



COMMITTEE ON WORLD FOOD SECURITY

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**ZERO DRAFT OF THE VOLUNTARY GUIDELINES ON FOOD
SYSTEMS AND NUTRITION**

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I. INTRODUCTION

A. BACKGROUND AND RATIONALE

1. Combatting malnutrition in all its forms – undernutrition, micronutrient deficiencies, overweight, and obesity – is one of the greatest global challenges that countries face today. Malnutrition in at least one of its forms affects every country in the world and most countries are affected by multiple forms. This represents a major impediment to achieving global food security¹ and sustainable development. The impacts of malnutrition and its various manifestations have profound consequences on people’s health and wellbeing, physical and cognitive development, lives and livelihoods throughout their lifetime and from generation to generation.
2. Malnutrition in all its forms is associated with various forms of ill-health and higher levels of mortality. Undernutrition is a major cause of death among children under five while newborns with a low birth weight are more frequently affected by infectious diseases during early life and are more exposed to non-communicable diseases. Stunting and wasting continue to represent a significant challenge. While wasting, also known as acute malnutrition, represents a greater risk of mortality and morbidity, stunting, or chronic malnutrition is associated with delays in both physical growth and cognitive development.
3. Micronutrient deficiencies are a key challenge that affect a large proportion of the population with serious consequences on human health, well-being and development. Children under five, women of child-bearing age, and pregnant women are particularly at risk of being affected by iron deficiency anaemia.
4. Overweight and obesity represent a major risk factor for diet-related non-communicable diseases (NCDs) such as cancer, cardiovascular diseases and diabetes as well as chronic respiratory diseases which are a major concern in all regions of the world. While undernutrition is still the main form of malnutrition among children under five, overweight and obesity represent the main burden for school-aged children, adolescent and adults.
5. The social and economic impact of malnutrition in all its forms is very high as it is transmitted across generations. Malnourished mothers are more likely to have low-birth-weight babies with a higher risk of becoming malnourished children and adults. The effects of malnutrition in children result in reduced stature, poor school performance, reduced economic productivity and opportunities, and increased vulnerability to chronic and NCDs. These diseases lead to higher spending on health care which put a significant burden on national health systems and economies.
6. Malnutrition in all its forms has many interrelated basic, immediate and underlying causes that need to be addressed simultaneously. Among those: the lack of stable access to healthy and safe diets and safe drinking water, inadequate infant and young child caring and feeding practices, poor sanitation and hygiene, insufficient access to education and health services, income poverty and low socio-economic status.
7. Complex crises also have both immediate and long-term adverse consequences on the nutritional status of the population, particularly of pregnant and lactating women and children under five. Fragility and susceptibility to disaster risk poses a major global threat not only to the functioning of food systems but to the implementation of the 2030 Agenda as a whole, with evidence showing a high burden of multiple forms of malnutrition in contexts of complex and protracted crises.

¹ Food security exists when all people, at all times, have physical, economic and social access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.

8. Urgent action is needed to address these challenges and the negative impacts of malnutrition in all its forms. Despite the relevant progress that has been made at the global level on the reduction of hunger and malnutrition, much greater efforts are urgently needed to achieve global and national nutrition targets.
9. Food systems and diets are major contributors to the nutritional status of populations. Food systems have an important impact on human and planetary health by shaping and enabling producers' decision and consumers' choices. At the same time, consumers' decisions on what to consume can also have an impact on food systems and improve their ability to deliver healthy diets. Relevant changes are needed within and across food systems, bearing in mind their economic, social and environmental impact and with the aim to generate positive outcomes along the three dimensions of sustainability.
10. Fostering policy, institutional and behavioural changes is key to reshaping or promoting sustainable food systems that improve nutrition and enable healthy diets that meet the evolving dietary needs of growing populations. In order to be effective and sustainable, policies need to focus on their economic, social, environmental, nutritional and health consequences, paying special attention to the poorest and most nutritionally vulnerable, and addressing the barriers they face in accessing healthy diets.
11. The most vulnerable to malnutrition in all its forms "typically include those with high nutrient requirements and those who have less control over their choice of diet. This implies particular attention to young and school aged children, adolescent girls, pregnant and lactating women, the elderly, indigenous peoples and local communities, and smallholders and rural and urban poor also in consideration of the different types of food systems they live in"².
12. New policies are required to address policy fragmentation and to design interventions that have to be coordinated across sectors such as health, agriculture and food systems, education, water and sanitation, gender, social protection, trade, employment, and income which all deal with the multiple causes of malnutrition.
13. The Committee on World Food Security (CFS) is leading the policy process that will result in Voluntary Guidelines on Food Systems and Nutrition to be presented for endorsement at the CFS Plenary Session in October 2020.
14. The preparation of these Voluntary Guidelines is informed by the findings and scientific evidence provided in the High Level Panel of Experts on Food Security and Nutrition's (HLPE) Report on Nutrition and Food Systems³. The HLPE is the science-policy interface of CFS and provides a structured evidence base to inform CFS policy discussions drawing on existing research and knowledge, experiences, and policies at different scales and in different contexts.
15. This policy process is taking place at the same time as a variety of organizations from different sectors are addressing malnutrition. Nutrition has received increased attention in recent years from the global community, including the United Nations (UN) and its Member States, and is recognized as an essential component of efforts to achieve the goals of the 2030 Agenda for Sustainable Development. In 2014, at the Second International Conference on Nutrition (ICN2), the Members of the Food and Agriculture Organization (FAO) and the World Health Organization (WHO) committed to end hunger and malnutrition in all its forms⁴. In 2016, the General Assembly of

