THE MILAN URBAN FOOD POLICY PACT
MONITORING FRAMEWORK

A practical handbook for implementation

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Acknowledgements

How to use this handbook and additional resources

Handbook: Based on the experience of three pilot cities, this handbook sets out a pathway for other cities to follow in five practical steps. Section 7 (pages 25–27) provides a list, with online links, to all reference documents and resources. *These should be used in parallel with this handbook*.

References: The key reference documents include the MUFPP monitoring framework explanatory booklet in English, Spanish, French and Portuguese languages and links to each of the detailed 44 indicator guidelines (English). These are also available as compiled sets of guidelines linked to each of the MUFPP workstream categories.

Resource pack: There are 14 separate downloadable, printable resources designed for use in workshops or planning discussions that support the step by step implementation process. Live links throughout this handbook indicate when they may be useful to use. All are available in PDF form and some are also available as Word documents to enable easier use. The resource pack has been developed from the practical experiences of the pilot cities and its purpose is to provide a clearly illustrated process for other cities.

Pilot city insights: Reports (Antananarivo – English and French; Nairobi – English; Quito – English and Spanish) and presentations (English only) from the three pilot cities provide more detail on how each city worked with the MUFPP monitoring framework.

Web link: This handbook and all related resources are available here:
http://www.fao.org/documents/card/en/c/cb4181en/

The MUFPP declaration and its recommended actions are available here:
https://www.milanurbanfoodpolicypact.org/the-milan-pact/

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- **Resource 14: Summary of key steps, resources and top tips for using the MUFPP monitoring framework**
  http://www.fao.org/3/cb4181en/Resource14.pdf

Summary of key steps and resources for using the MUFPP monitoring framework

Objective: Implementation of a monitoring framework enables cities to plan and analyze changes in their urban food system, in a way that both reflects MUFPP recommendations and is tailored to the city's own particular context. This summary explains the required steps, each linked to the relevant sections of the resource pack**.**

Main references: Published MUFPP monitoring framework booklet and detailed methodological guidance for using each of the 44 indicators.

| Step 1 Preparatory thinking and key questions | Step 2 Developing indicator selection criteria | Step 3 Final selection of indicators | Step 4 Working with the indicators | Step 5 Achievements and making use of findings |

Step 1. Preparatory thinking and key questions

Ensure that colleagues and stakeholders are clear about the existence, purpose and relevance of the Milan Urban Food Policy Pact. Then do some early-stage preparatory thinking.

- What are your city's priority areas for action?
- What does your city want to achieve by using the monitoring framework?
- When it comes to achieving outcomes and measuring progress, who is accountable for what?

Resources

- Your own city's existing food policy/strategy or equivalent document
- Published MUFPP monitoring framework booklet
- Summary of MUFFP monitoring framework for workshops **(Resource 5)** if you need several printed copies
- Worksheet for simple process to review strategy and possible measures of success **(Resource 6)** and worked example from Quito **(Resource 6a)**
- Worksheet for identifying most relevant indicators **(Resource 7)**

NB: It may be too early in the process and therefore not be possible to fully use Resources 6 and 7 in Step 1. However, they provide some guidance for structuring discussions with stakeholders. Resource 6 provides a simple process for reviewing and connecting current activities with future plans and identifying what measures of success would look like. This exercise could be done first, especially if a food plan or strategy does not already exist. Resource 7 is a worksheet template for gathering in one place the most relevant indicators in relation to city priorities and actions and in relation to the six MUFPP work categories.

Output

❯ Preparation and initial presentation to share with stakeholders **(Resource 1)**

Step 2. Developing indicator selection criteria

Draw up a list of criteria to help you decide where to focus and what makes most sense to your city and the current situation. Make sure to include the following: i) reflect local priorities; ii) data likely to be available or easy to collect; and iii) data likely to be supported by key local stakeholders. Consider other important criteria appropriate to your city context and agree on the list with other stakeholders. It will be important to be able to clearly explain how indicators have been selected.

Resources

❯ Notes on selecting, customizing and working with indicators **(Resource 4)**

Output

❯ Worksheet on indicator selection criteria **(Resource 2)** and worked example from Nairobi **(Resource 2a)**

Step 3. Final selection of indicators

This process will vary from city to city. Having applied the agreed selection criteria, it may then be necessary to customize and adapt the MUFPP indicators to suit the specific situation and needs of local priorities. Pragmatism may be required at this stage: 'Small enough to achieve but big enough to matter'. It's wise to start with a few most feasible indicators. Primary data collection may be needed if the indicator is important but there are data gaps. Include your own qualifiers if using binary (yes/no) indicators. It may be useful to continue working with Resources 6 and 7 at this point.

Resources

❯ Notes on selecting, customizing and working with indicators **(Resource 4)**

❯ Worksheet for simple process to review strategy and possible measures of success **(Resource 6)** and worked example from Quito **(Resource 6a)**

❯ Worksheet for identifying most relevant indicators **(Resource 7)**

Output

> ● Table with the final set of indicators, customized where necessary **(Resource 3)**

Step 4. Working with the indicators

As with previous steps, make sure to engage with others in this work. Development of data collection and analysis plans need to be agreed. The need for further customization might arise. It may well be that initial limited/poor/incomplete data sets will pave the way for improvements in time; therefore, start from where you are now using what you have. You may need to consider disaggregation of data, specific gender-related research, specific climate-sensitive related research, etc.

Resources

> ● Notes on selecting, customizing and working with indicators **(Resource 4)**
> ● Simple process to review strategy and possible measures of success **(Resource 6)** and worked example from Quito **(Resource 6a)**
> ● Worksheet for planning work with indicators **(Resource 8)**
> ● Data collection process, issues addressed and approach in pilot cities **(Resource 9)**
> ● Template for indicator research reporting **(Resource 10)**
> ● Gender and the MUFPP monitoring framework **(Resource 11)**
> ● Gender and climate change sensitive indicators in Nairobi **(Resource 12)**

Output

> ● Worksheet for planning work with indicators completed **(Resource 8)**
> ● Clearly formulated research questions and approaches to guide data collection
> ● Indicator research reports completed

Step 5. Achievements and making use of findings

Once the results are available, the next challenge is to reflect on what has been learnt. All the indicator results need to be explained. The process of working with the indicators will have also generated learning. Reflection on both of these is important, from which messages can be distilled. For example: overall view on gaps and the need for further food policy implementation; the clear comprehension of the on-going progress or change from a baseline; the need to develop additional data; the need to follow-up initial results and develop targeted action; the value of collaborative working; the need for, or evidence to support a case for future food system governance structures; etc. Identify clear messages about what has been learnt; decide how to make the best strategic use of the information and how to communicate it clearly to relevant stakeholders.

