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Wageningen Economic Research | Supporting paper 2

Transforming Food Systems

Governance for healthy, inclusive and sustainable food systems

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September 2021

Preface

The UN Food Systems Summit UNFSS and the many dialogues and extensive research preceding it create the momentum to re-define and re-think our food systems. Acknowledging that many trade-offs in current food systems are structural and leading to unacceptable outcomes, and that many global goals as reflected in the SDGs will not be met, implies our food systems need profound transformations. This can only be achieved when we understand how our systems evolve, interact and can be steered towards more desirable outcomes.

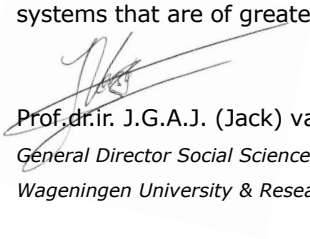
During 2019 and 2020 Wageningen University & Research (WUR) coordinated and implemented background research that informed IFAD's 2021 Rural Development Report. In addition to 23 background papers, a modelling paper and a regional consultation report, four supplementary papers were prepared. These are published as standalone papers: 'Transforming Food Systems supporting paper 1, 2, 3 and 4.' The papers were written from the perspective of an overall report and refer to concepts, examples and recommendations in the final RDR report.

- Key messages: these are the key findings, possibilities and priorities Wageningen University & Research sees coming out of all the background research, reports and papers.
- Supporting paper 1 provides more extensive explanation of the need for food systems transformation, in particular due to structural undesirable trade-offs between nutrition, livelihoods and environment. It places possible responses in the context of the need to focus on rural transformation broadly, beyond a focus on primary agricultural production.
- Supporting paper 2 provides greater detail on the governance necessary to drive urgent and accountable implementation of food system agendas.
- Supporting paper 3 provides more detail on possible pathways to food systems transformation in different contexts, which consider integrated, desired outcomes of health, inclusion and sustainability.
- Supporting paper 4 provides an overview of how four categories of food systems perform against key system indicators.

The research and papers are the result of a fruitful collaboration between Wageningen and IFAD. The main objective was to generate and share insights, peer-reviewed information and robust evidence on impacts of different strategies to support improvements in the performance of agri-food systems in the dimensions of safe and healthy nutrition, inclusiveness, sustainability/resilience and efficiency. All background work thus contributes to insight into the impact of different types of innovations and investments on multiple food system dimensions and for specific target groups (children, women, young people).

A special thanks goes to Romina Cavatassi and Leslie Lipper from IFAD for their intellectual contribution to and strict but indispensable and professional process guidance during the analytical and writing steps.

We are very grateful to IFAD for the grant that made the background research and these publications possible. We hope this will contribute substantially to healthy food systems that are of greater benefit to all.



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Introduction

The failure of food systems to deliver on our overall and longer-term needs is at base a governance failure. Transforming food systems for nutrition and health, inclusive livelihoods and environmental sustainability will require substantial reforms of governance and decision-making mechanisms. Governance structures must become much more inclusive and cross-cutting, with improved coordination across sectors, stakeholder interests and geographic scales, and with sufficient societal understanding and political will to enable change.

Today's food systems are often shaped by one dominant actor group – whether public or private – and exclude many voices. The consumption, midstream and production segments are governed separately rather than as a system. Also governed separately are nutritional outcomes, livelihood implications and ecological footprints. As a result, food systems evolve in unbalanced ways and are not centred on public and cross-cutting needs: governance structures and processes fail by reproducing undesired outcomes and preventing food systems from radically improving (Leeuwis, Boogard and Atta-Krah, 2021; Bradshaw et al., 2021). Covid-19 has led to stronger government control. And the priorities of large actors in food systems, while contributing to overall food system resilience, seem to do so at the expense of many informal and small-scale actors (Béné et al., 2021).

Effective food system governance should go beyond analysing food systems to actively steer them towards desired outcomes. Many scientists and policy experts have already embraced the food system perspective advanced here – yet their views rarely inform the way that local, national or international institutions function (Termeer et al., 2018; Hospes and Brons, 2016). The solution to this impasse begins with convening public, civic and private actors to ensure that all their voices are heard. Each stakeholder should have an effective role in negotiating and shaping the goals, instruments and implementation of food system transformation.

To be sure, governance will never control every aspect of every food system's complex and often unpredictable dynamics. What it can do is set forth country and context specific transformation agendas that reflect the diverse needs and capabilities of politicians, citizens and businesses – and drive actions to deliver on these transformation agendas.

This paper develops five messages:

1 Inclusive governance comprises the public sector, civil society and the private sector. The power and voice of the state, of citizens and of the market differ, and among these differences are key leverage points for improving governance.
2 Food system governance faces five distinct challenges – all of which must be faced, as failure to confront one will make others still more daunting. These challenges are:
   - Developing and implementing aligned and effective multisectoral policies.
   - Balancing private profit-making with social responsibility and due diligence.
   - Bringing the voice of civil society into decision making.
   - Governing the informal economy to balance standards and efficiency with opportunities for gainful employment and economic benefits for small and medium enterprises.
   - Balancing the power of vested interests with the common good and inclusive economic opportunity.
3 Making food system governance work is a complex, difficult and unpredictable process. There is no blue-print for reforms.
4 The public sector must start building transformative capacity within public agencies. Governments need to adopt cross-cutting public food system goals with matching incentives, investment regimes and value chain regulations and standards.
5 Governance processes need to shift in four main ways. Transformed governance structures must be dedicated to:
   - Formulating collective agendas.
   - Investing in capacities and ensuring freedom of voice and self-expression.
   - Encouraging experimentation and searching for fitting governance models.
   - Assuring adaptive processes and transparency through independent monitoring.