² Terms of Reference for the preparation of the CFS Voluntary Guidelines on Food Systems and Nutrition. CFS2018/45/6, paragraph 12. The Terms of Reference, which provide the guiding elements for the preparation of the Voluntary Guidelines, including the main issues to be covered, were endorsed by the CFS Plenary in 2018.

³ HLPE. 2017. Nutrition and Food Systems. A report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security, Rome.

⁴ FAO/WHO. 2014. ICN2, Rome Declaration on Nutrition.

the United Nations (UNGA) proclaimed the UN Decade of Action on Nutrition (2016-2025)⁵ and called upon FAO and WHO to lead its implementation, in collaboration with the World Food Programme (WFP), the International Fund for Agricultural Development (IFAD) and the United Nations Children's Fund (UNICEF), using multistakeholder platforms such as CFS. Specific attention to nutrition was recently given by a number of UNGA Resolutions⁶, the UN Economic and Social Council (ECOSOC)⁷, the UN Environment Assembly⁸ as well as by the World Health Assembly (WHA)⁹.

16. The Voluntary Guidelines are expected to contribute to and complement these international initiatives with a view to promoting policy coherence. They will provide evidence-based guidance to help countries operationalize ICN2's Framework for Action¹⁰ recommendations in support of the progressive realization of the right to adequate food in the context of national food security and the achievement of Sustainable Development Goal (SDG) 2 "to end hunger, achieve food security and improved nutrition and promote sustainable agriculture" with particular attention to target 2.2 "by 2030, end all forms of malnutrition and by 2025 achieve the targets on wasting and stunting in children under 5 years of age". In addition, the Voluntary Guidelines have an essential role also in assisting countries to achieve a number of other SDGs directly (SDG 1, 3, 4, 5, 6, 8, 10, 12,) and all the others in an indirect way.

B. OBJECTIVES AND PURPOSE

17. The Voluntary Guidelines are intended to be a reference point that provides evidence-based guidance mainly to governments, specialized institutions and other stakeholders, on effective policies, investments and institutional arrangements that will address malnutrition in all its forms.

18. The objective of the Voluntary Guidelines is to contribute to reshaping or promoting food systems to ensure that the food that contributes to healthy diets is available, affordable, acceptable, safe and of adequate quantity and quality while conforming with beliefs, cultures and traditions, dietary habits and preferences of individuals in accordance with national and international laws and obligations¹¹.

19. The Voluntary Guidelines will follow a comprehensive, systemic and evidence-based approach to address policy fragmentation with a special emphasis on the food, agriculture and health sectors, while also addressing challenges of social, environmental and economic sustainability.

20. The Voluntary Guidelines are expected to address the complexity of food systems with the intention to promote policy coherence and foster and guide dialogue among different institutions and sectors.

⁵ United Nations General Assembly Resolutions 70/259 available at <https://undocs.org/A/RES/70/259> and 72/306 at <https://undocs.org/A/RES/72/306> - The Work Programme of the UN Decade of Action on Nutrition is available at:

https://www.un.org/nutrition/sites/www.un.org.nutrition/files/general/pdf/mv131_rev1_undoa_wp_rev1_en.pdf

⁶ UNGA Resolutions A/RES/73/2 "Political declaration of the third high-level meeting of the General Assembly on the prevention and control of non-communicable diseases", A/RES/73/132 "Global health and foreign policy: a healthier world through better nutrition", A/RES/73/253 "Agriculture development, food security and nutrition".

⁷ Ministerial Declaration of the 2018 High-Level Political Forum on Sustainable Development

⁸ Ministerial Declaration of the 2019 United Nations Environment Assembly

⁹ The World Health Assembly has endorsed the Comprehensive implementation plan for maternal, infant and young child nutrition, and the WHO Global action plan for the prevention and control of noncommunicable diseases 2013-2020, which delineate policy options for the prevention of malnutrition in all its forms and the promotion of healthy diets.

¹⁰ FAO/WHO. 2014. ICN2, Framework for Action.

¹¹ FAO/WHO. 2014. ICN2, Rome Declaration on Nutrition. Paragraph 5.b.

