

SUSTAINABLE FOOD SYSTEMS AND HEALTH

THE CONVENIENT TRUTH OF ADDRESSING CLIMATE CHANGE WHILE PROMOTING HEALTH

“CREATING HEALTHY AND SUSTAINABLE FOOD SYSTEMS IS KEY TO OVERCOME HUNGER AND MALNUTRITION AROUND THE GLOBE.”

Helena Semedo,
FAO Deputy Director-General,
Green week, 2014



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“ TACKLING CLIMATE CHANGE:
THE GREATEST OPPORTUNITY
FOR GLOBAL HEALTH. ”

(Lancet 2015)



WHY WE NEED ACTION NOW

FEEDING THE WORLD SUSTAINABLY AND PROMOTING GOOD NUTRITION AND HEALTH UNDER A CHANGING CLIMATE IS ONE OF THE MAIN CHALLENGES OF OUR TIME.

More than half of the world's 7 billion people is affected by a form of malnutrition. Despite the abundance of food supplies, there are still 795 million persons that go hungry every day (FAO, IFAD, WFP, 2015). This affects their ability to work, it negatively impacts the development of their children, exposes them to illness and leads to premature deaths. Approximately 24 percent of children under five years of age are stunted (UNICEF, WHO World Bank, 2015). The health of two billion people is compromised by nutrient deficiencies and 1.9 billion adults are overweight or obese (WHO, 2015).

Climate change has a negative impact on food and nutrition security and the health of millions of vulnerable people, particularly poor women and children. According to the Intergovernmental Panel of Climate Change (IPCC), if current trends continue, it is estimated that an additional 1-3 billion people will be affected by water scarcity and 200-600 million will suffer from hunger by 2080 particularly in sub-Saharan African countries.

The global food system will be further challenged over the coming decades with increases in the human population, changes in diet, climate change and greater demands on energy and water resources (Godfray et al., 2010). Between now and 2050, the world's population will increase by one-third and most of the additional 2 billion people will live in developing countries. Rapidly urbanizing areas in sub-Saharan Africa and South Asia could become potential food insecurity hotspots (FAO, 2009). Changes in dietary patterns towards more production and consumption of meat and animal products present a set of complex challenges for climate change mitigation, for agriculture, for health and for achieving food and nutrition security (FAO, 2009; Tirado et al., 2013; Tilman and Clark, 2014). Meat and animal products provide important sources of proteins, minerals and vitamins but overconsumption is associated with an increased risk of non-communicable diseases (NCDs) such as heart disease, type-2 diabetes and certain types of cancer (Bouvard et al., 2015; Wellesley, Happer and Froggatt, 2015).

Projections show that feeding a world population of 9 billion people in 2050 would require raising overall food production by some 60% (FAO, 2012). High food output achieved in the past has placed great stress on natural resources. The agriculture sector specifically is a major source of greenhouse gas (GHG) emissions. Agriculture, forestry and associated land use and land use change contribute to 20 to 30 percent of the total anthropogenic GHG emissions (Tubiello et al., 2014; 2015). The expansion of livestock and biofuel sectors plays a major role in deforestation and land degradation and contributes to climate change. Other GHG emissions stem from fossil fuel use in the field as well as from across the whole food system continuum, such as food transport, storage, cold chains, processing, and food loss and waste. **Furthermore, globally about one-third of food produced for human consumption per year is lost or wasted.** (Gustavsson et al., 2011; Vermeulen et al., 2012).

Although health is one of the three main aims of the original UN Framework Convention for Climate Change (UNFCCC) (article 1)¹ in 1992, on equal level with natural environment and economy, it has been neglected by the climate discussions ever since. Safeguarding food production is part of the ultimate objective of the UNFCCC (article 2), yet health, food security and nutrition considerations are weak (food security and health) or absent (nutrition) within the current narrative of the UNFCCC Ad Hoc Working Group on the Durban Platform for Enhanced Action.

The challenge today is to sustainably improve nutrition and health through implementation of coherent policies and better coordinated actions across all relevant sectors, strengthening, preserving and recovering healthy and sustainable food systems (FAO, WHO 2014).

1 - <https://unfccc.int/resource/docs/convkp/conveng.pdf>

OPPORTUNITIES TO ADDRESS THESE CHALLENGES

The Rome Declaration on Nutrition, adopted by Member States at the FAO, WHO Second International Conference on Nutrition (ICN2) recognizes the need to address the impacts of climate change and other environmental factors on food security and nutrition, in particular on the quantity, quality and diversity of food produced, taking appropriate action to tackle negative effects (FAO, WHO, 2014).

The ICN2 Framework for Action provides policy options and actions for sustainable food systems promoting healthy diets (FAO, WHO, 2014) including:

- **To review national policies and investments** and integrate nutrition objectives into food and agriculture policy, programme design and implementation, to enhance nutrition sensitive agriculture, ensure food security and enable healthy diets.
- **To strengthen local food production and processing**, especially by smallholder and family farmers, giving special attention to women's empowerment, while recognizing that efficient and effective trade is key to achieving nutrition objectives.
- **To promote the diversification of crops** including underutilized traditional crops, more production of fruits and vegetables, and appropriate production of animal-source products as needed, applying sustainable food production and natural resource management practices.
- **To improve storage, preservation, transport and distribution technologies and infrastructure** to reduce seasonal food insecurity, food and nutrient loss and waste.
- **To establish and strengthen institutions, policies, programs and services** to enhance the resilience of the food supply in crisis-prone areas, including areas affected by climate change.

