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Scientific Brief: Food Security and Food Crises – 06/2023

The global food security and nutrition agenda is shaped by the 2030 Agenda for Sustainable Development, namely by the Sustainable Development Goal 2.1 and 2.2 of ending hunger and ensuring access to safe, nutritious and sufficient food for all people all year round; and eradicating all forms of malnutrition. Regarding Nutrition, in addition to the SDG2.2, global nutrition targets are defined by the World Health Assembly¹.

As global food insecurity has surged again amid the coronavirus pandemic and Russia's war against Ukraine, this brief aims at contributing to a better understanding of this global threat by providing an overview of the most recent and available knowledge. The focus is on countries with high vulnerability to food insecurity and food crises.



Section 1: Definitions (1) (2) (3) (4)

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

Food insecurity is conceptualized as resting on four dimensions: food availability, food access, food utilization, stability.

Recently, some authors argues for the inclusion of agency and sustainability as two additional dimensions.

Food availability refers to supply of adequate food in the area and is determined by the level of food production, stock levels and net trade.

Food access refers to affordability of food and the ability for the households to acquire food in adequate quantity and quality. Food access can be physical, financial and social. *Physical access* refers to the ability to reach a market or use household or community food stock or to obtain food through its own production or directly from the environment. *Financial access* refers to the capacity of households to acquire food in the market. *Social access* allows the household to access food through different solidarity or kinship mechanisms.

Box 1. Food security and nutrition as outcomes of sustainable food systems

The term "food systems" refers to all the elements and activities related to producing and consuming food, and their effects, including economic, health, and environmental outcomes.

As highlighted by the OECD, around the world, food systems are facing a triple challenge: ensuring food security and nutrition for a growing population, supporting the livelihoods of millions of farmers and others in the food chain, and doing so in an environmentally sustainable way².

Accordingly, the **desired outcomes of sustainable food systems** are : i) ensuring food security and optimal nutrition for all; 2) meeting socio-economic goals, in particular reducing poverty and inequalities and iii) enabling humanity's food needs to be met within planetary environmental and climate boundaries³.

Food Utilization refers to the conditions under which the food is consumed and metabolized by the organism (biological utilization) to reach a state of nutritional well-being where all physiological needs are met. Food utilization, excluding aspects related to biological utilization, includes having an adequate and balanced diet following the cultural preferences of the individual, feeding practices, access to clean water, food safety, food storage and preparation conditions. Biological utilization

³ https://foresight4food.net/why-what-and-how-a-frameworkfor-transforming-food-systems/

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¹ <u>Global Nutrition Targets 2025</u>.

² https://www.oecd.org/food-systems/understanding/

relates to the biological absorption and use of nutrients in food by individuals, which is influenced by the health status of the individual, availability of adequate sanitation, cultural practices among other factors.

<u>Stability</u> refers to the ability to maintain an acceptable level of food security even in the event of a shock such as extreme weather events, food prices spike, or along the year despite of cyclical variation of food availability, access and utilization.

Agency implies the capacity of individuals or groups to make their own decisions about what foods they eat, what foods they produce, how that food is produced, processed and distributed within food systems, and their ability to engage in processes that shape food system policies and governance.

<u>Sustainability</u> refers to the long-term ability of food systems to provide food security and nutrition today in such a way that does not compromise the environmental, economic, and social bases that generate food security and nutrition for future generations.

Acute Food insecurity (AFI) refers to food deprivation that threatens lives or livelihoods, regardless of the causes, context or duration.

The severity of acute food insecurity refers to the size of the food consumption gaps faced, often measured in terms of caloric intake deficit compared to a minimum energy requirement threshold. Under the IPC and CH analytical

frameworks (c.f. Section 2), the severity of livelihood changes experienced by households facing limited access to food is also taken into account to decide about the

Food crises. According to the <u>Global</u> <u>Report on Food Crises</u> (GRFC): "A food crisis occurs when rates of acute food insecurity and malnutrition ⁴ rise sharply at local or national levels, raising the need for emergency food assistance". The GRFC sets several criteria to determine which countries and territories experience a food

severity of food insecurity.

and challenges associated to the methods used to compute indicators using available data (5).