21. Sustainable food systems that promote healthy diets are integrally connected with issues related to trade and investment, climate change, biodiversity and genetic resources, among others, which are all addressed in dedicated normative intergovernmental processes. Different actors dealing with these matters need to refer to, and build upon, each other's resolutions and declarations, promoting coherence and addressing policy fragmentation, without duplicating efforts or moving beyond their mandates.
22. The Voluntary Guidelines are intended to be global in scope and to provide guidance to policy makers and relevant stakeholders when designing context-specific policies, strategies, plans and programmes. They will take into consideration different national realities, capacities and level of development and different types of food systems as well as the many endogenous and exogenous drivers impacting them.
23. Moreover, the Voluntary Guidelines will provide guidance to relevant actors involved in humanitarian contexts in order to bridge the gap between humanitarian and development work and integrate nutrition and longer-term strategies towards sustainable development into any emergency and humanitarian response with a view to strengthening the resilience and adaptive capacity of food systems in response to climate change and humanitarian crises.
24. The HLPE has identified five main categories and related drivers which impact the functionality of food systems and their ability to deliver healthy diets. These categories are:
- a) biophysical and environmental (natural resource and ecosystem services, climate change);
 - b) innovation, technology and infrastructure;
 - c) political and economic (leadership, globalization, foreign investment, trade, food policies, land tenure, food prices and volatility, conflicts and humanitarian crises);
 - d) socio-cultural (culture, religion, rituals, social traditions, gender inequalities and women's empowerment);
 - e) demographic drivers (population growth, changing age distribution, urbanization, migration and forced displacement).

C. NATURE OF THE VOLUNTARY GUIDELINES AND THEIR INTENDED USERS

25. The Voluntary Guidelines will be non-binding and should be interpreted and applied consistently with existing obligations under relevant national and international law, and with due regard to voluntary commitments under applicable regional and international instruments. CFS guidance should build on and integrate existing instruments and frameworks for action adopted on these topics within the context of the UN system, including Member States endorsed guidance and recommendations.
26. The Voluntary Guidelines are primarily targeted at governments to help design public policies, but can be used by relevant stakeholders in policy discussions and implementation processes. These stakeholders include, among others:
- a) Governmental actors, including relevant ministries and national, sub-national, and local institutions;
 - b) Intergovernmental and regional organizations, including the specialized agencies of the UN;
 - c) Civil society organizations, including those representing vulnerable groups and communities;
 - d) Private sector;
 - e) Research organizations and universities;
 - f) Development agencies, including international financial institutions;
 - g) Philanthropic foundations;

- h) Consumer associations;
- i) Farmer organizations.

II. KEY CONCEPTS AND GUIDING PRINCIPLES

A. KEY CONCEPTS CONCERNING FOOD SYSTEMS AND NUTRITION

27. **Food systems** “gather all the elements (environment, people, inputs, processes, infrastructures, institutions, etc.) and activities that relate to the production, processing, distribution, preparation and consumption of food, and the output of these activities, including socio-economic and environmental outcomes”¹².

28. **Sustainable food systems** “are food systems that ensure food security and nutrition for all in such a way that the economic, social and environmental bases to generate food security and nutrition of future generations are not compromised”¹³.

29. **Food supply chains** “consist of the activities and actors that take food from production to consumption and to the disposal of its waste”, including production, storage, distribution, processing, packaging, retailing and marketing¹⁴.

30. **Food environments** “refer to the physical, economic, political and socio-cultural context in which consumers engage with the food system to make their decisions about acquiring, preparing and consuming food”¹⁵.

31. **Consumer behaviour** “reflects all the choices and decisions made by consumers on what food to acquire, store, prepare, cook and eat, and on the allocation of food within the household”¹⁶.

32. **Healthy diets** “refer to a balanced, diverse and appropriate selection of foods eaten over a period of time. A healthy diet ensures that the needs for essential macronutrients (proteins, fats and carbohydrates including dietary fibre) and micronutrients (vitamins, minerals and trace elements) are met specific to the person’s gender, age, physical activity level and physiological state. WHO indicates that for diets to be healthy:

- a) daily needs of energy, vitamins and minerals should be met, but energy intake should not exceed needs;
- b) consumption of fruit and vegetables is over 400 g per day;
- c) intake of saturated fats is less than 10% of total energy intake;
- d) intake of trans-fats is less than 1% of total energy intake;
- e) intake of free sugars is less than 10% of total energy intake or, preferably, less than 5%;
- f) intake of salt is less than 5 g per day”¹⁷.

“A healthy diet for infants and young children is similar to that for adults, but the following elements are also important:

¹² HLPE. 2014. Food Losses and Waste in the context of Sustainable Food Systems. A report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security, Rome.

¹³ HLPE 2017b

¹⁴ Ibidem

¹⁵ ibidem

¹⁶ Ibidem

¹⁷ There is no internationally agreed definition of “healthy diets”. However this is extensively used, including in the HLPE report on Nutrition and Food Systems as well as in the Rome Declaration and the Framework for Action of ICN2. Therefore, we use the definition provided in the Information Note on the Framework for Action. Joint FAO-WHO ICN2 Secretariat. November 2014.

- a) *Infants should be breastfed exclusively during the first 6 months of life;*
- b) *Infants should be breastfed continuously until 2 years of age and beyond;*
- c) *From 6 months of age, breast milk should be complemented with a variety of adequate, safe and nutrient-dense foods. Salt and sugars should not be added to complementary foods*¹⁸.