Indicator 42

Actors

Civil society	Private Sector	Public Sector	University	International Cooperation
46,27%	**20,89%**	**17,91%**	**10,45%**	**4,48%**
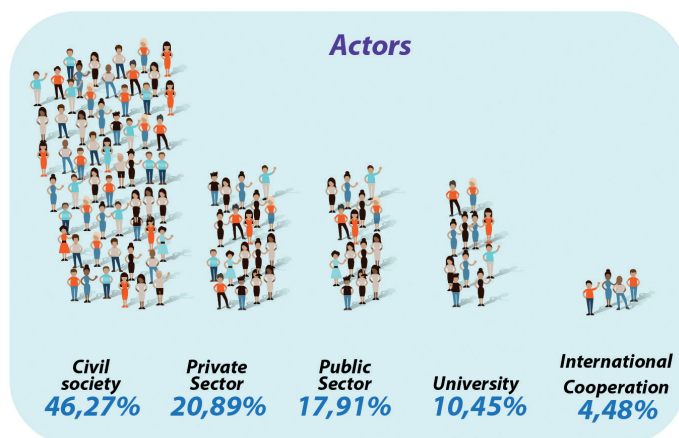
Indicator 44

221.707 kilograms of food rescued /year

Quito's presentation of progress against Indicator 42
Source: CONQUITO, 2019. Preparation: CONQUITO, 2019.

Type

42	Events
18	Campaigns
12	Studies
8	Public Policy Proposals

Activity

- Recycling 35.7%
- Reduction 23.8%
- Reuse 40.5%

Resources

- Antananarivo report [English report Section 4] [French report p.14], [presentation slide 5]
- Nairobi [Report section 4], [presentation slides 4–8]
- Quito [English report section 6], [Spanish report section 6], [presentation slides 4&5]
- Examples of data visualization (Resource 13)

Output

- Key messages for presenting to stakeholders
- Options for visualizing the results
- A communication plan

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Purpose of this handbook

The purpose of this handbook is to provide practical guidance for any cities wishing to adopt and implement a monitoring framework, tailored to their own context and reflecting MUFPP recommendations. The guidance sets out practical steps, simple tools, top tips and a methodology that other cities can follow.

For cities that are new to using the monitoring framework, it may initially feel a bit intimidating to launch straight into this handbook. Resource 14 provides a summary overview of steps, resources and top tips for using the monitoring framework.

REMINDER The MUFPP declaration lists a set of 37 recommended actions for cities wishing to develop their urban food policy. As an internationally recognized tool, the purpose of the MUFPP monitoring framework[1] is to enable cities to develop their own urban food monitoring system. Cities are not applying 'a MUFPP monitoring system' but rather using it as a framework from which to develop their own customized system.

This handbook follows the Milan Urban Food Policy Pact (MUFPP) approach of methodology 'designed by cities for cities'. It is based on the results and lessons learned from a seven-month project in 2019 during which three cities – Antananarivo (Madagascar), Nairobi (Kenya) and Quito (Ecuador) – piloted implementation of the MUFPP monitoring framework with technical support from RUAF and FAO.

Throughout the handbook, there are references to the three separate detailed city pilot reports: **Antananarivo [English report] [French report]**; **Nairobi [English report]**; and **Quito [English report] [Spanish report]**; and to the three city summary presentations in English, **Antananarivo**, **Nairobi** and **Quito**.[2]

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1 Available in English, French, Spanish and Portuguese.

2 These presentations have been shown during the Fifth Annual Gathering of the signatory cities of the MUFPP held in Montpellier, October, 2019.

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Background

The Milan Urban Food Policy Pact, launched in 2015, is a non-binding agreement on sustainable urban food policies 'designed by cities for cities'. The MUFPP Framework of Action sets out practical ways that cities can contribute to the transformation of urban food systems through increased sustainability, articulated in a set of 37 recommended actions organized around six categories:

1

Governance (ensuring an enabling environment for effective action)

2

Sustainable diets and nutrition
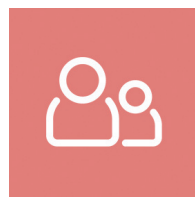
3

Social and economic equity

4

Food production (including urban-rural linkages)

5

Food supply and distribution

6

Food waste

In response to requests from many signatory cities for practical guidance on how to measure the impact of their sustainable food policy processes and initiatives, the MUFPP monitoring framework was developed by the Municipality of Milan, FAO and RUAF Foundation with input from a number of cities.

In 2017, an initial long list of 91 indicators was reviewed by 14 cities. By 2018, a total of 44 indicators to support a monitoring process had been developed and the RUAF and FAO team subsequently prepared methodological guidelines for each of the indicators. As a next step in 2019, FAO and RUAF implemented a project to support three pilot cities to begin implementing the MUFPP indicator framework. This project was coordinated by RUAF partner, Laurier Centre for Sustainable Food System, and executed by two RUAF Associates who provided technical and strategic support to the cities. Data research and this publication were also supported by the CGIAR Research Program on Water, Land and Ecosystems, led by RUAF partners International Water Management Institute (IWMI) and Mazingira Institute in Nairobi.

All related documents are available online to help cities wishing to implement such a monitoring system for their food policy. These include the monitoring framework (a template that requires customization to the local situation), all 44 indicator methodological guidelines, the tools presented through this handbook and reports from the piloting cities (see section 7 and URL links throughout this handbook).

The MUFPP monitoring framework booklet
http://www.fao.org/documents/card/fr/c/CA6144EN/

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Objectives and summary of the pilot project

This pilot project took place between April and October 2019. There were four main objectives of the MUFPP monitoring framework pilot project:

- Develop a better understanding of how to work with the MUFPP indicators
- Plan and implement work on a small number of indicators as a first step towards using the monitoring framework
- Pilot a supported peer-to-peer learning approach
- Share practical learning with other cities

The MUFPP monitoring framework pilot project team, October 2019

In discussion with FAO, MUFPP Secretariat and RUAF, it was decided that the pilot should focus on Global South MUFPP cities that typically have fewer available resources to conduct this type of research. Another reason for this decision was to explore the extent to which the monitoring framework is relevant to cities in the Global South.

Following a call supported by ICLEI-Local Governments for Sustainability, C40 Cities, RUAF, FAO and MUFPP secretariat to potentially interested cities, Nairobi (Kenya), Quito (Ecuador) and Antananarivo (Madagascar) were chosen.

