



Foresight4Food
International Collaborative Initiative

Briefing Paper

Foresight for Food Systems Change

Using futures thinking and scenario analysis for resilience and anticipatory policy making

www.foresight4food.net

Jim Woodhill, Bram Peters, John Ingram, Monika Zurek and Just Dengerink

Key Messages

- To transform food systems – for improved health, environmental sustainability and better livelihoods – a good understanding of the complexity and dynamics of food systems is critical.
- Foresight processes enable stakeholders to imagine different futures and explore the longer-term consequences of their decisions and actions.
- Foresight contributes to identifying future risks and opportunities, navigating trade-offs, and finding entry-points to leverage structural change.
- A key objective of foresight is to help generate the societal understanding and political will needed to transform food systems. Based on the experience of its members, the Foresight4Food Initiative has developed a guiding framework to support the use of foresight and scenario analysis with stakeholders across food systems.
- The Foresight4Food framework supports informed and anticipatory decision-making by integrating participatory approaches for engaging stakeholders with the rigorous use of scientific analysis, data, and computer modelling.
- Examples of foresight being used to support food systems transformation processes are growing with increasing interest and demand from policy makers and other food system actors.
- The Foresight for Food Systems Transformation (FoSTr) programme is supporting foresight work at the country level as well as the Foresight4Food global community of practice.



The Foresight4Food Initiative

Foresight4Food is an international initiative that supports food system transformation processes by offering organizations scenario and foresight expertise, synthesizing foresight work across the agri-food sector, and linking food systems foresight professionals around the world. The initiative holds regular events, workshops, and seminars and brings together a wide range of actors, platforms, and networks who have an interest in food systems foresight.





Introduction



Transforming food systems requires futures thinking.

Fundamental changes are needed in how food is consumed and produced – for human and planetary health, and for equitable economic development. These changes require thinking about the future of our food system.

What will be the possible consequences of decisions taken or not taken? What future risks and opportunities may be faced? How can food systems actors be nudged to deliver more desirable outcomes in the future? Foresight and scenario analysis offers policy makers, business, and society ways of exploring the future of food systems to improve today's decisions.



Increasing turbulence and uncertainty calls for enhancing the resilience of food systems.

Climate change, pressure on natural resources, shifting demographics, growing inequality, technological disruption, and geopolitical tensions are all coalescing – creating escalating risks and uncertainty in food systems. New thinking and approaches are needed to enhance the resilience of food systems to cope with future stresses, shocks, and extreme events.

Scenario analysis can help by exploring key trends and critical uncertainties in food systems and enabling better preparation for a range of different future events, risks, and circumstances.



Foresight and scenario analysis supports the societal understanding, learning and innovation needed for food systems transformation.

The future emerges and evolves, at least in part, from how different stakeholders think about the future, and the individual and collective ambitions and goals they aspire towards. While recognising the future cannot be predicted or planned for in linear ways, foresight and scenario analysis helps to bring all stakeholders into dialogue about the futures they desire or fear. Foresight helps to make it clearer to stakeholders the possible consequences of differing actions or inaction. Foresight can also help to create the shared understanding and collective commitment that political leaders and policy makers in both public and private sectors need to take wise decisions for the long term. Contributing to a process of anticipatory policy making, foresight has the potential to make our food policies more future-proof.

Taking a Food Systems Approach



Understanding ‘food systems’ is the start for foresight and scenario analysis.

A food system encompasses all activities needed for food to end up on people’s plates. For society, food systems need to deliver on three key outcomes: food and nutrition security, economic and social well-being and environmental sustainability.

Food systems involve an interconnected set of value chains, from production to consumption, a range of supporting services, and an institutional environment of formal and informal norms and rules, mindsets and power relations, which shape how actors behave. How food systems evolve over time is influenced by a set of drivers and feedback loops, both internal and external to the system. To help explain these dynamics of food systems, Foresight4Food uses the model shown in **Figure 1**.



