Food Systems Analysis Toolkit

A Tool to Accelerate Food Systems Transformation

By the Food System Transformative Integrated Policy (FS-TIP) initiative

Version 1.0 | September 2021

African Population and Health Research Center · AKADEMIYA 2063 · AGRA Growing Africa's Agriculture · BCG Boston Consulting Group · IDRC · CRDI Canada · IFPRI International Food Policy Research Institute · The Rockefeller Foundation · Tony Blair Institute for Global Change · Wageningen University & Research · WFP World Food Programme

Preface

Context in which this toolkit was developed

The year 2020 proved to be a breakthrough year for food systems. All over the world, people came to realize that food systems play a crucial role in the health of populations, the state of the environment, and the livelihoods of their populations — as well as in humanity's ability to achieve the United Nations Sustainable Development Goals (SDGs).

The announcement of the United Nations Food Systems Summit 2021 as part of the Decade of Action to achieve the SDGs by 2030 boosted the engagement of a wide range of actors and triggered a wave of activities to transform food systems to be more nourishing, equitable, resilient, and regenerative. It should be clear, however, that the UN Food Systems Summit 2021 is only one milestone—albeit an important one—on what should be an inter-generational journey towards a food system that can deliver sustainable healthy diets for all human beings.

The Summit aims to launch bold new actions to deliver progress on all 17 SDGs, each of which relies to some degree on healthier, more sustainable and equitable food systems. The work on the Summit has been guided by five Action Tracks that are aligned with the Summit's objectives and designed to help to identify solutions that can deliver wide-reaching benefits while managing trade-offs. The Action Tracks are depicted below.

UN Food Systems Summit 2021 Five Action Tracks

Action Track 1
Ensure access to safe & nutritious food for all

Action Track 2
Shift to sustainable consumption patterns

Action Track 3
Boost nature-positive production

Action Track 4
Advance equitable livelihoods

Action Track 5
Build resilience to shocks, stress & vulnerabilities

In the lead-up to the Food Systems Summit, engagements took place in most member states through the Food Systems Summit Dialogues, in which a wide range of stakeholders shared their perspectives and aspirations for their country's food system and proposed ways to make food systems more nourishing, equitable, resilient and regenerative.

Building upon the momentum of the Summit, the **Food System Transformative Integrated Policy (FS-TIP)** initiative was launched to support countries in Africa that demonstrate courageous and visionary leadership and the political will to embark on a food systems transformation journey, starting with evidence-based policy design and implementation.

At the country level, FS-TIP complemented and reinforced the country Dialogues organized under the auspices of the Summit by providing data and analytics on the country's food system as well as by directly supporting the Dialogue process itself. FS-TIP supported Rwanda, Malawi and Ghana between April 2021 and September 2021. Countries using this toolkit will not be able to engage with the Dialogues, as they were completed in August 2021, but we encourage them to work together with other convening bodies during the process of conducting a diagnostic and landscaping analysis to ensure that a wide range of voices are taken into account.

The learnings and tools generated by FS-TIP during this period have been compiled and documented in this toolkit to support countries interested in conducting a similar analysis of their own food system.

Preface

Who developed this toolkit?

Within a context of growing recognition of the crucial role that food systems play in societal outcomes, the Food System Transformative Integrated Policy (FS-TIP) initiative was launched by the African Population Health Research Centre, AKADEMIYA2063, Alliance for a Green Revolution in Africa, Boston Consulting Group, International Development Research Centre, International Food Policy Research Institute, The Rockefeller Foundation, Tony Blair Institute for Global Change and the World Food Programme.

The initiative focuses on supporting those governments that demonstrate robust and integrative leadership, and the capacity and commitment to develop and implement transformative and integrated food systems policies. FS-TIP has a long-term, inter-generational perspective to build a lasting platform for policy development and implementation, build local capacity, and promote innovation and investment.

The initiative's vision is to ensure sustainable healthy diets for all. FS-TIP follows a three-step approach that can be leveraged by any country with similar objectives.

The first step is to conduct a diagnostic and landscaping analysis to understand the current status of a country's food system. Secondly, drawing on the diagnostic analysis, suitable food policies, programs and investment cases should be designed. The third step focuses on the implementation and monitoring of those policies, programs and investments. The timeline laid out below is illustrative, as execution timelines may vary based on the resources available and the level of commitment in the country.

At the time of the writing of this toolkit, FS-TIP has completed the diagnostic and landscaping analysis in three countries (Ghana, Rwanda and Malawi) and expects to continue to support these countries in a next phase of policy development, as well as to support new countries in conducting their own diagnostic analyses. As the initiative continues, additional toolkits may be produced to share learnings from the subsequent phases.

For more information on the FS-TIP initiative, please refer to the FS-TIP brief.

While the toolkit was developed by FS-TIP in the context of the UN Food Systems Summit 2021, its applicability goes well beyond the Summit. It is intended for use by any stakeholder wishing to conduct a food system analysis in a country.

Diagnostic and Landscaping Analysis *3-6 months*	Policy and Delivery Platform development *1-2 years*	Implementation *10+ years*
Describe current status of the nation's food system	Develop policies based on diagnostic analysis	Implement and monitor impact of food systems policies and programs
• *Main challenges and opportunities, prioritized where possible* • *Trade-offs and potential synergies* • *Policy gaps, incoherencies and opportunities* • *Data and evidence gaps*	• *Prioritize challenges* • *Set ambitions and formulate transformative and integrated policies based on analysis and leveraging potential game-changing solutions* • *Design governance, coordination and delivery model for implementation*	• *Establish a high-performance culture and build capacity* • *Set-up M&E mechanisms* • *Track investments in food systems transformation* • *Manage trade- offs, engaging an inclusive range of stakeholders*

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Introduction

2.1 Introduction

Why transformative integrated policy?

This toolkit is built upon the notion that policy is a key lever for food systems transformation. Public policy plays a disproportional role in influencing food systems actors and their relationships. It provides direction, incentives and disincentives, and the foundation for the enabling environment in which food systems operate. In addition to regulating interactions between actors, policy is a major determinant of investment, innovation, and ultimately food systems outcomes.

We believe that policies need to be transformative and integrated— transformative in that they are sufficiently ambitious to deliver sustainable healthy diets for all and integrated in that they address the linkages and trade-offs in setting policies from field to fork. Transformative policies can fundamentally change institutions and relations to make them more inclusive, equitable and sustainable, and redistribute power and economic resources. This means that they do not simply continue business as usual, but that innovation and governance reform are required (UNRISD). Integrated policies consider the interconnectedness of food systems components and look for shared solutions to food system problems while reducing inefficiencies in the form of policy redundancies or incoherencies.

Why the need for transformative integrated policies?

Currently, we see many examples of policies that are neither transformative nor integrated, positively affecting one part of the food system while being blind to negative effects in other parts. They do not consider trade-offs sufficiently or are simply not bold and ambitious enough to make a meaningful difference. Examples include; subsidies and incentives that promote over-exploitation of ecosystems and agricultural production, particularly of staple foods. Research and development budgets that are likewise concentrated towards increasing yields of major cereal crops and starchy vegetables, with little allocated toward nutrient-rich foods and climate-resilient crops, as well as to generally increasing the affordability and availability of healthy foods, for example through improved local supply chains and processing.

And while developing and implementing transformative integrated policies is not an easy task, it is one of the most effective ways to avoid mistakes of the past and realize the vision of sustainable healthy diets for all.

SYSTEMS THINKING

What is systems thinking?

A system is “a set of actors and interactions that form a coherent whole, perform a specific function or functions, and have a boundary that sets it apart from the rest of the world” (USAID Global Knowledge Initiative). Systems thinking is a high-level approach which is often contrasted with more traditional linear thinking. In applying systems thinking to effect transformational change, one explores the system as a whole, with its linkages, behaviors, and dynamics, rather than breaking it down linearly into smaller components to be analyzed in isolation.

Why do we need systems thinking to transform the food system?

Food systems are complex adaptive systems which consist of large numbers of actors and linkages that, together, exhibit emergent and unpredictable behavior, with nonlinear change, tipping points, and unintended responses to interventions.

Affecting change in a system can be done in an incremental or transformational way. In incremental change, only one component of the system shifts, whereas transformational change entails simultaneous shifts across multiple components, leading to changes in system structures and performance. In general, complex adaptive systems such as food systems can only be sustainably changed through transformational change. Transformational change in complex adaptive systems requires a holistic approach to exploration and analysis, which is provided by systems thinking.

How to apply systems thinking for food systems transformation

In the Food System Decision Support Toolbox (Wageningen University & Research and KIT Royal Tropical Institute), the need for transformation of the food system is recognized, but it is noted that one cannot simply dismantle the existing system and redesign it from scratch. Actors will need to nudge food systems into the desired direction by targeting leverage points in the system. A good understanding of systems thinking is crucial when looking for these leverage points.

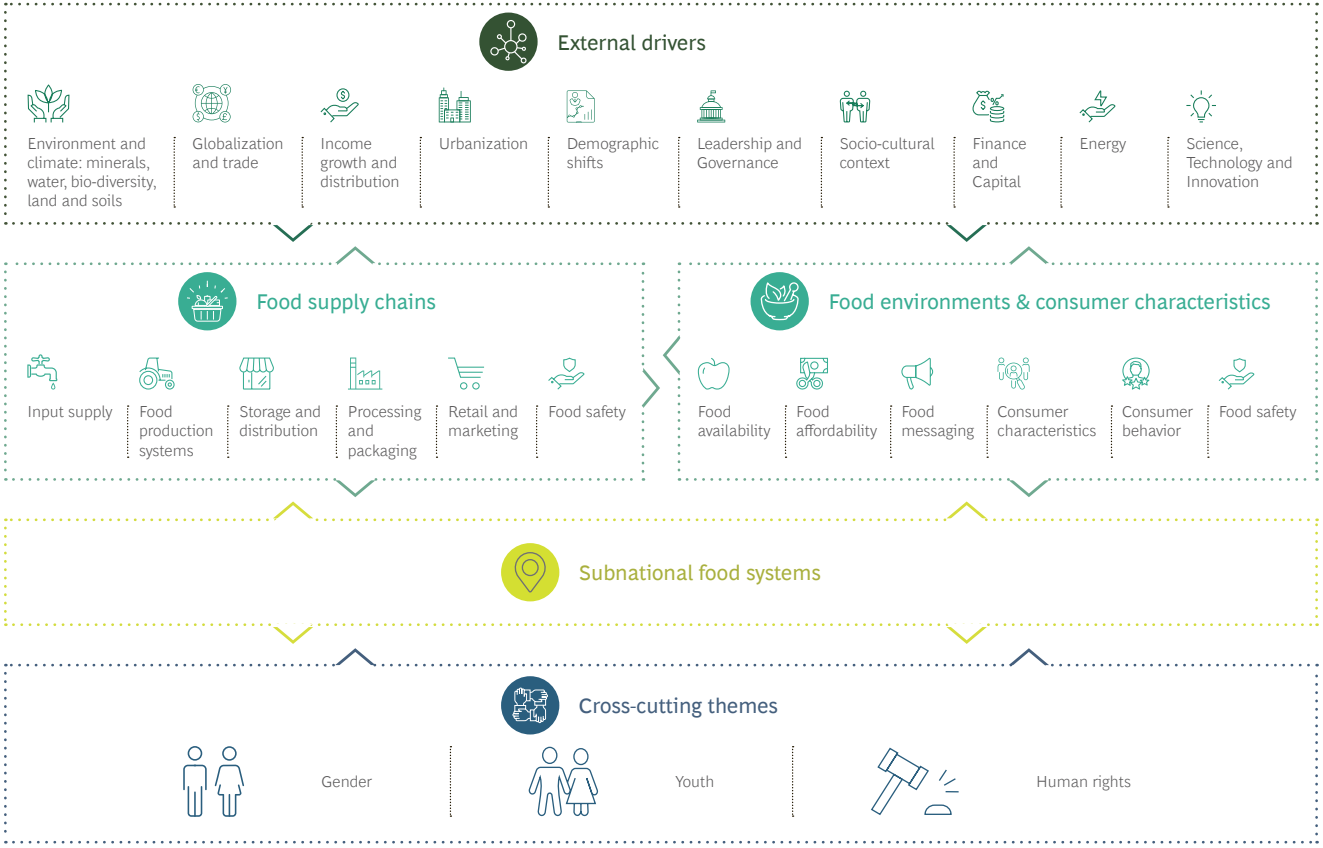
To help users better understand systems thinking and how to bring about food systems transformation, the following 'pocket guide,' developed by The Rockefeller Foundation, can be a helpful aid.

1. Focus inside the boundaries of your system; avoid getting drawn into the web of the entire cosmos
2. Look for patterns in the way a system has behaved in the past
3. Study the relationships between different elements in your system
4. Aim to understand the system, don't aim to fix it; this is how the solutions emerge
5. Don't pull the system into a static solution but gently nudge it into the desired direction
6. Embrace ambiguity
7. Be flexible with your ideas, thoughts and process; allow them to evolve
8. Zoom in and out repeatedly between micro and macro workings of a system and its elements
9. There is no one solution that can fix a system; seek to understand how each solution impacts the system, including negative unintended effects, relative to another

2.2 Introduction - Food System Framework

An important cornerstone for any type of food system work is a food system framework and a description of the food system outcomes that one is interested in. The food system framework that is used in this toolkit was built upon existing resources and includes some new components that were found to be relevant. While one can expect food systems frameworks to continue to evolve in future years, the latest versions of the High-Level Panel of Experts framework have become the foundation for much of the analytical work in this area and for our analysis as well. The food system outcomes that we focus on in this toolkit are based on the UN Food Systems Summit 2021 Action Tracks.

