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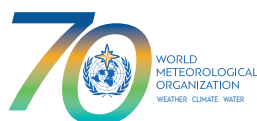
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TECHNICAL NOTE ON SUSTAINABLE FOOD SYSTEMS

Issue-based Coalition on sustainable food systems
for Europe and Central Asia



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Technical note on sustainable food systems

Issue-based Coalition on sustainable food systems for Europe and Central Asia

This technical note¹ aims to provide United Nations Country Teams (UNCTs) in the Europe and Central Asia (ECA) region with a common understanding of sustainable food systems. This technical note is an additional resource for UNCTs and complements existing guidance for United Nations Common Country Analysis (CCAs) and United Nations Sustainable Development Cooperation Frameworks (UNSDCFs), such as the UNSDCF Guidance (United Nations Sustainable Development Group, 2019) and UNSDCF Companion Package.²

A sustainable food system is a system that delivers food security and nutrition for all in such a way that the economic, social and environmental basis to generate food security and nutrition for future generations are not compromised (FAO, 2018). In order to achieve sustainable food systems, there is an urgent need for advocacy and guidance to stimulate political and social will for the transformation. United Nations Resident Coordinators (UNRCs) and UNCTs can play key roles in advocating for sustainable food systems as an essential driver of achieving the Sustainable Development Goals (SDGs), by guiding government policy and actions.

When staff in United Nations agencies have a common understanding of food systems and their contribution to the SDGs, collective efforts to enable governments build sustainable food systems should be enhanced.

"We believe in a world where healthy, sustainable and inclusive food systems allow people and plants to thrive. It is a world without poverty or hunger; it is a world of inclusive growth, environmental sustainability and social justice. It is a resilient world in which no one is left behind."

Agnes Kalibata - Special United Nations Envoy for the 2021 Food Systems Summit



1 The technical note was developed by the Issue-based Coalition (IBC) on sustainable food systems for Europe and Central Asia (ECA). The IBC was established at the regional United Nations system meeting in April 2020. The IBC members are: FAO (chair and secretariat); WFP, WHO, UNICEF (co-chairs); UNECE; WMO. UNDP and IFAD also joined the IBC in February 2021. The objective of the IBC is to support countries in making food systems more sustainable to contribute to the achievement of the Sustainable Development Goals (SDGs).

2 Available on the UNSDG Knowledge Portal to United Nations staff.

Possible role and support from UNCTs may include:

- advocating for the inclusion of a vision of sustainable food systems in all relevant policy and strategic planning and programming processes at country level, including the development and revision of CCAs, UNSDCFs and COVID-19 National Recovery and Response Plans to “build back better”;
- supporting policy reform and strategic planning to mainstream the food systems approach, and gathering evidence, case studies and best practices that support the transformation of food systems to enhance sustainability and resilience;
- promoting the effective engagement of the public, private, academic and civil society sectors, based on the established principles for successful partnerships;
- strengthening coordination and governance among relevant ministries and authorities to foster multisectoral and multistakeholder collaboration and policy coherence;
- combining strengths and supporting the complementarity of various United Nations agencies’ efforts to develop aspects of sustainable food systems; and
- promoting consistency and cooperation in the domain of impact assessments of COVID-19 on food systems.

The Annex includes a list of issues and entry points that contribute to sustainable food systems.



Rationale for transforming our food systems

In the ECA region, while hunger and undernourishment are hardly an issue, other forms of food insecurity and malnutrition continue to be prominent – notably, access to quality and nutritious foods, overweight and obesity, and micronutrient deficiencies (FAO, 2019). Similar to other regions, vulnerable groups, including women, children and adolescents, do not receive the diets they need to survive, grow and develop to their full potential. Unsafe food affects all countries in the region. Every year, approximately 23 million people fall ill and almost 4 700 people die from eating contaminated food (WHO, 2017).

The way food is produced and consumed is taking a toll on the environment and the natural resource base, with concerns over the loss of biodiversity, pressures on water, deforestation, increase in greenhouse gas emissions, and one-third of all food being lost or wasted. Inequalities and imbalances exist throughout the food system; they are caused by people's inability to access markets, the weak bargaining power of value chain actors, and difficulties among the urban and rural poor in accessing nutritious, diverse foods.

