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**Promotion and protection of all human rights, civil,
political, economic, social and cultural rights,
including the right to development**

Report submitted by the Special Rapporteur on the right to food, Olivier De Schutter

Summary

In the present report, submitted to the Human Rights Council in accordance with Council resolution 13/4, the Special Rapporteur on the right to food addresses the links between health and malnutrition. In the report, he shows why undernutrition, micronutrient deficiency and overnutrition are different dimensions of malnutrition that must be addressed together through a life-course approach. Existing food systems have failed to address hunger, and at the same time encourage diets that are a source of overweight and obesity that cause even more deaths worldwide than does underweight. A transition towards sustainable diets will succeed only by supporting diverse farming systems that ensure that adequate diets are accessible to all, that simultaneously support the livelihoods of poor farmers and that are ecologically sustainable. Women, the principal caregivers of young children, must be enabled to make informed and autonomous decisions about food and feeding so that young children can enjoy the right to a level of nutrition that supports adequate growth, health and development. The adoption of a human rights framework can serve to ensure that short-term answers do not preclude the chances of identifying long-term solutions.

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I. Introduction

1. The right to food cannot be reduced to a right not to starve. It is an inclusive right to an adequate diet providing all the nutritional elements an individual requires to live a healthy and active life, and the means to access them. States have a duty to protect the right to an adequate diet, in particular by regulating the food system, and to fulfil the right to adequate food by proactively strengthening people's access to resources, allowing them to have adequate diets.¹ Consistent with this requirement, the Voluntary Guidelines to Support the Progressive Realization of the Right to Adequate Food in the Context of National Food Security (Right to Food Guidelines) recommend that States ensure that changes in the availability of and accessibility to food supply do not negatively affect dietary composition and intake, and that States support dietary diversity and healthy eating patterns, including breastfeeding.² Agrifood companies also have a responsibility to respect the right to adequate food. They must avoid infringing upon this right, and seek to prevent any adverse impact their activities might have on the enjoyment of this right.³ And the United Nations system itself must ensure that nutrition is taken into account in all relevant policy areas.

2. In the present report, the Special Rapporteur clarifies the content of these obligations, and explores the implications of the adequacy element of the right to food for agricultural policies and for the reshaping of the food systems. Nutrition, of course, is not only about access to food at the household level. It is also intimately linked to the health status of each individual within the family, power relationships within the household, and education about nutrition. The focus here, however, will be on one set of determinants of nutritional outcomes that are related to food production, transformation, marketing, retail and consumption—to agrifood systems, broadly conceived. This is only one part of the broader issue of nutrition, but it is a crucial part, and one that currently is undergoing deep transformations.

3. The report was prepared through a range of expert meetings and consultations. The Special Rapporteur would like to express his gratitude to the World Health Organization (WHO) as well as to the participants in the expert meeting convened in Geneva on 9 May 2011 and in the seminar convened on 20 May 2011 by the Gender and Nutrition Department of the University of Hohenheim. He also held meetings with the Standing Committee on Nutrition secretariat, with representatives of the Global Alliance on Improved Nutrition, including the chair of its board, and received regular updates on the Scaling Up Nutrition initiative, including by taking part in the High-Level Meeting on Nutrition in New York on 20 September 2011. He received briefs from various stakeholders and scientists from all regions, including the Harvard Law and International Development Society and Oxford Pro Bono Publico. What follows are his main conclusions as to how food systems can be made to ensure the right to an adequate diet for each individual.

¹ Committee on Economic, Social and Cultural Rights, general comment No. 12 (2009) on the right to adequate food, paras. 6, 9 and 15.

² Guideline 10.1.

³ Guiding Principles on Business and Human Rights (A/HRC/17/31), principles 11-24.

II. The triple challenge

A. The role of agrifood systems: from increasing production to ensuring sustainable diets

4. Since the 1960s, food security has been linked largely to production, while the links to nutrition were often neglected. Hunger and malnutrition were equated with a lack of calorie intake. In the face of widespread global hunger, this focus was perhaps understandable. But this prompted an overemphasis on increasing agricultural outputs and lowering food prices, while scant attention was paid to ensuring the availability of and accessibility to a wide range of diverse foods containing the micronutrients necessary for the full physical and mental development of children, and for adults to lead healthy and productive lives. In other words, because addressing protein-calorie malnutrition was seen as the major challenge, the requirement of dietary adequacy was neglected. In addition, beyond making foodstuffs available at low prices, the other functions of agriculture—to ensure decent incomes to food producers and to maintain the ecosystems—were not considered.

5. This is changing. Experts now agree that food systems must ensure the access of all to “sustainable diets”, defined as “diets with low environmental impacts which contribute to food and nutrition security and to healthy life for present and future generations. Sustainable diets are protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically fair and affordable; nutritionally adequate, safe and healthy; while optimizing natural and human resources”.⁴ This definition recognizes the need to gear agrifood systems away from an exclusive focus on boosting production and towards integrating the requirements of the adequacy of diets, social equity and environmental sustainability. All these components are essential to achieving durable success in combating hunger and malnutrition, as emphasized by the Special Rapporteur in past reports.

B. Undernutrition and micronutrient deficiency

6. The world is now paying a high price for having focused almost exclusively on increasing production over the past half-century. Undernutrition remains considerable, largely because agrifood systems have not contributed to the alleviation of rural poverty. One in seven people on a global level are still hungry. About 34 per cent of children in developing countries, 186 million children in total, have a low height for age, the most common symptom of chronic undernutrition.⁵ Although the Food and Agriculture Organization of the United Nations (FAO) Food Price Index, adjusted for inflation, indicates that food costs declined from the early 1960s until 2002 (apart from a peak in 1973–1974), the poorest are still too poor to feed themselves in dignity because agriculture has not been designed to support the livelihoods of the most vulnerable and marginalized groups.

7. Additionally, a large number of people (with children and women being affected disproportionately) suffer from micronutrient deficiencies. Vitamin A deficiency affects at least 100 million children, limiting their growth, weakening their immunity and, in cases of

⁴ Definition adopted by consensus by the participants in the International Scientific Symposium on Biodiversity and Sustainable Diets, held from 3 to 5 November 2010 in Rome. See the final report of the Symposium, p. ix, available from www.fao.org/ag/humannutrition/29186-021e012ff2db1b0eb6f6228e1d98c806a.pdf.

⁵ Stunting affects 42 per cent of children in sub-Saharan Africa, and 48 per cent in South Asia. See www.unicef.org/nutrition/index_statistics.html.

acute deficiency, leading to blindness and to increased mortality. Between four billion and five billion people suffer from iron deficiency, including half of the pregnant women and children under 5 in developing countries, and an estimated two billion are anaemic. Iron deficiency impairs growth, cognitive development and immune function, and it leads children to perform less well in school and adults to be less productive. Iodine and zinc deficiencies also have adverse impacts on health and reduce the chances of child survival. About 30 per cent of households in the developing world do not consume iodized salt, and children born to highly iodine-deficient mothers are likely to experience learning disabilities or cretinism. Finally, lack of certain vitamins and minerals may also affect physical and mental development and the immune system.⁶

8. Like undernutrition, micronutrient deficiency or “hidden hunger” is a violation of a child’s right to a standard of living adequate for the child’s physical and mental development, and to the enjoyment of the highest attainable standard of health, recognized under article 6, paragraph 2, and article 24, paragraph 2 (c), of the Convention on the Rights of the Child. The environment, not genetics, explains differences in child development between regions. The WHO Child Growth Standards demonstrate that infants and children from geographically diverse regions of the world experience very similar growth patterns when their health and nutrition needs are met, so that all children have in principle the same development potential.⁷ States, therefore, have a duty to support exclusive breastfeeding for six months and continued breastfeeding, combined with adequate complementary foods, until the second birthday of the child; and to establish food systems that can ensure each individual’s access not only to sufficient caloric intake, but also to sufficiently diverse diets, providing the full range of micronutrients required.

