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

CITY REGION FOOD SYSTEM TOOLKIT TOOL/EXAMPLE



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City Region Food System Toolkit

Assessing and planning sustainable city region food systems

Tool/Example: Key informant interviews

Author(s): FAO

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 helps to obtain non-statistically significant data on a particular topic/component of the food system without conducting a comprehensive quantitative data collection study.
Expected outcome	Data collection
Expected Output	Qualitative data on particular topic
Scale of application	Project level
Expertise required for application	Statistics, agronomy/nutrition/value chain/policy depending on the person interviewed
Examples of application	Kitwe and Lusaka (Zambia); Colombo (Sri Lanka)
Year of development	
References	-

Tool description:

To assess the CRFS and specific indicators, different tools can be used to collect data: questionnaire surveys (quantitative data), focus group discussions and key informant interviews (qualitative data). Key informant interviews, such as focus group discussions, can be used to complement questionnaire survey, get indications and trends on specific topics, when resources and time are not available to conduct a more extensive questionnaire survey, or when the information cannot be characterized by quantitative data.



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Examples of application

Kitwe

In Kitwe, key informant interviews were conducted to complement the questionnaire surveys and focus group discussions. Interviews were conducted to obtain information on the three local priorities identified: agricultural production, food processing supply and distribution system, environment and natural resources. Interviews were conducted with key actors such as: Ministry of Agriculture (MoA), Ministry of Health (MoH), city and district councils, farmers' organizations, Central Statistical Office (CSO), Chamber of Commerce, etc.

The below table display the different interviews conducted for each needed information/area of investigation, and the associated questions asked.

Case Study/local priority	Areas of work	Areas of investigation	Target/key informant	Questions asked
1. Agricultural production: land availability, access and tenure; competition between urban development and agriculture; production and productivity issues (including retail but outside Kitwe district)	Diversity of Opportunities for Food Production	i1. Product volumes and diversity imported (from outside the city region) compared with product volumes from the city region	CSO/Chamber of Commerce/MoA	i1a. Names of vegetables, fruits, livestock & dairy commodities imported (name _____; up to 20 answers) i1b. Quantity of each vegetable, fruit, livestock & dairy commodity that is imported (name _____ quantity _____; up to 20 answers) i1g. Names of livestock products imported (name _____ quantity _____; up to 10 answers)
		i2. Number/type of farms in the city region that use locally grown or other (organic/ecological/ fair-trade) product labels	Councils / MoA / ZLA / Forestry / ZEMA / ZNFU / Water & Sewerage	i2a. Number of farms using locally grown or other products labes (organic/ecological/fair-trade) i2b. Type of farms using locally grown or other products labes (organic/ecological/fair-trade) (text)
		i4. Number/% of farms in the city region with direct sales to consumers; trading direct at markets or selling direct to retailers or caterers	Councils / MoA / ZLA / Forestry / ZEMA / ZNFU / Water & Sewerage	i4a. Number or % of farms with direct sales to consumers i4b. Number or % of farms trading direct at markets i4c. Number or % of farms selling direct to retailers
	Social Conditions for	i6. Number and type/characteristics	Councils / MoA / ZLA /	i6a. Number of women involved in city region food production

