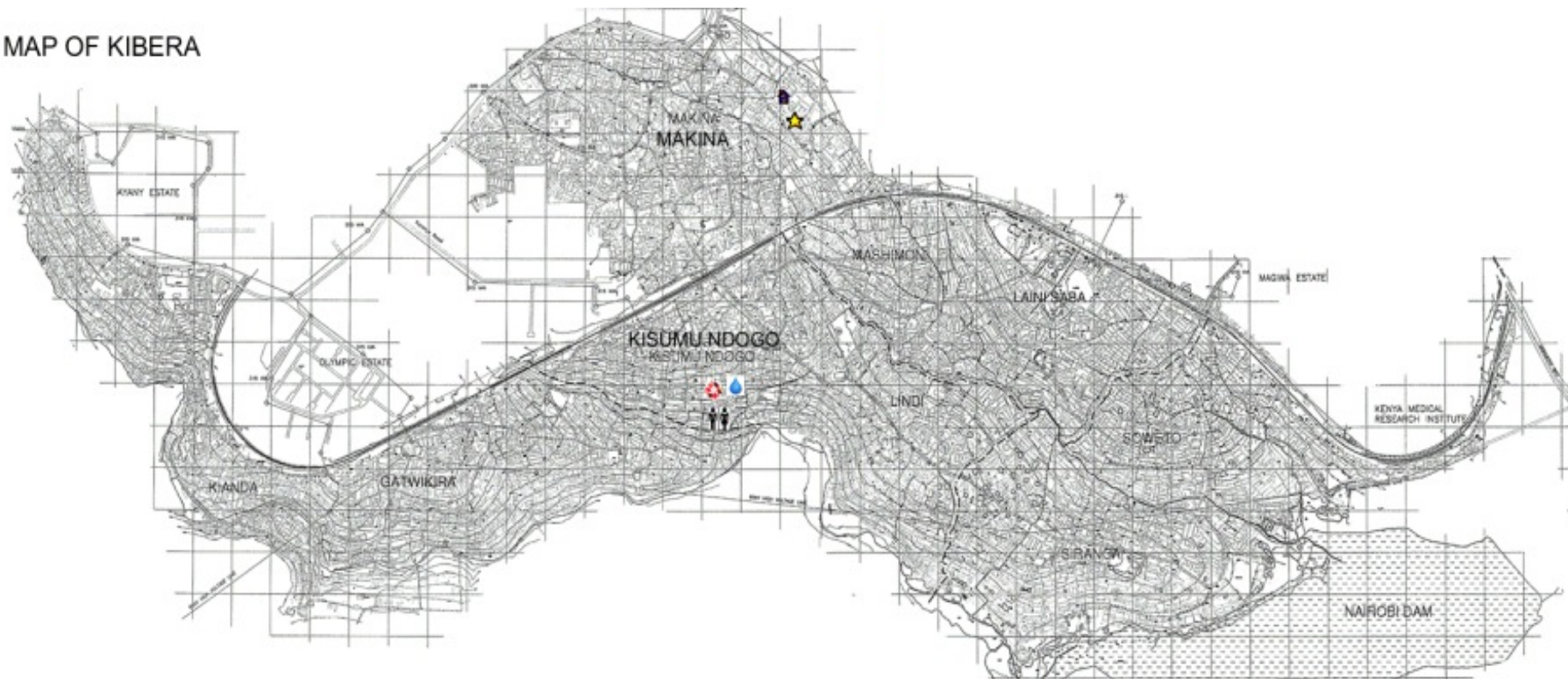
**1<sup>st</sup> stage** - select identifiable (and map-able) larger neighborhoods probability proportional to size (PPS) using the method described under *selecting neighborhoods*. Note that, as with the selection of clusters, these larger neighborhoods may be selected more than once (see box 13). For example, if the sub-neighborhood of Kisumu Ndogo in Nairobi's Kibera slum (see box 12) is selected twice for inclusion in the sample, two clusters will be selected from within this neighborhood.

**2<sup>nd</sup> stage** - upon arrival in the selected neighborhood, use key informants to draw a rough map of the neighborhood's boundaries using recognizable landmarks (streets, parks, rivers, etc.). Use the same key informants and additional landmarks to further sub-divide the neighborhood into segments of roughly 800 to 1,000 households - each segment representing a cluster\*. Randomly select the number of segments/clusters needed from each neighborhood (defined in stage 1) using the procedure described under *selecting neighborhoods*.

