

October 2021

Position Paper

Sustainable Dietary Patterns



**EFAD working group: Manuel Moñino,
Andreja Misir, Katerina Belogianni,
Klaus Nigl, Ada Rocha, Angela Garcia
Gonzalez, Katarzyna Janiszewska**

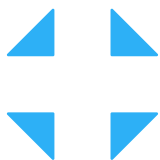
Position Paper was developed as part of the Sustainable Dietary Patterns Program of EFAD Learning supported by an unrestricted educational grant from Danone and Nestle.

Adopted by EFAD General Meeting October 2021

Reference: EFAD Position Paper on Sustainable Dietary Patterns was originally published in *Komp Nutr Diet* 2021;1:118–119 DOI: 10.1159/000519851

We Are The Voice of European Dietetics

We are the umbrella organisation for the National Dietetic Associations across Europe. Our primary goal is to improve nutritional health and promote sustainable diets in Europe by advocating the leadership role for dietitians in collaboration with our members and stakeholders. All with the aim of improving the health and lives of European citizens.



We lead

to impact health
of Europeans




We build

to support and
serve our members



We connect

to advocate and
promote profession



EFAD Position Paper on Sustainable Dietary Patterns

Introduction

Research on sustainable diets is relatively nascent, with a great proliferation in recent years to address different questions related to environmental impact, health and economy. Existing studies suggest that plant-based diets can benefit both health and the environment when compared to a typical western diet^{1,2}. Additionally, poor health outcomes are associated with low intakes of plant-based foods and with high intakes of animal-sourced and ultra-processed foods³.

Food production is a major contributor to greenhouse gas emissions (GHGe) and other drivers of climate change that directly impact the environment on which food production depends⁴. It accounts for 70 to 80 percent of freshwater consumption and 20 to 30 percent of global GHGe and is a major contributor to air and water pollution, as well as soil and biodiversity degradation⁴⁻⁶. The type of foods consumed, overconsumption, food lost in the food chain, and food wasted have become critical considerations for the people and the planet⁴. Our food choices impact our health and the environment.

Thus, a food systems approach is required to ensure healthier and more sustainable diets which cover populations' nutritional needs and protect the environment⁷. To assist in the shift to sustainability, policies affecting food systems must be reformed to address climate change, halt biodiversity loss, curb obesity, and make farming viable for the next generation⁷. In the EU, the European Green Deal already aims at

zero net GHGe by 2050, and economic growth decoupled from resources. This, paired with the Farm to Fork Strategy should result in fairer, healthier, and more sustainable food systems^{8,9}. Also, the WHO's "One Health" initiative endorsed by the EU strives towards better public health outcomes by linking human, animal, plant and environmental health into one strategy comprised of programmes, policies, legislation and research, in which multiple sectors communicate and work together¹⁰.

European dietitians are key agents to facilitate the transition towards more sustainable food systems because they interact with patients, clients, the community, food producers, governments, and civil society organisations⁷. Dietitians can provide advice for an affordable diet that is healthy for humans and beneficial for the planet by favouring those food production systems that minimize degradation of the environment.



Sustainable Diets - Complex Rather than Simple

The Food and Agriculture Organization (FAO) and World Health Organization (WHO) define a Sustainable and Healthy Diet as the following: *“Sustainable Healthy Diets are dietary patterns that promote all dimensions of individuals’ health and wellbeing; have low environmental pressure and impact; are accessible, affordable, safe and equitable; and are culturally acceptable...”*³



European dietitians are key agents to facilitate the transition towards more sustainable food systems.

