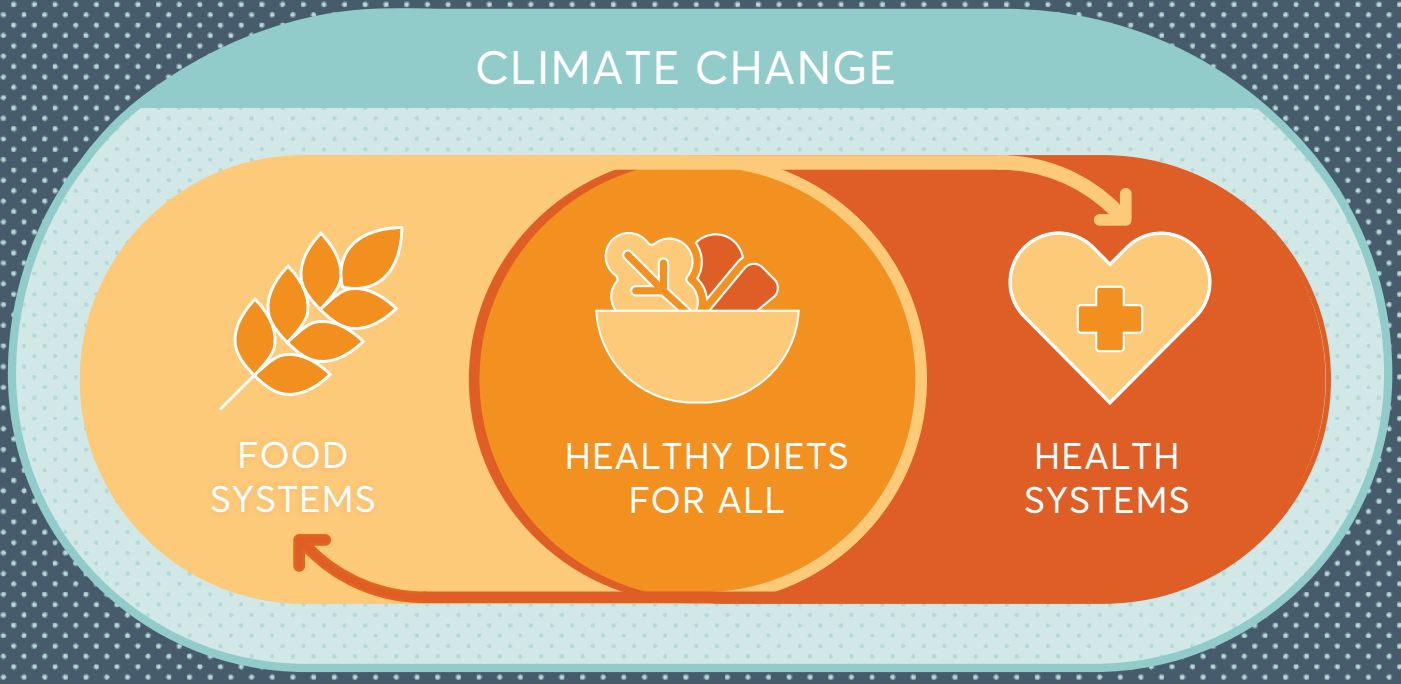
2026

Global Nutrition Report

Integrating food and health systems for climate-resilient nutrition



ENDORSEMENTS

The Aga Khan Development Network welcomes the ***2026 Global Nutrition Report*** and its call for more integrated food and health system approaches to protect nutrition amid conflict, financing constraints, and environmental shocks. The report's evidence-based analysis highlights how interconnected crises are undermining nutrition outcomes and reinforces the importance of cross-sector collaboration grounded in country experience. This aligns closely with the longstanding work of the Aga Khan Foundation, Aga Khan University, Aga Khan Health Services, and partners to strengthen health systems, improve food security and social protection, and generate evidence across fragile settings. We hope the report will guide governments, donors, and development partners in accelerating progress against malnutrition.

Michael Kocher, President, Aga Khan Foundation

Amid converging crises in climate, health and overseas development financing, the ***2026 Global Nutrition Report*** provides both an analytical and practical framework for achieving healthy diets through more coordinated action across food and health systems. Its approach strongly reflects the experience of the National Information Platforms for Nutrition (NIPN), which have evolved into a powerful mechanism for multisectoral, country-led and evidence-informed nutrition action. By strengthening national leadership, governance and institutional capacity, NIPN has demonstrated the value of flexible, collaborative approaches. The report's recommendations are practical and grounded in real-world challenges, offering a focused path toward the global nutrition targets and Sustainable Development Goals.

Laura Barrington, Coordinator, Capacity for Nutrition – National Information Platforms for Nutrition (C4N-NIPN), Knowledge for Nutrition Programme

The ***2026 Global Nutrition Report*** is a timely reminder of the importance of tackling malnutrition and achieving Sustainable Development Goal 2: Zero Hunger. The report highlights key areas that we need to focus on to ensure sustainable, long-term nutrition action, working across food and health systems and promoting integrated approaches which bring together nutrition, environmental, equity and economic outcomes. It also highlights the high cost-benefit return from scaling up nutrition actions through existing primary healthcare platforms and social protection systems as well as supporting more nutritious food systems. This resonates strongly with the UK's priorities on development, climate and women and girls. The UK remains committed to tackling malnutrition in all its forms, and we look forward to collaborating with partners to support integrated approaches that deliver co-benefits on health, poverty, women's empowerment and climate resilience.

Baroness Chapman, Minister for Development and Africa, United Kingdom's Foreign, Commonwealth and Development Office

The ***2026 Global Nutrition Report*** shows that nutrition is deeply connected to climate change, health and sustainable development. It also makes clear that our food and health systems are under real pressure as climate impacts and other overlapping crises grow. Even so, the report reminds us that progress is possible. By strengthening national institutions and making nutrition a core part of everyday health and food systems, countries can protect communities and maintain hard-won gains, even in tight fiscal times. Canada supports the call to move past isolated efforts and focus on integrated, country-led solutions. This approach guides initiatives like the Climate Smart Agriculture and Food Systems Fund, which helps farmers in developing countries access the support they need to adopt sustainable practices that improve food and nutrition security. These efforts show what system-based action can achieve, but the report is clear that more work lies ahead. Canada remains committed to working with partners to support healthier lives for all.

Randeep Sarai, Secretary of State (International Development), Canada

This ***Global Nutrition Report*** has highlighted vital issues that we all must work to resolve: integrating food and health systems, mitigating trade-offs between human and planetary outcomes and meaningfully mitigating gender power asymmetries in decision-making at all levels. But for me the most powerful finding is the gap between promises and subsequent action. One year on from the Nutrition for Growth (N4G) Paris 2025 Summit, that gap is a chasm. We must redouble our work, together, to construct that bridge from promise to action. The billions of people that cannot afford a healthy diet deserve no less.

Lawrence Haddad, Executive Director, Global Alliance for Improved Nutrition (GAIN)

This edition of the ***Global Nutrition Report*** comes at a critical juncture where global promises to deliver the benefits of good nutrition to the most vulnerable women and children in the world are imperilled. Despite an ever-more compelling evidence base demonstrating good nutrition saves lives and lays the foundation for cognitive and physical development, it remains one of the most under-invested domains of global development. The N4G Paris 2025 Summit was a major burst of political, policy and financial commitments, as well as hope in the face of devastating cuts to donor budgets. It is essential to hold all stakeholders accountable for these commitments and to continue prioritising proven investments and policies to put the world back on track to meet nutrition targets for 2030. The ***2026 Global Nutrition Report*** is a call to action on how to face down the headwinds that are hitting the most at-risk communities the hardest.

Shawn Baker, Executive Vice President, Programs and Partnerships, Helen Keller International

We are pleased to endorse the ***2026 Global Nutrition Report***, and to witness its evolution since our early hosting. The report is a welcome call to action in a world where financing is fragmented, data and research systems are under-resourced and the use of high-quality evidence to support effective policies and actions remains a challenge. As IFPRI's own work connects food systems, health systems and social protection-linked actions for nutrition, with a strong lens on gender and economic inclusion, the report's messages resonate strongly with us. We especially commend the report's efforts to track nutrition financing commitments and clarion call on moving from commitments to concrete actions to deliver whilst managing policy trade-offs. IFPRI looks forward to collaborating with the community in taking forward these recommendations. The burden of global malnutrition on the future well-being of humanity and the potential for policy action and financing that simultaneously address nutrition, economic equity and planetary well-being are too important to ignore.

Johan Swinnen, Director General, International Food Policy Research Institute (IFPRI)

Against a backdrop of dramatic falls in official development assistance, especially in nutrition, the highest levels of conflict since World War II, declining multilateralism and escalating food and fertiliser prices, nutrition integration offers a lifeline to keep malnutrition in focus across sectors.

Seventy-nine percent of Scaling Up Nutrition (SUN) countries see cross-sectoral integration of nutrition as a means to maximise return on investments and leverage sectoral co-benefits. In fragile states in particular, we must move beyond short-term relief to a system-strengthening approach that embeds nutrition across development and peacebuilding.

Integration is at the heart of the SUN 4.0 strategy, and so we warmly welcome a growing evidence base in this report that will support policy that focuses on coordinated and integrated nutrition action and shifts gear towards a multi-year outlook.

Joanne Raisin, Director, SUN Movement Secretariat

The ***2026 Global Nutrition Report*** underscores the escalating threats that conflict, climate-related shocks, strained food and health systems and constrained financing pose to diets and progress towards global nutrition targets. Its emphasis on integrating food and health systems — alongside social protection, water and sanitation and stronger governance — reflects the systems-level action long championed by the SUN Movement.

The report's recommendations provide practical pathways for countries to protect nutrition amid converging crises, including integrating nutrition into primary healthcare, prioritising nutrient-dense foods and strengthening accountability. The SUN Movement stands ready to support governments and partners to translate these recommendations into country-led action and accelerate progress towards better nutrition for all.

Jessica Fanzo, Co-chair, SUN Movement Executive Committee and

James Anderson Professor of Food Policy and Ethics, Johns Hopkins University

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The ***2026 Global Nutrition Report*** comes at a defining moment for the global nutrition agenda. In a world shaped by climate shocks, conflict and economic instability, the report makes clear that nutrition is central to resilience, human capital and sustainable development. As the SUN Movement advances its 4.0 vision, the priority must now shift from commitments to implementation through stronger political leadership, integrated food and health systems and accountable financing. The report rightly highlights the importance of resilient agrifood systems, food safety, regional trade and investment in farmers, women and small- and medium-sized enterprises. Achieving the 2030 global nutrition targets will require bold leadership, operational delivery and renewed accountability and, above all, empowering countries to lead with financing, technical support and partnerships aligned behind national priorities and delivery.

Neema Lugangira, Co-chair, SUN Movement Executive Committee and

Former Member of Parliament Tanzania (2020-2025)

Nutrition is the foundation for healthy families on a thriving planet. Good food builds resilience, strengthening bodies and minds to navigate shocks that are more frequent and more intense than ever before. As we move towards an uncertain future, we must build a new food system centred on human health. This will only happen through partnership — across the public and private sectors, across health and food systems and around the world. The ***2026 Global Nutrition Report***, with its thoughtful analysis of these intersections and spotlight on the Nutrition for Growth Summit commitments, calls us to build on existing partnerships and embrace unlikely alliances as we seek to nourish people and planet together.

Matt Freeman, Executive Director, Stronger Foundations for Nutrition

The ***2026 Global Nutrition Report*** arrives at a pivotal moment, as climate change increasingly threatens communities' nutritional wellbeing. Its focus on integrating food and health systems is both timely and vital. On behalf of the SUN Civil Society Network, active across over 60 countries, we strongly welcome its call for integrated action and stronger accountability. Civil society- and youth-led mechanisms have proven effective in driving responsive policies and equitable outcomes, particularly for women, children and climate-vulnerable communities. Meaningful engagement of young people and vulnerable populations remains essential to foster innovation and ensure commitments reflect lived realities. We must move beyond commitments towards measurable and collective action, investing in locally led solutions and protecting civic space, to ensure no one is left behind.

Alexandra Newlands, Head, SUN Civil Society Network and

Irshad Danish, Chair, SUN Civil Society Network's Steering Group

Climate change threatens to undermine decades of progress in global health. The ***2026 Global Nutrition Report*** highlights the interlinked roles of food, health, social protection and water and sanitation systems in building resilience to climate disasters. The report develops an integrated framework for transforming food and health systems that both responds to the changing environment and contributes to reducing greenhouse emissions. Tackling the simultaneous challenges of climate change, food system transformation and health system strengthening is critical to achieving healthy nutrition for all.

Tedros Adhanom Ghebreyesus, Director-General, World Health Organization

AUTHORS AND ACKNOWLEDGEMENTS

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Shibani Ghosh is a member of the Scientific Advisory Committee of the International Water Management Institute, which is part of the CGIAR global research partnership for a food-secure future, dedicated to transforming food, land and water systems in a climate crisis. In addition, Dr Ghosh has had speaking and panel engagements with the International Atomic Energy Agency and the US National Dairy Council. She has also served as a reviewer for the Agriculture, Nutrition and Health Academy. Shuhei Nomura is affiliated with the Department of Food, Nutrition and Health at the International University of Health and Welfare (Japan), which operates as an industry–academia collaboration programme jointly funded by Ajinomoto Co., Inc. and Meiji Co., Ltd.

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CONTENTS

Endorsements 2

Authors and acknowledgements 6

Foreword 10

Executive summary 13

Chapter 1: Introduction 21

Chapter 2: Food systems resilience to shocks and stressors to support nutrition and health 28

Chapter 3: Food systems strategies to adapt to and mitigate the effects of climate change for better nutrition 39

Chapter 4: Strategies to integrate gender into food and health systems actions 54

Chapter 5: Governance as a driver of food and health system transformation 60

Chapter 6: Alignment of Nutrition for Growth commitments with food systems frameworks, substantive accountability and gender equity 68

Chapter 7: Conceptualising the interconnectedness of food systems and health systems 78

Chapter 8: Recommendations and policy implications 85

Chapter 9: Implementing recommendations in the real world 92

Chapter 10: Conclusion 95

Appendix 1: Synergies and trade-offs in supporting nutrition through climate-smart agriculture, sustainable healthy diets and reduction of food loss and waste 98

Appendix 2: Factors and effects across systems in the framework 103

Notes 105

Abbreviations 118

Glossary 119

2016. Bangladesh.
Mothers learn to prepare inexpensive yet nutritious food made with locally available ingredients.

Foreword

FOREWORD

The *2026 Global Nutrition Report* arrives at a moment when scientific understanding of the links between food systems, health systems, climate change and nutrition have never been stronger. Yet, progress towards the global nutrition targets remains uneven, and access to healthy diets continues to be shaped by widening inequities, climate-related shocks and under-resourced delivery systems. This is felt most acutely in low- and middle-income countries, where the burden of malnutrition in all its forms is greatest.

