

Food security and food safety: a new human approach in the SDGs perspective

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1. The definition of the international law framework concerning the promotion and protection of the right to food and water, also in connection with high standards of food nutrition, has been elaborated within the United Nations system since the '70s and throughout the following decades until the beginning of the 21st century.

2. The main legal reference of the right to food as human right is provided for in Article 11 of the UN Covenant on economic, social and cultural rights: it encompasses the typical features of the second generation of human rights i.e. the individual right to life well-being standards – included the right to food, and the right to be free from hunger, taking in food production, conservation and distribution in respect of basic nutrition principles. So far in the provision we have two interrelated components of the right under exam: the right to access to safe and nutritious food, in respect of own culture, and the right to basic nutrients of food. This kind of right demands on the part of ICESCR Contracting Parties the obligation to be committed to promote all the necessary conditions to achieve it.

Along these lines the ICESCR Treaty Body (TB) adopted in 1999 its General Comment No. 12 on the right to adequate food, assuming that poverty conditions related to hunger, malnutrition and under-nutrition in Developing and Developed Countries are determined not only by effective lack of food but also by scarce access to available food. Thus the TB formulated two basic concepts to differentiate food security from food safety.

From one side it referred to adequacy, linked with availability and accessibility, i.e. the establishment of core parameters – economic, social, cultural and environmental – to grant adequate quantitative and qualitative access to food; it means that the realization of the right to food occurs when individuals or groups of individuals have progressively «physical and economic access at all times to adequate food or means for its procurement». In this sense the safety component is represented by the determination of minimum standards in terms of accomplishment of quantitative and qualitative healthy dietary needs: the food regime entails a sufficient «mix of nutrients to sustain physical and mental growth, development and maintenance» which could be preserved or adapted or reinforced according to human physiological needs. «Dietary diversity and appropriate consumption and feeding patterns [...] ensur[e] that changes in availability and access to food supply as a minimum do not negatively affect dietary composition and intake». At the same time food safety insists on the prevention of «contamination of foodstuffs through adulteration and/or through bad environmental hygiene or inappropriate handling at different stages throughout the food chain» and the counteraction «to identify and avoid or destroy naturally occurring toxins». In relation to adequacy, availability should be pursued by means of direct food production and market distribution, so far allowing individuals to purchase an adequate amount of foodstuff responding to basic requirements of safety and nutrition: in case of under or over-nutrition, the result is always to be in conditions of malnutrition, even when the amount of calories is above the minimum average, due to micronutrient inherent deficiencies. In respect of adequacy also accessibility should be intended as concrete access to food for everyone, without any discrimination as stated in Article 2 of ICESCR, and as affordable foodstuff granting that food costs do not threaten the enjoyment of other fundamental

rights nor force individuals to gain food in violation of fundamental rights nor ultimately give food supply a narrow or restrictive dimension – i.e. a minimum package of calories, proteins and nutrients – being inappropriate quantitatively and qualitatively in relation to own cultural traditions.

The second basic concept that differentiates food security from food safety is the sustainability, i.e. the opportunity to have permanent access to food for present and future generations. It is mainly linked with the notion of food security, incorporating the long-term perspective of food availability and accessibility. Along these lines the latter factors demand for further explanation: availability relates to the means of food production and distribution so that two feedings ways are feasible i.e. direct feeding from productive land or a distribution, processing and market system moving food from the site of production to the site of individual or collective demand. Accessibility has a double meaning: it counts on the satisfactory economic component that «implies that personal or household financial costs associated with the acquisition of food for an adequate diet should be at a level such that the attainment and satisfaction of other basic needs are not threatened or compromised», while the physical accessibility is a prerogative for all individuals, in particular for the so called vulnerable categories (infants and young children, elderly people, the physically disabled, the terminally ill and persons with persistent medical problems, victims of natural disasters, people living in disaster-prone areas and other specially disadvantaged groups) who deserve special attention in terms of food accessibility.

All the above mentioned parameters to determinate adequate, available, accessible and sustainable food security and safety call for different levels of obligations from State authorities in respect of their own populations: the duty to respect, protect and fulfil. The first entails to fully ensure the access to food and to avoid any measure to create possible obstacles to this access; the second consists of the adoption of proper measures to push for a satisfactory access to food for individuals and groups of individuals, in particular from governmental authorities in order to limit potential harm caused by actors other than the State (the so called due diligence principle); the obligation to fulfill means the commitment to facilitate the proactive engagement of State authorities in activities aiming at strengthening food access and use of all available resources for an agreeable livelihood, but also to provide the full exercise of the right to food preventing any form of discrimination or partial enjoyment or a real denial of it, and adopting direct interventions to regulate the access by law in ordinary or emergency situations.

