

TST Issues Brief: Food Security and Nutrition¹

I. Stocktaking

Food security and nutrition are essential dimensions of sustainable development. Inadequate food security and nutrition take an enormous toll on economies and have negative consequences for the livelihoods and economic capabilities of vulnerable populations. A world where all enjoy freedom from want, and progressively realize their right to adequate food and nutrition can only be realized through far reaching transformations, supported by policies and programmes promoting sustainable development in all its three dimensions. Strong interdependencies exist between food security and nutrition and many other parts of a broad sustainable development agenda – inclusive economic growth, population dynamics, decent employment, social protection, energy, water, health, sanitation, natural resource management and protecting ecosystems. The empowerment of women, and addressing inequalities – notably gender inequity and rural-urban inequalities – are as critical to food security and nutrition as they are to a universal sustainable development. The empowerment of families, especially women who are the main child care providers and are responsible for the food preparation and infant and young child feeding, is also critical for these goals.

Hunger, food insecurity and malnutrition can be ended sustainably within a generation². However, the challenge is immense: one in eight people in the world today (868 million) are undernourished and approximately two billion suffer from micronutrient deficiencies. Significant progress has been made to reduce rates of undernourishment, child stunting, underweight, micronutrient deficiencies, and child mortality. But such progress has been uneven and subject to setbacks caused by food price increases, conflict, and other shocks. New challenges have also emerged, such as increasing incidence of overweight in many countries.

The broader environment that encompasses food systems, and their production and consumption components, has changed considerably in recent years. More or new forms of investment are flowing into the food and agricultural sectors, although needs far exceed investment levels. New patterns of governance of food systems are emerging. The environment for food production is increasingly challenging – particularly for smallholders – due to environmental and climate-related constraints, degradation of ecosystems, globalization, and market integration. This new landscape has profound implications across national boundaries, underlining the need for holistic, innovative, and collaborative solutions, policies, and strategies. There is need for a universal agenda, but also for country and context-specific strategies. People-centered approaches are needed, underpinned by principles of human rights, inclusion, national ownership, and accountability.

Despite progress, the global community must address significant challenges to meet the needs of the estimated 868 million undernourished today. In comparison with the global situation several decades ago, a significantly lower percentage of children under the age of five today are stunted (low height-for-age), underweight (low weight-for-age), or wasted (low weight-for-height). However, major regional disparities exist: in sub-Saharan Africa 36% of children under the age of five are stunted, in Asia the corresponding figure is 27%³. Moreover, other forms of malnutrition - specifically overweight and obesity - are rapidly rising. Globally, more than 1.4 billion adults are overweight.⁴ The increasing prevalence of overweight and the closely related increases in non-communicable disease is at least partly a consequence of changing diets and lifestyles. In many contexts, however, the incidence of overweight is also closely related to poverty. Current trends in the prevalence of overweight may continue as part of societal transformations associated with economic growth and urbanization. This puts additional pressure on public health systems and on agriculture. The agricultural sector is also under pressure from environmental and climatic factors and from population growth. Global demand for food as well as non-food agricultural products (e.g. biofuels)

¹ The Technical Support Team (TST) is co-chaired by the Department of Economic and Social Affairs and the United Nations Development Programme. Preparation of the brief has been co-led by WFP, FAO and IFAD, with contributions from ESCAP, ILO, UNEP, UNICEF, UNV, and UN-Women.

² For a global vision and building blocks towards ending hunger, food insecurity and malnutrition, readers may refer to documentation stemming from the “High Level Consultation on Hunger, Food Security and Nutrition in the Post-2015 Development Framework” (Madrid, 4 April 2013) available at: <http://www.worldwewant2015.org/food2015>

³ UNICEF-WHO-The World Bank: Joint child malnutrition estimates - Levels and trends. 2011 estimates. <http://www.who.int/nutgrowthdb/estimates/en/index.html>

⁴ WHO. 2012. *Obesity and overweight*. Factsheet No. 311. Geneva, Switzerland

is increasing, and more resource-intensive (e.g. animal protein) foods represent a greater part of this demand. Meanwhile, a large percentage of food currently produced is lost or wasted. More sustainable production and consumption models are needed.

