



City Region Food System Governance

Guiding principles and lessons learned from case studies around the world

Lotte Roosendaal, Marion Herens, Nina de Roo, Marian Stuiver, Katherine Pittore, Katrine Soma,
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The report 'City Region Food System Governance – Guiding principles and lessons learned from case studies around the world' is a harvest of insights from a wealth of case studies that focus on food system governance (in its broadest sense, or focusing specifically on food policy) in an urban context. These insights are complemented by key principles as formulated in guiding documents such as policy agendas and supporting frameworks that focus on urban food governance. Together, these insights come together in five guiding principles for city region food system (CRFS) governance. These guiding principles, together with a reflection on the findings from this endeavour, provide input for a knowledge agenda and future interventions that aim to contribute to more sustainable, resilient and equitable food systems in city regions around the world.

Keywords: city region food system, governance, guiding principles, urban, food policy, case studies

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Contents

List of abbreviations and acronyms	5
Executive summary	7
1 Introduction	9
2 Methods and scope	13
3 Guiding principles for CRFS governance	19
3.1 Apply an integrated systems perspective from the start	19
3.2 Engage stakeholders that represent the CRFS in an inclusive manner	20
3.3 Carefully coordinate the process and selection of instruments	21
3.4 Develop or support governance structures with a distinct food focus	22
3.5 Invest in transformative capacity and adaptivity	23
4 Challenges and barriers	25
5 Discussion	27
5.1 Reflection on the principles	27
5.2 From governance principles to governance process	28
5.3 Power & politics of food	29
5.4 Implications for KB learning agenda	30
6 Conclusions	31
References	33
Appendix 1 CRFS Toolkit	35

List of abbreviations and acronyms

CRFS	City Region Food System
FNS	Food and Nutrition Security
FPC	Food Policy Council
KB	Knowledge Base (kennisbasis)
MSP	Multi-Stakeholder Partnership
MUFPP	Milan Urban Food Policy Pact
WUR	Wageningen University & Research

Executive summary

Around the world, we see increasing pressure on our food systems. Urbanisation rates are high and food and nutrition insecurity in urban areas is rising, resulting in a triple burden of malnutrition. At the same time, our food systems place an enormous burden on ecosystems. In order to address these issues, a food systems perspective is key to understanding the complex relations and feedback loops of a specific food system and identifying entry points for leveraging change. These notions form the entry point for our Kennisbasis (KB) work 'Feeding cities and migration settlements': a transdisciplinary, multi-annual research programme within Wageningen University and Research (WUR).

This paper focuses on governance of food systems in urban areas: what principles should guide decision-making processes on food systems in urban areas and what does that mean in practise? The City Region Food System (CRFS) is used as entry point to acknowledge how urban areas are inextricably linked with their rural hinterlands, especially regarding food. This paper aims to shed light on guiding principles on CRFS governance, lessons learned from city regions around the world and how these insights can be made actionable. In order to extract these insights, a total of 13 papers (including case studies and prescriptive documents such as guidelines) were reviewed, covering the lessons learned from a total of 97 cases. The findings of this endeavour inform follow-up research questions that can be taken up by our KB work in three selected case study sites.

From the papers, we extracted 5 guiding principles for CRFS governance, namely:

1. **Apply an integrated systems perspective from the start** when defining issues in the CRFS. This includes the acknowledgement of key drivers of such issues and the fact that issues often link and create feedback loops with several components of the food system at multiple levels.
2. **Engage stakeholder that represent the CRFS in an inclusive manner** in decision-making processes and make an explicit effort to invite those groups around the table that do not have easy access to it. Participation of stakeholders across different domains of the CRFS as well as a mix of social, economic and cultural background is important.
3. **Carefully coordinate the process and selection of instruments** to guide desirable changes in the CRFS, especially because these processes can take many years and require a long-term strategy. Using tools for mapping, planning and monitoring are vital to this process.
4. **Develop or support governance structures with a distinct food focus** to give space and legitimacy to efforts undertaken in the CRFS. Governance structures should be context-specific, but key to any arrangement is that it has both horizontal (linking with other stakeholders in the city region) and vertical linkages (linking different levels, from local, to national and global).
5. **Invest in transformative capacity and adaptivity** to leverage transformation and anticipate and respond to sudden shocks or emergencies. This requires an investment in appropriate resources and emergency plans, as well as leadership skills, flexible structures and stakeholders with the capacity to quickly navigate between different levels and scales.

Although these guiding principles can be useful to inform what CRFS governance should look like, they do not necessarily enlighten us on *how* governance structures and processes can be set up or strengthened. The Multi-Stakeholder Process model by Brouwer et al. (2016) can shed a light on how to engage in such processes and the CRFS Toolkit (FAO, RUAF Global Partnership, & Wilfred Laurier University, 2018) can provide valuable input on steps and tools that can be used to guide these processes. Yet, in many cases, it became clear how successes in CRFS governance were the results of a complex processes where politics, external factors, sudden shocks or the actions of key players at some point came together to form a momentum, a window of opportunity. This emphasises how each context is unique, but also the importance of being able to tap into and steer towards such windows of opportunity.

Finally, findings emphasise the importance of stakeholder involvement and collaboration, as well as the crucial role of local government. However, with that, the role of power and politics of food enters the scene. Although CRFS governance in line with these principles is supposed to be a means to level the playing field, practice can be much more stubborn. Understanding power relations within the CRFS, but also those of the wider food system are crucial to understanding and identifying entry points for change. This includes an understanding of how and where power is exercised and how it can be leveraged for the benefit of the CRFS as a whole, including each of its stakeholders. For example, engagement with civil society, as indicated in the different case studies, is key, but also a challenge when it comes to power relations in the CRFS.

This paper shows the multi-faceted and complex nature of CRFS governance as well as its importance to move towards sustainable, inclusive and healthy CRFS. Creating a thorough understanding of the CRFS under study is a first step for this KB work in each of the study sites. The variety of tools as described in the CRFS Toolkit can support such analysis to identify key stakeholders, issues and possible entry points for change, what governance structures are deemed appropriate in that specific context, and how governance processes can become more inclusive and adaptive. Concretely, the following research questions are formulated to guide further KB work:

- What is the role of power and politics within a specific CRFS as well as the wider system in which the CRFS is embedded?
- Which actor or actors can drive CRFS governance processes and what capacities do they need?
- How can existing food activities/structures be used to leverage CRFS governance?
- What is needed to move from mono- or multi-level governance to adaptive governance?

The Covid-19 pandemic that is ongoing at the time of writing, merely emphasises the findings of this paper and is yet another example to be added to the cases studied in this paper of how sudden changes and extreme events can create a window of opportunity for drastic change. Having inclusive, integrated and flexible governance structures in place is key to resilience and the capacity to adequately respond to crises. Yet, better understanding the CRFS, tapping into the energy of food champions, supporting ongoing processes and existing structures, and building up local capacities needed for good CRFS governance are actions that cannot, and should not wait until a next crisis.

1 Introduction

In many areas of the world, cities are expanding rapidly (UN DESA, 2018a). The global population is expected to increase from 7.7 billion in 2019 to 9.7 billion in 2050, of which 68% is expected to be living in cities (UN, 2019; UN DESA, 2018b). These urbanisation processes affect the food systems in urban areas in terms of infrastructure, markets, logistics, capacity, jurisdiction and urban planning. Moreover, consumption patterns change drastically as people move into urban areas. In cities, especially among the urban poor, consumption of processed convenience foods, that are often high in fat, salt and sugar, is much higher compared to rural areas, resulting not only in undernutrition and micronutrient deficiencies, but also in overweight and nutrition-related diseases such as cardiovascular disease, cancer and type II diabetes (Global Panel, 2017). Such challenges put a significant pressure on the food system in urbanising areas which raises questions such as where and how food should be produced, by whom, and how food and nutrition security (FNS) can be safeguarded for all. FNS means that 'all people at all times have physical, social and economic access to food, which is safe and consumed in sufficient quantity and quality to meet their dietary needs and food preferences, and is supported by an environment of adequate sanitation, health services and care, allowing for a healthy and active life' (UNSCN, 2013). This definition of FNS shows how FNS is not just about quantity, but also quality of food and the enabling environment needed to achieve this.

The City Region Food Systems perspective

The challenges of urbanising societies in relation to FNS are multi-faceted – comprising social, economic, environmental, political and cultural dimensions – and are highly interconnected. How these come together can be understood by taking a food systems perspective. Over the last decade, the food systems perspective has been increasingly acknowledged by scholars and policy makers as a perspective to holistically approach food issues and other global challenges such climate change and poverty reduction (Hospes & Brons, 2016; Termeer, Drimie, Ingram, Pereira, & Whittingham, 2018). As described by FAO (2013), "Food systems encompass the entire range of activities involved in the production, processing, marketing, consumption and disposal of goods that originate from agriculture, forestry or fisheries, including the inputs needed and the outputs generated at each of these steps. Food systems also involve the people and institutions that initiate or inhibit change in the systems as well as the sociopolitical, economic and technological environment in which these activities take place". One of the frameworks used to visualise the food system, is the food systems framework by Van Berkum et al. (2018). A more elaborate explanation of this framework and how it is being used in a Knowledge Base project, of which this paper is part, can be found in the framework paper by Van Berkum et al. (2020).