In an attempt to address the challenge of analysing food security by taking into account its different dimensions and the problems associated to collection and analysis of data, several international organizations joined forces in 2007 to promote the adoption of an analytical framework at global level called the Integrated food security Phase Classification (IPC). In the West Africa region a similar initiative promoted the Cadre Harmonisé (CH).

The IPC and CH are analytical frameworks designed to determine the severity and magnitude of food and nutrition insecurity and to identify their key drivers. Today, the IPC and CH are operational in about 50 countries, and are considered the standard reference for consensus-based analysis of food insecurity and acute malnutrition, informing more than six billion dollars in food crisis response decisions annually.

IPC and CH classify the severity of acute food insecurity into five categories denominated Phases. The IPC and CH Phases are a useful construct for decision making because they are associated with particular conditions experienced by the household that are easy to understand by non-specialists and with specific priority response objectives.

Table 1: IPC/CH acute food insecurity phase description and response objectives

Phase	Phase description and priority response objective
Phase 1 None/Minimal	Households are able to meet essential food and non-food needs without engaging in atypical and unsustainable strategies to access food and income. Action required to build resilience and for disaster risk reduction.
Phase 2 Stressed	Households have minimally adequate food consumption but are unable to afford some essential non-food expenditures without engaging in stress-coping strategies. Action required for disaster risk reduction and to protect livelihoods.
Phase 3 Crisis	Households either: • Have food consumption gaps that are reflected by high or above-usual acute malnutrition; or • Are marginally able to meet minimum food needs but only by depleting essential livelihood assets or through crisis-coping strategies URGENT ACTION required to protect livelihoods and reduce food consumption gaps.
Phase 4 Emergency	Households either: • Have large food consumption gaps which are reflected in very high acute malnutrition and excess mortality; or • Are able to mitigate large food consumption gaps but only by employing emergency livelihood strategies and asset liquidation. URGENT ACTION required to save lives and livelihoods.
Phase 5 Catastrophe/Famine	Households have an extreme lack of food and/or other basic needs even after full employment of coping strategies. Starvation, death, destitution and extremely critical acute malnutrition levels are evident. (For Famine classification, area needs to have extreme critical levels of acute malnutrition and mortality.) Famine and Famine Likely classifications are equally severe, the only difference is the amoun of reliable evidence available to support the statement. URGENT ACTION required to revert/prevent widespread death and total collapse of livelihoods.

crisis. These criteria are related to the status of countries as demanders of external assistance and the existence of populations in IPC / CH Phase 3 or worse or equivalent.

Section 2. Analysing food insecurity

Food security is a complex phenomenon difficult to measure directly. The existence of dietary energy gaps, diets of inadequate quality, the inability to meet food preferences and the uncertainty about the future ability to access food are examples of situations that can be associated with a state of food insecurity affecting parts of the population. To determine the existence of such a state and the number and characteristics of population involved it is generally not sufficient to use one simple indicator at a given time. Besides the multi-dimensional nature of the food security concept, the analysis of food insecurity faces challenges related to the data collection (timeliness, adequate level of disaggregation, biases associated to survey process, access to areas of concern, etc.),

Acute Food Insecurity (AFI) and Chronic Food Insecurity (CFI), as defined in the IPC, are complementary concepts that need to be considered together for an adequate response to food insecurity. IPC AFI serves to inform responses that ultimately aim to save lives and livelihoods (emergency response). However, IPC AFI analysis does not allow decision makers to understand to what extent the food insecurity is linked to structural causes and is a lasting phenomenon. This is in fact the function of IPC CFI, which allows decision makers to plan long term responses that address structural factors causing food insecurity.

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IPC and CH AFI analyses follow very similar tools and procedures and, therefore, are considered to provide comparable results. The IPC also included protocols to analyse Acute Malnutrition (AMN) and Chronic Food Insecurity (CFI). Today, the level of implementation of the IPC AMN and CFI is much inferior to the level of IPC AFI. IPC CFI has been piloted in about 15 countries and is currently undergoing a process of revision.