Three contrasting pilot cities were selected based on a number of criteria, including their capacity to assign staff to the project over the six months, and a stable political environment:

  I. Previous engagement in the indicator work and participation in the development of the framework
 II. Cities committed to co-invest and allocate human resources able to work in English
III. Availability to work with local stakeholders in a tight timeframe
IV. Global South
 V. Different size of cities
VI. Existing parallel initiatives/projects to create synergies
VII. Existing working relationships that enabled rapid engagement and trust

Following a two-day training workshop in Rome at the start of the project, the pilot process followed an emergent design approach where RUAF consultants worked with cities to identify their needs, developing timelines and activities to help them get the most out of the pilot phase. See Annex A for stages that emerged during the pilot. Throughout the pilot period, RUAF consultants communicated regularly with individual cities and ran group discussion sessions to facilitate co-learning.

Data collection for the Nairobi pilot project

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Tools and methodology

Before getting started: Despite being MUFPP signatories, one of the biggest challenges faced by the pilot cities was the need to constantly explain the value of working with the Milan Urban Food Policy Pact to colleagues, managers and wider stakeholders.

To secure buy-in from senior decision-makers for the research, the pilot cities found it helpful to highlight the international credibility of the MUFPP and its monitoring framework supported by FAO. Emphasizing the number of other cities that have endorsed the Pact can be a useful selling point to gain authorization to proceed. It is important to ensure that the indicator research process is entrenched in local government decision-making. This could mean having the work based in existing units. For example, in Nairobi the research team was embedded within the Food System and Sector Programme Directorate. In Quito, staff worked directly with the Agri-Food Pact of Quito (PAQ) to endorse the final set of pilot indicators. Pilot cities emphasized the inclusion of different sectors and disciplines at all stages of the process. In this way, the indicator research was a useful vehicle to leverage new partnerships and strengthen existing ones. In addition there was a need to work with a stakeholder group; the nature of these varied across the pilot cities.

| TOP TIPS | Start by explaining MUFPP to colleagues |

- ❯ Before going any further, first explain to colleagues, managers and stakeholders about the existence, purpose and relevance of the Milan Urban Food Policy Pact and its international credibility
- ❯ Can this be done within an existing stakeholder platforms or meeting?
- ❯ Do you need to establish a core group, or speak with individual stakeholders bilaterally, or organise a wider food platform?
- ❯ If there is no existing group, is there support to develop one from a Mayor or city leader who signed the Pact; an active Council officer, or civil society organization(s); can you connect the Milan Pact with existing city policy or legislation?

Step 1. Preparatory thinking and key questions

While it is tempting to jump immediately to choosing indicators, actually this is NOT the place to start. There are a number of other questions that need to be considered in advance of preliminary indicator selection. The RUAF consultants provided a structured discussion during the initial 2-day training workshop in Rome to help each city clarify and define their own more specific indicator selection criteria. In order to develop these criteria, there was a process of thinking and discussion that followed a series of questions. See **Resource 1** Preparation Questions. Clarifying motivation is an important starting point.

EXAMPLE **What does the city want to achieve by using the monitoring framework?**

Initial points from workshop discussion **(see also Resource 4)**

Nairobi

- Helping to clarify budget decisions
- How best to improve food safety and reduce contamination
- Confidence to talk about the status of the food system in a formal and evidenced way
- To inform a food system strategy and its implementation
- To increase adoption of technologies (e.g. sack gardens, safe small-scale pasteurization)
- To build M&E institutional capacity

Quito

- To raise awareness and implement coordinated actions
- To build cross-organizational collaboration
- To encourage citizen participation
- Land allocation and good use of public spaces and increased urban agriculture using organic and agro-ecological practices
- Quantification and classification of organic waste and surplus foods

Antananarivo

- To help outline a strategy with clear priorities and outcomes (in time and space) – and create a written document
- Consolidate the stakeholder network and work together on priorities
- Turn priorities into drivers of new action to bring more support to existing initiatives
- Putting food onto the development agenda of the city (urban planning, etc.)
- Raise awareness of national government and donors

TOP TIPS | **Preparation comes first**

These three 'starter' questions are a good place to start for any city in preparing to use the MUFPP monitoring framework.

1. What are your city's priority areas for action?
2. What does your city want to achieve by using the monitoring framework?
3. When it comes to achieving outcomes and measuring progress, who is accountable for what?

It may be too early in the process to make full use of Resource 6 and Resource 7, and you'll need to complete them in step 3. However, both may provide useful practical guidance for structuring discussions with stakeholders. Resource 6 provides a simple process for reviewing and connecting current activities with future plans and identifying what measures of success would look like. This exercise could be done first, especially if a food plan or strategy does not already exist. It could be used again in step 3 at the point where a final set of indicators has been identified. Resource 7 is a worksheet template for gathering in one place the most relevant indicators in relation to city priorities and actions and in relation to the six MUFPP work categories. The recommended actions and indicators may sound too high-level to be really useful, so it's really important to *first* work out your city priorities and then relate them to the monitoring framework.

Step 2. Developing indicator selection criteria

A recurring theme of the initial workshop in May 2019 was the question on *which* of the 44 MUFPP indicators the pilot cities should focus. None had the time or resources to use all 44 indicators. Some indicators were more relevant to each city than others. In discussing this dilemma it became clear that selection criteria were required.

A core set of criteria were agreed to help cities select initial indicators on which to focus. The key questions asked were:

- Does the indicator reflect a priority area of action for our city?
- Are there links with existing local, regional or national goals?
- Are data available and easy to access?
- Are there sufficient local resources to do this research?
- Will researching this indicator bring benefits to our city?

In addition to these criteria, the cities also considered how the findings of this initial research stage might build momentum for future policy action. Another way of framing this was to ask in relation to each potential indicator: "What research activities and data collection are small enough to achieve, but big enough to matter?"

TOP TIPS **Develop and communicate indicator selection criteria**

- Agree a set of criteria to help with indictor selection.
- For example, cities should start by selecting a small number of indicators: i) that reflect local priorities; ii) where data are likely available or easy to collect; and iii) that are likely to be supported by key local stakeholders.
- You may wish to include other criteria based on discussions with your stakeholders.

Having established the above core set of criteria, the next challenge for each of the three cities was to agree and finalize more specific selection criteria after follow-up discussion with local stakeholders. Each of the city reports explains this process.

The example from Antananarivo below illustrates how the indicator selection criteria was further developed and linked to strategic interests.