33. **The right to adequate food** “is realized when every man, woman and child, alone or in community with others, have the physical and economic access at all times to adequate food or means for its procurement”¹⁹

B. GUIDING PRINCIPLES FOR RESHAPING OR PROMOTING SUSTAINABLE FOOD SYSTEMS

34. Food systems serve and support multiple objectives within the three dimensions of sustainable development: economic, social and environmental. While food systems might differ greatly, they offer critical opportunities for public policies, mechanisms, instruments and investments that aim to advance the goals of the 2030 Agenda for Sustainable Development.

35. The Voluntary Guidelines will include a number of guiding principles²⁰ that should be followed to contribute to reshaping or promoting sustainable food systems, enabling healthy diets, improving nutrition and promoting sustainable development.

36. These guiding principles are:

- a) **Systemic and holistic and evidence-based approach.** Promote a systemic, holistic, and evidence-based approach that considers food systems in their totality, seeks to simultaneously maximize outcomes across all sustainability dimensions, and looks at the multidimensional causes of malnutrition in all its forms.
- b) **Coherent and context-specific policies.** Contribute to the formulation and implementation of coherent, context-specific and evidence-based policies and related investments through coordinated actions among different actors and across all relevant sectors at international, regional, national and subnational levels.
- c) **Healthy people, healthy planet.** Promote policies that are intended to enhance the livelihoods, health and well-being of the population and enhance the sustainability of food production and consumption as well as the protection of biodiversity and ecosystems
- d) **Gender equality and women’s empowerment.** Promote gender equality and women’s and girls’ empowerment respecting their rights and considering the importance of creating the conditions for women’s strong engagement in shaping food systems that can improve nutrition.
- e) **Nutrition knowledge and awareness.** Strengthen nutrition education at individual and community levels to facilitate producers’, food processors’ and consumers’ decisions and to foster informed choices about food products for healthy dietary practices.

¹⁸ WHO. Healthy Diet. Fact sheet No 394.

¹⁹ The definition of the right to food is given by the Committee on Economic Social and Cultural Rights (CESCR) which, through the general comment 12, is interpreting Article 11 of the International Covenant on Economic, Social and Cultural Rights (ICESCR).

²⁰ These guiding principles make reference to already agreed international documents and tools, such as the Rome Declaration on Nutrition and the Framework for Action of ICN2.

- f) **Realization of the Right to Food.** Promote the progressive realization of the right to adequate food in the context of national food security through sustainable, equitable, accessible, resilient and diverse food systems.
- g) **Capacity-building.** Strengthen human and institutional capacities, particularly among nutrition and food systems actors, to address all forms of malnutrition and scale up the coverage, impact and sustainability of nutrition programmes.

III. THE VOLUNTARY GUIDELINES ON FOOD SYSTEMS AND NUTRITION

Differently from the other sections of the Zero Draft, Part III – The Voluntary Guidelines on Food Systems and Nutrition - includes descriptive text that is intended to inform the preparation of the upcoming versions of the document. The language of this section does not represent suggested text for the Voluntary Guidelines but initial ideas regarding the issues and topics to be considered and discussed by CFS stakeholders.

37. This section includes the proposed scope of the Voluntary Guidelines. In line with the conceptual framework introduced in the HLPE report, the Voluntary Guidelines will use the three constituent elements of food systems as policy entry points for food system transformation towards improved nutrition. They are food supply chains, food environments, and consumer behaviour.

38. For each of these three elements the Voluntary Guidelines will consider the different typologies of food systems, with particular attention to those defined by the HLPE. Challenges and opportunities that specific food systems face, along with the actors engaged and the related power dynamics, will be considered in order to assist policy makers in the design of policies, investments and interventions adapted to a given context.

39. The policy fragmentation between the many sectors that have an impact on food systems will be addressed in order to promote greater policy coherence.

40. The recommendations are expected to build upon and complement related guidance previously provided in other CFS policy guidelines²¹ and recommendations²² and consider, and avoid duplication with, the work and mandate of other relevant international bodies.

41. A number of cross-cutting factors and specific operational fields have been raised during discussions among CFS stakeholders in view of their potential for improving nutrition. Among these, several were particularly stressed which can be considered as nutrition improvement pathways: transparent and accountable governance of food systems, gender equality and women's empowerment, nutrition education, food safety, food losses and waste, diversification of food production and promotion of healthy and diverse diets, healthy school meals and nutrition-sensitive social protection programmes. The effectiveness of all of them is dependent on the formulation of nutrition-sensitive

²¹ The Voluntary Guidelines to support the progressive realization of the right to adequate food in the context of the national food security (2004), Voluntary Guidelines on the responsible governance of tenure of land, fisheries and forests in the context of national food security – VGGT (2012), Principles for responsible investment in agriculture and food systems – CFS-RAI (2014), Framework for Action for food security and nutrition in protracted crises – CFS-FFA (2015).

²² Including the CFS policy recommendations on Connecting Smallholders to Markets (2016)

policies across all relevant sectors. Humanitarian contexts may require other specific pathways.