To tackle future challenges there is a need to go beyond ‘siloed’ approaches.

In the past, fragmented, reductionist and single sector approaches have dominated. For example, having separate ministries for agriculture, health, environment, water or employment with little connection and coordination and limited agreement on priorities. This can lead to undesirable trade-offs, for instance, maximising production at the expense of the environment or good nutrition.



Managing trade-offs and synergies is increasingly critical.

Creating food systems for the future will require a much better understanding of the trade- offs and synergies across the entire system.

Identifying and recognising these is key to developing effective policies that can deal with the consequences of short-term vested interests and open up opportunities for change.

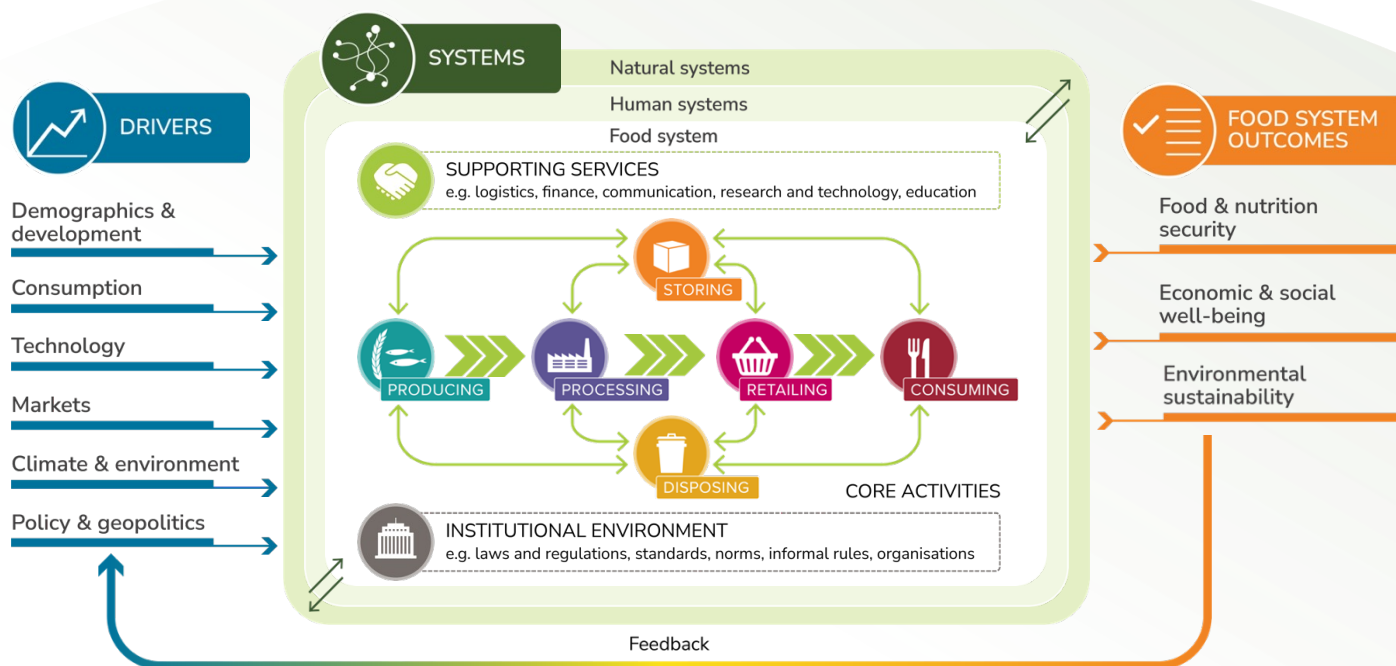
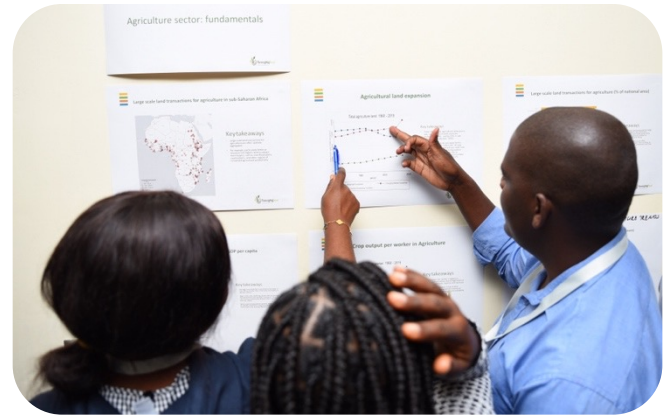