C. Overweight and obesity

9. An additional nutritional challenge concerns people whose caloric intakes exceed their needs. Today, more than one billion people worldwide are overweight (with a bodily mass index (BMI) >25) and at least 300 million are obese (BMI >30). Overweight and obesity cause, worldwide, 2.8 million deaths, so that today 65 per cent of the world’s population live in a country (all high-income countries and most middle-income countries) where overweight and obesity kills more people than underweight.⁸ In a country such as the United States of America, this means that today’s children could have shorter life expectancies than their parents.⁹ But obesity and non-communicable diseases (NCDs) linked, in particular, to unhealthy diets are no longer limited to rich countries (see figures 1 and 2). It is estimated that by 2030, 5.1 million people will die annually before the age of 60 from such diseases in poor countries, up from 3.8 million today.¹⁰ Obesity and overweight affect 50 per cent or more of the population in 19 of the 34 Organization for Economic Cooperation and Development (OECD) countries,¹¹ but they have become public health challenges in all regions (see figure 2). Death and disease from NCDs now outstrip communicable diseases in every region except Africa, and it is expected that NCD deaths will increase globally by 15 per cent between 2010

⁶ See www.unicef.org/nutrition/index_bigpicture.html.

⁷ See www.who.int/entity/childgrowth/2_why.pdf.

⁸ WHO, *Global Status Report on Noncommunicable Diseases 2010* (Geneva, 2011), p. 2; WHO, *Global Health Risks: Mortality and Burden of Disease Attributable to Selected Major Risks* (Geneva, 2009), pp. 16 and 17.

⁹ S.J. Olshansky and others, “A potential decline in life expectancy in the United States in the 21st century,” *New England Journal of Medicine*, vol. 352, No. 11 (2005), p. 1143.

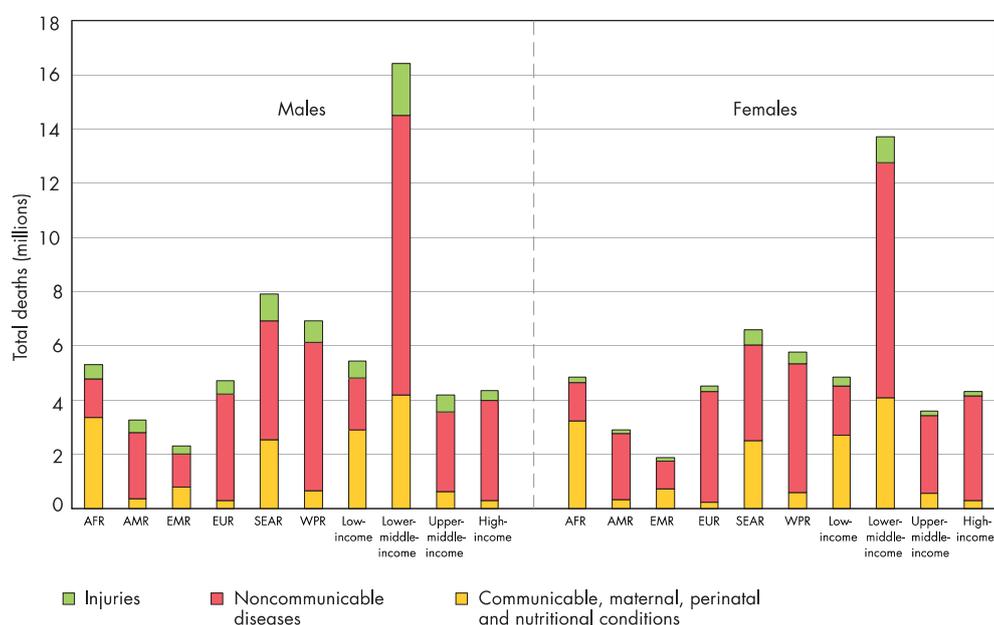
¹⁰ R. Beaglehole and others, “Priority actions for the non-communicable disease crisis,” *Lancet*, vol. 377, No. 9775 (2011), pp. 1438-47

¹¹ OECD, *Health at a Glance 2011* (Paris, 2011), p. 54.

and 2020—and by over 20 per cent in Africa, South-East Asia and the Eastern Mediterranean.¹² Moreover, NCDs are more rapidly fatal in poorer countries. In both South-East Asia and Africa, 41 per cent of deaths caused by high BMI occur under age 60, compared with 18 per cent in high-income countries.¹³ For society, the costs are huge, directly in medical care and indirectly in lost productivity.¹⁴ An important time lag exists between the onset of obesity and the increase in health-care costs, but it has been estimated for instance that the costs linked to overweight and obesity in the United Kingdom of Great Britain and Northern Ireland in 2015 could increase by as much as 70 per cent relative to 2007 and could be 2.4 times higher in 2025.¹⁵ In countries such as India or China, the impact of obesity and diabetes is predicted to surge in the next few years.¹⁶ On average, a 10 per cent increase in NCDs results in a loss of 0.5 per cent of gross domestic product (GDP).¹⁷

Figure 1. Total deaths by broad cause group, by WHO Region, World Bank income group and by sex, 2008

(Note: AFR=African Region, AMR=Region of the Americas, EMR= Eastern Mediterranean Region, EUR= European Region, SEAR=South-East Asia Region, WPR=Western Pacific Region).



Source: WHO, *Global Status Report on Noncommunicable Diseases 2010* (Geneva, 2011), p. 10.

¹² WHO, *Global Status Report*, p. 9.

¹³ WHO, *Global Health Risks*, p. 17.

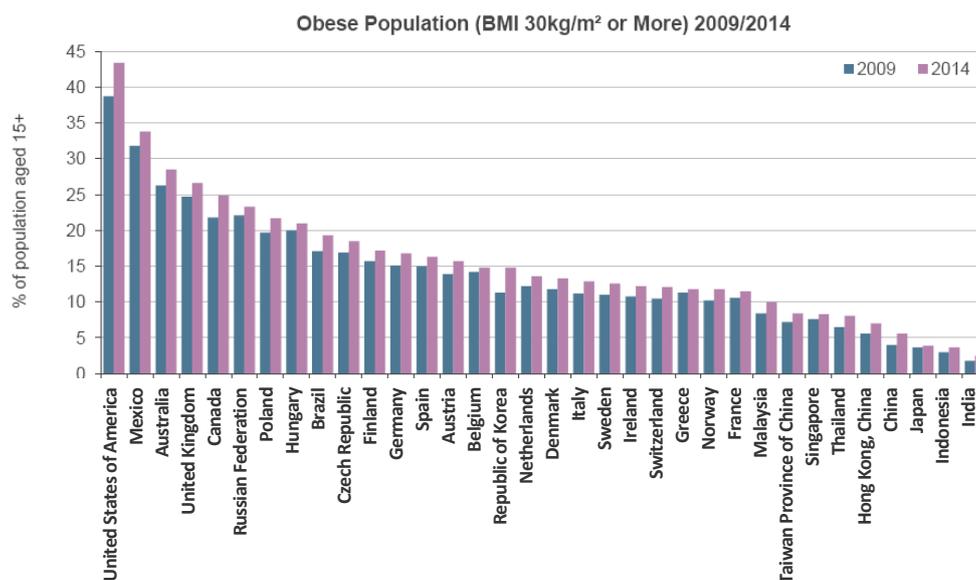
¹⁴ In the United States, direct medical and indirect expenditures attributable to diabetes in 2002 were estimated at US\$ 132 billion, more than doubling the total health-care costs for that year (American Diabetes Association, “Economic costs of diabetes in the US in 2002,” *Diabetes Care*, vol. 26, No. 3 (2003), p. 917; in 2007, the figure was US\$ 174 billion (American Diabetes Association, “Economic costs of diabetes in the US in 2007,” *Diabetes Care*, vol. 31, No. 3 (2008), p. 596. For the Latin America and Caribbean region, diabetes health-care costs amount to US\$ 65 billion per year, or 2 to 4 per cent of GDP (report of the Secretary-General (A/66/83), para. 28).

¹⁵ United Kingdom, Government Office for Science, *Tackling Obesities: Future Choices* (2007), p. 40.

¹⁶ B.M. Popkin, “Will China’s nutrition transition overwhelm its health care system and slow economic growth?” *Health Affairs*, vol. 27, No. 4 (2008), p. 1072 (estimating that the indirect economic effects of overweight and obesity could reach 8.73 per cent of GDP in 2025).

¹⁷ WHO, *Global Status Report*, p. 3.

Figure 2.



Source: Euromonitor International, *Cardiovascular Health: A Key Area of Functional Food and Drinks Development* (June 2010).