⁴ More information on malnutrition: <u>KC-FNS Scientific brief on</u> <u>Nutrition</u>

The IPC/CH can be seen as a meta-analysis built on multiple indicators that inform about the different elements of the IPC/CH analytical framework (vulnerability, food availability, food access, food consumption, livelihood change, etc.). The IPC/CH is not prescriptive about what indicators need to be included in an analysis. It requires, however, that at least one food consumption or livelihood change indicator in the IPC/CH Reference Table⁵ is included in the analysis.

IPC and CH protocols are described in their respective technical manuals⁶. It is also possible to download the results of all IPC analyses on the Internet⁷.

Box 2. Healthy diet and malnutrition

Inflation in consumer food prices stemming from the economic impacts of the COVID-19 pandemic and the measures put in place to contain it, and more recently of the Russia's war against Ukraine, have increased the costs of a healthy diet around the world and compromised its affordability.

According to the latest regional updates provided by the <u>State</u> of Food Security and Nutrition in the World 2022, there were 162.7 million people in Near East and North Africa, 1.9 billion people in Asia and the Pacific, and 131 million people in Latin <u>America and the Caribbean</u> who could not afford a healthy diet in 2020.

Diet quality is a critical link between food security and nutrition. Poor diet quality can lead to different forms of malnutrition, including undernutrition, micronutrient deficiencies, overweight and obesity.

Section 3: Reporting on global food insecurity⁸

Due to the multifaceted concept of food security and the diversity of analytical frameworks, but also due to different policy information needs, there are several annual flagship reports on global food security.

The State of Food Insecurity report (SOFI)

The <u>SOFI</u> tracks yearly progress towards ending hunger, achieving food security and improving nutrition. It officially reports on several SDG 2 indicators:

- SDG 2.1.1, which is the Prevalence of Undernourishment (PoU);
- SDG 2.1.2, which is the prevalence of moderate or severe food insecurity in the population based on the Food Insecurity Experience Scale (FIES);
- SDG 2.2.1, Prevalence of stunting among children under 5 years of age;
- SDG 2.2.2 which is the Prevalence of malnutrition among children under 5 years of age, by type (wasting and overweight); and
- SDG 2.2.3 which is Prevalence of anaemia in women aged 15 to 49 years, by pregnancy status.

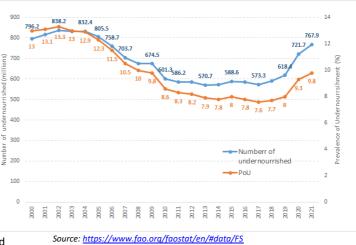
The **Prevalence of Undernourishment (PoU)**⁹ is an estimate of the proportion of the population whose habitual yearly food consumption is insufficient to provide the dietary energy levels that are required to maintain a normal active and healthy life. It is a measure designed to monitor national and regional trends in undernourishment and is based on the analysis of food availability and access, in relation to needs of national populations. It is computed at national level utilizing data from household income and expenditure surveys (HIES), the Food Balance Sheets and the population estimates. It is not a direct measure of food consumption at household level but rather a national-level model-based indicator used to understand access to food in terms of dietary energy inadequacy (10).

The Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES): the FIES uses a set of eight questions asking to self-report conditions and experiences typically associated with limited access to food. For purposes of annual SDG monitoring, the questions are asked with reference to the 12 months preceding the survey. Using sophisticated statistical techniques¹⁰, the information obtained is converted into a quantitative measure along a scale of severity. Households are assigned a probability of being in one of these three classes: food secure or only marginally insecure, moderately food insecure, and severely food insecure as defined by two globally set thresholds (6).

The estimates from PoU and from the severe food insecurity category of the FIES are roughly comparable (7).

The 2022 edition of the report forecast **between 702 and 828 million people facing hunger in 2021¹¹**, as measured by the PoU. The PoU started to rise again in 2017, driven mainly by the impact of an exceptional El Niño event, but the increase has been steeper from 2019, with impacts of the COVID-19 pandemic.

Graph 1: Evolution of the PoU and undernourished 2000-2021 (number and prevalence).



¹⁰ For detailed information on the FIES and its use of the RASCH model: <u>Cafiero et al.</u> (2018). "Food Security Measurement in a <u>Global Context: The Food Insecurity Experience Scale"</u>

¹¹ According to the SOFI report 2022, the reason the values of the PoU and NoU in 2020 and 2021 are presented as ranges is the difficulties to produce reliable nowcasts of key parameters which cannot be based on observed historical trends due to the exceptional nature of the COVID-19 pandemic.

