

Joint submission on suggested topics under the Mitigation Work Programme in line with the UNFCCC decision-/CMA.4, Matters relating to the work programme for urgently scaling up mitigation ambition and implementation¹

On behalf of the undersigned organizations, we welcome the opportunity to submit our views on dialogue topics under the Mitigation Work Programme (MWP), in line with paragraph 12 of decision -/CMA.4, Matters relating to the work programme for urgently scaling up mitigation ambition and implementation referred to in paragraph 27 of decision 1/CMA.3.²

Noting that the aim of the MWP is to urgently scale up mitigation ambition and implementation through consideration of thematic areas across all sectors, **we propose that food systems transformation, including demand-side solutions such as adopting sustainable healthy diets,³ promoting alternative proteins, and reducing food loss and waste, be considered as a topic under the MWP dialogues.**

Our current global food systems are responsible for one third of human-caused GHG emissions globally⁴ and the livestock sector alone generates around 32% of anthropogenic emissions of methane, a powerful gas about 80 times more potent at warming than carbon dioxide over a 20-year period.⁵ Therefore, as noted in the latest UNEP Gap Report, “any climate stabilization pathway requires a substantial reduction in emissions from food systems.”⁶ The IPCC confirms that “even if fossil fuel emissions were eliminated immediately, food system emissions alone would jeopardise the achievement of the 1.5°C target and threaten the 2°C target.”⁷

The IPCC’s AR6 WGIII report recognizes the significant potential of demand-side mitigation measures in the food sector, specifically:

- *Chapter 5, Demand, Services, and Social Aspect of Mitigation*, finds the mitigation potential of socio-cultural factors related to food (including dietary shift, avoidance of food waste and

¹ [FCCC/PA/CMA/2022/L.17](https://www.unfccc.int/documents/1362832/1362832/FCCC/PA/CMA/2022/L.17).

² Ibid.

³ “The term ‘sustainable healthy diets’ refers to 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’ (FAO and WHO 2019).” IPCC, *Climate Change 2022: Mitigation of Climate Change*, p. 802, https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_FullReport.pdf

⁴ Crippa, M., Solazzo, E., Guizzardi, D. et al (2021) Food systems are responsible for a third of global anthropogenic GHG emissions. *Nat Food* **2**, 198–209 (2021). <https://doi.org/10.1038/s43016-021-00225-9>

⁵ UNEP (2021) Methane emissions are driving climate change. Here’s how to address them. <https://www.unep.org/news-and-stories/story/methane-emissions-are-driving-climate-change-heres-how-educate-them>

⁶ *Emissions Gap Report 2022: The Closing Window – Climate Crisis Calls for Rapid Transformation of Societies*, United Nations Environment Programme (2022), 53-54, <https://www.unep.org/emissions-gap-report-2022>.

⁷ IPCC, *Climate Change 2022: Mitigation of Climate Change*, p. 1285, https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_FullReport.pdf

overconsumption) to be 1.9 GtCO₂eq, and further states, “[i]f changes in land-use patterns enabled by this change in food demand are considered, the indicative potential could reach 7 GtCO₂ eq.”⁸ The chapter also notes that within the Avoid-Shift-Improve (ASI) framework of mitigation options across sectors, “[t]he greatest ‘Shift’ potential would come from switching to plant-based diets.”⁹

- *Chapter 7, Agriculture, Forestry, and Other Land Uses*, finds, “shifting to sustainable healthy diets has large potential to achieve global GHG mitigation targets as well as public health and environmental benefits (high confidence).”¹⁰ In addition to GHG mitigation gains, the chapter highlights multiple co-benefits of a transition towards more plant-based consumption and reduced consumption of animal-sourced foods, including preserving biodiversity and planetary health, preventing forms of malnutrition in developing countries and reducing risks from diet-related diseases and associated health-care system costs.¹¹ The chapter also identifies a range of mitigation options to reduce food loss and waste, which could provide mitigation benefits as well as benefits to food security and poverty reduction.¹²
- *Chapter 12, Cross Sectoral Perspectives*, emphasizes the importance of utilizing a food system approach to identify and evaluate mitigation opportunities, and reiterates that in high consuming countries “reduction of excess meat (and dairy) consumption is among the most effective measures to mitigate GHG emissions, with a high potential for environment, health, food security, biodiversity, and animal welfare co-benefits.”¹³

Similarly, a recent report by the United Nations Convention to Combat Desertification (UNCCD) highlights the need for demand-side food system solutions, stating,

“We need to protect and manage lands through improved consumption and production practices. On the agriculture side, this means sustainable and efficient management techniques that grow more food on less land and with less water. On the consumption side, this means changing our relationships with food, fodder and fiber, moving toward plant-based diets, reducing or stopping the consumption of animals.”¹⁴

Demand-side measures are essential for achieving significant GHG emissions reductions in the food system. Yet the UNEP Gap Report finds these demand-side measures are under-addressed in revised NDCs.¹⁵ Protein diversification, including consumption of legumes and other plant-based proteins as well as investment in alternative protein innovation, is a critical, effective, and underutilized mitigation solution.

⁸ Ibid, 530.

⁹ Ibid, 505.

¹⁰ Ibid, 803.

¹¹ Ibid.

¹² Ibid, 804.

¹³ Ibid, 1305.

¹⁴ UNCCD, *Drought in Numbers (2022)*, p. 5, <https://www.unccd.int/sites/default/files/2022-05/Drought%20in%20Numbers.pdf>

¹⁵ *Emissions Gap Report 2022: The Closing Window – Climate Crisis Calls for Rapid Transformation of Societies*, United Nations Environment Programme (2022), 57, <https://www.unep.org/emissions-gap-report-2022>.

Intensive and large-scale animal agriculture (including intensive farming systems, livestock grazing and feed crop production) is a leading cause of environmental pollution and deforestation worldwide, destroying livelihoods and endangering biodiversity.¹⁶ “Research shows that by 2050, protein diversification could reduce global emissions by 10-14Gt Co2e per year; free up an area of land the size of the Amazon rainforest; and cut global food prices by 10%.¹⁷”

To maximize GHG mitigation gains, a transformation of our food systems must be effective, equitable and sustainable and requires coherence and ambition across policy areas. We therefore encourage Parties under the the Mitigation Work Programme to explore how, as stated by the IPCC, “shifting toward sustainable and healthy diets requires effective food-system oriented reform policies that integrate agriculture, health, and environment policies to comprehensively address synergies and conflicts in co-lateral sectors (agriculture, trade, health, environment protection etc.) and capture spill-over effects, for example, climate change, biodiversity loss, food poverty”.¹⁸

Finally, it is important to recognise that the principle of common but differentiated responsibility also applies to food systems. We therefore call on governments in countries where overproduction and overconsumption of animal-based products is prevalent, particularly in the Global North, to lead the charge in harnessing the critical GHG mitigation potential of food system transformation by developing and delivering clear and ambitious policy measures to shift consumer behavior.



¹⁶ Pendrill, F., U. M. Persson, J. Godar, et al. (2019): Agricultural and forestry trade drives large share of tropical deforestation emissions. *Global Environmental Change* 56 1–10. doi:10.1016/j.gloenvcha.2019.03.002

¹⁷ Climate Works, Foreign Commonwealth and Development Office, [Global Innovation Needs Assessment, Protein Diversity](#)

¹⁸ IPCC, *Climate Change 2022: Mitigation of Climate Change*, p.803, https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_FullReport.pdf