Current food systems need to be transformed to sustainably deliver the quality diets needed for men's, women's and children's health and to relieve pressure on the planet's natural resources while allowing inclusive economic growth.³

The transformation of food systems is at the heart of the 2030 Agenda for Sustainable Development, with sustainable food systems and nutrition patterns highlighted as one of the six entry points for successful transformation towards sustainable development (Independent Group of Scientists appointed by the Secretary-General, 2019). This will support many goals, including the achievement of SDG 2 to “end hunger, achieve food security and improved nutrition and promote sustainable agriculture.” In addition, ensuring adequate, nutritious foods in a sustainable manner will support progress towards achieving SDG Target 3.4 reducing premature mortality from non-communicable diseases caused by poor diets high in unhealthy fats, salt, sugar, excess energy and low fruit and vegetable consumption, an important risk factor.

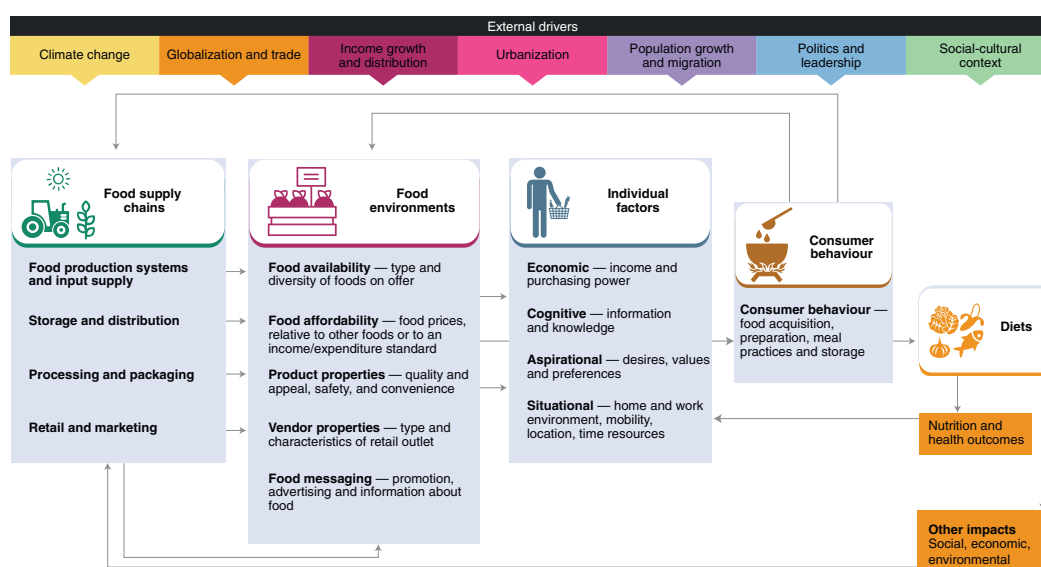
The COVID-19 pandemic has highlighted multiple social, economic and environmental vulnerabilities and reconfirmed the urgency for a shift towards sustainable production and consumption patterns. “Building back better” stresses the need for transformation to ensure food systems that are resilient to shocks, ensure individual health and well-being, promote inclusion, protect livelihoods and natural resources, and improve environmental and economic sustainability by increasing efficiency and reducing waste.

³ For further reading, refer to: A sustainable food system for the European Union (SAPEA, 2020), at <https://www.sapea.info/wp-content/uploads/sustainable-food-system-report.pdf>.

Understanding food systems: “a food systems lens”

Food systems encompass the entire range of activities, goods and services involved in the production, trading, processing, marketing, consumption and disposal of goods that originate from agriculture, forestry or fisheries, including the inputs needed and the outputs generated at each of these steps (High Level Panel of Experts, 2017). Investment in many components is required, including natural resources management, agronomy, farm inputs, food production, efficient value chains, land use and reform, the viability of smallholders and family-run farms, agribusiness and finance, technologies and innovation, food chain risks, transport and distribution, markets and trade opportunities, and food loss and waste. Food systems also include people and institutions as well as the sociopolitical, economic and technological environments in which these activities take place (Figure 1).

Figure 1. Components of food systems: drivers and outcomes



Source: The food systems dashboard (<https://foodsystemsdashboard.org/about-food-system>), adapted from HLPE (2017).

Food systems are vulnerable to external shocks caused by conflict, political instability, climate and weather events, among other factors. In particular, food systems are linked with climate change in two key ways.