Food systems components...



...influencing food systems outcomes

Action Track 1
Ensure access to safe & nutritious food for all

Action Track 2
Shift to sustainable consumption patterns

Action Track 3
Boost nature-positive production

Action Track 4
Advance equitable livelihoods

Action Track 5
Build resilience to shocks, stress & vulnerabilities

Governance[1]
Governance that enables sustainable healthy diets for all

1. Governance is not part of the UN FS Summit 2021 Action Tracks but has been added to this framework because of the key role it plays in policy development and implementation.
Source: Adapted from the Food Systems Dashboard, the Food systems Decision-Support Toolbox; HLPE; and FS-TIP research.

2.3 Introduction

Why and how to use this toolkit for acceleration of food system transformation

The main objective of this food systems analysis toolkit is to help all those interested in food systems to conduct a systematic, thorough and comprehensive diagnostic and landscaping analysis of the food system of a nation by sharing a set of tools.

The toolkit offers step-by-step processes as well as practical tools to help users conduct a food systems analysis. It enables users to build a foundation of facts using a collaborative design approach. The results from the diagnostic and landscaping analysis can then form the basis for selecting priority challenges to address, setting ambitious targets and developing and implementing effective policies and programs that leverage synergies and account for trade-offs. This toolkit also helps users develop an understanding of how to influence the policy agenda, which can help in future steps of the food systems transformation process.

Our hope is that this toolkit will help nations start or accelerate their journey of food systems transformation towards ensuring sustainable healthy diets for all.

When to use this toolkit?

This toolkit can be helpful in a variety of situations, including:

- When governments are actively looking to transform their food system, the toolkit can support in understanding the current food system, mapping out key stakeholders, existing policy gaps or conflicts, and opportunities for transformation.
- When countries do not yet have food system transformation as a national priority, the toolkit can be use by stakeholders to inform and make the case to governments of the need to do so.

Who can use this toolkit?

The toolkit has been developed for use by a range of stakeholders, including:

- Policy makers and technical experts within government willing to champion or promote food system transformation.
- Development partners, academics and experts who want to support stakeholders to better understand the current status of their food system and how to transform it.

Prior to conducting the analysis, countries should decide who will lead this process, who should be involved, and how often or at which stage of the process. The analysis should be conducted in collaboration with ongoing work and activities related to food transformation in the country. During the process a broad range of stakeholders in the food system should be involved in conducting the analysis. This will ensure that different views and values are taken into account and will help create a common understanding of the food system among stakeholders.

2.4 Introduction

Guiding principles for users

When conducting a diagnostic and landscaping analysis, we suggest a set of guiding principles be taken into account. FS-TIP was founded on them to ensure alignment among a broad range of stakeholders.

1. *Sustainable healthy diets for all as the vision.* The ultimate vision of FS-TIP is a future state in which every human being has consistent access to a nutritious, high-quality diet that promotes human and planetary health.

2. *Food system transformation as the journey.* Achieving the vision requires transformational change in the food system toward a fit-for-purpose future state that is nourishing, equitable, and regenerative.

3. *Systems approach to the challenge.* A systems approach will lead to action that is comprehensive, thoughtful, effective, and adaptive while avoiding siloed interventions, unintended consequences, and short-term, short-sighted measures.

4. *Iterative approach to the journey.* All problems cannot be solved at once. Follow an iterative approach, with increasingly broader, deeper, and more ambitious iterations that are always systemic in nature.

5. *Be purpose-led and values-driven.* Thinking and actions should always be guided by purpose and values — including equity, justice, fairness, inclusivity, and transparency.

6. *National governments as the entry point of governance and agency.* Although transformation of the global food system is the ultimate goal, national governments with the necessary combination of leadership, vision, and capacity are the ideal anchor agents and partners to engage first.

7. *Be supportive and co-creative rather than prescriptive.* The main aspiration is to be a trusted partner and strategic supporter of national governments willing to embark on a bold food systems transformation journey and co-create with them based on their priorities and context, rather than prescribing canned solutions. Local ownership is key.

8. *Build on existing structures when feasible, create new ones only when necessary.* Carefully assessing existing structures and processes will be essential to ascertain how fit for the transformative purpose they are. This avoids reinventing the wheel while discerning the legitimate cases in which new structures and processes are critical to success.

9. *Embrace both evidence and innovation.* Relevant evidence should always inform decision-making, yet past evidence should never constrain future possibility. Many situations represent evidence gaps and call for innovation and experimenting with new approaches that, in turn, generate fresh evidence.

10. *Proactively address frictions related to facts, interests, and values.* Developing improved food system policy necessitates overcoming data and knowledge gaps, resistance from interest groups, and differing values. These challenges should be intentionally mitigated by a policymaking process designed to build trust and a shared understanding of the facts.

11. *Approach the challenge with an attitude of learning, humility, and optimism.* Approach this challenging journey with the awareness of how much can be learned from each other along the way, and with an unshakeable optimism that, with unity of vision and action, we can build a food systems legacy in which humanity and the planet can thrive.

How to Use this Toolkit

3.1 How to Use this Toolkit

This toolkit describes in detail the overall approach and three different tools that can be used to conduct a food systems analysis. Each tool will be explained along the following elements:

- *Objectives:* Defines the objectives of the tool and outlines the expected outputs when using the tool.
- *Approach:* Outlines the step-by-step approach that users are recommend to follow and includes guiding principles to be used.
- *Systems thinking:* Highlights how various components of each tool are interconnected with each other as well as with other tools.
- *Use cases:* Presents case studies from the countries in which FS-TIP was active (Ghana, Rwanda and Malawi) to illustrate good practices and how to adapt the tools to the local context.

The tools covered in this toolkit can be used to analyze different aspects of the food system: the food system elements themselves, food system policies, and food system stakeholders. Underlying the use of these tools is a collaborative design approach which puts policy-makers and other stakeholders at the center of the process.

The tools do not have to be used in the order in which they are presented in this toolkit; analysis can be done in parallel or iteratively. For example, while users are testing the initial finding of the diagnostic analysis, stakeholders might suggest adaptations to the diagnostic framework to make it more relevant to the local context.

Conducting an analysis of food systems is no easy or simple task, and while users could select specific elements from this toolkit, we encourage the use of the collaborative design approach and the three tools presented in this document together to create a comprehensive view of the current state of the food system.

Beyond an explanation of the approach and tools, the toolkit provides blank templates as well as edited case studies for each of the tools for easy replication of the analysis.

Approach and Tools for Diagnostic and Landscaping Analysis

4.1 Collaborative Design Approach

Why use a collaborative design approach?

Given the importance of local ownership of a food system transformation process, we believe it is essential to interact with key policymakers and other stakeholders throughout the process of conducting the diagnostic and landscaping analysis.

We propose to work in an iterative manner with stakeholders and use an approach called the "collaborative design approach." This approach focuses on understanding the perspective of users that experience certain challenges and tests whether the proposed solution meets their needs effectively.

This approach will ensure that the diagnostic and landscaping analysis:

- Focuses on those components of the food system that are most relevant for the country
- Presents results in a digestible and actionable way, tailored to the needs of various users
- Benefits from continuous refinement based on input and feedback

The collaborative design approach links the three tools presented in this toolkit together. It offers a way of working that can be used to conduct the diagnostic analysis of the food system as well as the policy landscaping and stakeholder mapping.

The practical implementation of a collaborative design approach is done through successive "sprints." Sprints are short bursts of effort during which a set of objectives must be achieved. They help integrate feedback and insights in an iterative manner and test interim outputs of the analysis with users.

How to implement the collaborative design approach

While the exact set-up of the collaborative design approach should be tailored to the country's dynamics and timelines, one set-up can be to use three successive sprints. To ensure the sprints are successful, stakeholders in each sprint should be identified based on their role and level of importance in the food system (using the stakeholder mapping tool). To create an overview of stakeholders to engage in the different sprints, user can leverage the engagement template in Appendix 1.1.

The first sprint involves conducting interviews with stakeholders with extensive experience in, or knowledge of, policy making to understand local policy making processes and get feedback on the initial design of the diagnostic framework. This will support the creation of version 1 of the diagnostic and landscaping analysis, taking insights from initial interviews into account.

The second sprint centers on engagement with a sounding board of mid-level policy makers and other key stakeholders such as development partners, farmers' representatives, private sector etc. to test version 1 of the diagnostic and landscaping analysis in workshops. This input is then integrated into version 2 of the diagnostic and landscaping analysis.

The third sprint entails presenting version 2 of the diagnostic and landscaping analysis to top-level policy makers and highly influential stakeholders (e.g., in the private sector and with development partners). This feedback gathers in these meetings can be used to create the final version of the diagnostic and landscaping analysis.

4.2 Collaborative Design Approach

The proposed format of the collaborative design approach is that of successive sprints. The interactions in these sprints can take the form of interviews, dialogues, workshops and presentations. On this page, an illustrative timeline has been depicted for a set-up in 3 sprints.

illustrative timeline

Conduct diagnostic and landscaping analysis (6 months)

Engagements with stakeholders

sprint 1
2 months

Conduct interviews with stakeholders with extensive experience in policy making to understand local policy making process and get feedback on first proposal of indicators

sprint 2
2 months

Engage with sounding-board of mid-level policy makers and other stakeholders to test v.1 of the diagnostic and landscaping analysis in workshops

sprint 3
2 months

Present v.2 of diagnostic and landscaping analysis to top-level policy makers and other key stakeholders to gather input on results and determine next steps

Diagnostic and landscaping

Create v.1 diagnostic and landscaping analysis, taking insights from initial interviews into account

Integrate input from stakeholders into v.2 of diagnostic and landscaping analysis including visualization of supra indicators and adding key indicators

Integrate input from stakeholders into final version of the diagnostic and landscaping analysis including full set of indicators and qualitative insights

4.3 Diagnostic Framework Tool

Objectives of the tool

Conducting a diagnostic analysis of the food system will help users:

- Understand the context and main drivers of a country's food system
- Understand the current performance of a country based on a set of key food systems indicators
- Gain insight into the linkages between different elements of the food system

This toolkit proposes the use of a selection of indicators, called "supra-indicators" and "key leading and lagging indicators." These indicators are outcome-oriented and give users strategic insight and directional perspective on the food system's performance which is needed for sound decision making. Please see the approach section on this page for more details.

While this toolkit proposes a comprehensive set of indicators for food systems analysis, users might be unable to analyze all relevant aspects of the food system as gaps continue to exist both in terms of indicators as well as in data quality and availability. It is important that users document the gaps that they encounter so that strategies can be developed to address them. Users should also capture any opportunities that they come across to improve existing indicators or implement other innovations.

Approach

The diagnostic framework tool developed to analyze the food system consists of two components, a qualitative and a quantitative analysis.

The qualitative analysis should describe the context and highlight the root causes of food system challenges. The qualitative overview should cover all components of the food system, including core elements such as food supply chains and the food environment, external drivers (incl. finance, energy, science), subnational food systems and cross-cutting themes (e.g., gender, youth). Please refer to the food system framework for an overview of all components that should be covered.

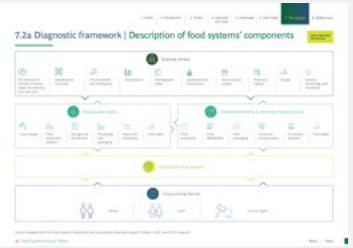
The quantitative analysis should be used to develop the required data-driven fact base on the country's food system's performance.

The foundation for the quantitative framework presented in this toolkit is the set of UN Food Systems Summit 2021 Action Tracks, for their outcome orientation. The overall framework is structured into three levels:

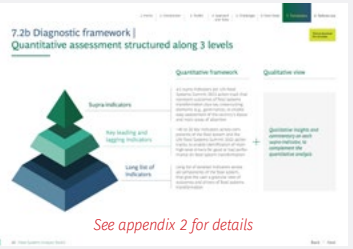
- Supra-indicators that represent outcomes of food system transformation and cross-cutting elements.
- Key leading and lagging indicators representing the main drivers and effects of good or bad performance on supra-indicators.
- Long list of indicators (200+) providing users with a granular view of outcomes and drivers of food system performance and transformation.

While conducting the quantitative diagnostic, a detailed metadata file should be created to capture the necessary details. Please reach out to the authors of this toolkit for the metadata collected during the FS-TIP initiative.

7.2a Qualitative analysis

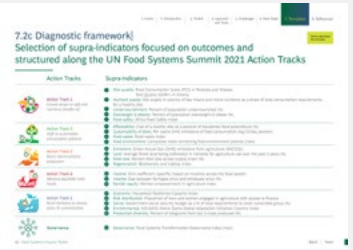


7.2b Quantitative analysis



See appendix 2 for details

7.2c Supra-indicators



4.4 Diagnostic Framework Tool

Systems thinking

To reflect the interconnected nature of all components in the food system, it is essential to show the inter-dependencies, feedback loops, and trade-offs between indicators at different levels.