This report is intended to help close the gap between what is increasingly well understood and what is implemented in practice. The report makes the case for integrated food and health system action under climate change, addresses the trade-offs that must be managed, examines accountability gaps and introduces a practical framework to guide action.

The case for integration

Healthy diets are produced by the combined functioning of food systems, health systems and social protection, yet they have too often advanced in parallel rather than together. Climate strategies continue to under-prioritise nutrition; food systems transformation frequently assumes nutrition gains without designing for them; and health systems are positioned as downstream responders rather than as active partners in shaping food environments. The report therefore reaffirms the long-standing recommendation of the nutrition community for integration and coordination on food, health and nutrition actions, not as a policy aspiration but as a practical condition for delivery at scale.

An honest dialogue on trade-offs

Much of the current debate emphasises "win-win" scenarios across climate, food systems, health and nutrition. These synergies are real, but they do not materialise without coordinated action. For example, dietary shifts that reduce environmental impact can increase the risk of micronutrient inadequacy if health and nutrition outcomes are not prioritised. Agricultural productivity gains do not necessarily translate into better diets if nutritious foods are not available and affordable to communities and families. The report invites policymakers and practitioners to engage explicitly with these tensions when making policy and programme decisions. Recognising and managing trade-offs is essential for policies that aim to improve diet quality for those most at risk, especially women and girls who face structural inequities across food and health systems.

Harmonising accountability with the evidence

Considerable progress has been made in recent years in the specificity and transparency of nutrition commitments. However, a persistent gap remains between procedural accountability, meaning what is promised on paper, and substantive capacity to deliver. Analysis of Nutrition for Growth commitments suggests that those explicitly linking food and health system actions are more likely to address resilience and equity, and to move beyond short-term, project-based approaches. Accountability frameworks must now evolve accordingly, tracking not only the ambition of commitments, but whether they are grounded in evidence and include secured financing, gender and resilience.

A framework to integrate action

To support application of these findings, the report introduces an analytical framework for achieving healthy diets through integrated food and health systems action under climate change. The framework identifies four enabling functions: leadership and governance, financing, operational capacity and research and monitoring. Together, these will determine whether integration translates into results. The framework offers a practical tool for policymakers, commitment-makers and practitioners to link science and evidence to policy by making interdependencies, trade-offs and delivery requirements explicit.

As Independent Expert Group Co-chairs, we call for governments, donors, multilateral organisations, civil society and the private sector to use the framework, coordinate action and strengthen accountability across food and health systems. We present this report as a contribution to renewed momentum towards healthy diets for all.

Dr Shibani Ghosh and Dr Giacomo Zanello
Co-chairs of the Independent Expert Group

2025. Beposo, Ghana.
A farmer from Côte d'Ivoire at a biochar site during a learning visit.

Executive summary

NUTRITION UNDER PRESSURE IN A CONVERGING CLIMATE, HEALTH AND FINANCING CRISIS

The 2026 Global Nutrition Report (GNR) addresses one of the defining challenges of our time: how to achieve healthy diets for all as climate change undermines food and health systems simultaneously. Globally, 2.6 billion people cannot afford a healthy diet, with the burden concentrated in low- and middle-income countries.[1] Progress towards the global nutrition targets and Sustainable Development Goals 2 (zero hunger) and 3 (good health and well-being) remains off track. Undernutrition persists in many settings, while overweight, obesity and diet-related non-communicable diseases are on the rise.

These pressures are intensifying. Long-term climate shifts and more frequent extreme weather events lower agricultural productivity, reduce the nutritional value of some staple crops, raise food prices, damage health and sanitation infrastructure and increase climate-sensitive disease burdens. These effects disrupt food value chains and health services at the same time, compounding the impacts of conflict, economic crises and pandemics. Together, they risk reversing past nutrition gains.

The Nutrition for Growth (N4G) Paris 2025 Summit, hosted by the government of France, emphasised the urgency of integrated action across health, food systems, social protection, resilience and nutrition governance at a time when the multilateral and financing environment has weakened significantly. Recent reductions in official development assistance, including major bilateral cuts, are projected to deprive 2.3 million children of treatment for severe acute malnutrition and contribute to an estimated 369,000 additional child deaths annually.[2] Nutrition also remains critically under-prioritised in climate finance. Only 2% of countries' national climate pledges and 16% of national climate adaptation plans include explicit resource mobilisation for nutrition, and the share of public climate financing directed to food systems declined between 2017 and 2022.[3] Within this context, integrating action across the food, health and climate sectors while embedding social protection across these domains, is not simply an ambitious goal but a fiscal and strategic necessity.

Against this backdrop, the objectives of the 2026 GNR are to:

- **Examine how food and health systems build resilience to compounding shocks, drawing on country-level evidence.**
- **Review food systems strategies that support both human and planetary health while assessing their synergies and trade-offs.**
- **Analyse the role of gender across food and health system actions.**
- **Examine how governance and financing shape the capacity of these systems to deliver healthy diets.**
- **Assess the commitments made at the N4G Tokyo 2021 and Paris 2025 Summits, with attention to integration of food and health, gender and accountability.**

The GNR's Independent Expert Group led an interdisciplinary team of prominent researchers to develop the findings and recommendations in this report. Drawing on five commissioned thematic background research papers and an analysis of commitments registered in the GNR Nutrition Accountability Framework, the report argues that the convergence of these challenges presents an opportunity. By being more intentional and explicit about the synergies and trade-offs that exist when operating across food, health and climate systems, which have until now often been acknowledged only implicitly, policymakers and programme implementers can drive more effective and accountable action.

KEY FINDINGS

Evidence on integration, resilience, trade-offs and accountability gaps

Four key findings from the evidence and analysis shape the report's conclusions and recommendations:

1 **Continued focus on coordinated and integrated action is needed to protect nutrition under polycrisis conditions.** Protecting nutrition under compounding shocks depends on coordinated and integrated action across food and health systems, including social protection and water and sanitation services on which health outcomes depend. Crises increasingly occur in tandem, creating a situation of 'polycrises', whereby one crisis intensifies another in ways that produce effects more severe than the sum of individual shocks. These polycrises require responses that go beyond single-sector measures. A review of country experiences during the Covid-19 pandemic, conflict and climate-related emergencies showed that countries with pre-existing integrated infrastructure and flexible programmatic frameworks responded more rapidly and effectively than those that needed to build new approaches under pressure. Three patterns stood out: 1) food and nutrition support scaled fastest when delivered through existing platforms such as school feeding and cash transfer programmes; 2) health system nutrition services were sustained when delivery shifted to community-based and mobile channels; and 3) social protection reached newly vulnerable groups when eligibility rules and registration processes were adapted quickly. Investing in integrated infrastructure, prior to shocks occurring, is critical to shortening response times and reducing nutrition impacts.

2 **Promising food systems strategies can support nutrition, but understanding trade-offs is crucial.** The report identifies three promising food systems strategies to support nutrition within climate change: climate-smart agriculture, actions shaping food environments to support sustainable healthy diets and reducing food loss and waste. Important synergies exist across these areas, but trade-offs also arise and must be addressed explicitly. For example, dietary guidance encouraging a shift towards plant-based diets can generate major co-benefits, including lower premature mortality and reduced food systems emissions. However, such shifts could increase risks of micronutrient deficiencies for specific vulnerable groups if not accompanied by complementary health system action, including dietary counselling, supplementation and fortification. They may also affect livelihoods in communities dependent upon animal-source food production. A caveat of the research literature recommending plant-based dietary shifts is the reliance on adult chronic disease outcomes, often drawn from high-income populations, which introduces a bias given differing health risks, diets and life expectancies across different contexts. Despite the increasing prevalence of non-communicable diseases globally, an exclusive focus on this evidence base may appear to overlook the immediate priorities in low- and middle-income countries, including the reduction of stunting, wasting, anaemia and low birth weight that are central to the World Health Assembly's global nutrition targets. Future research needs to examine or incorporate diverse health outcomes and context-specific evidence. Programmatically, alternative strategies to support sustainable animal-source foods and/or animal-source food alternatives will need to be considered, particularly for specific population subgroups to achieve their nutrient requirements.

Reducing food loss and waste raises a different set of trade-offs. It can improve food availability and lower emissions, but energy-intensive storage solutions risk offsetting mitigation gains. However, these trade-offs are not reasons to avoid action. They are reasons to design interventions with full awareness of their consequences across systems. In practice, for dietary transitions, this means pairing dietary transition strategies with health system measures that protect micronutrient adequacy for vulnerable groups. For food loss reduction, it requires coupling investments with low-emissions storage technologies rather than energy-intensive alternatives.

3 **Food and health system integration remains inconsistent and requires intentionality.** At the policy and implementation level, the report notes that food system and health system integration is taking place in some areas, but unevenly and without consistent design and intentionality. Analysis showed that more than two-thirds of the commitments from the N4G Tokyo 2021 Summit and half of the commitments from the Paris 2025 Summit focused on food systems challenges and were UN Food Systems Summit–linked commitments. Across both N4G summits, around 750 commitments included both food and health system actions, indicating a degree of cross-sector engagement. However, the analysis also identified clear weaknesses. Around one-quarter of food systems commitments could not be meaningfully categorised, which points to problems of specification and design. Gender integration remained shallow across the global commitment architecture. Of 631 Paris Summit commitments analysed, 70% showed no connection to gender. Only 2% were classified as gender transformative. Even among commitments related to agri-food systems and climate, two-thirds lacked any gender dimension. This is despite strong evidence that women's access to resources, services and decision-making power is associated with better food security and nutrition outcomes, including during crises. Climate change amplifies these inequities by increasing women's unpaid care burdens, reducing incomes and disrupting access to health and nutrition services. Without deeper gender integration, commitments risk reinforcing the very inequalities they aim to address, and nutrition strategies will underperform precisely where needs are greatest.

4 **Analysis revealed a need for substantive accountability when making future commitments.** Analysis of N4G commitments showed a widening gap between procedural and substantive accountability. On the procedural side, progress is clear: more than half of government commitments at the N4G Paris Summit achieved high or upper-moderate SMART (Specific, Measurable, Achievable, Relevant and Time-bound) scores. However, substantive accountability, meaning the extent to which commitments are embedded within financing, institutional and resilience frameworks, has not kept pace. Few commitments included secured financing, and only 8% used monitoring indicators aligned with specific food systems frameworks. Resilience considerations were largely absent from commitments focused on a single system, yet presented in nearly three-quarters of those that explicitly linked food and health systems. This suggests that integration needs to go beyond a policy aspiration to be used as a practical lever or effectively implemented in practice. When commitments are designed across food and health systems, the questions they must address, including financing, resilience and equity, become harder to leave implicit.

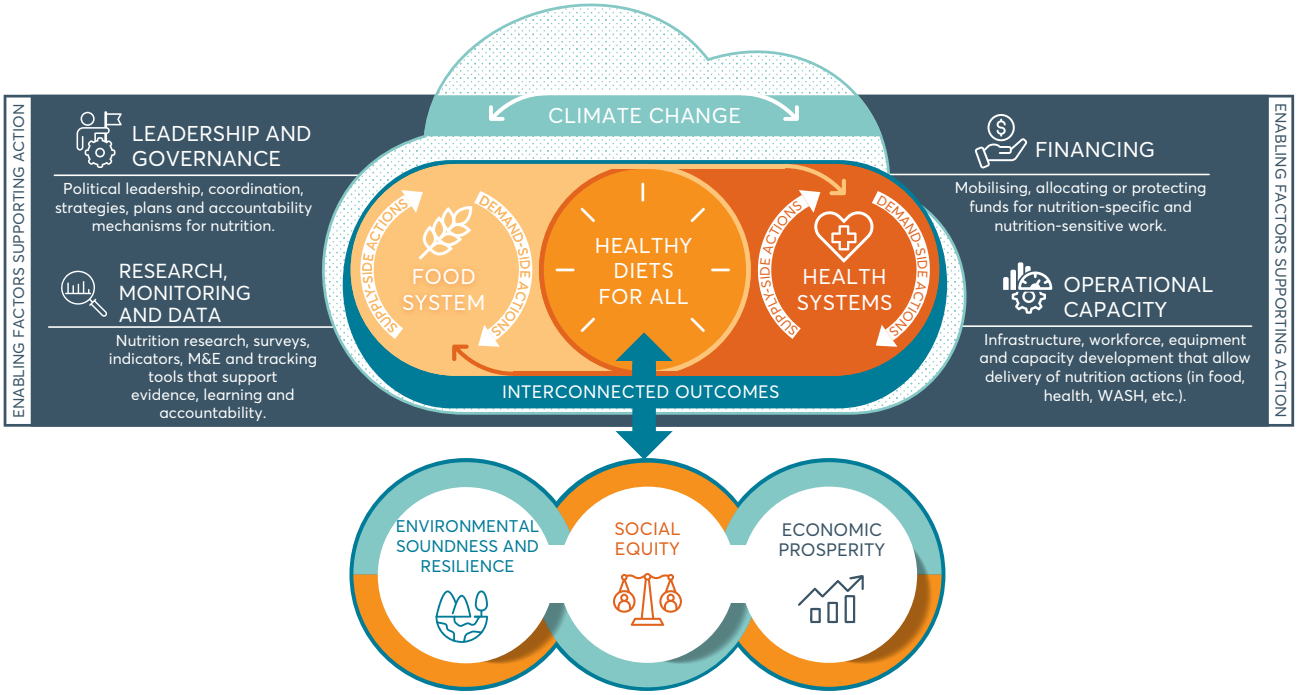
FROM AWARENESS TO INTENTIONALITY IN NAVIGATING FOOD AND HEALTH SYSTEM TRADE-OFFS

Taken together, these findings point to a recurring problem. While awareness of the interconnections between food systems, health systems and climate is now widespread, commitments continue to be designed, financed and monitored with single-sector logic.[4,5] A more fundamental issue lies beneath these structural constraints. There is often a limited understanding of what is gained and what is lost when one policy option is prioritised over another. What is needed is a more deliberate consideration of these trade-offs, recognising that every policy choice entails costs as well as benefits and that these choices are shaped by competing interests, incentives and institutional priorities. Embedding both awareness *and* intentionality within the policy process would shift decision-making from being merely procedural towards becoming genuinely substantive.

