

COMPENDIUM — FINAL REPORT
ZERO HUNGER CHALLENGE WORKING GROUPS

THE SECRETARY-GENERAL'S
HIGH-LEVEL TASK FORCE ON
GLOBAL FOOD AND
NUTRITION SECURITY



ALL FOOD SYSTEMS ARE SUSTAINABLE

Working group composition – participating agencies

Co-Chairs: FAO, UNCTAD, UNIDO, World Bank

Other Participants: IFAD, UNEP

This compendium summarizes the outcome of the work done by the twenty-three High level Task Force of Global Food and Nutrition Security entities, coordinated by the HLTF Coordination Team from October 2014 to October 2015.

This report outlines the main features of this specific Zero Hunger Challenge element, including suggested metrics to monitor progress, as a guide to all stakeholders willing to join the challenge. The report is articulated around four sections. Each section explains the approach used, bottlenecks encountered, alternatives considered and all the information necessary for the reader to understand how the group reached its conclusions.

I. Definition: The definition of the element is clarified when necessary.	Page 1
II. Policy measures: This explains policy measures which provide the enabling environment for reaching the final objectives.	Pages 2 - 3
III. Metrics: A set of indicators for monitoring progress toward the Zero Hunger Challenge element has been identified.	Pages 3 - 4
IV. Messaging: Trade-offs and priorities have been included. This material is intended to help the Zero Hunger Challenge reach other stakeholders, particularly civil society and the private sector.	Page 4
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I. Definition

Concordance reached by the High level Task Force of Global Food and Nutrition Security entities

A food system is defined as a system that embraces all the elements (environment, people, inputs, processes, infrastructure, institutions, markets and trade) and activities that relate to the production, processing, distribution and marketing, preparation and consumption of food and the outputs of these activities, including socio-economic and environmental outcomes.

A sustainable food system is a food system that delivers food and nutrition security for all in such a way that the economic, social and environmental bases to generate food security and nutrition for future generations are not compromised.

A sustainable food system is a dynamic process in which achieving food and nutrition security today should also contribute to food and nutrition security for future generations.

The definition demonstrates the importance of seeking sustainability in three dimensions — environmental, economic and social — at every stage of a food system, from agricultural production, processing, and retailing, to consumption. For example, agriculture not only suffers from the impacts of climate change, it but together with land use changes account for about a quarter of greenhouse gas emissions (GHG).

Agriculture has the potential to be an important part of the solution through mitigation (reducing and/or removing a significant amount of global emissions). Hence, a sustainable food system is climate-smart and simultaneously increases agricultural productivity, enhances climate resilience, and reduces GHGs for agriculture and related land use change.

In addition to agriculture production, food consumption and associated activities like transformation of certain crops/vegetables/fruits are another important dimension of sustainable food systems. Access to nutritious food which balances calories and micronutrients can help achieve food and nutrition security.

II. Policy measures

Concordance reached by the High level Task Force of Global Food and Nutrition Security entities

- A sustainable food system is a dynamic process, and context-dependent.
- The core objective of this ZHC element (all food systems are sustainable) is to transform the way we produce, process, exchange and consume food. Thus, obtaining food and nutrition security today will not compromise future generations' capacity to achieve food and nutrition security.
- Transformative policy measures would need to influence the key determinants of a sustainable food system with a view to support an enabling environment for sustainable food systems.
- Policy measures for sustainable food systems, should increase agricultural productivity and gender-sensitive agriculture production, enhance climate resilience, reduce greenhouse gas emissions from agriculture and related land use change, improve nutrition, strengthen value chains and improve market access.

A food system's sustainability is influenced by natural and human factors. These factors interact with each other within a food system. For example, the availability of water and land for food production is influenced by human actions, while human choices are influenced by environmental conditions.

Creating the enabling conditions for the shift to more sustainable food systems will require systems-based approaches that can consider the range and complexity of interactions prevalent in the production, distribution and consumption of food. These links between food production, distribution, consumption, and nutritional health and the underlying social-economic, biophysical and institutional elements, ultimately affect the quantity, quality and affordability of food, as well as health and wellbeing.

It is thus important that policy measures to achieve sustainability in food systems adopt a multi-dimensional, gender-sensitive and integrated approach in all the stages including transport, storage, processing, wholesale and retail, consumption (includes transformation of crops, fruits, vegetables, dairy products, fish and meat into food) and food waste management. Furthermore, changes in dietary practices, such as an increased consumption of animal-based and processed products, can result in higher demands for resources and more greenhouse gas emissions.

Also important is to ensure a fair, equitable and inclusive market mechanism at the national, regional and international levels for economic viability of rural livelihoods in general and small-scale farmers in particular.

Key determinants of a sustainable food system		
<u>Natural System</u>	<u>Agriculture</u>	<u>Human System</u>
Environmental services	Agricultural activities	Economic services
Climate, nutrient cycling, biodiversity, water cycles, and coastal protection	Production (crops, livestock, forestry, fisheries, and aquaculture) and inputs outputs (food, feed, plant-based or animal-based commodities/materials, biofuels, etc.)	Processing for nutritious and healthy food, economic development, inclusive and efficient markets, enabling policies and infrastructure
Natural resources		Social services and conditions
Land, oceans, water, genetic resources, forest resources, aquatic systems, nutrients, and energy.		Demographic changes, health, nutrition, urbanization, etc.