First, through their collective greenhouse gas emissions, they are a major driver of climate change. Approximately one-third of humanity’s greenhouse gas emissions are related to clearing land, growing food and feed, rearing livestock and dealing with their manure, and processing, cooking and transporting food (Intergovernmental Panel on Climate Change, 2019).

Second, food systems are impacted by climate change. As the climate changes, patterns of rainfall, heat and cold temperatures also change, affecting the yields and suitability of crops in various places. Yields are likely to decline. Even in areas in which yields may increase, the rising level of CO₂ in the atmosphere affects the way plants grow and may decrease the nutrient availability in the crops (Intergovernmental Panel on Climate Change, 2019).

As the climate changes, extreme weather events will become more extreme. The increasing prevalence of heat and drought will be of particular importance to agriculture. Although a severe drought may especially affect people locally, such events can have impacts far beyond the area affected due to reductions in yields, less food being available on markets, etc.

Due to its climate and environmental impacts and its shortcomings in providing healthy, safe nutrition for all, today's global food system is unsustainable (Campbell et al., 2017). Addressing the three dimensions of sustainability – economic, environmental and social – is gaining momentum and importance. This is not without its challenges, given the interrelations within the food system and with other systems, resulting in competing priorities and outcomes.

Historically, the complex challenges presented by the food system often were tackled through isolated interventions, fragmented policies and little consideration or regard for trade-offs. Applying a food systems approach helps foresee these trade-offs and conflicts and determine critical trade-offs between different dimensions and stakeholders. This would help formulate and implement effective policies that improve population health and nutrition, reduce non-communicable diseases and promote the three dimensions of sustainability while minimizing conflicts across activities, actors and overall goals (FAO, 2020).

Box 1. Food systems: dimensions of sustainability

Addressing the three dimensions of sustainability – economic, environmental and social – means that the outcome of an intervention should: i) be profitable throughout (economic sustainability); ii) generate broad-based benefits for society (social sustainability); and iii) have a positive or neutral impact on the natural environment (environmental sustainability). It should ultimately improve the diets of the population and contribute to their health, well-being and development.⁴

Economic sustainability considers the commercial or fiscal viability of activities conducted by each food system actor and the benefits and costs to society as a whole (e.g. lower medical costs because the population is healthy population thanks to healthy diets and increased productivity for economic development). Economic sustainability looks at aggregated food systems and general equilibrium effects.

- Are the economic activities generating benefits or added value for all categories of stakeholders (e.g. wages for workers, taxes for governments, profits for enterprises and food supply improvements for consumers)?
- How are the current food systems maximizing countrywide and regionwide net economic benefits?

Social sustainability considers equity in the distribution of added economic value and ensures benefits for society at large, taking into account vulnerable groups categorized by gender, age, ethnicity, income/wealth and socio-economic status. Achieving social sustainability requires that food systems evolve in such a way that those who are the least advantaged are not left behind.

- Are food system activities contributing to the advancement of important sociocultural outcomes, such as nutrition and health, local traditions, women's empowerment, youth engagement, decent work and animal welfare?
- Are the needs of the most vulnerable people in society, including urban and rural consumers, being addressed?

Environmental sustainability focuses on reducing contamination, managing waste effectively and ensuring that the impacts of food system activities on the surrounding natural environment are neutral or positive, taking into consideration biodiversity, water, soil, animal and plant health, the carbon footprint, the water footprint, and food loss and waste.

- Are food system activities ensuring neutral or positive impacts on the natural environment (i.e. air, soil, ecosystems, water and climate)?
- How do food systems address and incorporate climate change adaptation and mitigation?

⁴ For more information, read: Sustainable food systems: Concept and framework (FAO, 2018), at <http://www.fao.org/3/ca2079en/CA2079EN.pdf>, and Connecting food systems for co-benefits: How can food systems combine diet-related health with environmental and economic policy goals? (WHO, 2018) at https://www.euro.who.int/__data/assets/pdf_file/0007/387070/policy-brief-31-austria-eng.pdf.

Outcomes and benefits of sustainable food systems

A key outcome of sustainable food systems is the provision of sufficient, safe, healthy, nutritious and affordable food that meets the nutritional needs of all, including children and adolescents.⁵ Poor dietary diversity, inadequate dietary patterns and frequent consumption of poor-quality foods (calorie-dense foods that are high in salt, sugars and/or fats and low in micronutrients) contribute to undernutrition, overweight and non-communicable diseases in later life.⁶ The alarming trend towards overweight and obesity in the region needs to be reversed in order to reduce the burden of nutrition-related non-communicable diseases such as diabetes, heart disease and some cancers.