Understanding governance in the context of food system transformation

Governance encompasses the rules, authorities and institutions that coordinate, manage and steer society – not just government, but also markets, traditions, networks and non-state actors such as businesses and civil society organisations (Stoker 1998; Hooghe and Marks 2000; Figure 1.1).

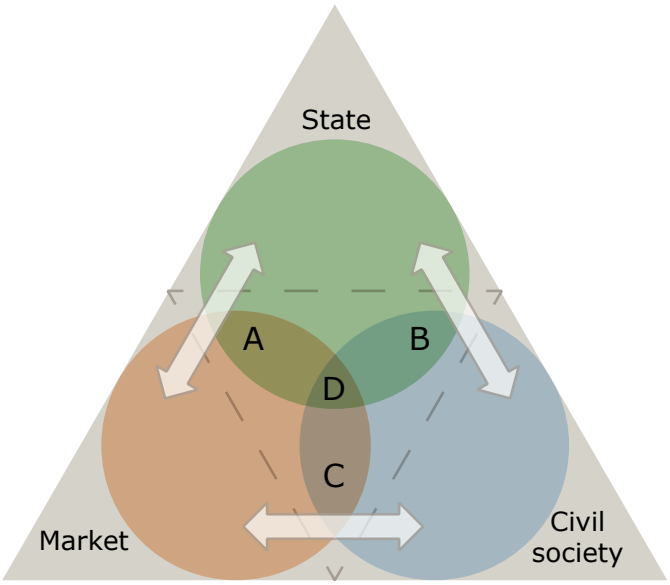


Figure 1.1 Basic inclusive governance – a three-way interaction
Source: Van Tulder and Pfisterer, 2013

Current food system governance systems have failed in producing equitable and just access to food. One reason is that the governance of food systems is poorly understood and conceptualised (Delaney et al., 2018; Van Bers et al., 2019). Food system governance is contested because it results from interactions among governance actors with different agendas, strategies and capacities (Delaney et al., 2018). Actors may disagree on strategies, but also on fundamental issues such as the purpose of a food system – and they all try to steer this into their particular intended goals, using formal and informal means of steering.

A wide variety of laws, policies and organisations at different levels and places has emerged to directly or indirectly govern food systems. But to achieve more desired food system outcomes, new modes of governance need to be explored and adapted to their cultural, historical and political contexts. The complexity of the governance challenge, and the increase in number of public and private actors since the liberalisation of agricultural and financial markets in the 1980s, demands greater coordination and coherence across spatial and administrative scales (Herring 2015; MacDonald et al., 2015; Van Asselt et al., 2011).

Food system governance needs adequate and realistic definitions and models

Although food system governance involves both governments and the larger public sector, it is increasingly determined by multiple non-state actors in civil society and the private sector, such as international supermarket chains (Leeuwis, Boogaard and Atta-Krah, 2020; RDR chapter 4). As various groups interact formally and informally – exchanging views, collaborating, negotiating and entering into conflict – they bring the different values and interests of diverse stakeholders (OECD, 2021). Because no single actor – not even the state – can impose effective governance on such a complex system (Leeuwis, Boogaard and Atta-Krah, 2020; OECD 2021), its inclusive transformation depends on the willingness and capacity of interdependent actors to respect each other's differing needs. It also requires the removal of structural constraints on the ability of actors to be heard in governance processes (Bradshaw et al., 2021).

The state, through its institutions, can facilitate the functioning of the interaction spaces to create market opportunities for SME development, living wages and incomes, better nutrition , and a more sustainable environment (RDR Chapters 2, 4 and 8). Presented here are examples of interactions between state, private sector and civil society in some aspects of food system governance. In most cases, the interactions in the governance triangle are bilateral, but have a bearing on the third party which may then respond. Some interactions are zero-sum (one's gain is another's loss), but others are more synergistic and offer benefits to several parties (and several food system outcomes).

- Food import–dependent governments may subsidise imported cheap foods to keep the urban population or a strong business lobby satisfied, but can undermine local production systems by doing so (Terwisscha et al., 2020).
- IT solutions – such as easy money transfers, voucher systems, SMS information services on prices and weather forecasts, crop insurance, connectivity of farming community – are developed and marketed by the private sector and made attractive and affordable for individual users. But they work for all only if the state facilitates and renders the technology accessible to disadvantaged groups in society (Ceccarelli et al., 2020).
- Effective and smooth connections between growing cities and the surrounding peri-urban environment improves market opportunities for the private sector and timely delivery of healthy foods for urban society, but these need state planning and infrastructure (De Bruin et al., 2021).