10. The health impacts of bad diets are well known.¹⁸ Diets rich in salt and alcohol, combined with a lack of exercise,¹⁹ often result in higher blood pressure, which in turn increases the risks of stroke, heart disease and kidney failure. About 51 per cent of strokes worldwide and 45 per cent of ischaemic heart diseases are attributable to high blood pressure, which affects particularly middle-income European and African countries. Diets high in saturated fats and physical inactivity can increase cholesterol levels, also a risk factor for cardiovascular diseases and responsible for 2.6 million deaths each year.²⁰ Changed diets and lack of physical exercise may cause resistance to insulin or otherwise increase blood glucose, which is responsible for 6 per cent of deaths globally, as this exposes the individuals affected to diabetes, heart disease or stroke. A predisposition to diabetes could be caused by infant formulas that are much higher in advanced glycation end than milk.²¹ Finally, unhealthy diets increase the risks of cancers of the breast, colon, prostate and other organs. Low intake of fruits and vegetables, for instance, increases the risks not only of cardiovascular diseases, but also that of gastrointestinal cancers.

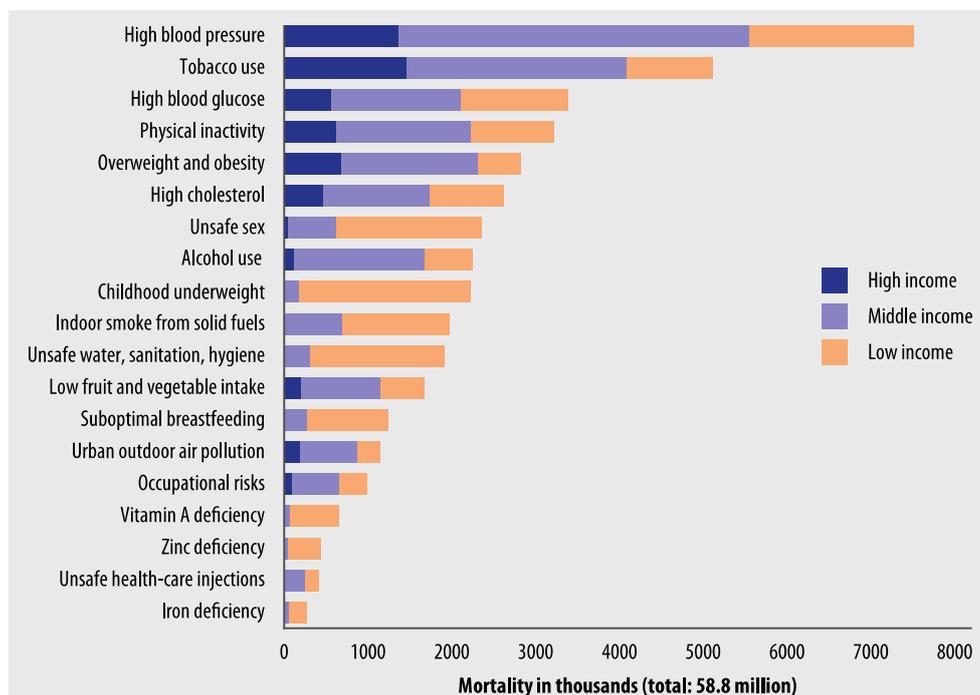
¹⁸ WHO, *Global Health Risks*, pp. 16-18.

¹⁹ In the present report the Special Rapporteur will not discuss the lack of physical exercise resulting from urbanization and changes in modes of transport, an important risk factor that operates in combination with energy-rich diets to cause NCDs. It is estimated to cause around 21–25 per cent of breast and colon cancer, 27 per cent of diabetes and about 30 per cent of ischaemic heart disease burdens.

²⁰ WHO, *Global Health Risks*, p. 16 and *Global Status Report*, p. 2.

²¹ V. Mericq and others, “Maternally transmitted and food-derived glycotoxins,” *Diabetes Care*, vol. 33, No. 10 (2010), pp. 2232-2237.

Figure 3. The 19 leading risks of premature deaths (worldwide, by country-income level, 2004)



Source: WHO, *Global Health Risks: Mortality and Burden of Disease Attributable to Selected Major Risks* (Geneva, 2009), p. 10.

11. The fight against NCDs is underfunded, in part, because it was not included in the Millennium Development Goals adopted in 2000. Less than 3 per cent of development assistance for health goes to combating NCDs, even though they cause more than one third of all premature deaths.²² The poorest segments of the population are affected disproportionately.²³ Poor families may be unable to afford the increased health-care expenditures that result from NCDs. Annually, 100 million people are pushed into poverty because they cannot afford the necessary health services.²⁴ In India for example, treatment for diabetes costs an affected person on average 15–25 per cent of household earnings,²⁵ and cardiovascular disease leads to catastrophic expenditure for 25 per cent of Indian families and drives 10 per cent of families into poverty.²⁶ Furthermore, people who are affected may not be able to work, and their family members may have to provide care, resulting in lost revenues. Poor families may be less educated, on average, about the risks of unhealthy diets, and they lack the resources to improve their diets.

²² R. Nugent and A. Feigl, “Where have all the donors gone? Scarce donor funding for non-communicable diseases”, Center for Global Development Working Paper No. 228 (Washington DC, 2010), p. 17.

²³ Ala Din Alwan and others, “Development at risk: addressing non-communicable diseases at the United Nations high-level meeting,” *Bulletin of the World Health Organization*, vol. 89 (2011), pp. 546-546A.

²⁴ WHO, *World Health Report: Health Systems Financing - The Path to Universal Coverage* (Geneva, 2010), p. 5.

²⁵ A. Ramachandran and others, “Increasing expenditure on health care incurred by diabetic subjects in a developing country: a study from India,” *Diabetes Care*, vol. 30, No. 2 (2007), 252-256.

²⁶ A. Mahal and others, *The Economic Implications of Non-Communicable Disease for India*, Health, Nutrition and Population Discussion Paper (Washington DC, World Bank, 2010).

12. The agrifood systems must be reshaped to address these challenges of malnutrition—undernutrition, micronutrient deficiency, and overnutrition—not in isolation, but concurrently. Malnutrition in all its forms cannot be addressed only by a food sciences approach, such as through the provision of ready-to-use therapeutic foods or micronutrient-enriched “health foods” to combat micronutrient deficiency or the negative health impacts of foods high in saturated fats, trans-fatty acids, sodium and sugar (“HFSS” foods). Ensuring adequate availability of and accessibility to fruits and vegetables and diets that are sufficiently diverse and balanced across food groups requires the rebuilding of agrifood systems. This means prioritizing access to adequate diets that are socially and environmentally sustainable over the mere provision of cheap calories. Any intervention seeking to address the diverse forms of malnutrition described above should be assessed against the requirement that it favour, and does not create obstacles to, such a reprioritization.

III. Addressing micronutrient deficiency

A. Recent nutrition-focused initiatives

13. A number of recent efforts have sought to address micronutrient deficiency, moving beyond the classic focus on low calorie intake. The World Food Programme and the United Nations Children’s Fund (UNICEF) launched in 2006 the Ending Child Hunger and Undernutrition Initiative. In 2008, FAO, WHO and UNICEF launched the Renewed Efforts against Child Hunger and Undernutrition (REACH) initiative, which aims to scale up interventions addressing child undernutrition through the coordinated action of United Nations agencies, civil society, donors and the private sector, under country-led plans. The Secretary-General’s 22-member High-Level Task Force on Food Security has now updated the Comprehensive Framework for Action so that it explicitly addresses food and nutrition security with a focus on links between agriculture, food systems and nutritional outcomes. Finally, the Scaling Up Nutrition (SUN) multi-stakeholder initiative, which was launched in 2009 and has gained momentum since the presentation of the SUN Framework in April 2010, seeks to promote targeted action and investment to improve nutrition for mothers and children in the 1,000-day period from pregnancy to age 2, when better nutrition can have a life-changing impact on a child’s future.