PART 1 - FOOD SUPPLY CHAINS

42. The decisions made by the actors at any stage of the food supply chain have implications for the other stages. Interventions across food supply chains can affect the availability, affordability, accessibility, safety and acceptability of nutritious food for a healthy diet. Activities along the food supply chains can impact the nutritional value of food by changing availability and access to macronutrients and micronutrients, or the levels of consumption of ingredients associated with diet-related NCDs.

PRODUCTION SYSTEMS

43. The different types and varieties of food available can play a significant role in consumers' dietary choices. More diverse and integrated production systems at different scales tend to be more resilient to external shocks and contribute to dietary quality and diversity. Attention needs to be paid to the role of investments in sustainable food production systems and associated research and development. The impact of agriculture²³ and food production systems on nutrition should be considered in relation to the three dimensions of sustainable development: economic, social and environmental.

Policy-relevant areas

- a) Sustainable and nutrition sensitive agricultural production models
Agricultural models promoting food diversity and food commodities that constitute a healthy diet, protecting agroecosystems through minimizing the use of inputs and fostering regeneration and renewal of natural resources, and adopting innovative and environment-friendly approaches, can contribute to food security and nutrition, improve livelihoods and support environmental health.
- b) Agricultural policies and strategies
National policies, public investments, strategies and programmes that raise the profile of nutrition and include nutritional outcomes can orient agricultural production systems towards diverse and nutritious foods that enable healthy diets.
- c) Promotion and sustainable use of agrobiodiversity
Promoting the use of a diversity of crop varieties and livestock breeds, including local agrobiodiversity, increases resilience to shocks (i.e. heat, drought, pests and infectious diseases), and ensures food diversity and fosters income diversification.
- d) Sustainable use of forest, wildlife, aquatic resources
Promoting the sustainable use of forest, wildlife and aquatic resources, as part of the local agrobiodiversity, is of high importance as they offer important sources of complementary food and income. However, there are a number of challenges that include: overharvesting and land clearing for agriculture, difficulties in securing access to natural resources including land, loss of traditional knowledge, and weak integration in market economies.
- e) Diversity of genetic resources
The diversity of genetic resources for food and agriculture plays a crucial role in meeting basic human food and nutritional needs. It is essential for maintaining and enhancing the

²³ In this document, the term agriculture includes crops, livestock, forestry, fisheries and aquaculture.

efficiency and the resilience of production systems.

- f) Linking farm to school
Linking farm to school can improve the supply of nutritious foods to schools while creating opportunities for stable and predictable markets for local farmers. This type of initiatives foster the integration of local farmers into school food supply chains. Food safety must be secured by applying hygienic practices in the processing and packaging of foods. Such initiatives can positively contribute to school-aged children's nutrition knowledge, including the socio-cultural aspects related to eating habits, and consumption behaviour.
- g) Women producers' livelihoods
Generally women have less access to and leadership in commercial agriculture, while being overrepresented in the informal sector and performing unpaid work. Leadership in the community, representation in producer and decision-making entities, access to and control of productive assets, including biophysical resources, and financial inclusion are relevant areas for policy intervention to empower women producers.
- h) Agricultural research, innovation and development for healthy diets
Investment in research and innovation for commercial development of nutrient-dense foods and crops, such as fruits, vegetables and legumes, and bio fortified crops, could lead to improvements in productivity enabling better access to healthy diets and nutrition while minimizing their environmental impact.
- i) Climate change adaptation and mitigation
The world is experiencing climate change and variability, shifting seasons and increased severity and frequency of natural disasters with great impact on the agricultural output of low-resource regions, soil fertility, crop yields, and forest and animal productivity. These trends may result in lower incomes, reduced climate resilience and decreased access to adequate supply of nutrient-dense foods. Policies related to climate change adaptation and mitigation have direct and indirect two-ways relationships with agriculture and food production systems. Benefices of such policies can be multiple and contribute to food security and nutrition, but tradeoffs should also emerge and need to be addressed.
- j) Antimicrobial resistance
Increasing global antimicrobial resistance (AMR) is a major threat to human and animal health. It endangers modern human and veterinary medicine and undermines the safety of food and the environment. A collaborative approach including multiple sectors is necessary to reduce AMR. The major policy areas of reducing AMR from the food system perspective include awareness raising on AMR and related threats, developing the capacity for monitoring AMR and antimicrobial use in food and agriculture, strengthening governance and promoting good practices in food and agriculture systems, including the prudent use of antimicrobials.
- k) Resilient food supply chains
Efforts to adapt or increase the resilience of food supply chains to threats like conflicts, natural hazards, climate change, and global food price volatilities, should include interventions aimed at strengthening access to finance, better forecasting data, and asset creation initiatives such as rehabilitating degraded land and infrastructure building. Similarly, disaster risk reduction and management interventions are key to building resilience and capacity, especially among particularly vulnerable communities.

HANDLING, STORAGE AND DISTRIBUTION

44. Handling, storage and distribution have an impact on diets and health. Poor access to clean water for washing operations in the supply chain, lack of appropriate hygienic practices in handling, and the inadequacy of facilities and technologies can contribute to food spoilage and contamination with serious health consequences for consumers. Proper handling, storage and distribution are key to making safe and nutritious food, with good quality attributes, available and accessible to a wide number of consumers. However, these facilities and training on hygienic handling, storage and distribution may not be available in all areas, especially in rural areas with poor infrastructure.

