

Submission to UNFCCC Sharm el-Sheikh Joint Work on Implementation of Climate Action on Agriculture and Food Security: Healthy Diets from Sustainable Food Systems

Signed by: Global Alliance for Improved Nutrition; Global Alliance for the Future of Food; Global Panel on Agriculture and Food Systems for Nutrition (GloPan); Scaling Up Nutrition (SUN); Food Systems for the Future (FSF); Clim-Eat; World Wide Fund for Nature (WWF); CGIAR; EAT; Consumers International



Proposal for the Sharm el-Sheikh Joint Work on Implementation of Climate Action on Agriculture and Food Security

This submission requests that the Sharm el-Sheikh Joint Work should:

- Include the concept of healthy diets from sustainable food systems as a key element of the Joint Work, as part of a wider food systems approach, recognising that food systems as a whole (not just agriculture) are part of the problem (contributing around 1/3 of all emissions and being a major driver of biodiversity loss), as well as part of the solution.
- Hold dedicated meetings and sessions on this topic to increase understanding of the linkages between food systems, healthy diets, nutrition and disease outcomes, and environmental sustainability, among all parties.
- Specifically, identify i) where across food systems are the main constraints to sustainability and bottlenecks to ensuring improved diets globally by making nutrient-rich foods available and affordable to all; and ii) what governments and all food system stakeholders can do concretely to transform food systems to support planetary and human health simultaneously.
- Agree relevant performance indicators and measurement tools that track dietary patterns and shifts in food system functions (from being extractive and polluting to sustainable and healthy from farm to fork), incorporating nutrition and health outcomes alongside environmental and social equity outcomes in food systems
- Encourage and facilitate national-level action on healthy diets from sustainable food systems, particularly to integrate climate and nutrition policy, research and finance, accompanying the Initiative on Climate Action and Nutrition (I-CAN) and other relevant multistakeholder initiatives and coalitions

Background

The draft decision -/CP.27 at par 14 requests the Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation of the UNFCCC to establish the four-year *Sharm el-Sheikh joint work on the implementation of climate action on agriculture and food security*, to move towards the implementation of the outcomes of the former Koronivia Joint Work on Agriculture and prior work on issues related to agriculture.

The decision invites Parties and observers to submit by 27 March 2023 via the submission portal and for consideration by the subsidiary bodies at their fifty-eighth sessions in June 2023, views on:

- 1) the elements of the joint work referred to in paragraphs 14–15, including views on topics for the workshops referred to in paragraph 15(b);
- 2) the operationalization of the portal referred to in paragraph 16.

Responding to the call for submission of views on the different elements of decision -/CP.27, this submission requests that the *Sharm el-Sheikh joint work on implementation of climate action on agriculture and food security* pays specific attention to the topic of healthy diets from sustainable food systems.

This submission builds on other submissions proposing a holistic *food systems* approach to the *Sharm el-Sheikh joint work on the implementation of climate action on agriculture and food security*, focusing specifically on consumption and diets, and jointly addressing outcomes across food security, nutrition, environmental sustainability, biodiversity, social equity, and livelihoods.

Introduction to Healthy Diets from Sustainable Food Systems

Food systems play a crucial role in human health and environmental sustainability (which in turn impacts human health). Under increasing pressure from climate change, population growth and other challenges, food systems must provide healthy, nutritious, safe food for all people while staying within planetary boundaries, which includes protecting natural ecosystems, and biodiversity, and driving positive social and economic outcomes, as well as contributing to climate mitigation. A healthy diet from a sustainable food system is therefore a diet with low environmental impacts, but which also contributes to food and nutrition security by supporting healthy lives and livelihoods (new jobs across food systems mainly post farm-gate) for present and future generations, and which promotes economic fairness and equity along food value chains.

More specifically, a healthy diet from a sustainable food system is one which promotes better human health; respects, protects or even regenerates ecosystems, biodiversity, and the environment; fairly recognizes the contributions of all value chain actors; optimizes the use of natural and human resources; minimizes food loss and waste; and prioritizes cultural acceptability, affordability and accessibility to all.

Recognition of all value chain actors in food systems is a necessary qualification because of the importance of ensuring healthy diets from sustainable food systems *for all people*. Those who produce nutritious foods, such as rural smallholder farmers, often consume them in the lowest quantities (as they may sell nutritious foods for income). Due consideration must also be paid to cultures, societal norms, and food environments, as these form integral parts of the food system.

The FAO defines sustainable diets as “*those 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*^[1].”