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⁵ Food consumption indicators: Dietary Energy Intake, Household Dietary Diversity Score (HDDS), Food Consumption Score (FCS), Household Hunger Scale (HHS), Reduced Coping Strategy Index (rCSI) and Household Economy Analysis (HEA). On livelihood change, the only indicator is the Livelihood Coping Strategies (LCS). More information: <u>Food Insecurity Reference Table</u>.

⁶ IPC Manual v 3.1 and CH Manual v 2.0.

⁷ IPC analyses

⁸ The section present a selection of food security reports.

⁹ https://www.fao.org/hunger/en/

The Global Report on Food Crises (GRFC)

The GRFC reports on the number of people experiencing acute food insecurity and requiring urgent food and livelihood assistance. It is published annually since 2017 and, although it does not inform directly interventions to tackle food insecurity, it is a powerful advocacy tool that serves to support the work of preventing and addressing food crises of the Global Network against Food Crisis, humanitarian organizations and other decision makers such as the UN General Assembly. It is a joint publication by 16 partners¹², under the umbrella of the Food Security Information Network (FSIN). A mid-year update consolidating available data for the current year is normally published in September.

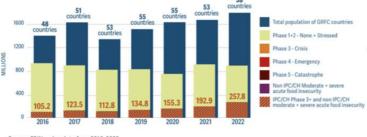
The Global Report on Food Crises consolidates acute food insecurity figures in food crises countries for the latest completed year and the current year at the time of the publication. Its main source of information are IPC and CH analyses or other sources considered as equivalent¹³.

The geographical scope of the report is **countries and** territories, where local capacities to respond to food crises are insufficient and require the urgent mobilization of the international community.

The 2023 edition of the GRFC estimates that in 2022, 258 million people faced high levels of acute food insecurity in 58 countries.

Graph 2: Evolution of the population in Crisis or worse (IPC/CH Phase 3 or above) 2016-2022

Number of people in GRFC countries facing acute food insecurity, 2016–2022



Source: FSIN, using data from 2016-2022.

The FAO-WFP-GNAFC Hunger Hotspots report

The <u>Hunger Hotspots report</u> is a forward-looking analysis over the next six months period, identifying hotspots countries where acute food insecurity is likely to significantly deteriorate or remain severe and/or widespread prompting a response. These hotspots are identified through a consensus-based analysis of available AFI forecasts and key drivers of food insecurity. It involves FAO and WFP Rome-based and fieldbased technical teams, as well as analysts specialized in conflict, economic risks and natural hazards.

While the GRFC's principal information are the numbers of people experiencing high levels of acute food insecurity in the previous year in food crisis countries, the Hunger Hotspots report identifies the priority areas for food assistance interventions during the outlook period. In addition, it also provides recommendations for anticipatory action and emergency response.

The WFP Global Operation Response Plan

Since January 2021, the WFP produces a Global Operations Response Plan (GOP) that is updated three times per year. It provides a comprehensive estimate of people in acute food insecurity in countries where WFP operates.

The numbers reported in the GOP are not fully comparable to the GRFC estimates. It is comparable in countries where there is an IPC/CH or equivalent estimate, covering more than 50 % of the country population. The GOP does not limit the data to IPC / CH or equivalent estimates or to data collected in the reporting period like in the GRFC. If no data are available for a country or if the IPC/CH or equivalent coverage is lower than 50 %, the GOP fills the data gap with results of an assessment of the previous year, or, with other available information on AFI¹⁴. In addition, the geographical coverage of the two reports is not the same. The <u>GOP 2023</u> reported 345.2 million experiencing acute food insecurity in the 79 countries with WFP operational presence and data available.

Box 3. Different figures on food insecurity.

The figures reported on food insecurity vary depending on the source that is considered.

Considering for example the year 2021, on one hand the SOFI reported between 702 and 828 million of undernourished and, based on the FIES, 924 million in severe food insecurity and, 2.3 billion in severe or moderate food insecurity. On the other hand, the GRFC reported 193 million people experiencing high levels of acute food insecurity, and the WFP GOP reported a total of 283 million people in acute food insecurity or at high risk also in 2021.