EXAMPLE **Antananarivo: most important indicator selection criteria**

1. Relevance to the existing actions and existing data
2. Power of the indicator to help improve such actions and strategies
3. Sustainability of accountability (longer-term monitoring capacity)
4. Leverage capacity to boost partnerships and fundraising
5. Help to increase data availability within the City Council

Resource 2 is a practical worksheet co-designed during the Rome workshop that sets out preliminary selection criteria to support further discussion with stakeholders and preliminary indicator selection including a first stage consideration of potential data sources. Resource 2a provides a worked example from Nairobi.

Step 3. Final selection of indicators

Having agreed and applied the selection criteria, the next step is to review the preliminary long list of selected indicators and agree on a finalized set of indicators in discussion with key stakeholders. Resource 7 can be used in a workshop to present or do further work on preliminary or finalized indicators.

Resource 6 questions can help structure a process to reach a decision about which indicators to use.

❯ Where are you now – evaluation of the current situation?

❯ Where do you want to be – what changes do you want to see, by when?

❯ How will you get there – what actions are necessary to achieve the result you want?

❯ How will you know you have got there – How will you measure success? What are the indicators of success you will need to see as clear evidence?

Having worked through this process, the three pilot cities selected 4–12 indicators each. In each case, there were further refinements of selection criteria that included a degree of pragmatism (timescales, willingness of other stakeholders to share data, local capacity, etc.). At this stage, it is also very important to finalize the wording of selected indicators and customize where necessary. The indicators should be seen as a guide for developing a set of measures that best fit each city's context. The pilot cities found that most of the indicators could be used as written but became much more meaningful after customization in discussion with local stakeholders.

Taken together, a set of indicators will help to build up a clearer picture of what is happening on the ground. Some indicators are quantitative – elements that can be counted like numbers or percentages. Some are qualitative, where some degree of self-assessment is needed.

Most qualitative indicators will tend to be binary and require a simple yes or no answer so additional qualifiers should complement qualitative indicators and help to illustrate progress over time. The indicator methodological guidelines (see section 7) provide examples of additional evidence of implementation that could be reviewed. For example MUFPP indicator 2: 'Presence of an active multi-stakeholder food policy and planning structure'. Further qualifiers could include assessment of multi-stakeholder representation; the group's functioning and effectiveness or specific impacts. Using qualitative indicators can in turn help to highlight or define areas for improvement.

A shared city discussion with RUAF consultants at this point in the process highlighted some useful learning to share with other cities.

TOP TIPS   **City-to-city advice on selecting final indicators**

❯ Match local priorities (including customizing MUFPP wording)

❯ Get endorsement from key local stakeholders

❯ 'Small enough to achieve but big enough to matter'

❯ Check data availability

❯ Quantitative vs qualitative indicators – keep a balance between both types.

❯ Qualitative indicators tend to be binary so should include qualifiers (additional questions relating to effectiveness or impacts)

❯ The key selection criterion is that selected indicators should, in turn, be 'drivers of action'.

Resource 3 lists each of the pilot cities' final set of indicators and where indicators were customized.

| FIGURE 1 | Summary of the range of selected indicators by the pilot cities |

Categories	Antananarivo (6)	Nairobi (12)	Quito (4)
Food governance	#1	#3	#2
Sustainable diets and nutrition	#14	#11, #12	#14
Social and economic equity	#20	#20, #23	
Food production	#27	#26, #30	
Food supply and distribution	#36	#36, #37, #39	
Food waste	#41	#33, #43	#42, #44

Details on the full indicator selection process in each pilot city are explained in the city reports and MUFPP Montpellier Gathering 2019 presentations. See Antananarivo [English report, section 2] [French report, pp.12&13] and [presentation slides 2–4]; Nairobi [report, section 2] and [presentation slides 4–6]; Quito [English report, section 4] [Spanish report, section 4] and [presentation slide 2].

Step 4. Working with the indicators

Initial planning – who to involve, where to find data

RUAF consultants supported the pilot cities in working through a further set of questions aimed at shedding light on how to develop plans for data collection and analysis. In this discussion, all three cities highlighted some significant challenges, the most immediate related to proceeding with limited funding and staff capacity and the continued need to be pragmatic. They felt that a major challenge, even as MUFPP signatory cities, might in fact be related to the wider process of the city implementing the MUFPP recommended actions and the process of engaging others in this work; most importantly, making the case to local decision-makers/leaders that food should be a priority issue. There was recognition of the need for results of the indicator monitoring to be communicated effectively to local stakeholders and some thinking ahead on how to link the data to stories that will motivate action.

Resource 4 lists questions that any city could use and summarizes important considerations and reflections from this discussion between pilot cities at the initial training workshop.

TOP TIPS **Top tips: Working with the indicators – some challenges**

- The challenge of finding ways to connect well and work effectively with and within local government departments is as important as gathering and analyzing data, if not more important (in the longer term).

- It may well be that initial limited/poor/incomplete data sets will pave the way for improvements in time; therefore, start from where you are now, using what you have.

- You may need to further customize your indicators in relation to data gaps.

- Take time to formulate some clear research questions in relation to selected indicators and then think through where you might find useful data and in what ways that data will be useful.

- Ensure that staff have sufficient skills and capacity to undertake the analyses.

- Start a dialogue with key stakeholders (especially within the municipality with relevant departments or elected people) on how to ensure that the data and linkages developed out of this process can be built upon in future efforts and not just disappear after an initial phase on the establishment of a monitoring framework.

- Seek partnerships with academic, consultancy and government contacts to share learning, skills and build capacity whenever necessary.

As part of the process of identifying which potential indicators to work with, and what that might entail, each city scoped out draft plans for data collection and analysis using **Resource 8** (Worksheet for planning work with indicators). This practical worksheet (adapted from work done by the city of Toronto) is designed to help gather information on existing activities, stakeholders, existing data and data sources in relation to the most relevant indicators. All of this is important to do before launching into the next stage of research and data collection.

Connecting the selected indicators to clear research questions

Clearly formulated research questions and research approaches are needed at this stage to guide data collection. In order to clarify what data to collect, the indicators need to be translated into clear research questions. Qualitative indicators and the need for self-assessment qualifiers that need to be turned into research questions have already been discussed in step 3. A quantitative indicator will translate into a research question that asks about numbers or percentages. However, this number on its own may not be very helpful and needs more contextualizing with some further research questions that might help explain *WHY* the number or the situation is as it is, or *WHO* might be affected in what ways.