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	Food Producers	of people (differentiate for women, young people and other vulnerable groups) involved in city region food production	Forestry / ZEMA / ZNFU / Water & Sewerage	i6b. Number young people involved in city region food production
				i6c. Number other vulnerable groups involved in city region food production
		i7. Number of children under age (child labour) employed in city region food production	Councils / MoA / ZLA / Forestry / ZEMA / ZNFU / Water & Sewerage	i7a. Number of children employed in input supply for food production in city region
				i7b. Number of children employed in farm activities for food production in city region
	Economic Value of Food Production Sector in the City Region	i10. Number (or percentage) of farms (farm types) in the city region (economic vitality) for different food products	CSO/Chamber of Commerce/MoA	i10a. Number or percentage of farm types that produce each commodity (number)
				i10c. What is the size of farms that produce each commodity (number in acres)
			Councils / MoA / ZLA / Forestry / ZEMA / ZNFU / Water & Sewerage	i10a. Number or percentage of farm types that produce each commodity
				i10c. What is the size of farms that produce each commodity (number in acres)
	Status of Natural Resource Management	i21. Total surface areas (current and potentially available currently unfarmed) of urban and peri-urban and rural agriculture land within the city region	Councils / MoA / ZLA / Forestry / ZEMA / ZNFU / Water & Sewerage	i21a. Total surface areas currently unfarmed of urban and peri-urban and rural agriculture land within the region (number in acres)
				i21b. Total surface areas currently unfarmed of peri-urban land within the region (number in acres)
				i21c. Total surface areas currently unfarmed rural agriculture land within the region (number in acres)
				i21d. Total surface areas potentially available currently unfarmed of urban land within the region (number in acres)
				i21e. Total surface areas potentially available currently unfarmed peri-urban land within the region (number in acres)
				i21d. Total surface areas potentially available currently unfarmed rural agriculture land within the region (number in acres)
		i32. Status of natural biodiversity in the city region	Councils / MoA / ZLA / Forestry / ZEMA / ZNFU / Water & Sewerage	i32a. What is the status of natural biodiversity in the city region (intact/degraded/unknown)
				i32b. What drives the change in the status of natural biodiversity in the city region (farming/mining/settlements/)
	Levels of Vulnerability and Conditions for Increasing Resilience	i44. Percentage of self- reliance (for the city region) in consumption of food by weight for specific product/prioritised food basket/total nutritional requirements or total consumption (possibly transform this also in food expenditures using average food	Councils / MoA / ZLA / Forestry / ZEMA / ZNFU / Water & Sewerage	i32c. Who manages the natural biodiversity in the city region (text)
				i44a. Percentage of commodity produced and consumed within the region out of total available

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		price data)		
		i47. Availability and accessibility of Urban agriculture/community gardens to all residents within the city region; especially of low-income	Councils / MoA / ZLA / Forestry / ZEMA / ZNFU / Water & Sewerage	i47a. How much land is available of urban agriculture/community gardens to all residents within the city region for low-income groups (number or %) i47b. How accessible is land available of urban agriculture/community gardens to all residents within the city region for low-income groups (accessible/inaccessible/unknown)
		i49. Potential for increase in decent employment and income opportunities (multiplier effect) in city region food production and input supply	CSO/Chamber of Commerce/MoA Councils / MoA / ZLA / Forestry / ZEMA / ZNFU / Water & Sewerage	i49a. What is the potential for increase in decent employment (multiplier effect) in food production and input supply (number in % increase) i49b. What is the potential for increase in income opportunities (multiplier effect) in food production and input supply (number in % increase) i49a. What is the potential for increase in decent employment (multiplier effect) in food production and input supply (% increase) i49b. What is the potential for increase in income opportunities (multiplier effect) in food production and input supply (% increase)
		i50. Extent to which production practices favour efficient use of abiotic resources (land/soil; water; nutrients)	Councils / MoA / ZLA / Forestry / ZEMA / ZNFU / Water & Sewerage	i50a. Extent to which production practices favour efficient use of land (high/medium/low/unknown) i50b. Extent to which production practices favour efficient use of water (high/medium/low/unknown) i50c. Extent to which production practices favour efficient use of soil fertility/nutrients (high/medium/low/unknown)
		i52. Degree to which livestock feed is produced within the city region (% of self-reliance in fodder production)	Councils / MoA / ZLA / Forestry / ZEMA / ZNFU / Water & Sewerage	i52a. Where is feed for livestock type obtained/bought from? (name of feed source) i52b. How much does a kilogram of feed category cost? (name of feed price/Kg) i521a. Mention commodities that are produced on the facility (text - up to 20 answers) i521b. Where do you obtain/purchase your seed for each of the commodity? (text - up to 20 answers) i521c. How much does (a Kg or packet of 500g) seed cost for each commodity? (name cost/Kg; 20 answers) i521d. What fertilisers do you use for each of the crops you produce? (name fertiliser; 15 answers) i521e. Where do you obtain/purchase your fertiliser from? (text - up to 15 answers) i521f1. How much does a kilogram or 50 Kg bag of top dressing fertiliser cost? (fertiliser cost/50Kg; up to 5 answers) i521f2. How much does a kilogram or 50 Kg bag of basal fertiliser cost?