- Local food processing can offer market access, healthy foods and jobs, especially to women, but can only have significant impact when the state facilitates scaling up (Materia et al., 2020, Quisumbing et al., 2020).
- National governments can coordinate cocoa marketing policies to mitigate the negative effects of monopolistic private sector price setting. Such inter-governmental cooperation should focus on increasing the living incomes of smallholder producers and more sustainable production techniques (Alho et al., 2020; Waarts et al., 2021).
- States can introduce national dietary guidelines, but these need to be observed and implemented by the private sector and consumers to steer the market for healthy foods and support civil society in promoting healthy diets (Brouwer, forthcoming; Feskens et al., 2020).
- States can create disincentives for SME development and employment creation for young entrepreneurs and women by not setting standards for organic waste and not facilitating collection and recycling, as when neglecting the environmental damage due to intensive animal production clusters (RDR Chapters 7 and 8).
- Regional economic cooperation, as with ASEAN and ECOWAS, can steer market development and share comparative advantages among member states to the benefit of civil society (RDR Chapter 4).
- The state can influence calls for corporate social responsibility and certification schemes from high income countries, by responding in ways that both facilitate private sector development while pushing for living incomes and sustainable production (Alho et al., 2020).

Food system governance takes place at different institutional levels

Food system governance at different levels can produce at least six broad types of governance – or failed governance.

Supranational governance. International governance structures developed over the past decades are increasingly bringing a system perspective to food systems. Global committees and platforms are generally thematically focused, such as the FAO CFS Committee on Food Security, the Intergovernmental Panel on Climate Change (IPCC) and the Convention on Global Biodiversity. But the WTO is focused only on trade priorities (RDR Chapter 4). Over the past years, many reports have highlighted undesirable structural outcomes of food systems (IPCC, 2019; UNEP, 2021). These are welcome underpinnings for transformation, building the urgency and will to change. But future governance processes are still needed to translate generic messages to national contexts, with national structures and power to act effectively. Ratification by parliaments and translation into national action plans enhances the effectiveness of globally agreed transformations (Climate Summit, 2015).

A more voluntary basis underlies most initiatives on supranational platforms, such as round tables where private sector and civil society (through NGOs) negotiate on health, environment and livelihoods linked to global value chains of major export commodities. Private participation is often inspired by corporate societal responsibility (CSR). Governments are often not formally engaged as they feel constricted by legally binding agreements such as WTO and national pressures for sovereignty over own standards. These initiatives are frequently preceded by extensive campaigning and legal battles by civil society to force changes in global (private sector) agendas. Parliamentarians and NGOs in many high income countries are active in giving such voluntary arrangements a legal and binding basis.

Regional economic cooperation. Regional governance of food systems is observed in a growing number of regional and continental (trade) communities such as ASEAN and ECOWAS. These formulate joint trade and policy agendas that are meant to set the scene for national level food system strategies. For example, the Malabo Declaration of 2014 formulates the first decades of agricultural goals for the AU's Agenda 2063. To date, countries struggle to translate such agreements and declarations into national food system agendas. For example, the African Union's 2019 biennial review of progress on the Malabo declaration commitments pointed to just four countries that were on track.

National governance. Governments have several degrees of freedom to steer food system transformation, depending on their financial situation, their governance capacity, their political ambitions and the way the state is organised. Either through parliamentary priorities or through targeted organisation of institutions, or both, governance at national level can be beneficial to food system transformation. Yet, national governance is also the domain of lobby and political influence by powerful actors in society. These may steer government policy towards their interests, or dilute government ambitions when unfavourable for their constituencies. The Covid-19 pandemic has highlighted the necessity and possibility for governments to play highly directive roles in food systems (Béné et al., 2021; OECD, 2021).

Local governance. Food system transformation at local levels depends on the government model, ranging from centrally steered institutions to highly decentralised and empowered local government. At local level, historically evolved cultural values as well as socio-economic disparities and gender inequalities come to the fore. Efforts to decentralise government have resulted in more locally owned policy development and implementation, but there is also evidence that traditional power structures have re-emerged at the disadvantage of specific groups in

society, such as women and youth. The result of national governments introducing measures and setting priorities for exemptions in the face of Covid-19 has shown how dependent local government often is on national priorities, with many informal and local markets initially being shut down and still often facing trading restrictions (Béné et al., 2021).

No governance. No matter how much one can plan and steer at any spatial and institutional intervention level, a lot of food system transformation takes place without planning. The spheres in the societal triangle cover a plethora of activities and zero-sum or non-zero-sum negotiations that continue unsteered and unguided, often based not on food system transformation, but on goals that range from power, wealth, profit and constituency building, to food security, covering the cost of school fees and sheer survival.

Polycentricity. Most of the time, food system governance is neither well organised nor well structured. Food systems are complex and do not fit single conventional governance institutions, in particular because they cover broad and diverse domains such as natural resource management, nutrition, social-economic equity, supply chain management, etc. It may therefore not be a surprise that multiple governance initiatives led by different actors are proliferating. This polycentricity (Van Bers et al., 2019) and how to deal with it should be considered explicitly.

Five challenges to achieving more inclusive food system governance

If governance reform is to play a key role in transforming food systems, five major challenges come to the fore. They relate to the multisectoral nature of many food system challenges, to the roles of actor groups, to the balance between the planned and the unplanned and – in general – to trust, power and empowerment.

Government capacity to develop and implement effective multi-sectoral policies

Food systems are needed that step away from being overly focused on food production to deliver on multiple outcomes, ranging from public health and safe, healthy food to inclusive economic development and sustainable agriculture. Yet, government policies are oriented to single outcomes and divided over ministries that each pursue their sectoral goals. Delivering on multiple outcomes will require national integrated food system policies, achievable only by multisectoral cooperation and the involvement of public, private and civil actors.