\* Assessment teams needn't worry about being overly precise in this regard as the aim is to define manageable clusters of approximately equal size, not to derive accurate population estimates.

**Box 12 – Utilizing neighborhoods within informal settlements** - In this example, the large informal settlement of Kibera (Nairobi, Kenya) is already subdivided into identifiable (and map-able) neighborhoods - Kisumu Ngogo, Makina, Laini Saba, Gatwikira, etc. However, given that 1 million people (or approximately 200,000 households) are estimated to live in Kibera, even these neighborhoods are too large to be manageable as clusters. As such, a three-stage, cluster sampling approach can be used – randomly selecting PPS from among these neighborhoods at the first stage, defining and randomly selecting segments within selected neighborhoods to serve as clusters at the second stage, and random selecting households within selected clusters at the third stage.

**MAP OF KIBERA**



**An alternative** - Given the availability of such a detailed grid map, it is also possible in this case to use each populated grid square as a cluster, number them, and then randomly select the number of clusters needed through two-stage, cluster sampling. Such an approach assumes each grid square and its boundaries are easily locatable and that the population in each grid square is roughly similar. Although this particular type of map may not always be available and this assumption may not hold true, this provides an example of how assessment teams can make creative use of secondary data.

*Number of clusters* – As noted in the EFSA handbook, assessment teams should always strive to use more clusters of fewer households to attain the target sample size as this increases the validity of the findings. Indeed, one of the clearest advantages of conducting assessments in urban areas is the relative ease of moving between clusters resulting from their comparatively close proximity to one another (vis-à-vis villages in rural areas) allows this recommendation to be taken up in earnest. Accordingly, it is recommended that urban assessments using multi-stage random (probability) sampling strive for a minimum of 25 clusters, regardless of the target sample size being used (table 14).

Where multiple sub-groups of interest (or strata) have been identified (see 5.2) and separate estimates are desired for each, the sample size (typically between 150 and 250 households) and number of clusters must be applied to each stratum. However, because dividing the population of interest into sub-groups of interest (or strata) produces relatively homogenous groups in term factors related to food security, the minimum number of clusters required may be reduced 20 per strata. If fewer than 20 neighborhoods/clusters exist in a given strata, all should be selected for inclusion in the sample and the number of households within each neighborhood increased to reach the target sample size.

**Table 14 – Households per cluster by number of clusters to achieve target sample size<sup>22</sup>**

target sample size per strata*	number of clusters		
	<i>Ideal</i>	<i>Compromise</i>	<i>Minimum**</i>
	<b>30</b>	<b>25</b>	<b>20</b>
<b>250</b>	9	10	13
<b>225</b>	8	9	12
<b>200</b>	7	8	10
<b>175</b>	6	7	9
<b>150</b>	5	6	8

\* rounded up to meet or exceed target sample size

\*\* only recommended when stratification is used.

*Selecting neighborhoods (or clusters)* – As with villages in rural areas, neighborhoods in urban areas should be randomly selected ‘probability proportional to size or PPS – meaning larger neighborhoods should have a higher probability of being selected than smaller neighborhoods such that all households have a roughly equal probability of selection regardless of the size of the neighborhood in which they are located. This is true whether neighborhoods are being used as clusters in a two-stage sampling design or whether they are being used as the first stage of a three stage sampling approach in which roughly uniform sized segments within these neighborhoods will be defined to serve as clusters.

Estimating the size of neighborhoods may appear somewhat daunting given the fact that what population data are available is unlikely to be disaggregated by neighborhood. Indeed, even

<sup>22</sup> Increasing the number of clusters enhances an assessment’s validity. All else being constant, increasing the sample size decreases the width of the confidence intervals and thus increases the precision of estimates. Both are important – but somewhat independent - issues of concern.

where they are, such data becomes almost instantly outdated due to the rate of expansion typically found in informal settlement. Yet – despite these significant and noteworthy challenges - proportional piling exercises with key informants knowledgeable about the area can be used to generate a rough estimate of the *relative* size of each neighborhood in relation to others included in the sampling frame)<sup>23</sup>. Box 13 outlines the steps involved.