A similar conceptual approach was proposed by the TB in its General Comment No. 15 adopted in 2002 to grant the right of access to water: here the adequacy is based on sufficiency, safety, acceptability, affordability and physical accessibility to water. The explication offered by the TB is based firstly on Article 11§1 of the UN Covenant on economic, social and cultural rights, expressly mentioning the link between this right and the right to food, both pertaining to the wider legal feature of the right to an adequate standard of living. In effect «Water is required for a range of different purposes, besides personal and domestic uses, to realize many of the Covenant rights. For instance, water is necessary to produce food (right to adequate food) and ensure environmental hygiene (right to health)». The first explaining entails the acknowledgement of the concept of sustainability for both the rights under exam, i.e. «the importance of ensuring sustainable access to water resources for agriculture to realize the right to adequate food» for present and future generations. At the same time, as already mentioned, other parameters are also recognized to contribute for the full enjoyment of the right to water, whatsoever linked with the right to food: the adequacy of water for human dignity, life and health i.e. «as a social and cultural good, and not primarily as an economic good». Being the adequacy a relevant basic condition, further factors need to be granted in all circumstances to exercise the right to water. Availability is measured as sufficient and continuous water supply for each individual's ordinary drinking, personal sanitation,

clothes' washing, personal and household hygiene and food preparation: the latter reference reminds us the concept of food security; quality is linked to water conditions free from micro-organisms, chemical substances and radiological hazards representing a threat to a person's health: in this meaning the concept of food safety is included when water is used in domestic cooking; accessibility demands for the opportunity to have access to water and water facilities for everyone, without any discrimination, assuming that it must be granted physically «within, or in the immediate vicinity, of each household, educational institution and workplace», economically so that «direct and indirect costs and charges associated with securing water must be affordable», and in terms of seeking, receiving and impart information concerning water issues.

3. A targeted analysis about the issue under consideration was proposed by the United Nations Organization on Food and Agriculture (FAO).

Starting from the launch of the Freedom from Hunger Campaign in 1969, early debates were focused on the pursuit of sufficient quantitative food supply rather than on its adequacy and quality.

Since on the occasion of the World Food Summit held in 1974, food security has been conceptually defined as follows: «availability at all times of adequate world food supplies of basic foodstuffs to sustain a steady expansion of food consumption and to offset fluctuations in production and prices». It is clear that this preliminary definition contains a reference to food safety, that has been further developed in the 1996 Second World Food Summit: «Food security, at the individual, household, national, regional and global levels [is achieved] when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life». Beside this definition, the Rome Declaration adopted at the end of the Summit introduced the following detailed commitments to be accomplished by FAO Member States: to provide enabling political, social, and economic environment, including trade policies to improve food security; to pursue participatory and sustainable food, agriculture, fisheries, forestry and rural development policies and practices everywhere and at all levels; to prevent and be prepared for natural disasters and man-made emergencies; to promote optimal allocation and use of public and private investments to foster human resources, sustainable food, agriculture, fisheries and forestry systems, and rural development; and to implement, monitor, and follow-up the Plan of Action [launched at the Summit] at all levels in cooperation with the international community.

In other terms in 1996 food safety has been considered as a relevant component of food security in its nutritional dimension, based on scientific parameters which require that foodstuff must remain safe throughout the whole food chain, from production to storage, transport, distribution and sale.

The sectoral competence of FAO contributed for the UN machinery – including other specialized agencies, funds and programmes working in this field – to define the technical and financial assistance to support the economic, social, cultural and environmental development of beneficiaries Countries. This perspective entails a wider and comprehensive approach that is instrumental for the improvement of development cooperation mechanisms, tools and monitoring procedures.

UN Member States, in their capacity of donors, have progressively dealt with food security adopting a common responsiveness to counter act poverty and hunger and to give adequate support to vulnerable people as individuals and family members. The best cooperative action indeed has been based on the right to adequate food and water in quantitative and qualitative terms, being permanently accessible and usable. In the meanwhile the cooperative assistance aims at granting high levels of nutrition, so far preventing under-nutrition or over-nutrition due respectively to scarce or excessive nutritive food components: this means to ensure the highest attainable standard of food

safety, as established and properly ruled by FAO in adopting in 1963 the *Codex Alimentarius* addressed to producers and consumers working and purchasing food at the national and international level.