For example, Quito selected indicator 42: Annual number of events and campaigns aimed at decreasing food loss and waste. The number of annual events and campaigns needed further qualitative information from local stakeholders:

a) What initiatives are there?

b) Who are they targeting?

c) How do they work?

d) Who are the main donors?

e) Where are the groups of beneficiaries, their scope and relevance?

Quito used Resource 6 to work with the final set of four indicators and help structure a discussion on how to approach further research and data collection, as illustrated in Resource 6a, a worked example from Quito. This included formulation of some research questions.

EXAMPLE **Planning the research**

"For Quito, it was useful to use the Resource 6 template, even though we had a somewhat advanced process. We believe that in order to use the tool well it is necessary to complete some other thinking first:

❯ Learn about the actions of the Milan Pact.

❯ Know the situation of the food system in your city.

❯ Define what things you want to change or what things you will prioritize to start working towards that change.

❯ It is necessary to analyze the MUFPP indicator framework and find coherence between what you need to change and how to measure that change.

Filling out the template allowed us to have an orderly idea of the situation or starting point in which we are and where we want to go, how we are going to do it and how we are going to measure it." (Alexandra Rodriguez, Conquito)

Data collection methodology

Details on how each city collected data (primary and secondary), how they undertook analyses, how they dealt with data gaps and other challenges, and how they involved stakeholders are explained in the three city reports and MUFPP Montpellier Gathering 2019 presentations. Simple methodology including mapping (identification) of actors in the food system, semi-structured interviews, online surveys and participatory workshops were used. See Antananarivo [English report, section 3], [Not developed in the French report] and [presentation slides 5–6]; Nairobi [report, section 3] and [presentation slides 4–6]; Quito [English report, section 5], [Spanish report, section 5] and [presentation slide 3].

Survey to collect primary data: Nairobi carried out a census of fresh fruit and vegetable outlets in two sample areas of the city for which population figures are available: one low-income and one high-income (Indicator 36). It was all done in two days, with extension agents from those areas deployed to count. A special one-page survey form was designed. The City Food and Agriculture staff members, known in the communities, could discretely note the number of outlets in batches of five. Forms were labelled according to areas known to local community health workers and the City's monitoring team supervised the count. The Nairobi team developed a reporting template for summarizing findings on each of their selected indicators, **Resource 10**.

Focus groups or workshops on specific issues: Mazingira Institute undertook additional stakeholder participation work with the Nairobi urban farmers network in January 2020 to specifically look at the city's selected indicators in terms of gender and climate change. They used as a reference the report on Gender and the MUFPP monitoring framework developed by Laine Young in February 2019, **(Resource 11)**. **Resource 12** sets out the Nairobi approach to reviewing gender and climate change sensitivity of selected indicators.

Stakeholder interviews: New research on food waste and surplus reuse was undertaken in Quito by consultants. Quito found the indicator framework useful as a basis on how to start data collection but that further analysis with stakeholders was also very important. Quito's analysis of indicators was done with a 'trajectory of change' approach, using data collection to enable increased engagement but also to enrich findings by gaining a better scope of the situation. As in the case of Nairobi above, Quito found that a second level of analysis with the stakeholders who were involved in generating the information, was both empowering and necessary. This allowed for more in-depth discussions of stakeholder perspectives, their needs for connection with other actors and their proposals for how to address the problems. They found this process helped determine transformation or change pathways.

> **REMINDER** Methodological guidelines describe how to use each of the 44 indicators.

Resource 9 sets out for each of the pilot cities a useful summary of: i) key steps in the process they went through over the project period of seven months; ii) key issues that arose and had to be addressed and; iii) the approaches that were taken to collect indicator data.

Resource 10, an indicator report template, was created by the team in Nairobi in advance of the start of the research work with the dual purposes of both guiding the research and structuring the final indicator analysis reports. This approach could be used easily adapted by other cities.

TOP TIPS — **Research and data collection approaches**

- ❯ Use your selected indicators to formulate further research questions that help explain why the number is as it is, or who might be affected in what ways.
- ❯ Consider how to reflect a diverse representation that could enrich the research with fuller, more equitable data (disaggregated data by gender and other relevant social categories).
- ❯ Consider including more in-depth discussions with key stakeholders (interviews or focus groups).
- ❯ Consider how to best collect research findings in a way that enables analysis (survey design, data collection/reporting templates).

Step 5. Achievements and making use of findings

Once the data are available, the next challenge is to reflect on what has been learnt. All the indicator results need to be explained. The process of working with the indicators will have also generated learning. Reflection on both of these is important.

Key messages on what has been learnt need to be articulated and communicated. For example: overall view on gaps and the need for further food policy implementation; the need to develop additional data; the need to follow-up initial results and develop targeted action; the value of collaborative working; the need for, or evidence to support a case for future food system governance structures, etc. Clear learning points could be compiled into a booklet or leaflets for wider circulation; disseminated to relevant policy-makers and perhaps to the media; used in discussion forums, local and international meetings.

Data findings

Findings and results of research and data collection are outlined in each of the city reports. See Antananarivo [English report, section 4], [French report pp.13–24] and [presentation slide 5]; Nairobi [English report, section 4] and [presentation slides 4–8]; Quito [English report, section 6], [Spanish report, section 6] and [presentation slides 4&5].

All three cities used workshops for this purpose and found visual ways to present the data. Quito and Antananarivo turned research findings into infographics, see Resource 13. It is important to validate the results and findings with stakeholders, to sense-check them and to discuss next steps. The pilot cities agreed that the indicator research was an important step in bringing about positive change but that information itself was unlikely to motivate policy-makers. Therefore, key insights and narratives needed to be drawn out of the research and tailored to key audiences.

> **TOP TIPS**   **Communicate results**
>
> 🢒 Develop a plan early on for communicating the results of the research
> 🢒 Once the data collection results are available, reflect on what has been learnt (both from the indicators themselves and also from the process of working with them)
> 🢒 Identify and articulate clear messages
> 🢒 Decide how to make best strategic use of the information and how to communicate it clearly to relevant stakeholders, visually if possible (dashboard, infographics).

Data drives action

🢒 **Action plan:** The workshop in Antananarivo used the data as 'a driver for the development of an action plan'. It attracted 40 food actors including representatives of local, regional and national authorities, NGOs and the private sector and established six working groups to further define outcomes and concrete actions. This set the agenda for the next Antananarivo Food Policy Council meetings. See **[English report, section 5] [French report, pp.13–24]**. The added value here was in presenting a set of data that provided a bigger and more holistic snapshot across the urban food system – a critical first step of a longer-term process from which food policy could be developed.