To support this shift, the report presents an analytical framework for achieving healthy diets through integrated food and health system action within climate change (See Figure). The framework builds on existing literature and traces how food and health systems interact through supply-side and demand-side pathways, identifying critical integration points. It highlights four enabling functions, namely 1) leadership and governance, 2) financing, 3) operational capacity, and 4) research and monitoring, that determine whether integrated action can be delivered and sustained. It orients action towards three interconnected outcomes: environmental soundness and resilience, social equity and gender empowerment and economic prosperity.

The framework does not seek to replace existing food system or health system frameworks. Rather, it bridges them by making explicit where actions in one system depend on responses in the other, what enabling conditions are required and where trade-offs must be managed. While many existing frameworks identify interconnections, this framework goes beyond that to identify the specific points at which deliberate choices between systems must be made. Its purpose is to provide policymakers, commitment makers and researchers with a practical structure for designing coherent strategies and commitments that are both viable and accountable. It is also intended as a tool for commitment makers preparing for future N4G Summits, helping to move future pledges beyond procedural specification towards substantive accountability by requiring explicit attention to financing, delivery capacity and the trade-offs that need to be navigated.

Achieving healthy diets for all through food and health system transformation within a changing climate



Abbreviations: M&E, monitoring and evaluation; WASH, water, sanitation and hygiene.

PRIORITIES FOR ACTION UNDER REAL-WORLD CONSTRAINTS

Several of the report's recommendations reinforce the priorities identified and ratified by both the N4G Tokyo and Paris Summits. The report's contribution to the Summit-ratified priorities is to identify why progress has been limited and what is needed to overcome the structural barriers that persist: institutional fragmentation, short-term financing architectures and weak alignment between global commitments and national implementation instruments. Other recommendations – on the integration of food–health actions as a resilience condition, the shift from procedural to substantive accountability and the shallow framing of gender – reflect priorities that emerge specifically from this report's analysis.

The report's recommendations are offered as considerations informed by the evidence reviewed, rather than as a universal prescription. Many governments and partners may already be pursuing some or all of these directions, and the relevance and sequencing of specific actions will depend on national and subnational contexts, including existing policy frameworks, institutional capacity and financial conditions. Where action is already underway, the recommendations may help identify areas for deepening integration or strengthening accountability.

Governments are encouraged to integrate nutrition into existing primary healthcare and social protection platforms, and to embed nutrition targets within national climate strategies to unlock climate finance and strengthen governance to deal with cross-sector challenges.

Donors, development banks and climate finance providers should shift towards multi-year, flexible financing that supports integrated food–health delivery and maintains services during shock, and invest in domestic financing systems so that implementation is not wholly dependent upon external aid.

Global platforms, UN agencies and accountability bodies should evolve accountability from procedural compliance to substantive integration, assessing whether commitments are backed by secured financing, cross-sector coordination and adequate delivery capacity.

Civil society, women's organisations and frontline providers should be supported in securing formal roles in governance and planning processes. Linking community platforms to both food and health systems could reveal context-specific and emerging challenges, revealing real-time implementation gaps and further supporting service uptake.

The private sector should improve the availability, affordability and desirability of nutritious foods, guided by transparent nutrition and emissions disclosures and clear accountability standards, in line with the guiding principles agreed at the N4G Paris Summit.

The report recognises these recommendations must be pursued under real constraints, including fiscal pressure, political competition and institutional fragmentation.[6,7,8] Implementation will require prioritisation, sequencing and difficult choices. Within the context of constrained fiscal space, including the projected 9% reduction in official development assistance in 2025 and simultaneous cuts by the four largest donors, transformation must centre on strengthening domestic institutions and reallocating existing resources rather than expanding external aid. The highest co-benefit entry points at the lowest political cost are integrating nutrition into existing primary healthcare platforms and social protection systems and redirecting a share of the approximately US$540 billion in annual agricultural subsidies towards nutrient-dense foods. Embedding nutrition commitments within medium-term expenditure frameworks and national climate strategies increases their political durability and reduces the risk of discretionary cuts. Opportunity for action is high: for every dollar invested in addressing undernutrition, a return of US$23 is expected.[9] Withdrawing preventive and nutrition-sensitive programmes may ease budgets in the short term but will compound long-term expenditure on healthcare and lost productivity. The Food and Health Systems for Equitable Nutrition (FHEN) Framework presented in the 2026 GNR is intended to help navigate these choices, making trade-offs visible so that action can be intentional and explicit, identifying cross-sector synergies and ensuring the costs of policy decisions do not fall disproportionately on those already most at risk. In a period of shrinking resources and intensifying climate pressure, this deliberate approach is key to protecting nutrition gains. Among the policy levers available, one stands out for its potential to anchor this integration: positioning nutrition as a core function of universal health coverage and primary healthcare, embedding life-course nutrition actions within the delivery platform that reaches the greatest number of people, particularly women and children in low- and middle-income countries, and creating a durable institutional home for nutrition within health systems that is less vulnerable to funding cuts. Achieving healthy diets for all will require action well beyond the health sector, across food systems, social protection, climate policy and governance. But a health system that treats nutrition as central to its mandate can serve as both a foundation and an accelerator for this broader transformation.

2024. Sri Lanka.
Cooks preparing a flavorful ambarella curry for school children.

01

Introduction

KEY FINDINGS

1 Climate change is increasingly affecting nutrition outcomes through its combined impact on food systems and health systems. Long-term climate shifts and more frequent shocks interact with conflict, pandemics and economic crises to disrupt food value chains and strain health services, influencing what diets people can access and afford and increasing the risk of malnutrition in all its forms.

2 The delivery of essential nutrition services continues to depend on health systems, but progress towards healthy diets for all has been closely linked to how food and health systems function together under climate stress. Across contexts, more integrated policy and programmatic approaches that extend beyond direct service provision have been better positioned to improve diet quality, access and resilience.

3 Global commitments increasingly reflect the interconnected nature of nutrition, climate, equity and food systems, yet the transition from commitment to implementation remains uneven. Limitations in nutrition information systems, fragmented action and growing fiscal constraints have made it difficult to assess whether commitments are sufficiently integrated across sectors or capable of protecting nutrition outcomes in a changing climate.

INTRODUCTION

While progress has been made towards establishing more sustainable and healthy food systems, pressure to protect nutrition within climate change is intensifying. Climate and environmental stress and rising rates of malnutrition and non-communicable diseases are deeply interconnected and complex challenges.

Climate shocks and stressors often compound with pandemics, conflicts and political and economic crises, severely hindering the resilience of food and health systems.[1] Achieving healthy diets for all requires both systems to function effectively and in coordination. Health systems deliver essential nutrition interventions, including counselling and support, breastfeeding promotion, supplementation and prevention and treatment of malnutrition, with immense potential to contribute to the global nutrition targets. There is broad agreement that policy and programmatic action must go beyond direct service provision to adoption of multisectoral approaches, including within health, agriculture and food systems, to improve access, affordability and quality of available diets.[a,1]

Long-term climate shifts and more frequent extremes disrupt food value chains and health services simultaneously, shaping what people can access, afford and eat.[3] Through changing agroecological conditions and supply chain interruptions, climate pressures reduce agricultural productivity, lower the nutritional value of some crops and raise food prices.[4,5,6] These shifts constrain food and nutrient availability and increase the risk of hunger, malnutrition in all its forms and diet-related non-communicable diseases, while pushing households towards less expensive, less nutritious diets and contributing to premature mortality.[7,8]

At the same time, climate change threatens the continuity of health service delivery as well as the functioning of food systems by damaging infrastructure, disrupting supply chains for essential commodities and increasing disease burdens that strain already limited capacity.[9,10] The Covid-19 pandemic illustrated how rapidly such shocks can overwhelm health systems, with cascading effects on nutrition services.[11] Additionally, climate change can exacerbate the vulnerability of food supply, leading to increasing risks of contamination and outbreaks of food-borne diseases, which has implications for nutrition and health.[12]

Coordinated action must occur within planetary boundaries. Food systems contribute approximately one-third of global greenhouse gas emissions,[13] creating a major policy challenge: while animal-source foods can support good nutrition within specific contexts and for specific population groups, their nutritional value, health implications, environmental impact, cultural role, accessibility and affordability vary widely.[14] Meats such as beef and mutton contribute up to 100 times the emissions per unit weight compared to plant-based foods,[15,16] and pork, poultry, fish and processed dairy have approximately 10 times the impact of plant-based alternatives,[17,18] with substantial regional variation. Realigning food systems with both human health and environmental goals while maintaining health system capacity under climate stress represents one of the central challenges this report addresses.

a Food system transformation is a shift in a range of activities across production, processing, distribution, marketing, consumption and disposition of foods which translates into healthier diets, greater environmental sustainability and more equitable distribution of benefits and risks. This requires changes in how value chains function, including fairer returns for smallholders, stronger voice and access for vulnerable groups and healthier food environments that shape what people can access, afford and choose to eat.[2]

Early research linking agriculture to nutrition has underscored the limitations of siloed interventions. Integrated approaches that connect food and health systems show promising results. For example, Sierra Leone combined national dietary guidelines with nutrition training for agricultural extension workers and school-based nutrition programmes, strengthening linkages between agriculture and health services while promoting biofortified crops and dietary diversity.[19] Such examples demonstrate the potential of coordinated action, yet they remain the exception rather than the norm. They also show that food systems transformation requires action across multiple actors and incentives so that nutritional quality, resilience and equity are prioritised alongside output and income generation.

As 2030 approaches, governments, development partners, civil society and businesses face a dense landscape of goals and pledges. Progress towards Sustainable Development Goal 2 (zero hunger) remains off track, while debates about the pace and nature of change reveal tensions in implementation. Some argue that transformational change is essential, as "incremental change in food systems will not be enough".[20] Others, including many national policymakers, anticipate that a series of incremental changes can collectively deliver meaningful improvements in both planetary and human health. Neither perspective is likely to succeed in isolation, nor is there a single policy capable of transforming food systems on its own. For national policymakers, the practical challenge is to build credible pathways that coordinate action across food, health, social protection, climate and finance systems.

Commitments under the Paris Agreement have yielded slow progress towards limiting the mean global surface temperature to 1.5°C, with 2025 set to be either the second or third warmest year on record.[21] While the UN Food Systems Summit established the urgency of a food systems transformation in 2021, the recent EAT-*Lancet* Commission characterised this transformation as critical to realise sustainable and just systems for healthy foods by 2050.[22,23] The Nutrition for Growth (N4G) Paris 2025 Summit highlighted the need for commitment makers to address malnutrition in all its forms across multiple thematic areas, ranging from health to sustainable food systems, resilience, financing and accountability. Its recommendations emphasised the interconnectedness of food, nutrition, social protection and health, spanning priorities from better integration of nutrition into health service delivery to food systems transformation, strengthening resilience and reducing inequities in access to essential nutrition services and nutritious diets.[24]

These global commitments and recommendations have generated increasingly explicit expectations linking health, climate, equity and economic prosperity, reflecting the interconnected nature of contemporary challenges.[22,25,26] Yet, monitoring delivery against these expectations remains difficult,[27] with weak nutrition information systems representing a major challenge to tracking commitments specifically and healthy diets more broadly. The Global Nutrition Report launched its Nutrition Accountability Framework (NAF) in 2021, offering an infrastructure for doing so (Box 1.1). By registering and classifying commitments across actors and action types, the NAF creates an opportunity to assess not only whether commitments address food systems or health systems individually, but whether they truly integrate across both domains in ways that account for climate risks and build resilience.

BOX 1.1

The Global Nutrition Report's Nutrition Accountability Framework

The Nutrition Accountability Framework is a global public platform that was established by the Global Nutrition Report in 2021 for committing to and monitoring nutrition action. It serves as a register of nutrition commitments made by governments, donors, civil society, businesses and other actors, and classifies these commitments into three categories: enabling actions (such as governance, coordination and data systems); policy actions (such as legislation, regulation and guidelines); and impact actions (such as direct service delivery and financing). The framework supports the use of SMART (Specific, Measurable, Achievable, Relevant and Time-bound) commitments to strengthen clarity and comparability. By providing a comprehensive and transparent tracking system, the framework enables systematic assessment of progress towards nutrition targets and of the coherence and integration of commitments across sectors.

Coordinated action is becoming increasingly difficult in a weaker multilateral and financing environment. Multilateral coordination is under strain, and nutrition actors face sharper fiscal constraints. Recent reductions in official development assistance, including major bilateral cuts, are projected to reverse gains in malnutrition reduction and threaten the delivery of essential services, including treatment of severe acute malnutrition.[28] Current estimates suggest that aid cuts affecting the equivalent of 44% of donor financing directed to the World Health Assembly (WHA) nutrition targets could leave 2.3 million children without treatment for severe acute malnutrition and contribute to approximately 369,000 additional child deaths annually.[29]

In this environment, integration across food, health, climate and social policy is not only a programmatic goal, it is a fiscal and strategic necessity.[28] Recognising that stand-alone nutrition funding is unlikely to expand in the near term, initiatives such as the N4G Global Compact for Nutrition Integration seek to embed nutrition objectives within climate, trade, productivity and economic policy domains.

Report objectives

It is within this context that the current report focuses on three core goals.

First, it examines how food and health systems can build resilience to compounding climate, health and conflict shocks, drawing on country-level evidence of integrated responses. Climate change is projected to leave an additional 28 million children suffering from wasting and 40 million affected by stunting,[30] while simultaneously disrupting the health systems needed to prevent and treat malnutrition. Yet, climate, health and food system agendas continue to evolve separately. Food systems transformation is often treated as distinct from health system reform, while climate strategies may set mitigation targets without addressing nutrition implications or health system vulnerabilities.[31] This report examines how shocks and stressors, including pandemics, conflict and environmental crises, disrupt food and health systems, and analyses country-level strategies that have successfully integrated responses across production, supply chains, health and nutrition service delivery and social protection to safeguard nutrition outcomes under stress.

Second, the report examines the alignment and integration of commitments made over the past five years and assesses how far they have moved from pledge to implementation. Drawing on data from the NAF, it analyses commitments made at the N4G Tokyo 2021 and Paris 2025 Summits, examining alignment with food systems goals, the intersection of food and health system actions and the integration of gender equity and climate resilience. This analysis employs four enabling functions: 1) leadership and governance; 2) financing; 3) operational capacity; and 4) research, monitoring and data.