A healthy and sustainable diet has also been described as a diet comprised of a variety of primarily fresh and minimally processed plant-based foods, sustainably produced vegetable fats, small amounts of minimally processed animal foods, tap water as a primary beverage choice, and very little wasted food¹¹. This approach has been highly criticized as being overly expensive for 20% of the global population - a fact that would worsen the situation for those already at risk of food and nutrition security, mainly from low- and middle-income countries¹². Furthermore, plant-based diets might result in high intakes of starchy and/or ‘sustainable’ highly processed foods, posing a risk to vulnerable groups with special nutritional needs like the elderly, pregnant women and children

even in developed countries¹³⁻¹⁷. Healthy diets are, in general, unaffordable for more than three billion people in low-, middle- and high-income countries while more than 1.5 billion people cannot even afford a diet that only meets the required levels of essential nutrients^{4,18}. Although financial and nutritional constraints are a barrier for many when it comes to a sustainable healthy diet, a large portion of the world’s inhabitants could afford to make more sustainable and healthy food choices. Thus, it is up to local Governments to adapt recommendations and policies to the local situation³.

Another objection to this dietary approach is making no distinctions of food production practices and standards on animal welfare, in addition to the disproportionate emphasis on the threat of animal-source food consumption on sustainability and human health while underestimating the variability of livestock breeding practices and their impact on the use of non-arable land, biodiversity and rural economy^{15,16}. Scaling up plant-based diets needs to comply with sustainable modes of farming, which includes animals as support to the environment and not necessarily as a meat source¹⁹. It is true, that fewer natural resources are required to produce plant food for human consumption than animal-source food^{20,21}. However, not all meat has the same impact on the environment and health. Livestock (cows, pigs, and poultry) produced under the circular economy concept would need less land and would turn crop producing surfaces and grassland to a carbon




Before a dietary pattern is deemed healthy and sustainable, social, environmental, and economic pillars of sustainability within a food system should be considered.

dioxide sink²². Poultry is considered sustainable, however, due to the overconsumption of meat, increasing poultry consumption or advocating poultry over other meats would require even higher industrial production and use of land for monocrops²³.

There is a consensus that diets in high-income countries require lower intakes of animal-source food, and higher intakes of healthy, plant-based foods such as legumes, fruits and vegetables,

nuts and whole grains⁴. To reduce the impact of farming on climate change, the consumption of red meat in some G20 countries is expected to decrease by 71% by 2030 and 81% by 2050^{24,25}. For example, Europeans eat 67.63kg of meat annually, which means that they eat 1.5 portions daily, far more than in Tanzania where per capita meat consumption is 1.5 portions a week^{26,27}. However, some age groups, like the elderly, are also in need of high-quality protein diets, which should be considered when addressing overall diets and sustainability²⁸.





Human health and the environment need to be considered together when addressing food systems from farm to fork. Traditional eating patterns such as the Mediterranean diet, Okinawa diet and Nordic diet are aligned with sustainability principles. Although most of the national food-based dietary guidelines (FBDGs) recommend consuming more fruit, vegetables, pulses and whole-grain cereals, less than half of the world's countries fulfil some of the recommendations and no country fulfils all of them^{24,29}. Additionally, most FBDGs are not compatible with at least one of the global health and environmental targets, and a third are incompatible with the agenda on non-communicable diseases^{24,29}. Thus, for the FBDGs to have an impact on the health of people and the environment clear and consistent policy support is required at the level of individual countries²⁴.

Another important topic in the field of food sustainability are short and long food chains - shortening the food chain can limit concentrations of power and unfair trading practices while supporting the livelihood of small farmers and producers⁷. In addition, the reduction of food waste and loss and consuming local and seasonal foods are all important topics in food sustainability discussion. Thus, the basic principles of safe and healthy food in traditional food markets should emphasize the need for an interconnected perspective on urban-rural food systems, the role that traditional food markets can play in contributing to an environment that promotes health and food safety, advocating

for safe, healthy, sustainable, accessible, and affordable food for the population, with a particular focus on the most vulnerable groups³⁰. When determining a sustainable diet, local interpretation and adaptation of the universally applicable healthy diet are necessary to reflect the local culture, geography, and demography of the population and individuals³.

Diet sustainability should be decided at a country level after considering socio-economic aspects which, besides wealth, reflect traditional dietary patterns and the time required for these patterns to be adequately amended without a negative impact on the health of the population³.