🢒 **Monitoring:** The Nairobi report discusses how to make use of each of the indicator findings in turn and states the intention to continue i) to build on the pilot experience, gradually working through all 44 indicators; and ii) to institutionalize the inter-sectoral collaboration through the Cross-Sectorial Consultative Group possibly as a steering committee on implementation and monitoring of the Nairobi food policy.

🢒 **Gender and climate change:** Following a workshop to review the indicators through a gender and climate change lens, organized by Mazingira Institute with the Nairobi and Environs Food Security, Agriculture and Livestock Forum (NEFSALF) – an independent network of food producers and processors in and around the city – a new work plan was outlined to move forward in collaboration with the city. The goal is to further enhance food production and marketing that addresses women's and men's roles and climate change mitigation in Nairobi's food system. Discussion with NEFSALF members also focused on the Nairobi city finding that urban agriculture mitigates climate change through recycling organic waste effectively. Various practical actions were discussed with the City Agricultural Extension staff (see **Resource 12**).

● **Baseline data:** For Quito the studies generated evidence and baseline data as well as data gaps, to inform and support decisions around where and how to focus effort to achieve change. This in turn supported the actors in their daily struggles, recognizing their knowledge, priorities and convictions. The findings will also be used to argue the need for other subsequent studies and the use of various regulatory instruments of the city.

Reflections on non-research benefits of working with the monitoring framework

In addition to specific indicator data results and findings, it is important to reflect on wider achievements and the impact of the *process*. How has working with the monitoring framework been beneficial? Has it led to new ways of working, or new collaborations, or new insights?

Beyond the research outputs of each pilot city, the process yielded additional benefits that hopefully will support both ongoing food system monitoring and also new actions (as mentioned above). All three cities noted that the project helped raise awareness of food system priorities among stakeholders. Having an internationally recognized framework tool also added credibility to the process and helped in securing endorsement from senior decision-makers to participate.

The process of data collection and analysis required significant coordination of government and external stakeholders which led to a strengthening of partnerships and/or a greater awareness of the need for mechanisms to engage food system stakeholders more effectively. Engaging staff in the indicator analyses also helped build capacity within local government for food system monitoring. For example, it was a new experience for some members of the Nairobi secretariat that oversaw the data collection and they commented on the benefits of cross-departmental work and the invaluable new opportunity to share insights and combine expertise to uncover new solutions. See pages 14–16 of the published MUFPP monitoring framework for further reflections from all three pilot cities.

EXAMPLE	Reflections from Antananarivo on wider achievements and learning

● The pilot process revealed a lack of coordination between food system sectors

● Many research and data collections exist but there is a lack of actions and strategies

● Most stakeholders are keen to join the local Food Policy Council – so the process of working with the indicators has led to highly valuable stakeholder engagement

● It will be important for the data collection and analysis work to continue in order to be useful

● Most importantly, the indicators are a driver for action, revealing a huge opportunity for further projects related to each indicator.

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Challenges of using the MUFPP monitoring framework

The pilot cities encountered a few issues related to the framework itself but the primary difficulties stemmed from accessing adequate data. Quito's challenges are summarised below.

See also Antananarivo [English report p.12] [French report, pp.13–24 subsection 'Défis' for each indicator].

Summary of challenges for the city of Quito

USING THE DATA: What did you learn from the data; how did you use this information?

• Raise awareness among the new local government authorities and new actors of the PAQ about the need to advance in food governance, sustainable diets and food waste.

• The delivery of information from official sources requires a bureaucratic process that delays and does not guarantee the obtaining of quality data.

• Polarized views required flexibility and adjustment in certain questions to get their participation and information gathering.

• Expand the view of public and private initiatives that do not share the same scale.

• Integrate the food environment criteria into the analysis because the single survey of a figure does not reflect a context.

• Low sensitivity to the issue due to lack of understanding of the role that actors play in the adoption of sustainable diets and food losses and waste.

• Integrate the systemic approach to the analysis and the change trajectory approach to the information gathering process.

Perception of the framework and the need for local customization

During the initial phase of the pilot, city staff perceived the framework as a rigid assessment tool and had difficulty with some indicators that didn't seem to reflect their local context. We clarified that i) cities should select only the most relevant indicators and not try to use them all; ii) the framework is an ever-evolving document and is a tool to help cities achieve their own monitoring and evaluation goals. Therefore, we encouraged cities to adapt indicators to suit their local needs. For example, Nairobi staff customized indicator #11 (Number of adults with Type 2 diabetes) to include all forms of diabetes among adults and children. As is the case with most cities, lack of staff time and funding was a common barrier in working with the indicators (see Notes on selecting, customizing and working with indicators, Resource 4).

Indicator data

Accessing sufficient data was the most common challenge throughout the pilot process. Even though cities chose indicators based, in part, on easy access to existing information, there were several challenges common to all cities.

Data Sharing

- ❯ Absence of up to date official data sources or existing datasets were of low quality or didn't provide the specificity needed, e.g. stunting data didn't disaggregate based on gender or region. Indicator 12 is 'Prevalence of stunting for children under five years of age'. In Nairobi there is no nutrition and support assessment for children over 3 years.

- ❯ Government or other stakeholders were at times resistant to sharing required data, due to a lack of understanding about the purpose of data collection or concerns about use of the data.

- ❯ Lack of existing coordination of stakeholders, especially opportunities for different sectors and organizations to even meet.

- ❯ Mistrust among different levels of government blocking data access, again in relation to concerns over use of data, or loss of control.

- ❯ High staff turnover could make it difficult to access information given that the new staff were not familiar with the sources.

Data collection for the Nairobi pilot project

Data Collection

- Lack of resources for primary data collection.

- Personal safety risk of sending staff to collect information; concerns about the need for respondents to know and trust the information collectors (e.g. counting food outlets in lower-income areas).

- Risk to staff in seeking out information that authorities may not want to expose (e.g. possibility that corruption in the licensing of food markets could be exposed if food environment indicators were studied in detail).

- Longer-term, the need to identify who is best placed to collect data and undertake monitoring, e.g. Nairobi City County has a team of private-sector performance auditors that could be empowered to incorporate monitoring of the MUFPP indicators as part of their terms of reference. Alternatively, a centralized monitoring and evaluation team at City Headquarters could do the work.

Data Analysis

- Lack of technical expertise in analyzing data and adapting the analysis to the specific research question of greatest interest for the city.

- Need for a narrative to make sense of the data in relation to the wider urban food system.

