



CITY REGION FOOD SYSTEM TOOLKIT

Assessing and planning resilient and sustainable city region food systems

Guidance: Relationship between CRFS Sustainability and CRFS Resilience indicator frameworks

Brief description	This document connects the dots between sustainability and resilience indicator framework in the CRFS context.
Expected outcome	Project teams can develop their specific indicator framework through checking this tool and adapting the CRFS indicators to better reflect their own needs and status.
Expected output	Enhanced understanding on the topic
Scale of application	Project level
Expertise required	Comprehensive knowledge on CRFS and Resilience
Examples of application	
Year of development	2023
Author(s)	Joy Carey (RUAF)
Relevant CRFS Handbook modules; related tools, examples and activities	Introduction module

City Region Food System definition and approach - reminder

A city region food system (CRFS) encompasses the complex network of actors, processes and relationships that are involved in input supply and food production; storage, processing and manufacturing; wholesale and distribution; markets, catering and retail; consumption; and food loss and waste, in a given city region that includes a more or less concentrated urban centre and its surrounding peri-urban and rural hinterland. A CRFS also includes the economic, societal, and environmental components that configure actors, processes and relationships. The CRFS approach reflects the multifunctional nature of the food system. It goes beyond value chains, looks beyond city limits and aims to support inclusive governance of food actors that connects national and local governments.

Development of CRFS Indicator Frameworks

The CRFS programme (2014-2023) has led to the development of two inter-related indicator frameworks for assessing, planning and tracking food system change and transformation at both a city and city region level; the CRFS Sustainability indicator framework (2018) and the





CRFS Resilience indicator framework (2023). These indicator frameworks have been designed by RUAF and FAO and have been piloted by cities participating in the CRFS programme. The first phase of CRFS work (2014-2018) developed an online toolkit to assess and plan sustainable city region food systems in a way that reflects the multifunctional nature of the food system. The second phase of CRFS work (2019-2023) refined the online toolkit and developed a new practical handbook. It also added a new lens of resilience to CRFS assessment and planning. The Resilience framework adds additional value to the Sustainability framework.

Monitoring framework design approach

The same design approach has been used for both monitoring frameworks, though each one offers a different lens to work on food system transformation. This means that they are complementary and indicators from both can be combined by users. Each of the monitoring frameworks takes a food system approach and offers a ‘menu of options’ which should be selected and customised in relation to user priorities. The frameworks have been designed to support a participatory multi-stakeholder process over a period of time. They are multi-functional and can be used to support the development of food policy or strategy, to guide further in-depth research and analysis and to develop ways tracking progress towards desired outcomes. These frameworks have also been mapped to SDG goals. They are aimed at people working on food system change through food policy, strategy and governance using multi-stakeholder processes (e.g., researchers, policy makers, local government staff and elected members, food businesses, civil society groups, not for profit organisations.)

Outcomes approach

RUAF has taken an outcomes approach to developing indicators, as explained in this diagram. There is a logical flow from left to right across the table, each column informing the next. It is therefore very important to be clear about desired outcomes.

Overarching objective (In relation to selected CRFS aspect)	Outcome (Desired direction of travel)	Issue to measure (Key measurable change)	Possible indicator (How the change will be measured)
<p>Articulation of the overall objective (could be a simple thematic title or articulated as a summary of high-level outcomes).</p> <p>[This objective will not be achieved quickly but is the kind of change that the city wants to achieve.]</p>	<p>Describes a state or position that is reached, which enables the overarching objective to be achieved.</p> <p>[Breaks down the overarching objective into specific outcomes or changes that we want to put in place to achieve the overarching goal.]</p>	<p>Describes specifically what will be assessed or measured.</p> <p>[Important to clarify the focus of the assessment; the indicators will relate to this focus.]</p>	<p>A measure of progress towards delivery of an outcome, that is, a change in a relevant and measurable parameter.</p> <p>[These are suggestions; each city needs to decide on the best and most appropriate indicators for their situation. In most cases cities will need to customise indicators or use more relevant alternatives.]</p>





Indicator focus: The focus is both urban and rural. Use of indicators helps to assemble information in response to ‘big picture’ questions about the longer-term sustainability and resilience of the CRFS and to plan prioritised actions. In addition to the usual practice of defining (or re-defining) indicators as part of action planning (in order to monitor progress and assess impacts of interventions), in the CRFS process indicators are used to clarify where attention should be focused from the start.

CRFS Sustainability Indicator Framework

Date & status: Developed, trialled, and refined during the CRFS 2015-2018 programme led by FAO & RUAF with the cities of Toronto, Medellin, Quito, Kitwe, Lusaka, Colombo and Utrecht.

Purpose: The CRFS Sustainability Indicator Framework is a practical assessment and planning tool designed to help cities:

- (i) assess the current status and performance of a CRFS on the basis of a set of performance indicators, following a whole-systems approach.
- (ii) identify priority areas for action with clearly defined outcomes and ways of measuring change;
- (iii) help with planning strategy and action to achieving the desired outcomes;
- (iv) establish baselines and monitor changes resulting from (future) policy and programme implementation.

Quick summary: The CRFS Sustainability Indicator Framework is shaped around six sustainability areas that connect to other components of the food system.