4. The evolution of the two legal concepts under consideration, their mutual and interrelated theoretical linkages, the basics for the compilation and practical implementation of cooperation projects impacting on the effective access to food and water in Developing and Developed Countries, was confirmed on the occasion of the Millennium Summit in 2000.

In effect the UN Millennium Declaration adopted by the UNGA with Resolution 55/2 of 18 September 2000 reminds to the contents of the alleged document illustrating the so called Millennium Development Goals (MDGs), as key targets to be pursued and achieved along the lines of a new idea of international development cooperation in the 21st century.

Assumed that «The proportion of undernourished people in the developing regions has fallen by almost half since 1990. Globally, about 795 million people are estimated to be undernourished. More than 90 million children under age five are still undernourished and underweight», target 1.C, included in the MDG 1, deserves special attention to the issue under consideration providing for the commitment to «Halve, between 1990 and 2015, the proportion of people who suffer from hunger».

5. The idea to sum up the conceptual elements at the core of the definition of the essentials of the international development cooperation in the 21st century by using the word 'sustainable' in a double meaning, not only to mention the environmental component but also the economic and the social ones due to their interconnection and mutual interrelation, has been the new challenge for UN Member States and other relevant stakeholders convened in the Rio+12 Summit on Sustainable Development in June 2012. On this stage the food security was already affirmed underlining the strong linkage with food safety, since the drafting of the Outcome document adopted at the end of the Summit.

In *The Future We Want – Outcome Document* indeed several considerations have been introduced with direct and instrumental reference to the right to food and to security and safety components.

Moving from the notion of the right to food as a means to enjoy the right to an adequate standard of living (para. 8), the strong interrelation among food security, nutrition and sustainable agriculture is widely explored in the Outcome Document in the following terms (paras. 108 ff.). «The right of everyone to have access to safe, sufficient and nutritious food, consistent with the right to adequate food and the fundamental right of everyone to be free from hunger» introduces preliminarily the issue as far as its quantitative and qualitative components, completed by mentioning the security and sustainability of the right, for whom present and future generations are entitled of.

Two other perspectives are suggested to deal with the promotion and protection of the right to food.

The first concerns the agricultural and rural development sectors and the need to enhance sustainable economic, social and environmental progress by supporting agricultural producers (namely «farmers, including small-scale farmers and fisherfolk, pastoralists and foresters»), mainly in Developing Countries, for the achievement of food security and nutrition targets and, consequently, for the increase of agricultural production and productivity, distribution in the domestic and international trade market so far strengthening the food supply chain.

The sustainability of this process implies a comprehensive impact to eradicate hunger and to ensure food security, being economically viable and environmentally appreciable and further explored scientifically and technically to conserve land, water, plant and animal genetic resources, biodiversity and ecosystems and to enhance resilience to

climate change and natural disasters. In this perspective further references to food security are included also in the paragraphs of the Outcome Document relating to the conservation and sustainable use of the oceans and seas and their resources, to possible threats to food security as a consequence of adverse impacts of climate change, to the critical role of biological diversity that if undermined could negatively affect «food security and nutrition, the provision of and access to water and the health of the rural poor and of people worldwide, including present and future generations», to the need to promote an adequate land management to counteract soil and mountains ecosystems degradation.

Assumed that an unsustainable process of the global food system will progressively put more and more pressure on its resources against a growing and diversified demand, food security, including the safety component, has an inherent intergenerational dimension, asking States to adopt appropriate economic, environmental and social policies that are crucial in order to ensure that food will be adequate, available and accessible due to sustainable improved methods of food production, conservation, distribution.

The second perspective through which the promotion and protection of the right to food is pursued attains to «the need to address the root causes of excessive food price volatility, including its structural causes, at all levels, and the need to manage the risks linked to high and excessively volatile prices in agricultural commodities and their consequences for global food security and nutrition, as well as for smallholder farmers and poor urban dwellers». In other words food security should be pursued also within «a universal, rules-based, open, non-discriminatory and equitable multilateral trading system [adequately promoting] agricultural and rural development in Developing countries».