As previously mentioned, supra-indicators represent outcomes of food systems transformation and the key cross-cutting element of governance. Each of the supra-indicators is linked to key leading indicators, which act as drivers, and key lagging indicators, which show effects. Supra-indicators can however also be linked to other supra-indicators, together creating a complex web of linkages where cause and effect are not always easy to determine.

Given that identification of all linkages and inter-dependencies in the food systems might be too complicated, the toolkit propose to focus on key outcomes of food systems as a starting point and focus on the key indicators that affect these outcomes, as they show where policy makers can best intervene to realize the desired transformation in the food system.

For more information on the linkages between indictors, see Appendix 2.4.

Case study

Rwanda case study

In Rwanda the implementation of the diagnostic framework started with a qualitative analysis to better understand the country's context and priorities. This analysis revealed that more attention had to be paid to the topic of trade (imports and exports) than originally planned, as trade expansion is one of Rwanda's national priorities.

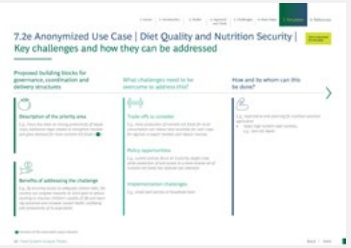
Secondly, a quantitative analysis was conducted, which involved collection of publicly available data on the supra-indicators and key leading and lagging indicators. Where local data was available from the National Institute of Statistics Rwanda (NISR), this was compared to globally availably data and a decision was made on which data to use. As not all data was publicly available in NISR, it was important to engage with stakeholders to help secure the approvals required to access the data.

From the priorities identified in the qualitative analysis, additional quantitative analysis was carried out with a focus on trade-related indicators.

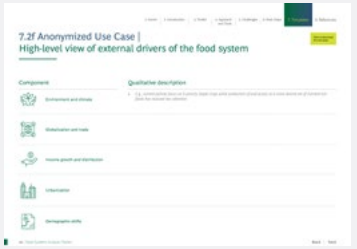
What were the outcomes of the diagnostic analysis in Rwanda?

The diagnostic revealed that Rwanda's food system plays an important role in the country's economy yet faces several challenges. Agriculture supplies 33% of GDP, engages 70% of the population, but food supply chains do not yet meet the population's needs for a healthy diet, due to multiple factors. These challenges lead to poor nutrition, livelihoods, and environmental outcomes. These include limited availability of, access to, and affordability of nutritious foods leading to undernourishment, which in turn contributes to high stunting rates.

7.2e Anonymized case study



7.2f Anonymized case study



See appendix 2 for details

7.2g Anonymized case study

4.5 Policy Landscaping Tool

Objectives of the tool

The policy landscaping tool aims to:

- Understand the policy landscape of a country's food system.
- Identify gaps, conflicts and opportunities for synergies in current policies.
- Understand ambitions and targets a country has for its food system.

The policy landscaping should focus on the most important declarations, policies and strategies related to the food system. It does not have to be fully exhaustive overview of all declarations, policies and strategy documents, nor an exhaustive list of all the key challenges and gaps in food systems policies.

The landscaping should also outline potential opportunities to influence policies and highlight trade-offs and synergies that need to be studied.

By using this tool, users will get an understanding of the coverage of current policies related to the food system and are able to identify the windows of opportunity to fill policy gaps, better deal with trade-offs and synergies, and change existing policies or develop new ones.

Approach

A three-step approach can be used to assess the food systems policy landscape.

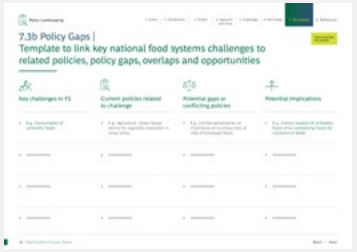
First, users should seek to understand the hierarchy of policies related to the food system. For each of the policies, users should identify the extent to which they cover the key elements of a food system (see the qualitative framework outlined in the diagnostic framework section of this toolkit). One can indicate whether a component is either sufficiently covered, somewhat covered or not adequately covered by the policies. As this is a qualitative exercise, relevant stakeholders should be engaged in this effort to validate the assessment. This work helps identify existing gaps in policies related to the country's food system.

Second, user should focus on the main challenges identified in the diagnostic analysis (see diagnostic framework of this toolkit) and the policies that link to those challenges. Users should identify the gaps and conflicts in the policies that contribute to the identified challenges and outline potential changes to be made to these policies. It is important to recognize the difference between what is stated in the policies and what actually happens in policy implementation. Stakeholder interviews and implementation documents can be used to understand the level of implementation on the ground.

Third, users need to understand the country's policy making process. They should identify the policy review windows, where policies are changed and new policies are adopted, and map the processes involved. This can be done at both a national and a sub-national level, depending on the degree of governance decentralization in the country. Users should detail the inputs required and stakeholders involved at each step of the policy making process.

7.3a Policy coverage

7.3b Policy linkages



See appendix 3 for details

7.3c Policy framework

4.6 Policy Landscaping Tool

Systems thinking

Within the current policy landscape, opportunities for greater alignment to deal with potential trade-offs and realize synergies for key challenges in a country's food system present themselves.

As previously explained, the key challenges of a country's food system, which are identified during the diagnostic analysis, should be linked to existing country policies. For example, a country might suffer from low diet quality and nutrition security and several policies are related to this challenge, such as subsidies on inputs of staple crops, school feeding programs, and infrastructure development.

By completing this mapping, users can show policy makers and other stakeholders that they cannot simply look at one policy or program in isolation to address a challenge, but will need to adapt multiple policies at the same time in a coordinated manner. In other words, new policies and programs should be integrated to avoid gaps, inconsistencies and overlaps.

Case study

Ghana case study

The policy landscaping tool was used in Ghana, and started with the identification of global, regional, and national policies and declarations related to the food system (e.g., the SDGs 2030, CAADP). These policies were mapped to the components of the food system to identify any gaps. In Ghana, the policies covered most of the food system components, but gaps were noticed in national sector plans on for example the affordability of nutritious food.

The links between the challenges from the diagnostic analysis the policy landscape were mapped, to identify gaps at a more detailed level. One of the key challenges identified in Ghana was the consumption of unhealthy foods, which is on the rise partly due to increased urbanization and rising incomes. And while policies aimed at reducing the prevalence of non-communicable diseases do exist, there has not been any focus on increasing the affordability of healthy foods.

To identify pathways to address the policy gaps and inconsistencies, multiple potential game-changing solutions were studied. In this example, one of the options available to policy makers would be to subsidize inputs for nutrient-rich foods, implement a labelling system and ramp up consumer awareness campaigns.

One insight that emerged during the analysis was that one of the main issues was not the content of the current policies themselves, but rather the difficulty to translate policies into implementation. An important challenge was the lack of adequate resources which made grassroot implementation very difficult. This shows that the focus should not just be on which policies exist on paper, but also the reality of implementation on the ground.

7.3e Anonymized case study

7.3i Anonymized case study

See appendix 3 for details

7.3j Anonymized case study

4.7 Stakeholder Mapping Tool

Objectives of the tool

With the wide scope of a nation's food system, comes a countless number of actors that need to be involved in food systems discourse and change.

To decide with whom users should engage at which stage, two different maps should be created:

- A stakeholder map at the organizational level to obtain a comprehensive view of different types of organizations and their ability to influence food systems transformation.
- A stakeholder map at the individual level to clarify the individual roles that stakeholders play and identify key decision-makers and potential champions of change.

While users of this toolkit do not need to include all stakeholders and organizations identified in the stakeholder maps at all stages of a food system transformation, it is essential to make conscious decisions about whom to engage on which topics and whom to pay special attention to. This concerns, in particular, historically marginalized voices.

Approach

Developing a stakeholder map, can be done with the following tools and steps.

Users of this toolkit should start by developing a detailed stakeholder database with all relevant organizations that play a role in food systems and the main individuals within these organizations. This can be done in consultation with stakeholders themselves, who will be able to identify other key organizations. Categorizing the organizations will help to ensure all major stakeholder groups are captured. The six types of organizations proposed in this toolkit are: public sector, private sector, international and development partners, civil society and interest groups, academia, and others.

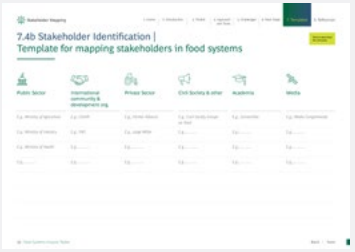
Once all organizations are listed, one should outline which components of the food system (see Appendix 4.1) the organization is most

strongly involved in. In addition, one should describe the potential role that the organization can play in food systems transformation. Besides describing the role of the organization and individuals based on its official mandate, it is important to understand the political dynamics between stakeholders. This includes mapping any vested interests and how influential an organization or individual is in the decision making process. Capturing these element can be done by mapping stakeholders' power in food systems (see the KIT-NFP-WUR toolbox for a detailed approach).

Once the mapping of individuals is completed (using an Excel sheet), users can consider visualizing the stakeholders and their relative importance in the food system and the linkages between them.

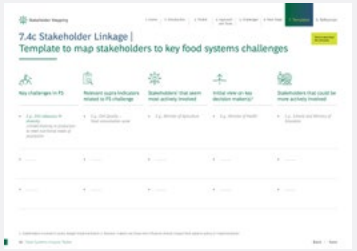
7.4a Stakeholder database

7.4b Stakeholder identification



See appendix 3 for details

7.4c Stakeholder linkage



4.8 Stakeholder Mapping Tool

Systems thinking

Leveraging systems thinking shows its value very clearly when it comes to stakeholder mapping and identifying whom to include, and in what way, in the food system transformation.

No stakeholder stands on its own and stakeholders have different types of relations with the various components of the food system. In order to shed light on the connections between the food system and its stakeholders, it is important to focus on the key challenges in the food system (using the diagnostic framework tool) and identify the main stakeholders that are currently connected to those challenges and those that should be involved going forward.

Visualization of the types of stakeholders, their relative importance in the food system and the linkages between the stakeholders helps one understand critical cross-sector relationships. This process also identifies missing linkages and coordination mechanisms between stakeholders, pointing to areas where intervention might be required.

Case study

Malawi case study

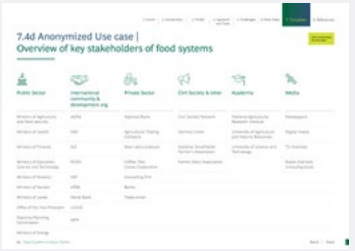
The stakeholder mapping conducted in Malawi started with the identification of key organizations in the food system through desk research. Next, the institutions were prioritized based on their involvement in the food system and the role they could play in food system transformation. Having a thorough understanding of the country's challenges, the national priorities, and the general context were important for this step, and in-country experts were heavily engaged in the exercise to provide those insights.

After this, key individuals from the prioritized institutions were identified. This list of individuals formed the basis for our engagements during the diagnostic and landscaping work, were stakeholders provided extensive input.

One of the challenges that was faced was to access the identified individuals. The team leveraged their personal and professional networks to establish connections with key individuals. Once the relationships were established, individuals were able to provide input on the food system's performance, policy landscape and political economy through interviews, workshops and presentations.

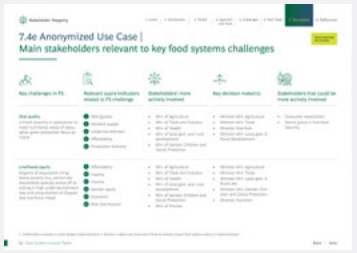
These engagements helped us understand who were the key influencers of policy making and what the true gaps were in terms of data, policies and policy implementation. These insights, in turn, informed the selection of potential game-changing solutions and the thinking on the governance, coordination and delivery platforms required to take food systems transformation forward.

7.4d Anonymized case study



See appendix 4 for details

7.4e Anonymized case study



Challenges, Limitations and Mitigation Actions

5.1 Challenges, Limitations and Mitigation Measures

	Challenges and limitations	Mitigation measures
General	The approach and tools proposed in this toolkit might not be fully suitable to the local context, timelines or capacity	Adapt tools and approach where necessary to fit the local context, while maintaining the same spirit and end-objectives
 Collaborative design approach	For continuous refinement of inputs and integration of insights, sprints are used. Potential limitations are: • Overlap between the sprints, leading to limited time to incorporate inputs from stakeholders. • Some insights are individualized and may simply reflect individuals' background and vested interests. • Choice of material and level of detail to use when engaging with various stakeholders.	The limitations can be addressed by taking on the following measures: • Allocate sufficient time between sprints to ensure stakeholders are consulted and their input is incorporated before conducting subsequent sprints. This can be done by creating detailed plans. • Conduct focus groups or workshops with different types of stakeholders and encourage those with less power to share their views. • Consult with user that were engaged in previous phases of the project or on other topics, to get guidance
 Diagnostic framework	The diagnostic analysis has revealed two types of gaps that users can run into when collecting data on the indicators: • Missing or low-quality data on some of the indicators, or the use of modelled estimates or outdated data. • Absence of indicators for certain components of the food system, either a complete lack of an indicator or the use of a limited proxy or non-validated indicator.	To enhance robustness of analysis, the following long term and short-term actions can be considered: • Work with existing actors such as national statistics bureaus to obtain locally available data. • Engage with national statistics bureaus or international organizations that conduct regular surveys or reviews (e.g., Comprehensive Africa Agriculture Development Programme) to incorporate missing elements

5.2 Challenges, Limitations and Mitigation Measures

	Challenges and limitations	Mitigation measures
General	The approach and tools proposed in this toolkit might not be fully suitable to the local context, timelines or capacity	Adapt tools and approach where necessary to fit the local context, while maintaining the same spirit and end-objectives
 Policy landscaping	To identify policies related to food systems, you need to look through publicly available resources. However, some limitations could be faced: • Not all policies are always publicly available and different government agencies might be the custodians of the documents, making it hard to access them. • Information that is not publicly available cannot be used for analyses without prior approval from authorities. • While policies might be in place or enacted, it can be difficult to know to what extend they are implemented.	For comprehensive policy landscaping, you can employ the following tactics: • Ensure involvement of key stakeholders from early on through interviews to understand the availability of policies and relevant authorities or custodians. • Understand the process required to obtain access and use policies that are not publicly available. • Engage stakeholders to understand status of various policies implementation and consult sectoral performance reports when available
 Stakeholder mapping	Engagement of stakeholders is important for local buy-in and shared understanding, but is not always easy because of: • Difficulty to secure time with relevant stakeholders, particularly senior ones. • Challenge in paying attention due to overwhelming commitments and engagements. • Elections and resulting changes in power, can result in shifts in roles and mandates and level of influence of organizations and individuals in the food system.	To have active engagement from key stakeholders, users of the toolkit can: • Use a “snowballing” approach to explore connections of stakeholders being engaged and facilitate conversations with other ones. • Schedule meetings well in advance and share discussion materials closer to the date for engaging discussions and be clear on expected input from stakeholders. • Monitor shifts in roles of organizations and individuals and frequently update the stakeholder map to keep the overview of power dynamics up to date.