Thus, before a dietary pattern is deemed healthy and sustainable, social, environmental, and economic pillars of sustainability within a food system should be considered³. Some of the important elements in these three pillars include food prices, cultural and nutritional aspects, local and seasonal food, food literacy rates, agricultural and farming practices, food chain specificities, food processing, food waste and food loss^{3,4,31,32}.



A full-page background image of a smiling woman wearing a straw hat and a dark top, holding a large bouquet of white flowers. She is standing in a field of tall grass. The entire image is overlaid with a solid blue color.

Conclusion

An interdisciplinary approach is needed to successfully integrate more sustainable healthy diets into a complex system of food production and supply. To achieve that goal, European dietetic associations and the European dietitian workforce are committed and willing to promote healthier and more sustainable dietary patterns through affordable diets that are diversified, nutritious, less resource-intensive, and produce minimal waste.

EFAD also asks European countries to review their national food-based dietary guidelines to include sustainability aspects as a connecting force for the health and the environment and calls upon policymakers, civil society, food industry, farmers, and consumers to support actions and policies which facilitate transitions towards a healthier and greener Europe.

The time is now and the European dietitians are ready.

1. Health Ontario P. The Environmental Impacts of Sustainable Dietary Patterns 1 EVIDENCE BRIEF The Environmental Impacts of Sustainable Dietary Patterns.; 2021.
2. Chai BC, van der Voort JR, Grofelnik K, Eliasdottir HG, Klöss I, Perez-Cueto FJA. Which diet has the least environmental impact on our planet? A systematic review of vegan, vegetarian and omnivorous diets. *Sustainability* (Switzerland). 2019;11(15). doi:10.3390/su11154110
3. FAO, WHO. Sustainable Healthy Diets - Guiding Principles.; 2019. Accessed April 14, 2021. <http://www.fao.org/3/ca6640en/CA6640EN.pdf>
4. Herrero M, Hugas M, Lele U, Wira A, Torero M. Shift to Healthy and Sustainable Consumption Patterns - a Paper on Action Track 2.; 2021. Accessed April 15, 2021. https://sc-fss2021.org/wp-content/uploads/2020/12/2-Action_Track_2_Scientific_Group_15-12-20.pdf
5. Poore J, Nemecek T. Reducing food's environmental impacts through producers and consumers. *Science*. 2018;360(6392):987-992. doi:10.1126/science.aag0216
6. Ritchie H, Roser M. Environmental impacts of food production Environmental impacts of food and agriculture. Our world in Data. Published online 2020:1-40. Accessed April 15, 2021. <https://ourworldindata.org/environmental-impacts-of-food>
7. EFAD. Sustainable Health Through the Life Span Nutrition as a Smart Investment for Europe. Accessed June 17, 2021. www.efad.org
8. Farm to Fork Strategy. Accessed June 17, 2021. https://ec.europa.eu/food/horizontal-topics/farm-to-fork-strategy_en
9. A European Green Deal | European Commission. Accessed June 17, 2021. https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en
10. One Health. Accessed July 20, 2021. <https://www.who.int/news-room/q-a-detail/one-health>
11. Willett W, Rockström J, Loken B, et al. Food in the Anthropocene: the EAT-Lancet Commission on healthy diets from sustainable food systems. *The Lancet*. 2019;393(10170):447-492. doi:10.1016/S0140-6736(18)31788-4
12. Hirvonen K, Bai Y, Headey D, Masters WA. Affordability of the EAT-Lancet reference diet: a global analysis. *The Lancet Global Health*. 2020;8(1):e59-e66. doi:10.1016/S2214-109X(19)30447-4
13. Scott C. Sustainably sourced junk food? Big food and the challenge of sustainable diets. *Global Environmental Politics*. 2018;18(2):93-113. doi:10.1162/glep_a.00458