Policy relevant areas

a) Food losses and waste

Food losses and waste are a major challenge mainly caused by poor handling, inadequate storage, transport conditions and lack of infrastructure. Strategies towards improving infrastructure and adopting efficient practices and technologies can have a positive impact on food systems by improving access to fresh and other perishable food, increasing shelf life and improving food safety.

b) Food safety

Food safety is a critical piece of the storage and distribution functions of food systems. This includes the handling, preparation, storage, and distribution of food in ways that prevent food-borne illness, transmission or contamination of naturally occurring toxins (e.g., Mycotoxins). It also includes the training of food handlers and the adoption of scientific, risk-based practices to provide safe food while contributing to the retention of nutritional value.

PROCESSING AND PACKAGING

45. Appropriate food processing and packaging contribute to reducing food contamination, quantitative and qualitative losses, waste and to extending shelf life without compromising food safety. The method and the extent of processing may influence the degree to which nutrients and other substances/agents enter or exit the supply chain. Interventions aiming to improve food processing and packaging should look at providing safe food, maintaining or even enhancing the nutrient content of food, reducing the content of salt, sugar and trans fats, improving the quality of diets and contributing to the prevention of NCDs. Technologies and innovation also play an important role. Strengthening the capacity of smallholders and small entrepreneurs to process and package foods can help secure a nutritious food supply and in turn enhance nutrition, health and income generation.

Policy-relevant areas

a) Practices and technologies to protect and add nutritional value along food chains

Policies, programmes and approaches can be put in place to preserve or add micronutrients into foods during processing (i.e. drying, fermenting, fortification, pasteurization) or to avoid or to limit the amount of specific ingredients (i.e. product reformulation).

b) Food processing policies and regulations

Regulations to eliminate industrially produced trans fats from the food supply include the reformulation of many products. Also, recommended or mandatory targets or standards have been developed in different categories of foods to reduce salt, fat and sugar intake.

RETAIL AND MARKETS

46. Interactions in stores and markets shape food systems and the food environment, where consumers make purchasing decisions, influencing consumer behaviour and food consumption patterns. Local and traditional markets are an important source of nutritious foods. However,

transformations occurring in agriculture and food systems, in particular the rapid spread of supermarkets and fast food chains, mean consumers are offered a range of products at a lower price. This trend also brings market opportunities as well as challenges for smallholder farmers, in terms of complying with requirements and standards, involvement in centralized procurement systems, and access to decision making to cope with power imbalances. The impact of drivers of change, such as international trade and demographic trends, should be considered.

Policy-relevant areas

- a) Support to smallholders
Lack of adequate storage, including cold storage and chains, can lead smallholders to sell their products soon after harvest when prices are low. Lack of transportation and road infrastructure makes it difficult for smallholders to reach markets. Information technology, training and capacity building can play a key role in increasing farmers' opportunities to deliver a diversity of fresh, safe and nutritious foods to market.
- b) Supply of nutritious foods
New policies should be developed to encourage retailers to supply more nutritious food items at affordable prices, and to procure local products, particularly from smallholders at rewarding prices, bringing a positive impact in terms of dietary patterns and nutritional outcomes. At the same time, local farmers should be supported to meet safety and/or quality standards that could enable them to reach broader markets and higher profits for their products. Policies should also consider ways to restrict the marketing of products high in fat, sugar and salt.

PART 2 - FOOD ENVIRONMENTS

47. Food environments consist of food entry points, namely the physical spaces where food is made available and accessible, and the infrastructure that allows access to these spaces; the affordability and price of foods; the advertising, marketing, and positioning of foods in market places; and the quality and safety of foods as well as branding and labeling. Food environments are the interface between food supply and demand, a space of convergence where all actors involved in food systems can together bring transformative change leading to greater availability and affordability of diverse, nutritious and safe food and, ultimately, to healthier and sustainable food consumption. There is an important role for the private sector, informal market actors, consumers and farmers, to support the shift towards healthier and more sustainable food environments.

AVAILABILITY AND PHYSICAL ACCESS (PROXIMITY)

48. Unfavorable climatic and geographic conditions, low density of food entry points or limited access to nutritious foods, lack of appropriate infrastructure, food losses and waste, all forms of conflict and humanitarian crises, migration, forced displacement and extreme weather events, can have negative consequences on the diversity and nutritional quality of foods that are physically available and can be purchased and consumed.

Policy-relevant areas

- a) Food deserts and food swamps²⁴
Policies, infrastructure and spatial planning, especially in urban areas, can prevent the spread of food deserts and swamps and encourage the availability of outlets enabling

²⁴ “Food deserts” are geographic areas where access to food is restricted or non-existent due to low density of “food entry points” within a practical travelling distance, while the term “food swamps” describes areas where there is an overabundance of less nutritious foods but little access to nutritious foods.

healthy diets.