Next Steps

6.1 Moving from Challenges Identified in the Diagnostic and Landscaping Analysis to Designing Transformative Integrated Policies

Diagnostic and landscaping analysis as the basis for policy development

The ultimate objective of the diagnostic and landscaping analysis is to inform the formulation of policy, program and investment bundles that can help transform the food system towards delivering sustainable healthy diets for all. This section of the toolkit describes how to use the diagnostic as the basis for the development of such bundles.

Outputs from the Diagnostic

Through the diagnostic and landscaping analysis, the main challenges on the country's food system will be identified, and it will become clear which existing policies and stakeholders are relevant when addressing these challenges. The next step is to identify potential game-changing solutions matching these challenges.

Potential game-changing solutions

For each of the main food systems challenges, potential game-changing solutions should be identified.

In the lead-up to the UN Food Systems Summit 2021, many potential game-changing solutions were proposed. In the next few pages, we list some that might be relevant to African countries. The focus on Africa stems from the focus of FS-TIP on the continent, but proposed actions might be relevant to other countries as well. They are organized by the UN Food Systems Summit Action Tracks. These potential game-changing solutions are meant to serve as inspiration and will have to be adapted to the local context and made to fit within the existing policy landscape. The development of actual policies and policy bundles from these potential game-changing solutions will be a multi-step process. This toolbox does not provide detailed tools for this, but in the next page we share an initial view on steps to be taken and share an example of a transformative policy bundle.

Policy and Delivery Platform Development

Describe current status of nation's food system:

- *Main challenges and opportunities, prioritized where possible*
- *Trade-offs and potential synergies*
- *Policy gaps, incoherencies and opportunities*
- *Data and evidence gaps*

Policy and Delivery Platform Development

Develop policies based upon diagnostic analysis:

- *Prioritize challenges*
- *Set ambitions and formulate transformative and integrated policies based on analysis and leveraging potential game-changing solutions*
- *Design governance, coordination and delivery model for implementation*

Implementation

Implement and monitor impact of food systems policies and programs:

- *Establish a high-performance culture and build capacity of teams*
- *Set up M&E mechanisms*
- *Track expenditures on food system transformation*
- *Manage trade-offs and involve range of stakeholders*

6.2 Potential Game-Changing Solutions to Inspire Policy Development

UN FSS Action Tracks

Action Track 1
Ensure access to safe & nutritious food for all

Potential game-changing solutions to inspire policies and policy bundles

- *Consumption of healthy diets*
  - — Focus on nutrient-rich and biofortified foods, such as legumes, fruits and vegetables
- *Adequate nutrient supply*
  - — Encourage the practice of sustainable agriculture methods for both farming and fishing
  - — Ramp-up behaviour change communication to sensitize population on what a healthy diet is andits benefits
  - — Strengthen local market linkages such as infrastructure where cold chains can be used to facilitate local trade of nutrient-rich foods

Action Track 2
Shift to sustainable consumption patterns

- *Affordability and sustainability of diets*
  - — Invest in affordable and sustainable energy sources (e.g., solar), market linkages and infrastructure (e.g., cold chain) to facilitate production, processing, storage, local trade and consumption of nutrient rich foods especially perishable fruits and vegetables
  - — Ramp-up behaviour change communication to sensitize population on what a healthy diet isand its benefits
- *Contribution of food environments to consumption of healthy diets*
  - — Facilitate private sector processing of diverse, nutrient rich healthy foods, e.g., by reducing taxes on healthy foods and increasing taxes on unhealthy foods

Action Track 3
Boost nature-positive production

- *Protection of current ecosystems against degradation*
  - — Invest in eco-friendly processing, storage, logistics, irrigation and energy infrastructure (e.g., solar energy, solar water pumps, etc.) to reduce water and food wastage
  - — Make affordable and available the right types of fertilizer, in good time, with messaging on correct usage for each season and region
  - — Invest in community food storage facilities, structured markets to limit food loss and waste
- *Regeneration of ecosystems*
  - — FIncrease awareness about importance of forests and train farmers on conservation agriculture and agroforestry with opportunities to increase income
  - — Support private sector in growing nutritious/biofortified drought and flood resistant crops and animal breeds

6.3 Potential Game-Changing Solutions to Inspire Policy Development

UN FSS Action Tracks

Action Track 4
Advance equitable livelihoods

Action Track 5
Build resilience to shocks, stress & vulnerabilities

Governance

Potential game-changing solutions to inspire policies and policy bundles

- *Decent work and income across food systems*
  - — Invest in de-risking initiatives to facilitate private sector creation of tailored credit and insurance products for smallholder farmers particularly women, e.g., invest in agriculture tailored credit scoring algorithm to aid risk assessment which could reduce credit cost
  - — Improve effectiveness of anchor farming programs and farming cooperatives via training and financial empowerment to leverage modern tools and techniques
- *Agency, empowerment, and equity in food systems*
  - — Link social cash transfer programs to input programs to maximize synergies and empower beneficiaries to be more economically productive and less reliant on social welfare payments

- *Economic resilience of households and systemic risk management*
  - — Increase access to finance by removing regulatory barriers to encourage greater levels of private engagement in the space, building a competitive environment to encourage investment in value chains, distribution channels and partnering with actors to de-risk producers, processors and offer guarantees to ensure affordable financing
  - — Increase access to insurance through strengthening the reinsurance market to transfer risks, private sector participation in extension for farmer sensitization on insurance and digitalization to lower costs of sales and claims payment time
  - — Invest in agriculture commercialization and extension services to provide a path out of poverty
- *Regeneration of ecosystems*
  - — Increase commercial farming and ensure safety measures are installed to reducedisease vulnerability
- *Climate resilience in food system transformation*
  - — Develop early warning systems, to improve forecasting, monitoring and assessment of risk vulnerability and share timely information
  - — Support private sector in growing nutritious drought- and flood-resistant crops and animal breeds

- *Governance structures and leadership for food systems transformation*
  - — Set up suitable governance by developing robust system of inter-ministerial coordination

6.4 Looking Ahead | Designing Integrated Policies to Transform the Food System

Initial view on how to create transformative policies

Once potential game-changing solutions have been identified that link to the country's main food systems challenges, users can look at setting food systems transformation ambitions and designing policy, program and investment bundles to realize these ambitions in a cost-effective way. The coalition behind this toolkit has developed an initial view on the required steps, but specific tools to support these steps will be provided in potential subsequent toolkits.

The first step to take will be to set the ambitions that the country wants to achieve on its prioritized challenges. This will help to set the bar against which to evaluate the policies and programs.

The identified potential game-changing solutions, related synergies and trade-offs will then have to be evaluated through detailed analysis, including cost-benefit analysis, trade-off analysis, scenario modelling and foresight analysis to determine which policy, program and investment bundles are expected to be most effective.

Working towards policy and program implementation

Once policy, program and investment bundles have been formulated, it becomes essential to put in place the necessary conditions for successful implementation. This includes securing funding, mobilizing resources and building team capacity. Another key aspect is to define the processes for Monitoring and Evaluation, so that results of the game-changing solution can be tracked during implementation and evaluated afterwards.

What could transformative policies look like?

To illustrate what a transformative and integrated policy, program and investment bundle could look like, this page will describe an initiative focused on the challenge of the double burden of malnutrition and the resulting health effects in the form of non-communicable diseases (NCDs). In this example an African Government is partnering with the The Rockefeller Foundation and IDRC to strengthen the evidence base for action and drive cross-sectoral collaboration for a cohesive policy bundle that would bring benefits to public health and the economy.

To achieve this, the government will use a nutrient profiling system, which will for the basis of several policies and regulations to be implemented to improve the food environment and influence consumption. The system and related policies will be designed with the local context in mind and will be owned locally, to most optimally meet the needs of low-income consumers and be truly effective in combatting undernutrition, obesity and non-communicable diseases (NCDs).

The first step will involve working with relevant government agencies and local leaders in public health to define policy ambitions and data availability. This will serve as the foundation of the nutrient profiling system. Secondly, policy makers will have to understand the potential impact and trade-offs of certain policies. While the policy bundle would be seen as an aspiration that is enabled by the nutrient profiling system, policy prioritization may lead to staged implementation.

Please refer to a detailed description of a cohesive and integrated policy bundle with the potential to transform the food system on the next page.

6.5 Sample Policy Bundle that can address multiple Food System Challenges

As the bases of developing policy bundles, policy makers can use the food system challenges that were identified during the diagnostic and landscaping analysis. Countries should prioritize the most urgent and important challenges to focus on and set ambitious targets for those challenges. Leveraging the potential game changing solutions, the country can develop policy bundles that would address one or more challenges in a transformative and integrated way. An example of such a policy bundle is the double duty policy bundle for healthy diets as describe below

Example food systems challenges...

Diet quality & nutrition security

Low production levels, affordability and demand for nutrient-dense foods among population; limited diversity of crops makes people dependent on imports of certain expensive crops

Consumption of unhealthy foods

Urbanization and rising incomes, as well as poor food environments are leading to increased consumption of unhealthy foods, resulting in higher obesity and NCD prevalence

Environmental resilience

High vulnerability to climate change in certain regions; heavy deforestation and illegal mining contributing to climate change and biodiversity loss. Select crops highly vulnerable to climate change

Infrastructure capacity

Low use of technology, poor infrastructure, lack of processing capacity, leading to food loss, increasing costs for farmers and prices for consumers and limiting ability to supply country or trade

Discrepancies between regions

Regions suffering from lower productivity and difficult climate, resulting in low availability & affordability of foods, higher levels of malnutrition and income inequalities compared to other regions

... that can be address by a policy bundle

Nutrient Profiling System (NPS)

Open, transparent algorithm producing a score reflecting the healthiness or unhealthiness of foods and informing policy

HEALTH SCORE ★★★★☆

Labeling System

Bold, truthful information for all consumers

Public Procurement

Food in public institutions favors healthy foods

Fiscal Policy

Adjusts relative price. Revenue neutral or positive. Equitable

Marketing Regulation

Clear standards address deception, change norms, protect vulnerable segments

Trade Policy

Tariffs calibrated to healthiness

Investment Policy

Public investment favors food companies with healthy product portfolios

6.6 Looking Ahead | Developing Suitable Governance, Coordination and Delivery Platforms

Design principles for Governance, Coordination and Delivery structures to accelerate food systems transformation

To improve the chances of a successful food systems transformation, suitable governance, coordination and delivery structures need to be in place.

We have developed a set of design principles that can help countries design the right kind of governance, coordination and delivery platform:

- *Bold transformative agenda with a clear review process*
  Able to set bold ambitions for true food system transformation, with equally ambitious local capacity-building goals; accountable to national government via a formal review process
- *Integrate all components of the food system*
  Must work across all components of the food system to enable prioritization, coordination and integration of policies, leverage synergies, and manage trade-offs
- *Connect stakeholders from local to regional to global levels*
  Ensures all voices are heard, siloes are broken and coordination takes place between stakeholders; brings subnational, national, regional and global stakeholders together in an inclusive and meaningful way enriched by feedback to the stakeholders and public
- *Long-term commitment and strong, clear mandate to deliver*
  Needs long-term focus (10+ years); must have sufficient mandate to make tough decisions and deliver on ambition within its timeframe; must be able to survive government transitions
- *Able to attract funding and investment for implementation*
  Should attract funding and investment into food systems from public and private sector, locally and from abroad; will align interests behind shared priorities

Design Principles for a Governance, Coordination and Delivery platform to accelerate food systems transformation

Bold transformative agenda with a clear review process

Integrate all components of the food system

Connect stakeholders from local to regional to global levels

Long-term commitment and strong, clear mandate to deliver

Able to attract funding and investment for implementation

6.7 Functional approach to Governance, Coordination and Delivery structures

Proposed building blocks for Governance, Coordination and Delivery structures

In order to realize food systems transformation, we propose four functions (plus an optional coordination and budget function). These functions can be built upon existing structures (e.g., SUN network, National Technical Working Groups, CAADP and Biennial Review) or might require new structures, taking inspiration from, for example, the Ethiopian Agricultural Transformation Agency or the Kenyan Agricultural Transformation Office. One does not need to have a separate organization for each of the functions; two or more functions can be combined in a single organizational structure, depending on the context.