### **Box 13 – Selecting neighborhoods (clusters) PPS using proportional piling**

- a. Use proportional piling to estimate the relative size of each neighborhood included in the sampling frame (1 being the smallest and 20 being the largest)
- b. List each neighborhood, its proportional piling score, and its cumulative range when added to neighborhoods proceeding it in the list.

Neighborhood	proportional piling score	cummulative range
neighborhood a	13	1 to 13
neighborhood b	8	14 to 21
neighborhood c	17	22 to 38
neighborhood d	4	39 to 42
...	...	...
neighborhood z	10	332 to 342

- c. Calculate a sampling interval (SI) by dividing last value in cumulative range (342) by the number of clusters required (25).  $342/25 = 13.68$
- d. Select a random start between 1 and the SI (for example, 9). The neighborhood containing this number (a) is selected for inclusion in the sample.
- e. Add the SI to the random start to select the next cluster ( $9 + 13.68 = 22.68$ ). The neighborhood containing this number (c) is selected for inclusion in the sample
- f. Add the SI again to select the third cluster ( $9 + 22.68 = 31.68$ ). The neighborhood containing this number (c\*) is selected for inclusion in the sample ...and so on until 25 clusters or how ever many clusters are desired have been selected.

\* large neighborhoods may be selected more than once. In this example, the number of HH corresponding to 2 clusters would be taken from neighborhood c.

### Final (second or third) stage – selection of households

As in rural areas when villages are used as clusters, a method of randomly selecting households within selected urban clusters is required. A number of options exist for doing so<sup>24</sup>. However, the ‘pencil spin’ method popularized by EPI surveys provides an apt and easy-to-use solution that has the added advantage of many WFP field staff are already being familiar with it. Nonetheless some slight modifications and additional materials are required to use this approach in urban areas:

<sup>23</sup> Typically allowing key informants to estimate the relative size of neighborhoods as between 1-20 (smallest-largest) using proportional piling provides sufficient detail to capture differences in neighborhood size.

<sup>24</sup> One alternative is the sampling grid method described here <http://www.ete-online.com/content/4/1/8>



*Materials required:* poker chips numbered 1 to 20 (or slips of paper), a random selection bag/hat containing the chips (or slips of paper), a pencil, a coin, a copy of the neighborhood/cluster boundary map (see step a), a copy of the replacement protocol.

*Steps involved:*

- a. Upon arrival in selected cluster (be it a neighborhood identified at the first stage of sampling or segment within a neighborhood identified at the second stage of sampling) use key informants to draw a rough map of the cluster's boundaries using recognizable features as landmarks (streets, parks, rivers, etc.) and locate the approximate center of the cluster. Copies of the maps must be made for each enumeration team
- b. Once at the center, each enumeration team spins a pencil to determine a walking direction, choosing the street or foot path indicated by the pencil's tip. Assessment team management must remain acutely aware of the tendency of enumeration teams to favor streets over footpaths
- c. Each enumeration team then flips a coin to determine whether households on the right side (heads) or left side (tails) of the street/footpath will be counted and then walks from the center to the neighborhood/clusters boundary, keeping a rough count of the number of households passed on the selected side of the street or footpath. Single family dwellings are counted as one household<sup>25</sup> with the number of households per apartment block estimated by counting the number of floors and asking informants how many apartments (on average) the building contains per floor. For example an apartment building with 5 floors and 4 apartments on each floor equals 20 households.
- d. Once the boundary of the cluster is reached, the enumeration team then divides the total number of households derived in step c by the number of households required from the neighborhood/cluster to determine a sampling interval (SI). For example, if the transect walk yields 147 households and 15 are required, the SI is 9.8.
- e. Put poker chips numbered 1 to the SI (10 in this example) into the random selection bag, selecting one to choose the first household to interview. After the interview add the SI to the first household selected to determine the second household ... and so on walking inward toward the center. Where multiple enumeration teams are used within a cluster, divide the number of households required by the number of teams to derive the number of households each team must interview and have each conduct steps a-e separately to identify those households.

If an apartment building is selected (either in the identification of the first household or subsequent households) additional steps are required. Moreover, assessment team management must remain acutely aware of the tendency of enumeration teams to favor households over apartment buildings due to the burden of these extra steps

- f. Re-establish the approximately number of households living in the apartment by multiplying the number of floors by the number of apartments per floor. Divide this number by the SI to determine how many households will be selected in the building, rounding downward if this number is not a whole number. For example if the apartment has 5 floors and 4 apartments per floor and the sampling interval is 9.8, 2 households will need to be selected ( $20/9.8 = 2.04$ )

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<sup>25</sup> Some single family dwellings may ultimately contain more than one household as defined in 4.1.1. If such dwellings are selected, simply put the poker chips corresponding to the number of households within the dwelling into the random selection bag and select one.