- b) Public food procurement
Healthier diets can be enabled through incorporating nutrition standards into the procurement of food in public settings such as schools, hospitals, workplaces and government institutions. Food procurement policies should ensure the provision of, preferably local, high quality and safe food options. These policies should also influence nutritious food production by providing a reliable source of demand for local producers and businesses.
- c) Systemic food assistance
Systemic food assistance integrates emergency response with nutrition-oriented and longer-term strategies towards sustainable development and resilient food systems. Utilizing humanitarian assistance to fill systemic gaps and improve nutrition targeting and prioritizing longer-term development policy goals and objectives can help reduce the risks and impact of shocks, increase food productivity, and strengthen resilience to natural disasters and human-made crises.

ECONOMIC ACCESS (AFFORDABILITY)

49. For several segments of the population, especially for lower income groups, affording an adequate diversity of nutrient-rich foods represents a significant challenge and has an impact on consumption patterns. This challenge would be even greater if prices were to increase to better reflect the true costs of production, including environmental costs of unsustainable practices, and social costs.

50. Actions should be taken to make nutritious food affordable for all population groups. Social protection programmes that aim to address food insecurity and nutrition vulnerability of low-income population groups need be designed in a nutrition-sensitive way that encourages healthy diets and improved nutrition, health and wellbeing. Furthermore, awareness of the cost of unhealthy diets should be increased.

Policy-relevant areas

- a) Nutrition-sensitive trade policies
The Rome Declaration of ICN2 acknowledged that trade is a key element to achieving food security and nutrition. Moreover it states that trade policies are to be conducive to fostering food security and nutrition for all. Trade policies can in practice both support nutrition actions and undermine them. Enhancing coherence between trade policy and nutrition policy is essential.
- b) Fiscal and pricing policies
Depending on the type of food system, and the national and local context, and taking into consideration all possible effects including those on lower income groups, measures like taxes can regulate pricing to better account for the environmental and social benefits of sustainable production and influence dietary intake and health outcomes.
- c) Social protection programmes leading to improved nutritional outcomes
Support to low-income groups in forms of cash or food transfer especially for women and children to safeguard maternal, infant and young child nutrition is a proven way to improve health and nutrition outcomes in a positive direction.
- d) Food waste
In accordance with national priorities and regulations, mechanisms based on a “Food use-

no-waste” hierarchy, may be dedicated to food recovery and redistribution of safe and nutritious to people²⁵.

PROMOTION AND ADVERTISING

51. Promotion, advertising and sponsorship have a direct influence on consumer preferences, purchasing behaviour, consumption patterns, and the nutrition literacy of the population. Special attention needs to be paid to children as they are particularly susceptible to the influence of food marketing and advertising. Inappropriate marketing of breastmilk substitutes and some baby and infant foods undermine optimal infant and young child feeding. Regulatory measures to restrict the marketing of food and beverages to children can be used to promote healthier diets.

Policy-relevant areas

- a) Advertising and marketing
Children and adolescents require special protection and attention, e.g. through the implementation of the International Code of Marketing of Breast-milk Substitutes and subsequent resolutions of the WHA, and implement the WHO Set of Recommendations on Marketing of Food and Non-Alcoholic Beverages to Children. Furthermore, food environments in schools can be improved through restrictions on the sale and marketing of less nutritious foods and beverages and measures promoting healthier alternatives and interventions to stimulate healthier eating habits.
- b) Transparency of information on labels
Nutrition labelling on food packaging (i.e. front of pack labelling) through voluntary or mandatory approaches is one tool to inform consumers, shaping their preferences and encouraging product reformulations by manufacturers. The promotion of education and nutrition literacy campaigns are vital to help consumers understand labels which have to be accurate, transparent and easy-to-understand.

FOOD QUALITY AND SAFETY

52. Food quality describes the physical, chemical and sensorial attributes of a food and refers, among other things, to the composition and may include aspects of the way food is produced, stored and processed. Food safety refers to those hazards that may contaminate food, through pesticide residues, antimicrobial residues, endocrine disrupters, chemical and unsafe food additives, pathogenic bacteria, viruses and parasites and certain agricultural practices.

53. Insufficient efforts in promoting regulations and control for food quality and safety negatively influence consumption patterns and have negative consequences on the health and nutrition of consumers.

Policy-relevant areas

- a) Food safety and traceability
The ability to trace and follow food through all stages of production, processing, storage and distribution helps monitor the food supply flow, better connecting producers to consumers and facilitating unsafe food recalling and withdrawal. Improving food storage is another effective way to increase the amount, safety and quality of the available food. Strengthened institutions and policies are also key to improving cold chain and stabilization of the energy supply.

²⁵ CFS policy recommendations on Food Losses and Waste in the context of Sustainable Food Systems (2014)

b) Food quality improvements

Product reformulation and policy options for improving the composition of food can improve its nutritional quality. Food fortification can also represent an effective intervention for preventing nutritional deficiencies while contributing to improving health outcomes in specific contexts.

PART 3 - CONSUMER BEHAVIOUR

54. Consumer behaviour is influenced by several factors including demographics, lifestyle, personal preferences, knowledge, attitudes, skills, values, food marketing, social environment, traditions, culture, beliefs, and purchasing capacity. Consumer behaviour is shaped by, and has the potential to, influence the existing food supply chains and food environments so that collective changes in consumer behaviour can open pathways to more sustainable food systems that enhance food security and nutrition and health.