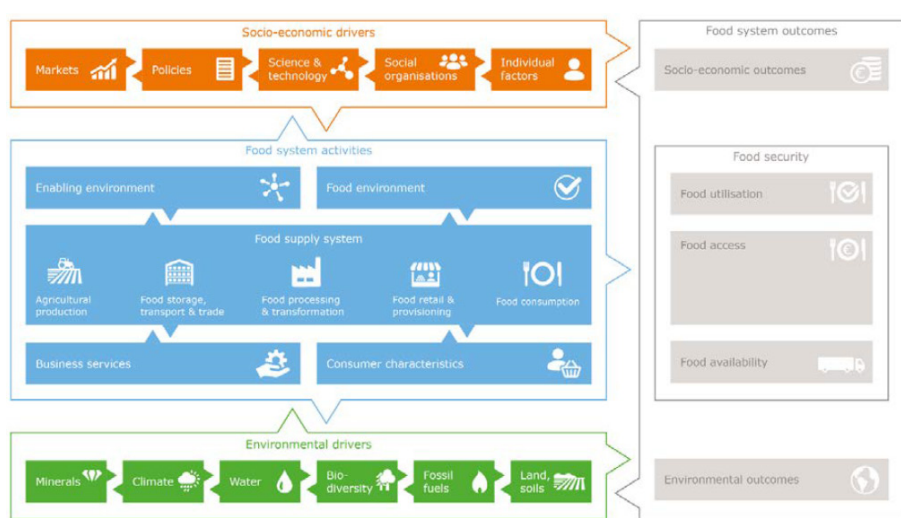


Figure 1 Food systems framework by Van Berkum et al. (2018)

When looking at the food system in a particular urban area, adding a spatial perspective is essential to understand how rural and urban areas are connected. Although the 'rural' and 'urban' seemingly represent a dichotomy, in practice they form continuum in which flows of people, commodities, capital, information and resources are continuously exchanged (Allen, 2010). These rural-urban linkages are space- and place-bound and therefore require a spatial perspective to be understood and adequately responded to. This connectivity is also underscored by RUAF Global Partnership that developed, together with FAO, the concept of the city region food system (CRFS). This concept is embedded in the New Urban Agenda: an UN endorsed vision on urban development that integrates all facets of sustainable development (UN-Habitat III, 2017). This agenda specifically addresses how urban food is understood in the context of a regional food system and the discourse on spatial planning (Battersby & Watson, 2019). Where possible, this paper applies the CRFS perspective in its search for guiding principles for governance of the CRFS.

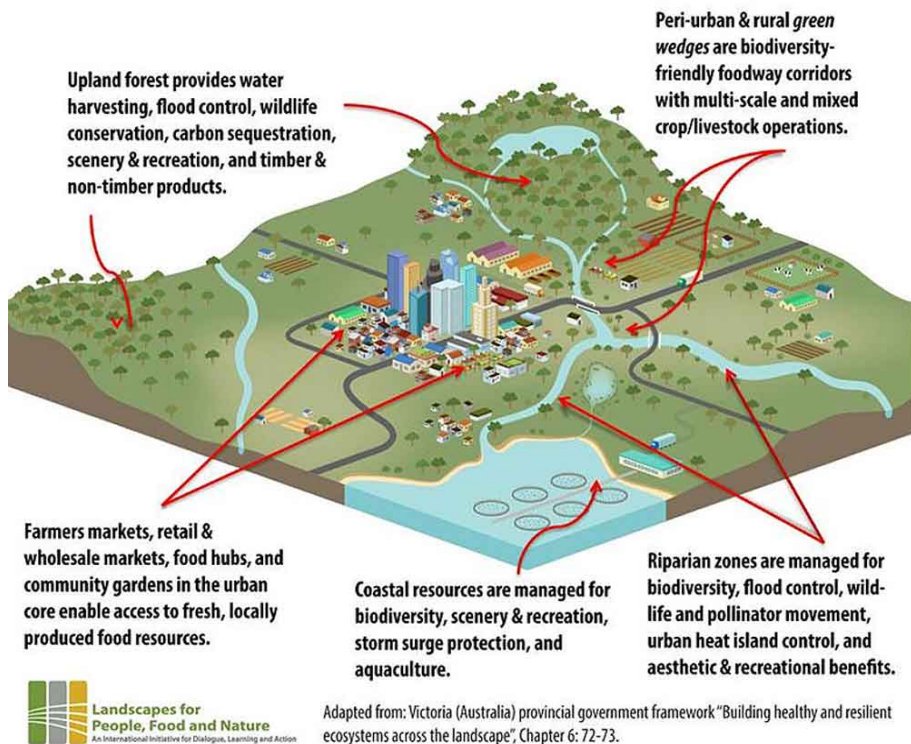


Figure 2 Visualisation of a City Region Food System

Food system transformation

It is increasingly clear that our food systems need to transform to become sustainable, inclusive and resilient, requiring a fundamental change of the system's social-ecological-technical dynamics (Bers, Pahl-Wostl, Eakin, Ericksen, & Lenaerts, 2016; Wigboldus, Brouwers, & Snel, 2019). Food system transformation refers, on the one hand to the scope of change: the system. Such change requires not only improvement of practices or relationships but a configuration of the entire system, across sectors and scales. On the other hand, food system transformation refers to the depth of change. Rather than reinforcing or optimising current practices ("playing the game well"), or changing the practices themselves ("changing the rules of the game"), it is necessary to redefine what is considered right and what should be the new normal ("changing the game"). This may require institutional changes, developing long-term scenarios and visions that focus on system sustainability, and addressing structural social, economic, environmental injustice (Wigboldus et al., 2019). It should always be kept in mind that transformation is not a goal in itself but a means to arrive at a certain envisioned scenario.

Food system governance

By taking a systems perspective and acknowledging the need for food system transformation towards sustainability, the complexity of the food systems becomes apparent, including the need to include different actors and better align action across sectors to transform the system (Hospes & Brons, 2016). Van Bers et al. (2016) argue that good governance is needed to address these issues and therefore plays a crucial role in food system transformation. Yet, Béné et al. (2019) also emphasise the place-bound nature of food systems and thus the need to find appropriate levels for food system governance. Also in the Urban Food Agenda by FAO and the CRFS framework, food system governance is considered to be key to achieving sustainable food systems in which food and nutrition can be secured. In the Urban Food Agenda, FAO describes five targeted areas for FAO support, of which one is 'governance' (FAO, 2018a). The CRFS indicator framework consists of six themes of which one focuses on food governance (Carey & Dubbeling, 2018). This clear need for food system governance raises the question what can be understood by food system governance – or when applied to a city region, CRFS governance – and what guiding principles would support good governance of a CRFS.

When further zooming in on governance, different forms of governance can be distinguished according to Termeer et al. (2010): monocentric, multilevel and adaptive governance. Monocentric governance is an approach in which the state is taken as starting point to address societal issues and assumes a top-down approach through development and implementation of policies across the different governance layers. In a multilevel governance approach, it is acknowledged that there are different governance layers that interact with one another and which may exceed state boundaries. These interactions can take three directions: upward (international level), downward (to local level) and outward (civil society and non-state actors). These interactions between different administrative levels and actors ultimately are supposed to steer towards common goals. Adaptive governance starts from the notion that within complex and uncertain environments sudden changes can occur, and that continual learning is required to adequately respond to emerging needs and sudden, unpredictable changes. New forms of governance models that allow for a high level of adaptability are required to adequately respond to these uncertainties and deal with complex issues. Considering the complexity of systems thinking and the depth of changes required, adaptive governance seems the most appropriate form to pursue when it comes to CRFS governance.

Focus of this paper

In the WUR Knowledge Base (KB) project on 'Feeding Cities and Migration', the objective is to contribute to resilient, sustainable and inclusive urban food systems providing food and nutrition security for all. This will be done by increasing understanding of the complexity of these systems and developing approaches and solutions for urbanising and expanding cities in Africa and Asia to adequately respond to food system pressures, with particular attention to the role of migration in these areas. Theoretical frameworks and approaches have been developed, but how to make food systems thinking and CRFS governance actionable remains a challenge. Under the 'KB Feeding Cities and Migration', this document focusses on the questions:

- What are guiding principles for good governance in selected case studies in urban areas?
- What are barriers to the implementation of these governance principles?
- What is needed to put these principles and their implementation into practice?