- g. Put the number of poker chips corresponding to the number of floors into the random selection bag to select the sample floor. Next put the number of poker chips corresponding to the number of apartments on that floor to select the household for interview. Repeat both steps to select subsequent households when more than one household will be selected from the apartment building (as determined in step f).
- h. After all households required from the apartment building have been interviewed, add the SI once again to select the next single family dwelling or apartment building walking inward toward the center.

#### **5.4.2 Snowball sampling and ‘hidden populations’**

As noted in the EFSA handbook, *snowball sampling* is only used during rural assessments ‘when no other possibility exists’ due to the fact that it is ‘less rigorous than random and purposive sampling’. However, the dilemma posed by urban poor households being interspersed with non-poor households and the likelihood that the location of many such ‘hidden’ households will be unknown presents a scenario in which snowball sampling may be the only via solution. As noted in section 5.1, this approach should only be applied to segments of the population of interest for which a geographic sampling frame can not be developed and a criteria-based sampling frame is the only alternative.

##### Snowball sampling and targeted snowball sampling

In its simplest form, *snowball sampling* is a type of respondent-driven sampling that entails using people’s social networks to identify additional households or individuals to participate in the assessment. Initial respondents (or ‘seeds’) is typically selected opportunistically and, after being interviewed or participating in a focus group discussion, is then asked to identify additional respondents fitting the target respondent criteria for inclusion in the sample. The identified respondents are then interviewed and asked to identify additional respondents.....and so on, until the target number of respondents is achieved.

One of the major weaknesses of this approach is that it is highly dependent on the initial ‘seeds’ as the second round of respondents will come exclusively from within their social networks. Where such networks are closed, this may lead to the exclusion of respondents in other social networks who differ from those chosen in meaningful ways. Second, this approach systematically favors those with extensive social networks over those whose social networks are limited. Given that the size of an individual’s or household’s social network is likely to be highly correlated with their degree of social capital and ability to access informal social safety nets, it is also likely to be highly correlated with their food security status.

No solution fully addresses these weaknesses. However, a slightly more refined version of snowball sampling known as *targeted snowball sampling* helps to address the first concern. The key difference in this approach is that - rather than rely on opportunity to identify the initial ‘seeds’— an effort is made to identify the range and types of social networks that exist within a given context such that an initial ‘seed’ (or ‘seeds’) can be selected in each. As noted in section 4.1.8, these may include networks based on ethnicity, place of origin, occupation, religion, neighborhood, or gender. However, the range and types of social networks are likely to vary by context, such that front-end key informant interviews are needed to identify them. These need not take the form of an exhaustive ethnography on

social networks and can be done rather quickly with a limited number of key informants in each city included in the sampling frame.

## **6. Scenario forecasting and response options analysis**

Sections 4 and 5 are primarily aimed at outlining substantive and methodological issues related to situational analyses. These obviously play a major role in informing scenario forecasting and response options analysis. However, it is also worth outlining a number of additional issues and concerns that relate specifically to these elements of an assessment.

### **6.1 Forecast and scenario development**

There are two notable differences between forecast and scenario development in urban areas and rural areas. The first one again relates to the diversity and complexity of livelihoods and vulnerabilities as this suggests a need to develop forecasts and scenarios for a variety of different sub-groups within the population of interest – either those defined as sub-groups of interest prior to the assessment (see 5.2) or those defined during analysis on the basis of variables collected. In both cases, these must be defined to fit the local context. The second relates to the types of shocks that are likely to impact urban food security. Although the probability of each of these will differ from urban area to urban area - and the impact from group to group within urban areas - a number of covariate events or shocks likely to impact a wide variety of urban poor households can be identified (table 15).

**Table 15 – Potential covariate events/shocks impacting urban food security**

a. commodity price increase (food/non-food)	b. closure of large company or layoffs
c. inflation (overall)	d. strikes
e. transportation cost increase	f. structural adjustment programs (SAPs)
g. electricity/water cuts	h. riots (food and otherwise)
i. currency devaluation	j. changes in policy/regulation
k. increase in interest rates	l. crime/conflict/insecurity
m. natural disasters (earthquakes, cyclones, hurricanes, floods, landslides, etc.)	