While providing safe and nutritious food, sustainable food systems should foster inclusive economic development and social equality, and provide adequate incentives and returns to food producers, processors and distributors. Sustainable food systems also should optimize the use of natural resources and protect the environment through sustainable food and agricultural practices, efficient and safe value chains and reductions in food loss and waste.

Box 2. Benefits of a sustainable food system

- Adequate, diverse, safe, nutritious and healthy food for all.
- Protection of natural resources and planetary health.
- Efficient use of resources, minimization of waste.
- Production systems that are nature-positive, that mitigate and adapt to climate change and that minimize food loss and waste.
- Communicable and non-communicable disease prevention and environmental health control (land, water, air, food chain threats, animal health and welfare).
- Functioning, diverse markets for product sales and income generation.
- Resilience and adaptability to shocks and emergencies.
- Responsible investment.
- Social inclusion, protection of the vulnerable, equal opportunities, no one left behind.
- Culturally and socially sensitive and appropriate.

Sustainable food systems need to be resilient and adaptable to shocks and disruptions. The COVID-19 pandemic has exposed the vulnerabilities of food systems, their crucial role for societies and the many interconnections among our food systems, economies and societies. As countries address COVID-19 impacts, opportunities to drive longer-term transformation of food systems need to be harnessed.

⁵ For more information on the food systems approach for children and adolescents, consult Annex 2.

⁶ For more information, refer to *The Nutrition Challenge: Food System Solutions*, a document produced by FAO and WHO in 2018. <https://apps.who.int/iris/bitstream/handle/10665/277440/WHO-NMH-NHD-18.10-eng.pdf?ua=1>

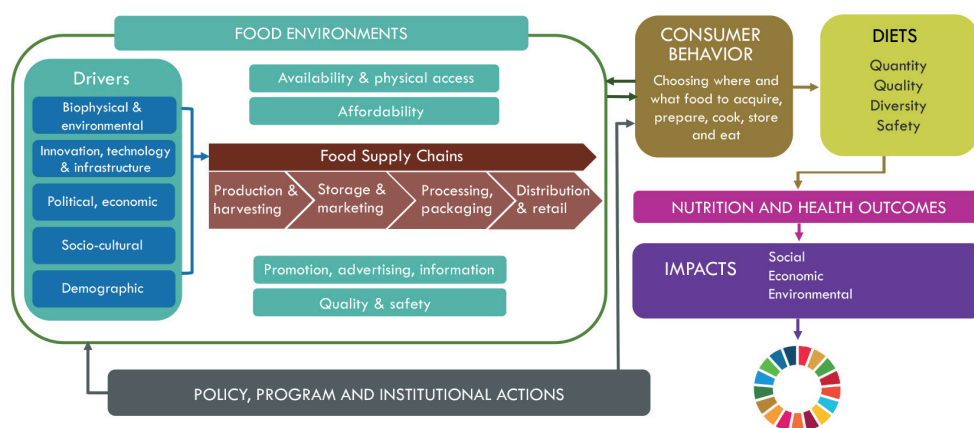
Bringing about food systems transformation

Technological innovation is a prerequisite for the transition to sustainable food systems, but on its own it cannot deliver the transition without changes in governance, human behaviour and economic incentives (Independent Group of Scientists appointed by the Secretary-General, 2019). To operationalize food systems transformation sustainably, other elements are needed, including research and action on economic and structural costs, political economy, food environments, diversity of cultural norms, equity and social justice, and governance and decision support tools (Béné et al., 2020).

Various actors and processes can drive transformation towards a sustainable trajectory through responsible investment and decisions, policy and governance strategies, and consumer choice and preferences. Decision-makers and actors from the public and private sectors, science and academia, consumers and non-governmental organizations need to examine the entire food system to reflect on and change how we produce and consume food. Actions may focus on agricultural production, food chain operations, trade and distribution patterns, management of food safety, human health, animal and plant health risks, weather, trade and markets, economic and financial mechanisms, and consumer education and choices.