Figure 1: Food Systems Model



Mapping food systems for shared understanding between stakeholders.

A key part of the Foresight4Food approach is to support stakeholders to gain a shared understanding of the overall food system in which they are engaged. This mapping helps different stakeholders to recognise the future challenges and opportunities for themselves and other stakeholders. This is a first step in helping to create the collective understanding and political will for transformation.



“Transforming” a food system means fundamentally adapting food system activities and reassessing governance to achieve a better mix of food system outcomes.

Transforming food systems means changing the outcomes they deliver to achieve better human and planetary health and well-being. To achieve this, the activities of the different actors in the food system need to be adapted. This requires reassessing and changing the signals and incentives they receive through policies, markets, prices, and societal norms. A food systems approach helps to generate the understanding about the political economy and governance of food systems necessary to bring about change.



Explaining Foresight and Scenario Analysis



Foresight integrates a range of methods and tools for exploring the future. Horizon scanning, stakeholder analysis, mapping systems, data modelling, scenario development, trade-off analysis, visioning, and theory of change analysis are all elements of the foresight process. A wide range of participatory stakeholder engagement tools can be integrated into the overall process.



Foresight and scenario analysis help us prepare for uncertain futures by asking “what if?” As illustrated by the cartoon Figure 2, in essence, scenario analysis means exploring what different situations may be faced in the future and considering the options available. This opens space for anticipatory governance enabling better and more timely decision making. For example, what happens in 30 years’ time if most people on the planet are eating an unhealthy high salt, high fat, high sugar, and high animal protein diet? Or, what if climate change impacts on food production in more or less extreme ways?



Exploring different scenarios about how the future could develop assists decision makers in four key ways:

1. Being better prepared for a range of different situations that may have to be faced in the future.
2. Helping to create the understanding, vision and ambitions needed to steer towards more desirable futures and away from less desirable ones.
3. Providing a basis for assessing a range of different options and pathways for realising policy objectives.
4. Stress testing how effective different policy, strategy, and investment options might be in different scenarios.