Executive function

- Coordinates and ensures delivery across different Ministries and Government agencies that are part of the FS policy environment
- Sets the priorities and ambitions for transformation
- Conducts analysis, designs policies and programs and supports implementation to realize ambitions
- Ensures development of capacities of local teams

Data custodian and progress reviewing function

- Provides the data-foundation for ambition setting and prioritization of actions, based on FS-TIP scorecard of supra- and key indicators
- Tracks progress towards the ambitions
- Enables performance comparisons across countries (in Africa) through the CAADP biennial review

Inclusive participation function

- Brings together voices of all food system stakeholders
- Breaks down siloes between actors and components of the food system
- Acts as a “checks and balances” mechanism to ensure policies are relevant and implementable
- Has an advisory, consultative or participatory role in decision-making

Thinking and advisory function

- Brings together academics, development partners and other stakeholders with expertise in food systems, that are not direct actors
- Develops evidence to inform policy design and implementation
- Continuously develops capacities of local teams

Coordination & budget function

- Ensures coordination between the different functions
- Develops budget for different functions
- Conducts fundraising and mobilizes resources (together with the executive function)

6.8 Options to Design the Governance, Coordination and Delivery Structures

Proposed building blocks for governance, coordination and delivery structures

The most suitable governance, coordination and delivery structure for a country will depend on the local context and requires thorough research of the existing structures, stakeholder interests and other relevant factors.

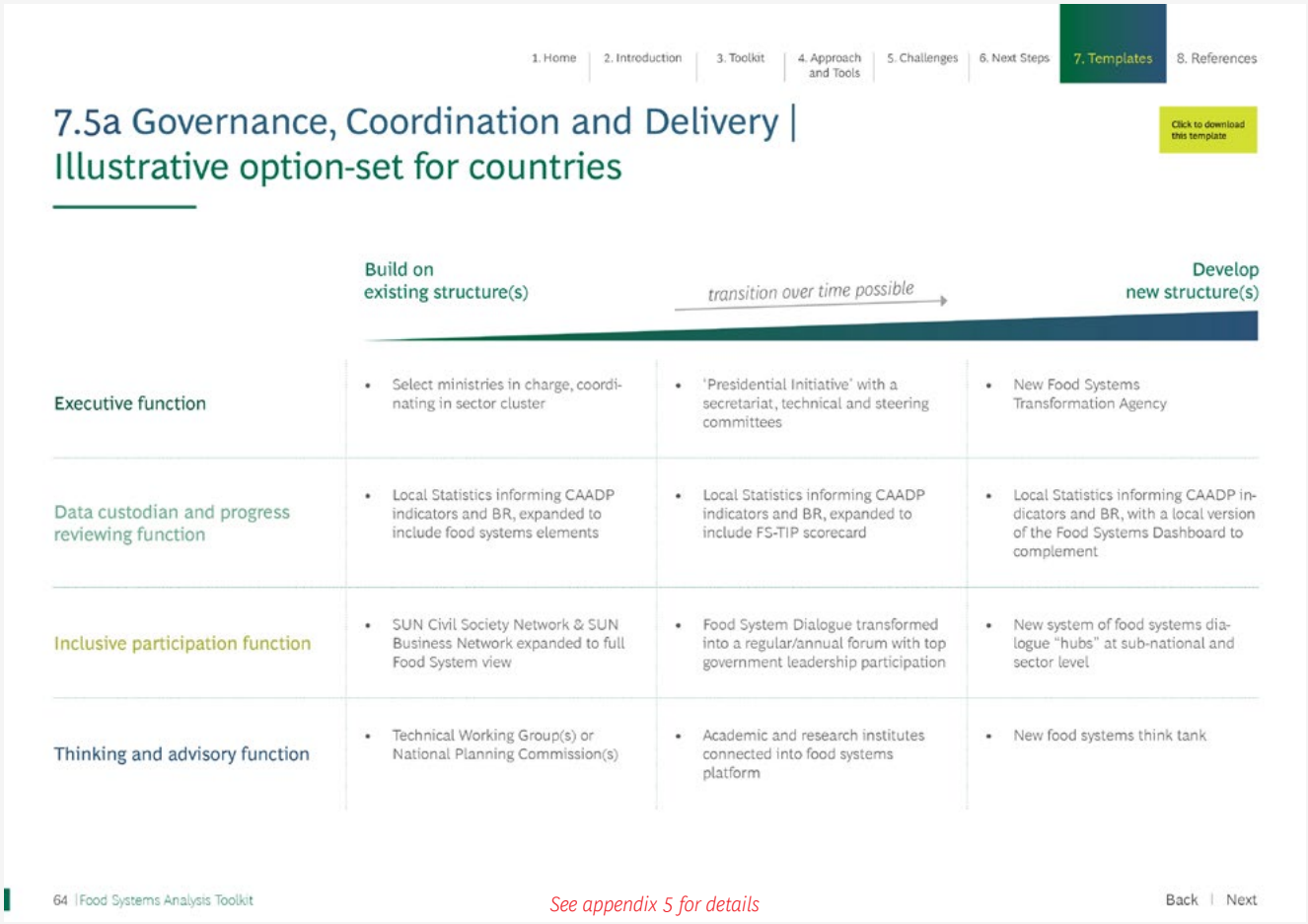
When evaluating the different options, that range from building upon existing structures to setting up new structures, a set of criteria can be used.

Criteria that can be used in this assessment include the expected:

- Ability to be transformative
- Ability to develop and implement integrated policies and programs
- Level of risk associated
- Return on investment

It is also important to mention that a transition over time is possible and often desirable, with a country starting off with existing structures and gradually moving on to new structures.

7.5a Governance functions



See appendix 5 for details

Templates and Use Cases

Appendix 1
Collaborative Design Approach

7.1a Engagement schedule |
Template to schedule engagements with policy-makers and other stakeholders as part of the collaborative design approach

Click to download this template

		sprint 1	sprint 2	sprint 3	
Name	Organization and role	Initial interviews	Sounding Board	Key Stakeholders	Responsible for reach-out
E.g., Jane Doe	Ministry of Trade, Minister	xxx	xxx	xxx	xxx
xxxxxxx	xxxxxxxxxx	xxx	xxx	xxx	xxx
xxxxxxx	xxxxxxxxxx	xxx	xxx	xxx	xxx
xxxxxxx	xxxxxxxxxx	xxx	xxx	xxx	xxx
xxxxxxx	xxxxxxxxxx	xxx	xxx	xxx	xxx
xxxxxxx	xxxxxxxxxx	xxx	xxx	xxx	xxx
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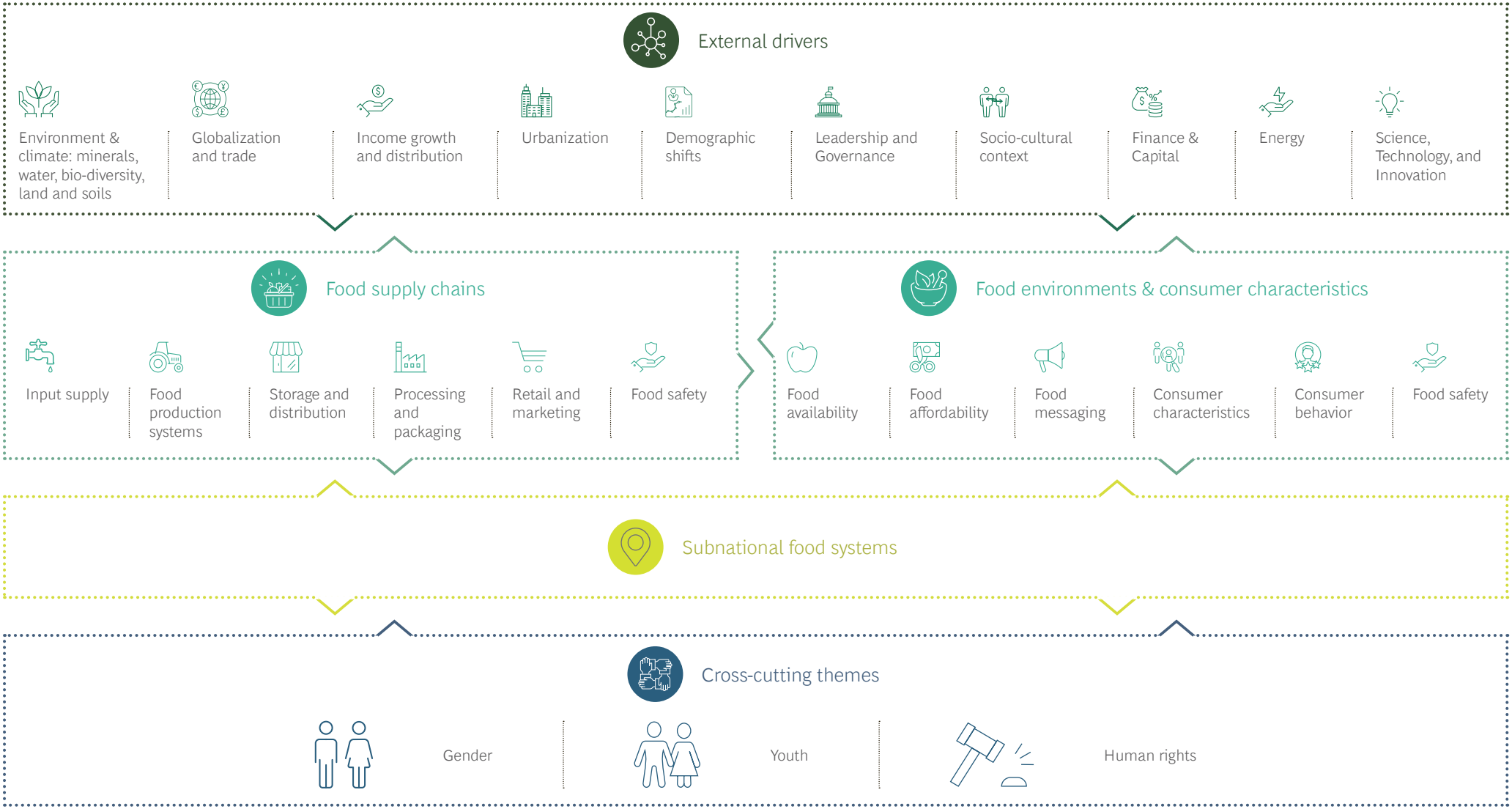
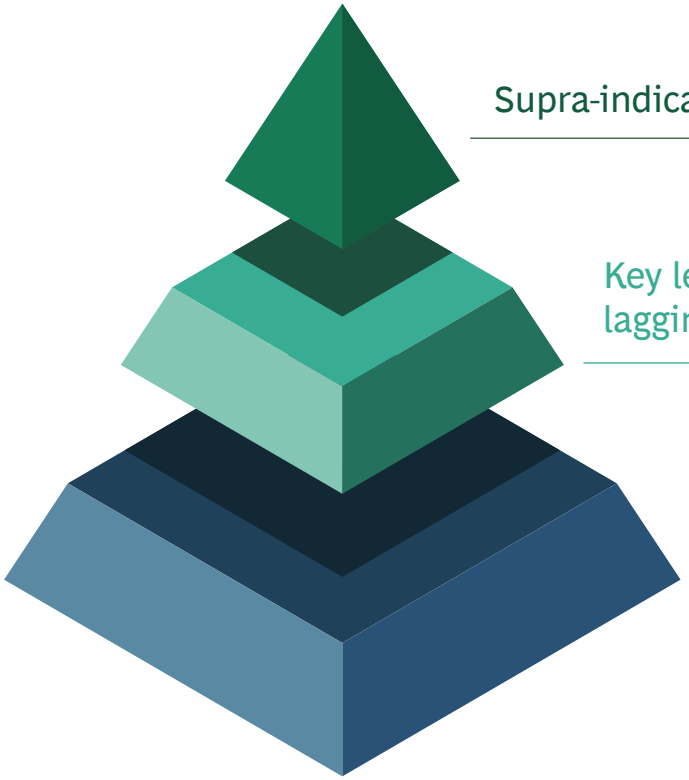
Appendix 2
Diagnostic Framework Tool

7.2a Diagnostic framework | Description of food systems' components



Source: Adapted from the Food Systems Dashboard, the Food systems Decision-Support Toolbox; HLPE; and FS-TIP research

7.2b Diagnostic framework | Quantitative assessment structured along 3 levels



Supra-indicators

Key leading and lagging indicators

Long list of indicators

Quantitative framework

4-5 supra indicators per UN Food Systems Summit 2021 action track that represent outcomes of food systems transformation plus key cross-cutting elements (e.g., governance), to enable easy assessment of the country's status and main areas of attention

~40 to 50 key indicators across components of the food system and the UN Food Systems Summit 2021 action tracks, to enable identification of main high-level drivers for good or bad performance on food system transformation

Long list of detailed indicators across all components of the food system, that give the user a granular view of outcomes and drivers of food systems transformation