Strong leadership from the top and interministerial and sectoral working groups can collectively address trade-offs and synergies. However, much remains to be done to strengthen coordination mechanisms and to develop the outlook and skills for systems thinking.

Good governance and effective policy making need to be evidence-based, particularly if trying to consider system-wide interactions. Further, to cope with rapid change and be adaptive, rapid (ideally real time) data are needed for good decision making. For many countries, the basic information on what is happening for rural people – their livelihoods, poverty, nutrition, what is happening in the rural economy and what is happening to natural resources – remains scant. What does exist is often insufficiently granular and not adequately disaggregated to reflect the circumstances of different groups. Further, data and analysis have tended to be focused on health, agriculture, the environment or the economy, making a food system analysis difficult. Strengthening national data, statistical systems and integrated analysis and using the potential of big data and innovative digital technologies require international collaboration and support.

Developing a plan for transitioning to transformed food systems with clear targets and measures of progress is one way to bridge the multisectoral disconnect. Governments, businesses, science and civil society, working together, need transitions plans that start with easy wins, and obvious leverage points and gradually make progress on the underlying structural constraints to change. What matters is identifying improvements that can actually be implemented and implementing them consistently (box 1.1).

Private sector dynamics – between profit making and due diligence

The private sector is generally governed along commodity value chains, such as for rice, dairy, sugar and horticulture. Governance of such sectors, which includes government as well as private sector, is geared towards increasing productivity and profitability, seeking greater efficiencies and scale through vertical integration, consolidation and technical innovation. Private sector consolidation is a common trend that may result in increasing dominance by an ever-decreasing number of companies. Private sector influence in food system governance tends to skew towards market concentration, whose interests may not be aligned with those of all private sector stakeholders – and whose numbers are

Box 1.1 Developing a more integrated food policy in Bangladesh

Over the past two decades, Bangladesh shifted from a food security policy focused mainly on increasing national food production to a more comprehensive and integrated policy framework around food and nutrition security. After the 1999 Development Forum in Paris, which emphasised the need for a comprehensive food security policy, the government established a task force of nine different ministries. Their collaboration laid the foundation of the National Food Policy adopted in 2006.

The National Food Policy emphasises the important linkages between food availability, access and nutrition outcomes. It recognises that a combination of measures is needed to reduce hunger and malnutrition. Recent efforts have further strengthened the links between nutrition, agriculture and poverty reduction. Based on a successful two-year pilot, the country's most recent Five Year Plan, 2016–2020) now supports the integration of nutrition education into social safety programs, reducing stunting and boosting household incomes.

Source: FPMU (2018).

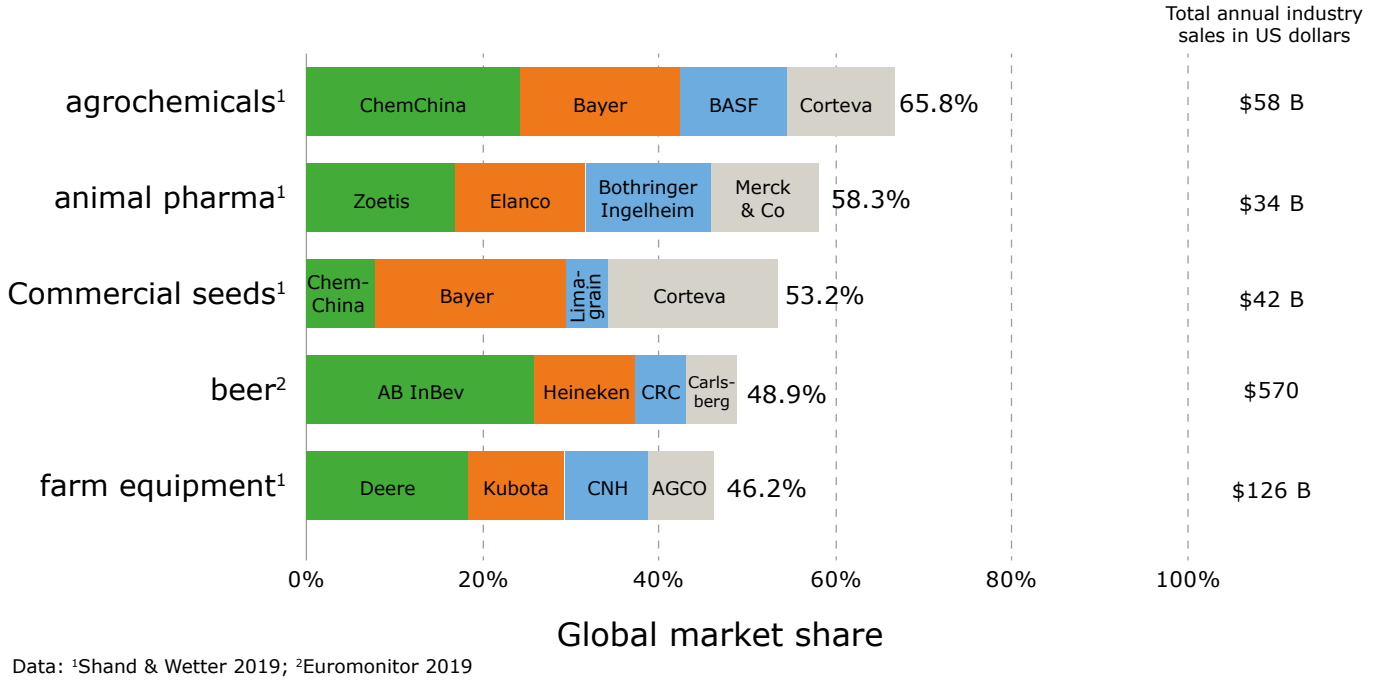
continually shrinking with industry consolidation. For example, in 2019, the number of sectors in which the top four agrifood firms held 40 per cent or greater market share had increased significantly from a decade earlier (figure 1.2).