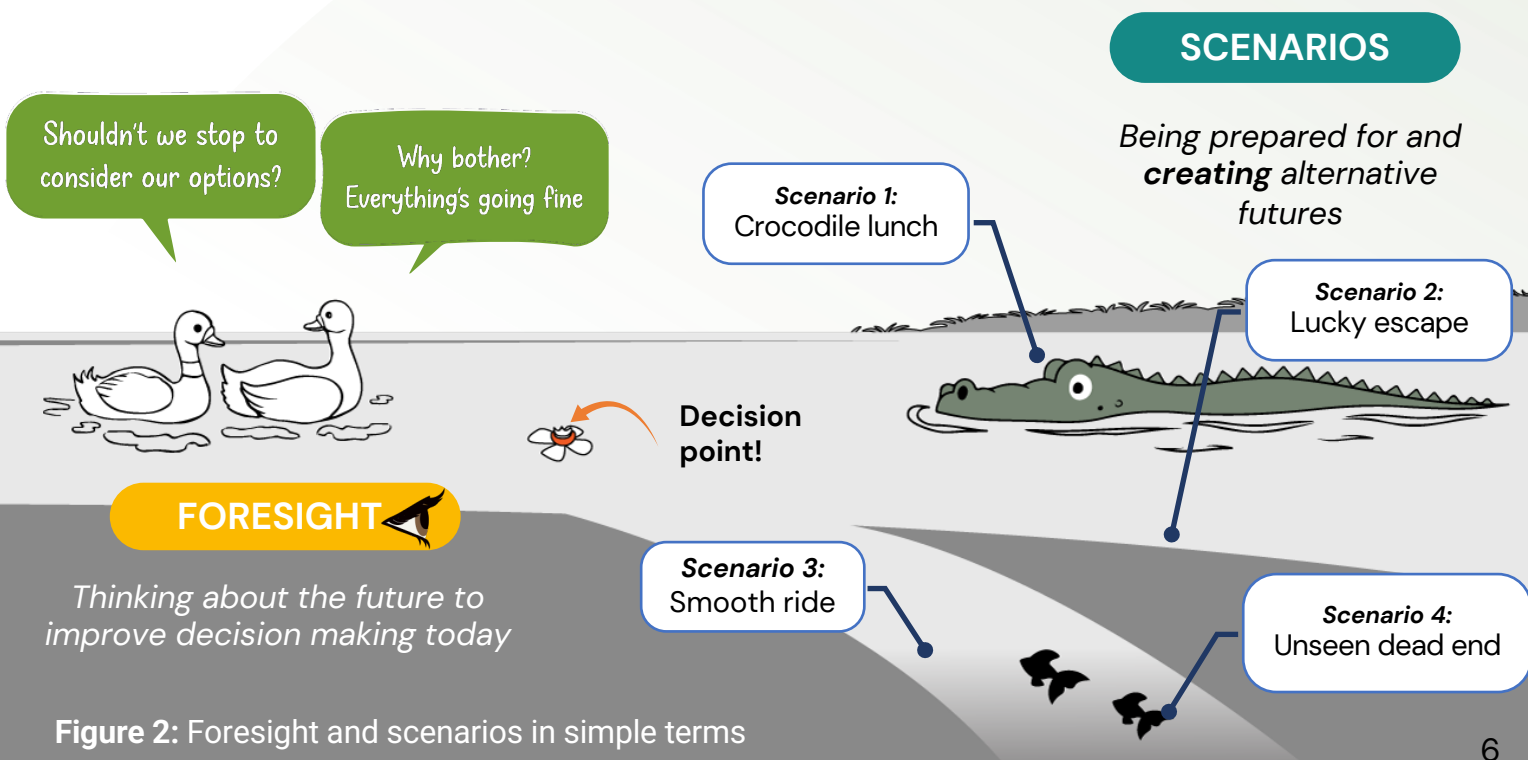


Figure 2: Foresight and scenarios in simple terms



Foresight sits at the interface of uncertainty about the future and human agency to steer change. Looking into the future in a structured manner has a long tradition. It has become formalized in governmental, business and military planning and strategy development.