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				(fertiliser _____ cost/50Kg _____ ; up to 5 answers)
				i521g. Where do you obtain your farm equipment from? (equipment _____ source _____ ; up to 10 answers)
				i521h. What is the total cost of equipment required to produce each commodity that you produce? (commodity _____ equipment cost _____ ; up to 20 answers)
2. Food processing, supply and distribution system (including consumption & nutrition but outside Kitwe district)	Presence and Impact of Related Policy	i77. Compliance with food safety regulations and regular inspections related to food storage and processing in the city region	CSO / Chamber of Commerce / MoA / MoH / Councils	i77a. Compliance with food safety regulations related to food storage in the city region (high/medium/low/unknown)
				i77b. Compliance with food safety regulations related to food processing in the city region (high/medium/low/unknown)
				i77c. Compliance with regular inspections of food storage facilities in the city region (high/medium/low/unknown)
				i77d. Compliance with regular inspections of food processing facilities in the city region (high/medium/low/unknown)
	Levels of Vulnerability and Conditions for Increasing Resilience	i81. Potential for increase in decent employment and income opportunities (multiplier effect) in city region food wholesale and distribution	CSO / Chamber of Commerce / MoA / MoH / Councils	i81a. Potential for increase in decent employment opportunities (multiplier effect) in city region food storage (high/medium/low/unknown)
				i81b. Potential for increase in income opportunities (multiplier effect) in city region food storage (high/medium/low/unknown)
				i81c. Potential for increase in decent employment opportunities (multiplier effect) in city region food processing and manufacturing (high/medium/low/unknown)
				i81d. Potential for increase in income opportunities (multiplier effect) in city region food processing and manufacturing
	Diversity of Opportunities for Food Wholesaler and Distribution Businesses	i83. Number, type and geographic spread of food wholesale/distribution points in the city region (for different products)	CSO / Chamber of Commerce / MoA / MoH / Councils	i83a. Number and type of wholesale and distribution points in the city region for each commodity (category _____ number _____ ; up to 5 answers)
				i83b. Number and type of commodity wholesale points in the city region (category _____ number _____ ; up to 5 answers)
				i83c. Number and type of commodity distribution points in the city region (category _____ number _____ ; up to 5 answers)
				i83d. Geographic spread of commodity wholesale and distribution points in the city region (mapping of location: georeferencing)
	Economic Conditions for Food Wholesale and Distribution Workers	i92. Infrastructure needs for improved city region wholesale and distribution businesses efficiency	CSO / Chamber of Commerce / MoA / MoH / Councils	i92e. State of existing wholesale and distribution infrastructure (i.e. excellent, good, poor, not existing, unknown)
	Levels of Vulnerability and Conditions for Increasing Resilience	i104. Transport efficiency: Current and potential use of food transport and storage in city region with low energy use / more optimised distribution – reduction of transport distance and emissions	CSO / Chamber of Commerce / MoA / MoH / Councils	i104a. Current use of food transport in city region with low energy use (high/medium/low/unknown)
				i104b. Potential use of food transport in city region with low energy use (high/medium/low/unknown)
				i104c. Current use of food transport in city region with more optimised distribution – reduction of transport distance and emissions (high/medium/low/unknown)

