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A call to action for transformation towards nutritious food systems

ood systems are a powerful lever to improve nutrition and global health, yet they are not delivering on this potential. The UK Foreign, Commonwealth & Development Office (FCDO) and the Bill & Melinda Gates Foundation (BMGF) have partnered over the past decade to support a broad-based portfolio of research and programmes oriented towards food systems transformation. In March 2023, FCDO and BMGF convened 170 grantees to take stock of the state of research on nutritious food systems (NFS) and to forge consensus on the next steps needed to inform practice, policy and future strategies. Participants from across the globe, around half from sub-Saharan Africa and South Asia, came together from research and academia; non-governmental organizations; the private sector; and funding agencies. A follow-up consultation took place at the 2023 Agriculture, Nutrition and Health Academy Week in Lilongwe, Malawi, to incorporate broader NFS community views. This commentary outlines key themes identified in these dialogues, including a vision for transformation and critical elements for achieving such change (Fig. 1).

This call to action envisions NFS where everyone enjoys an adequate, healthy diet with nutritious foods that are widely available, affordable, safe and demanded, and the food system is resilient to economic and environmental volatility and does not contribute to environmental pressure and climate change.

Numerous areas for intervention and pathways to NFS have been articulated in published articles and reports^{1,2}. The convening and consultation surfaced nine priority areas in particular need of greater attention.

Improved data availability and access are crucial for progress towards NFS. Priorities in this area include investments in systematic and wide-ranging food systems data collection, free and prompt access to data, improved citizen participation and monitoring of data ethics, and innovation in data and analysis tools.

Industry and retail food markets have a critical role in delivering nutritious food to all. Priorities in this area include disincentivizing production and restricting marketing of



Fig. 1 | **Priorities, principles and processes for nutritious food systems.** Nine priority areas and six principles or processes are most relevant for food systems to achieve their potential. The priority areas in need of greater attention are identified in the centre of the circle, while the principles or processes that underpin transformational change are noted along the outer edge.

unhealthy foods, promoting healthy alternatives, and curtailing negative political and economic influence of the food industry³.

Market infrastructure and governance also need attention to address issues such as inaccessible markets, inefficient and inequitable food distribution, market concentration, food loss and unsafe diets. Priorities include studying, designing and investing in improved market infrastructure and governance in the formal and informal sector.

Trade policies are likewise instrumental for achieving NFS. Governments should enhance trade for healthy diets through tariff reductions on nutritious food imports, support for local food production and establishment of regulatory frameworks that limit speculation and prioritize nutritional quality and the right to food.

Making nutritious food available and affordable is necessary but not sufficient, as consumption is also constrained by inadequate knowledge and low demand driven by preferences, convenience and culture. More research, investment and action are required in innovative demand creation and behaviour change strategies.

Food safety and hygiene prevent contamination and foodborne illnesses and increase consumer confidence. Areas for renewed focus include improved surveillance systems to monitor current and emerging diseases, food safety technological and behavioural innovations, promotion and enforcement of safety standards, and bolstering of public awareness.

Reducing food loss and waste improves availability and affordability of nutrient-dense foods, increasing farmers' incomes while reducing environmental pressures. There is a need for innovation in storage and transport and promotion of best practices to mitigate loss and waste.

Micronutrient interventions can alleviate acute deficiencies or maintain micronutrient sufficiency in low-income communities. It is necessary to design and deliver context-specific

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micronutrient interventions through shifts in the agricultural landscape, diet diversification, food fortification and supplementation.

NFS resilience to climate change and other shocks is essential as food systems contribute to, and are also profoundly influenced by, climate change, environmental pressure, loss of biodiversity and shocks from economic and conflict sources. Priorities include developing metrics to monitor environmental impacts and other disruptions of food systems, innovating mitigation and adaptation actions, supporting agroecological transitions and ensuring NFS are at the heart of climate change and crisis-related frameworks.

The priorities identified above cannot be pursued in isolation but require a transformational yet principled approach to shape food systems that live up to their potential. Central to transformational NFS change is fostering equal partnerships built on co-creation, ensuring all partners are valued and actively involved in defining engagement processes⁴. Equity must underpin the transformation process, with fair distribution of representation, opportunities and resources. To be effective, NFS actions must address and confront power imbalances⁵.

It is crucial that NFS policies and interventions are grounded on a robust evidence base involving both formative and evaluative research. Transparency about the evidence needed and possessed by policymakers and industry is key, with donor support for data sharing and evidence translation. Technical assistance and capacity exchange must be demand driven and context specific, promoting local buy-in and ownership.

Systems thinking is required for systemic change, enabling a holistic understanding of cross-cutting interactions and relationships within and between systems. Finally, to sustain impact with scaling-up, governments and donors must resource medium- and long-term programmes proven effective, and piloting and scaling should be built into programme design.

The members of the NFS Consortium commit to pursuing and supporting these priorities and building movements to bring about transformational change in NFS in accordance with this call to action.

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Competing interests

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Additional information

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Nutritious Food Systems Consortium

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