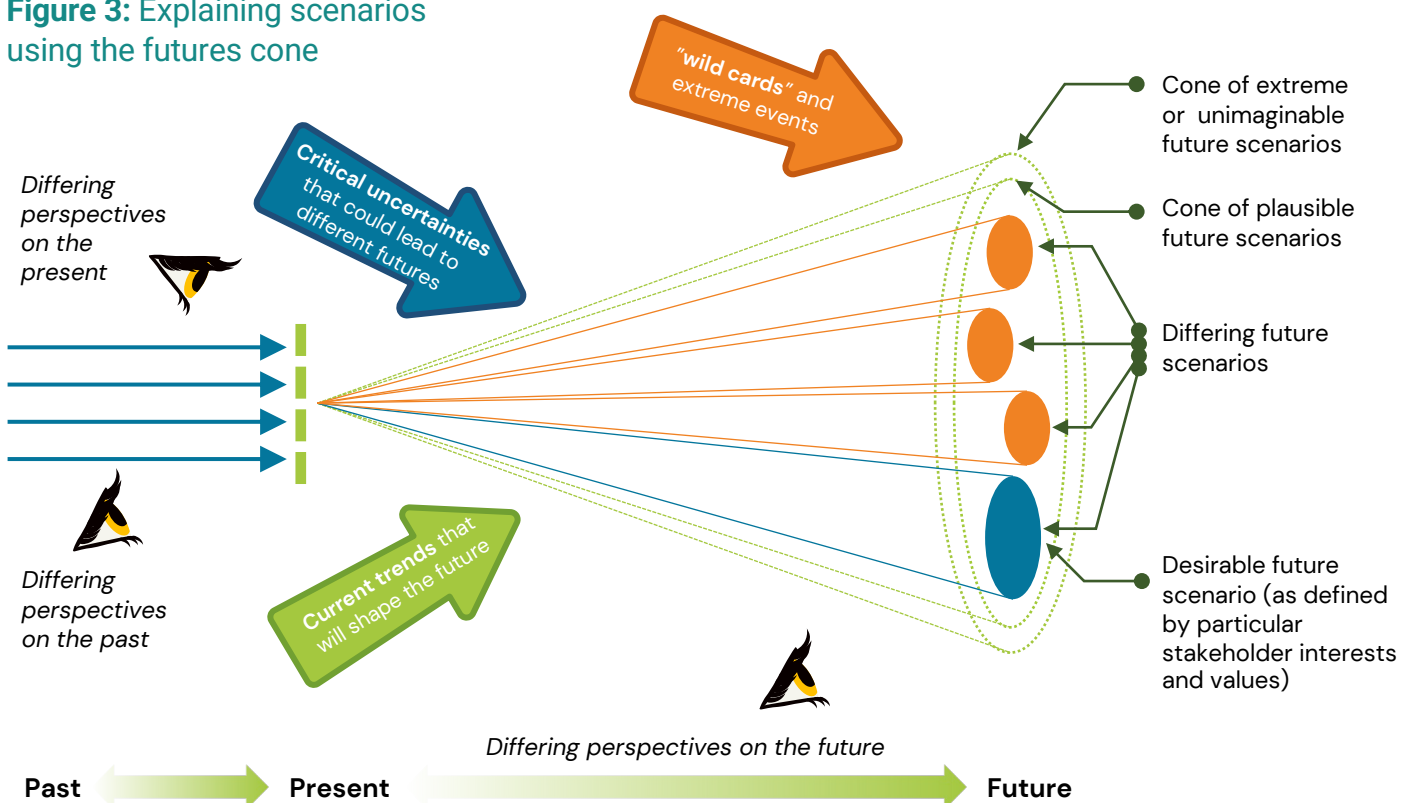
Foresight approaches underpin work on major environmental assessments, such as the Intergovernmental Panel on Climate Change. Many governments and businesses have foresight, scenario planning or futures units to help guide their decisions and policy making. Foresight does not try to fully predict or project the future (an impossible task in complex systems), rather, it helps to navigate future uncertainties and turbulence. Rare or unexpected events do have a dramatic influence on how the future unfolds. However, the future is also shaped by purposeful human intervention.

Humans have tremendous capability to organise, communicate and create shared narratives about the future they desire. We are not simply victims of a pre-ordained future. Foresight is about enhancing the capability to shape the future in desirable ways.



Scenario analysis enables different plausible futures to be imagined and described. From today's situation, it is possible to envisage multiple different ways the future for food systems might unfold, given different key trends and critical uncertainties. **Figure 3** illustrates this as a cone of expanding future possibilities. Within this set of all possible futures, key uncertainties, along with information about important trends can be used to articulate a series of plausible future scenarios.