The differences are due to the fact that the input data (including data quality criteria), definitions, geographic coverage, analysis methods and time frame used to determine these numbers differ from one report to the other in relation to their main goal. Despite major political efforts towards multi-stakeholder reporting and progress in harmonization of assessment methods in recent years, the remaining use of different approaches and information sources leaves some unresolved challenges in the understanding and monitoring of the extent and severity of global food insecurity.

Partners of the Global Network Against Food Crises (GNAFC) produce additional food insecurity products, among them: "Monitoring food security in food crisis countries and territories with conflict", and the "HungerMap".

Section 4: The drivers of food crises

The food crises outlined in the latest edition of the Global Report on Food Crises are driven by **interconnected**, **mutually reinforcing factors of conflict/insecurity, economic shocks and weather extremes**. These drivers do not represent an exhaustive list of factors that can determine acute food insecurity. It needs to be noted that the occurrence of external shocks does not determine on its own food insecurity, and it is important to understand how vulnerable populations are to a particular shock. Vulnerability is often determined by structural

¹³ <u>FEWS NET</u> analyses, <u>WFP's CARI</u> and <u>Humanitarian Needs</u>
 <u>Overview reports</u> (HNO) are considered equivalent to IPC and CH.
 ¹⁴ Detailed overview of methods in this <u>document</u>.

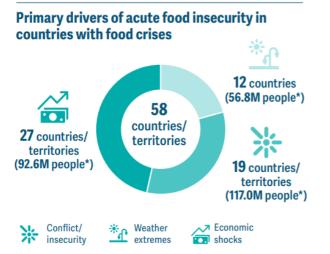
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¹² CILSS, UE, FEWSNET, FAO, FSC, GNC, IGAD, IFPRI, IOM, IPC, OCHA, SADEC, SICA, UNHCR, UNICEF, USAID and WFP.

factors that cannot be addressed through typical humanitarian interventions.

People require a set of assets to achieve food security and other positive livelihood outcomes. These assets are usually grouped in five types of capitals: human, physical, social, natural and financial (8). Adoption of evidence-based pro-poor policies plays an important role in facilitating access to these assets and in reducing vulnerability. Also, the CFS-HPLE ¹⁵ stresses the importance of developing transformative policies that adress the systemic drivers of inequalities to improve food systems outcomes (9).

Graph 3. Primary drivers of acute food insecurity in countries with food crises.



Food crises are the result of multiple drivers. The GRFC has based this infographic on the predominant driver in each country/territory. * Number of people in IPC/CH Phase 3 or above or equivalent.

Source: FSIN, GRFC 2023.

Section 5: EU policies guiding responses to global food insecurity

The IPC AFI manual describes priority objectives as general guideline for the response to different IPC phases. These priority response objectives have been shown in table 1.

It is important to note that as from phase 3 to more severe phases, urgent response is required. This explains why estimates of population in need of humanitarian food and livelihood assistance are based on the population in IPC Phase 3 and above.

As highlighted by the GRFC, sustained pressure from drivers such as conflict, economic shocks and weather extremes, as well as lack of social support or opportunity to recover from shocks, exhausts people's abilities to cope. This, in turn, drives further deterioration in household food security and increases reliance on external assistance to manage growing consumption gaps. Under such circumstances, and without successful recovery and development initiatives, there will be a perpetual need for urgent humanitarian action and a growing risk of deteriorating food insecurity.

¹⁵ High Level Panel of Experts on Food Security and Nutrition of the UN Committee on World Food Security Beyond the immediate response to food crises, it is paramount to ensure food security in the longer-term. The EU is committed to eradicating hunger as part of the 2030 Sustainable Development Agenda. The main EU policies and strategies towards this objective are briefly presented below¹⁶.

The <u>new European Consensus on Development</u> (2018) reaffirms that poverty eradication is the primary development objective and that it is indispensable to ending hunger and ensuring food security. Two thirds of the world's poor depend on agriculture for their livelihoods. Support to smallholders and investments in sustainable agriculture are needed to diversify production systems, prevent malnutrition and food insecurity, and fight against soil erosion and biodiversity loss.