The private sector needs to commit to inclusive food system transformation agendas. Recent examples of significant private sector commitments suggest a growing interest to integrate profit with other objectives, including poverty reduction, equitability and environmental health (Waarts et al., 2019; Waarts et al., 2021; Guijt et al., 2019).

Inclusive agrifood markets require a synergistic and complementary role between larger firms and small-scale enterprises and entrepreneurship. Private sector investment is needed to drive a country's agrifood sector development. Agricultural inputs are largely dependent on larger firms, which are important buyers of produce for both domestic and international markets. But larger firms often depend on small-scale producers and intermediaries for their supply base. For countries with agricultural and diversifying economies, who have high levels of employment in the agriculture and food sectors, there is a need to balance the interests and synergies of larger and smaller enterprises in the agrifood sector.

Including the voice of civil society

Food system governance suffers from a lack of civil society input and influence (Hospes and Brons, 2016). The actors with the most influence in complex, large-scale food systems are the well-organised and well-funded, such as state actors and business groups. In contrast, the hundreds of millions of small-scale producers and wage workers face many hurdles to formulating common positions and elevating them through food system agendas. Some of the greatest obstacles are cultural norms and existing governance regimes based on formal representation. Women, for example, are key food system actors, yet they remain structurally disempowered



Data: [1]Shand & Wetter 2019; [2]Euromonitor 2019

Figure 1.2 Concentration in key global industries related to food and agriculture, 2019

Source: Howard and Hendrickson (2019), based on data from a. Shand and Wetter (2019); b. Euromonitor (2019).

because they rarely hold power in the state, in business or in farmer organisations (FAO, 2011; Quisumbing et al., 2021). Another challenge is that dispersed groups of actors often choose the 'rational ignorance' of remaining uninvolved, because each individual actor expects – with good reason – that involvement will cost much personal time and money for little direct personal benefit (OECD, 2021).

Building the agency of rural people and communities in food systems requires explicit measures to increase access to assets and knowledge as well as the bargaining power of agrifood entrepreneurs. Rural people in low and middle income countries are the first generation whose entire working lives will be permeated by digital technology. By reducing the cost of information and massively increasing its availability, technology has dramatically sped up the pace and altered the nature of change. Where the Covid-19 pandemic has accelerated the digital revolution, it has also shown that women and youth have less access to smart phones and digital services. Progress is also uneven in geographic terms. For instance, Kenya and other countries in East Africa are years ahead of those in West and Central African countries.

Digital technology can play a key role here. There is a growing body of evidence that providing knowledge and information services through digitally enabled tools or services is cost-effective, showing approaches work best for reaching women and youth, giving farmers voice, and ensuring that programmes can be sustained and scaled organisationally and financially. Digital knowledge services to empower farmers and off-farm entrepreneurs include advisory and information services, market linkages, supply chain management, financial services and macro-agricultural intelligence. Digitisation can better connect buyers, sellers and producers through digital marketplaces and end-to-end supply chain management solutions.

One common approach to expanding the voices around the table is establishing multistakeholder platforms, but there are pitfalls as well as advantages (Box 1.2).

Box 1.2 Possibilities and pitfalls of multistakeholder platforms

The increased interest in multistakeholder platforms as an organisational model for stimulating innovation and development in food systems is justified (Boogaard et al., 2013; Schut et al., 2019), and much research has been done on multistakeholder platforms over the past years (Kilelu et al., 2013; Schut et al., 2015, 2019; Swaans et al., 2014). Here are a few pros and cons of such platforms.

Several possibilities:

- Bring interdependent actors together to create meaningful change.
- Improve coordination, agreement and mutual expectations.
- Offer space for communication, learning and dispute resolution.
- Jointly define challenges, opportunities and possible solutions and actions.
- Provide access to research capacity for joint research agenda.

Several pitfalls:

- Processes can be messy, tense and competitive.
- Difficulty of finding common ground.
- Researchers become involved in politics, ethics and legitimacy issues.
- Can be hijacked for other purposes.
- Platforms lose sight of their role as system change agents.

Dealing with the informal economy

Most of the world's poorest and most vulnerable people live and work in the informal economy. But only by including the informal economy in development strategies can food systems be transformed. Informal economies are not ungoverned spaces. Indeed, they manifest a considerable degree of governance, self-organisation and structure. Informal regulation emanates from a variety of non-state actors and informal institutions, such as powerful entrepreneurs, religious leaders, but also trade unions and associations. These are rooted in identity-based, interest-groups and kinship-based networks and complex webs of clientelist relations and personal ties. So, the informal economy can be understood as an alternative mode of economic governance outside the state (Meagher, 2005). 'Hybrid governance' is a more accurate depiction of actual economic governance when the state has no exclusive regulatory authority over economic activities and non-state institutional arrangements provide a form of economic order (Schoofs, 2015).