Healthy and nutritious diets are a key outcome of a functioning food system, and they must be available, accessible, and affordable to all. They must also be provided in an environmentally sustainable way. However, nutrient-dense diets are not *necessarily* and *inherently* good for the environment. Therefore, it is crucial to understand and consider the impacts (both positive and negative), co-benefits, and trade-offs between human health and environmental sustainability as the *joint work* continues.

The environmental impacts of a diet must consider the entire supply chain and 'true costs' of production, processing, distribution, consumption and disposal (the inherent and added value of food as it moves from farm to fork), as well as negative externalities along the chain. In addition,

dietary habits and consumption behaviours should promote best practices to reduce food loss and waste and related environmental impacts on the atmosphere, water, land and biodiversity.

It is important to note that environmental sustainability and food and nutrition security are closely linked and that while they cannot be seen as an either/or choice, there are often trade-offs as we seek to balance the two. The key is to adopt a systems approach, simultaneously considering human health, environmental sustainability, socioeconomic and cultural contexts, and equity throughout the value chain.

Further detail on Characteristics of Healthy Diets from Sustainable Food Systems

The characteristics of a healthy diet from a sustainable food system cannot be one-size-fits-all but, rather, must be read with due consideration to local circumstances and specific characteristics of a country or population group, and adapted accordingly. However, some general principles apply.

Multiple studies^[2,4,5] indicate that certain foods benefit health and have a relatively low negative environmental impact. Plant-based foods generally confer the lowest environmental impact (especially where regionally produced, seasonal, and minimally processed). Specific examples include whole grains; certain fruits and vegetables, tubers; nuts & seeds; legumes (lentils, peas, etc.). Many, though not all, plant-based foods are also rich sources of the micronutrients that are a fundamental underpinning of nutrition and health.^[3]

However, it is important to bear in mind that local contexts and production practices will determine the extent to which foods are environmentally sustainable. For example, fruit and vegetables produced in energy-intensive hothouses in winter in cold countries will be associated with higher environmental impacts than those produced in season in naturally conducive conditions. Equally, certain fruits, vegetables, and nuts and seeds have a large water footprint, so may not be an environmentally friendly option in certain contexts (e.g., very dry, arid regions). Thus, it is important to consider locally specific environmental impacts such as water use, eutrophication, land use and energy, and to produce foods in appropriate [natural] conditions.

An expanding evidence base suggests that refined grains and highly processed foods (both plant-based and from animal sources) tend to be associated with more negative nutritional and environmental consequences^[9,10,11,12, 15, 16]. Therefore, consumption of whole grains and unprocessed or minimally processed foods should be encouraged.^[11] It is worth noting that simple food processing is not negative: it plays an important role in improving food safety, reducing food loss and waste (and the associated environmental harm) and enhancing the nutritional value of food (in the case of food fortification).

Based on current intensive production, processing and distribution methods, animal source foods (ASFs) have higher environmental impact on average per unit mass or calorie.^[15] However, there is large variation in the environmental impact of production practices, and there are many opportunities for more agroecological, regenerative and sustainable production of livestock,^[13] particularly when methods are appropriate for the ecological environment. For example, when they are well-managed, natural rangelands that are not well-suited for agriculture are capable of being used to produce nutritious ASF while at the same time, rebuilding healthy soils, preventing erosion, retaining water, and reducing the need for external inputs. Importantly, unprocessed or minimally processed ASFs have high nutritional value and represent a great source of macro- and micronutrients, including nutrients commonly lacking in diets worldwide, especially in LMICs and/or vulnerable population groups, such as young children^[8, 14].

Moreover, consumption patterns are also important to consider, such as demand for perishable foods transported over long distances^[15] (i.e., when air-freighted), foods eaten out of season^[11], and the energy use and emissions relating to conventional refrigeration (needed to protect perishable nutrient-rich foods), and excessive consumption of animal-source foods in some high-consuming contexts. Although these principles apply in most contexts, it is essential to recognise the trade-offs – especially noting the example of animal-source foods and their essential role in nutrition, which must be balanced with their potential environmental impacts.

There is huge potential for the **Sharm el-Sheikh Joint Work on Implementation of Climate Action on Agriculture and Food Security** to play a global role in better defining the specific ways in which food systems impair sustainability goals, and to identify context-appropriate solutions. Ensuring that nutrient-rich foods are available and affordable to all will contribute hugely to the combined goals relevant to climate change, environmental sustainability, human health and equity.^[17]

Therefore, this submission calls for all dimensions of food systems to be addressed through the joint work, with consumption and diets acknowledged as a critical challenge and potential solution to achieve joint goals across climate, health and nutrition, and development agendas.