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			<p>i104d. Potential use of food transport in city region with more optimised distribution – reduction of transport distance and emissions (high/medium/low/unknown)</p> <p>i104e. Current use of food storage in city region with low energy use (high/medium/low/unknown)</p> <p>i104f. Potential use of food storage in city region with low energy use (high/medium/low/unknown)</p> <p>i104g. Current use of food storage in city region with more optimised distribution – reduction of transport distance and emissions (high/medium/low/unknown)</p> <p>i104h. Potential use of food storage in city region with more optimised distribution – reduction of transport distance and emissions (high/medium/low/unknown)</p>
	i107. Potential for increase in decent employment and income opportunities (multiplier effect) in city region food wholesale and distribution	CSO / Chamber of Commerce / MoA / MoH / Councils	<p>i107a. Potential for increase in decent employment opportunities (multiplier effect) in city region food wholesale and distribution (% increase)</p> <p>i107b. Potential for increase in decent employment opportunities (multiplier effect) in city region food wholesale (% increase)</p> <p>i107c. Potential for increase in decent employment opportunities (multiplier effect) in city region food distribution (% increase)</p> <p>i107d. Potential for increase in income opportunities (multiplier effect) in city region food wholesale and distribution (% increase)</p> <p>i107e. Potential for increase in income opportunities (multiplier effect) in city region food wholesale (% increase)</p> <p>i107f. Potential for increase in income opportunities (multiplier effect) in city region food distribution (% increase)</p>
Diversity of Opportunities for Consumers to Eat Well	i147. Total food/nutritional requirements for the population in the city region. (Household food nutrition requirements multiplied by number of city region population). May be specified for specific food products If possible, differentiate within categories. e.g. children, adolescents, adults and elderly	MoH	<p>i147a. Total monthly beef/pork/chicken requirements for children under 5 in the household</p> <p>i147b. Total monthly beef/pork/chicken requirements for adolescents in the household</p> <p>i147c. Total monthly beef/pork/chicken requirements for adults in the household</p> <p>i147d. Total monthly beef/pork/chicken requirements for the elderly in the household</p> <p>i147i. Total monthly eggs requirements for children under 5 in the household</p> <p>i147j. Total monthly eggs requirements for adolescents in the household</p> <p>i147k. Total monthly eggs requirements for adults in the household</p> <p>i147l. Total monthly eggs requirements for children under 5 in the household</p> <p>i147m. Total monthly eggs requirements for elderly in the household</p> <p>i147n. Total monthly milk requirements for adolescents in the household</p> <p>i147o. Total monthly milk requirements for children under 5 in the household</p>

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				i147p. Total monthly milk requirements for adults in the household
				i147q. Total monthly milk requirements for elderly in the household
				i147r. Total monthly vegetable requirements for children under 5 in the household
				i147s. Total monthly vegetable requirements for adolescents in the household
				i147t. Total monthly vegetable requirements for adults in the household
				i147u. Total monthly vegetable requirements for elderly in the household
				i147v. Total monthly fruit requirements for children under 5 in the household
				i147w. Total monthly fruit requirements for adolescents in the household
				i147x. Total monthly fruit requirements for adults in the household
				i147y. Total monthly fruit requirements for elderly in the household
				i147z. Total monthly fish requirements for children under 5 in the household
				i147za. Total monthly fish requirements for adolescents in the household
				i147zb. Total monthly fish requirements for adults in the household
				i147zc. Total monthly fish requirements for elderly in the household
		i155. Availability of household facilities for storage of food and of energy sources for cooking for different consumers in different areas of the city region	CSO / Chamber of Commerce / MoA / MoH / Councils	i155a. Are there household facilities for storage of food in low cost areas of the city region (yes, no, unknown)
				i155b. Are there household facilities for storage of food in medium cost areas of the city region (yes, no, unknown)
				i155c. Are there household facilities for storage of food in high cost areas of the city region (yes, no, unknown)
	Social Conditions for Consumers	i153. Food choice: percentage of city region population (per wealth class; children) eating more than 5 fruits and vegetables a day/ Average intake of fruits and vegetables for different types of consumers	MoH	i153a. What % of children under 5 eat more than 5 fruits a day in low income areas
				i153b. What % of children under 5 eat more than 5 fruits a day in middle income areas
				i153c. What % of children under 5 eat more than 5 fruits a day in high income areas
				i153d. What % of adults eat more than 5 fruits a day in low income areas
				i153e. What % of adults eat more than 5 fruits a day in middle income areas
				i153f. What % of adults eat more than 5 fruits a day in high income areas
				i153g. What % of children under 5 eat vegetables a day in low income areas