To facilitate the integration of actions across health and food systems within a changing climate for policy and program action, this report proposes an analytical framework to navigate interconnections between climate, food, health and nutrition.

Third, it explores system-level solutions that cut across food and health systems within a changing climate, assessing synergies and critical trade-offs and making comparisons that will be of value to decision-makers. Recognising the complexity faced by policymakers, research institutions, civil society organisations and other actors working to achieve healthy diets for all, the report acknowledges that no silver bullet exists.[32,33,34] To facilitate the integration of actions across health and food systems within a changing climate, the report puts forward an analytical framework that sheds light on these interconnections and the actions that can help commitment makers navigate them. The report also recognises that hard choices will need to be made; even synergistic bundles of interventions may create adverse effects in other sectors or geographies. Making such trade-offs explicit is critically important and can lead to more balanced solutions that mitigate harms for the most vulnerable groups.[35]

The specific objectives of this report are to:

- Examine resilience to compounding climate, health and conflict stressors and shocks, drawing on country-level evidence of integrated responses.
- Enumerate evidence on interventions that support both human and planetary health.
- Assess the role of gender-sensitive approaches in promoting nutrition and healthy diets.
- Examine the role of governance and financing to support sustainable transformation of food and health systems in support of healthy diets for all.
- Assess the commitments made at the N4G Tokyo and Paris Summits with a focus on the intersectionality of food and health system commitments, the integration of gender into commitments and whether governance - and financing-focused commitments are supportive of the N4G goals.
- Use existing evidence and knowledge from frameworks to develop a roadmap for future commitment making.

Report structure

The report is structured as follows:

- **Chapter 2** investigates food systems resilience to shocks and stressors (pandemics, conflict and environmental crises) and reviews country-level strategies that have safeguarded nutrition outcomes for the most vulnerable populations during crises through integrated action across food systems, health services and social protection.
- **Chapter 3** reviews strategies to mitigate and adapt to climate change while supporting sustainable healthy diets, examining climate-smart agriculture and dietary transitions and reducing food loss and waste (FLW) with attention to synergies and trade-offs of relevance for policy and program implementation.

- **Chapter 4** applies a gender lens to climate, food and health systems, examining women's roles as agents of change, how climate change amplifies gendered nutrition and health risks and strategies to integrate gender equity into food and health systems actions.
- **Chapter 5** examines governance as a driver of transformation, contrasting procedural accountability with substantive accountability that embeds commitments within financial, institutional and resilience frameworks.
- **Chapter 6** assesses N4G commitments from the Tokyo 2021 and Paris 2025 Summits, examining alignment with food systems frameworks, the intersection of food and health system actions, the presence of substantive accountability and gender integration across nutrition-related sectors.
- **Chapter 7** presents a new analytical Food and Health Systems for Equitable Nutrition (FHEN) Framework for achieving healthy diets through integrated food and health system transformation within climate change. This framework synthesises insights from the review of existing evidence and frameworks and the commitment analyses, providing a tool for future commitment makers to design integrated pledges that account for synergies and trade-offs across the four enabling functions (leadership and governance; financing; operational capacity; and research, monitoring and data).
- **Chapter 8** provides actionable recommendations for policy and commitment makers.
- **Chapter 9** discusses the challenges of implementing these recommendations under current fiscal constraints, including reductions in official development assistance.
- **Chapter 10** concludes by synthesising the report's core argument that nutrition outcomes require coordinated action across food and health systems, positioning the analytical framework as a practical tool for navigating complexity, and identifying the integration of nutrition into universal health coverage and primary healthcare as a foundational policy lever for sustained progress.

2025. Junín, Peru.
An Andean farmer harvests potatoes.
© FAO Peru.

02

Food systems resilience to shocks and stressors to support nutrition and health

KEY FINDINGS

1 Shocks, such as pandemics, conflict and extreme weather, frequently occur alongside longer-term stressors, including climate change, inequity and environmental degradation, placing simultaneous pressure on food and health systems. In most major food crises, these interacting drivers influence nutrition through multiple pathways, reducing the effectiveness of single-sector responses.

2 Experience from the Covid-19 pandemic and conflict-affected contexts illustrates how disruptions to food access and health service delivery reinforce one another, often extending acute shocks into prolonged nutrition crises. Income losses, food price volatility, supply chain disruption and weakened health services have combined to increase food insecurity and malnutrition, particularly in low-income and fragile settings.

3 Country responses indicate that resilience has been stronger where food system measures, health system adaptations and social protection were integrated and deployed flexibly. Approaches that maintained essential nutrition services, adapted delivery beyond facilities and expanded social protection to newly vulnerable populations have been more effective in safeguarding diets and nutrition under compounding shocks.

FOOD SYSTEMS RESILIENCE TO SHOCKS AND STRESSORS TO SUPPORT NUTRITION AND HEALTH

Shocks are acute events such as pandemics, severe weather driven by climate change and economic collapses that disrupt food value chains and health service delivery simultaneously. Stressors, which are longer-term conditions like climate change, inequity and environmental degradation, weaken system capacity to respond when shocks occur. Some disruptions can be anticipated through forecasting; others, like the Covid-19 pandemic, emerge unpredictably and have a global impact.

These challenges have traditionally been examined in isolation. Food system interventions focus on agricultural production and markets; health systems strengthening emphasises service delivery and infrastructure; and climate adaptation prioritises physical and institutional resilience. However, responding to 'polycrises' (multiple crises co-occurring and compounding one another) requires flexible, integrated actions[1,2] (Box 2.1). In 72% of countries facing major food crises, multiple drivers interact, making single-sector responses insufficient to protect diets and nutrition.[3]

Building resilience requires strategies that not only mitigate and adapt to shocks but also enable systems to recover from them (Box 2.2). The concept of 'bouncing forward' embodies an ambitious vision for resilience policy. This involves harnessing socio-ecological interdependencies, shifting power structures and enabling individual and collective capacities, agency and values, rather than simply restoring previous conditions. It is particularly relevant in situations of high uncertainty and when unexpected developments such as geopolitical crises are more likely to occur.[4]

BOX 2.1
Polycrises, climate and nutrition

Current global risks are increasingly described as polycrises: situations in which one crisis aggravates another, producing impacts that are both different from and worse than the harms these crises would have produced separately. Within the context of healthy diets, climate shocks compound economic downturns, conflict and health emergencies. Droughts and floods reduce agricultural output and incomes, increase food prices and constrain dietary quality.

At the same time, fiscal pressures and service disruptions weaken the health system's capacity to deliver essential nutrition actions. Rising food prices and reduced purchasing power increase risks of wasting, stunting and micronutrient deficiencies, while disruptions to care limit prevention and treatment. Under polycrisis conditions, nutrition outcomes are shaped by the combined performance of food and health systems under multiple simultaneous stressors. Policy responses, therefore, require cross-sector coordination and risk assessment across the climate, economic and health domains, rather than single-sector measures.

BOX 2.2
Resilience

Resilience is defined as "the ability of individuals, households, communities, cities, institutions, systems and societies to prevent, resist, absorb, adapt, respond and recover positively, efficiently and effectively when faced with a wide range of risks, while maintaining an acceptable level of functioning without compromising long-term prospects for sustainable development, peace and security, human rights and well-being for all".[5]

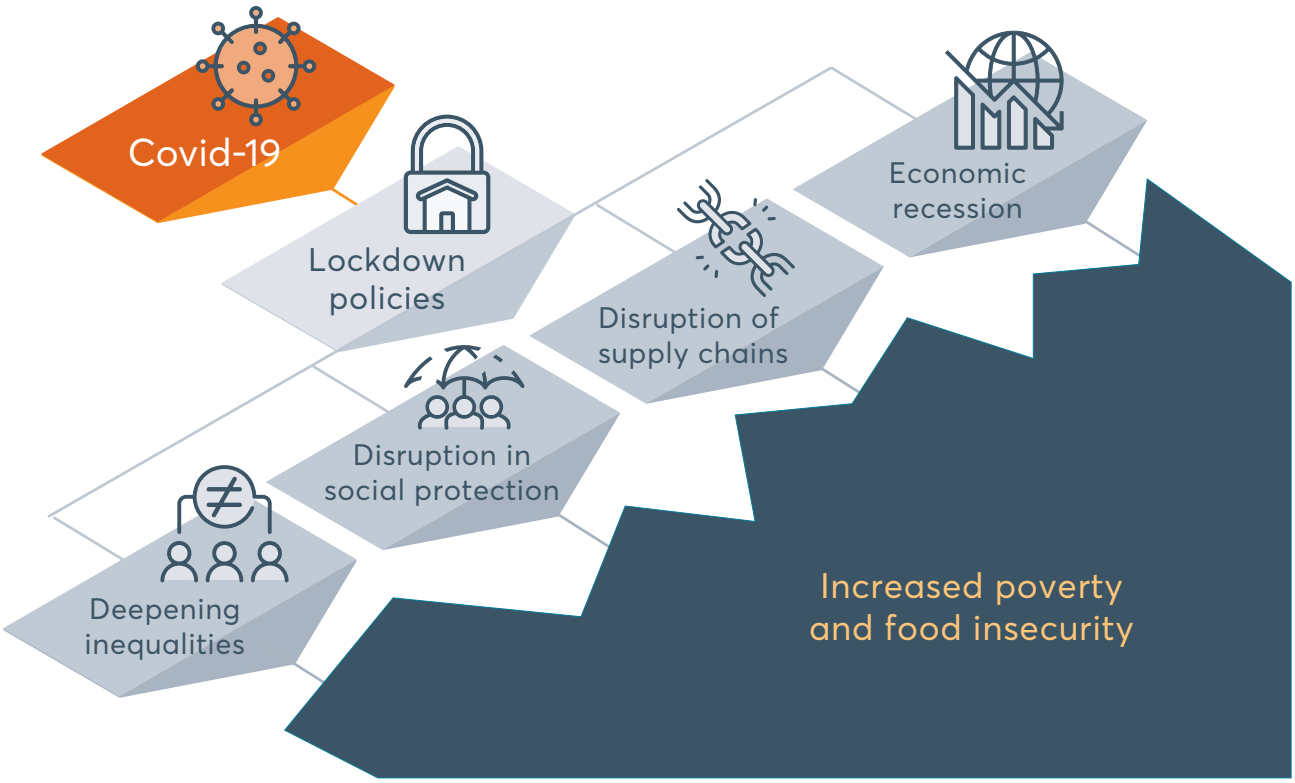
The effect of the Covid-19 pandemic on food systems, nutrition and health

The Covid-19 pandemic demonstrated how a health crisis can simultaneously disrupt food systems and overwhelm health systems, with compounding effects on nutrition. The pandemic impacted all four pillars of food security, namely availability, access, utilisation and stability, while straining health system capacity to deliver essential nutrition services.[6,7] Figure 2.1 illustrates the interlocking influence of Covid-19 on other stressors affecting food systems, highlighting the need for integrated responses to polycrises.

Covid-19 lockdowns resulted in economic shocks at both macro- and micro-economic levels, disrupting food systems and food supply chains, causing loss of income and livelihoods, producing uneven trends in food prices, straining social safety nets and deepening existing inequity.[8,9] Although these impacts affected all countries, low-income countries faced more severe consequences. Closures of food service facilities, food shortages and price spikes were documented globally.[10] In Kenya, economic effects resulted in increased food insecurity,[11] while in Australia, food insecurity increased sevenfold among households experiencing considerable income losses. Food security has not returned to pre-Covid-19 levels in many countries, and as of 2024, an estimated 2.3 billion people worldwide were moderately or severely food insecure.[12]

Disruptions in international trade contributed to a global economic recession and a sharp decline in both national and household incomes. Border closures disrupted commodity trade, domestic transportation was affected and labour shortages emerged across food value chains. Remittances (money that families receive from abroad) fell by approximately 20%, further straining the financial stability of households dependent upon overseas income, compounding existing vulnerabilities, undermining food security and limiting access to nutritious foods in low- and middle-income countries.[13] Mobility restrictions, lockdowns and collateral damage to public health services produced the most significant global economic crisis in a century.[14]

FIGURE 2.1
Pathways through which Covid-19 has influenced hunger and household food insecurity



Adapted from: High Level Panel of Experts on Food Security and Nutrition (HLPE). Impacts of COVID-19 on Food Security and Nutrition: Developing Effective Policy Responses to Address the Hunger and Malnutrition Pandemic. Rome, Italy: Food and Agriculture Organization of the United Nations, 2020.

A study in Zambia illustrates these dynamics at the household level. Within the country, where containment measures were implemented in March 2020, the share of household income spent on food purchases increased from 53.8% to 61.4% between 2015 and 2021, largely due to rising food prices.[15] In contrast, household dietary diversity improved in households that experienced income reductions: they showed a 1.5% higher probability of a diverse diet compared to households whose incomes were unaffected. This result likely reflected adaptive coping strategies, including reducing non-food expenditures, drawing on savings and purchasing less expensive, locally available foods. A gender-disaggregated analysis found that prior to the Covid-19 pandemic, female-headed households in Zambia were 2.7% less likely than male-headed households to experience severe food insecurity. This protective effect decreased to 2.3% during the crisis, consistent with broader evidence that female-headed households tend to allocate a higher share of income to food, healthcare and sanitation.[16]

The effect of conflict on food systems

Conflict and war are key drivers of food insecurity and persistent hunger.[1,17] Wars have become more prevalent, and chronic hunger and undernutrition has become increasingly concentrated in conflict-affected countries. Conflict affects nutrition through linked pathways: destruction of agricultural infrastructure, market disruption, displacement,

loss of livelihoods, asset depletion, income loss and rising poverty.[18] At the same time, it weakens health systems through damage to facilities, shortages of medicines and supplies, displacement or targeting of health workers and interruption of vaccination and routine care. These effects can rapidly trigger acute food insecurity, but they can also persist for years or decades through long-term damage to livelihoods, child growth, service delivery and local market systems.