### **6.2 Response options analysis**

Response options analysis is a critical and often neglected step in the assessment process - so much so that WFP is currently in the process of developing guidance on urban programming and targeting to support country and regional offices in addressing this gap in urban areas. Whereas this and the equally pressing need to outline substantive and methodological issues related to situational analysis preclude an in-depth discussion of response options analysis here, several key issues and concerns are worth mentioning - if only in brief.

#### **6.2.1 Food security (and nutrition) assessment, not food aid assessment**

Rightly or wrongly, WFP is often accused of narrowly focusing its assessment efforts on gauging the need for food aid. Whereas this is an important component of any assessment in which WFP is involved, it is important to keep in mind that it is only one component. Moreover, the complexity of food security (and nutrition) in urban areas as outlined in this TGS demands that WFP look beyond its traditional interventions - and even its mandate - in identifying appropriate responses. In this sense, response options analysis not only includes

the array of food and non-food responses in which WFP will be directly involved, but those for which WFP's primary role will be one of advocacy.

### 6.2.2 Traditional WFP responses

Any number of WFP's traditional response options – be it general food distribution, Food-for-Work (FFW), Food-for-Training (FFT), school feeding, small-scale income generating projects, support to HIV/AIDS programming, or targeted supplementary feeding of women and children – may be appropriate in urban areas under the right conditions. Three of these – income generating projects, FFW, and school feeding – stand-out as being particularly suitable to urban contexts. Nonetheless, a number of issues related to implementing each in urban areas must be kept in mind.

- a. *Income generating projects* - WFP support to local bakery projects in Afghanistan provides an example of the types of income generating activities that might be suitable for urban areas. Yet, inasmuch as this project provided participants with additional income (and food) and bolstered their resilient against rising food prices in the short-run, it ultimately proved unsustainable. In turn this highlights the need for a sound hand-over/exit strategy prior to implementing any income generating activity supported by WFP. Another limitation is the ability to bring such projects to scale.
- b. *Food-for-work* - FFW projects would appear to provide another suitable response that is also potentially easier to bring to scale. Yet, great care must be taken in designing and implementing FFW projects in urban settings as the types of assets that are communally owned in rural areas such as water taps are typically privately owned in urban areas. Moreover, FFW projects aimed at improving infrastructure or living conditions may very well have the adverse impact of raising rents, particularly in informal settlements where poor living conditions partially account for why such settlements remain affordable<sup>26</sup>. Although WFP has long since moved away from large-scale public works projects, these may provide a suitable (and scaleable) alternative in urban areas where government capacity exists or public works projects are already planned.
- c. *School-feeding* - School feeding may be an appropriate response in some urban areas, particularly where households have removed children from school in order to reduce expenditure in the face of rising food prices or other sustained shocks. However, school feeding projects targeted to select schools is likely to lead to overwhelming enrolment in those schools and increase drop-out rates in others due to the comparatively close proximity of schools in urban areas.

### 6.2.3 Conditional and unconditional cash transfers

WFP's interim directive on the use of cash transfers to beneficiaries explicitly states that this response option falls outside of WFP's current mandate such that it may only be implemented on a pilot basis<sup>27</sup>. However, there is no doubt that the impact of food price increases on urban (and rural) food security adds to an already growing view within and outside of WFP that cash or vouchers may often be a more suitable mechanism for response than food. Indeed,

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<sup>26</sup> Crime and the potential for theft of FFW project supplies are also a concern

<sup>27</sup> See WFP (2007). The Use of Cash Transfers to Beneficiaries in WFP Operations: Interim Guidance for Pilot Projects.

where markets are functioning, this must be considered among the possible responses even if WFP's current policies preclude it from playing a large-scale, direct role in implementation.