14. In addition to encouraging Governments to adopt national plans to scale up nutrition in their various sectoral policies, SUN includes the establishment of partnerships linking business, civil society and Government to foster scaling up nutrition through nutrition-sensitive interventions along the value chain at the country level. Private-sector interventions include the production of fortified food products, the promotion of nutritionally healthy behaviour, the shaping of work environments allowing women to ensure good nutrition for themselves and their children, ensuring that lower-income groups can access nutritionally valuable products, and building local capacity through the transfer of knowledge and technology. Some of these partnerships are supported by the Global Alliance for Improved Nutrition (GAIN). A public-private partnership, GAIN was launched at the 2002 special session of the General Assembly on children. It has since established links with 600 companies across 36 large projects in more than 25 countries to improve access to missing micronutrients in diets. According to GAIN promoters, it reaches nearly 400 million people with nutritionally enhanced food products.

B. The challenge of sustainability

15. Assessments of these various nutrition promotion initiatives and the projects under the umbrella of the SUN initiative fall outside the scope of the present report. The increasing international profile of nutrition should be welcomed. It is positive too that SUN acknowledges the need for efforts to scale up nutrition to be driven by national authorities with a cross-sectoral approach, and that it brings together commitment and support from developing country Governments, donors, civil society, development agencies and the private sector. In providing assistance however, these actors must not overlook the entitlements that have been established under international law for women, children, minorities, refugees and internally displaced persons, and other groups that may be subjected to marginalization and discrimination. The Special Rapporteur, while welcoming the progress made through SUN, calls for an explicit alignment of its initiatives with human rights, including the right to food. A number of observations should be made in this regard.

16. First, it is troubling that the 1981 International Code of Marketing of Breast-milk Substitutes²⁷ and subsequent World Health Assembly (WHA) resolutions remain under-enforced, despite the wide recognition that exclusive breastfeeding for the six first months and continued breastfeeding, combined with safe and adequate complementary foods, up to 2 years old or beyond is the optimal way of feeding infants, and reduces the risk of obesity and NCDs later in life.²⁸ Countries committed to scaling up nutrition should begin by regulating the marketing of commercial infant formula and other breast-milk substitutes, in accordance with WHA resolution 63.23, and by implementing the full set of WHO recommendations on the marketing of breast-milk substitutes and of foods and non-alcoholic beverages to children, in accordance with WHA resolution 63.14.

17. Second, the focus on pregnant and lactating women and infants in some recent nutrition initiatives, while understandable, should not lessen the need to address the nutritional needs of others, including children, women who are not pregnant or lactating, adolescents and older persons. The right to adequate food, which includes adequate nutrition, is a universal right guaranteed to all. This pleads in favour of broad-based national strategies for the realization of the right to food that address the full range of factors causing malnutrition, rather than narrowly focused initiatives that address the specific needs of a child's development between conception and the second birthday.

18. Third, interventions aimed at improving nutrition and targeting pregnant or lactating women and children under 2 years old, while vital, do not substitute for addressing the structural causes of undernutrition or inadequate diets. The Special Rapporteur noted previously that chief among these structural causes are inequitable food systems that are not sufficiently inclusive of the poorest, small-scale farmers and that do not reduce rural poverty;²⁹ and the priority given to monocropping of certain staples over more diverse farming systems that would help to ensure more adequate diets.³⁰ The violations of women's rights, gender inequality and the lack of women's empowerment are another major factor explaining poor nutritional outcomes. Improving women's access to productive resources,³¹ allowing women to make decisions regarding the household

²⁷ Adopted by WHA in its resolution 34.22.

²⁸ See the Political Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases (General Assembly resolution 66/2, annex, para. 43 (i)).

²⁹ A/HRC/13/33 and A/66/262 (food chains), A/65/281 (access to land), A/64/170 (seed policies).

³⁰ A/HRC/16/49, paras. 26-27.

³¹ See FAO, *The State of Food and Agriculture 2010-11: Women in Agriculture – Closing the gender gap for development* (Rome, 2011); closing the gender gap in agriculture would increase agricultural output by 2.5-4 per cent, thus reducing poverty and hunger (p. vi).

budget³² and protecting women from pressure, including economic pressure, to renounce optimal breastfeeding practices would contribute significantly to positive nutritional outcomes.

19. The efforts on these fronts must continue. Nutrition interventions should be but one part of broader-based strategies for the realization of the right to adequate food. For example, the provision of fortified foods (enriched to improve nutritional content) may be necessary, where local production is insufficiently diversified and incapable of supplying the full range of foods required for adequate diets. Rebuilding and strengthening local food systems through diversified farming systems to ensure the availability of and accessibility to adequate diets will be more sustainable in the long term. Food systems based on local knowledge and conditions, such as homestead or community gardens, can be a cost-effective way to combat micronutrient deficiency, as demonstrated by examples in Bangladesh, Cambodia, Nepal, the Niger and South Africa,³³ such alternative food systems present the additional advantage of increasing local incomes and resilience to price shocks, another pathway through which positive nutritional outcomes can be achieved.

20. Fourth, potential concerns exist regarding the relationship between solutions that rely on imported technologies and products and the local contexts in which these solutions are applied. Technology has a key role to play in improved nutrition. For instance, the iodization of salt is a cost-effective way to reduce iodine deficiency. Biofortification—the improvement at crop level of the micronutrient content of staples—can provide important benefits for rural populations, improving their access to micronutrient-rich foods produced locally at more affordable prices, as illustrated by the adoption of the orange-fleshed sweet potato in Mozambique that reduced vitamin A deficiency significantly.³⁴ But such technologies could result in long-term dependency for the communities concerned if protected by intellectual property rights. Moreover, opportunities and market access for local farmers could be reduced if they result in the creation of new markets that are captured by the economic actors introducing such technologies.

21. The discussion surrounding the contributions made by GAIN provides an illustration. One reason companies partner with GAIN is to reach the “bottom of the pyramid,” i.e., potential customers who are too poor to constitute a solvent market in the short term. GAIN-supported initiatives, however, should not bar the emergence of sustainable and equitable solutions in which people are served by local producers. Some GAIN projects do build the capacity of local partners and can continue in the long term without external support. But any such interventions should include a clear exit strategy to empower communities to feed themselves. In this regard, donors should make their support to GAIN conditional upon such a requirement of subsidiarity and upon the adoption of a

³² M. Walsh, “Women in food aid interventions: impacts and issues”, in *Time for Change: Food Aid and Development* (World Food Programme, Rome, 2008); a child’s chances of survival increase by 20 per cent when the mother controls the household budget.

³³ See M. Faber and A.J.S. Benadé, “Integrated home-gardening and community-based growth monitoring activities to alleviate vitamin A deficiency in a rural village in South Africa,” *Food, Nutrition and Agriculture*, No. 32 (2003), pp. 24-32. See also A/HRC/19/59/Add.3, paras. 27-29 (on household food gardens and urban agriculture in KwaZulu-Natal Province). For the Asian country examples, see Helen Keller International, “Homestead Food Production for Improving Micronutrient Status of Women and Children, Poverty Reduction and Promotion of Gender Equality,” 2006, and World Bank, *From Agriculture to Nutrition: Pathways, Synergies and Outcomes* (Washington, 2007), pp. 39-42.

³⁴ J. Low and others, “A food-based approach introducing orange-fleshed sweet potatoes increased vitamin A intake and serum retinol concentrations among young children in rural Mozambique,” *Journal of Nutrition*, vol. 137 (2007), pp. 1320-1327.

clear exit strategy. In particular, as noted in the proposal for a draft code of conduct for sustainable diets, “when ecosystems are able to support sustainable diets, nutrition programmes, policies and interventions supporting the use of supplements, RUTF [ready-to-use therapeutic foods], fortificants, and infant formulas are inappropriate and can lead to malnutrition, and ... the marketing of these food substitutes and related products can contribute to major public health problems”.³⁵

C. The added value of a human rights framework

22. The above-mentioned nutrition initiatives can be strengthened by adopting a human-rights based approach (accountability, participation and non-discrimination) and by being integrated into broader national strategies for the realization of the right to food. Such an approach will increase effectiveness and the ability to contribute to sustainable, long-term solutions.