While current and future challenges differ from the past, responses to new challenges can and should build on lessons learned from national experiences.

MDG1 recognizes the close link between income poverty and food access, which is important to retain at a time when food insecurity and under-nutrition are primarily problems of access. Poor nutritional outcomes are also related to inadequate health, poor sanitation, and many other factors. Global experience in the pursuit of MDG1 shows, however, that progress in reducing extreme income poverty does not necessarily result in a proportionate reduction of caloric intake deficiencies. Although recent data indicates that the world has succeeded in achieving the poverty target of MDG1, progress in reducing food insecurity and malnutrition has been less robust. Measures of food insecurity, particularly those that address undernourishment, do not adequately capture and reflect aspects related to micronutrient deficiencies, nor do they adequately distinguish between chronic food insecurity and shorter periods of acute deprivation or vulnerability.

One major lesson is that strategies for addressing poverty need to be “nutrition sensitive” to ensure commensurate impacts on malnutrition. This has implications in terms of the policy and investment choices made by countries for driving development and growth, as well as for models of sustainable growth, production, and consumption. “Nutrition sensitive” growth is growth that involves and reaches people living in poverty, especially through increased employment and other income earning opportunities. It also generates resources that poor households and public institutions actually use to improve nutritional status. Appropriate incentives and services are needed to improve diets and access to health care. Agriculture-led growth is generally most effective in reducing food insecurity and malnutrition, especially when supplemented by social protection and nutrition-specific interventions, such as micronutrient supplementation and support to breast feeding. However, agriculture-led growth can only lead to sustainable improvements in food security if it is rooted in more productive, sustainable, resilient, and inclusive agriculture systems.

A second lesson is that progress in raising average calorie intake and improving nutritional status is sensitive to price shocks, such as those affecting global food markets over the past six years. Price volatility is generally expected to become more common in the future. Higher food prices have slowed or even reversed progress in reducing food insecurity for several countries. There is a greater need to incorporate resilience into local food systems, livelihoods and growth strategies.

A third lesson is that even a short period of inadequate nutrition before the age of two (first 1000 days) has important long-term consequences due to its largely irreversible effects on an individual’s physical and mental development. Such consequences impact not only the individual and the household, but also the longer-term growth prospects of societies.

Similar to extreme income poverty, food insecurity continues to be predominantly concentrated in rural areas of developing countries, and disproportionately affects poor farmers, agricultural workers, pastoralists, and rural communities. Promoting food security requires particular attention to the rural sector with a dual focus on smallholder agriculture and the non-farm economy. A key underlying cause of recent global food price shocks is, for instance, concentration of production of the main traded cereals in a few geographic areas, coupled with growing environmental and climatic challenges, thin international markets, and high transaction costs. Investing in rural sectors, improving rural-urban linkages, and promoting market development can mitigate food price shocks and their impact on food security. Resilient and sustainable systems require responsible and inclusive investment. This is an important dimension of food security and nutrition that did not quite emerge in the MDGs because of the lack of linkages between MDG1 and MDG7.

Implementation of MDG1 has, in general, not adequately addressed malnutrition (including under- and over-nutrition) in its many dimensions. This is partly because MDG1 had a limited focus in terms of indicators of under-nutrition, and partly because it did not encourage a specific focus on determinants of food security, such as gender equality and women’s empowerment, social inclusion and equal access to opportunities and resources. Nor did MDG1 encourage specific attention to unequal nutritional outcomes among different population groups. Different

countries have undertaken different strategies to achieve MDG1, which provide a variety of lessons for the SDGs. In particular, the evidence points to a need for:

- **Strategies to promote inclusive growth, particularly in the rural sector** and with a focus on smallholder systems. There is a long history of success in reducing food insecurity and malnutrition in countries that have invested in agriculture-led, inclusive growth through a combination of agricultural research, adoption of improved technologies, knowledge, extension and information services for small producers. Other important elements include rural education, secure and equitable access to land, water, productive resources and financial capital, infrastructure development (e.g. irrigation, roads, warehouses), and a stable market environment. The experience of several countries in East and South East Asia during and after the Green Revolution is a notable example of a comprehensive agriculture-focused strategy of growth that resulted in simultaneously reducing poverty and food insecurity at scale, although with significant environmental externalities. The impact pathways of this approach were at least threefold—vastly increased food production (primarily by smallholder farmers) and cheaper food for urban consumers; higher profits for farmers; and higher wages for agricultural labourers. Similar impact was achieved in countries as diverse as India, China, and Bangladesh from creating a more enabling environment for private investors on farm or in ancillary sectors.
- **Strategies integrating social protection with food interventions.** Social protection is an important element of many national strategies to reduce malnutrition. This includes specific programs designed to address the nutritional needs of women of childbearing age, pregnant and lactating mothers. There is a need for a greater emphasis on childhood nutrition during the first 1000 days of a child's life, from conception to two years of age, when under-nutrition is most likely to have long-lasting negative consequences. Additionally, social protection measures, including social protection “floor” initiatives, are increasingly seen as integral to strategies to promote growth and investment. Integrated social protection programs with explicit food security and nutrition objectives have been promoted in countries like Brazil, Mexico, Colombia, Ethiopia, Kenya, and others; although the determinants of impacts on nutrition are not always clear. Conditional cash transfers have demonstrated that positive impacts on nutrition require a multi-dimensional approach. Examples include programmes that promote health care, education, and women's empowerment. Unconditional cash transfers have also been found to have positive impacts on reducing stunting in some countries (e.g. Ecuador, South Africa). Research shows that safety net programs need to combine different approaches (e.g. cash plus food) to respond to different circumstances (e.g. local food supply capacity).
- **Strategies promoting human capital development and inclusion, with particular focus on gender.** Much of the literature on nutrition suggests that determinants vary depending on context and population group. One very common finding across contexts is that progress in women's empowerment and gender equality is strongly correlated with improved nutrition. There are multiple facets and causal linkages related to income generation, food production, processing, and preparation, childbearing, caretaking and mothering roles. Investment in women's education – particularly beyond the primary level – and in women's health (including reproductive health and rights), as well as the removal of discriminatory laws and policies to ensure women's equal access and rights to resources, services and social protection, are all important factors for improved nutrition. Reductions in food insecurity and malnutrition have also been associated with comprehensive policies on education and gender equality in a number of countries. Investment in health and nutrition education programmes in schools and in informal and non-formal settings has also shown positive impact.
- **Integrated policy and programme interventions focused on food security and nutrition.** Numerous countries today have integrated food security and nutrition plans. One example is the Ethiopia National Nutrition Programme, which includes a number of interventions that address both immediate and underlying causes of malnutrition at the community level through free health services, micronutrient supplementation, and social protection initiatives based on cash or food for work. The program has led to measurable improvements in nutrition outcomes (e.g. child stunting). Several other countries have large nutritional programs involving school feeding, food preparation and nutritional awareness, promotion of breastfeeding, improved weaning practices, and bio-fortification. Diverse and integrated approaches often involve agriculture, employment generation, social protection, education, healthcare, and sanitation. Nepal, Peru, Rwanda, and other countries have implemented multi-sector community level interventions within broader national frameworks. These countries have included specific efforts to reach out to marginalized areas and population groups, including indigenous peoples, and to promote diversity of local food availability. A broader approach has been undertaken in a number of countries

adopting “zero hunger” strategies. In some cases, these have involved a complex set of institutional and policy initiatives linking macroeconomic policy to social protection, market development, minimum wage increases, investment in human capital, citizenship involvement and community employment generation. In Brazil’s Fome Zero program, a transformation of food markets to ensure the empowerment and integration of small family farmers has also been an important factor.