For this paper, a mapping is done of what is already known in term of food systems governance (in general, or focused on the CRFS) based on work by others, thereby identifying guiding principles and barriers that can be encountered. Chapter 2 elaborates on the methodology and framework used for this mapping and present and overview of selected studies. In chapter 3, the findings are presented: five cross-cutting principles for CRFS governance and key challenges and barriers. Chapter 4 reflects on these principles, also in the light of the ongoing Covid-19 pandemic at the time of writing, and discusses what is needed to move from governance principles to a governance process that can support CRFS transformation towards sustainability. In addition, this chapter attempts to further explore what is needed to make these principles actionable. The discussion concludes with a reflection on the role of power and politics and the implications of this mapping for the KB learning agenda.

2 Methods and scope

The following steps describe the methodological approach to find answer to the questions formulated in the previous section and provides an overview of the documentation selected for review.

Defining CRFS governance

To gain a better understanding of CRFS governance, an initial search was done to identify definitions of governance and, more specifically, CRFS governance. The FAO uses the following definition for food security governance:

“Food security governance relates to formal and informal rules and processes through which interests are articulated, and decisions relevant to food security in a country are made, implemented and enforced on behalf of members of a society” (FAO, 2011)

Andrée et al. (2019) applies the following definition of food system governance:

“In the realm of food systems, governance spans from the internal decision-making structures of companies, non-profit organizations, and informal associations, to the more formalized policies and procedures of state governments and indigenous authorities, and then to multilateral trade and environmental agreements.” (Andrée, Clark, Levkoe, & Lowitt, 2019)

These definition show that governance consists of various decision-making processes that can take different shapes and involve a variety of actors on different levels and scales. Government and policies form only one aspect of governance. In this paper, CRFS governance is defined as:

“the formal and informal processes, structures and rules through which decisions relevant to the CRFS are made, implemented and enforced at various levels and scales.”

Whether CRFS governance can be perceived as good governance then depends on how these processes, structures and rules are shaped. For this, guiding principles are needed for good CRFS governance.

Selecting theoretical framework

The framework for Food System Governance Structures by Termeeer et al. (2016) was selected as point of reference for identifying guiding principles and lessons learned from other studies. In their paper “A diagnostic framework for food system governance arrangements: The case of South Africa”, Termeeer et al. approach governance from an angle that closely fits the objective of this paper and the questions of the KB project. The guiding principles that this paper identifies are: 1) Systems-based problem framing, 2) Boundary-spanning structures, 3) Adaptability, 4) Inclusiveness, 5) Transformative capacity. In addition, challenges and indicators for each principle are formulate (Table 1).

Table 1 Framework: five principles for food system governance arrangements (Termeer et al., 2016)

Principles	Challenges	Indicators
System-based problem framing	To deal with interlinked issues, drivers, and feedback loops	<ul style="list-style-type: none"> - beyond one dimensional problem definition - feed-back mechanisms - integrative narrative - room for reflexivity
Boundary-spanning structures	To organise connectivity across boundaries of sub-systems involved	<ul style="list-style-type: none"> - interactions across levels and sectors - spanning siloed governance structures - public-private partnerships
Adaptability	To respond flexibly to inherent uncertainties and volatility in non-linear systems	<ul style="list-style-type: none"> - monitoring systems - decentralisation and self-organisation - flexibility - learning while doing
Inclusiveness	To involve actors who are affected by the problem and the proposed policies	<ul style="list-style-type: none"> - involvement of marginalized voices - social differentiation amongst participants - involvement of local communities and networks
Transformative capacity	To overcome path dependencies and create adequate conditions to foster structural change	<ul style="list-style-type: none"> - addressing path dependencies and lock-ins - leadership - resources - political will

Searching and selecting existing documentation

A search was done to identify documentation that describes guiding principles or best-practices. This was done using snowball sampling whereby experts working in the field were asked for existing case studies, policy documents or guiding frameworks that focus on food system governance, preferably with a focus on urban areas to ensure findings apply to governance of the CRFS. Although KB work focuses on LMICs, case studies from high-income countries were included as well because many of these cases included lessons learned over the past decade or more, which provided valuable insights.

Studies were selected based on the following criteria:

- Peer-reviewed or grey literature
- Meta-perspective: synthesis of case studies or other literature studies, revealing guiding principles or lessons learned
- Focus on food systems governance or specifically on urban food or CRFS governance (including urban food policy)
- Documents with a prescriptive character, such as frameworks or policy agendas, that are not bound to a specific geographic location

This means that individual case studies, studies that do not focus on at least one aspect of governance, and studies that focus on a single element of the food system (e.g. agriculture) were not taken into account. Other cases were not selected because they focused on a very specific population in a specific setting, which highly restricted the generalisability of the findings. An overview of the reviewed studies is presented below (Table 2), followed by a geographical overview of all cases covered by the different studies, adding up to a total of 97 cases (Figure 3).

Table 2 Overview of selected studies and documents for review

Author(s)	Title	Year	Focus	Geography	If applicable: # of cases	Level of cases
FAO	FAO framework for the Urban Food Agenda	2019	Urban food policy	Global	N/A	N/A
FAO	Integrating food into urban planning	2018	Urban food policy and planning	Global	19	Cities/city region (varying size)
FAO	Governance of food and nutrition security factors for viability and sustainability - Case studies from seven Latin American countries	2017	FNS Governance	Latin America	7	National
FAO	The role of cities in the transformation of food systems: sharing lessons from Milan pact cities	2018	Urban food policy (governance)*	Global	N/A	N/A
Fondazione Giangiacomo Feltrinelli	Milan Urban Food Policy Pact. Selected Good Practices from Cities.	2015	Urban food policy (governance)*	Global	10	Cities/city region (varying size)
Dubbling et al.	City Region Food Systems and Food Waste Management - Linking Urban and Rural Areas for Sustainable and Resilient Development	2016	CRFS Governance	Global	13	City region
Gupta et al.	Food policy councils and local governments: Creating effective collaboration for food systems change	2018	Food policy councils	USA	10	Mostly county level (varying size)
Harper et al.	Food Policy Councils: Lessons Learned	2009	Food policy councils	North America	39	Varying: local, county or state level
Hospes & Brons	Food system governance: A systematic literature review	2016	Food system governance	Global	N/A	N/A
IPES	What Makes Urban Food Policy Happen? - Insights from Five Case Studies	2017	Urban food policy	Global	5	Cities/city region (varying size)
RUJAF Global Partnership	Milan Urban Food Policy Pact Monitoring Framework Indicators	2017	Urban food policy (governance)*	Global	N/A	N/A
Termeer et al.	A diagnostic framework for food system governance arrangements: The case of South Africa	2018	Food system governance arrangements	South Africa	3	National
UN Habitat III	New Urban Agenda	2017	Urban governance structures*	Global	N/A	N/A

* The MUFPP and CRFS indicator frameworks and New Urban Agenda focus on a variety of themes, of which one is 'governance'. For this mapping, only the guiding principles and lessons learned related to governance have been taken into account.

