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City Region Food System Toolkit Assessing and planning sustainable city region food systems

CITY REGION FOOD SYSTEM TOOLKIT TOOL/EXAMPLE



Published by the Food and Agriculture Organization of the United Nations
and
RUAF Foundation
and
Wilfrid Laurier University, Centre for Sustainable Food Systems

May 2018

With support from



by decision of the
German Bundestag



fondation
daniel & nina carasso
sous l'égide de la Fondation de France





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Tool/Example: Sampling guidelines

Author(s): Marielle Dubbeling and Joy Carey (RUAF Foundation), Jane Battersby, University of Cape Town (South Africa)

Project: RUAF CityFoodTools project/FAO Food for the Cities Programme

Introduction to the joint programme

This tool is part of the City Region Food Systems (CRFS) toolkit to assess and plan sustainable city region food systems. The toolkit has been developed by FAO, RUAF Foundation and Wilfrid Laurier University with the financial support of the German Federal Ministry of Food and Agriculture and the Daniel and Nina Carasso Foundation.

Link to programme website and toolbox

<http://www.fao.org/in-action/food-for-cities-programme/overview/what-we-do/en/>

<http://www.fao.org/in-action/food-for-cities-programme/toolkit/introduction/en/>

<http://www.ruaf.org/projects/developing-tools-mapping-and-assessing-sustainable-city-region-food-systems-cityfoodtools>

Tool summary:

Brief description	This tool provides practical sampling guidelines that can be used for selecting government, household and food business survey respondents.
Expected outcome	Collection of quantitative data through questionnaire surveys
Expected Output	Selection of survey respondents
Scale of application	City region
Expertise required for application	Understanding of the local context and policy processes
Examples of application	Kitwe and Lusaka (Zambia)
Year of development	2017

Tool description:

To assess the CRFS and specific indicators, quantitative data can be collected through questionnaire surveys. This tool provides practical sampling guidelines that can be used for selecting government/institutional, household and food business survey respondents. These sampling guidelines were developed by the authors for a World Bank programme on Urban Food Metrics, but are also applicable to a CRFS assessment.



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Sampling guidelines

Government and institutions: Stakeholder identification will be needed for government and institutional surveys. Governance and organisational interviews will have to be done on a basis of purposive sampling. Statistical significance is not something that makes sense here, it is an entirely different sampling rationale.

Government representatives to be interviewed should be selected from all spheres of government that are responsible for the food system related activities in the municipal area and city region/local area. These may include municipal governments, metropolitan governments, district offices, provincial or national government. Institutional respondents similarly should include organisations both working in the city and in the local region/area. Key government sectors and institutions to engage may include:

<i>Government (local, provincial, national)</i>	<i>Institutions (public, NGOs, private) Note that private food sector business is targeted through food business surveys, so they are not included here.</i>
<ul style="list-style-type: none"> -Food (security) agencies and programmes -Agriculture (and cooperatives) -Commerce and trade/markets -Social (support) programmes -Labour and social security -Economic development/business support -Public health/ food safety -Environment/sanitation -Climate change/disasters -Energy and water management -City planning/Land planning -Statistics office -Bureau of standards -Procurement office 	<ul style="list-style-type: none"> -Agriculture and farmer support organisations -Educational/training institutes -Universities and research organisations -Food business support organisations -Financing organisations engaged in food system or business financing -Social care (hospitals, care centres) -NGOs working on food system programmes -International organisations like ILO (food business, labour), FAO etc. -Organisations working on waste management/alternative energy -Climate change

For a comprehensive response, it is recommended to interview in a first round at least 10 governmental representatives and 10 organisational representatives. These first interviews will help identify additional key respondents (if any) to consult. Note that the government and institutional survey as outlined in the [Research Guidance](#) document has been designed to be relevant to all types of government departments and organisations but not all questions are relevant to all government programmes and organisations. A follow-up focus group dialogue with the interviewed and additional key government and institutional respondents is suggested as a useful further step in the process.

Households: Statistical representative sampling is very hard, given the extreme weakness of local scale statistics, particularly at the sub-urban scale. More generally, it is important to note, that the statistical data on many cities is poor, and so drawing a robust sample frame is extremely difficult. This is why we propose an area based sample that allows taking a



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geographically defined area, based on a set of agreed characteristics¹.

For selection of households, and applying a poverty lens, it is crucial to include low-income neighbourhoods where further random sampling can be done to select the final interviewees from low income households. Local or national categorisations of low income, middle and high income households (based on monthly income data) can be used. It is suggested to include at least 2 different low-income neighbourhoods in the city to allow for spatial variation (for larger cities, this number may need to be increased).

Once geographical areas are selected, household number estimates can be deducted from the latest aerial photos, followed by an interval sample based on this. Household representativity can be ensured by using a sample frame of 10% of the total number of households. No control with other income groups is applied if the objective of the assessment is to understand and improve food accessibility, availability and nutrition of urban poor groups (targeted research).

If cities have already pre-identified and targeted specific neighbourhoods for food system interventions (for example based on already existing data on food insecurity, malnutrition or healthy food access), the surveys can be applied for these neighbourhoods only to support definition of specific interventions in those areas. If this is done, the research or project team needs to be very clear about why these particular neighbourhoods were selected and note that they are not representative of the wider city. If the research aims to provide an overview of the entire city, a larger number of neighbourhoods and a variety of different income groups will have to be included.

Food businesses: Again, in applying a poverty lens, household interviews need to be implemented before the food business surveys, in order to be able to map and identify food business that specifically serve low-income households. Locations where low income households procure and purchase their food will thus identify which food businesses minimally to select to ensure a pro-poor / low income focus. It is suggested that within this pre-identified sample, at least 10% of food businesses are further randomly selected for the food business interviews. It should be noted that these food businesses are not necessarily located in the same low income areas where low income households live, as they may procure their food sources from other neighbourhoods, central markets or peri-urban producers directly.

In addition to businesses identified in the household interviews, interviews should be done with a broader group of food businesses. This requires to do a census of businesses and sample out of that. In order to get a good overview of food business diversity and variety, and of performance and needs of different food businesses along the entire food value chain,

¹ 'One of the most common challenges is to measure the size, location, characteristics, and movement of urban populations'. 'A combination of ground-based and satellite tools can help understand rapidly evolving and complex urban settings. These will be extremely useful to estimate population numbers and to define the most appropriate sampling design, including the identification of vulnerable neighbourhoods in urban settings.' (Adapting to an Urban World Phase II (2017) Assessment Design in Urban Areas – Expert Consultations). This study suggest the above approach for area-based household sampling.





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purposive sampling from different business categories is required:

1. Urban and peri-urban food production
2. Processing
3. Wholesale & distribution
4. Retail
5. Catering
6. Organic and food waste management/ re use.

The number of businesses in each category may need to reflect the relative size of the sector if that information is available. If not then it may be simpler to interview equal numbers in each sector. Business types within these above categories will vary from country to country. Therefore before starting the survey work, for each of the six business categories, a list of main business types needs to be developed. For example, within retail we can distinguish supermarkets, kiosks, street vendors/ itinerant vendors, house shops etc. An adapted local typology needs to be developed and used during the surveys These locally specific sub-categories of business types should also be used in deciding which types of businesses to interview. Another angle in sampling could be geographic spread, if that information is available.

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