The Milan Urban Food Policy Pact conference, Montpellier, 2019

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Reflections from RUAF

Value of the MUFPP Framework in Advancing Food Systems Policy and Action

The MUFPP framework is a well-thought-out tool that covers a diverse range of food system issues in relation to cities, providing a structure from which any city can develop its own monitoring framework.

It has evolved alongside the **City Region Food System programme indicator framework** and the indicators are used in a similar way [http://www.fao.org/in-action/food-for-cities-programme/toolkit/crfs-assessment/indicator-framework/en/].

Prior to the pilot, the need for aspects of environment and gender to be more strongly reflected was already acknowledged. This was again highlighted during the pilot by the city of Nairobi, providing some practical examples of how to explore environment and gender aspects using the MUFPP framework. In using this framework, cities need to ensure that the indicators and targets do not 'unintentionally homogenize the experience of urban residents' **(Resource 11)**.

Although the framework is proving to be a practical research and evaluation tool, it is important to acknowledge there are challenges to using the indicators, namely data availability and the need for basic coordination and research resources. However the pilot cities demonstrated that a first step is to gather existing information often held by different organizations or departments, under one lens. This does not need to be a costly exercise.

We also know that lack of information is only one barrier to action for local governments when it comes to addressing food system issues. Lack of awareness and opportunities to engage or participate are also barriers to action. As an additional value to gathering useful data, the pilot cities found the process of working with the framework enabled them to increase stakeholder engagement and awareness.

An important complement to the framework would be more support for cities in increasing effective knowledge transfer capacity. In other words, what are the most effective strategies to disseminate the research findings to key stakeholders; how can cities translate data into stories, narrative, or develop communication tools that inspire action? Experiences of the pilot cities provide some practical ideas.

Another key consideration is how use of the framework can support, structure and enable future research and evaluation, especially in terms of building on baselines and ongoing data sharing at the city level. As part of their stakeholder engagement activities, we encouraged cities to work with partners to identify strategies to enhance data sharing in the longer term.

Finally, the whole point of the monitoring framework is to make it easier for cities to keep track of and report on yearly achievements, having signed up to the Milan Pact. More cities adopting this practice will facilitate easier city-to-city exchange and learning.

Above: Stakeholder workshop in Antananarivo
Below: Presentations at the Milan Urban Food Policy Pact conference, Montpellier, 2019
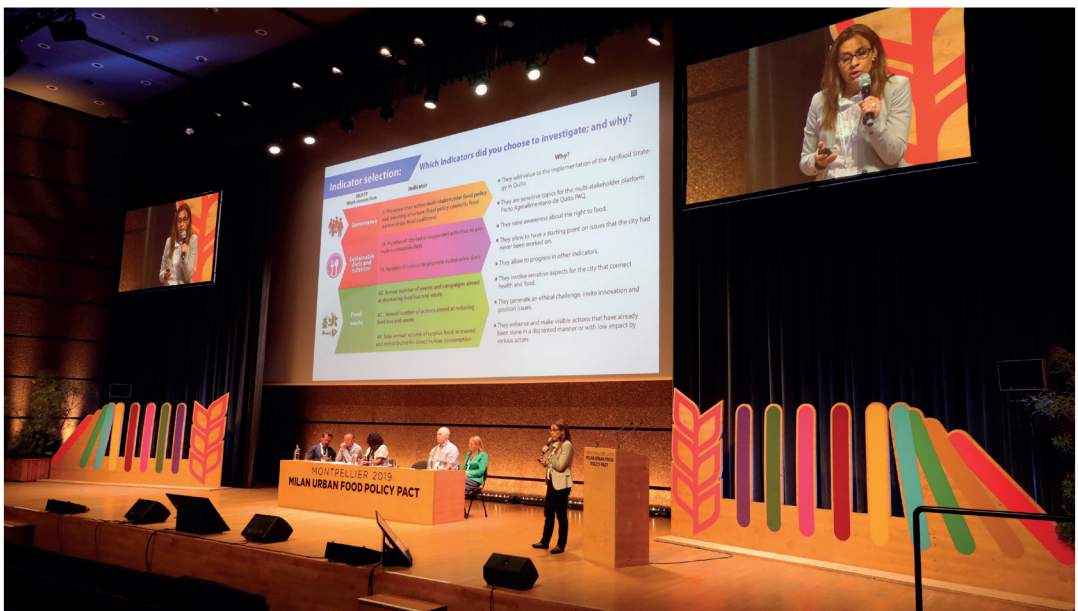
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Additional guidance, tools and url links

This section gathers in one place all the links to additional reference material and practical resources that are also present throughout this handbook.

- **References:** key MUFPP monitoring framework documents
- **Resource pack:** list of 14 practical printable resources to use with this handbook
- **Pilot city insights:** reports and presentations

Reference documents

The Milan Urban Food Policy Pact declaration [available in several languages]
https://www.milanurbanfoodpolicypact.org/the-milan-pact/

The Milan Urban Food Policy Pact monitoring framework
(*in English, French, Spanish and Portuguese*)
http://www.fao.org/documents/card/en/c/ca6144en/

The Milan Urban Food Policy Pact monitoring framework – A practical handbook for implementation
http://www.fao.org/3/cb4181en/cb4181en.pdf

Methodological guidance for using each of the 44 indicators of the MUFPP monitoring framework

The full compendium of 44 indicators
http://www.fao.org/3/cb4036en/cb4036en.pdf

6 indicators for the 'Food governance' category
http://www.fao.org/3/cb4030en/cb4030en.pdf

11 indicators for the 'Sustainable diets and nutrition' category
http://www.fao.org/3/cb4035en/cb4035en.pdf

7 indicators for the 'Social and economic equity' category
http://www.fao.org/3/cb4031en/cb4031en.pdf

9 indicators for the 'Food production' category
http://www.fao.org/3/cb4010en/cb4010en.pdf

6 indicators for the 'Food supply and distribution" category
http://www.fao.org/3/cb4034en/cb4034en.pdf

4 indicators for the 'Food waste' category
http://www.fao.org/3/cb4032en/cb4032en.pdf

Resource pack

There are 14 separate, practical printable resources to support the step by step process. Live links throughout this handbook indicate when they may be useful. All are available in PDF form and some are also available as Word documents to enable easier use. They can be downloaded and printed, for example for use in workshops or stakeholder discussions.