The mechanisms differ by conflict type. Under localised violence, some production and market functions may continue, and measures such as input support, cash transfers and protected supply corridors can still help stabilise access. Under prolonged civil war or state failure, these platform-based strategies often weaken or collapse because logistics, governance and service delivery systems deteriorate together. In blockade settings, food may remain physically present in the wider region but become politically inaccessible, making denial of access, rather than food availability alone, the central constraint. This pattern is visible across long-running conflicts in Africa, including Sudan, eastern Democratic Republic of the Congo, and parts of the Sahel, where repeated displacement, market disruption and service breakdown have turned acute shocks into protracted nutrition crises. In 2025, UN-linked reporting pointed to almost 25 million people at risk in Sudan, 28 million facing acute hunger in the Democratic Republic of the Congo and 52 million people expected to struggle to meet basic food and nutrition needs across West and Central Africa.[19]

Conflict can also have repercussions far beyond the immediate area of violence. The war in Ukraine caused substantial fluctuations in global staple grain prices, given Ukraine's status as a leading grain exporter. Within two months of the conflict, wheat commodity prices increased by 20% to US$384 per tonne, exceeding the prior year's level by more than 50%. In Egypt, where 80% of wheat comes from Ukraine and Russia, bread prices increased by 25%.[20] These price shocks reduced household purchasing power for nutritious foods while health systems in affected regions struggled with damaged infrastructure and supply disruptions. Similar patterns have emerged as the result of the war involving Iran. By mid-March 2026, the conflict had disrupted shipping and air routes, raised freight and fertiliser costs and threatened humanitarian cargo movements through the Strait of Hormuz, with the World Food Programme warning that the shock could push an additional 45 million people into acute hunger by June 2026. Wars such as those in Ukraine and Iran can generate food insecurity within months, and their nutritional consequences may last much longer through inflation, debt, disrupted healthcare and erosion of livelihoods.[21,22]

The conflict in Gaza illustrates how collapse in food access and collapse in health service delivery can reinforce each other. In July 2025, the World Health Organization director-general warned of mass starvation, while treatment centres for malnutrition were reported to be full and lacking sufficient emergency feeding supplies. In his speech, he noted how more than 20% of pregnant and breastfeeding women screened were found to be severely malnourished.[23] A July 2025 Integrated Food Security Phase Classification (IPC) alert warned that the food consumption threshold for famine had already been crossed in most areas of Gaza, with acute malnutrition rising rapidly.[24] Later, World Health Organization reporting indicated that 640,000 people were projected to face IPC Phase 5 (catastrophe) conditions by the end of September 2025. In such settings, effective interventions are well known and include emergency food assistance, therapeutic feeding, mobile health services and protection of humanitarian access.[3] However, the main constraint is less about the absence of technical interventions and more about the inability to deliver them at scale under conditions of restricted access, insecurity and political obstruction.

The effect of environmental and climate stressors on food systems

Environmental stressors, including climate change, soil erosion, water scarcity and biodiversity loss, pose significant and interlinked challenges to food systems. Climate influences agricultural productivity, and agricultural practices can degrade ecosystems and contribute to climate change. This climate–agriculture nexus in turn affects food and nutrition security. Climate-induced decreases in crop production, such as those caused by heat, drought or flooding, reduce farm-level income, with disproportionate impact on smallholder households, women and other vulnerable groups. These income losses also affect hired labour and can trigger broader economic instability. Reduced production leads to higher food prices, exacerbating access issues for vulnerable populations.

In Africa, agricultural productivity growth has declined by an estimated 34% since 1961, with climate change acting alongside soil degradation, under-investment, limited irrigation and lack of supportive policies.[25] Projections suggest that future warming will further shorten growing seasons and intensify water stress, threatening both livelihoods and nutritional outcomes.[4,26] In addition, climate change will affect food quality, with elevated atmospheric carbon dioxide possibly reducing zinc, iron and protein concentrations in some staple crops, creating nutritional risks even where calorie supply is maintained.[27]

Zoonotic diseases represent an additional, interconnected threat. Rural agricultural households are particularly exposed, and despite extensive international efforts towards control, zoonotic diseases continue to spread and re-emerge, driven by intensified global trade, environmental degradation and climate variability.[4]

Real-world strategies integrating health, food, nutrition and social protection to address polycrises

Polycrisis framing requires governments and partners to deploy integrated packages across health, nutrition, education, water and sanitation and social protection. Integrated packages can be activated rapidly and flexibly to safeguard nutrition for the most vulnerable populations when shocks disrupt food access, service delivery and incomes.

Country responses during Covid-19 demonstrate what integrated resilience looks like in practice.[2] Some governments (Indonesia and Sierra Leone) protected essential nutrition services by adapting delivery modalities rather than pausing programmes (Table 2.1). These adaptations allowed health system nutrition functions to continue even when facility-based services became inaccessible. Other countries, including the Bahamas, Brazil, India and Peru, kept child diets stable when schools closed by converting school meals into take-home rations, food vouchers, fortified staples or cash-based alternatives.

Many governments expanded social protection coverage and simplified access using digital applications and eligibility expansion to reach newly vulnerable groups, including migrants and people who had lost work, as in Colombia and South Africa. Some packages explicitly linked public health measures to nutrition protection, combining hygiene promotion and adapted water and sanitation services with expanded social protection for women, children and unemployed people. Governments also used economic measures to maintain food system functioning, such as providing low-interest loans and technical assistance for small- and medium-sized enterprises to sustain production and distribution in Ethiopia and Nigeria.

TABLE 2.1
Country resilience strategies during the Covid-19 pandemic

Country	Description
Bahamas	Developed alternative school meal mechanisms, including monetary support or vouchers, to maintain child nutrition when schools closed.
Brazil	Converted school meals to take-home rations and expanded cash transfers, bridging food access gaps.
Colombia	Expanded eligibility of social protection to reach new and underserved populations; included migrants due to pandemic-related movement restrictions.
Ethiopia	Provided financial support including short-term, low-interest loans to small- and medium-sized enterprises to maintain food supply chains.
Ghana	Delivered iron/folate supplements through stationary and mobile systems; integrated nutrition education with health systems during school closures; integrated iron/folate into food ration distribution; increased the use of community-based channels for delivery.
India	Used multiple entry points to protect food and nutrition, including food, health, water and sanitation, education and social protection systems; adapted delivery of health services; changed school meals to take-home rations; expanded social protection programmes.
Indonesia	Switched to family-centred approaches for the detection of acute malnutrition by using community volunteers and mobile phones for care-giver training on screening children.
Liberia	Strengthened and leveraged local capacities to minimise disruptions in the delivery of essential services.
Nigeria	Provided financial support and technical assistance to small- and medium-sized enterprises.
Peru	Expanded the provision of fortified rice as part of school meals and in-kind food vouchers.
Philippines	Integrated hygiene kits into conditional cash transfer programmes, linking health protection with social assistance.
Sierra Leone	Switched the mode of delivery of vitamin A supplementation from mass campaigns to integration into routine healthcare at facilities; protected child health services and was able to sustain and scale up.
South Africa	Promoted hygiene; adapted water and sanitation systems; expanded social protection to women, children and unemployed people; digitised social protection enrolment, linking health system preparedness with food security.

Three operational patterns emerge from these country experiences. First, countries responded flexibly by leveraging nutrition across the existing health and social protection delivery platforms of multiple systems through a variety of mechanisms, such as take-home rations, vouchers, fortified staples and cash. These actions maintained food access for the most vulnerable when normal channels were disrupted. Second, continuity of health system nutrition actions improved when delivery moved beyond facilities to communities: engagement of community workers, family-centred screening, mobile outreach and distribution bundled with rations. These approaches ensured that essential nutrition services remained accessible despite facility closures and mobility restrictions. Third, social protection reached additional at-risk groups when programmes changed access rules and processes, including temporary eligibility expansion, streamlined registration and digital application channels. For example, South Africa digitised social protection enrolment alongside hygiene promotion and adapted water and sanitation measures. Overall, country responses were diverse, context specific and often innovative – demonstrating the potential of flexible, multisectoral strategies to protect nutrition and build long-term resilience.

As noted by UNICEF, "No single system is likely to be sufficiently resilient on its own to fully mitigate the impact on food and nutrition security in the context of a poly crisis. This rich collection of country experiences demonstrates the importance of leveraging multiple systems – food, health, water and sanitation, education, and social protection systems – and enabling them to be more resilient in safeguarding access to nutritious diets, essential services, and supporting positive feeding and care practices during a poly crisis".[2]

During the Covid-19 pandemic, countries with pre-existing infrastructure and flexible programmatic frameworks implemented actions more rapidly and effectively than those that needed to develop new approaches. Investing in integrated infrastructure and programmatic frameworks can therefore shorten response times and reduce nutrition impacts when shocks occur.

Country experiences demonstrate that resilience to shocks and stressors requires anticipatory integration of food system interventions with health system adaptations and social protection expansion (Box 2.3 and Box 2.4). When health crises disrupt food systems, maintaining nutrition outcomes depends on adapting health service delivery while simultaneously supporting food access. When food system shocks occur, health systems must be prepared to safeguard nutrition by detecting and treating increased malnutrition and delivering other essential nutrition services (such as school feeding, vitamin A supplementation, breastfeeding support and micronutrient supplementation) while food interventions restore access. This integrated approach represents a shift from parallel sectoral responses towards genuinely coordinated resilience strategies.

BOX 2.3

Ethiopia's experience in multisectoral actions across food and health systems

Ethiopia has consistently faced shocks and stressors, with famines occurring over decades and even centuries, the most recent in the early 1980s. Despite these catastrophic events, since the early 2000s, the country has made significant progress by establishing integrated policies that encompass social protection, agriculture, health and climate resilience.[28,29] The prevalence of undernourishment declined between 2000 and 2015, from more than 40% to less than 20%, although there has been an uptick to over 20% from 2015 to date. Similarly, stunting in preschool children declined from 1992 to 2020 as did the proportion of women aged 15–44 years who were classified as underweight.

Ethiopia has been resilient throughout repeated shocks using multisectoral strategies to address risks. The response to Covid-19 is an example of a multi-pronged resilience strategy. The health sector was effectively managed and modified through the implementation of a series of response measures. Specifically, the country established a national task force, launched public awareness campaigns, increased testing capacity and implemented travel restrictions and quarantine measures, while providing support to healthcare facilities and rolling out vaccination campaigns. It is interesting to note that in tandem with changes to the health system, Ethiopia's Productive Safety Net Program (PSNP) provided needed support to address declining incomes, higher food prices and increased food insecurity. The PSNP includes a rural public works programme that provides direct support to labour-constrained households and for able-bodied adults with transient needs, an urban productive safety net programme that aims to improve the income of urban poor and a jobs support programme that aims to increase market inclusion of disadvantaged urban youth.[30]

The country has consistently emphasised a multisectoral approach to improving food security and nutrition since launching the Agricultural Growth Project to enhance agricultural productivity and market access in high-potential districts through improvement of practices and inputs, commercialisation and infrastructure development, and signing on to the Scaling up Nutrition Movement and being classified as an 'early riser' country at the launch of the movement in 2010.[31] Through these efforts, it has gained experience in integrating agriculture, health, education and social safety nets as a multidimensional strategy for achieving food security and nutrition. Currently, the Agricultural Growth Project emphasises climate-smart agriculture, including cultivating drought-resistant crops. In addition, the country's National Nutrition Program has placed strong emphasis on multisectoral approaches and, importantly, established a governing structure to coordinate the efforts of nine ministries.[32] The government also launched the Ethiopian Food Systems Resilience Program, funded by the World Bank, and reaffirmed its commitment to transforming its food systems at the UN Food System Summit +4 Stocktake in 2025.[33]

The Ethiopian experience provides valuable lessons for future actions, and the country could build on this investment, but challenges persist. The percentage of the population experiencing moderate or severe food insecurity has remained high (around 55%), dietary diversity is low and more than 50% of the population cannot afford a healthy diet.[12] While multiple policies and programmes spanning agriculture, health and social safety are in place, these systems are stressed and beyond their ability to meet needs. There has been some criticism of the multisectoral approach, in part related to lack of policy implementation, fragmented efforts with weak coordination and lack of translation of research into action.[34] The country needs innovative government structures and an agri-food systems resilience approach, and to address any siloing that may cause bottlenecks to delivery through fragmented governance, incoherent policies and actions, uncoordinated financing and unmanaged competing priorities.[12]

In conclusion, while Ethiopia has substantial issues when it comes to food security and nutrition, the situation may have been worse without multiple policies and agriculture, health and social safety net programmes in place. However, these are extremely stressed, and the lack of adequate financing may be a critical barrier for widespread expansion of the programmes.

BOX 2.4

Thailand's experience in multisectoral actions linking food, nutrition and health

Thailand is classified as an upper-middle-income country by the World Bank.[35] The country's economy advanced from an agricultural to an industrial one with the adoption of an industrial strategy in the late 1950s and the development of infrastructure.[36] This economic development coupled with a robust national nutrition strategy translated into the improved health and nutritional status of its population. The prevalence of undernourishment declined from 17.4% in the early 2000s to 5.6% in 2024.[37] This success can be attributed to Thailand's multisectoral nutrition strategy, managed and implemented by the National Nutrition Committee (comprised of the health, education, agriculture and planning ministries) to ensure a multisectoral commitment to address malnutrition.[38] Further, Thailand invested in providing primary healthcare through a cadre of village health volunteers, 80% of whom were women. The volunteers were trained to provide primary care that included nutrition education to mothers and children.[39]

While there has been a substantial decline in wasting and stunting in children younger than 5 years, increases were observed from 2016 to 2024: stunting prevalence increased from 10.5% to 12.4% and wasting prevalence rose from 4.7% to 7.2%. In addition, one in ten children under 5 years experiences severe food poverty.[40] Similarly, exclusive breastfeeding rates are low (29%) and overweight and obesity are increasing, particularly in children (rising from 5.8% to 15% in 20 years).[41] Currently, volunteers support efforts to reduce child malnutrition, concurrently providing education on chronic disease prevention and management, both critical needs given the epidemiological trends.[39]

Like in many parts of the world, the Covid-19 pandemic worsened food security in Thailand, limiting access to diverse diets and nutritious foods. In 2020, 20 million people, particularly children and older adults, experienced undernourishment.[42] The Northeast region, the poorest and least developed, experienced the worst food insecurity; 60% of households ran out of food during the pandemic, in addition to losing jobs and sources of income.[43,44] In urban areas, people had limited access to nutritious food due to supply chain constraints and restrictions on the movement of goods, with young adults (15–29 years), low-income households and households/individuals with limited or no educational literacy most severely affected.[43]

The Thai government implemented several initiatives, including agricultural policies, introducing new loans for farmers, extending loan repayment periods and distributing aid to 10 million farmers for three months.[45] Food banks gained traction in Thailand, with more people accessing them to obtain food. Community-led grassroots efforts, such as the happiness-sharing pantries campaign, enabled food sharing, allowing people to donate items at select locations, where those in need could collect them.[46] Coupled with these food systems actions, village health volunteers became a significant asset, reaching people to run health campaigns and collecting timely data to track cases.[47]

Thailand is not immune to the negative consequences of rapid climate change, and its National Adaptation Plan lists potential risks to staples like rice and other grains from climate-induced disasters. It proposes adaptation strategies to mitigate adverse outcomes and shocks to the national food supply.[48] The resilience of Thailand's food systems stems from prioritising nutrition and from a multifaceted approach that brings together all relevant entities to collaborate in implementing policies. Having a cadre of trained village volunteers that provides an established channel for promptly disseminating information, providing services and screening and collecting data, coupled with an adaptation strategy, is crucial for both mitigation and strengthening of the resilience of food systems.