The entire food chain needs to be resilient in order to deliver on the SDGs (Figure 2). Adapting to the needs and priorities of various social groups and new challenges may require organizational and social innovation, low- and high-tech innovation, automatization and digitalization.

Figure 2. The entire food system is crucial for building resilience and delivering on the SDGs



Source: United Nations. 2020. Policy brief: the impact of COVID-19 on food security and nutrition. June 2020.
https://www.un.org/sites/un2.un.org/files/sg_policy_brief_on_covid_impact_on_food_security.pdf

Key elements of food systems transformation may include:

- Governance mechanisms and policy coherence and coordination (e.g. aligning policies across all sectors – agriculture, health, education, environment, water, trade, etc.).
- Data, evidence and multisectoral analysis to understand synergies and trade-offs within the food system and among the three dimensions of sustainability.
- Multidisciplinary approaches to determine priorities and changes in behaviour and choices in all stakeholder groups.
- Engagement with actors and stakeholders – including civil society organizations at national and community levels – in decision-making and in helping to identify solutions that are win–wins for both human and planetary health.
- Responsible investment and transformative actions to drive sustainable development, including scaling up innovative and proven practices.

What is challenging is to identify the right set of reforms needed and to generate evidence for stakeholders to understand how the proposed changes will contribute to improving food systems and diets in a sustainable way (United Nations Environment Programme, 2019). Analysing the nutrition situation to build consensus and improve decision making for improving nutrient intake is one key area (e.g. identifying the magnitude and main causes of malnutrition, and understanding socio-cultural barriers to nutritious diets, including the affordability of diets).⁷ It is essential to identify concrete examples or best practices in the context of sustainable food systems to demonstrate key elements or novel approaches.

⁷ Europe and Central Asia Regional Overview of Food Security and Nutrition 2020 (FAO, UNICEF, WFP and WHO. 2021) introduces an analysis of the cost and affordability of healthy diets in the region and by country; WFP conducted 'Fill the Nutrient Gap' (FNG) analysis in 20 countries, which focuses primarily on nutrient access and intake, prioritising the food system.

Annex 1. Issues and entry points when applying a food systems lens

The list below aims at supporting the United Nations Country Teams in identifying issues and entry points that might be considered and addressed when building sustainable food systems.⁸ It is not an exhaustive list. In line with the principle of leaving no one behind (LNOB), the proposed issues and entry points must be all addressed with a view of ensuring that the needs and concerns of the most marginalized social groups are considered.⁹

Enabling environment: All of these actions need to be underpinned by an adequate set of policies, regulations and investments conducive to sustainable food systems, in addition to institutional arrangements that allow intersectoral coordination and the participation of all stakeholders, including civil society and the private sector. Effective governance for transformational change promoted by the 2030 Agenda for Sustainable Development relies on national security and political stability being maintained as a key enabler for a functional food system.

1. Ensuring access to safe and nutritious food for all

» Objective:

All people at all times have access to sufficient quantities of affordable and safe food products that together comprise a healthy diet that is nutritionally balanced and provides adequate daily nutritional intake.



Issues and entry points:

- Food security and nutrition challenges (hunger/undernourishment, overweight/obesity, micronutrient deficiency, child stunting, etc.) and the population groups most affected.
- The availability and accessibility of healthy and nutritious diets¹⁰ to all population groups.
- Main dietary patterns in the country. Any specific concerns with dietary patterns (e.g. consumption of highly processed, high-calorie and low-nutritional-value food items; high consumption of salt, sugar and trans-fatty acids) and diet-related non-communicable diseases.
- Policies and initiatives to ensure food systems lends itself to provide nutritious diets for children and adolescents
- Policies or initiatives in place to promote healthy diets and better nutrition, such as integrated school meals, nutrition education, regulation of advertising and marketing of certain foods not conducive to healthy diets (especially those targeting children and adolescents), regulation of breast milk substitutes, promotion of breastfeeding, food reformulation and fortification to improve the nutritional value of food, and food labelling.
- Food safety policies and control systems in place to assess the main sources of foodborne diseases and food safety risks and effectively manage and communicate with key stakeholders on these risks.
- Main challenges regarding animal diseases (including zoonoses), plant pests and diseases, and preventive management and surveillance systems.