- **Addressing food insecurity in crisis situations.** One key lesson from a country-disaggregated review of trends in food security and nutrition is the importance of insecurity, conflict, climate variability, and vulnerability to shocks and crises. A far-reaching exercise to identify challenges to promoting food security and improved nutrition in “protracted crises” has been underway under the auspices of the Committee on World Food Security since 2011. Causes of protracted crisis situations are diverse, but common conditions include frequent or continued exposure to shocks that undermine livelihoods, food and market systems. Weak institutional and governance capacity as well as unsustainable or inequitable use of natural resources are also a common feature of protracted crises. Emergency interventions in these contexts are often not well integrated with development approaches to address structural issues and promote resilience. Future advances in practice and research are needed better to promote resilience and integrate peace-building into food security interventions in these contexts.

II. Overview of proposals

Existing goals can be drawn both from the MDGs and agreed outcomes of United Nations conferences and Plans of Action, including the 1996 World Food Summit and follow-up meetings. More recently, food security targets have been identified for instance in the Istanbul Plan of Action, with a commitment to undertake policies and measures to “make substantial progress towards eradicating hunger by 2020”, “substantially increase investment in rural infrastructure”, and “ensure access to safe food and emergency food assistance in all least developed countries.” Specific actions are laid out as “means of implementation” towards these targets. Concerning nutrition, in 2012 the World Health Assembly agreed to six global targets, namely: 40% reduction in the number of stunted children under the age of 5 by 2025, 50% reduction of anaemia in women of childbearing age by 2025, 30% reduction of low birth weight by 2025, no increase in child overweight by 2025, increase exclusive breastfeeding rates in the first six months up to at least 50% by 2025, reducing and maintaining childhood wasting to less than 5%.

Under the MDG framework, measures of food insecurity and malnutrition are closely tied to MDG 1 as Target C, reflecting the close link between food insecurity and income poverty (indeed, extreme poverty was originally defined in relation to income levels required to access a minimum daily caloric intake). This is underpinned in MDG1 by two indicators: Prevalence of Undernourishment (POU) and the proportion of children under five who are underweight. The first refers to a method of estimating, on the basis of limited data, the number of undernourished people in a population, and the second focuses attention on the lasting effects of malnutrition.

Published sources identify numerous potential adjustments to MDG1 targets and indicators. The first recommendation is to revise and strengthen the nutritional dimension to move beyond an exclusive emphasis on dietary caloric (energy) intake, incorporating other vital nutritional elements. In particular, overcoming the dual challenges of under- and imbalanced nutrition (e.g. due to excess food energy consumption) requires a diversified diet made up of safe, sufficient and nutritious food over the lifecycle, especially for women of reproductive age and children. Access to safe drinking water, hygiene and sanitation, and nutrition education are also key. Some experts have suggested that the underweight indicator currently used should be supplanted by the indicator of reduction of stunting in children below the age of 2, to give greater emphasis on chronic malnutrition. Others have advocated for an indicator on women’s nutrition, to underline the importance of gender equality for achieving broader progress on nutrition. Experts have suggested that definitions, measurements, and thresholds of undernourishment need to change; currently they are associated with the minimum caloric energy needed for a sedentary lifestyle, whereas some are suggesting they ought to be adjusted to reflect a level or threshold associated with an active lifestyle. There are also suggestions that food security and nutrition need to be more closely linked to access to safe and clean water. For example, a new food security and nutrition goal could help to enhance the recognition of linkages with water, health, education, and sanitation. Other suggested changes emphasize greater recognition of interdependence between environmental sustainability and the resilience of food security and nutrition systems.