03

2021. San José de Ocoa, Dominican Republic.
A farmer shows his production of organic avocados.

Food systems strategies to adapt to and mitigate the effects of climate change for better nutrition

KEY FINDINGS

1 Food systems strategies to adapt to and mitigate climate change can generate both synergies and trade-offs for nutrition, depending on context and design. Across climate-smart agriculture, sustainable healthy diets and reductions in food loss and waste, gains in emissions reduction or resilience do not automatically translate into improved nutrition outcomes unless dietary quality, access and equity are explicitly considered.

2 Climate-smart agricultural strategies have contributed to adaptation and mitigation objectives in some settings, but their nutrition impacts vary widely. Outcomes have been more positive where these strategies increase the availability and affordability of diverse, nutrient-dense foods or protect incomes of food-insecure households, while productivity and efficiency gains alone have often been associated with uneven benefits and trade-offs that affect environmental sustainability, inclusion and dietary quality.

3 Dietary patterns higher in plant-based foods and lower in emissions-intensive animal-source foods are associated with lower mortality risk and reduced food systems emissions. At the same time, dietary transitions raise important challenges related to affordability, micronutrient adequacy and equity, particularly for vulnerable population groups within low- and middle-income country contexts.

4 Outcomes have tended to be more favourable where policies explicitly assess synergies and trade-offs and combine informational, fiscal and regulatory instruments. Approaches that integrate nutrition objectives, monitor impacts across multiple dimensions and adapt to context have been better positioned to support both human and planetary health.

FOOD SYSTEMS STRATEGIES TO ADAPT TO AND MITIGATE THE EFFECTS OF CLIMATE CHANGE FOR BETTER NUTRITION

Mitigation and adaptation strategies addressing the nutrition-related impacts of climate change can take many forms and may have either synergistic or opposing effects. On the consumption side, strategies supporting dietary change towards healthier and more nutritious diets can contribute to both adaptation and mitigation. Healthy diets tend to be lower in animal-source foods and therefore lower in emissions. This is especially the case in settings where current consumption of animal-source foods is high and dietary shifts towards more diverse, plant-rich diets can reduce emissions while improving health outcomes.

However, the implications of dietary change differ across contexts. In many low- and middle-income countries, the priority may be to improve dietary quality and micronutrient adequacy rather than simply reduce animal-source food intake. On the production side, agricultural efficiency gains, if not implemented in a climate-friendly manner, could lead to greater use of emissions-intensive inputs or greater production of emissions-intensive outputs such as animal-source foods. Reducing FLW has the potential to reduce emissions but could also increase them if waste reduction strategies lead to greater use of energy-intensive refrigeration.

This chapter draws on a narrative review that investigates the impacts of adaptation and mitigation strategies and outlines synergies and trade-offs across three areas: sustainable climate-smart agriculture, sustainable healthy diets and reduction of FLW (Figure 3.1). It also identifies concrete policy options across these three areas (Table 3.1).

FIGURE 3.1

Adaptation and mitigation strategies focused on climate-smart agriculture, sustainable healthy diets and reducing food loss and waste

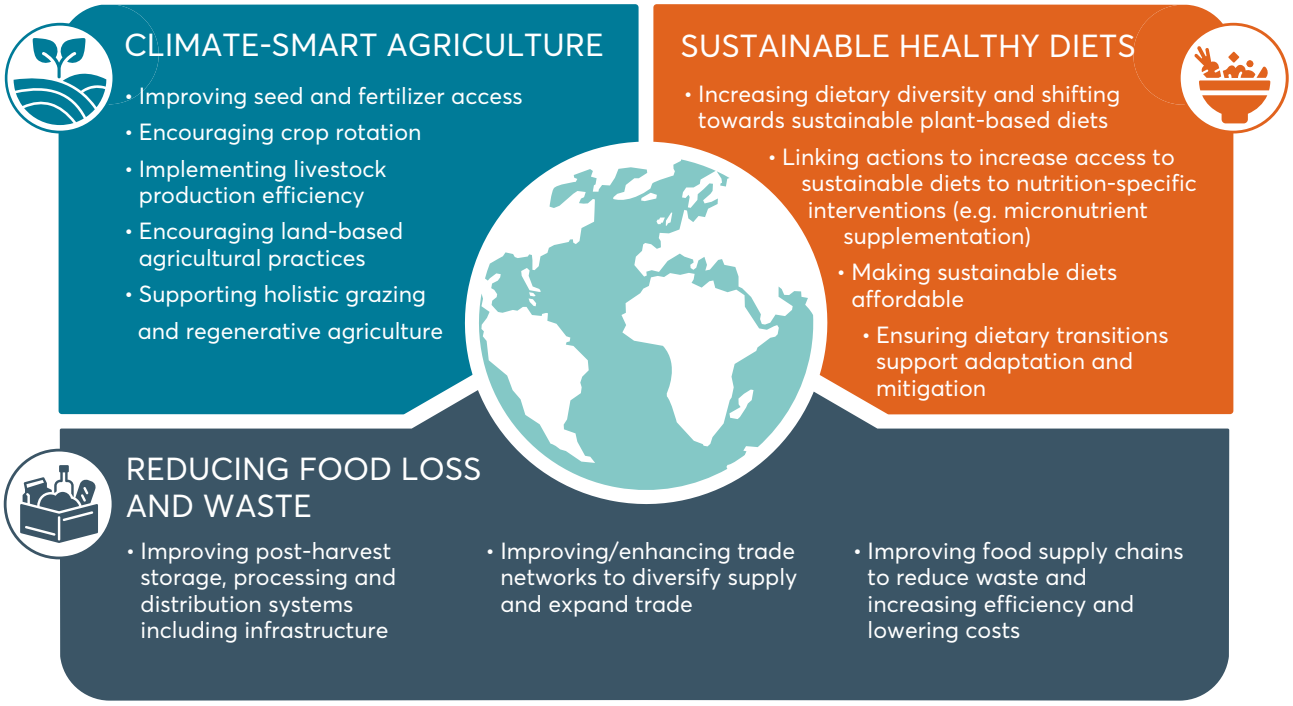


TABLE 3.1
Policy options to support adaptation and mitigation strategies

Policy options	Climate-smart agriculture	Sustainable healthy diets	Reducing food loss and waste
Informational	• Enhanced information environments and knowledge sharing. • Data collection and monitoring systems to assess market shifts or climate risks. • Robust communication strategies.	• Food-based dietary guidelines to create demand for nutrient-dense foods. • Front-of-pack labelling to nudge consumers towards healthier choices.	• Consumer-focused education and awareness generation campaigns; behavioural nudges. • Awareness generation around household storage; strategies for post-harvest management.
Fiscal	• Redirecting subsidies from the production of animal-source foods to diverse plant-based foods. • Reorienting national subsidies towards health and sustainability targets.	• Taxation of sugar-sweetened beverages and saturated fat (to decrease demand). • Subsidies to lower the cost of specific nutrient-dense foods.	• Tariff adjustments. • Strategically structured trade policies and expanded trade networks. • Subsidies on post-harvest technologies like refrigeration and hermetic bags. • Subsidies on food reserves to absorb excess production. • Dynamic pricing at the retail level. • Demand forecasting.
Regulatory and institutional	• Regional or farm-level regulatory interventions to support producer behaviour.	• Investments in school feeding programmes and school nutrition education to reinforce healthy eating behaviours and directly influence dietary quality.	• Food services portion control regulations. • Harmonised standards. • Donation of surplus food to food banks.

Climate-smart agriculture

Climate-smart agriculture aims to transform production systems to increase efficiency, enhance resilience and reduce greenhouse gas emissions[1]; however, climate-smart agriculture remains a broad and contested concept. Its flexible definition has allowed very different practices to be labelled 'climate-smart', including approaches that rely heavily on external inputs and do not necessarily improve dietary quality, support smallholders or strengthen ecological sustainability.[2]

In this report, climate-smart agriculture is treated as relevant where actions can demonstrate at least some combination of four features: 1) improved resilience to climate stress; 2) lower emissions or environmental pressure; 3) stronger access to or production of nutrient-dense foods; and 4) measurable inclusion of or benefits for smallholder producers and other vulnerable groups. Other approaches, such as agroecology, can overlap substantially with these aims and are therefore considered complementary when they improve resilience, reduce input dependence and support diversified production systems.

Several climate-smart agricultural strategies show global adaptation and mitigation potential, though their effectiveness depends on adoption rates, enabling governance and contextual factors that model-based projections may not fully capture (Figure 3.1). Importantly, gains in productivity or resilience do not automatically translate into better nutrition. Nutrition effects depend on whether these strategies increase the availability, affordability and consumption of diverse and nutrient-dense foods, improve incomes for food-insecure households or reduce exposure to climate-related production shocks.

Adaptation strategies focus on sustaining or increasing yields under climate stress. Better weather and seasonal forecasting can help farmers time planting and input use and reduce losses, and irrigation can stabilise production and support diets where water and energy systems are reliable.[3] Other options include breeding stress-tolerant crop varieties, agroforestry and index insurance.[4] These approaches can involve practical trade-offs, including costs, labour demands, land requirements and unequal access, that shape where they are feasible and who benefits.[5,6]

Mitigation strategies focus on reducing emissions linked to production while maintaining or improving output. In cropping systems, a key route is raising productivity on existing land so that pressure to expand onto new land falls, alongside practices that reduce reliance on synthetic fertilisers, such as legume-based rotations.[1,7,8,9] In livestock systems, emissions can be lowered through better feeding and herd management, and through grazing practices and feed additives that reduce methane output, provided these are affordable and supported by adequate delivery systems.[10] Soil carbon and regenerative approaches may also contribute, but results vary widely with soil type, baseline conditions and consistency of practice over time.[11,12,13,14] From a nutrition perspective, these interventions are more relevant where they support stable access to diverse foods, reduce climate-related production losses or protect smallholder incomes, rather than simply increasing aggregate output.

While most climate-smart agricultural strategies (whether adaptation or mitigation) demonstrate strong co-benefits when implemented under enabling policy conditions, there are trade-offs just as there are synergies. Major synergies and trade-offs along with potential supporting actions are shown in Appendix 1 (Table A1) and a synopsis is presented in Box 3.1.

BOX 3.1

Synergies and trade-offs in climate-smart agriculture

Climate-smart agricultural interventions operate within complex food, market and health systems. Changes in one domain can generate indirect effects elsewhere. Policymakers therefore need to assess proposed measures against multiple criteria simultaneously: emissions intensity, food availability, dietary quality, income distribution and health risks.

Where trade-offs are likely, complementary tools (such as targeted support, regulatory limits or social protection) should be built in from the start. Continuous monitoring of environmental and nutrition indicators is required to adjust course as needed.

Examples of potential synergies, common trade-offs and design implications are summarised below.

Potential synergies:

- Closing yield gaps and improving input efficiency can limit land expansion, stabilise supply and moderate food price volatility.
- Crop rotation and agroforestry can reduce fertiliser and pesticide use, improve soil health and diversify on-farm food availability.
- Livestock efficiency can lower emissions per unit output and increase the availability of animal-source foods.
- Soil and pasture management can improve resilience to drought and water stress.

Common trade-offs:

- Higher fertiliser use can increase water contamination risks and raise input costs.
- Benefits may concentrate among farmers with credit, irrigation or market access.
- Diversified crops may be sold rather than consumed, limiting dietary gains.
- Efficiency gains in livestock can increase total production (rebound effects).
- Transition to regenerative practices may temporarily reduce yields and incomes.

Design implications:

- Provide subsidies, credit and extension to smallholders.
- Implement emissions intensity benchmarks and land use safeguards.
- Invest in soil testing, nutrient management and water quality monitoring.
- Use social protection to maintain food access during transition periods.
- Integrate dietary guidance and health monitoring where food consumption patterns change.

Policy options for climate-smart agriculture

Effective implementation of climate-smart agriculture requires coordinated engagement across multiple stakeholders to ensure that changes align with nutritional objectives and do not result in maladaptation.[15] This necessitates including explicit nutrition criteria in programme design and monitoring. Without nutrition criteria, climate-smart agricultural policy may improve production or reduce emissions without improving diets, particularly where gains are concentrated in staple crops, export commodities or higher-income producers. Three broad categories of policy instruments can support this: informational approaches, fiscal incentives and regulatory measures (Table 3.1).

Effective information environments and robust data management systems support producers in anticipating market shifts and equip policymakers with data to assess climate risks. For example, improving weather monitoring and production data collection can support accurate forecasting of climate impacts on agriculture. Analysis of Brazilian producer behaviour between 1990 and 2017 demonstrated that better access to knowledge spurred increased investment and higher incomes among farmers.[16] Communicating findings in accessible ways and linking conclusions to policy guidance is another approach to avoiding maladaptive practices, as demonstrated by the Consultative Group on International Agricultural Research, which has facilitated the global transformation of rice production by channelling research findings to both policymakers and producers, tailoring dissemination strategies to regional dietary demand.[17]

Shifting the fiscal environment of food systems can steer production towards healthier and more sustainable outcomes. Redirecting subsidies away from resource-intensive and emissions-intensive animal-source foods towards diverse plant-based foods has demonstrated benefits for both climate and health. A modelling exercise using the Modular Applied GeNeral Equilibrium Tool model projected that redirecting subsidies from animal products to fruits, vegetables, legumes and nuts could cut global greenhouse gas emissions by up to 35% while reducing diet-related mortality, without large losses to individual economic welfare.[18] Similarly, Gautam and colleagues (2022) used the International Food Policy Research Institute's MIRAGRODEP model to assess the benefits of reorienting national subsidies towards health and sustainability targets, identifying opportunities to reduce the cost of healthy diets and increase producer income.[19] In low-income and subsistence-oriented settings, however, the effects of subsidy reform depend heavily on market access, local production capacity and who captures the gains. Policies are therefore more likely to support nutrition when they expand production and affordability of locally consumed nutrient-dense foods.