23. *Accountability* requires that, once commitments are made and targets set, progress is monitored, including progress in the delivery of resources, and a failure to achieve results will lead to redefine the means chosen. It is therefore essential that indicators be built to measure inputs, outcomes, and processes, and that corrective action be taken where the resources committed are not made available or when the results do not meet the expectations.³⁶

24. The requirement of *participation*, consistent with guideline 10.3 of the Right to Food Guidelines, ensures that local agricultural and nutrition contexts be considered. It also means that solutions will be demand-driven, that local partners will be identified, and that country-led action will not be equated with government-led action. It also allows identifying alternative solutions based on local knowledge and conditions, such as homestead or community gardens. Participation requires that beneficiaries take part in the process of evaluation, and co-design the solutions that could benefit them most. This is not only empowering, but also enhances the effectiveness of interventions because it builds a feedback loop to facilitate ongoing learning and improvement of policies.

25. The requirement of *non-discrimination* ensures that interventions are targeted, with a focus on the most vulnerable and marginalized groups, and that they are gender sensitive. Finally, the adoption of *national strategies for the realization of the right to food* by Governments through participatory means should ensure that the needs of all groups are identified, including those of pregnant and lactating women and infants, and actions planned to address those needs. Such strategies should also link efforts to improve nutrition during early childhood with later life, adopting a life-course perspective as recommended by WHO,³⁷ in order to take into account, for instance, that in contrast to breastfeeding, formula feeding may be a cause of obesity; they should facilitate inter-departmental coordination, recognizing that the right to adequate diets requires a collaborative effort

³⁵ Final report of the International Scientific Symposium on Biodiversity and Sustainable Diets (footnote 4 above), p. 16.

³⁶ Compare with the Secretary-General’s Global Strategy for Women’s and Children’s Health launched on 22 September 2010, which is explicitly grounded in the human right to the highest attainable standard of health and sees a key role for accountability.

³⁷ See the Global Strategy on Diet, Physical Activity and Health, WHA resolution 57.17, annex, para. 28. On the importance of this approach, see R. Uauy and J. Kain, “The epidemiological transition: need to incorporate obesity prevention into nutrition programmes,” *Public Health Nutrition*, vol. 5, No. (2002), pp. 223–229.

across all government; and they should create a stable, multi-year framework, providing the necessary conditions both for private investment and for a continued effort of government.

IV. Addressing overweight and obesity

A. The role of agrifood systems

26. In section II, the Special Rapporteur described the considerable growth of non-communicable diseases and preventable deaths in all regions. A wide range of factors explain this evolution. They include tobacco and alcohol use, reduced physical activity linked to urbanization and thus more sedentary lifestyles, and inadequate diets. These avoidable deaths are often attributed to “lifestyle choices”—choices to exercise less, choices to consume more salt, sugars and fats. But the problem is a systemic one. We have created obesogenic environments and developed food systems that often work against, rather than facilitate, making healthier choices.³⁸ The transformation of agrifood systems plays a major part in this trend.

1. Agricultural policies

27. Agricultural production has risen dramatically over the past 40 years, the combined result of crop breeding, intensive fertilizer use, the mechanization of production on large plantations in new cultivated areas and, in countries that could afford it, subsidies supporting farmers and intense research and development efforts. But there was an imbalance in this development. Some basic cereals and soybean were promoted, and the subsidies they benefited from were partly responsible for overproduction and overconsumption.³⁹ In comparison, too little was done to improve the availability and affordability of pulses such as lentils or pigeon peas, or of fruits and vegetables, for instance by reducing post-harvest losses and improving marketing through better transport infrastructure connecting farmers to consumers.

28. What was the result? Between 1961 and 2009, while fruit and vegetable production increased 332 per cent, world oilseed production increased by 610 per cent and meat production increased 372 per cent.⁴⁰ This was associated with shifting diets. Over roughly the same period (1963–2003), developing countries increased the amount of calories they consumed from meat (119 per cent), sugar (127 per cent) and vegetable oils (199 per cent), and industrialized countries also increased vegetable oil consumption (105 per cent). Globally, diets became increasingly energy-dense and rich in sugar, salt and saturated fats, as many higher fibre foods were replaced by heavily processed foods.⁴¹

29. Agricultural policies led to these shifts in diets through two channels. First, maize and soybean have become a conveniently cheap input for the food processing and livestock industries. Most of the world’s soybean is processed into meal to feed animals and into vegetable oil. Increasingly larger quantities of cereals (primarily maize) are used to produce

³⁸ See D. Stuckler and K. Siegel, eds., *Sick Societies: Responding to the Global Challenge of Chronic Disease* (New York, Oxford University Press, 2011).

³⁹ See L.S. Elinder, “Obesity, hunger and agriculture: the damaging role of subsidies,” *British Medical Journal*, vol. 331, No. 7528 (2005), pp. 1333-1336.

⁴⁰ The Chicago Council on Global Affairs, *Bringing Agriculture to the Table: How Agriculture and Food Can Play a Role in Preventing Chronic Disease*, (2011) (study by a group of experts chaired by Rachel Nugent), p. 29.

⁴¹ J. Kearney, “Food consumption trends and drivers,” *Philosophical Transactions of The Royal Society*, vol. 365, No. 1554 (2010), p. 2795.

sweeteners derived from starch (high-fructose corn syrup), largely explaining the global increase in caloric sweetener consumed. In 2000, 306 kcal were consumed per person per day, about a third more than in 1962, and caloric sweeteners by then also accounted for a larger share of both total energy and total carbohydrates consumed.⁴² Because the prices of basic crops went through such a significant decline, the agrifood industry responded by “adding value” by heavily processing foods, leading to diets richer in saturated and trans-fatty acids, salt, and sugars. This, combined with urbanization and higher employment rates for women, precipitated the rapid expansion for processed foods, both domestically and through exports dumped on foreign markets.

30. Another impact on diets was through the price channel, by changing the relative prices of foods in the consumer’s basket. In high-income countries, healthy diets including a wide range of fruits and vegetables are more expensive than diets rich in oils, sugars and fats.⁴³ While this may not be *the* reason why overweight and obesity have been increasing over the years, it is certainly *one* factor among others responsible for this situation. And it leads to important socio-economic disparities in quality diets. Scientists show a strong correlation between low-education and -income levels and higher rates of obesity, type II diabetes and coronary heart disease.⁴⁴

31. This should not be allowed to stand. Any society where a healthy diet is more expensive than an unhealthy diet is a society that must mend its price system. This is even more imperative where the poorest are too poor to feed themselves in a manner not detrimental to their health.

2. The globalization of food chains

32. The globalization of food supply chains affects nutrition in two ways. First, the general pattern has been for developing countries to export high-quality foods, tropical fruits and vegetables in particular, to rich countries, while importing refined grains. This means that while increased trade may have lowered the price of macronutrients in low-income countries (although with a greater vulnerability to price shocks), the reverse has been true for micronutrient-rich products, leading poor families in developing countries to shift to monotonous, micronutrient-poor diets, relying mainly on starchy staples, as more diverse diets may become unaffordable or less affordable than diets comprised of staples.⁴⁵ Nutrition may thus be affected by this “price effect,” resulting from the shift in the relative prices of food commodities.

33. Second, the globalization of food chains leads to a shift from diets high in complex carbohydrates and fibre to diets with a higher proportion of fats and sugars. As a result of this “nutrition transition,” disease patterns shift away from infectious and nutrient-deficiency diseases toward higher rates of coronary heart disease, non-insulin dependent diabetes, some

⁴² B.M. Popkin and S.J. Nielsen, “The sweetening of the world’s diet,” *Obesity Research*, vol. 11 (2003), pp. 1326 and 1328.

⁴³ P. Monsivais and others, “Following federal guidelines to increase nutrient consumption may lead to higher food costs for consumers”, *Health Affairs*, vol. 30, No. 8 (2011), pp. 1471-1477; C. Rehm and others, “The quality and monetary value of diets consumed by adults in the United States”, *American Journal of Clinical Nutrition*, vol. 94, No. 5 (2011), pp. 1333-1339.

⁴⁴ J. Banks and others, “Disease and disadvantage in the United States and in England”, *Journal of the American Medical Association*, vol. 295, No. 17 (2006), pp. 2037-2045; P. Monsivais and others, “Are socio-economic disparities in diet quality explained by diet cost?”, *Journal of Epidemiology and Community Health* (available online only), 2010.