Efforts to nurture a more inclusive model of food system governance should take into consideration the role and potential contribution of key actors in the informal economy. But questions can be raised about the representativity of such actors, the risk of capture by self-serving political actors and the exact mechanisms for collective action to result in more inclusive modes of governance. Governance of the informal economy is closely connected to the politic domain. As the landscape of governance blurs with various forms co-existing and interacting, it becomes increasingly difficult to distinguish between formal and informal governance, and what is 'legal' and 'illegal'.

To optimise livelihood and employment opportunities in the food system, new thinking is needed about the interface between the informal economy, transitional markets and modern markets and how this relates to the ease of doing business. Upgrading efficiency, food quality and safety standards, increasing processing and value adding and ensuring environmental and labour standards

need to be done in ways that do not shut down opportunities for the informal economy.

The classic approach to improving the informal economy has been to focus on formalising by imposing and enforcing standards. But this has often excluded the small and low income participants and not generated better results. Instead, self-organisation among informal economy actors can foster collective action that interacts with formal government bodies. For example, associations of women market traders in West Africa continue to channel exchanges between the state and market traders over licencing, taxation and protection (Clark, 2011). The idea that formalisation of the informal economy should be the end goal is a persistent narrative (Schoofs, 2015). Although the informal economy defies state regulation, it is not necessarily out of reach for the state, nor is state engagement with the informal economy necessarily antagonistic.

Developing alternative standards for informal market regulation can keep them inclusive, and more productive. For example, FAO's 'quality declared seed' QDS concept is an alternative quality control system for crops, areas and farming systems that are unsuited for highly developed seed quality control activities. The system combines implementation by local seed producers with basic principles of quality assurance (FAO, 2006). Training and a transition process are another approach. For example, in the Kenya dairy sector small informal dairy markets continue to dominate. Sheer numbers of small operators make formal monitoring and regulation almost impossible. So, Kenya linked licencing with a low-cost, locally run training and certification scheme aimed at small dairy producers in the informal economy.

Balancing power and interests

Food system governance, especially for commodities, is increasingly the domain of conglomerates – and of the states they interact with (Box 1.3). In theory, state actors exist to defend public needs. In practice, though, many other interests can determine states' behaviour. Today's imbalances between the power of market actors versus civil society too often feed to state decisions that perpetuate existing power balances.

The lack of inclusive governance today means that even where instruments are meant to benefit poorer or more vulnerable groups, they can be ineffective or counterproductive. Measures to improve women's participation in food value chains, for example, can achieve little unless root causes of gender inequality, cultural norms and employment terms are addressed (Quisumbing et al., 2021). Although redesigned standards can be an important lever for making global trade and markets more inclusive (RDR Chapter 4), the lack of producer voice in voluntary certification schemes and growing corporate controlled certification schemes can result in inappropriate and distrusted standards, verification and auditing (IIED, 2021). Where voluntary agreements fail to deliver, non-voluntary government rules and regulations may be needed to pursue public goals.

Box 1.3 Food system transformations with undesired outcomes

Transformational change in food systems results from interactions between a system's dynamic status quo – the existing regime of norms, regulations and practices – and innovations generated in a niche. Governance processes are typically dominated by actors who benefit most from the existing regime, and the capture of these processes by strong private or public interests is a common problem. A regime so captured is likely to block innovations that benefit other interests or that meet more widely shared public needs: examples include low-cost, low-profit nutritious foods and women's leadership of business and farmer organisations. Blocking such innovation perpetuates undesirable system outcomes in poverty, in hunger and malnutrition and in contributions to biodiversity loss and climate change.

Source: Bradshaw et al. (2021).

Rural constituent groups need to be empowered to fully participate in national and international dialogue and policy processes. Participatory development processes need to be strengthened to enable rural people's engagement in problem resolution, strategy formulation and action planning within decentralised and territorial approaches to governance and within mechanisms for sustainable value chain coordination. Critically, the voices of poor and vulnerable rural people must be at the table: they need to be heard and their interests respected to effect change that is appropriate for their diverse situations and circumstances. Clear examples of such successful government interventions are the sugar taxes in Mexico and Chile, the ban on plastic bags in Rwanda and the multiactor collaboration in Kenya (Box 1.4).

Box 1.4 The role of collaboration and partnerships in food systems
Food system experts in our regional consultation pointed to the need for more collaboration and partnerships among food system actors. Cross-sector collaboration is seen as important for bridging siloed sectoral approaches and for finding synergies across food system objectives. Also noted was the need to build trust between food system actors with different interests and perspectives. According to a government official from the West and Central Africa region, 'We need to develop platforms where we really positively encourage people who are knowledgeable in different parts of the food system and encourage them to work together, especially during this time of crisis.'

The Upper Tana-Nairobi Water Fund, a collaboration of farmers, private sector, civil society and government. Source: IFAD regional consultation.

Contested views on the governance of food system transformations

Among the discourse about food system governance and their reform are between two contrasting viewpoints. One argues that new governance arrangements will result from comprehensive systems-based analysis leading to governance redesign. The other argues that food system governance can stimulate dynamic change in desired directions through reconfiguring collaborative processes, fostering innovation and disrupting existing food system regimes to allow desired innovations to break through and shape the new normal. Keeping the five challenges in mind, here are the two viewpoints.

Food system governance arrangements

Although policymakers and scientists are increasingly embracing the food system perspective, it has been poorly reflected in institutional terms (Termeer et al., 2018). Approaching food production and consumption from a system perspective reveals and in turn enhances important governance challenges and opportunities, because it requires more holistic forms of governance.