Regulatory interventions at both regional and farm levels can set explicit boundaries for producer behaviour, ensuring environmental targets are met while minimising the scope for maladaptive practices. Such measures need to be tailored to the environmental realities of different sectors and regions.[20] For example, Leip and colleagues (2022) used a spatially explicit nitrogen model to assess pathways for achieving the European Union's Farm to Fork target of halving nitrogen waste. They found this required both technological improvements and significant dietary shifts, particularly reduced consumption of meat and milk.[21] The success of regulatory measures depends on inclusive stakeholder engagement to balance environmental objectives with economic and dietary needs.

Sustainable healthy diets

Diets high in plant-based foods and low to moderate in animal-based products are significantly associated with reduced risk of all-cause mortality, cardiovascular disease, cancer and type 2 diabetes.[22,23,24,25] Increasing consumption of whole grains, vegetables, fruits, legumes and nuts while reducing consumption of sugar, red meat and processed meat could lead to an estimated 20% reduction in premature mortality, equivalent to approximately 10 million deaths prevented annually.[26,27] Diversifying diets and increasing consumption of nutrient-dense plant-based foods could also mitigate the risks of declining nutrient content in staple crops, projected to occur by 2050.[28,29]

At the same time, reducing the demand for emissions-intensive animal-source foods could reduce food systems emissions by up to 45%.[30] Global modelling studies have estimated a 75% reduction in emissions upon adoption of a fully plant-based diet, and an average reduction of approximately 50% upon adoption of a nutritionally balanced flexitarian diet (a predominantly plant-based diet that includes moderate amounts of animal-source foods).[31] Assessments based on national food-based dietary guidelines (FBDGs) often show smaller mitigation effects, reflecting continued inclusion of meat and dairy within recommended patterns.

Dietary change towards plant-based foods offers strong synergies between climate and health objectives, but it is important to address challenges in achieving nutritional adequacy for some population subgroups (Appendix 1, Table A2). A synopsis of the main synergies, trade-offs and design implications is presented in Box 3.2. Modelling shows that diets higher in animal-source foods could substantially increase greenhouse gas emissions (by an estimated 43% to 64) and increase diet-related mortality by 1 million excess deaths.[32] Micronutrient gaps would need to be addressed through context-appropriate combinations of diverse foods, fortified foods, supplementation and modest quantities of nutrient-dense animal-source foods where relevant (especially within low- and middle-income country contexts). Additional nutritional requirements for vulnerable groups (e.g. pregnant and lactating women, infants and young children) could instead be met by optimising the consumption of select nutrient-dense foods, such as increasing consumption of green leafy vegetables to improve iron intake or algae to meet vitamin B12 requirements.[33]

A caveat of analysis recommending plant-based dietary shifts is the reliance on adult chronic disease outcomes often drawn from high-income populations, thus introducing a bias given differing health risks, diets and life expectancies. Despite the increasing prevalence of non-communicable diseases globally, this may appear to overlook the immediate priorities in low- and middle-income countries, including those that are the focus of the World Health Assembly targets (undernutrition and maternal and child health). Future research needs to examine/incorporate diverse health outcomes and context-specific evidence. Programmatically, alternative strategies to support sustainable animal-source foods and/or animal-source food alternatives will need to be considered particularly for specific population subgroups (i.e. pregnant and lactating women and infants and young children) to achieve their requirements. A complementary approach is to connect dietary transition strategies with nutrition-specific and nutrition-sensitive health system interventions (Box 3.3), including micronutrient supplementation, fortification programmes and vitamin A supplementation, delivered through antenatal care, child health services and non-communicable disease prevention programmes. Delivery of combinations of direct and indirect interventions through the health sector has been found to be effective in addressing undernutrition.[34,35]

Affordability presents another important trade-off. As of 2021, while 42% of the global population could afford a healthy diet, more than three-quarters of the population in Africa could not.[36] Healthy and sustainable diets are estimated to be 18% to 29% more expensive than current diets in low-income countries – although, affordability could improve under future scenarios through reductions in FLW, socioeconomic development and full-cost accounting of environmental impacts.[37]

BOX 3.2

Synergies and trade-offs in sustainable healthy diets

Dietary transitions are complex and long-term processes within and beyond single sectors,[38] often suffering from feedback loops and unexpected trade-offs.[39] Examples of potential synergies, common trade-offs and design implications are summarised below.

Potential synergies:

- Shifting towards plant-rich diets can reduce risks of cardiovascular disease, diabetes and certain cancers while lowering food systems emissions.
- Increased consumption of whole grains, legumes, fruits and vegetables can improve micronutrient adequacy and support more diversified production systems.
- Reduced demand for emissions-intensive animal-source foods can ease land and resource pressures.

Common trade-offs:

- Sustainable healthy diets may remain unaffordable for low-income households.
- Rapid reductions in animal-source foods can create micronutrient gaps in specific groups, if not compensated.
- Subsidy reforms may face political resistance from groups that benefit the most from the current food system order.
- Vague dietary guidance yields limited climate gains.

Design implications:

- Combine dietary guidance with subsidy reform and targeted transfers to improve affordability.
- Integrate micronutrient supplementation, fortification and counselling into primary care.
- Consider targeted interventions for specific life cycle groups that support meeting requirements through consumption of animal-source foods or their alternatives.
- Align procurement, labelling and marketing policies with dietary goals.
- Monitor equity and nutrition impacts across income groups during transition.

BOX 3.3

Nutrition-specific and nutrition-sensitive interventions

A 2013 *Lancet* Maternal and Child Nutrition Series paper[40] distinguishes between nutrition-specific and nutrition-sensitive interventions.

Nutrition-specific: "Interventions or programmes that address the immediate determinants of foetal and child nutrition and development—adequate food and nutrient intake, feeding, caregiving and parenting practices, and low burden of infectious diseases."

Nutrition-sensitive: "Interventions or programmes that address the underlying determinants of foetal and child nutrition and development—food security; adequate caregiving resources at the maternal, household and community levels; and access to health services and a safe and hygienic environment—and incorporate specific nutrition goals and actions."

Policy options for sustainable healthy diets

Policy options to support sustainable healthy diets range from informational and fiscal to regulatory approaches[41] (Table 3.1). Informational approaches include FBDGs, front-of-pack labelling and regulation of food advertising. While most national FBDGs recommend abundant quantities of vegetables and fruits, guidance on meat intake is often unclear and nonspecific, and FBDGs rarely shift consumption patterns at scale. Evidence suggests that almost 40% of populations in both high- and low- and middle-income countries do not adhere to their national FBDGs.[42] A meta-analysis of labelling studies found that while labels help consumers identify healthier products, their ability to shift consumers towards healthier choices is limited.[43]

Fiscal approaches can lead to more substantial changes in dietary intake. Although more research is needed, for instance in terms of differentiated effects on different income groups, taxes represent one of the most effective tools for decreasing consumption of unhealthy foods.[44] Increases in the price of sugar-sweetened beverages have reduced demand in several countries that have implemented such policies, and taxes on saturated fats in Denmark have produced similar trends.[44,45] Full-cost accounting, in which food prices reflect the cost of climate change damages associated with emissions, would translate into higher prices and lower demand for high-emissions foods such as red and processed meat and dairy.[27] The key trade-off is the impact of food taxes on food security, as higher prices can make diets more expensive and less accessible for vulnerable groups and low-income countries.[46] This concern is especially important within low- and middle-income contexts, where households often spend a large share of income on food and where taxation without compensatory measures may lessen affordability. In such settings, subsidies for nutrient-dense foods, public procurement, school feeding, social protection and targeted fortification may be more feasible entry points than broad food taxes alone.

Food subsidies that lower the cost of nutrient-dense foods, including fruits, vegetables, legumes and whole grains, could also be considered. A meta-analysis of 22 intervention studies found that a subsidy of 10% led to a 14% increase in consumption of fruits and vegetables.[47] Institutional platforms, including school feeding programmes, offer an important delivery mechanism for improving diets and nutritional outcomes. A systematic review of 16 randomised or quasi-experimental interventions in Europe and North America found that direct provision of foods to students increased combined consumption of fruits and vegetables by 0.28 servings per day.[48] In India, long-term exposure to the Mid-Day Meal Scheme was associated with a 13% to 32% improvement in height-for-age z-scores among children between 2006 and 2016.[49] As the impacts of climate change intensify, enabling healthier and more resilient food choices in schools and other institutional settings will become an increasingly urgent adaptation priority.[50]

As the impacts of climate change intensify, enabling healthier, more resilient food choices in schools and elsewhere will become an increasingly urgent adaptation priority, requiring coordinated action across sectors and actors.

Reducing food loss and waste

Globally, around 30% of food is lost or wasted, with loss during production and processing particularly acute in low-income regions and waste during retail and consumption more common in high-income regions.[51] Addressing FLW serves a dual purpose: adapting to climate change and mitigating its effects. However, these objectives can sometimes work against each other, and interventions can even backfire from a mitigation perspective. For instance, increased refrigeration and energy-intensive storage systems can raise global greenhouse gas emissions, potentially offsetting gains from FLW reduction.[52] Trade expansion, while supporting adaptation by redistributing surplus food to regions facing production shortfalls, can increase emissions from transport if fossil fuel–dependent logistics are used.[53,54] On the mitigation side, efficiency gains that reduce the need for production and lower emissions can be complicated by economic feedback effects such as lower food prices, as well as political or practical barriers to large-scale implementation.[55]

Adaptation interventions include improved trade, post-harvest storage, processing and distribution systems, which limit losses caused by heat, humidity and pests. These challenges are expected to intensify within climate change.[56,57] Trade allows redistribution of food from surplus to deficit regions and plays a central role in adaptation: diversifying supply chains and widening the number of exporting regions reduces consumer vulnerability to localised shocks, though over-reliance on imports from a small set of countries could heighten risk if climate extremes strike multiple suppliers simultaneously.[58] A global analysis projected that halving FLW could lift 137 million people out of hunger by 2030.[59]

Addressing FLW also has significant mitigation benefits. Scaling back agricultural production through FLW reduction could reduce associated emissions by 11% by 2050, and optimising crop geography could reduce emissions by up to 71%.[31,53] Reduction in retail and consumer FLW carries particularly significant mitigation benefits, as wasted products carry the full emissions burden from production to processing.[60] Full trade liberalisation from 2030 to 2050 could reduce agricultural emissions by up to 33% (structural and political constraints may affect these estimates).[54]

Adaptation strategies also face challenges of alignment between FLW rates and climate-induced losses. While high FLW rates for fruits and vegetables are amenable to intervention, animal-source foods exhibit low baseline levels of FLW, which reduces the potential for adaptation through waste reduction in this category.[51] That said, interventions targeting high-loss commodities such as fruits and vegetables simultaneously enhance adaptation by stabilising supply under climate variability and contribute to mitigation by reducing the need for additional production.[61] Policymakers must carefully consider energy demands, economic feedback, commodity-specific losses and trade-offs to maximise the benefits of FLW interventions. By targeting interventions strategically, focusing on high-loss commodities, adopting low-emissions storage technologies and supporting resilient trade networks, synergies can be enhanced while minimising unintended consequences.

Policy options for reducing food loss and waste

Like climate-smart agriculture and sustainable healthy diets, effective FLW policy spans informational approaches, fiscal incentives and regulatory mechanisms (Table 3.1). On-farm storage improvements, such as the use of hermetic bags and climate-controlled silos, can reduce losses due to spoilage, pests and environmental stressors by approximately 5%, which could in turn reduce hunger by 20%.[62] Evidence from Ethiopia and Kenya suggests that strategic state-subsidised food reserves could reduce maize storage losses by up to 50%.[63,64] Post-harvest processing interventions, including drying, cooling and the use of portable technologies, can increase food availability and reduce greenhouse gas emissions in some circumstances. Use of portable drying technology in Myanmar increased rice production by 7%, improved grain quality by 30% and lowered emissions by up to 40%.[65] A 25% reduction in food loss at the production stage could increase global food availability by 4.3% and decrease global greenhouse gas emissions by 0.7%.[56]

Food waste interventions focus primarily on the retail and consumer stages. Retail-level policies include dynamic pricing, demand forecasting through machine learning, bulk discounting and donation of surplus food to food banks.[66,67,68] Such strategies can decrease food waste while potentially improving dietary diversity and reducing hunger. Consumer-focused informational approaches, including education campaigns, awareness-raising and behavioural nudges, can promote better household storage and consumption patterns, though with mixed long-term effects.[69,70] Investments in household and retail refrigeration can extend the shelf life of perishable foods, particularly fruits and vegetables, although they may increase energy-related emissions if not paired with low-carbon energy sources.[71] Legislative measures, including portion control mandates and incentives for reducing food waste in food service settings, have shown promise in curbing waste while preserving nutrition outcomes.[72]

Trade policy interventions can enhance both adaptation and mitigation objectives. Expanding trade networks allows more efficient producers to supply regions experiencing production shortfalls, thereby increasing resilience to climate-induced shocks and improving dietary diversity.[32,57] However, trade policies must be carefully structured to preserve resilience, as over-reliance on a limited set of staple imports exposes countries to simultaneous climate shocks.[58] Policy measures may include harmonised standards, tariff adjustments and infrastructure investments to facilitate efficient cross-border distribution while mitigating transport-related emissions.[54] A combination of storage and processing improvements, consumer- and retailer-focused waste reduction interventions and strategically structured trade policies can provide concrete avenues for enhancing the efficiency, resilience and sustainability of the food supply chain. The main synergies, trade-offs and design implications across these interventions are summarised in Box 3.4. The success of the food systems strategies, whether climate-smart agriculture, ensuring sustainable healthy diets or reducing loss and waste, requires engagement with the private sector. Private-sector accountability in delivering food systems actions is presented in Box 3.5.

BOX 3.4

Synergies and trade-offs in reducing food loss and waste

Reducing food loss and waste requires considerable and interconnected changes to storage systems, logistics, trade patterns and price dynamics. Examples of potential synergies, common trade-offs and design implications are summarised below.