⁴⁵ M.T. Ruel, “Operationalizing dietary diversity: a review of measurement issues and research priorities”, *Journal of Nutrition*, vol. 133, No. 11 (2003), pp. 3911S-3926S.

types of cancer and obesity.⁴⁶ This trend is particularly noticeable in emerging economies,⁴⁷ and the Special Rapporteur studied the mechanisms at work closely in his missions to Brazil,⁴⁸ China,⁴⁹ South Africa⁵⁰ and Mexico.⁵¹ Nutrition transition is accelerated by the expansion of trade in food commodities and by the acceleration of vertical integration in food chains, both of which increase the availability of processed foods.

34. While the globalization of food chains has meant that a diversity of foods are available year-round to certain consumers, it has had negative impacts on local food systems and increased the ecological footprint of food systems. It has also led many consumers to shift towards an increased consumption of staple grains, meat and dairy products, vegetable oil, salt and sugar, and a lower intake of dietary fibre. For instance, the rapid increase in vegetable oil consumption (and thus of fats in diets) can be explained largely by the sudden availability of vegetable oil (particularly soybean oil) at low prices on the world market.⁵² Increased foreign direct investment in the processing industry and supermarket expansions have made processed foods, including in particular soft drinks, accessible to a larger range of consumers (albeit not to the poorest among them). For instance, following the entry into force of the North American Free Trade Agreement, United States companies massively increased investments in the Mexican food processing industry (from \$210 million in 1987 to \$5.3 billion in 1999) and sales of processed foods in Mexico soared at an annual rate of 5 to 10 per cent in the period from 1995 to 2003.⁵³ The resulting rise in soft drink and snack consumption by Mexican children is at the source of the very high rates of child obesity in the country.

35. The impacts of increasingly globalized food chains and the uniformization of diets across the globe have disparate impacts across population groups. As a country transitions towards higher income levels, the burden of overweight and obesity shifts. The poorest segment of the population is at low risk of obesity in poor countries,⁵⁴ but in upper-middle income developing economies (with a gross national product per capita of over about US\$ 2,500) and in high-income countries, it is the poorest who are most negatively affected.⁵⁵ In high-income countries, while the poor bear a disproportionate burden of

⁴⁶ C. Gopalan, *Nutrition in Developmental Transition in South-East Asia*, SEARO Regional Health Paper No. 21 (New Delhi, World Health Organization, 1992).

⁴⁷ B.M. Popkin and P. Gordon-Larsen, "The nutrition transition: worldwide obesity dynamics and their determinants", *International Journal of Obesity*, vol. 28 (2004), pp. S2-S9; A.M. Thow, "Trade liberalisation and the nutrition transition: mapping the pathways for public health nutritionists," *Public Health Nutrition*, vol. 12 (2009), p. 2150.

⁴⁸ A/HRC/13/33/Add.6, paras. 5-7.

⁴⁹ A/HRC/19/59/Add.1, paras. 20-21.

⁵⁰ A/HRC/19/59/Add.3, paras. 55-56.

⁵¹ A/HRC/19/59/Add.2, paras. 48-50.

⁵² C. Hawkes, "Uneven dietary development: linking the policies and processes of globalization with the nutrition transition, obesity and diet-related chronic diseases", *Globalization and Health*, vol. 2, No. 4 (2006).

⁵³ *Ibid.* (noting that consumption of Coca-Cola drinks increased from 275 8oz servings per person per year in 1992 to 487 in 2002, which is higher even than in the United States), seventh page. See also A. Jiménez-Cruz and others, "Consumption of fruit, vegetables, soft drinks, and high-fat-containing snacks among Mexican children," *Archives of Medical Research*, vol. 33, No. 1 (2002), pp. 74-80; T.L. Leatherman and A. Goodman, "Coca-Colonization of diets in the Yucatan," *Social Science and Medicine*, vol. 61, No. 4 (2005), pp. 833-846.

⁵⁴ For the case of Brazil, see R.B. Levy-Costa and others, "Household food availability in Brazil: distribution and trends (1974-2003)," *Revista de Saúde Pública*, vol. 39, No. 4, (2005), pp. 530-540 (noting that the class with incomes above five minimum wages per capita shows a strong increase in the consumption of fats and a decrease in carbohydrate content).

⁵⁵ Popkin and Gordon-Larsen, "The nutrition transition", p. S6.

overweight or obesity, women are particularly at risk because their incomes are on average lower than those of men, and because men in the low-income group often are employed on tasks that are physically demanding and require large expenses of energy. Overweight or obese women tend to give birth to children who themselves tend to be overweight or obese, resulting in lower productivity and discrimination. Thus, socio-economic disadvantage is perpetuated across generations by the channel of overweight or obesity.⁵⁶

3. Marketing of foods and beverages

36. Significant concerns are expressed today about the marketing practices of the agrifood industry, particularly as regards marketing to children. The range of practices is wide: they include television advertising, product placement, promotional partnerships, sales promotions, and direct marketing in schools, among others. Most advertisements promote unhealthy foods, high in total energy, sugars and fats, and low in nutrients. A recent study covering television advertising in Australia, Asia, Western Europe, and North and South America, found that in all sampled countries, children were exposed to high volumes of television advertising for unhealthy foods, featuring child-oriented persuasive techniques, leading the authors to call for regulation of food advertising during children's peak viewing times.⁵⁷ The ability of these marketing practices to change consumer behaviour is remarkable in developing countries, in part because brands of North-based global companies carry positive connotations.⁵⁸

B. Reshaping agrifood systems

37. Governments have become aware of the adverse impacts of the spread of non-communicable diseases, caused by suboptimal breastfeeding and young child feeding and unhealthy diets, and they recognize the urgent need to take action. In 2002 and 2004, respectively, WHA adopted the Global Strategy for Infant and Young Child Feeding and the Global Strategy on Diet, Physical Activity and Health. The latter recommends, inter alia, reducing energy intake from total fats, shifting fat consumption away from saturated fats to unsaturated fats, and eliminating trans-fatty acids; increasing the consumption of fruits and vegetables, legumes, whole grains and nuts; limiting the intake of free sugars; limiting salt consumption and ensuring that all salt is iodized.⁵⁹ States are encouraged to adopt a national strategy on diets and physical activity; to provide accurate and balanced information to consumers; to align food and agricultural policies with the requirements of public health; and to use school policies and programmes to encourage healthy diets. Infant food manufacturers are expected to comply with provisions of the International Code of Marketing of Breast-milk Substitutes and subsequent relevant WHA resolutions and manufacture their products according to Codex Alimentarius standards. The agrifood industry is expected to reduce the fat, sugar and salt content of processed foods and portion sizes, to increase nutritious and healthy choices, and to review their marketing practices. More recently, in 2011, Governments pledged to promote, protect and support breastfeeding and strengthen the implementation of the International Code and to "reduce the impact of the common non-communicable disease risk factors," including unhealthy

⁵⁶ F. Sassi, *Obesity and the Economics of Prevention: Fit Not Fat* (OECD, 2010), pp. 83-84.

⁵⁷ B. Kelly and others, "Television food advertising to children: a global perspective," *American Journal of Public Health*, vol. 100, No. 9 (2010), pp. 1730-1736.

⁵⁸ WHO, *Marketing of Food and Non-Alcoholic Beverages to Children: Report of a WHO Forum and Technical Meeting, Oslo, 2-5 May 2006*, p. 10.

⁵⁹ WHA resolution 57.17, annex, para. 22.

diets, by implementing “relevant international agreements and strategies, and education, legislative, regulatory and fiscal measures.”⁶⁰

38. These advances remain short of what the situation requires. The emphasis remains largely on demand-side measures, focused on consumers’ choices, rather than on the supply side: the range of foods made available to consumers and the prices of different types of food. And commitments remain voluntary. States should protect the right to adequate food by adopting measures that reduce the negative impacts on public health of the existing food systems. Moreover, States should discharge their duty to fulfil the right to adequate food by taking immediate measures to progressively make a transition to more sustainable diets.