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				i153h. What % of children under 5 eat vegetables a day in middle income areas
				i153i. What % of children under 5 eat vegetables a day in high income areas
				i153j. What % of adults eat vegetables a day in low income areas
				i153k. What % of adults eat vegetables a day in middle income areas
				i153l. What % of adults eat vegetables a day in high income areas
				i153m. What % of children under 5 eat meat a day in low income areas
				i153n. What % of children under 5 eat meat a day in middle income areas
				i153o. What % of children under 5 eat meat a day in high income areas
				i153p. What % of adults eat meat a day in low income areas
				i153q. What % of adults eat vegetables a day in middle income areas
				i153r. What % of adults eat vegetables a day in high income areas
	Presence and Impact of Related Policy	i169. Presence of consumer skills/training cooking programmes (e.g. how to cook from scratch; this also implies knowledge regarding preparation and cultural role)	CSO / Chamber of Commerce / MoA / MoH / Councils	i169a. Are there local training programs in cooking or food preparation (yes, no, unknown)
			CopWaste / Water & Sewerage / NATMAZ / Traders / Marketers	i169a. Are there local training programs in cooking or food preparation (yes, no, unknown)
	Status of Food Waste Management Approaches	i182. Volumes of wasted food used directly for human consumption e.g. by food banks/soup kitchens in the city region	CSO / Chamber of Commerce / MoA / MoH / Councils	i182a. What is the quantity of wasted food from markets (number in tons or %)
				i182b. What is the quantity of wasted food from processing (number in tons or %)
				i182c. What is the quantity of wasted food from retail & catering (number in tons or %)
				i182d. What is the quantity of wasted food from household consumption (number in tons or %)
			CopWaste / Water & Sewerage / NATMAZ / Traders / Marketers	i182a. What is the quantity of wasted food from markets (number in tons or %)
				i182b. What is the quantity of wasted food from processing (number in tons or %)
				i182c. What is the quantity of wasted food from retail & catering (number in tons or %)
				i182d. What is the quantity of wasted food from household consumption (number in tons or %)
3. Status of environment and	Status of Natural Resource	i28. Pressure on water resources within the city region/ Water use	CopWaste / Councils / Water & Sewerage / MoA,	i28a. Piped water use (limitations) in production in urban areas: agricultural water withdrawal/renewable water resources (high, low, unknown)