Resource 1. Preparation questions and initial presentation for stakeholders
http://www.fao.org/3/cb4181en/resource1.pdf

Resource 2. Worksheet on indicator selection criteria
http://www.fao.org/3/cb4181en/resource2.docx

Resource 2a. Worked example from Nairobi
http://www.fao.org/3/cb4181en/resource2a.pdf

Resource 3. Final selected indicators for pilot cities
http://www.fao.org/3/cb4181en/resource3.pdf

Resource 4. Notes on selecting, customizing and working with indicators
http://www.fao.org/3/cb4181en/resource4.pdf

Resource 5. Summary of MUFFP monitoring framework for workshops
http://www.fao.org/3/cb4181en/resource5.pdf

Resource 6. Worksheet for simple process to review strategy and possible measures of success
http://www.fao.org/3/cb4181en/resource6.docx

Resource 6a. Worked example from Quito
http://www.fao.org/3/cb4181en/resource6a.pdf

Resource 7. Worksheet for identifying the most relevant indicators
http://www.fao.org/3/cb4181en/resource7.docx

Resource 8. Worksheet for planning work with indicators
http://www.fao.org/3/cb4181en/resource8.docx

Resource 9. Data collection process, issues addressed and approach in pilot cities
http://www.fao.org/3/cb4181en/resource9.pdf

Resource 10. Template for indicator research reporting
http://www.fao.org/3/cb4181en/resource10.pdf

Resource 11. Gender and the MUFPP monitoring framework
http://www.fao.org/3/cb4181en/resource11.pdf

Resource 12: Gender and climate change sensitive indicators in Nairobi
http://www.fao.org/3/cb4181en/resource12.pdf

Resource 13. Examples of data visualization
http://www.fao.org/3/cb4181en/resource13.pdf

Resource 14: Summary of key steps, resources and top tips for using the MUFPP monitoring framework
http://www.fao.org/3/cb4181en/resource14.pdf

Pilot city insights

Antananarivo report
http://www.fao.org/3/cb2742en/cb2742en.pdf (*English version*)
http://www.fao.org/3/cb2742fr/cb2742fr.pdf (*French version*)

Antananarivo presentation
http://www.fao.org/3/cb2652en/cb2652en.pdf

Nairobi report
http://www.fao.org/3/cb2744en/cb2744en.pdf

Nairobi presentation
http://www.fao.org/3/cb2662en/cb2662en.pdf

Quito report
http://www.fao.org/3/cb2745en/cb2745en.pdf (*English version*)
http://www.fao.org/3/cb2745es/cb2745es.pdf (*Spanish version*)

Quito presentation
http://www.fao.org/3/cb2664en/cb2664en.pdf

ANNEX A

Overview of the 2019 pilot project process

The pilot process followed an emergent design approach where RUAF consultants worked with cities to identify their needs and developed timelines and activities that would help them get the most out of the pilot phase. Below are the primary stages that emerged from the process. RUAF consultants organized a two-day training workshop in Rome at the start of the project. Throughout the process, RUAF consultants organized regular Skype calls with individual cities or together as a group and provided additional support by email.

Timeline	Activity
April	Pilot cities drafted brief assessment of local priority areas of action in relation to MUFPP objectives
May	Project kick-off workshop in Rome (city representatives, FAO staff, RUAF consultants)
	Preliminary selection of indicators to work with during the pilot
	Consultation with local stakeholders for feedback on indicator selection
June	Final selection of indicators for pilot process including customization where needed
	Development of data collection and analysis plans
July	Data collection
	Data analysis
August	Local workshops in each city to share results
September	Preparation of each city's final report
	Broader dissemination of research results and further stakeholder engagement
October	Presentation of pilot project at MUFPP Montpellier conference

RUAF

RUAF Global Partnership on Sustainable Urban Agriculture and Food Systems has been working on food systems for over 20 years. Since 2015 RUAF has provided technical support to MUFPP, in particular to assist cities with food system assessments and the design of monitoring mechanisms that provide a way to measure progress and change over time. RUAF and FAO are also creating similar resources for taking a wider city region food system (CRFS) approach with a focus on sustainability and resilience to climate change and pandemics http://www.fao.org/in-action/food-for-cities-programme/toolkit/introduction/en/. This work is supported by RUAF partners, the Laurier Centre for Sustainable Food Systems, Hivos and International Water Management Institute (IWMI) through the CGIAR Research Program on Water, Land and Ecosystems (WLE). The RUAF Partnership has a significant track record in urban and peri-urban agriculture and urban food systems solutions, combining technical and policy expertise with scientific research and practical knowledge, based on work within more than 50 countries and at global level. www.ruaf.org

The Laurier Centre for Sustainable Food Systems (LCSFS)

LCSFS, a RUAF partner, is committed to fostering food systems that are socially just, ecologically regenerative, economically localised and that engage citizens. Founding Director, Professor Alison Blay-Palmer, was appointed UNESO Chair on Food, Biodiversity and sustainability studies in 2019. https://researchcentres.wlu.ca/centre-for-sustainable-food-systems/index.html

FAO

Aware of the challenge cities will face ensuring food security for all dwellers and of the need for food systems transformation toward more sustainable and resilient systems, FAO has developed its *Framework for the Urban Food Agenda* http://www.fao.org/documents/card/en/c/ca3151en/, to guide and harmonize FAO support to cities in building sustainable and resilient food systems, leveraging sub-national and local government action. It consists of a vast range of policies, programmes and initiatives developed and implemented with cities. In particular, FAO, partnering with RUAF, conducts the *City Region Food Systems (CRFS) programme* http://www.fao.org/in-action/food-for-cities-programme/en/ with national and local governments and local food actors. It works on strengthening rural-urban linkages by providing assistance in improving the resilience of food systems and livelihoods in a given territory to climate and pandemic risks. In this framework, several tools have been developed, from assessment to planning, including monitoring systems. More recently, FAO has launched the *Green Cities Initiative* http://www.fao.org/green-cities-initiative/en/. FAO will enhance its work in urban and peri-urban forestry, agriculture and food system, by strengthening collaboration with local and national authorities, city councils, mayors, the private sector, academic institutions and international organizations, and engage with urban communities – especially with women and young people.

Milan Urban Food Policy Pact (MUFPP)

The MUFPP is an international agreement among cities committed to develop urban food systems that are sustainable, inclusive, resilient, safe and climate friendly, that provide healthy and affordable food for all. The Secretariat of the MUFPP was established in 2016 within the city of Milan as permanent contact point for all signatory cities, partners and stakeholders. It facilitates communication between member cities, networks, international organisations and other partners. The Secretariat supports the MUFPP Steering Committee in ensuring the internal governance of the Pact. It oversees the organisation of Annual Gatherings and regional Fora in collaboration with hosting cities. It organises the Milan Pact Awards. www.milanurbanfoodpolicypact.org