FOOD AND NUTRITION EDUCATION AND INFORMATION

55. Food and nutrition education and information, including on the origin of food, what it is composed of, how it is processed and prepared, is intended to stimulate critical analysis, motivate actions and develop practical skills for food choices and related practices leading to healthy diets. Nutrition education and literacy play an important role in increasing the acceptability of nutritious and safe foods for healthy diets, and contributing to the progressive disappearing of food taboos in particular when focusing on school-aged children and youth, as well as women and girls in vulnerable groups and communities. Requiring health-care workers and others involved in the provision of health services to be trained in nutrition is also important.

Policy-relevant areas

a) Social and behaviour change communication

Social and behaviour change communication (SBCC) is the use of communication to promote behaviour change by positively influencing knowledge, attitudes and practices. SBCC coordinates messaging across a variety of communication channels to reach multiple levels of society to stimulate community engagement and buy-in, ultimately influencing behaviour, social norms and demand

b) National food-based dietary guidelines

National food-based dietary guidelines are another important source of information and guidance for consumers, producers and policy makers. They provide recommendations based on the latest evidence of the composition of healthy diets adapted to national contexts and available food, representing also a helpful source of information for policy makers in several sectors (i.e. to promote more investment towards healthier and a more diverse range of products).

c) Nutrition education

Education on food and nutrition at school, in communities and at universities, strengthens consumers', farmers' and food processors' understanding of the nutritional value of various food sources and preparations, and empowers consumers to make informed choices and prioritize good nutrition and healthy habits. Nutrition education, as part of other services such as mother-child health care and school meal programmes, can provide information and guidance on healthy (and sustainable) feeding practices, including breastfeeding. Nutrition education for adolescents, especially girls, is a key entry point as it could contribute to improve the nutritional status of the adolescent, their nutritional behavior and status in later life and of their children, positively impacting the

intergenerational cycle of malnutrition.

SOCIAL NORMS, VALUES AND TRADITIONS

56. Food affordability, convenience and desirability are influenced by the quality of food but also by the social norms and the cultural values associated with food and the marketing around it.

Policy-relevant areas

a) Evolving food habits

Global dietary patterns are changing, affecting people in all parts of the world, with both positive and negative nutrition, health, environmental and socio-economic consequences. Urbanization is a major driver of dietary transition and lifestyle changes.

b) Traditional food cultures

Maintaining a diverse range of food cultures is a way to protect traditional diets and knowledge originating from diverse production systems. It also helps preserve diversity and identity of several populations, stimulate local economies and local farming while aspiring to healthy diets.

IV. IMPLEMENTATION AND MONITORING OF THE USE AND APPLICATION OF THE VOLUNTARY GUIDELINES

57. All CFS stakeholders are encouraged to promote, at all levels within their constituencies, and in collaboration with other relevant initiatives and platforms, the dissemination, use and application of the Voluntary Guidelines to support the development and implementation of national policies, programmes and investment plans across all sectors to address the multiple challenges of malnutrition in all its forms.

58. Development partners, specialized agencies and regional organizations can also support voluntary efforts by States to implement the Voluntary Guidelines. Such support could include technical cooperation, financial assistance, institutional capacity development, knowledge sharing and exchange of experiences, assistance in developing national policies.

59. CFS should provide a forum where all relevant stakeholders can learn from the experiences of others in applying the Voluntary Guidelines and assess their continued relevance, effectiveness and impact on food security and nutrition. The intention is to support countries in making SMART commitments²⁶ and achieving nutrition objectives in the context of the UN Decade of Action on Nutrition 2016-2025 and the 2030 Agenda for Sustainable Development.

60. Efforts should be made to contribute to the achievement of the six Global Nutrition Targets (2025) endorsed by the WHA in 2012 and the diet related NCD targets, which are the aims of the Decade of Action on Nutrition, and contribute to the realization of the SDGs by 2030.

61. Multistakeholder platforms, partnerships and frameworks at local, national and regional levels and across multiple sectors have to be established or strengthened as a key element contributing to reshaping and promoting sustainable food systems. Particular attention has to be paid to those

²⁶ In the context of the UN Decade of Action on Nutrition and ICN2 follow-up process, the next step is to translate the recommended policy options and strategies into country-specific commitments for action. These commitments should be specific, measurable, achievable, relevant and time-bound.
https://www.who.int/nutrition/decade-of-action/smart_commitments/en/

partnerships and platforms that are already promoting multistakeholder efforts for improved nutrition at country level, such as the Scaling Up Nutrition (SUN) Movement. Actions should be taken to improve partners' capacity to design, manage and participate in these partnerships, to ensure transparency and accountability and promote good governance as a way to ensure effective results.

62. The creation of informal coalitions of countries can be encouraged as a way to accelerate and align efforts around specific topics linked to one or more action areas of the Nutrition Decade, through advocating for the establishment of policies and legislation, allowing the exchange of practices and experiences, highlighting successes and lessons learnt, and providing mutual support to accelerate its implementation.