Underlying some current proposals is the aspiration to establish alternative patterns of food production and consumption rooted in the three dimensions of sustainability, with ambitious targets for reducing post-harvest

losses or waste as well as alternative mechanisms of agricultural, nutritional and food systems governance, of universal though differentiated relevance. Such a transformative approach also gained great support at a High Level Event on the UNDG Global Thematic Consultation on Hunger, Food Security and Nutrition held in Madrid on 4 April⁵. One example of a holistic, transformative agenda is represented by the UN Secretary General's Zero Hunger Challenge, which is based on five pillars: (1) 100% access to adequate food all year round, (2) zero stunted children under two years of age, (3) all food systems are sustainable, (4) 100% increase in smallholder productivity and income, and (5) zero loss or waste of food. The Zero Hunger Challenge further specifies that eliminating hunger involves investments in agriculture, rural development, decent work, social protection and equality of opportunity.

In parallel with proposals on goals related to food security and nutrition, some stakeholders have put on the table proposals on principles and modalities of production and access to food. Elements of such proposals include concepts of right to food, nutrition security, and sustainable food systems. Proposals have also addressed the importance of improving governance mechanisms to ensure food security and nutrition for all. Areas that have elicited particular attention concerning governance include: improving the international institutional and policy environment affecting food prices, trade, food safety, and investment in agriculture and in rural sectors (downstream and upstream food supply chains).

III. Possible suggestions on the way forward

A common vision with universal relevance. A key precondition for tackling food security and nutrition issues in a global agenda for sustainable development is a shared vision that recognizes the centrality of these issues to the agenda, bridging the human development focus of the MDGs with the holistic, global, sustainability-oriented approach of the SDGs. This vision should be centred on the imperative of guaranteeing – for all human beings – their fundamental right to safe, sufficient, nutritious and affordable food, and a life free from hunger and malnutrition.

Recognizing the multiple dimensions of food security and nutrition. Ensuring global progress towards food security and nutrition requires action along multiple dimensions. These include food availability, access, stability, consumption and utilization (as per the FAO definition of “food security”), and health and sanitation. Acting on these dimensions in a comprehensive manner is essential to ensure that linkages between food security and nutrition and different parts of the SDG agenda are addressed. Such multi-dimensionality and linkages may be captured through i) the formulation of a goal, ii) identification of food security and nutrition-sensitive targets under different goals, iii) identification of nutrition-sensitive indicators related to different targets, and/or iv) the promotion of nutrition-sensitive approaches and strategies to implement the SDG agenda. Multidimensionality and complexity suggest the need to capture both food security and nutrition outcomes and their enablers (e.g. linkages to sustainable agriculture, infrastructure, education, water, health, decent jobs, social protection, the empowerment of women, and gender equality). It also signals the need to promote a holistic notion of food systems, including all food-related activities (producing, storing, processing, packaging, trading and consuming food) and acknowledging the challenges confronting different food systems in the current global environment.

Appropriate governance mechanisms and partnerships. This comprehensive vision needs to be delivered through transparent governance mechanisms and processes. At global level, efforts should be made to build on and enforce existing negotiated frameworks and fora, with the CFS as the foremost inclusive multi-stakeholder platform for food security and nutrition. Both globally and at country levels, a key aspect of the needed governance environment is new institutional space for multi-stakeholder strategies and governance, and the promotion of principled partnerships with shared responsibility and mutual accountability among different actors and sectors. Key actors whose involvement is essential to “govern” a new food security and nutrition agenda under the SDGs include, besides governments, smallholders (women and men alike) and their organizations, other private investors, consumers and their organizations, civil society, the scientific community, and UN and other development partners. Partnerships should be explicitly designed to address inequalities and their interplay with food insecurity and malnutrition, and be people-centred and supported by rights-based approaches.