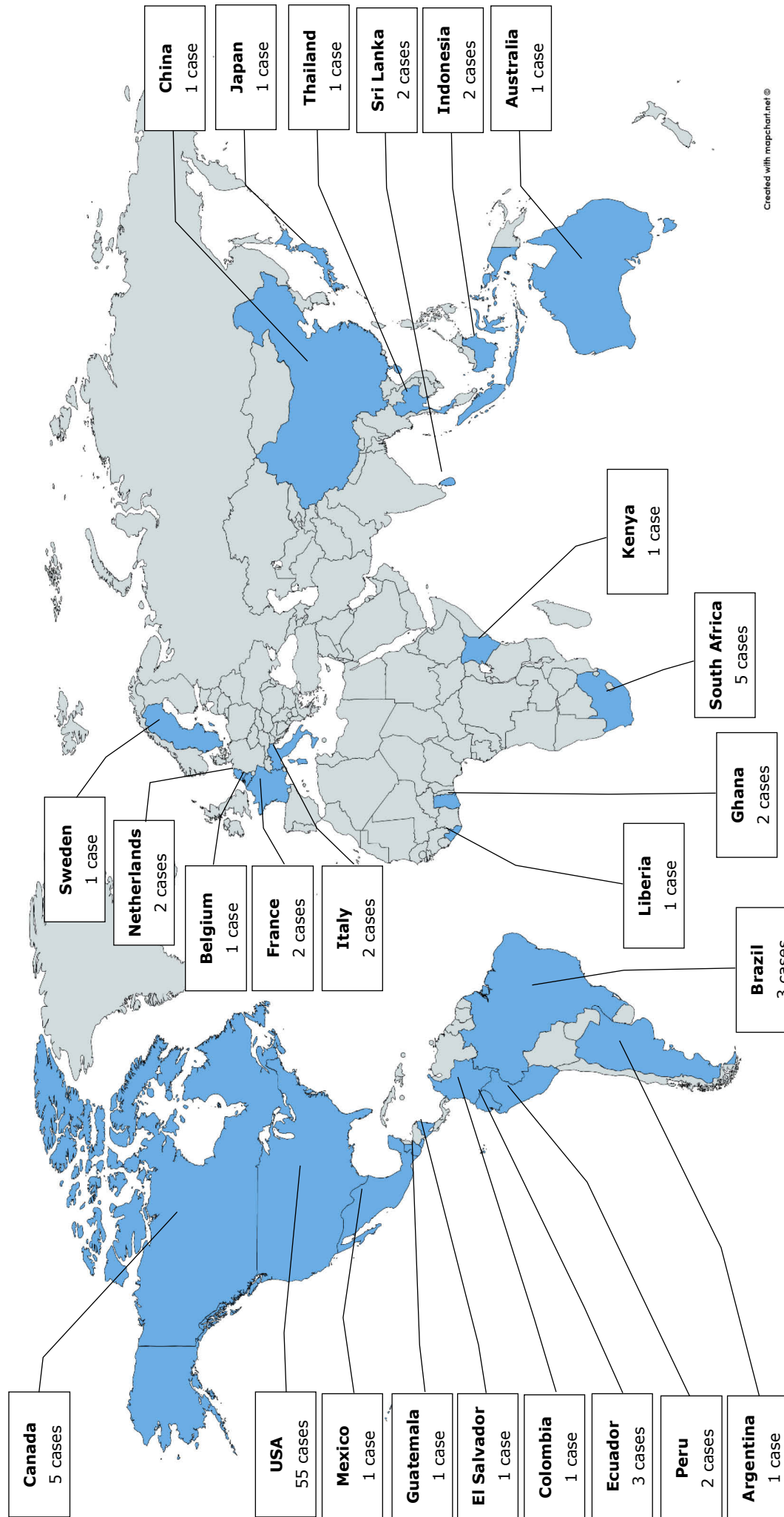


Figure 3 Overview of cases included in the studies reviewed (total: 97, doubles excluded)

As shown in the table, the selected documents were mostly case studies, covering specific examples within the space and place-bound urban contexts with regards to food governance, food policy and policy documents and guiding frameworks on the CRFS, food system governance, FNS governance or food system governance arrangements. The reviewed documents may apply a different focus but eventually all seek to identify what is needed to achieve sustainable food systems, whether by focusing on food governance in the broadest sense, or narrowing down to the CRFS or the specific domain of (urban) food policy. The paper by Termeer et al. (2016) was also included in the list, because after the development of the framework, the authors analyse three cases using that framework, followed by a reflection on new insights and lessons learned. Those insights are used in this paper.

Analysing findings

The selected studies were reviewed to identify guiding principles for CRFS governance. Most studies clearly formulated such principles or lessons as part of their discussion or conclusion. In other cases, principles were reflected in monitoring frameworks (e.g. indicators for good governance) or key topics related to governance on an urban agenda. These principles were held against the principles formulated in the framework by Termeer et al. (2016), thereby constantly reviewing, rephrasing and, when deemed appropriate splitting up or merging those principles. For example, the principle on boundary spanning structures was recognised by others, but these often distinguished between the importance of finding an appropriate governance structure and how these structures and the governance process itself are coordinated. At the end of the process (Figure 4), the following five principles were selected:

- 6. Apply an integrated systems perspective from the start, and maintain that perspective
- 7. Engage stakeholders that represent the CRFS in an inclusive manner
- 8. Carefully coordinate the process and selection of instruments
- 9. Develop or support governance structures with a distinct food focus
- 10. Invest in transformative capacity and adaptivity

The next chapter elaborates on each of these principles.

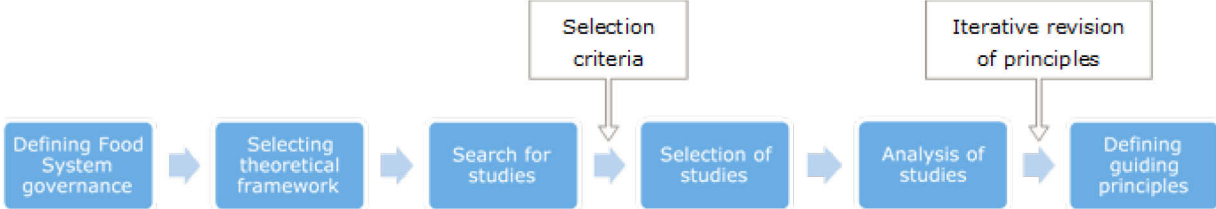


Figure 4 Breakdown of methodological process

3 Guiding principles for CRFS governance

From the range of reviewed studies and documents, five guiding principles have been extracted which will be elaborated below. These principles were referred to, albeit in different wording, by almost all studies regardless their focus. Although these guiding principles may well apply to food system governance in general, they will be explained in relation to the CRFS, illustrated by examples from specific cases. These examples are now placed under one of the principles, but it should be noted that in these examples more than one principle, if not all, are applicable.

3.1 Apply an integrated systems perspective from the start

All the reviewed documents emphasise the importance of taking an integrated systems approach from the very start of any process. The food system exists of several interconnected subsystems and therefore framing a problem and finding a solution from a single subsystem is likely not to do justice to the system as a whole. This means that a problem should be defined from a systems perspective in its entirety, thereby dealing with interlinked problems and feedback/-forward loops (Termeer et al., 2018). Moreover, the link between food-related issues and other global challenges such as climate change, migration and poverty should be acknowledged (FAO, 2018c). This system-based problem definition should logically flow into action that addresses the problem in all its complexity.

A systems-based problem definition predominantly entails creating linkages and integration into existing structures. First of all, relating to the spatial approach taken in the CRFS, rural-urban linkages should be acknowledged and strengthened when needed (Dubbeling, Bucatariu, Santini, Vogt, & Eisenbeiß, 2016; FAO, 2018a, 2018c). As described in one of the guiding principles of the Urban Food Agenda, rural-urban synergies are increasingly complex and highly context specific, especially in terms of migration and migration patterns. Therefore, taking a spatial lens to understand how rural, peri-urban and urban areas are interlinked within the city region and what function they fulfil is key to sustainable spatial development (FAO, 2018a).

Second, linkages between different sectors and departments within a municipality need to be created and/or strengthened and embedded into regional and national regulatory frameworks and legislation. One of the lessons learned from the South African cases is that if those interdepartmental connections are weak, then the risk is that issues will be reduced to a single perspective, which in turn reduces the likelihood of other departments involved in the implementation (Termeer et al., 2018). Typically, cities choose one or two entry point to approach food issues, for example health, economic development, land-use planning, food safety or markets, and from there seek linkages with other domains (FAO, 2018c). National and international policies and frameworks are found to lay a foundation for local structures and programmes, but need to leave room for local structures to weave in (FAO, 2017; UN-Habitat III, 2017). However, as the CRFS does not always fit within existing administrative boundaries, national and legal frameworks should be provided in which the CRFS can be embedded in broader legislation (Dubbeling et al., 2016; UN-Habitat III, 2017). Nevertheless, even when a programme seems to weave in well with existing policy framework, the stubborn reality of implementation can remain a challenge and limit progress (Termeer et al., 2018).

Box 1: Kesbewa – Sri Lanka

The city region of Colombo (Sri Lanka) is facing multiple challenges: urban areas are expanding rapidly, and rural areas are under pressure. This pressure is partly caused by urbanisation, but also by increased and heavy precipitation and decreased drainage capacity due to urban development. Lower lying areas that were traditionally kept for rice cultivation and drainage are now turned into residential area. In response to these challenges, a pilot was set up in 2012 in Kesbewa, a rapidly expanding city close to Colombo. The pilot aimed to rehabilitate 17 hectares of paddy fields in the peri-urban area. After extensive mapping of the area, a policy scan and feasibility scan, the pilot was implemented using a variety of channels: stakeholder meetings, farmer support and capacity strengthening, connecting farmers with business opportunities, and capacity strengthening among Agriculture Instructors. Simultaneously, achievements were made to embed this Kesbewa land use model in policy frameworks on a local, provincial and national level. The restoration and use of paddy field in (peri-)urban areas is now acknowledged as climate adaptation method and disaster-risk reduction strategy (flood risk reduction strategy, reduction of food miles through local production), model for increasing farmer income, and a model for agriculture in environmental protection zones, which also draws ecotourism and facilitates botanical research. The involvement of a variety of provincial government departments and local government were key to these achievements.

Dubbeling et al. – CRFS Case studies (2016)

3.2 Engage stakeholders that represent the CRFS in an inclusive manner

All reviewed studies emphasised that the government is but one of many players in governance processes. To be able to improve the CRFS, participation of and a distinct role for a variety of stakeholders within that CRFS is crucial in shaping necessary governance structures. Stakeholders that could potentially be engaged are, amongst others, food producers, food businesses, research and knowledge institutes, consumers, and civil society organisations (CSOs/NGOs) such as local food initiatives, particularly urban agriculture communities (Dubbeling et al., 2016; FAO, 2017, 2018c, 2018b; Feltrinelli, 2015; Gupta et al., 2018; MUFPP, 2017; Termeer et al., 2018; UN-Habitat III, 2017).