The <u>Farm to Fork Strategy</u> (2020) announces that the EU will support the global transition to sustainable agri-food systems, boost cooperation to improve nutrition and alleviate food insecurity by strengthening resilience of food systems. It also puts emphasis on the prevention of and response to food crises, particularly in fragile contexts.

The Communication on "EU's Humanitarian Action: new challenges, same principles" (2021) stresses on the importance of humanitarian-development-peace nexus, to build resilience to shocks in situations of fragility, of improving the coordination between humanitarian, development and peace actors to address and prevent hunger, and to expand support for cash-based, shock-responsive social safety nets. The Council conclusions on Disaster Risk reduction in EU external action (2022) calls for a shift from reactive crisis response to more proactive action.

Recent economic shocks triggered by the COVID-19 pandemic and Russia's war of aggression against Ukraine, and growing risks driven by environmental degradation and climate change, has led the European Commission to further define its strategy to fight global food insecurity.

The Communication "Safeguarding food security and reinforcing the resilience of food systems" (2022) and the Council conclusions on the Team Europe response to global food insecurity (2022) both propose to boost sustainable production, resilience and food systems transformation while stepping up humanitarian assistance to the regions and population groups most affected by food insecurity. Macroeconomic support to low-income food-deficit developing countries, debt relief, and promoting open global trade in food and fertilizers are among the recommended measures.

Box 4. Protecting vulnerable households from food insecurity and malnutrition.

Covid-19 pandemic and Russia's war against Ukraine have considerably worsened the economic environment of lowincome developing countries. High domestic inflation fuelled by soaring food and energy prices have exposed poor households to a higher risk of food insecurity.

While expanding the coverage of social protection programmes would be the most appropriate measure to protect an increasing number of vulnerable households from poverty, food insecurity and malnutrition, fiscal pressure in low-income developing countries – a majority of which is at high risk of, or already in debt distress - restricts de facto raising public spending.

¹⁶ More information in the KC-FNS: <u>EU policies on global food</u> security.

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The World Bank highlights in such context the importance of generating additional fiscal space, by reducing inefficient spending and mobilizing more domestic revenues, alongside continued international support (10).

School meal programmes are one of the largest and most widespread social safety nets in the world. While they can transform the lives of children and their families affected by food insecurity, they can also support the transition to more sustainable food systems when they match healthy diets with local food production (11).

Conclusions

Increasing efforts to meet SDG2

The latest figures on global food insecurity show that the world is significantly off track from meeting the Sustainable Development Goals, in particular SDG2 (12).

As highlighted by the OECD, the current economic context is exacerbating inequalities between and within countries and stifling progress to achieve the Sustainable Development Goals. Countries with the fewest resources face challenging trade-offs between short-term rescue and long-term financing for a sustainable recovery. Global crises open a political window of opportunity to assign broader resources to re-alignment of SDGs (13).

Need for more systemic and transformative actions

The brief highlights the complexity of any debate about food security, and the importance to understand the short- and long-term dimensions of the drivers and their interlinkages, as highlighted by the European Commission in their recent work on the drivers of food security (14).

By definition, food security has a short-term dimension: people must have access to food every day, not only tomorrow. This requires policies that enable food security in all its four dimensions to be guaranteed in the short run. At the same time, the ability to ensure food security in the long-term requires policy interventions that reinforce equity, sustainability, and resilience of food systems in order to address poverty, climate change and natural resources degradation.

Covid-19 pandemic and Russia's war against Ukraine – and related food supply disruptions and food price increases - have highlighted the importance, especially for low-income food import-dependent countries, to secure food availability, both by enhancing and diversifying local food production and by reinforcing regional trade.

Ensuring food security and good nutrition for all requires a broad range of actions across many policy areas, from agriculture, fishery and aquaculture, to health, social, trade, climate, environment, energy, research and innovation, etc., to be coordinated and integrated in a way that considers the interplay of the different drivers and is capable of identifying and addressing existing and potential future trade-offs. The UN Food Systems Summit and its follow-up actions (Coalitions for Actions, National Pathways for food systems transformation, and Food Systems Solution Dialogues¹⁷), by engaging a large spectrum of stakeholders and fostering cross-sector partnership, contribute to steering this effort.

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¹⁷ https://www.unfoodsystemshub.org/en