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natural resources degradation	Management	(limitations) and competition: agricultural water withdrawal/renewable water resources	/ ZNFU / Water Affairs	i28b. Piped water use (limitations) in production in peri-urban areas: agricultural water withdrawal/renewable water resources (high, low, unknown) i28c. Limitations for piped water use in urban areas: agricultural water withdrawal/renewable water resources (Hours/week _____; Hours/day _____) i28d. Limitations for piped water use in peri-urban areas: agricultural water withdrawal/renewable water resources (Hours/week; Hours/day) i28e. Sources of non-piped water use in food production in urban areas: agricultural water withdrawal/renewable water resources (dug wells away from garden; dug wells within garden; boreholes; stream/river; rainfed, sewer water) i28f. Sources of non-piped water use in food production in peri-urban areas: agricultural water withdrawal/renewable water resources (dug wells away from garden; dug wells within garden; boreholes; stream/river; rainfed; sewer water) i28g. Sources of non-piped water use in food production in rural areas: agricultural water withdrawal/renewable water resources (dug wells away from garden; dug wells within garden; boreholes; stream/river; rainfed; sewer water) i28h. Cost of piped water use in food production in urban areas: agricultural water withdrawal/renewable water resources (number) i28i. Cost of piped water use in food production in peri-urban areas: agricultural water withdrawal/renewable water resources (number)
		i32. Status of natural biodiversity in the city region	MoA / Forestry / ZNFU / ZLA / ZEMA / Councils	i32a. What is the status of natural biodiversity in the city region (intact/degraded/unknown) i32b. What drives the change in the status of natural biodiversity in the city region (text) i32c. Who manages the natural biodiversity in the city region (text) i32d. Do NR legislation and policies support sustainable agriculture practices? (No/Yes)

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Lusaka

- Sustainable Production, Resilience of Production Systems***

The aim here is to map and characterize production of key commodities (vegetables, fruits, beef, dairy, pork, fish and poultry). Specifically, it aims at assessing constraints affecting productivity, production and access to markets of key products and the implication of farming practices on the environment.

Different key informants' interviews were conducted, to collect qualitative data on 7 thematic areas:

MAIN CATEGORY	INTERVIEW GUIDING QUESTIONS	SOURCE OF INFORMATION
1. Access to land and adequacy of food production	1. Where does the food consumed in Lusaka CRFS come from? 2. How much is produced locally in the city region? 3. What is the potential of the City Region to feed itself, can it produce enough food for itself? 4. Is there enough land for agricultural purposes (food production)? Is it easy to acquire land for agricultural purposes in the city region? 5. To what extent does competition between urban development and other land uses e.g. residential affect production by farmers?	Ministry of Agriculture, Ministry of Lands, Zambia Land Alliance, Farmer Organizations, DACOs, Councils, NGOs Lead farmers
2. Type of products	1. What are the key products (vegetables, fruits, poultry, meats) are produced and consumed in city Region? 2. Who are the main producers of these products stated in 1? Who are the other stakeholders in production, marketing, distribution and retailing? 3. Can the city region attain agricultural diversification 4. Can the products be expanded and diversified?	Ministry of Agriculture, Farmer organisations, DACOs, and NGOs Lead Farmers
3. Food production methods	1. Where are inputs sourced from for the food production? 2. What type of inputs are used in crop production (e.g. fertilizers, pesticides, etc) 3. What type of supplements are used as animal feed? 4. Do the farmers use any form of soil conservation measures to protect their land(e.g. rotations, management of farm residues)	Lead Farmers, Ministry of Agriculture, Farmer Organizations, DACOs
4. Food distribution along value chain	1. Where do the farmers sell their produce? 2. Are there adequate selling points or outlets locally?	DACOs, wholesalers, retailers, processors, distributors, Cooperatives, MAL

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	<p>3. Is there any value addition at the time of sale?</p> <p>4. How would you compare the level of demand where the food is produced to that in Lusaka City?</p> <p>5. What about transportation infrastructure to markets as well as input distribution-is it adequate?</p>	
5. Management of production waste	<p>1. What kinds of waste are generated by most farmers in the City Region?</p> <p>2. How is the production waste managed?</p> <p>3. Do they use some of the waste in making compost/organic manure?</p>	Councils, Lead Farmers, MAL, DACOs,
6. Occupational health and safety	<p>1. Do farmers and their workers adhere to use of protective clothing?</p> <p>2. Are they aware and do they implement safety measures in the disposal of expired chemicals and chemical containers?</p> <p>3. What sanitation and hygiene measures are in place during production?</p>	ZEMA, MAL, Farmer Organizations, DACOs
7. Resilience of production systems (climate change adaptation/mitigation, renewable energy)	<p>1. To what extent do policies and legislation support sustainable agriculture?</p> <p>2. What is the effect of population growth on food production and environment?</p> <p>3. Can the City Region be able to feed itself in times of disaster/crises (drought, floods, livestock disease outbreak)?</p> <p>4. What are the implications of unsustainable agricultural practices on soil, water, forests and water on food production?</p> <p>5. What is the general overview of the impact of climate shocks on farming</p>	MAL, FAO, CFU, Farmer Organizations, DACOs