Qualitative view

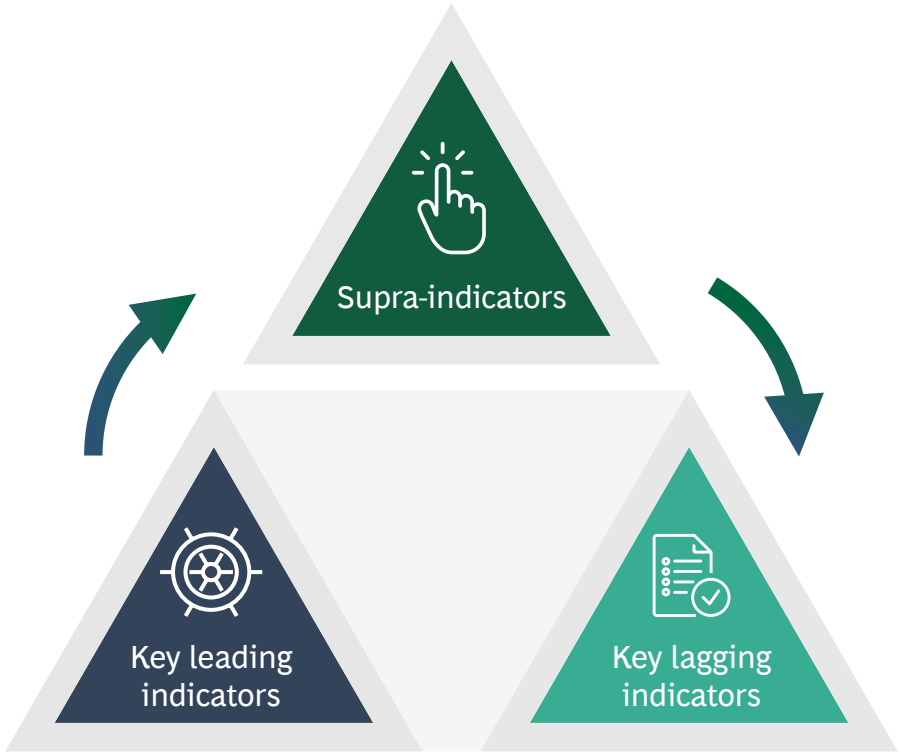
Qualitative insights and commentary on each supra-indicator, to complement the quantitative analysis

7.2c Diagnostic framework|

Selection of supra-indicators focused on outcomes and structured along the UN Food Systems Summit 2021 Action Tracks

Action Tracks	Supra-indicators
 **Action Track 1** *Ensure access to safe and nutritious foodfor all*	1 Diet quality: Food Consumption Score (FCS) in Rwanda and Malawi, Diet Quality (GDR+) in Ghana 2 Nutrient supply: Net supply in country of key macro and micro nutrients as a share of total consumption requirements for a healthy diet 3 Undernourishment: Percent of population undernourished (%) 4 Overweight & obesity: Percent of population overweight or obese (%) 5 Food safety: Africa Food Safety Index
 **Action Track 2** *Shift to sustainable consumption patterns*	6 Affordability: Cost of a healthy diet as a percent of household food expenditure (%) 7 Sustainability of diets: Per capita GHG emissions of food consumption (Kg CO2eq./person) 8 Food waste: Food waste index 9 Food environment: Composite index combining food environment policies [new]
 **Action Track 3** *Boost nature-positive production*	10 Emissions: Green House Gas (GHG) emissions from agriculture (MtCO2e) 11 Land: Average forest land being deforested in hectares for agriculture use over the past 3 years (%) 12 Food loss: Percent food loss across supply chain (%) 13 Regeneration: Biodiversity and habitat index
 **Action Track 4** *Advance equitable liveli-hoods*	14 Income: Gini coefficient (specific) based on incomes across the food system 15 Income: Gap between farmgate price and wholesale price (%) 16 Gender equity: Women empowerment in agriculture index
 **Action Track 5** *Build resilience to shocks, stress & vulnerabilities*	17 Economic: Household Resilience Capacity Index 18 Risk distribution: Proportion of men and women engaged in agriculture with access to finance 19 Social: Government social security budget as a % of total requirements to cover vulnerable group (%) 20 Environmental: ND-GAIN (Notre Dame Global Adaptation Initiative) Country Index 21 Production diversity: Percent of kilograms from top 5 crops produced (%)
 **Governance**	22 Governance: Food Systems Transformation Governance Index [new]

7.2d Diagnostic framework | Supra-indicators linked to key leading and lagging indicators



Supra-indicators

Indicators reflecting desired outcomes of food systems transformation and that are representative of action tracks
e.g., prevalence of undernourishment

Key leading indicators

Drivers of supra-indicators, that inform policy-makers on areas to focus on
e.g., focus on cash crops and staple crops, consumption patterns, and food insecurity leading to undernourishment

Key lagging indicators

Showing the effects of supra-indicators on different aspects of population, environment etc.
e.g., undernourishment contributing to stunting, wasting

Disaggregated view of indicators

Disaggregated view

Detailed view of indicators per group, region, etc. (to be shown when value adding)
e.g., undernourishment in Northern province for women

7.2e Anonymized Use Case | Diet Quality and Nutrition Security | Key challenges and how they can be addressed

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Proposed building blocks for governance, coordination and delivery structures

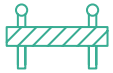
Description of the priority area

E.g., Focus has been on raising productivity of staple crops, additional steps needed to strengthen markets and grow demand for more nutrient-rich foods (1)

Benefits of addressing the challenge

E.g., By ensuring access to adequate, diverse diets, the country can progress towards its 2024 goal to reduce stunting to improve children's quality of life and learning outcomes and increase overall health, wellbeing and productivity of its population

What challenges need to be overcome to address this?



Trade-offs to consider

E.g., more production of nutrient-rich foods for local consumption can reduce land available for cash crops for regional or export markets and reduce incomes

Policy opportunities

E.g., current policies focus on 6 priority staple crops while production of and access to a more diverse set of nutrient-rich foods has received less attention

Implementation challenges

E.g., small land parcels at household level

How and by whom can this be done?

E.g., need end-to-end planning for nutrition-sensitive agriculture

- *Select high-nutrient seed varieties, e.g., iron-rich beans*

(1) Number of the associated supra-indicator

7.2f Anonymized Use Case | High-level view of external drivers of the food system

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Component	Qualitative description
Environment and climate	• *E.g., current policies focus on 6 priority staple crops while production of and access to a more diverse set of nutrient-rich foods has received less attention*
Globalization and trade	
Income growth and distribution	
Urbanization	
Demographic shifts	

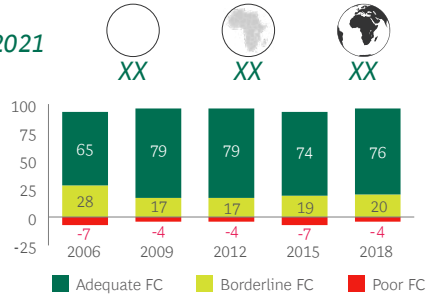
7.2g Anonymized Use Case | Supra-indicator 1 - Food Consumption Score (FCS)

Click to download this template

Aggregates household-level data on diversity and frequency of food groups, weighting according to the relative nutritional value

Food Consumption Score

2021



Country target	*Global target*
N/A	*N/A*

Summary

Trend

Target

Drivers – Key leading indicators

E.g., Production: ~24% of population do not have a diverse enough diet(poor or borderline FCS), in part due to monocropping, which affects household and market availability of nutrient-rich foods

Outcomes – Key lagging indicators

E.g., Undernourishment, Overweight & obesity, Food insecurity

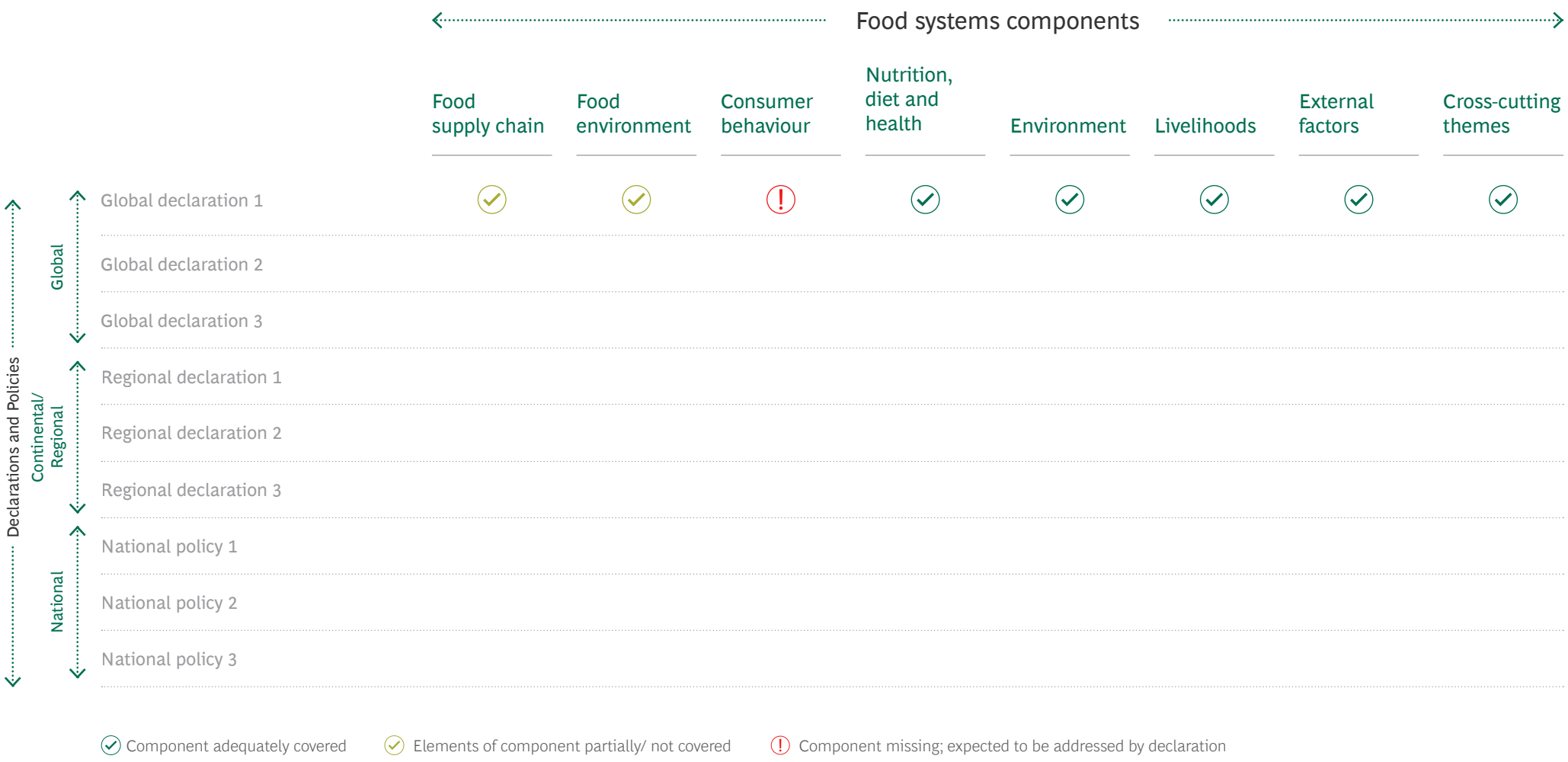
Implications and potential interventions

E.g., Improved dietary diversity impacts health, wellbeing and productivity

Appendix 3
Policy Landscaping Tool

7.3a Policy Coverage | Template to map global, regional and national declarations and policies to the components of the food system

Click to download this template



7.3b Policy Gaps | Template to link key national food systems challenges to related policies, policy gaps, overlaps and opportunities

Click to download this template

Key challenges in FS	Current policies related to challenge	Potential gaps or conflicting policies	Potential Implications
• E.g., Consumption of unhealthy foods	• E.g., Agriculture : Green house domes for vegetable production in urban areas	• E.g., Limited sensitization on importance of nutritious diet, or risks of processed foods	• E.g., Explore taxation of unhealthy foods whilst subsidizing inputs for nutrient-rich foods
• xxxxxxxxxxxxx	• xxxxxxxxxxxxx	• xxxxxxxxxxxxx	• xxxxxxxxxxxxx
• xxxxxxxxxxxxx	• xxxxxxxxxxxxx	• xxxxxxxxxxxxx	• xxxxxxxxxxxxx
• xxxxxxxxxxxxx	• xxxxxxxxxxxxx	• xxxxxxxxxxxxx	• xxxxxxxxxxxxx