8 The five headings draw on five objectives of the United Nations Food Systems Summit, to be convened by United Nations Secretary-General António Guterres in 2021 to raise global awareness and land global commitments and actions that transform food systems not only to resolve hunger but to reduce diet-related disease and heal the planet. For more information please visit the link to scientific papers: <https://sc-fss2021.org/materials/scientific-group-reports-and-briefs/>.

9 When addressing the proposed issues and entry points, available gender and socio-economic analyses, LNOB assessments, disaggregated data (by sex, age, location and other available variables) must be considered to identify areas of inequality.

10 Diets that not only meet energy needs but also provide a diversity of foods of high nutritional quality, are safe to consume, are affordable, are accessible and are culturally appropriate.

2. Shifting to sustainable consumption patterns

» Objective:

Creating and building demand for sustainably produced food products, strengthening shorter value chains, promoting the circular use of food resources, and helping to reduce waste and improve nutrition, especially among the most vulnerable.



Issues and entry points:

- Policies, initiatives and the raising of awareness among public- and private-sector stakeholders to prevent and reduce food loss and waste¹¹ along the value chain.
- Short value chains that respond to consumer demands, providing diverse foods at affordable prices.
- Strengthen local food production by bringing unutilized land into production, improving farm structures, and enhance advisory and extension services that target small farms.
- Educate and raise awareness among consumers, youth and children on these topics:
 - nutrition education and awareness on healthy diets;
 - food choices as drivers of sustainability;
 - food literacy and the prevention of food waste.
- Mechanisms for dialogue on the needs and expectations of the food system among consumers, policymakers and the private sector.

3. Boosting nature-positive production at sufficient scales

» Objective:

Improving the performance of food systems through the optimization of resource use and better governance that minimizes deforestation, food loss and waste, and greenhouse gas emissions, avoiding chemicals that harm ecosystems and human health and curbing the further loss of biodiversity.



Issues and entry points:

- Nature and extent of land use for agriculture and other purposes.
- Policies to prevent land degradation; management of crop yields and the use of pastureland.
- Sustainable and efficient use of water in irrigation and food processing; water quality assurance.
- Analysis to understand the overall environmental impacts of the main agrifood value chains, including greenhouse gas emissions, nutrient losses, pesticide emissions, soil and water quality degradation, and estimated biodiversity loss due to food production.
- Investment in sustainable agricultural techniques (e.g. organic cultivars, agroecological practices).
- Promotion in rural areas of climate-smart agricultural practices, innovation and advanced and energy-efficient technologies.
- Functioning food supply chains with adequate infrastructure for value addition, storage, processing and distribution; connection and cooperation among various actors.
- Adoption of measures to strengthen the sustainability of food supply chains (circular economy, food formulation), resource use efficiency, eco-friendly food packaging.

¹¹ Food loss results from decisions and actions by food suppliers in the chain, excluding retailers, food service providers and consumers. Food waste results from decisions and actions by retailers, food service providers and consumers.

4. Advancing equitable livelihoods and value distribution

» Objective:

Food systems developments are inclusive – leaving no one behind – and contribute to the elimination of poverty by creating jobs, raising incomes across the food value chain, reducing risks for the world's poorest, and improving value distribution.



Issues and entry points:

- Regulation of access and control of land, water and other productive resources.
- Security of tenure rights and development of agricultural land markets.
- Actual access to and control over productive resources.
- Current access to decent work, agricultural inputs, knowledge, cooperatives/associations and other services.
- Access to finance and credit for operators in the food and agricultural sector.
- Social protection measures such as input subsidies, innovative insurance solutions to manage extreme weather (e.g. weather index insurance) and climate variability risks on crop and livestock production. For those who may need to leave agriculture, as they cannot transition their small farms into commercial family farms, provision of alternative support through off-farm diversification and other social protection measures.
- Efficiency, connectivity, adequate infrastructure and technologies – logistics of value chains.
- Functioning markets for value chain operators at local, regional and international levels; organization of markets to meet needs; share of local green markets, supermarkets, direct sales and export markets.
- Targeted support to small-scale, traditional producers and agri-enterprises to access viable markets.
- Promotion of short value chains, farm-to-fork approaches and inclusive and green trade.

5. Building resilience to vulnerabilities, shocks and stresses

» Objective:

Ensuring the continued functionality of sustainable food systems, not only in geographies subject to conflict and climatic and natural resource disasters but also globally, to mitigate the impacts of health-related pandemics on the food supply in systems at all levels of development.