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- **Food Processing, Supply and Distribution System**

The aim here is to characterize the value chain of the main perishable food commodities that are produced and consumed in Lusaka CRFS. Specifically it aims at characterizing the flows of different commodities from the farm to the retail market and catering, and assessing issues of economic and social sustainability economic efficiency, employment, inclusiveness, food waste and losses.

Different key informants' interviews were conducted, to collect qualitative data on 7 thematic areas:

MAIN CATEGORY	INTERVIEW GUIDING QUESTIONS	SOURCE OF INFORMATION
1. Food flow for the main commodities	1. Where is the food consumed in Lusaka CRFS comes from? 2. what Commodities are produced and consumed 3. Who are the main stakeholders in production, marketing, distribution and retailing? 4. Can the sectors be expanded and diversified?	1. MoA, Ministry of Commerce, and CSO 2. CSO, farmer organisations, traders association, distributors, DACOs, LCC, CSO and NGOs. 3. As in 2 4. as in 2
2. Infrastructure along the value chain	1. Is there supply and distribution infrastructures along the value chains? (roads, storage facilities etc.: roads, storage facilities, processing and manufacturing plants, wholesale markets, food retail markets (supermarkets, informal markets, etc.) 2. Can transport efficiency be increased along the value food chain?	1. Local authorities, Transporters CSO data, MoA. 2. As in 1 plus wholesalers, retailers and Chamber of Commerce.
3. Governance of markets	1. What Roles do middlemen play in the food chain? 3. How accessible is the market to the small scale holders? 4. Is there any Competition between locally and imported products 5. Are there appropriate governance mechanisms for the markets? 6. Can more value be added (jobs; income; other multiplier effects) by enhancing city region food supply distribution? 7. Can the city region food marketing, catering and retail sector be expanded and diversified?	1. Local authority, CSO (ZNFU, NATMAZ, WVI), marketeers. 2. Local authority, MoA + CSOs); interview, FGDs (marketeers) 3. FDG (as in (2)); interview with retailers, marketeers + street vendors (for fruits) 4. as in 1 5. CSO 6. & 7 as in 2
4. Governance of employment	1. Can more value be added (jobs; income; other multiplier effects) by enhancing city region food supply distribution? 2. Explain the type of employment and level of wages paid.	1. (CSO, Labour Office, MoA, ZNFU), producers, retailers, distributors). 2. as in 1 3. as in 1

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	3. How many city region food supply distribution jobs can a re-localized city region food system support and how much can it contribute to the regional economy?	
5. Governance of product prices	1. What is the estimated cost of production, primary processing, transportation & storage? 2. What are commodity price dynamics from farm to retail?	1. Producers, retailers, transporters, distributors, fisheries, MoA, CSO, 2. Producers, retailers, wholesalers, MoA & CSO
6. Energy	1. Is energy available for food systems? 2 What are the main energy types for the food systems? 3. What are the main energy sources for the food systems?	1. MoE, MoA, Central Statistical Office, ZNFU, ZESCO. 2. Producers, processors, storage, MoA, MoE, ZNFU. 3. Statistics from MoA, MoE & CSO
7. Food loss & waste	1. What type of food is (a) wasted, (b) quantities, (c) reasons, from i. Major markets. ii. Transport, storage, & processing. iii. Households. 2. How are food losses and waste handled throughout the value chain? 3. Is food safety adhered to during handling?	1. MoA, ZNFU, WVI, NATMAZ. 2. Marketeers, vendors, Transporters, storage, processors (producers + other processors). 3. Households

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- Consumption, Food Security and Nutrition**

The aim is to (i) demonstrate link between the CRFS objectives and the individual organization or institutional missions; (ii) review of policies, programmes that relate to food availability, access, consumption food security and nutrition in the City region.