The linkage between the right to food and the right to water and sanitation is further included in the Outcome Document due to the relevance of the latter in sustainable development as a whole. Again, beside the fact that the overall ecosystem needs to be properly protected and managed by reducing water pollution and increasing water quality, improving wastewater and water efficiency and reducing water losses, assumed the use of water for food and nutrition purposes, the economic component is mentioned in order to «mobilize financial resources and investment in infrastructure for water and sanitation services, in accordance with national priorities».

Against this conceptual background the role of FAO and, in particular, of its Committee on World Food Security, is mentioned in the Outcome Document to enhance «its role in facilitating country-initiated assessments on sustainable food production and food security», in line with the 2004 Voluntary Guidelines to Support the Progressive Realization of the Right to Adequate Food in the Context of National Food Security, followed in 2006 by the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security. In the first ones the right to food was legally explored according to a duty-based approach, demanding for due diligence standards on behalf of States to guarantee its progressive implementation; in the latter ones the integrative function of access to land and natural resources, including water, was specifically stressed.

Moreover the recommendations included in the Final Report of the Rio+20 Conference concerning the issue under exam are worth of mentioning: to promote at the best food and nutrition security, all relevant national, international, institutional and not institutional, individual and collective stakeholders are committed to: «Promote food systems that are sustainable and contribute to the improvement of health; Develop policies to encourage the sustainable production of food supplies directed at both producers and consumers.

3. Eliminate poverty and poverty-related malnutrition. Empower women farmers, smallholder farmers, young farmers and indigenous people. Ensure their access to land, water and seeds, as well as their full involvement in public decision-making regarding food production and food and nutrition security».

6. Following these recommendations the UN Secretary-General launched at Rio+20 the Zero Hunger Challenge Initiative, calling on governments, civil society, faith communities, the private sector, and research institutions to unite to end hunger and eliminate the worst forms of malnutrition. The formulation of some targets to be achieved in a short term perspective (zero stunted children under the age of two; 100% access to adequate food all year round; sustainability of all food systems; 100% increase in smallholder productivity and income; zero loss or waste of food) have been at the core of the definition of the most recent parameters debated at the UN in New York and Geneva within the 2030 Development Agenda framework. This approach reiterates the original interrelation between the two concepts under exam but also reinforces the sustainable development cooperation at large leading to the new comprehensive formulation of SDG 2, its targets and sub-targets: 'End hunger, achieve food security and improved nutrition and promote sustainable agriculture'. Indeed SDG 2, according to an interdependent approach, encompasses the linkages among supporting sustainable agriculture, empowering small farmers, promoting gender equality, ending rural poverty, ensuring healthy lifestyles, tackling climate change.

For this reason an ad hoc comprehensive analysis of the SDG 2 is needed at this stage to evaluate if it not only takes in previous traditional conceptual components concerning the definition of the right to food in terms of security and safety but also could be properly achieved in the new international development cooperation vision towards the 2030 time limit.

The UNGA Resolution 70/1 adopted on 21 October 2015 and titled 'Transforming our world: the 2030 Agenda for Sustainable Development' makes an explicit and appropriate reference to food security in the UN and Member States «ambitious and transformational vision»: our future world is «A world where we reaffirm our commitments regarding the human right to safe drinking water and sanitation and where there is improved hygiene; and where food is sufficient, safe, affordable and nutritious» (para. 7), so far setting food security and nutrition among the development priorities (para. 17) and working hardly «to end hunger and to achieve food security as a matter of priority and to end all forms of malnutrition» (para. 24).

Having this in mind, the elaboration of SDG 2, comprising ad hoc targets and sub-targets, has been very clear and definite, further linked to SDG 12 (Goal 12. Ensure sustainable consumption and production patterns, target 3: By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses):

«2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round

2.2 By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons

2.3 By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment

2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality

2.5 By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed

and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed

2.a Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries [agricultural technology development is also at the core of the draft resolution proposed by UNGA Second Committee in its Report, Doc. A/70/472]]

2.b Correct and prevent trade restrictions and distortions in world agricultural markets, including through the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round

2.c Adopt measures to ensure the proper functioning of food commodity markets and their derivatives and facilitate timely access to market information, including on food reserves, in order to help limit extreme food price volatility».