- Social sustainability and equity (improved health and well-being)
- Economic sustainability (increased local economic growth and decent jobs)
- Environmental sustainability (improved stewardship of environmental resources)
- Urban-rural integration (improved city region food supply)
- Food governance (improved governance for sustainable food systems)
- Reduced vulnerability and increased resilience

There are 210 possible indicators included in the full CRFS indicator framework.¹ These relate to 9 overarching objectives, 21 desirable ‘direction of travel’ outcomes and 29 key issues to measure - all of which characterise a more sustainable and resilient CRFS with

¹ The CRFS Sustainability indicator framework (2018) can be viewed as a ‘master database’ of food system indicators and is the foundation on which the subsequent Milan Urban Food Policy Pact and Green Cities indicator frameworks have been developed, and which also follow the same design approach but offer different lenses. These complementary tools are aimed at people who are addressing food system change by working on food policy, strategy and governance using multi-stakeholder processes (researchers, policy makers, local government staff and elected members, food businesses, civil society groups, not for profit organisations).





strong urban-rural linkages ('A Vision for City Region Food Systems', FAO & RUAF)². Based on data gaps and needs and specific policy priorities identified in the Rapid Scan, each city region will need to identify the most appropriate indicators on which to collect data in the CRFS assessment.

Note: there are a few terms and concepts that have been updated since the Sustainability Indicator Frame was developed and these updated versions are included in the Resilience Indicator framework.

CRFS Resilience Indicator Framework

Date & status: Developed, trialled, and refined during the second phase of the CRFS programme (2019-2023). Piloted in five cities: Antananarivo (Madagascar); Colombo (Sri Lanka); Kigali (Rwanda); Tamale (Ghana) and Melbourne (Australia).

Purpose: Based on the CRFS Sustainability Indicator Framework, the CRFS Resilience Indicator Framework is also a practical assessment and planning tool designed specifically to:

- i) help cities resilience capacities and vulnerabilities to multiple hazards with a focus on climate shocks and stresses and pandemics;
- ii) guide further research that informs action planning.

Resilience monitoring plan. The ultimate purpose is to support the building of resilient city region food systems.

Quick summary: Shaped around food value chain nodes, this indicator framework helps to explore the specific needs of different parts of the food system in relation to building resilience capacities. These nodes are:

- input supply and food production
- food storage, processing and manufacturing
- food wholesale and distribution
- food markets, catering and retail
- food consumption
- food loss and waste

In addition, the framework includes indicators on emergency food provisioning, food system governance and natural resources and ecosystem services (which are directly impacted by climate shocks and stresses and are intrinsic to the functioning of all other nodes). There are 155 possible indicators included in the CRFS Resilience Indicator Framework. These relate to 9 overarching objectives, 12 desirable 'direction of travel' outcomes and 79 key issues to measure - all of which together, characterise a more resilient city region food system. The indicators have been developed from the CRFS Sustainability framework,

² 'A Vision for City Region Food Systems', FAO & RUAF (2016) <https://www.fao.org/3/i4789e/i4789e.pdf>





experience of the COVID-19 pandemic, work by the CRFS pilot cities, and the FAO Green Cities Indicator Framework.

Additional notes in other related indicator frameworks developed by RUAF and FAO

The CRFS Sustainability Indicator Framework (2018) has become a ‘parent document’ and is the foundation on which the subsequent Milan Urban Food Policy Pact, CRFS-Resilience and FAO Green Cities Indicator Frameworks have been developed, all of which follow the same design approach but offer different lenses. These complementary tools are aimed at people who are addressing food system change by working on food policy, strategy and governance using multi-stakeholder processes (researchers, policy makers, local government staff and elected members, food businesses, civil society groups, not for profit organisations).

Milan Urban Food Policy Pact monitoring framework

Date: Co-designed with cities and developed between 2016-2018. Implementation pilot project with the cities of Nairobi, Quito and Antananarivo in 2019. Over 80 signatory cities are starting to use this monitoring framework (*source: MUFPP secretariat, Oct 2022*)

Purpose: The Milan Urban Food Policy Pact is an international agreement of Mayors, established in 2015 by the then Mayor of Milan. More than a declaration, it is a concrete working tool for cities. The MUFPP monitoring framework was requested by MUFPP signatory cities. It is designed to enable cities to track progress as they adopt the structured MUFPP approach to urban food system transformation and work on their own food policies and strategies.

Quick summary: Shaped around the six workstream categories of the Milan Pact, there are 44 indicators that relate to 37 recommended actions by Cities. The categories include Governance (6 indicators); Sustainable Diets and nutrition (11 indicators); Social & Economic Equity (7 indicators); Food Production (9 indicators); Food Supply & Distribution (7 indicators); Food Waste (4 indicators).

<https://www.fao.org/documents/card/en/c/ca6144en/>

Indicator focus: The focus is on urban food systems. Cities commit to develop sustainable food systems that are inclusive, resilient, safe and diverse, that provide healthy and affordable food to all people in a human rights-based framework, that minimise waste and conserve biodiversity while adapting to and mitigating impacts of climate change. Most cities are currently using the framework to help identify baseline data with which to work in the future in order to track progress over time.





Additional resources: Online practical handbook and resources to support cities in adopting their own monitoring frameworks. <https://www.fao.org/documents/card/en/c/cb4181en>

FAO Green Cities Initiative monitoring framework

Date: Developed by FAO and RUAF 2021-2023 to support the FAO Green Cities Initiative programme.

Purpose: Designed to complement and add to the urban food system MUFPP monitoring framework in the areas of Urban Forestry and Greening, Urban Agriculture and Governance.

Quick summary: FAO Green Cities Initiative encourages an integration of urban food systems work with urban and peri-urban agriculture (UPA) and with urban and peri-urban forestry (UPF). New indicators have been developed for UPA and UPF in consultation with leading cities that have been working on 'green urban integration' for several years. The new recommended actions and related indicators complement existing MUFPP urban food system indicators. For more information see <https://www.fao.org/green-cities-initiative/en>.

Indicator focus: The focus is on urban ecosystem protection, regeneration and integration - maximizing the provision of ecosystems goods and services; fostering sustainable and climate-resilient practices and technologies to improve local food production and management of urban forests and trees; and promoting sustainable urban and peri-urban development with inclusiveness and green and circular economy.