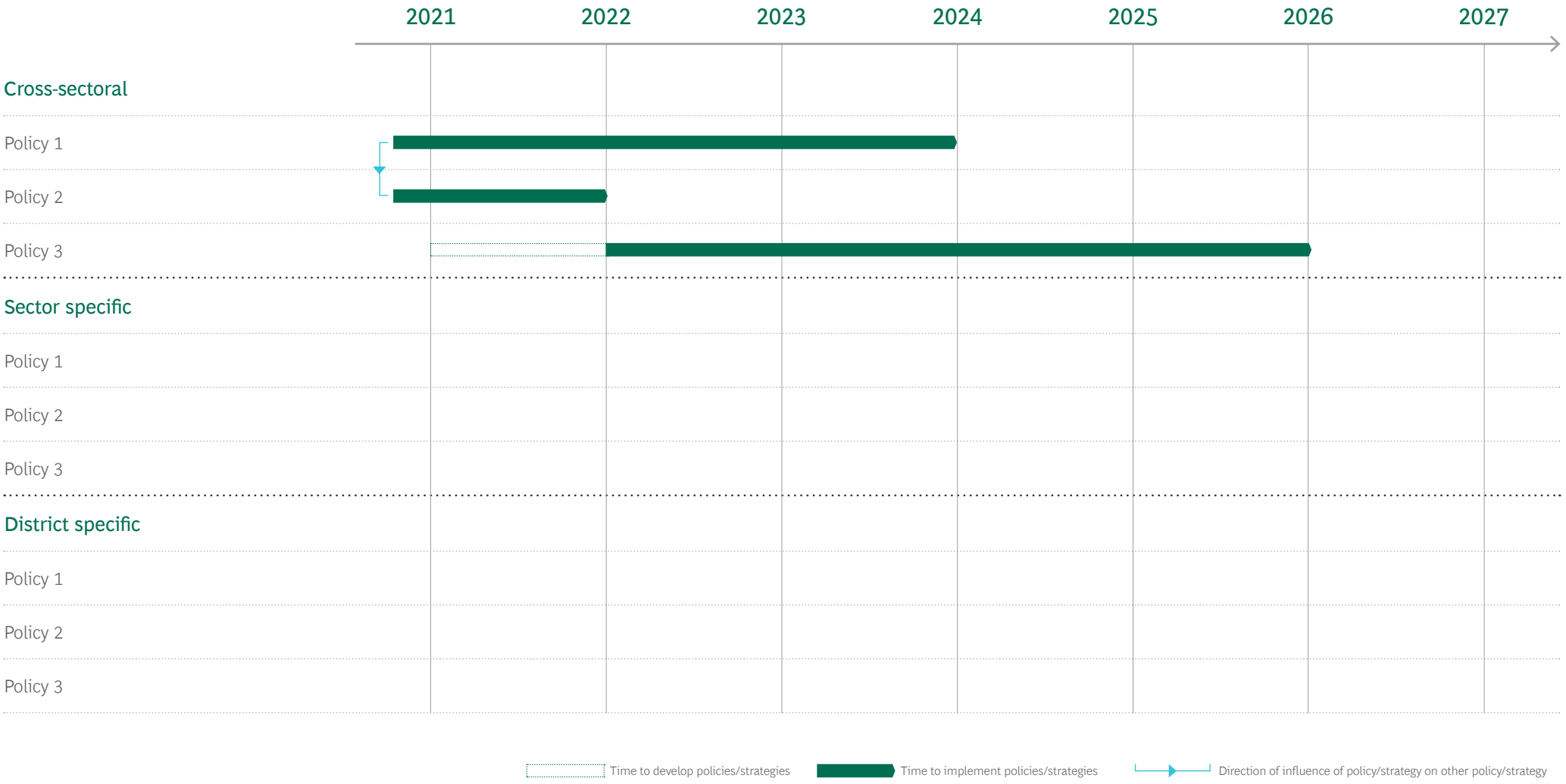
7.3c Policy Framework | Template to map national policy development process

Click to download this template

	Step 1	Step 2	Step 3	Step 4
Descriptions of process	• xxxxx	• xxxxx	• xxxxx	• xxxxx
Requirements / inputs into step	• xxxxx	• xxxxx	• xxxxx	• xxxxx
Key stakeholders involved	• Step 1 key stakeholders	• Step 2 key stakeholders	• Step 3 key stakeholders	• Step 4 key stakeholders

7.3d Policy Framework | Template to identify potential windows to adapt or introduce new policies

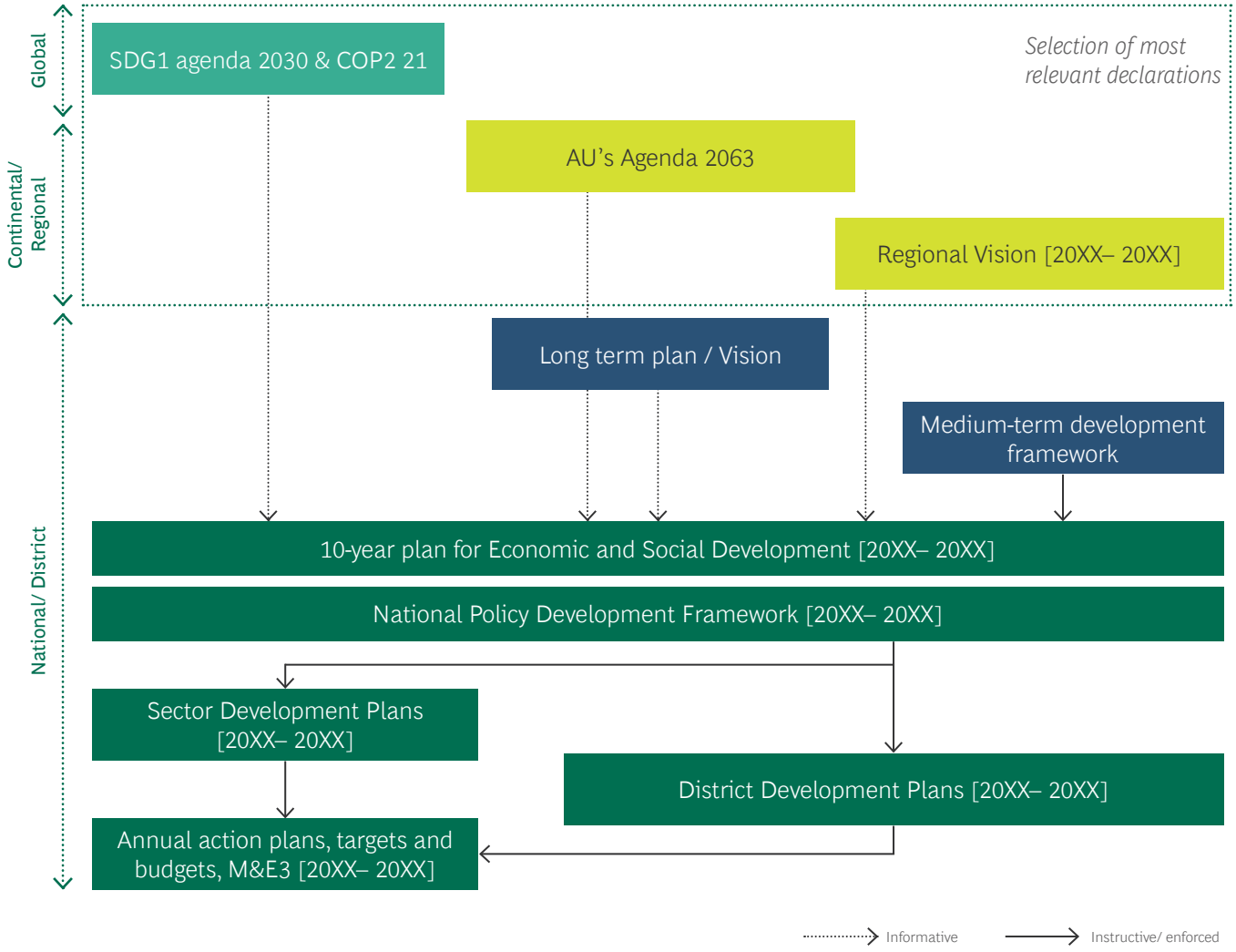
Click to download this template



7.3e Anonymized Use Case | Hierarchy of policies

Description on the role of the declarations, policy documents and plans that are most relevant to the country's food systems.

Highlighting how different policies influence each other and any relevant timing (e.g., related to national elections).



1. SDG – Sustainable Development Goals;
2. COP - Conference of the Parties
3. Monitoring & Evaluation

7.3f Anonymized Use Case | Global and regional declarations mapped against food system components to identify main gaps

Click to download this template

1. Sustainable Development Goals 2. Conference of Parties; 3. World Health Organization; 4. World Trade Organization 5. African Continental Free Trade Area; 6. Economic Community of West African States; 7. External factors based on qualitative framework developed. 8. Includes gender, human rights and youth. 8: Includes pop-up stalls, informal markets and traders etc.

7.3g Anonymized Use Case | National strategies mapped against food system components to identify main gaps

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7.3h Anonymized Use Case | Overview of key challenges of the country's food system to identify policy gaps, opportunities and potential overlaps

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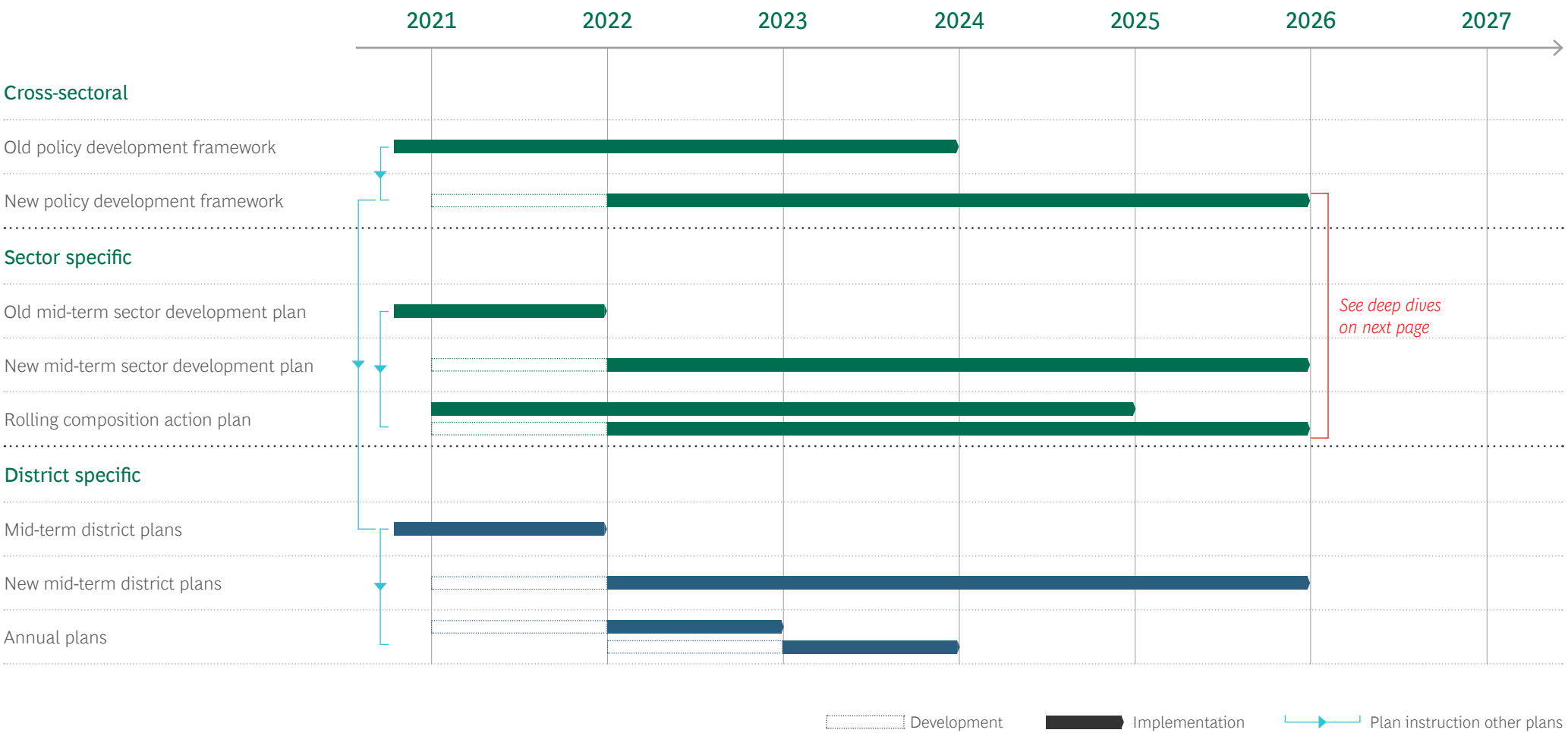
Key challenges in FS	Current policies related to challenge	Potential gaps or conflicting policies	Potential Implications
Consumption of unhealthy foods Increased urbanization and rising incomes is changing consumption patterns, leading to higher prevalence of obesity, resulting in higher NCD prevalence	• Agriculture: Green house domes for vegetable production in urban areas • Health: Reduction in non-communicable disease and promotion of healthy lifestyle • Trade: Health guidelines on imported foods	• Limited sensitization on importance of nutritious diet, or risks of unhealthy foods • Health interventions focused on mitigating NCDs as opposed to preventing them • Marketing restrictions of junk and carbonated beverages limited • Package label nutrient information is not required	• Explore taxation of unhealthy foods whilst subsidizing inputs for nutrient rich foods • Explore marketing restrictions on unhealthy foods (especially to kids) • Create front of package food labeling policy to promote the consumption of nutritious foods
Diet quality and nutrition security Insufficient production and demand as well as low affordability of nutrient-rich foods resulting in nutrient deficiencies amongst a large portion of the population	• Health: Food fortification with micronutrients • Agriculture: Food-base dietary guidelines, promotion of production and consumption of bio-fortified crops • Business development: MSME vegetable production projects	• Limited attention to increased demand for more nutritious food and promoting the domestic production of those foods • Production and consumption of bio-fortified crops is encouraged – but no interventions to improve affordability and availability	• Explore opportunity to ramp up sensitization on nutrition-sensitive trade and consumption • Create more district markets to increase diversity and availability of nutrient-rich foods • Tailor input subsidies to increase production of nutrient rich foods