As described in the study by Harper et al. (2009), it is not only key to involve stakeholders across different sectors and organisations in governance structures, but also groups from different socio-economic backgrounds and other groups that may not have easy access to a place around the table. It can often be those who are most food insecure who are excluded from participation (FAO, 2017).

Who should be included in CRFS governance structures depends on the specific context, but in all cases it is emphasised that such structures should at all times ensure to be locally relevant (Harper et al., 2009). Strategic involvement of specific stakeholders can go a long way in building trust and creating mutual understanding about the issue at hand. As described in the case of Detroit, a lack of trust, misunderstanding and different perceptions within the government and farmer communities led to a lack of engagement which hampered implementation of an urban agriculture ordinance (IPES, 2017). The use of participatory approaches and bottom-up planning is therefore key and should be applied in all stages and methods applied for CRFS governance (FAO, 2018b; Feltrinelli, 2015; IPES, 2017).

The principle of stakeholder engagement also links to the concept of 'resistant governance' introduced by Hospes et al. (2016). Resistant governance builds on the notion that more power should be in the hands of small food producers, social movements and consumers, thereby building more just and sustainable food systems as opposed to adapting to capitalist food systems. Access to food is thereby considered a human right – rather than a global commodity – including the right for nations to develop their local food systems to supply in their own needs in their own way. This line of thought can then also apply to city regions that wish to govern their CRFS according to these notions, whereby stakeholder engagement is key to arriving at a just and sustainable CRFS where citizens can enjoy their right to food.

Box 2: Providence - USA

In Providence, food has not been on the agenda until 2000. In this year, various factors came together and drove the urban agenda towards increased attention for local food production through community gardening and urban agriculture.

1. Bottom-up movements increasingly drew attention to the importance of local food systems. An already existing NGO, the Southside Community Land Trust (SCLT), capitalised on this trend by advocating for a community food system with locally produced food. The SCLT launched the Providence Urban Agriculture Task Force (UATF) which included farmers, gardeners, NGOs, health professionals, city staff and others.
2. At the same time, neighbourhood associations and residents called for increased citizen participation in urban planning. For the UATF, this was a perfect moment to jump in and advocate for their plans. The mayor at that time was convinced and neighbourhood plans were developed followed by a plan with clear food system objectives related to community gardening. In 2014, a sustainable Providence Food Plan was developed through a participatory process.
3. Continuity in political commitment to local food issues played a key role: from 2003 onwards, the consecutive mayors built on each other's work, thereby increasingly integrating global challenges such as climate change and pollution.
4. Decrease of federal support pushed to city council to approach new sources of knowledge and skills, such as private sector, NGOs and academics. This led to the establishment of the offices Sustainability and Healthy Communities and the Environmental Sustainability Task Force.

This process, taking place over a period of more than 15 years, shows how the involvement of stakeholders on all levels through community-inclusive planning has been one of the key drivers in ensuring that programmes addressed relevant issues and were supported by the communities. In this time, Providence has developed over 40 community gardens, 18 market farms, new ways to deal with food waste through composting, and locally produced fresh food is now available to residents.

FAO - Integrating food into urban planning (2018)

3.3 Carefully coordinate the process and selection of instruments

Developing and implementing successful strategies for CRFS governance requires a long time, up to decades, and will therefore undoubtedly transcend various electoral cycles (FAO, 2018b; IPES, 2017). This is crucial to take into account in the coordination of the process and stresses the need for independently functioning governance structures, as will be explained in the next section. Other aspects mentioned in several cases is the need to develop clear mechanisms for decision-making, multilevel consultation, communication and planning from the very beginning of the process (Harper et al., 2009; MUFPP, 2017; UN-Habitat III, 2017). Moreover, mechanisms should be built in for compilation of data for monitoring and evaluation (M&E) and learning throughout the process to allow for continuous reviewing and renewal of policies and structures that have been developed (Harper et al., 2009; IPES, 2017; UN-Habitat III, 2017). Performing background and baseline research is part of this. As described by the FAO case studies in Latin America, transparency and accountability are key to a good governance process (FAO, 2017); careful coordination and monitoring of the process can support this.

From the narratives of twenty cities, FAO extracted 6 types of instruments for integrating food into urban planning. The use of these instruments can help provide grip on the process of planning and coordination of CRFS governance. Broadly, the following types of instruments are mentioned:

1. **Spatial mapping:** for example, food assets, land, green, food retail environment (at various levels, to allow for multiscalar planning and define roles).
2. **Spatial indicators:** a variety of indicators that can help spatial planners make decisions. Also including consumers' point of view and food deprivation indicators.
3. **Food charters:** a 'vision of values, principles and priorities'. Not a policy, but rather guide for decision-making to improve the local food system. A collective can help in defining basic principles to guide the formulation of a proper food plan or policy.

4. **Multi-stakeholder and community participatory planning:** multi-stakeholder policy formulation and action planning (MPAP) method.
5. **Land regulation, land zoning and land uses:** spatial planners to consider land in terms of land for production, retail and wholesale markets, mobile vendors or agro-industrial zones
6. **Monitoring tools:** for example, food deprivation maps to monitor food inequity over time.

Box 3: Quito - Ecuador

In the past decades, Quito has experienced a process of urbanisation, leading to increased pressure on fresh water supply due to increased consumption, irrigation by farmers and hydropower stations. This problem was left unaddressed until, in the early 2000s, an independent water fund (FONAG) was established by a local NGO – The Nature Conservancy (TNC) – in collaboration with the municipality of Quito. The two key tasks of FONAG were to provide clean and regular water supply to Quito’s inhabitants and provide financing to support protected areas crucial for Quito’s water supply. Although FONAG operates independently, its success can largely be contributed to the support provided by the Quito municipality, in particular the consecutive mayors. Support from leading decision-makers was key in the process, as well as their engagement in a public-private partnership to allow for long-term support and planning. The Quito municipal water company is one of the funders of the funds, which stressed the need for evidence on water quality and quantity to safeguard continuous funding now and in the future. Moreover, FONAG pays explicit attention to education and learning, both internally as well as by consumers. Education programmes are implemented to teach children about responsible water use and geo-data is collected for monitoring and increasing understanding of water challenges. This case shows how careful planning, vision and systematically keeping track of results through data collection are key to continuous learning and the overall success of FONAG.

Dubbeling et al. – CRFS Case studies (2016)

3.4 Develop or support governance structures with a distinct food focus

CRFS governance requires governance structures at various levels. As mentioned earlier, it is important for local governance structures to link with national policies, and in order to do so it is key to assess which structures are appropriate in a specific context. Throughout literature and in the case studies, a variety of structures are mentioned which essentially all represent some form of a democratic space for deliberation and negotiation at a local level. A frequently mentioned structure is a Food Policy Council (FPC), or an Urban Food Council (Feltrinelli, 2015; Gupta et al., 2018; Harper et al., 2009). What an FPC comprises exactly may differ per case. Harper et al. (2009) defines an FPC as “both forums for food issues and platforms for coordinated action. FPCs consists of a group of representatives and stakeholders from many sectors of the food system”. These stakeholders ideally represent the different components of the food system (production, consumption, processing and others) in a city region, for example: farmers, restaurant chefs, government officials, members of civil society organisations or grocers. An FPC therefore reflects the transdisciplinarity of a CRFS and functions as a boundary spanning structure that is identified as one of the core principles of food system governance arrangements identified by Termeer et al. (2018). Regardless the name given to a governance structure, the common factor in the variety of structures described in the case studies is an explicit focus on food and nutrition.

Key aspects of such governance structures are that they should form both vertical and horizontal linkages (Dubbeling et al., 2016; Gupta et al., 2018; IPES, 2017; MUFPP, 2017; UN-Habitat III, 2017). Vertical linkages ensure that the governance structure links with regional, national and global policies and frameworks, but also means that you need the right persons on board to maintain and strengthen links with these vertical levels. Horizontal linkages ensure that the governance structure is well-connected with society at the local level, which means you need the right persons on board to link with these local stakeholders.

Other key elements are that the governance structure that is chosen functions on a local level and holds a certain degree of autonomy. This includes a degree of structural autonomy to ensure that the appropriate level of independence from local government is maintained (Gupta et al., 2018). To what extent such a council should be intertwined with and hosted at the local government differs per context, but being able to function independently and take a different stance from local government seems to be valued as a positive trait (Gupta et al., 2018; Harper et al., 2009). Different functions that a governance structure like an FPC can have are (Harper et al., 2009):

- Providing a forum for food system issues;
- Fostering coordination between sectors;
- Evaluate or influence policy;
- Launch or support programmes.