What arrangements of governance are most appropriate to govern food systems in a more holistic way? Termeer et al. (2018) propose a diagnostic framework comprising five principles: 1) System-based problem framing to deal with interlinked issues, drivers and feedback loops; 2) Connectivity across boundaries to span siloed governance structures and include non-state actors; 3) Adaptability to flexibly respond to inherent uncertainties and volatility; 4) Inclusiveness to facilitate support and legitimacy; 5) Transformative capacity to overcome path dependencies – the mechanisms whereby –current decisions are determined or limited by decisions in the past, reflecting vested interests and historically grown power positions – and create adequate conditions to foster structural change.

The last principle is perhaps the toughest, since transforming food systems requires a change of paradigm – with shifts in perception, underlying norms and values, patterns of social interaction, power structures and regulatory frameworks. In general, governance processes are highly resistant to transformative change because of path dependencies.

Termeer et al. took this five-point framework to analyse strengths and weaknesses of three food governance arrangements in South Africa. The results were disappointing because of a reversion to a technical one-dimensional problem framing during implementation, the dominance of single departments, the limited attention to monitoring and flexible responses, and the exclusion of those most affected by food insecurity. The tensions between ambitious objectives of the arrangements and the institutional constraints of

implementing them can persist because of inadequate resources to facilitate transformative change.

Reconfiguring food systems

The South Africa experience analysed by Termeer et al. supports the view of Leeuwis, Boogaard and Atta-Krah (2021) that generating detailed knowledge and understanding about food system dynamics and the likely positive or negative consequences of alternative courses of intervention does not in itself bring about food system transformation. Such knowledge and understanding are only one of many factors influencing what people do and do not do. Knowing about the potentially transformative effects of alternative policies and measures by no means implies that such changes will be agreed upon and/or can be successfully implemented to alter food system dynamics. Leeuwis et al. also argue that governance by design reflects illusionary assumptions about the possibility of steering and controlling transformation.

According to Leeuwis et al., food transformation requires a process of food system synthesis – a transformation process in which food systems are reconfigured to produce more desirable outcomes. Food system synthesis goes beyond food system analysis, seeing transformation as a contested, competitive and political process. Instead, in a process of food system synthesis, interdependent stakeholders need -to some degree- to resolve their differences, build functional collaborations and overlapping visions on the future. In doing so, stakeholders attempt to dampen undesired emergent properties of the system – such as environmental degradation, economic, malnutrition and increased inequalities – to amplify desired properties such as healthy nutrition, food security, wealth and environmental sustainability.

Reconfiguring food systems involves, according to Leeuwis, Boogaard and Atta-Krah (2021), 'non-linear, long-term, multi-actor processes with struggles and tensions between actors operating at regime and niche level.' Although complex and unpredictable, transformation processes can be influenced. This implies a considerable re-orientation of investments in food system transformation towards dealing with social, institutional and political dimensions of innovation and transformation. Uncertain outcomes must be acknowledged, and need novel and credible ways of assessing progress in long-term transformation processes. Finally, policy makers may need to rethink their current roles in food system governance. While in some situations they may be in a powerful position to contribute to changes in socio-technical regimes (say, by changing laws, regulations and incentive structures), they also need to consider that they may well be part of the problem and are prominent in reproducing undesirable system outcomes.

Reconciling viewpoints?

Can the contrasting viewpoints be reconciled? Whereas Termeer et al. argue that new arrangements can be designed based on selective principles, Leeuwis et al. refer to profound resets of power and influence, often initiated from below and involving struggle and negotiation between actors and their interests. With respect to the five key challenges, the two viewpoints seem to be less contrasting. Both agree that food system transformations are complex and wicked, requiring multidimensional solutions. Intersectoral, interministerial cooperation is needed, although Leeuwis et al. contested more than Termeer et al. that such solutions will evolve under government guidance.

Both viewpoints agree that civil society should play a key role in food system governance reforms. Both refer to the importance of balancing power and interests, though the former suggests experimentation, instruments of coordination and inclusion in processes of reform. The latter questions whether reform processes can be managed by design, and refers to investments in experimentation and innovation with uncertain outcomes. Both refer to multistakeholder platform, with Leeuwis et al. mentioning some possibilities and pitfalls (see Box 1.2). In all this, both agree that there is a great space of uncertainty and unknowns, such as governance in informal economies, and how to align it with more formal processes of governance reform. On the private sector, Termeer et al. suggest a more constructive role in food system arrangements than Leeuwis et al., who foresee that conflicting interests cannot be easily mediated.

Whatever the viewpoint, it is clear that there are no blueprints for food system governance reforms. All food systems are ruled by complexity, and outcomes cannot be guaranteed. Even so, investing deliberately in cross-cutting cooperation, civil society engagement, balancing power in agenda setting and decision making, collaborative structures and innovation – all are necessary and worthwhile efforts to nudge and push food systems to deliver more desired outcomes. Accepting that food systems evolve, sometimes slowly, other times more radically, helps to position actors in processes of governance reform.

Role for policy and national governments

Many of the recommendations in the RDR and the supporting papers rely on a strong public sector that is committed and capable to prioritise action towards structural change and new goals. The public sector has a key role in adopting public food system goals with matching incentives, investment regimes, value chain regulations and standards. The ultimate challenge is for government is to start building transformative capacity within government agencies. A paradigm shift will be needed that breaks through path dependencies and vested interests. Small wins that build up and are amplified may often be more effective than more radical yet less likely shift.