The ICN2 commitments offer a unique opportunity to address the impacts of climate on nutrition and to promote the co-benefits of sustainable and healthy dietary patterns to health and the environment.

Sustainable Development Goal 2 (SDG2) to "end hunger, achieve food security and improved nutrition and promote sustainable agriculture" commits Member States to end hunger and to achieve food security and to end all forms of malnutrition as a matter of priority. SDG12 requests Member States to ensure sustainable consumption and production patterns and SDG13 urges them to take urgent action to combat climate change and its impacts while acknowledging that the United Nations Framework Convention on Climate Change (UNFCCC) is the primary international, intergovernmental forum for negotiating the global response to climate change.

The mandates are identified, the commitments are made to address the impacts of climate change on health and nutrition; these commitments should now be integrated in the climate change agenda and climate funding mechanisms at national and international levels.

“ **A SUSTAINABLE FOOD SYSTEM IS A FOOD SYSTEM THAT ENSURES FOOD SECURITY AND NUTRITION FOR ALL** IN SUCH A WAY THAT THE ECONOMIC, SOCIAL AND ENVIRONMENTAL BASES TO GENERATE FOOD SECURITY AND NUTRITION OF FUTURE GENERATIONS **ARE NOT COMPROMISED.** ”

(HLPE, 2014)

KEY MESSAGES

→ **SUSTAINABLE AND HEALTHY DIETS CAN CONTRIBUTE TO BOTH A REDUCTION IN GHG EMISSIONS AND IMPROVED PUBLIC HEALTH AND NUTRITIONAL OUTCOMES.** It is necessary to reshape food access and consumption patterns to ensure nutrient requirements of all age groups and all groups with special nutrition needs are met and to foster healthy and sustainable eating patterns worldwide. The IPCC AR5 report highlighted the opportunities to achieve co-benefits from actions that reduce emissions and at the same time improve health by shifting consumption away from animal products, especially from ruminant sources, in high-meat consumption societies, toward less emission intensive healthy diets. Sustainable and healthy diets can be realized by developing a food system that embraces fundamental values such as: establishing a culture of healthy living, embracing equitable solutions, supporting universal food security; encouraging active citizenship to steward natural resources and transparency (DGAC, 2015). These values need to be incorporated in the health, nutrition, food, education, agriculture, water, energy, transport and environmental sectors as well as taken into account when establishing robust and transparent private and public sector partnerships.

→ **ENHANCE SUSTAINABLE FOOD SYSTEMS BY DEVELOPING COHERENT PUBLIC POLICIES FROM PRODUCTION TO CONSUMPTION AND ACROSS RELEVANT SECTORS TO PROVIDE YEAR-ROUND ACCESS TO FOOD THAT MEETS PEOPLE'S NUTRITION NEEDS AND PROMOTE SAFE AND DIVERSIFIED HEALTHY DIETS.** Since food systems have become increasingly complex and strongly influence people's ability to consume healthy diets, coherent action and innovative food system solutions are needed to ensure access to sustainable, balanced and healthy diets for all. Special attention needs to be paid to the promotion of breastfeeding: it provides safe and nutritious food all year-round for infants and young children. Breastmilk is the ideal food under all circumstances but can be particularly beneficial in times of emergencies due to its availability, affordability and safety. Breastmilk is a natural and renewable food that involves no packaging, transportation or fuel to prepare and therefore contributes to environmental sustainability (UNICEF, 2015). The ICN2 Framework for Action recommendations, adopted by the FAO and WHO member states, propose policy options and actions to be implemented. Agreement on shared principles of sustainability in promoting healthy diets is needed (FAO, WHO, 2014).

→ **PROMOTE SUSTAINABLE PRODUCTION AND CONSUMPTION IN FOOD SYSTEMS AND AGRICULTURE.** This concept refers to the integrated implementation of sustainable patterns of food production and consumption, respecting the carrying capacities of natural ecosystems. It requires consideration of all the aspects and phases in the life of a product, from production to consumption, and includes such issues as sustainable lifestyles, sustainable diets, food losses and food waste management and recycling, voluntary sustainability standards, and environmentally-friendly behaviours and methods that minimize adverse impacts on the environment and do not jeopardize the needs of present and future generations (FAO, UNEP, 2014). A practical way to realize this concept is to upscale the use and entrench into relevant policies, Ecosystems Based Adaptation approaches (EBA) to food production, and link these to sustainable value chain processes such as clean energy powered food processing in a continuum (UNEP, 2012).

→ **NUTRITION-SENSITIVE CLIMATE ADAPTATION AND MITIGATION HAS MANY CO-BENEFITS FOR BOTH HEALTH AND THE ENVIRONMENT. ADDRESS FOOD AND NUTRITION SECURITY IN THE NATIONAL ADAPTATION PLANS (NAPs) AND NATIONALLY APPROPRIATE MITIGATION ACTION PLANS (NAMAS).** A combination of nutrition-sensitive, climate-smart strategies and technological development, nutrition-smart investments in the agriculture and food sectors but also in social protection, education and community-based disaster risk reduction areas can contribute to ensure food and nutrition security in a changing climate (Tirado et al., 2013). Policy coherence needs to be ensured through institutional and cross-sectoral collaboration.

→ **ADOPT A MULTI-SECTORAL APPROACH AND GOOD GOVERNANCE.** Reaching and sustaining food and nutrition security in a changing climate requires a multi-sectoral food system approach involving nutrition, agriculture, health, trade, education, water supply and sanitation and social protection, as well as taking into account cross-cutting issues like gender equality, governance, and state fragility.

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