1. Protecting and promoting adequate diets

(a) Using taxation to encourage healthy diets

39. The WHO Global Strategy on Diet, Physical Activity and Health refers to the need to rethink fiscal and agricultural policies to align them with public health concerns (paras. 41 (2) and (4)). The introduction of food taxes and subsidies to promote a healthy diet constitutes a cost-effective and low-cost population-wide intervention that can have a significant impact (A/66/83, para. 42). As acknowledged by the recent introduction of such taxes in Denmark, Finland, France and Hungary,⁶¹ the taxation of HFSS foods and beverages can be an effective tool. Price is an important determining factor in consumption levels, and demand elasticity is especially high for snacks and drinks consumed outside the home. Research shows that a 10 per cent tax on soft drinks, which have considerable negative health impacts,⁶² could lead to an 8 to 10 per cent reduction in purchases of these beverages.⁶³ The standard concern raised when such taxes are discussed is that they could penalize the poorest segment of the population, who spend proportionally more of their incomes on food and often are pushed into adopting unhealthy diets. But that concern can be met by using the public revenue from the tax to make healthy foods more affordable, for it is relative prices that must change. The poor are penalized for being poor, both because HFSS foods and soft drinks are cheap and because healthy diets are expensive.⁶⁴

⁶⁰ Political Declaration of the High-level Meeting of the General Assembly (footnote 22 above), para. 43.

⁶¹ In Denmark, Law No. 247 of 30 March 2011 (Fat duty law) imposed, starting 1 October 2011, a new duty on saturated fat in a range of foods, based on evidence that the substitution of saturated fat by polyunsaturated fatty acids reduces the risks of cardiovascular diseases (A. Astrup and others, “The role of reducing intakes of saturated fat in the prevention of cardiovascular disease: where does the evidence stand in 2010?”, *American Journal of Clinical Nutrition*, vol. 93, No. 4 (2011), pp. 684-688). In Hungary, since 1 September 2011 a levy has been imposed on products containing “too much” salt, sugar, or fat – “junk food,” in effect – while taxes on soft drinks have increased by 10 per cent; the revenues shall contribute to meeting the costs of health care.

⁶² L.R. Vartanian and others, “Effects of soft drink consumption on nutrition and health: a systematic review and meta-analysis,” *American Journal of Public Health*, vol. 97, No. 4 (2007), pp. 667-675; G. Woodward-Lopez and others, “To what extent have sweetened beverages contributed to the obesity epidemic?”, *Public Health Nutrition*, vol. 14, No. 3 (2011), pp. 599-609.

⁶³ T. Andreyeva and others, “The impact of food prices on consumption: a systematic review of research on the price elasticity of demand for food,” *American Journal of Public Health*, vol. 100, No. 2 (2010), p. 220.

⁶⁴ In the United States, a pilot study funded under the 2008 Food, Conservation, and Energy Act (“Farm Bill”) showed that a 10 per cent reduction in the price of fruits and vegetables would increase purchases by 7.0 per cent and 5.8 per cent, respectively.

(b) *Revising the existing system of subsidies*

40. Where subsidies are an agricultural policy instrument, they are often biased in favour of large grain and soybean producers, or of the livestock industry. The potential negative externalities on public health and the environment were never considered in shaping those subsidies.⁶⁵ The existing subsidies must now be re-examined in order to align agricultural policies with the requirement of adequate diets.

(c) *Regulating marketing practices*

41. States should implement fully in legislation the International Code of Marketing of Breast-milk Substitutes and subsequent WHA resolutions. But the marketing practices of the food industry have impacts such that bolder action is required. Self-regulation by the agrifood industry has proven ineffective. As noted by the International Obesity Task Force Working Group experts when they developed the Sydney Principles for reducing the commercial promotion of foods and beverages to children, industry codes cannot “substantially reduce the large volume and high impact of marketing obesogenic foods and beverages to children”.⁶⁶ It is one thing to prohibit advertising that “exploits the credulity of children,” but quite another to control the amount of advertising delivered and the appeal it creates for the products, influencing children’s diets.⁶⁷ Even the best practices in the area, such as the EU Pledge initiated in December 2007 by a number of large agrifood companies, do not go as far as they should, namely, to prohibit all advertising that could encourage children to consume more HFSS foods.⁶⁸

42. The General Assembly recognized the problem. It recommended further implementation of the WHO set of recommendations on the marketing of foods and non-alcoholic beverages to children,⁶⁹ and that States consider statutory regulation as the most effective way to reduce the marketing of HFSS foods to children (see para. 22 and recommendation 8 of the WHO recommendations). Indeed, the protection of the human right to adequate food requires nothing less. But efforts should not stop there. Children are not the only victims of marketing practices that promote HFSS foods and make questionable health claims. The power of the agrifood industry to influence diets has been well documented,⁷⁰ and the public budgets for nutrition education are no match for the advertising budgets of fast food and sweet beverage companies.⁷¹ The Special Rapporteur sees no reason why the promotion of foods that are known to have detrimental health

⁶⁵ T. Lang and M. Heasman, *Food Wars: The Global Battle for Mouths, Minds and Markets* (London, Earthscan, 2004), pp. 171-175.

⁶⁶ “The ‘Sydney Principles’ for reducing the commercial promotion of foods and beverages to children”, *Public Health Nutrition*, vol. 11, No. 9 (2008), p. 883.

⁶⁷ C. Hawkes, “Self-regulation of food advertising: what it can, could and cannot do to discourage unhealthy eating habits among children”, *Nutrition Bulletin*, vol. 30, No. 4 (2005), p. 375.

⁶⁸ For the determination of HFSS foods, see the nutrient profiling system developed in the United Kingdom by the Food Standards Agency, which the British Office of Communications used in its regulation of advertising in television programming addressed at children (available from www.food.gov.uk/consultations/ukwideconsults/2008/nutrientprofiling).

⁶⁹ Political Declaration of the High-level Meeting of the General Assembly (footnote 22 above), para. 43 (f).

⁷⁰ See M. Nestle, *Food Politics: How the Food Industry Influences Nutrition and Health*, 2nd ed. (University of California Press, 2007).

⁷¹ M. Story and S. French, “Food Advertising and Marketing Directed at Children and Adolescents in the US,” *International Journal of Behavioral Nutrition and Physical Activity*, vol. 1, No. (3) (2004), second page. In 2001, the budget of the United States Ministry for Agriculture for nutrition education was \$333 million; for the same year, McDonald’s advertising budget was \$635 million, Burger King’s \$298 million, and advertising for Coke and Diet Coke cost \$224 million.

impacts should be allowed to continue unimpeded: these products reduce the life expectancy, in particular, of the poorest segment of the population, who are also the least nutritionally literate, and to protect children only would be like reducing the WHO Framework Convention on Tobacco Control to its article 16, which deals with sales of tobacco products to minors. In addition, an international framework, in the form of an international code of conduct regulating marketing food and beverages in support of national efforts, might be desirable in order to take into account the international nature of commercial promotion of energy-dense, micronutrient-poor food and beverages.

2. The transition to sustainable diets

43. While the agrifood industry is encouraged to produce and develop more healthy foods, very little is said about the need to develop more healthy food systems that can deliver sustainable diets in the holistic sense referred to above. But it is high time to recognize the real tension that exists between a strategy that promotes processed foods, enriched with nutrients to the point that diets become medicalized, and a strategy that promotes local and regional food systems, as well as a shift towards foods that are less heavily processed and thus more nutritious.⁷² For reasons of logistics and seasonality, as well as the urbanization of lifestyles, these two strategies must sometimes be combined, as not all foods can be sourced locally or bought in farmers' markets. But priorities must nevertheless be set in public policies. The market for food products cannot expand infinitely, and choices must be made as to which food system to promote.

44. As noted by WHO, local food systems to improve urban consumers' access to fresh and nutritious foods, particularly fruits and vegetables, has a key role to play in making a shift towards healthier diets (A/66/83, para. 60). This begins by improving the links between local farmers and the urban consumers, although urban and peri-urban agriculture can also make a significant contribution. The urban and rural agendas both can gain by rebuilding local food systems that provide healthy and sustainable diets at affordable prices for consumers. Such diets also can be more easily achieved by shorter supply chains, because such chains are not controlled by large retailers or food processing companies and do not have to depend on national policies that respond to broader economic interests.⁷³ In addition, shorter food chains can improve access to markets and incomes for small-scale local farmers, both in low-income and higher-income countries.⁷⁴ They encourage the enhancement of agrobiodiversity because local food crops can expand, rather than being crowded out by homogenized commodities for the global markets. And they reduce the dependency of food systems on the considerable amounts of energy required for the packaging, processing and transport of food.