III. Metrics

Concordance reached by the High level Task Force of Global Food and Nutrition Security entities

Environmental, social and economic conditions required for achieving a sustainable food system are country specific and associated metrics will need to be reflective of these country conditions. Guiding these metrics is a set of **principles** that every country will need to better align with in order to achieve sustainability in food and agriculture, as the following:

- (i) **Improve efficiency of resource use** (such as land, water, fisheries and forests).
- (ii) **Protect and enhance natural resources' sustainability** (by reducing environmental externalities of agriculture such as methane emissions in the air and nitrous oxide in the soil).
- (iii) **Protect and improve rural livelihoods, equity, women's empowerment, and social well-being.**
- (iv) **Enhance people's, communities' and ecosystems' resilience.**
- (v) **Ensure a responsible and effective governance** system, particularly with respect to the use and the protection of natural resources.

A sustainable food system is a dynamic concept, and the conditions that ensure sustainability in food systems can vary widely across countries and regions, as well as across different stakeholders (e.g. poor or marginal food producers who may chronically or seasonally lack productive capacity to cover own food needs, or urban low-income non-food producers).

Achieving sustainable food systems depends on the success of the other ZHC elements, such as zero food waste, 100 percent access to food and increasing smallholder's income. The metrics suggested for these Zero Hunger Challenge elements can help monitor progress on achieving sustainable food systems.

Other indicators to measure progress on the related Sustainable Development Goals — particularly those in the Goals 2, 3, 5, 6, 9, 12, 14, and 15 — should be finalized in early 2016. These indicators could help monitoring progress on this ZHC element i.e. Sustainable Food Systems.

SDGs:

Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

Goal 3: Ensure healthy lives and promote well-being for all at all ages.

Goal 5: Achieve gender equality and empower all women and girls.

Goal 6: Ensure availability and sustainable management of water and sanitation for all.

Goal 9: Build resilient infrastructures, promote inclusive and sustainable industrialization, and foster innovation.

Goal 12: Ensure sustainable consumption and production patterns.

Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development.

Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat deforestation, and halt and reverse land degradation and halt diversity loss.

IV. **Messaging**

Concordance reached by the High level Task Force of Global Food and Nutrition Security entities

- A sustainable food system encompasses the production, distribution and consumption of food.

- Policy measures for sustainable food systems need to link food production, distribution, consumption, and nutrition. The policies must also address social-economic, biophysical and institutional elements. Policy measures should help increase agricultural productivity and gender-sensitive agriculture production, enhance climate resilience and reduce agricultural greenhouse gas emissions for agriculture and related land use change, improve nutrition, strengthen value chains and improve market access.

- Sustainable food systems need support from a vast range of stakeholders from the farmers to the final consumer, from governments to private sector to civil society.

Sustainable food systems embrace the interconnectedness of all the food-related activities and the environment within which these activities occur. The production, distribution and consumption of food is a dynamic process involving multiple inputs, outputs and stakeholders. Furthermore, sustainable food systems need to increase agricultural productivity, improve climate resilience, and reduce greenhouse gas emissions for agriculture and related land use change.

Food systems overlap and operate at local, regional, national, and global levels. They are very diverse and have multiple objectives. There is no one model of a sustainable food system, but a set of principles that constitute sustainability. Therefore, approaches to accelerating this shift should evolve from the particular contextual conditions of the food system under investigation.

The emphasis at an overarching level is therefore to assist in creating the policy-enabling conditions for sustainable food systems approaches to develop. It is important to promote multi-stakeholder dialogue for coordinated action at national level that considers interactions and outcomes across the food system.

V. **Conclusion**

The group focused on highlighting existing knowledge gaps and additional work needed at element or inter-element level. Furthermore the group highlighted the links between sustainable food systems and the sustainable development goals.

Creating the enabling conditions for the shift to more sustainable food systems will help hunger eradication in a sustainable manner. This requires a systems-based approach that can consider the complexity of interactions between food production, distribution, and consumption.

These links will ultimately affect the quantity, quality and affordability of food, as well as people's health.

Creating the enabling policy conditions at a national level to support the transition to more sustainable food systems could be based on the following principles:

- **Interdisciplinary thinking:** Stakeholders across the food system need to be represented in, for example, a nationally convened dialogue, and, where possible, they should actively participate in developing SFS policy and action.
- **Consensus building:** Consensus-based participatory approaches to policy development can address causes rather than symptoms of food system sustainability.
- **Mapping and assessment:** Understanding the food system from production to nutritional outcomes helps discover priorities areas for action. Acknowledging the differences in priorities among stakeholders, and taking both bio-physical and socio-economic factors into account, can help develop long-term sustained change in food production and consumption patterns.
- **Interconnected decision-making:** Stakeholders should communicate on the interconnectivity of actions in the food systems. This can impact decision-making across production, consumption and nutrition. Stakeholders should understand causes and effects within the food systems.
- **Evidence-based:** Decisions should be based on evidence.
- **Measuring:** Discussions should be focused on specific, measurable, achievable, realistic and time-bound actions to create real change. Stakeholders stay motivated to participate in transformative processes when they see decision-making resulting in real change.

- Continuous learning: Systems thinking requires the use of feedback mechanisms to improve decision-making. The complexity of food systems will mean that some actions will not result in the intended outcomes. Such cases provide valuable learning opportunities; these cases should be used to develop greater understanding of the causes of failure, to improve future decision-making.