Organise system-based problem framing

Governments should develop mechanisms to create cross-sectoral agendas across multiple ministries and identify possible trade-offs between food system transformation objectives in related policies and take measures to mitigate them. Key desired outcomes – outlined in RDR Chapters 2 (nutrition), 3 (sustainable production), 4 (inclusive agribusiness) and 8 (circularity) – can form the basis for such agendas and trade-off assessments.

Trigger innovation to develop and implement the wide-ranging instruments proposed in RDR chapters

Such instruments can, for example, refocus food systems to deliver healthy products (RDR Chapter 2), refocus R&D for sustainable intensification and nutrient-rich foods (RDR Chapter 3), create new standards and compliance assurance (RDR Chapter 4), and create more circular food systems (RDR Chapters 7 and 8). This is a space where government can take a strong lead, by investing heavily and widely in all kinds of process, consultation, legal recourse and capacity development innovation. National commodity platforms, local to national ongoing consultation approaches and training programs for farmer organisations, are examples of worthwhile governance innovations.

Adapt to uncertainty

Bring in tools such as monitoring, decentralising, relational learning and creating and supporting variation and redundancy. Room for innovation and adaptation also includes a certain level of subsidies and insurance, and flexibility in legislation, with room for experiments.

Rethink government's toolbox

Legislation, enforcement, effective communication, price and market interventions, taxes, subsidies and land rights are all important tools at the hands of national governments. Applying them can bring about instant changes with bearing on one or more food system outcomes. Whether they have to be enabling or restrictive depends on the food system objectives.

Look for leverage points

System change is most likely to catalyse subsequent self-organising changes elsewhere in the system. Such catalytic capacity may be rooted in power relations, interdependencies, causal links, stakeholder rationales, attractiveness, latent needs and connectedness, and there is no fixed recipe for finding them, even if analytical strategies exist. In any case, identifying plausible leverage points is likely to require a thorough interdisciplinary understanding of the way phenomena at the level of niche, regime and landscape interact with each other, as well as transdisciplinary deliberation with societal agents. In several instances, reward systems have been shown to leverage other changes. Multiple relevant ministries for food systems transformation – such as health, trade, finance and agriculture – will need to work together to create that interdisciplinary perspective and policy coherence.

Consider the opportunities and limitations of the international setting

Nation states have to deal with international agreements or pressures, ranging from IMF doctrines on indebtedness and subsidies to fluctuating donor priorities and to subscribing to the Paris agreement on climate change. World market prices cannot be directly influenced, but it is possible to make maximum use of the space of international trade agreements and standards, in particular as set by WTO (RDR Chapter 4). International agreements such as the SDGs and Paris Accord, or continental ones such as the Malabo declaration, can justify national efforts to seek structural change.

Priority actions for reforming governance processes

Reorienting food systems from producing enough calories to improving livelihoods, nutrition, environmental sustainability and economic inclusivity cannot be achieved without governance reforms. Each food system requires new modes of governance that fit its historical, cultural and political context. There is no one-size-fits-all model, so actors must engage through an iterative process with uncertain outcomes. Four actions are priorities for governance reforms.

1 **Formulate collective agendas**. Governance reforms for food system transformation need to start by recognising and amplifying the sense of urgency for global, national and local change. Both national and global processes of exchange, consultation and prioritisation – leading to and beyond the 2021 UN

Food Systems Summit – must receive full support and attention. Reform agendas should set clear goals and transition pathways. Especially for food system governance, there is a strong need to include multiple ministries and related sectors, ranging from health, to economic development, trade and agriculture.

2 **Invest in capacities and provide a safe space**. Investing in the capacities of individual and institutional public, private and civil society actors will help as they can initiate and guide the many complex, interconnected steps in food system transitions. This requires a safe space for all stakeholders to enjoy the freedom of speech and to use their voices. Food systems evolve and operate frequently in situations of political and civil instability, or a lack of freedom for civil organisations. Security and freedom to act are prerequisites for enhancing food system governance. Moreover, investments may be needed to strengthen civil society capacities to represent their constituencies and participate in national policy making.

3 **Encourage experimentation and search for fitting governance models**. The intricate challenges of food system transformation call for experimentation, not only in technologies and instruments, but also in concrete governance processes. Various multistakeholder collaborations, appropriate to different levels and cultures of governance, should be tried and tested. Needed are new kinds of formal and informal institutions, conflict resolution options that are mediated or legislated and the generation and use of new kinds of data. Both bottom-up and top-down innovation will be required. Much innovation will happen spontaneously – but most will need financial, legal or policy support to break through and change current food system governance regimes. This support should be geared to many smaller innovations with small wins, and rapid processes of testing and adapting to context.

4 **Ensure adaptive processes and transparency through independent monitoring**. Transparency and accountability mechanisms at all levels can support adaptive processes that result in governance models that fit their food system environment. Transparency in the processes leading to agendas, policies, regulations and investments makes it possible for all stakeholders to engage in effective governance, and provide their perspectives and evidence. Monitoring governance reforms requires independent bodies, following credible assessment approaches and with access to sufficient and reliable data, to be able to come to independent conclusions. The purpose of monitoring must acknowledge the need to adapt governance models to their contexts, which implies that hard targets can often not be set. This requires experimentation, learning from failure and appreciating small wins that may announce systemic and broader reform.

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2021-093

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