- Measures in place to ensure that country food systems are prepared to avoid, mitigate and/or adapt to vulnerabilities, shocks and stresses (e.g. natural disasters, financial and political crises, pandemics).
- Emergency plans ready to be operationalized to address food safety, animal health and plant health threats and outbreaks.
- Establish climate watch and early warning systems.
- Put in place risk transfer mechanisms (i.e. agricultural insurances) that promote disaster risk reduction and climate-smart agriculture as a means of better managing disaster risk and helping to build resilience.
- Food assistance programmes (on both demand and production sides) in place, when needed, to contribute to food security and nutrition.

Annex 2.

Why is a food systems approach needed to improve the diets of children and adolescents?

Malnutrition, in all its forms, is a problem of global proportion and requires urgent action. In many parts of the world, most children and adolescents do not receive the diets they need – in quantity, frequency and quality – to survive, grow and develop to their full potential. Poor dietary diversity, inadequate dietary patterns and frequent consumption of poor-quality foods contribute to this reality. Poor-quality diets cut across all age groups, from infancy through school-age years and adolescence, as well as across regions and countries, with consequences for undernutrition, overweight and non-communicable diseases.

Food systems are essential to delivering healthy, affordable and sustainable diets of children and adolescents. Actors across the food system, including food producers, food suppliers and policymakers, should pay attention to the specific nutritional needs of children and adolescents when determining what foods to grow, produce, distribute and sell. Processed, less-nutritious foods are skilfully marketed and widely available and affordable, while nutritious foods are often more expensive and unaffordable to many. The food environment often does not lend itself to nutritious diets for children and adolescents, nor is it incentivized to do so. Actors across local, national and global food systems need to be held accountable for providing healthy, affordable and sustainable diets to children and adolescents, today and in the future. Children and adolescents also have a role to play and need the necessary skills to enable them to choose and access healthy diets. However, current debates on food systems transformation do not prioritize children and adolescent. In this regard, a conceptual framework can enable a better understanding between the elements of food systems and the diets of children and adolescents (Raza et al., 2020).

To this end, the United Nations Children’s Fund and the Global Alliance for Improved Nutrition, in partnership with the Ministry of Foreign Affairs of the Kingdom of the Netherlands, co-hosted a global consultation that resulted in the development of the Innocenti Framework on Food Systems for Children and Adolescents with support from FAO and the Johns Hopkins University (JHU). The Innocenti Framework builds on existing conceptual frameworks, in particular the framework proposed by the High Level Panel of Experts Report, and advocates for the central role that food systems have in promoting nutrition and diets of children and adolescents.

The Innocenti Framework includes a set of drivers and four determinants (food supply chains; external food environments; personal food environments; and behaviours of caregivers, children and adolescents), that hold potential for not only shaping the diets of children and adolescents but also other nutritionally vulnerable groups. These are described in additional detail in Figure 3.