7.3i Anonymized Use Case | Overview of planning phases of mid-term national development framework and sector and district plans

Click to download this template



7.3j Anonymized Use Case | New policy development process

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Policy initiation and intent

- President or Ministries, Departments and Agencies (MDAs), draft public policy based on identified issues

Technical assessment

- Min. of Justice advices on legal implication
- Policy body convenes all stakeholders to discuss policy, check alignment with national & sector policies and other dev. frameworks. Shares feedback with MDAs to be incorporated

Policy decision making / approval

- Cabinet Approval
  Cabinet ensure policy meets legal frameworks and development objectives
- Parliamentary Approval
  Parliamentary sub-committees check technical details of policy and engage with stakeholders

Incorporation in national policy development framework

- As part of the development of the new national policy framework, any new policies that were passed by parliament need to be incorporated into framework before implemented in plans with an allocated budget

Implementation & monitoring and evaluation

- Once approved, the national development policy framework, is translated into sector and district plans with a budget and is implemented by MDAs who initiated process and collaborators

Key stakeholders involved (non-exhaustive)

Policy initiation and intent	Technical assessment	Policy decision making / approval	Incorporation in national policy development framework	Implementation & monitoring and evaluation
President, Ministries, Departments and Agencies in collaboration with research and development partners	Policy bodies & technical working groups (all relevant stakeholders)	Parliament and Cabinet	Policy body	Sector, National Bureau of Statistics; Local government, Private sector, Dev. partners

Appendix 4
Stakeholder Mapping Tool

7.4a Stakeholder Database | Information to capture for key stakeholders

Click to download this template

Item	Description
Type of organization	6 types of organizations: Public sector, Private sector, International community and development organizations, Civil Society and Interest groups, Academia, Media
Taxonomy	Sub-grouping of types of organizations
Name of Organization	Names and acronyms of the stakeholder organization
Priority/criticality of organization in Food system	Based on each role in FS transformation, assign a score between 1 and 3 using the following criteria: 1 (High)- Stakeholders whose involvement is critical for successful food system transformation (strong structural impact on sector and high level of involvement with other stakeholders and solutions) 2 (Medium)- Active involvement of stakeholder in food systems and with strong potential to accelerate food systems transformation in the country; no involvement from stakeholder will result in delays (e.g., because it plays a facilitating or supporting role for other stakeholders or policies) 3 (Low)- Stakeholder's activities or expertise not critical in driving food system transformation in country (e.g. limited connections with other stakeholders/solutions; activities do not have a structural impact)
Components of food system that the organization is most strongly involved in	Components based on the qualitative framework developed which the organization could influence: Food Supply chain, Food environments(including availability, affordability), Diets, Nutrition and Health outcomes; Environment and Climate Change; (Equitable) Livelihoods, Politics & Leadership, Investment, Trade, Population growth and migration, gender and youth
Describe the role the organization can play in food systems transformation	Description of the role that organization can play to transform food systems, (max. 3 most important per stakeholder) e.g. through policy making on specific elements of food systems, by promoting or making investments, by conducting research, by developing new indicators and collecting data, by developing educational programs to influence healthy diets, etc
Individual interests in policy changes	What are the stakeholders main interest in Food Systems; where there might be difficulties in engaging them (misalignment of interests)
List up to 3 key stakeholders and describe following aspects for each of them	
Key stakeholders that the institution works together with on food systems topics	Name of institutions
Strength/frequency of relationship	Strong - frequent (at least four times a year) and in-depth discussions/collaboration around policy making; medium - less frequent (every 6 months) and less in-depth discussions; weak - infrequent discussions
Type of relationship	Type of interaction that stakeholder engages in - – this includes, Technical support (inc. advisory), Implementation support (inc. capacity building), Financial support (budget), Monitoring and evaluation support (performance tracking).
Nature of collaboration	Type of interaction that stakeholder engages in - – this includes, Technical support (inc. advisory), Implementation support (inc. capacity building), Financial support (budget), Monitoring and evaluation support (performance tracking).

7.4b Stakeholder Identification | Template for mapping stakeholders in food systems

Click to download this template

Public Sector

International community & development org.

Private Sector

Civil Society & other

Academia

Media

E.g., Ministry of Agriculture	*E.g., CGIAR*	*E.g., Farmer Alliance*	*E.g., Civil Society Groups on Food*	*E.g., Universities*	*E.g., Media Conglomerate*
E.g., Ministry of Industry	*E.g., FAO*	*E.g., Large Miller*	*E.g.,.....*	*E.g.,.....*	*E.g.,.....*
E.g., Ministry of Health	*E.g.,.....*	*E.g.,.....*	*E.g.,.....*	*E.g.,.....*	*E.g.,.....*
E.g.,.....	*E.g.,.....*	*E.g.,.....*	*E.g.,.....*	*E.g.,.....*	*E.g.,.....*

7.4c Stakeholder Linkage | Template to map stakeholders to key food systems challenges

Click to download this template

Key challenges in FS	Relevant supra-indicators related to FS challenge	Stakeholders[1] that seem most actively involved	Initial view on key decision maker(s)[2]	Stakeholders that could be more actively involved
• *E.g., Diet adequacy & diversity: Limited diversity in production to meet nutritional needs of population*	• *E.g., Diet Quality – Food consumption score*	• *E.g., Minister of Agriculture*	• *E.g., Minister of Health*	• *E.g., Schools and Ministry of Education*
•	•	•	•	• .....
•	•	•	•	• .....

1. Stakeholders involved in policy design/implementation 2. Decision makers are those who influence directly impact food systems policy or implementation

7.4d Anonymized Use case | Overview of key stakeholders of food systems

Click to download this template

Public Sector	International community & development org.	Private Sector	Civil Society & other	Academia	Media
Ministry of Agriculture and Food security	AGRA	National Bank	Civil Society Network	National Agricultural Research Institute	Newspapers
Ministry of Health	FAO	Agricultural Trading Company	Farmers Union	University of Agriculture and Natural Resources	Digital media
Ministry of Finance	GIZ	Main dairy producer	National Smallholder Farmer's Association	University of Science and Technology	TV channels
Ministry of Education, Science and Technology	FCDO	Coffee/ Tea/ Cocoa Cooperative	Farmer Dairy Association		Radio channels (including local)
Ministry of Forestry	IMF	Consulting firm			
Ministry of Gender	AfDB	Banks			
Ministry of Lands	World Bank	Trade Union			
Office of the Vice President	USAID				
National Planning Commission	WFP				
Ministry of Energy					

7.4e Anonymized Use Case | Main stakeholders relevant to key food systems challenges

Click to download this template

Key challenges in FS	Relevant supra-indicators related to FS challenge	Stakeholders[1] more actively involved	Key decision maker(s)	Stakeholders that could be more actively involved
Diet quality Limited diversity in production to meet nutritional needs of population given production focus on maize	1 Diet Quality 2 Nutrient supply 4 Undernourishment 6 Affordability 21 Production diversity	• Min. of Agriculture • Min. of Trade and Industry • Min. of Health • Min. of local govt. and rural development • Min. of Gender, Children and Social Protection	• Minister Min. Agriculture • Minister Min. Trade • Director. Nutrition • Minister Min. Local govt. & Rural Development	• Consumer Association • Donor group in Nutrition Security
Livelihood equity Majority of population living below poverty line, women-led households typically worse off resulting in high undernourishment rate and consumption of cheaper, less nutritious meals	6 Affordability 14 Income 15 Income 16 Gender equity 17 Economic 19 Risk Distribution	• Min. of Agriculture • Min. of Trade and Industry • Min. of Health • Min. of local govt. and rural development • Min. of Gender, Children and Social Protection • Min. of finance	• Minister Min. Agriculture • Minister Min. Trade • Minister Min. Local govt. & Rural dev • Minister Min. Gender, Children and Social Protection • Director, Nutrition	

1. Stakeholders involved in policy design/implementation 2. Decision makers are those who influence directly impact food systems policy or implementation

Appendix 5
Governance, Coordination and Delivery structures

7.5a Governance, Coordination and Delivery | Illustrative option-set for countries

	Build on existing structure(s)	transition over time possible →	Develop new structure(s)
Executive function	• Select ministries in charge, coordinating in sector cluster	• 'Presidential Initiative' with a secretariat, technical and steering committees	• New Food Systems Transformation Agency
Data custodian and progress reviewing function	• Local Statistics informing CAADP indicators and BR, expanded to include food systems elements	• Local Statistics informing CAADP indicators and BR, expanded to include FS-TIP scorecard	• Local Statistics informing CAADP indicators and BR, with a local version of the Food Systems Dashboard to complement
Inclusive participation function	• SUN Civil Society Network & SUN Business Network expanded to full Food System view	• Food System Dialogue transformed into a regular/annual forum with top government leadership participation	• New system of food systems dialogue "hubs" at sub-national and sector level
Thinking and advisory function	• Technical Working Group(s) or National Planning Commission(s)	• Academic and research institutes connected into food systems platform	• New food systems think tank

7.5b Different archetypes | Executive function

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	Select ministries in charge, coordinating in sector cluster	'Presidential Initiative' with a secretariat, technical and steering committees	New Food Systems Transformation Agency
Description	• Similar set-up to today, with select Ministries and Government Agencies in charge of policies on their domain • Coordination through sector cluster and through secondments of civil servants between ministries	• Structure of secretariat, (technical) working-group and cross-ministerial steering committee • Headed by "permanent convenor" to set agenda and ensure execution, appointed by the President	• Set-up a new Agency for Food Systems Transformation that operates independently from Ministries and reports to the Prime Minister/President • Supported by cross-ministerial steering committee • Has its own team of local resources
Evaluation – *Transformative*			
Evaluation – *Integrative*			
Evaluation – *Risks*			
Evaluation – *ROI*			

Positive score | Neutral score | Negative score | Assessment to be completed in each country

7.5c Different archetypes | Data custodian and progress reviewing function

Click to download this template

	Local Statistics informing CAADP indicators and BR, expanded to include food systems elements	Local Statistics informing CAADP indicators and BR, expanded to include FS-TIP scorecard	Local Statistics informing CAADP indicators and BR, plus Food Systems Dashboard
Description	• Use the NISR database, CAADP indicators and AU biennial review process and country statistical systems as the basis, and expand it with all Food System elements	• Leverage the NISR database, CAADP indicators and AU biennial review updated with Food Systems elements for cross-country comparison • Use the FS-TIP scorecard in country as it contains more tailored data and sub-national information	• Leverage the CAADP indicators and AU biennial review updated with Food Systems component for cross-country comparison • Integrate the FS-TIP indicators and structure into the country-specific version of the Food Systems Dashboard
Evaluation – *Transformative*			
Evaluation – *Integrative*			
Evaluation – *Risks*			
Evaluation – *ROI*			

Positive score | Neutral score | Negative score | Assessment to be completed in each country

7.5d Different archetypes | Inclusive participation function

Click to download this template

	Build on existing structure(s)		Develop new structure(s)
	SUN Civil Society Network & SUN Business Network expanded to full Food System view	Food System Dialogue transformed into a regular/ annual forum	New system of food systems dialogue "hubs" at sub-national and sector level
Description	• Build upon the SUN Civil Society Network, Private Sector Federation and Women & Youth groups, taking a more Food Systems wide focus and including additional stakeholders in them that might previously have gone unheard	• Convert the consultative structures and top government leadership participation from the Food Systems Summit into a regular/annual forum to engage a wide range of stakeholders on all Food Systems topics	• Set-up a network of "hubs" in main towns and provinces/districts that can be consulted on Food Systems topics • "Hubs" to contain wide range of voices that are connected to Food Systems and serve as centers for innovation
Evaluation – *Transformative*			
Integrative			
Risks			
ROI			

Positive score | Neutral score | Negative score | Assessment to be completed in each country

7.5e Different archetypes | Thinking and advisory function

Click to download this template

	Build on existing structure(s)	*transition over time possible* →	Develop new structure(s)
	Technical Working Group(s) or National Planning Commission(s)	Academic and research institutes connected into food systems platform	New Food systems Think Tank
Description	• Existing cross-sectoral groups of experts that provide technical advice on proposed policies and programs and/or steer national dialogues process • Expand scope of current council/ group where needed to include all elements of food systems	• Bring together strong local academic and research institute(s) with experts on all components of food systems to form a platform on food systems • Knowledge and research generated accelerate food system transformation	• Set-up a new national cross-sectoral group of experts and academics, with expertise on Food Systems to conduct research and advise on policies and programs • Consisting of local experts and connect to international expert organizations (e.g., IFPRI)
Evaluation – *Transformative*			
Evaluation – *Integrative*			
Evaluation – *Risks*			
Evaluation – *ROI*			

Positive score | Neutral score | Negative score | Assessment to be completed in each country

References, Resources and Colophon

8.1 Source overview

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Databases and online tools

GLOPAN Food Systems Policy Tool
https://www.glopan.org/policy_tool/

FAOSTAT country data
http://www.fao.org/faostat/en/

Food Systems Dashboard
https://foodsystemsdashboard.org/

World Bank Country Data
https://data.worldbank.org/country

Authors and references to this document

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WFP World Food Programme