References

1. FAO and WHO (2019), Sustainable healthy diets – Guiding principles.
2. FAO (2010), Sustainable Diets and Biodiversity - Directions and Solutions for Policy, Research and Action
3. von Koerber, K., Bader, N. and Leitzmann, C. (2017) 'Wholesome Nutrition: an example for a sustainable diet', *Proceedings of the Nutrition Society*, 76(1), pp. 34–41. doi: 10.1017/S0029665116000616
4. WHO (2018), A healthy diet sustainably produced.
5. Garnett, T. (2014), 'What is a Sustainable Healthy Diet? A discussion paper'. Food Climate Research Network
6. Hennessy, D. A., J. Roosen, and H. H. Jensen. 2003. Systemic failure in the provision of safe food. *Food Policy* 28(1):77–96.
7. FAO (2013), Food Wastage Footprint - Impacts on natural resources: Summary Report.
8. Beal, T. and Nordhagen, S. (2020), 'Animal-source foods for human and planetary health: GAIN Briefing Paper Series 2' <https://doi.org/10.36072/bp.2>
9. Paraskevi Seferidi, Gyorgy Scrinis, Inge Huybrechts, Jeremy Woods, Paolo Vineis. Christopher Millett (2020). The neglected environmental impacts of ultra-processed foods. DOI:[https://doi.org/10.1016/S2542-5196\(20\)30177-7](https://doi.org/10.1016/S2542-5196(20)30177-7). [https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196\(20\)30177-7/fulltext#articleInformation](https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(20)30177-7/fulltext#articleInformation)
10. Hendrie GA, Baird D, Ridoutt B, Hadjikakou M, Noakes M. Overconsumption of Energy and Excessive Discretionary Food Intake Inflates Dietary Greenhouse Gas Emissions in Australia. *Nutrients*. 2016; 8(11):690. <https://doi.org/10.3390/nu8110690> <https://www.mdpi.com/2072-6643/8/11/690#cite>
11. Fardet A, Rock E. Ultra-Processed Foods, and Food System Sustainability: What Are the Links? *Sustainability*. 2020; 12(15):6280. <https://doi.org/10.3390/su12156280> <https://www.mdpi.com/2071-1050/12/15/6280#cite>
12. van Vliet Stephan, Kronberg Scott L., Provenza Frederick D. (2020) Plant-Based Meats, Human Health, and Climate Change. *Frontiers in Sustainable Food Systems* Volume 4. <https://www.frontiersin.org/article/10.3389/fsufs.2020.00128>
13. Jason E. Rowntree, Paige L. Stanley, Isabella C. F. Maciel, Mariko Thorbecke, Steven T. Rosenzweig⁴, Dennis W. Hancock, Aidee Guzman and Matt R. Raven (2020), Ecosystem Impacts and Productive Capacity of a Multi-Species Pastured Livestock System. *Frontiers in Sustainable Food Systems*, Volume 4. <https://www.frontiersin.org/articles/10.3389/fsufs.2020.544984/full>
14. Nutrient gaps and affordability of complementary foods in Eastern and Southern Africa and South Asia (2021) Saul S Morris, Aashima Garg, Robert E Black. *Nutrition Reviews*, Volume 79, Issue Supplement_1, April 2021, Pages 1–3, <https://doi.org/10.1093/nutrit/nuaa149>
15. Monteiro, C., Cannon, G., Moubarac, J., Levy, R., Louzada, M., & Jaime, P. (2018). The UN Decade of Nutrition, the NOVA food classification and the trouble with ultra-processing. *Public Health Nutrition*, 21(1), 5-17. <https://www.cambridge.org/core/journals/public-health-nutrition/article/un-decade-of-nutrition-the-nova-food-classification-and-the-trouble-with-ultraprocessing/2A9776922A28F8F757BDA32C3266AC2A>
16. da Silva, J. T., da Cruz, G. L., Rauber, F., Louzada, M. L., Kluczkowski, A. R. G., Frankowska, A., ... & Levy, R. B. (2020). The impact of ultra-processed food on carbon, water, and ecological footprints of food in Brazil. *European Journal of Public Health*, 30(Supplement_5), ckaa165-433. <https://doi.org/10.1093/eurpub/ckaa165.433>
17. Patrick Webb, Kara Livingston Staffier, Hyomin Lee, Brian Howell, Kyra Battaglia, Brooke M. Bell, Julia Matteson, Nicola M. McKeown, Sean B. Cash, Fang Fang Zhang, Jessica L. Decker Sparks and Nicole Tichenor Blackstone. (Forthcoming 2023). Measurement of Diets that are Healthy, Environmentally Sustainable, Affordable, and Equitable: A Scoping Review of Metrics, Findings, and Research Gaps. *Frontiers in Nutrition*.