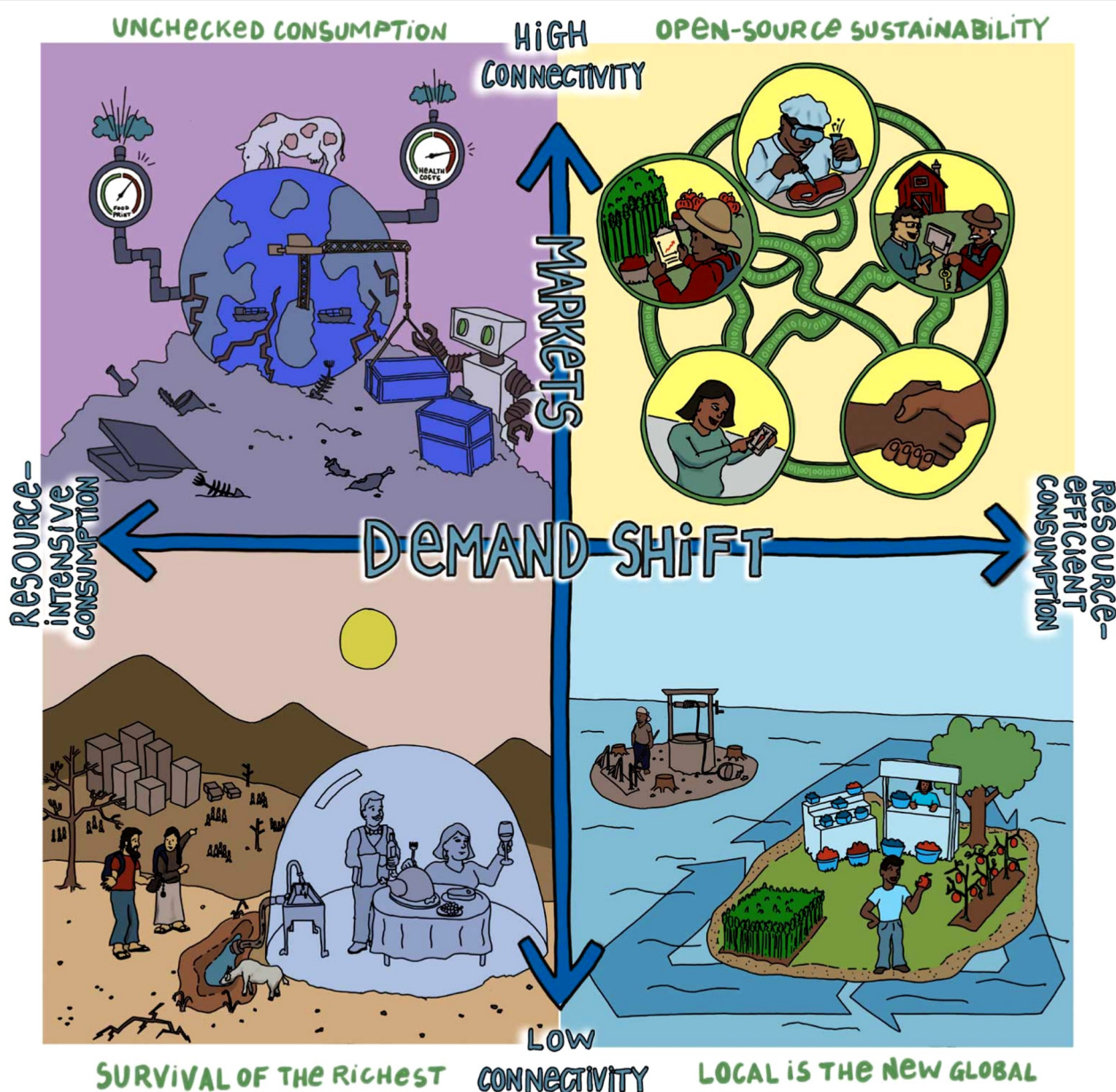
Figure 3: Explaining scenarios using the futures cone



Any number of different scenarios can be developed. However, it is common to develop 3 to 5. At the outer edges of the cone there are extreme futures, which are difficult to imagine. The further into the future the wider the cone of possibilities and uncertainties. In this approach scenarios are not the best or worse case, or visions of the future, rather, they are what could happen given the uncertainties. Once developed, judgements can be made about which scenarios may be more or less desirable for which stakeholders or society at large. Often a so-called 'business-as-usual' scenario is also developed to understand the implications of not changing the existing policies and decision-making frameworks.