45. This shift can be brought about by adequate infrastructure investments—roads and transport facilities linking local food producers to urban consumers—and support for farmers' markets, but also by local sourcing of healthy foods for public institutions such as schools. In 2003, African Governments endorsed the Home Grown School Feeding component of the Comprehensive Africa Agriculture Development Programme, and the

⁷² See Lang and Heasman, *Food Wars*.

⁷³ *Food, Agriculture and Cities: Challenges of food and nutrition security, agriculture and ecosystem management in an urbanizing world*, FAO Food for the Cities multi-disciplinary initiative position paper, 2011, pp. 29 and 41.

⁷⁴ See University of Washington Center for Public Health Nutrition, "How farmers markets can promote access to healthy food", Public Health Research Brief, August 2010; M. Ostrom and others, *Engines of The New Farm Economy: Assessing and Enhancing the Benefits of Farmers Markets for Small and Mid-sized Farms and Communities*, Agriculture Food Research Initiative of the National Institute of Food and Agriculture, United States Department of Agriculture.

2005 World Summit listed “the expansion of local school meal programmes, using home-grown foods where possible” as part of the “quick-impact initiatives” for the realization of the Millennium Development Goals.⁷⁵ In Brazil, where the National School Feeding Program (*Programa Nacional de Alimentação Escolar*) is a major component of the Zero Hunger strategy, municipalities in charge of implementing the programme increasingly take into account the need to combat overweight and obesity in their sourcing policies.⁷⁶ In the United States, the 2010 Healthy, Hunger-Free Kids Act tasks the Department of Agriculture with developing nutritional guidelines for “all foods provided on each school campus” (sect. 9A (b)(2)). In 2008, WHO presented its School Policy Framework, providing useful guidance for the development of nutritional standards for school food. School gardens can also serve this objective.

3. The role of a human rights framework

46. Premature deaths resulting from non-communicable diseases linked to bad diets are deaths that can be avoided, and States have a duty to protect in this regard. By implementing the Global Strategy for Infant and Young Child Feeding and the Global Strategy on Diet, Physical Activity and Health, as well as the Political Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases, States are not only making political commitments but also discharging their duty under international human rights law to guarantee the right to adequate food.

47. As such, States should set binding targets in pursuing a double-track approach: (a) protecting the right to adequate diets; and (b) ensuring a transition towards more sustainable diets. They should ensure accountability, in accordance with the WHO Global Strategy on Diet, Physical Activity and Health,⁷⁷ by establishing independent monitoring mechanisms and allowing individual victims or organizations to file claims against any failures to take the measures required under the national strategy for the realization of the right to food; this is what distinguishes legal obligations from mere policy commitments. Among the indicators that should be used to monitor the implementation of national strategies to prevent non-communicable diseases,⁷⁸ WHO should therefore include the existence of a binding legal framework, clearly allocating responsibilities, and including sanctions where the measures that are pledged are not adopted, and it should include the requirements of participation and non-discrimination that form part of an approach based on human rights.

V. Conclusions and recommendations

48. **The Special Rapporteur concludes that current food systems are deeply dysfunctional. The world is paying an exorbitant price for the failure to consider health impacts in designing food systems, and a change of course must be taken as a matter of urgency. In OECD countries in particular, where farm subsidies remain at high levels, the current system is one in which taxpayers pay three times for a system that is a recipe**

⁷⁵ 2005 World Summit Outcome, para. 34.

⁷⁶ K. Otsuki and A. Arce, *Brazil: A Desk Review of the National School Feeding Program* (World Food Programme, 2007), p. 4.

⁷⁷ See para. 31 (“All partners need to be accountable for framing policies and implementing programmes that will effectively reduce preventable risks to health. Evaluation, monitoring and surveillance are essential components of such actions.”).

⁷⁸ Political Declaration of the High-level Meeting of the General Assembly (footnote 22 above), paras. 61-62 (defining the role of WHO in the establishment of a comprehensive global monitoring framework).

for unhealthy lives. Taxpayers pay for misguided subsidies that encourage the agrifood industry to sell heavily processed foods at the expense of making fruits and vegetables available at lower prices; they pay for the marketing efforts of the same industry to sell unhealthy foods, which are deducted from taxable profits; and they pay for health-care systems for which non-communicable diseases today represent an unsustainable burden. In developing countries, the main burdens remain undernutrition and micronutrient deficiency, but these countries, too, are victims of these failed policies. They are witnessing a rapid shift to processed foods, which are often imported, and the abandonment by the local population of traditional diets. This shift has reduced the opportunities for local farmers to live decently from farming.

49. Combating the different faces of malnutrition requires adopting a life-course approach guaranteeing the right to adequate diets for all, and reforming agricultural and food policies, including taxation, in order to reshape food systems for the promotion of sustainable diets. Strong political will, a sustained effort across a number of years, and collaboration across different sectors, including agriculture, finance, health, education and trade, are necessary for such a transition. In line with these conclusions, the Special Rapporteur makes the following recommendations.

50. States, in accordance with their obligation to respect, protect and fulfil the right to adequate food for all, should:

(a) Adopt a national strategy for the realization of the right to adequate food which integrates the objective of guaranteeing the right to adequate diets for all and sets specific targets and time frames for action;

(b) Transpose into domestic legislation the International Code of Marketing of Breast-milk Substitutes and the WHO recommendations on the marketing of breast-milk substitutes and of foods and non-alcoholic beverages to children, and ensure their effective enforcement;

(c) Adopt statutory regulation on the marketing of food products, as the most effective way to reduce marketing of foods high in saturated fats, trans-fatty acids, sodium and sugar (HFSS foods) to children, as recommended by WHO, and restrict marketing of these foods to other groups;

(d) Impose taxes on soft drinks (sodas), and on HFSS foods, in order to subsidize access to fruits and vegetables and educational campaigns on healthy diets;

(e) Review the existing systems of agricultural subsidies, in order to take into account the public health impacts of current allocations, and use public procurement schemes for school-feeding programmes and for other public institutions to support the provision of locally sourced, nutritious foods, with particular attention to poor consumers;

(f) Adopt a plan for the complete replacement of trans-fatty acids with polyunsaturated fats;

(g) Increase support to farmers' markets and urban and peri-urban agriculture, in land-planning schemes, through fiscal incentives and by ensuring appropriate infrastructure to link local producers to the urban consumers;

(h) Complete the reform of the Standing Committee on Nutrition, in order to ensure that adequate attention is paid to nutrition throughout the United Nations system under multilateral guidance by Governments, with adequate participation of civil society organizations, including farmers' organizations.

51. The private sector, consistent with its responsibility to respect the right to adequate food, should:

(a) Comply fully with the International Code of Marketing of Breast-milk Substitutes, abstaining from promoting breast-milk substitutes, and comply with the WHO recommendations on the marketing of foods and non-alcoholic beverages to children, even where local enforcement is weak or non-existent;

(b) Abstain from imposing nutrition-based interventions where local ecosystems are able to support sustainable diets, and systematically ensure that such interventions prioritize local solutions and are consistent with the objective of moving towards sustainable diets;

(c) Ensure, in the sourcing chains of fortified foods and nutrition-based interventions, that workers are paid living wages, and that farmers are paid fair prices for their products to ensure the right to adequate food of all people affected by the interventions;

(d) Shift away from the supply of HFSS foods and towards healthier foods and phase out the use of trans-fatty acids in food processing.

52. WHO, in discharging the mandate assigned to it by the General Assembly,⁷⁹ should:

(a) Take into account the role of adequate diets in the realization of the right to adequate food and the right to the highest attainable standard of health, and include human rights principles of accountability, participation and non-discrimination in the design of a comprehensive global monitoring framework to address non-communicable diseases, as well as in the indicator frameworks for nutrition under preparation;

(b) Consider the findings of the present report in preparing recommendations for a set of voluntary global targets for the prevention and control of non-communicable diseases.

53. The Scaling Up Nutrition (SUN) Transition Team and stakeholders involved in SUN should:

(a) Improve the SUN agenda by basing all interventions on the human rights principles of accountability, participation, and non-discrimination, and fit them under broader national strategies for the realization of the right to food adopting a life-course approach in order to improve their effectiveness and their ability to contribute to sustainable, long-term solutions;

(b) Take appropriate steps to ensure that such interventions strengthen local food systems and favour the switch to sustainable diets.

⁷⁹ Ibid., paras. 60-63.