Finally, an important characteristic is that such structures are institutionalised, form an official point of contact with local government and have a clear mandate (IPES, 2017). One of the learnings that Harper et al. (2009) identified among several FPCs, was that is key to have a clear goal, mission and organisational structure, which are needed to stand firm in the political jungle.

Box 4: Belo Horizonte - Brazil

In Belo Horizonte, poverty and malnutrition formed a huge burden in the 1990s, amongst other due to economic crisis. In response to these challenges, a policy reform was introduced that addressed food security from a rights perspective: the right to access to sufficient, healthy and nutritious food. The Municipal Secretariat for Food and Nutrition Security (SMASAN), became in charge of managing 6 workstreams under the newly developed policy. In the 2000s, a federal framework was implemented, considering food and nutrition security a responsibility of the state, leading to the implementation of a variety of systems and laws that supported SMASAN's work at a local level. Because of its position with in local government, separate budget and staff were allocated to SMASAN, allowing the establishment of a core team of dedicated civil servants with a direct link with other local government departments. This, together with the rights-based approach to food, supported the acceptance and uptake of SMASAN's programmes. Despite the challenges and inevitable disadvantages of this governance structure (for example, that the director of SMASAN is appointed by the mayor, and therefore vulnerable to electoral cycles), one of the major successes of Belo Horizonte's approach lies in the institutionalisation of SMASAN in the heart of the city's government. In addition, the institutionalisation of the right to food at a national level supported the angle from which food and nutrition security is being addressed at a local level.

IPES – What makes urban food policy happen? (2017)

3.5 Invest in transformative capacity and adaptivity

Transformative capacity can be described as being able to “overcome path dependencies and create adequate conditions to foster structural change” (Termeer et al., 2018). In order to do so, it is important to understand these path dependencies, and have strong leadership, sufficient resources and political will to make structural change. This is also recognised in the various case studies. A strong leader within the governance arrangement, who has relevant experience and a wide network, is essential to make the right connections and make things happen (Dubbeling et al., 2016; Gupta et al., 2018). Moreover, both human and financial resources are needed for CRFS governance. Funding should be sufficient to cover not only development of the governance arrangement, policies and programmes, but also the implementation of these and the capacity development that is needed to do so (Dubbeling et al., 2016; IPES, 2017; Termeer et al., 2018; UN-Habitat III, 2017). Thereby, it is emphasised that there should be no restrictive condition on how the funding is used (IPES, 2017).

For CRFS governance to be truly transformative, political support is essential. In multiple studies, the importance of political will and involvement of subnational government levels is stressed. These are needed to institutionalise and support governance structures, policies and programmes (Dubbeling et al., 2016; UN-Habitat III, 2017). In the MUFPP Monitoring Framework, having a municipal urban

food policy, strategy and/or action plan is one of the indicators for an enabling environment for effective action (MUFPP, 2017). Having such a strategy shows that a municipality embraces food system governance issues as part of the municipality's responsibilities and aims to support and create an enabling environment in the broadest sense. Long-term political commitment, which transcends electoral cycles, on both local and national government level is required. Such complex issues need more time than one electoral cycle to take shape and deliver results and should therefore be considered a long-term investment (IPES, 2017).

Finally, adaptive governance is key for CRFS governance to succeed in the long term, not in the least to be able to work across sectors and scales (Hospes & Brons, 2016). Moreover, the FAO Urban Food Agenda emphasises that urban food systems need to become more resilient to challenges such as climate change and weather shocks, rapid urbanisation, and price volatility (FAO, 2018a). In such a dynamic and uncertain environment, adaptive governance is needed to adequately respond to changes (Termeer et al., 2018). Among the good practices from the MUFPP cities are food resilience management plans to respond to sudden changes or disasters, and vulnerability assessments to identify weaknesses in the food system (Feltrinelli, 2015). In addition, having flexible policies, institutions and governance structures can foster adaptive governance. For example, embedding several small-scale initiatives well within a larger governance structure can be a way to allow for adaptive governance (Hospes & Brons, 2016).

Box 5: Toronto/Greater Golden Horseshoe – Canada

In Toronto, a few of the most significant challenges are food insecurity amongst children and marginalised groups and competing demands for land. The wider Toronto rural-urban area, also called 'the Greater Golden Horseshoe', has high potential for food production but at the same time rapid urbanisation is taking place. In response to emerging nutrition related health problems, Toronto had already started to develop food policy in the 1990s. Since then, a food policy council has been established as well as the Golden Horseshoe Food and Farming Alliance and several other councils and committees, each operating on and coordinating between various levels, from local, to regional to national level. A wide variety of policies and programmes have been implemented, ranging from policies supporting farmer markets and community gardens, to school meal programmes, protection of farmland, support of community-led projects, establishments of community kitchens and much more. The nation-wide adoption of the Local Food Act in 2013, which aims to expand Ontario's agri-food sector through increased local food production and distribution, formed a major enabling factor for the above. All these factors together form a network of governance structures and programmes that are unique to the area and allow for adaptation on every level when needed. Simultaneously, political will and commitment have played and will play a crucial role in facilitating and boosting local initiatives and creating an enabling environment for a healthy city region to develop.

Dubbeling et al. – CRFS Case studies (2016)

4 Challenges and barriers

While analysing the different studies selected for this mapping exercise, a number of challenges and barriers were mentioned that should be taken into consideration.

1. Active stakeholder participation and working with power

One of the guiding principles is engagement of stakeholders from all levels and sectors in the governance process. This in itself is already a challenge; even when an inclusive approach is attained, participation of key actors is often limited, amongst others, for reasons explained in the next section, but also because of lacking mechanisms for stakeholder involvement (Feltrinelli, 2015; Harper et al., 2009; Termeer et al., 2018). Even when key actors are brought together within a certain governance structure, power differences and conflicting interests can seriously hinder effective governance (Feltrinelli, 2015; Harper et al., 2009). Then, also the question remains who has decision-making power. In addition, opposition can be encountered from actors outside this governance structure (Harper et al., 2009).

Working with a wide variety of stakeholders with different interests and power levels can also pose a challenge in terms of continuity: how can active participation of all parties be established and maintained without certain groups losing trust or motivation to engage? Moreover, when working with a network of stakeholder groups and initiatives, this inevitably entails working with a wide variety of constituencies and membership structures (Harper et al., 2009). This requires clear communication to build and maintain trust and effective leadership.

2. Ensuring sufficient resources

Almost every study stressed the importance as well as the challenge of ensuring enough resources for the governance structure to succeed. This involves, amongst others, setting up a governance structure, supporting activities and programmes, ensuring active engagement of actors, drawing in necessary expertise and equipment, and data collection for M&E throughout (FAO, 2017; Harper et al., 2009). This not only entails financial resources, but also human resources and capacity. Especially those structures working with volunteers indicated that a lack of commitment and time was an obstacle, but also non-profit organisations face similar difficulties as they depend on funding support. Even when governance structures are embedded within a governmental institute, lack of time and dedication are commonly encountered struggles (Harper et al., 2009; Termeer et al., 2018).

3. Need for non-traditional structures

Finding appropriate governance structures for a CRFS may mean that existing governance structures need to be rewired to span different administrative and political boundaries, requiring comprehensive integration and alignment of policies and geopolitical interests (Harper et al., 2009). This creates a tension between the need for boundary spanning structures, both geographically and across sectors, and the existing boundaries and sectors in which those new structures need to be developed (FAO, 2017). The same applies to the fact that CRFS governance is a process which goes beyond electoral cycles, which poses a challenge to the continuity of any process or programme that takes longer than the typical four-year cycle (FAO, 2017; IPES, 2017). The FAO case study on FNS governance emphasises the importance of empowering civil society to promote continuity of efforts (FAO, 2017).

In addition, the role of the informal sector can be significant in contributing to food security and the local economy in cities, especially in slums and other poor areas in a city. In the development of food governance structures, this sector needs to be acknowledged and included in the plans, which may ask for a more flexible approach and structures that are sensitive to the needs of those working in this sector. Including the informal sector in formal plans is therefore a challenge that should be acknowledged and dealt with (FAO, 2018b).

4. Working with complexity

One of the challenges of the CRFS approach is that the framework embraces complexity: the interrelatedness of the different elements of the CRFS. The feedback loops and the different stressors that affect the system, such as climate change or migration, create a complex context for governance structures to be developed. Working in such a context requires a level of flexibility and competence that can be a true barrier in daily practice (Termeer et al., 2018). A pitfall that is often seen is that a food issue is initially formulated from an integrated systems perspective, but then again reduced to a single-focus issue during the implementation phase (Harper et al., 2009; Termeer et al., 2018).

Other challenges that have been formulated are, amongst others, measuring the impact of governance structures, balancing between policy development and programme work and long- and short term interests, formulating attainable goals, and dependence on one leader or political figure (Feltrinelli, 2015; Harper et al., 2009).