Scenario development helps surface stakeholders' different perspectives and assumptions – a foundation in creating alliances for food systems change. Different groups and interests across the food system will see the past, present and future very differently. Scenario development is a way of creating the dialogue needed to develop a shared understanding of what needs to change and why, to shift mindsets, and create the alliances needed to drive change.



Source: World Economic Forum (2017): *Shaping the Future of Global Food Systems: A Scenarios Analysis*

Figure 4: Example of scenario analysis for global food systems using the uncertainties of markets and demand shift.

Implementing Foresight And Scenario Analysis For Food Systems Change



To use foresight for food systems change, the Foresight4Food Initiative has developed a guiding framework. Illustrated below, the framework has a seven-step process, with an emphasis on participatory stakeholder engagement supported by a strong evidence base. Each step has a set of participatory and analytical tools.



Using foresight to support national food systems transformation pathways. Initiated by the United Nations Food Systems Summit, most countries are developing and implementing national food systems transformation pathways. To be effective, these pathways will need to take a medium- to long-term perspective and prepare countries to cope with a range of future stresses and shocks to food systems.

Foresight and scenario development can be a vital part of this process. Transformation at local levels, across value chains and within agri-food sector businesses is needed for national pathways to be implemented. Foresight can support the stakeholder engagement and evidence-based analysis needed to prepare our food systems for future.



The framework integrates the use of evidence about food systems change and modelling with participatory processes of stakeholder engagement and dialogue via scenario development. A core assumption of the Foresight4Food framework is the value of stakeholder dialogue across government, business, civil society and research informed by the best available evidence and effective data visualisation.

Figure 5: The Foresight4Food Framework to guide foresight for food systems change





The foresight framework links food systems mapping and scenario development to policy processes to achieve food systems change. The framework has been designed to integrate food systems mapping, futures thinking and scenarios, and thinking about how to bring about change in complex and continuously changing food systems. This brings a strong emphasis on understanding the political economy of food systems and how power relations can enable or constrain opportunities for change.

Examples of Using the Foresight4Food Framework

- The government of Bangladesh was supported by FAO, Wageningen University and Research, Foresight4Food and other partners to run a multi-stakeholder foresight process on how the city of Dhaka can feed their inhabitants with safe and sustainable food by 2041.
- Through the FoSTr programme (supported by the Netherlands Ministry of Foreign Affairs through IFAD), Foresight4Food is supporting government and other stakeholders with food systems foresight analysis in Ghana, Jordan, Bangladesh, Kenya, Uganda, and Niger.
- Together with the Forum for Agricultural Research in Africa (FARA) and the African Foresight Academy, Foresight4Food developed a Massive Open Online Course (MOOC) on foresight for food systems change, complemented by a training in Oxford.
- Foresight4Food collaborated with FARA and AGRA in partnership with Mastercard Foundation to explore the future for youth in Africa's agrifood systems.

Foresight4Food FoSTr Programme

Foresight for Food Systems Transformation (FoSTr) programme provides a country decision support facility for food systems foresight and scenario analysis. The country-led and multi-actor foresight process aims to assist national food systems transformation.

It supports the dialogue, analysis and understanding necessary for co-creating food systems of the future that are sustainable, healthy, equitable and resilient. The programme will be implemented in five focus countries. FoSTr also supports the global networking and knowledge sharing activities of Foresight4Food.



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