Key questions to be addressed by an SDG agenda on food security and nutrition:

⁵ <http://www.fao.org/fsnforum/post2015/sites/post2015/files/files/Synthesis%20document%204th%20April.pdf>

- 1) How to make growth both poverty-reducing and nutrition-sensitive. As noted, the quality of economic growth is crucial to determine whether it will have positive nutrition implications. The impact of growth on income poverty does not automatically translate into impact on nutritional outcomes. As the SDG agenda tackles issues of inclusive, job rich and sustainable growth, food security and nutrition considerations should be woven into discussions. For example, this may include unlocking the potential of rural areas to sustain nutrition-sensitive growth, and the role of social protection in simultaneously promoting inclusive growth and better nutrition outcomes. Attention is also warranted on how to design and prioritize investments in energy, water, and infrastructure to enable multiple positive impacts on growth, food security and nutrition as well as on gender equality.
- 2) How to promote the transformation towards sustainable, inclusive and resilient food systems at all levels. As food security and nutrition are affected by what food is produced in different contexts, how it is produced, processed, transported, marketed, and consumed, achieving them in a sustainable manner requires a transformation of whole food systems. In the context of OWG discussions, this may have implications for discussions on technology development and innovation, access and rights over natural resources, addressing discriminatory laws, policies and practices; energy, water, infrastructure, human capabilities and skills, gender equality, and sustainable consumption and diets. How to reduce the carbon footprint of sectors related to food systems is an important dimension of this discussion. Other important elements of the discussion should include how to enhance and harness ecosystem services for food security.
- 3) How to promote nutrition as a specific dimension of human development. Given the centrality of adequate nutrition to human development, addressing nutrition-sensitive outcomes and enablers can involve discussion on education and health in particular. A clear focus is needed on promoting gender equality in all aspects of social and economic life, as well as on building the human capital of women and young girls and strengthening their rights, as an important precondition for improved nutrition at all levels.
- 4) How to address specific needs, vulnerabilities and contexts (e.g. crisis and post-conflict situations). As noted, food insecurity and malnutrition may be chronic or result from the impacts of specific shocks on vulnerable groups. The new agenda needs to tackle specific vulnerabilities, the inequalities underlying them, and different risk environments. Special consideration needs to be given to populations living in conflict and insecurity, those living below or just above the poverty line, and those living in areas prone to environmental shocks. It is critical to address the specific needs and vulnerabilities of children during the first 1000 days from conception to two years of age. The elderly are also vulnerable, especially in conflict or crisis environments.
- 5) Attention also needs to go to disparities between different areas in a given country in terms of food supply and access, as well as to challenges of distribution of food across areas and countries.

While maintaining a holistic vision of the challenges at hand, and mindful of the need to address the five issues mentioned above, the design of goals, targets, and indicators may take different forms including the following:

- a) **A goal on poverty, food security and nutrition.** This would build on the current approach of MDG1, recognizing linkages between food security, nutrition and extreme poverty, as well as the centrality of food security and nutrition as drivers of poverty eradication. It would recognize that eradicating extreme poverty and ending extreme food insecurity and malnutrition have been achieved in many countries through increased agricultural productivity and incomes. It may be accompanied by an improved indicator or set of indicators to capture, among other, chronic deprivation, such as child stunting and women's nutritional status.
- b) **A goal on food security and nutrition.** Under this goal, separate targets on food security in its four dimensions may be accompanied by targets in the specific area of nutrition, building on agreed upon targets in this area such as those recently agreed by the World Health Assembly. An alternative would be to combine targets related to nutrition and food security outcomes with targets related to enablers of food security and nutrition (e.g. in the area of sustainable agriculture or gender equality in access to land or other productive resources, services, infrastructure, and social protection). The arguments in favour of this option are that it would increase the salience of food security, nutrition, water and related goals. This would encourage the world community to recognize the need for greater public and private investment in agriculture, nutrition, and food systems to meet new challenges and growing demand, and

to address key governance issues that, among others, contributed to food price spikes of the past few years.

- c) **A combination of a) and/or b) alongside integration of targets and indicators of specific relevance to food security in its four dimensions and to adequate nutrition as a specific outcome under relevant goals,** in line with the holistic vision sketched above. This would include nutrition (and gender) sensitive indicators. Indicators on the four dimensions of food security under relevant goals – notably in the areas of sustainable agriculture, management and access to natural resources and ecosystems, social protection, health, education, decent jobs, and gender equality -- would also be needed.