14. WHO. Healthy and Sustainable Diets Key workstreams in the WHO European Region. Published online 2021.
15. (FEC) FEC. We need a green diet that's not half-baked | Food Ethics Council. Accessed April 18, 2021. <https://www.foodethicscouncil.org/we-need-a-green-diet-thats-not-half-baked/>
16. Animal source foods_ Sustainability problem or malnutrition and sustainability solution? Perspective matters | Elsevier Enhanced Reader. Accessed June 10, 2021. <https://reader.elsevier.com/reader/sd/pii/S211912419300525?token=A580BD12FEDADC9066A499C9EA46FF23B02633248181056D7311B139FE08E9934EAF35503599A9CEC92F5E022FF20570&originRegion=eu-west-1&originCreation=20210610095442>
17. Zgmutt FJ, Pouzou JG, Costard S. The EAT-lancet commission's dietary composition may not prevent noncommunicable disease mortality. *Journal of Nutrition*. 2020;150(5):985-988. doi:10.1093/jn/nxaa020
18. The State of Food Security and Nutrition in the World 2020. FAO, IFAD, UNICEF, WFP and WHO; 2020. doi:10.4060/ca9692en
19. NUST- Norwegian University of Science and Technology. Position Paper on the European Commission's Farm to Fork Strategy 2020.; 2020. Accessed April 14, 2021. <https://www.ntnu.edu/nv/ntnu-food-forum>
20. Pimentel D, Pimentel M. Sustainability of meat-based and plant-based diets and the environment. In: *American Journal of Clinical Nutrition*. Vol 78. American Society for Nutrition; 2003:660-663. doi:10.1093/ajcn/78.3.660s
21. Poore J, Nemecek T. Reducing food's environmental impacts through producers and consumers. *Science*. 2018;360(6392):987-992. doi:10.1126/science.aag0216
22. van Zanten HHE, Herrero M, van Hal O, et al. Defining a land boundary for sustainable livestock consumption. *Global Change Biology*. 2018;24(9):4185-4194. doi:10.1111/gcb.14321
23. Is eating chicken really better for the environment than eating beef? | Greenpeace UK. Accessed June 22, 2021. <https://www.greenpeace.org.uk/news/is-eating-chicken-better-for-the-environment-than-beef/>
24. EAT. Diets for a Better Future: Rebooting and Reimagining Healthy and Sustainable Food Systems in the G20. EAT report. Published online 2020:39. https://eatforum.org/content/uploads/2020/07/Diets-for-a-Better-Future_G20_National-Dietary-Guidelines.pdf
25. Pe'er G, Bonn A, Bruehlheide H, et al. Action needed for the EU Common Agricultural Policy to address sustainability challenges. *People and Nature*. 2020;2(2):305-316. doi:10.1002/pan3.10080
26. Per capita meat consumption in the EU28. Accessed June 19, 2021. <https://ourworldindata.org/grapher/per-capita-meat-eu28?country=~EU28>
27. Per capita meat consumption by type, Tanzania, 1961 to 2017. Accessed June 22, 2021. <https://ourworldindata.org/grapher/per-capita-meat-consumption-by-type-kilograms-per-year?tab=chart&country=~TZA>
28. Crichton M, Craven D, Mackay H, Marx W, de Van Der Schueren M, Marshall S. A systematic review, meta-analysis and meta-regression of the prevalence of protein-energy malnutrition: Associations with geographical region and sex. *Age and Ageing*. 2019;48(1):38-48. doi:10.1093/ageing/afy144
29. Springmann M, Spajic L, Clark MA, et al. The healthiness and sustainability of national and global food based dietary guidelines: modelling study. *BMJ*. 2020;370:2322. doi:10.1136/bmj.m2322
30. In the WHO European region safe and healthy food in traditional food markets. Published online 2021. Accessed July 20, 2021. <http://apps.who.int/bookorders>
31. Garnett T. Food sustainability: Problems, perspectives and solutions. In: *Proceedings of the Nutrition Society*. Vol 72. Cambridge University Press; 2013:29-39. doi:10.1017/S0029665112002947
32. FAO. Sustainable Diets and Biodiversity. Directions and Solutions for Policy, Research and Action.; 2012.