In comparison with previous documents including a specific reference to food security and safety, the 2030 Development Agenda and its SDG 2 are framed in a different way: the safety component is quantitatively and qualitatively relevant but its impact is mainly linked with nutrition standards, i.e. micronutrient and dietary lifestyles, from one side, and sustainable soil, land, water agricultural practices and food production and consumption systems from the other side. The key factor on the stage is the challenge to build individual and collective resilience to counter local and large-scale food scarcity and to ensure adequate, available, accessible and sustainable food security and nutrition for all.

7. The establishment or the adaptation of existing tools to properly measure the achievement of SDG 2 is an ongoing process at present, also to avoid the risk that it degenerates in an abstract and unachievable wish list and that all the actors on the stage will not be able to manage basic criticalities to face the multidimensional nature of the right to food and its components by providing for appropriate economic, environmental and social policies in a definite regulatory international setting.

Two relevant means could be mentioned to give a preliminary idea of the work promoted by the UN, in close cooperation with FAO.

The scientific approach used by the Organization for the compilation of its annual report on food insecurity has lead for the FAO State of Food Insecurity 2015 to adopt a revision to collect and deal with estimates for the relevant regional and global aggregates, even if yet linked with the MDG1 vision but already observed along the 2030 Development Agenda standpoint.

It is true that the assessment is based on the measurement of hunger/undernourishment and underweight children under five years of age: FAO has also tried to give some interesting insights of these two indicators linked to the complexity of the food security concept, i.e. by referring to other relevant factors such as the economic growth, the agricultural productivity growth, markets (including international trade) and social protection. It is evident that economic growth is essential not only to reduce undernourishment but also to enhance productivity and incomes of smallholder family farmers; at the same time social protection systems, when properly granted, contribute for the reduction of poverty, hunger and malnutrition by promoting income security and access to better nutrition, health care and education. Furthermore it is ascertained that in Countries that have failed to reach the international hunger targets natural and human-induced disasters or political instability have resulted in protracted crises with increased vulnerability and food insecurity of large parts of the population that demand for an effective counteraction.

As the latter situation, it is evidently confirmed by the assessment of the other tool in use: the Global Hunger Index of 2015, elaborated by the International Food Policy Research Institute (IFPRI).

This Index is based on the multiple definition of the hunger that covers in its essence the condition of distress caused by food lacking, precisely the food deprivation measured by FAO in fewer than about 1,800 kilocalories per day. This leads to nutrition deficiencies in energy, protein, essential vitamins and minerals, determining insufficient food quantity and quality and contributing to a diffuse undernutrition, increased by external factors such as household food insecurity, inadequate maternal health or childcare, scarce health services, safe access to water and sanitation. On the contrary, in addition to undernutrition, for several problems caused by unbalanced dietary regimes based on excessive calories consume or low micronutrient food, diffuse malnutrition conditions are also damaging.

The Global Hunger Index (GHI) has been annually measured since 2010 at the global, regional and country levels (117 Countries, excluding those ones being unable to submit complete data), according to the following main four components indicators: undernourishment, i.e. the proportion of undernourished people as a percentage of the population; child wasting, i.e. the proportion of children under the age of five who suffer from wasting; child stunting, i.e. the proportion of children under the age of five who suffer from stunting; child mortality, i.e. the mortality rate of children under the age of five. For 2015 a revision has been introduced concerning child underweight: instead of the unique reference to child undernutrition, two indicators i.e. child wasting and child stunting have been equally weighted in the GHI calculation. It is clear that GHI is an appreciable tool to measure the multidimensional nature of hunger, focusing not only on the population conditions but also of a vulnerable part of it represented by children, whose dietary lifestyles and proteins and micronutrients assumption must be considered, if at a low rate, a concrete risk of scarce physical and mental development – and so far of food security and safety – which will impact on our future generations.

A last good example of the vivacity of the debate is represented by the launch of the report introducing the SDG Index, published jointly by the Bertelsmann Stiftung and the Sustainable Development Solutions Network, on the occasion of the UN High-Level Political Forum held in New York on 20 July 2016. Undoubtedly the SDG Index could be considered another relevant key-tool to start along a new perspective the monitoring over 149 UN Member States in implementing the 2030 DA. In particular all data provided for SDG 2 contributed for the elaboration of an ad hoc Dashboard about the situation at the country level, in comparison with Countries pertaining to the same regional area, identifying preliminarily priorities for early action and gaps to be closed within the 2030 time limit.