5 Discussion

This chapter reflects on the findings of this mapping exercise and observations made throughout the process. Especially the question of how to move from *principles* to *process* and the role of power and politics are issues that deserve further exploration. The KB learning agenda could address some of the issues that emerge.

5.1 Reflection on the principles

The principles defined above are extracted from lessons learned of existing cases or are part of a guideline on an urban (food) agenda. This indicates that these principles could be considered minimum standards that define the rules of the game in any future endeavours around CRFS governance. Yet, these principles seem to describe a certain mindset that is required and what the process should look like rather than showing *how* the process should take place and *who* should drive the process, as will be elaborated in the next section.

When considering the different cases to illustrate the guiding principles, another observation was made. In most of these cases, flexibility and opportunistic behaviour appeared key in the successes achieved in each of these city regions. For example, in the case of Providence, a set of ongoing processes suddenly merged, creating a momentum that was captured by the actors already working on food issues. In Belo Horizonte, the acknowledgement of the right to food was used to develop formal structures to address food issues. The importance of such momentum is also acknowledged Bers et al. (2016), who addressed the question which drivers or events trigger food system transformation or its governance. It was found that events such as economic/environmental crisis, new societal norms regarding food, advocacy coalitions and the need for access to resources were key drivers in such changes. While writing this paper, the Covid-19 pandemic is in full swing and it becomes increasingly eminent what the effects of this pandemic and restrictive measures are on FNS, especially among urban residents (FAO, 2020). In urban areas around the world, efforts are made to increase local food production, creatively redistribute food, actively provide nutritious food to vulnerable groups and continue essential food system structures as much as possible (FAO, 2020). FNS is suddenly on urban agendas worldwide, which may provide a momentum to continue such efforts, even 'after' Covid-19.

More than these five principles, it can therefore be said that an entrepreneurial and opportunistic mindset and timing is needed to capitalise on windows of opportunity. As described by Kingdon's multiple streams framework, this means it is key to act when three streams come together (Kingdon, 1984):

1. The problem stream: acknowledgement of an issue being a public problem, which requires government action. This can be triggered by, for example, a crisis or elections.
2. The policy stream: the identification, analysis and selection of policy solutions that are available to a specific problem.
3. The political stream: the political will to act upon the problem, influenced by advocacy efforts.

When these three streams, which run along different channels, come together at a specific moment in time, a window of opportunity emerges which can be used to put an issue on the political agenda (Figure 5). The role of so-called 'policy entrepreneurs' is key to either shape the streams where possible or act when a window emerges. These policy entrepreneurs can be anyone, both within or outside government, who are keen on creating or investing in opportunities to address specific issues on their agenda (Béland & Howlett, 2016). With regards to this paper, it can be said that the presence of policy entrepreneurs is complementary but key to the initiation of any governance process that aims to contribute to CRFS transformation. A process that should then respect these guiding principles. What remains to be considered is then to what extent new governance structures that focus on food issues are needed, or that it might be more appropriate to sensitise existing governance structures to food issues.

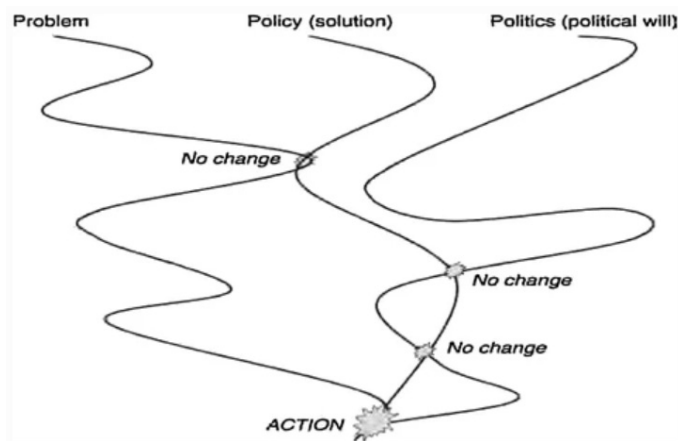


Figure 5 Multiple streams model of agenda-setting (Adapted from Kingdon, 1984)

Regardless of the answer to this question, the current Covid-19 pandemic once again stresses the importance of having such governance structures in place. As described in a brief by FAO (2020), it becomes clear that urban areas that already had food governance structures in place before the pandemic, are now drawing on and expanding those very structures to respond adequately and in a coordinated manner to increase FNS for its residents. For example, in Milan, the Food Policy Office was involved in setting up a Food Aid System to address FNS issues in the city (Milan Food Policy, 2020). Thanks to its Food Policy Council, Ghent was able to rapidly bring relevant stakeholders together and channel nutritious foods from farmers to consumer and vulnerable groups in the region (Verbeke, 2020). What can also be observed in cities' responses around the world, is that every city requires a unique approach and high level of creativity and flexibility to respond to this crisis, emphasising the importance of transformative capacity and adaptivity as key principles to CRFS governance.

5.2 From governance principles to governance process

These five principles give insight in frames of reference for governance of CRFS. However, as stated earlier, governance is about decision-making processes. Although these principles can function as means to steer governance processes, *how* such processes should be shaped remains a challenge. For example, inclusion of a variety of stakeholder throughout the process is key, but how stakeholders can be brought together and motivated to formulate and commit to a common goal requires a deeper dive into governance and multi-stakeholder processes. Drawing from previous findings, the premise is that CRFS governance processes that respect the guiding principles – in particular those on stakeholder engagement and operating from a distinct governance structure – is per definition a multi-stakeholder process, whether formal or informal.

In the Multi-Stakeholder Partnership (MSP) Guide by Brouwer et al. (2016), six stages are described in an MSP process: 1) connection, 2) shared language, 3) divergence, 4) co-creation, 5) convergence and 6) commitment (Figure 6). The first phase is about defining a common issue around which the collaboration is centred, with the next step being the development of a shared framing of that issue. From there, all the different associations and views on that issue are explored in the divergence phase, followed by jointly creating different lines or pathways for action to address the issue. In the convergence phase, a specific pathway or set of pathways is chosen and then commitment is created amongst partners to follow up and take action (Brouwer et al., 2016).

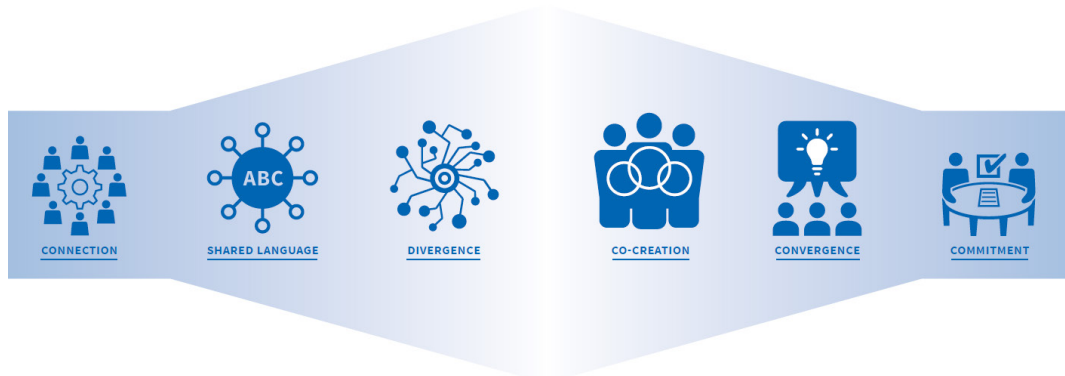


Figure 6 The six phases of an MSP process (Brouwer et al. 2016)

In terms of a CRFS governance process, the entry point for collaboration can be varied. One of the conclusions of the case study by FAO is that it is not so much about finding one perfect entry point. These are widely varied across the cases studied and even within a case there is often not one single entry point. This highly depends on context-specific challenges and what is happening already on the ground. Rather, it is crucial that once an entry point can be established, a systems approach is applied whereby other disciplines and actors are drawn in. Eventually, this allows for plans to become integrated and sustainable over time (FAO, 2018b). This process of drawing in other actors and disciplines links with the iterative character of an MSP process. FAO, in collaboration with RUAF Global Partnership and WLU, developed a CRFS toolkit, which contains how specific steps can be taken to create collaborative action within the CRFS. This toolkit describes the phase of preparation, defining the CRFS, developing a vision, performing a CRFS scan and assessment, policy support and planning and links with the role of governance throughout (Appendix 1) (FAO, 2019).

Apart from the question on how such process should take place, also the question of who drives such processes emerged. The cases each present a unique set of circumstances and processes, which makes it difficult to pinpoint key actors that should initiate and drive such processes. However, as indicated by Wigboldus et al. (2019) and van Bers et al. (2016), it is important that processes of system transformation are facilitated and that governance is key in this. In addition, what capabilities does this actor then need to facilitate such process? Van Oosten et al. (2019) describe landscape governance capabilities, which can arguably be translated to food governance capabilities. These capabilities can broadly be described as 1) capabilities to overcome substantial challenges towards a certain desired outcome and 2) capabilities to overcome procedural challenges to ensure that this outcome is institutionalised and achieved through a legitimate process. These questions: 'who drives governance processes towards CRFS transformation?' and 'what capabilities does this actor, or these actors, need?' deserve further exploration.