Different key informants' interviews were conducted, to collect qualitative data on 4 thematic areas:

Theme	Key Questions	Key Participants
1. Consumption	<ol style="list-style-type: none"> 1) What do people in the city region eat? 2) Are there any preferences between local and non –regional foods? 3) What are the different diets existing by social, economic and cultural groups? 4) What are the different sources of the food consumed? 5) Are there any preferences between local and non –regional foods? 6) How can city region food security, availability, safety, appropriateness, utilization and transparency be enhanced? 	<p>City and District Council Officials. National Food and Nutrition Commission (NFNC), JCTR MoH, MCDSS, MACO, MLF</p>
2. Nutrition and Food safety	<ol style="list-style-type: none"> 1) What is the extent of obesity and how is it being managed? 2) What are the common food related diseases risks? 3) What polices, codes are there to manage consumption of fast foods? 4) What is the nutritional and food security status of the different CRFS's dwellers? 5) What are the drivers of food insecurity, and malnutrition? 	<p>National Food and Nutrition Commission (NFNC), MoH, JCTR</p>
3. Governance	<ol style="list-style-type: none"> 1) Has Food System Planning been integrated in urban planning and city policy making? 2) What is the spatial correlation between food insecurity and physical/economic access to food? 3) What policies are there to manage malnutrition, food insecurity for the vulnerable groups- the existing food safety nets? 4) How effective are food safety regulations? 5) Degree of recognition of rural- urban linkages in food policies and plans. 	<p>City and District Council Officials. MoH, MCDSS, MACO, MLF, Market Organization, MLNR</p>

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4. Environment and Food waste	<ol style="list-style-type: none"> 1) What is extent of food wastage? 2) How is waste managed? 3) What is the awareness of sustainable diets? 	<p>Retail chains (Spar, Pick and Pay and Gamestores. Market Organization</p>
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Colombo

Some of the data required for qualitative indicators needed to be collected from key informants in various institutions and markets. These indicators require more depth reasoning for the available quantitative evidences, which need to conduct in-depth interviews with the informants. The researchers conducted in-depth interviews to get relevant information from selected experts in the related fields. In-depth interviews were used when, because of geography, logistical issues, or the complex nature of the indicator topics to be explored, conducting focus groups or face-to-face interviews was either impractical or inappropriate.

Interviews were conducted with various supply chain stakeholders, and employees from shops, restaurants and eating houses.

Key informant Interview Guides

- **Supply chain members**

Apart from surveys, few supply chain members including farmers, whole sellers, and commission agents and retailers would interview to get their views on developing sustainable food system in Colombo.

- Identification of the changes of farming in the locality over the years
- What are the Impact of climate changes and their impact on their farming practices
- What are the problems/issues faced by them
- What is possibility of reducing harmful practices that create food safety issues?
- What are the possible remedial actions against using harmful chemicals in food system?
- How they view their role in food system? Are they satisfied with what they do?
- What are the help/assistance needed by them to improve their productivity and efficiency?
- What would be the future/ next generation's involvement in what they do?

- **Employees of shops/restaurants/eating houses**

In order to get information for employee sanitation, health and safety, employees of shops/restaurants/eating houses would be interviewed within the following broader framework.

- Get to know the socio-demographics and Experience in food industry
- Self-evaluation regarding the food safety maintenance in his/her shop/restaurant
- Assessment of sanitation facilities they are having, problems and how it effect on food processing
- What are the health and safety measures provided to them
- Whether owner is concern about the health and safety about the employees
- What are the needed improvement for provide healthy and safe food to customers