As with WFP's traditional suite of interventions, a number of issues must be kept in mind when weighing the comparative advantage of cash or vouchers over food in urban areas – many of which challenge prevailing assumptions<sup>28</sup>:

- a. There is little empirical evidence that cash/voucher projects have a greater impact or are cheaper to implement to food projects. Indeed, one key finding of a recent review was that implementation costs of such projects (time/money/resources) are often far greater than they would appear to be on the surface and comparable in to the overhead involved in implementing food projects. In a related vein, the often assumed impact of cash/voucher projects in terms of bolstering local markets remains largely unproven.
- b. Cash or vouchers may loss value with rising food prices, whereas food aid may actually increase in value. Moreover, large-scale cash or voucher transfers have the potential to contribute to rising food prices in local markets by increasing demand.
- c. Conditional cash transfers such as cash for work, cash for attendance (training, health clinic, school), and vouchers such as food stamps that limit what can be purchased may have a larger impact on food security for what amounts to a marginal increase in the cost of implementation.
- d. Potential delivery mechanisms depend on context. However, urban areas may present some advantages in this regards due to the availability of banks and even mobile phones that can serve as a means of distributing cash (e.g. ATMs and e-vouchers). In terms of vouchers, accessibility to super-markets may also reduce number of outlets with which WFP, its counterparts (or others) must form agreements with to accept vouchers.

#### **6.2.4 Social assistance programs and formal/semi-formal social safety nets**

Support to government social assistance programs and formal/semi-formal social safety nets (including food subsidies) offer another response option that is more viable in urban areas than rural areas due to the fact that such programs are far more accessible in cities and rarely reach beyond urban/peri-urban boundaries. However, great care must be taken to assess who has access to these programs rather than assuming proximity and access by some equals access by all as those in informal (e.g. illegal) settlements, refugees and other marginalized populations that are likely to be among the most vulnerable and in need of such programs could very well be amongst those who do not have access to them<sup>29</sup>.

#### **6.2.5 Government (and other) response capacity**

Part of response options analysis involves gauging the capacity of government counterparts and other partners to implement responses identified<sup>30</sup>. Moreover, this and an assessment of what counterparts and partners are already doing (or planning to do) in response to a specific shock should be part and parcel of the stakeholder consultation outlined in section 5.3.2.

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<sup>28</sup> This issues come mainly from a Tango study commissioned by WFP – see Meyer (2007). The Use of Cash/Vouchers in Response to Vulnerability and Food Insecurity: Case Study Review and analysis.

<sup>29</sup> WFP (2006) Safety Nets Policy Guidance: Streamlining lessons from emerging experience (draft Aug. 06)

<sup>30</sup> A tool to assist in gauging counterpart capacity is currently being developed by WFP. A draft of this tool is available through Simon Renk ([simon.renk@wfp.org](mailto:simon.renk@wfp.org))

Indeed, inasmuch as a truly consultative process would engage these stakeholders at all stages of an assessment– collaborating with them during response options analysis is nothing short of a necessity. Although true for rural assessments as well, the greater range of stakeholders in urban areas, the need to build consensus with them, and WFP’s comparative lack of experience in urban programming makes the need to do so even more pronounced during urban assessments.

### **6.2.6 Food security and nutrition monitoring**

Although not typically thought of as a response, food security and nutrition monitoring may be appropriate either to track a potentially deteriorating situation in which no other response is deemed necessary or in concert with other responses. A study on best practices for designing and implementing food security and nutrition monitoring systems was commissioned by WFP Burundi and provides a useful source of guidance in this regard<sup>31</sup>.

### **6.3 Targeting**

WFP is in the process of developing separate guidance on targeting in urban areas such that the issue need not be taken up in great detail here. Nonetheless, it is worth noting that it will rarely be possible to rely solely on geographic targeting in urban contexts due to the diversity and complexity of urban livelihoods, vulnerabilities and context noted throughout this TGS. Indeed, targeting on the basis of geography alone in such an environment is not only likely to lead to unacceptably high levels of inclusion error, but also exclusion error due to the fact that it also ignores vulnerable households living outside identified poor neighborhoods. The sheer number people and population density found in urban areas further makes geographic only exacerbates this problem in that the need for assistance in the aftermath of a covariate shock will often outweigh the ability of WFP, its counterparts/partners to respond.

This is not to say that geographic targeting will not play some role in identifying areas for initial and ongoing responses, but rather that a second stage of criteria-based targeting (e.g. beyond location) will be necessary in most cases to avoid high levels of inclusion and exclusion error. Whereas criteria (and responses) that incorporate an element of self-targeting offer a partial solution in this regard, there is equally no doubt that criteria-based targeting is both more difficult and more costly than geographic targeting.

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<sup>31</sup> Collins (2007) WFP Burundi Food Security Monitoring Systems Review.

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