5.3 Power & politics of food

Throughout the principles, but also in the section on barriers and challenges and the model by Kingdon, the role of power and politics is continuously emphasised. Governance is considered a process in which power-imbalances can be levelled and where decision-making can take place in a more egalitarian manner (Béné et al., 2019). The five principles shed light on how to give shape to that process. More than that, the role of powerful actors in the food system, how they shape the food system, and how injustice in the can be addressed are issues that should be explored as part of the transition to sustainable food systems (Duncan, Levkoe, & Moragues-Faus, 2019). This means that power relations, structural inequalities and power imbalances within the CRFS need to be analysed and addressed. In doing so, questions should go beyond who has power and who has not, and include exploration how power is exercised, how politics may or may not legitimise certain forms of power, how power can be leveraged and how agency can increase (Elzen et al., 2019). Yet, it can be difficult to gain access to political elites, those places where decisions are made. Key decisions may be made

outside the public arena, thereby excluding certain groups or voices: a form of hidden power that is not easily addressed (Gaventa, 2006). In the cases from Latin America, the acknowledgement of 1) governance being a process that involves different actors and, 2) the complexity and size of FNS issues, were important steps towards inviting 'other' voices to the table and a changing relationship between the state and civil society actors (FAO, 2017).

Related to these questions, it should be considered at what level governance structures are then deemed appropriate, what the role of the government is in all this, and how an enabling environment can be created that not only contributes to sustainable CRFS, but also systems that are just and inclusive. As seen in the cases from Latin America, food is often considered a right, something that everyone should have access to regardless their social and economic position in society (FAO, 2017). Such a right-based perspective implies that the role of the government might need to become more prominent in many places, especially in times of crises such as Covid-19. Leaving food production and distribution to market forces now shows us the risks of broken food chains and how vulnerable groups are the first ones to get hit and get hit the hardest (Reardon, Bellemare, & Zilberman, 2020), but also that there is increased attention for local production, short food chains and the critical role of local government (FAO, 2020; Tefft, 2020). These observations indicate that local government, at city region level, may need to have a larger say in where and how their food should be produced and distributed to increase resilience and ensure FNS for their citizens. Yet, it should be warranted that the organisation and role of governance structures is and should be highly context-specific.

5.4 Implications for KB learning agenda

The observations discussed above, have a number of implications for the KB project 'Feeding Cities and Migration'. Apart from mapping and analysing the CRFS in a variety of case study sites, it is key to analyse relevant stakeholders, possible entry points and see where opportunities lie for leveraging stakeholder collaboration around food. For this, crucial questions are which governance structures or movements are there already, what is the role of power and politics around food in that specific area, and what might be windows of opportunities for change? Identifying local champions or policy entrepreneurs and their capacity needs can help to gain insight in who could strategically facilitate and stimulate action towards CRFS governance. This raises two questions:

1. How to develop or strengthen CRFS governance arrangements (formal, semi-formal, or both)?
2. What can be the impact of such governance arrangements on leveraging a transformation process towards sustainable, inclusive and healthy CRFS in a specific context?

Although the four years of this KB project may not be enough to show the impact of governance arrangements on the CRFS, the first question could function as a lead to more specific research questions to guide our KB work.

Moreover, referring to the different forms of governance distinguished by Termeer et al. (2010), it can be concluded that CRFS governance requires adaptive governance, as is also reflected by one of the principles. This means that if urban areas wish to move towards CRFS governance, they might need to move from mono- or multilevel governance towards adaptive governance structures. This is a process that the KB case study sites might need to explore, including what is needed to achieve this.

Concretely, this could translate in the following questions for follow-up research in each of our case study sites:

- What is the role of power and politics within a specific CRFS as well as the wider system in which the CRFS is embedded?
- Which actor or actors can drive CRFS governance processes and what capacities do they need?
- How can existing food activities/structures be used to leverage CRFS governance?
- What is needed to move from mono- or multi-level governance to adaptive governance?

6 Conclusions

In conclusion, the principles found during this mapping exercise give insight in what principles underpin CRFS governance processes, they indicate the rules of the game. Although in this paper these principles are identified for CRFS in particular, they may well apply to food system governance in general. An integrated systems perspective, stakeholder engagement, process coordination, governance structures and transformative capacity are key. In these times of the Covid-19 pandemic, these principles do not only hold, but their importance are all the more emphasised. Having inclusive, integrated and flexible governance structures in place seems to be key to resilience and the capacity to adequately respond to crises.

Yet, more is needed. Different processes need to come together to create a momentum, a window of opportunity for action to put food and nutrition on the urban agenda. Although a crisis such as the Covid-19 pandemic might create such a momentum at this moment, in many other cases the role of specific entrepreneurial actors to facilitate such action or to actively create such windows is needed. Who those actors are and what exactly triggers food system change remains context-specific and is to be explored at the CRFS level. Knowing this, stresses the importance of detailed CRFS mapping and analysis, including a thorough analysis of – and together with – stakeholders, existing structures and energy within the CRFS in question. Especially questions around *how* such processes can be facilitated, by *whom*, and *how* CRFS governance can ultimately contribute to CRFS systems transformation remain key topics for further research.

This mapping was predominantly based on case-based literature, which gave insight in the specific process of a unique case, but was not sufficient to generate some generic lessons on the 'how', precisely for the reason that every context is unique and that successful cases demonstrated an ability to bring different processes together and adequately respond to emerging opportunities. It therefore seems that, after gaining a thorough understanding of the unique CRFS in question, identifying such opportunities and reinforcing the capabilities of food champions, both within and outside government, might be the first and foremost step of any process towards sustainable, inclusive and resilient city region food systems.

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Appendix 1 CRFS Toolkit

In order to provide direction on how to use the lens of the CRFS in practice, including initiating a governance process, a CRFS toolkit has been developed by FAO, RUAF Global Partnership and Wilfrid Laurier University (FAO et al., 2018). The toolkit helps local authorities and other stakeholders to understand and assess the CRFS by providing tools and support in how to collect data, how to use a multi-stakeholder process, and how to make plans for a sustainable CRFS. The toolkit is based on the experience of 7 cities around the world and includes 45 tools concrete examples.

The CRFS toolkit describes 7 phases:



GETTING PREPARED

1. Getting prepared

In the first phase, a first group of stakeholders is brought together to do an initial mapping of key issues and stakeholders in the city region, roughly define the boundaries of the CRFS and identify potential entry points for action and identify readily available data. This initial group of stakeholders should include policy makers, researchers and other relevant stakeholders. For this stage, it is essential to be clear about the purpose of the process, what will be done with the results and under what terms of reference involved stakeholders engage.



DEFINING THE CRFS

2. Defining the CRFS

Then, a more thorough mapping phase starts, in which stakeholder consultation meetings are organised to define the boundaries of the CRFS and a literature study can be done on the boundaries of the CRFS. Also, a more detailed stakeholder mapping should be done in this phase.



VISION

3. Vision

The outputs from the mappings can give input to a vision, in the first place for the project, to give direction for the next steps and create a common understanding and commitment of those involved. However, throughout the project, a vision can be defined for the CRFS in which the project runs.



CRFS SCAN

4. CRFS Scan

Then, a CRFS scan can be used to create an overview of the context of the CRFS, in particular the political, institutional and policy environment. Key knowledge/data gaps can be identified, and main issues can be determined. It is important to engage stakeholders in this phase and ensure that findings are communicated to a wider audience. This scan is a rapid assessment that give input in the next phase.



CRFS ASSESSMENT

5. CRFS Assessment

In the CRFS assessment phase a deep dive is taken into analysing available data and collecting new data on identified issues. A wide variety of mapping tools is presented here, which allow a mapping of the CRFS from a multitude of perspectives. The purpose of this assessment is to map out the CRFS in detail through data analysis (primary and secondary) and visualisation.



POLICY SUPPORT AND PLANNING

6. Policy Support and Planning

After the assessment, it should be clear what the context of the CRFS, what main bottlenecks are for a sustainable CRFS, which entry points/opportunities can be used to develop plans and which stakeholders should be involved in this process. This can then help in identifying policy needs, formulating projects and policies and point out any governance needs.



7. Governance

This entire CRFS process already requires governance in itself. This means, finding appropriate structures and the right stakeholders, across sectors and scales, to find each other in planning and action, and the development and integration of enabling policies. This is a process that requires defining and redefining needs for CRFS governance and strengthening capacities of those involved accordingly. The toolkit provides examples and inspiration on how those processes can be shaped but it should be emphasised that not one size fits all.

For more details on the toolkit, visit the [website](#).



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