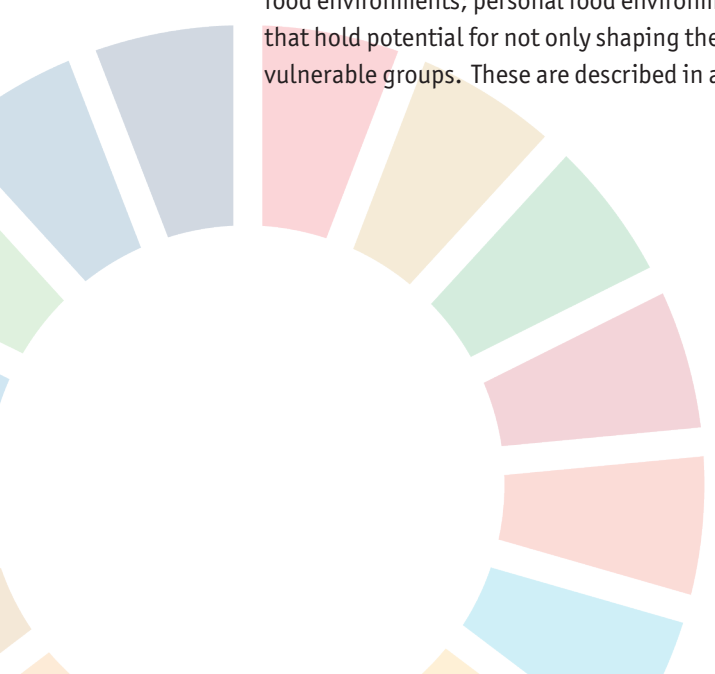
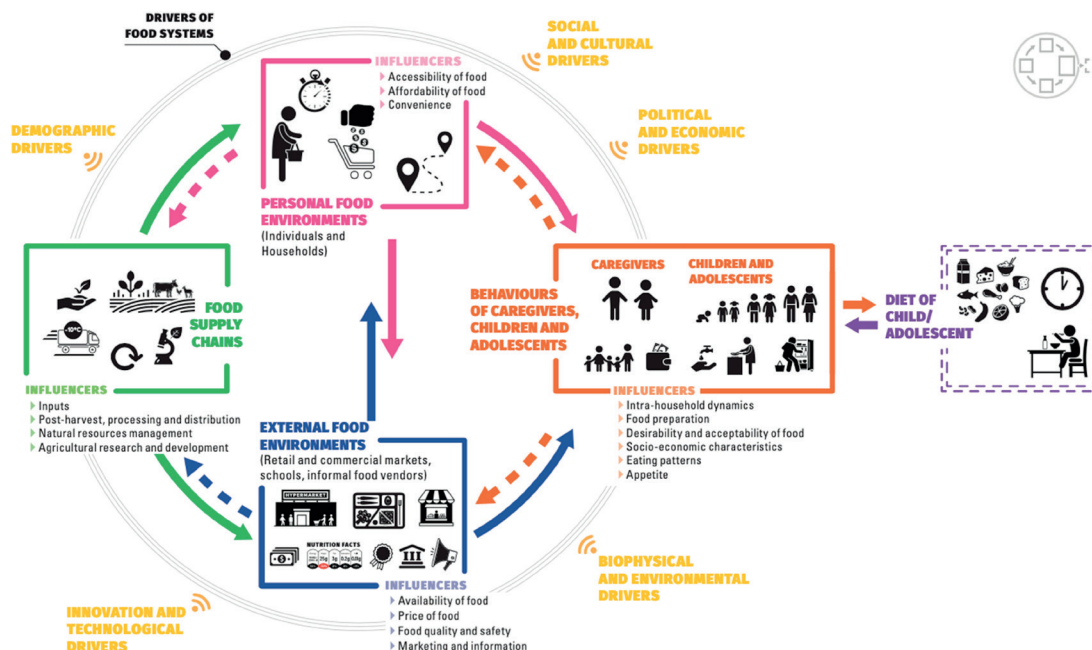


Figure 3. The Innocenti framework on food systems for children and adolescents



Source: UNICEF Office of research Innocenti, food systems for children and adolescents; working together to secure nutritious diets.

Drivers are defined as underlying, structural factors that impact the functionality of food systems and that need to be put into place for the food system to be able to deliver nutritious, safe, accessible, affordable and sustainable diets. They include: (1) demographic drivers (urbanization, population growth, migration); (2) political and economic drivers (leadership, policies, trade); (3) innovation and technological drivers (technology, infrastructure, investment); (4) biophysical and environmental drivers (climate change, natural resources management); and (5) social and cultural drivers (norms, traditions, underlying social dynamics).

The four determinants represent the processes and conditions in the food system, from production to consumption, that are necessary to improve the diets of children and adolescents. For each determinant, the Framework identifies a list of influencers. Influencers are the more immediate and individual-level factors that determine the extent to which a determinant contributes or fails to contribute to delivering healthy, affordable and sustainable diets. They can be viewed as entry points to make the food systems more nutrition-focused.

Central to the framework are the arrows that connect the various determinants. The interactions show how the determinants link to one another and how they reinforce one another, both positively and negatively, through feedback loops throughout the system. For instance, the food supply chain must provide nutritious foods so that those foods can be available in the food environment from which food providers purchase foods. The demands, needs and preferences of caregivers, children and adolescents also influence the external food environment and the food supply chain. The emphasis given to behavioural influencers and caregiver attitudes differentiates the framework from other conceptual efforts and enables it to be more specific to the nutritional needs of children and adolescents. The combination of these elements (all of the drivers, determinants, influencers and interactions of the Framework) culminates in the diets of children and adolescents. The diets of children and adolescents also feed back into the system by influencing and reinforcing the behaviours of caregivers, children and adolescents.

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