Potential synergies:

- Improved storage and processing can reduce losses from heat, humidity and pests, stabilising supply and moderating seasonal price volatility.
- More efficient supply chains reduce waste where products embody high production emissions, improving system-wide efficiency.
- Trade can redistribute surplus food to deficit regions during climate shocks and diversify sourcing.

Common trade-offs:

- Energy-intensive refrigeration and long-distance transport can increase emissions.
- Infrastructure investments may exclude smallholders and small enterprises.
- Trade expansion can undermine local producers if poorly managed.
- Lower prices from efficiency gains may increase consumption and offset emissions savings.

Design implications:

- Prioritise low-emissions storage and cooling technologies.
- Provide shared or subsidised infrastructure for small-scale actors.
- Invest in low-carbon logistics and diversified trade partnerships.
- Link food loss and waste reduction with food assistance and nutrition programmes.
- Track emissions, price effects and equity outcomes during rollout.

BOX 3.5

Private-sector accountability in delivering on food systems actions

Nutrition performance of the private sector through accountability measures and improved incentives and regulations needs to be strengthened. Coordinated action across all actors, including businesses, governments, investors and consumers, is needed to ensure that nutritious food is more available, affordable, desirable and accessible. Markets will change when governments, international institutions, investors and businesses leverage the full range of private-sector tools, innovations and financial instruments to achieve access to nutritious foods for healthier diets. The guiding principles for private-sector engagement were agreed upon by dozens of actors at the Nutrition for Growth Paris 2025 Summit.[73]

Several steps are required to operationalise greater accountability, better incentives and enhanced regulation. First, civil society and multilateral organisations should develop guiding principles for increasing transparent and accountable engagement with the private sector. Several existing benchmarks can be adapted and leveraged to push for improved corporate engagement and healthier food portfolios to achieve sustainable healthy dietary goals, with transparent reporting on nutrition, marketing and emissions impacts. Second, investors, development finance institutions and governments can provide financial incentives to support local private-sector food systems actors that produce nutritious, healthy and safe foods and that measurably demonstrate product portfolio–level improvements.[74] Third, more investments are required for climate-resilient and nutrition-sensitive (perishable and nonperishable healthy foods) supply chains, particularly post-harvest infrastructure in low-income settings. Fourth, governments can introduce evidence-based nutrient profile models to develop and implement relevant taxation of unhealthy food products while initiating mandatory schemes to improve company portfolios and marketing practices.[75]

Governments can require food companies to disclose annually the healthiness of their product portfolios against these national evidence-based nutrient profiling models. Finally, governments and development finance partners can rebalance agricultural subsidies to support healthy diets from sustainable agri-food systems by favouring healthy foods (fresh fruits and vegetables, beans and legumes, diverse nutritious staple foods and nutritious animal-source foods) within some contexts.

2020. Narun Oblast, Kyrgyzstan.
A woman breaks bread at a nomad camp.
© Igor Kovalenko/FAO.

04

Strategies to integrate gender into food and health systems actions

KEY FINDINGS

1. Gender norms and power relations shape how climate change affects nutrition outcomes through food and health systems. Women's roles in food production, food preparation, caregiving and healthcare-seeking are central to household nutrition, yet persistent inequities in access to land, inputs, income, information and services constrain their ability to cope with climate stress and shocks.

2. Climate change acts as a vulnerability multiplier, intensifying existing gendered risks to nutrition and health. Economic losses, increased food insecurity, higher care burdens and disrupted access to essential health and nutrition services have disproportionately affected women, particularly during pregnancy and lactation, reinforcing cycles of malnutrition and intergenerational disadvantage.

3. Women's agency in food systems and health systems has been closely linked to improved nutrition, health and resilience outcomes. Greater control over resources, income and decision-making has supported more diverse diets, increased use of preventive and curative health services and stronger adaptive capacity, while collective action through groups and cooperatives has amplified these gains.

4. Integrated strategies that place gender equity at the centre of climate-resilient nutrition action, such as gender-responsive social protection, health system–embedded nutrition interventions and equitable access to climate information and services, have been better positioned to deliver co-benefits across food systems, health systems and nutrition. Approaches that address women's agency across production, consumption and care pathways have strengthened both resilience and equity under climate stress.

STRATEGIES TO INTEGRATE GENDER INTO FOOD AND HEALTH SYSTEMS ACTIONS

This chapter applies a gender lens to climate, food and health systems. It examines women's roles as agents of change and discusses how climate change amplifies gendered nutrition and health risks. It also explores strategies for integrating gender equity into food and health systems actions.

Why gender matters for food and health systems within climate change

Equity is a foundational principle for fair and resilient food and health systems. Nutrition outcomes are influenced by multiple, intersecting dimensions of inequity, including income, gender, geography, age, ethnicity, disability, vulnerability and displacement status.[1] These factors affect who has access to nutritious foods, high-quality health services and social protection, as well as the capacity to cope with shocks. Within this broader equity landscape, gender plays a strategic role. Gender norms and power dynamics influence decision-making and control over resources in households, markets and public programmes.[2,3]

Women contribute to food and health systems through farming and livestock work, processing and preparation, dietary management, caregiving and healthcare-seeking.[3] Structural constraints limit women's access to resources such as land, finance, inputs, information, technology and formal decision spaces, affecting their income, access to nutritious foods and ability to cope with climate shocks.[2,4] Climate change increases exposure to these barriers by raising time and labour burdens, elevating the danger of displacement, reducing and destabilising incomes, disrupting food availability and interrupting service delivery.[5,6] In this sense, climate change affects women through two pathways: production (production and earnings) and consumption and care (dietary quality, feeding practices and service use).

Placing gender equity at the heart of climate-resilient nutrition strategies offers an opportunity to achieve multiple goals at once. Yet, this requires explicit gender actions across sectors. Governments and implementation partners can adopt multiple strategies to achieve gender equity: secure women's land and asset rights;[3] target extension and climate information to women farmers;[7] design credit and input support that women can easily access;[8] reduce unpaid care burdens through water, sanitation and hygiene, energy access and childcare;[9] ensure social protection transfers reach women and are usable during shocks (including digital and last-mile options)[10,11]; and maintain access to nutrition and health services through outreach and community delivery when facilities become inaccessible.[11]

How climate change amplifies gendered nutrition and health risks

Climate change acts as a vulnerability multiplier, intensifying the structural and social inequities that women already face in agri-food and health systems. Women working in agriculture and food value chains experience discrimination and are often restricted to lower-paid, more precarious roles with limited access to productive resources.[3] These constraints reduce their ability to adopt climate-resilient practices and recover from climate-related shocks.[6] Evidence shows that climate shocks disproportionately affect women's incomes, assets and food security, especially in female-headed households. Income losses from heat stress, floods and droughts tend to be larger and longer lasting for women, undermining their ability to maintain adequate diets and invest in health and nutrition. Women's assets are often the first to be sold during crises, weakening long-term resilience and perpetuating cycles of vulnerability.

These economic impacts intersect with inequities in women's nutritional status and access to health services. Women's higher physiological needs during adolescence, pregnancy and lactation make them more sensitive to food shortages, heat stress and infectious diseases,[12] yet access to essential health and nutrition services remains uneven. In low- and middle-income countries, women from the poorest households are less likely to receive the recommended number of antenatal care visits. Additionally, out-of-pocket healthcare expenses make up a significant portion of maternal health spending, creating barriers to continuous care. Meanwhile, anaemia and micronutrient deficiencies are widespread: approximately two-thirds of women of reproductive age globally have at least one micronutrient deficiency,[13] and in several regions about half of women are anaemic.[14,15] Climate-related shocks increase demand for health and nutrition services while simultaneously disrupting service delivery, further widening access-to-care gaps for women. Malnutrition reduces women's ability to cope with climate stressors and their work capacity, increasing risks for both maternal and child health and reinforcing intergenerational cycles of disadvantage.[14,16]

Unpaid care and domestic work further limit women's adaptive capacity. Women bear most caregiving and household responsibilities, including childcare, food preparation and collection of water and fuel.[9] These tasks become more time consuming and labour intensive under climate stress.[17] Increased care burdens reduce women's time for income-generating activities, participation in training or collective action and use of health and nutrition services, with direct consequences for well-being.[18] This creates a critical barrier: even when climate information, agricultural extension services or health services become available, women may be unable to access them.

Women as agents of change

In this report, agency is defined as the ability of individuals to make choices and act on them, and to have a voice in social, economic and policy decisions.[19] The Food and Health Systems for Equitable Nutrition (FHEN) Framework presented in this report positions women as key agents of change, recognising that women's agency operates differently across food systems and health systems, and that climate change compounds existing constraints on this agency.

In food systems, women's agency involves their ability to make decisions across the production-to-consumption continuum, including deciding what to grow, which technologies and inputs to use, when and where to sell and how to control income from these choices. It also influences household decisions about food purchase, storage and allocation. Limitations in agency manifest as unpaid or poorly paid labour and reduced control over crops, technologies or sales.[20] Within climate change, these constraints deepen. Climate impacts on crops and livestock reduce yields and labour returns, increase post-harvest losses and disrupt local food markets, raising price volatility

and limiting access to nutrient-rich foods.[21] Women's unpaid work often increases during crises, particularly water and fuel collection and caregiving, further restricting their time for farming, market participation and decision-making.[22] At the household level, climate stress tends to push consumption towards less expensive staples and nutrient-dense foods are the first to be cut.

In health systems, women's agency determines whether and when they use services and how well they can adhere to treatment recommendations. Within many contexts, patriarchal norms and gendered power dynamics restrict women's mobility, control of cash and decision-making about seeking care.[23] These constraints often lead to delays in or forgoing of essential services, including antenatal and postnatal care, facility delivery, contraception, immunisation visits for children and screening and care for undernutrition and anaemia. Restrictions are enforced through everyday mechanisms: needing permission to leave home, lack of funds for transport or fees, limits on phone ownership and access to health information, fear of stigma and low bargaining power within households.[24] Under climate stress, these barriers intensify. Transport costs rise, time away from work or care becomes harder to manage and women have less control over spending and travel choices, resulting in delays in seeking care and weaker adherence to nutrition and health interventions.[25]

Critically, constraints on agency in food systems and health systems are interconnected. When women lack control over agricultural income or food purchases, they cannot prioritise nutritious foods for themselves and their families, increasing malnutrition risks that require health system intervention. Conversely, when women cannot access health services for family planning, antenatal care or treatment of illness, their capacity for productive work in food systems diminishes. Climate change exacerbates both dimensions simultaneously, creating compounding effects on nutrition outcomes.

Evidence of the benefits of women's empowerment

Despite these constraints, strong evidence demonstrates that women's empowerment generates substantial benefits for their well-being, as well as climate resilience, nutrition, health and food system performance.[26] When women have greater agency over agricultural decisions and household resources, agri-food systems become more diverse, productive and resilient, with positive effects on diets and nutrition.[27] These gains also strengthen health system effectiveness, as improved food security and dietary quality increase the impact of nutrition and health interventions delivered through routine services.

Closing gender gaps in access to land, inputs, finance, information and markets has been shown to increase farm productivity, promote crop and livestock diversification and improve dietary diversity at the household level.[28,29,30] Women's decision-making power is consistently linked to greater allocation of resources to nutritious foods, healthcare and education, leading to better nutrition outcomes throughout the life-course and increased demand for preventive and curative health and nutrition services. This creates a positive feedback loop: better-nourished women and children are more productive in food systems and make more effective use of health services, and stronger health systems can better support women's participation in food systems through reproductive health services, nutrition counselling and treatment of illness that would otherwise impair work capacity.

Collective action is particularly important. Women's participation in savings groups, cooperatives and producer organisations strengthens their empowerment and increases access to credit, social capital and information, enabling women to invest in climate-resilient practices and small enterprises.[31,32] These mechanisms also provide platforms for addressing structural barriers, including limited bargaining power and restricted access to markets and services, and for strengthening

linkages between communities and local health systems through outreach, information sharing and service uptake. When women's groups connect with health system community platforms, they can facilitate healthcare-seeking behaviour, support adherence to nutrition interventions and provide peer support for optimal feeding practices.

Empowering women as economic and social actors strengthens food systems and in turn supports health system performance by increasing effective uptake of preventive and curative services, improving continuity of care and adherence to nutrition interventions across the life-course and strengthening community-based delivery and referral systems.

Entry points for integrated gender, climate and nutrition action

Evidence from policies and programmes points to several practical entry points for integrating gender equity, climate action and nutrition, with shared benefits across food systems and health systems.

Gender-responsive social protection is a key mechanism. Cash transfers, food vouchers, school feeding and public works programmes designed to reach women and account for their specific constraints can protect healthy diets during climate shocks while supporting long-term resilience.[11] When linked to local food production and women farmers, these programmes strengthen agri-food systems and livelihoods.[33,34] They also improve access to essential health and nutrition services during stressful times by stabilising household resources and reducing financial barriers to care.

Nutrition interventions can support climate resilience when designed with a gender perspective and embedded within health systems. Access to micronutrient supplements for women and adolescent girls can improve nutritional status and decrease vulnerability to climate-related health stressors, particularly during pregnancy and lactation.[35] Integrating such interventions into regular healthcare services, including antenatal, postnatal and adolescent health programmes, reinforces the role of health systems as frontline providers of climate-resilient nutrition.

Access to climate information, early warning systems and risk management tools is another critical entry point. When these services are combined with fair access to land and sufficient agency, they improve decision-making and support quicker recovery from shocks among women farmers.[7,36] Early warning systems can also trigger social protection responses and help pre-position health commodities to safeguard nutrition and health during climate emergencies. Similarly, insurance products and financial services that consider women's preferences and constraints can narrow gender gaps in uptake and impact, safeguarding incomes and reducing reliance on harmful coping strategies that hinder nutrition and health.[8] Value chain interventions that support women beyond primary production, including processing, storage and marketing, offer additional opportunities. By improving women's access to technology and infrastructure, including markets, these initiatives can raise incomes, reduce post-harvest losses and increase the availability of nutritious foods, particularly in underserved areas, while alleviating pressure on health systems by reducing nutrition-related disease burdens.[31,37]

Integrating gender-responsive social protection interventions into regular healthcare services, including antenatal, postnatal and adolescent health programmes, reinforces the role of health systems as frontline providers of climate-resilient nutrition.

2025. The Gambia.
A farmer shows the feed prepared for his goats.

05

Governance as a driver of food and health system transformation

KEY FINDINGS

1. Governance plays a central role in shaping whether food and health systems can deliver healthy diets, maintain essential nutrition services and reduce inequities under climate stress. Recent advances in nutrition governance, including the wider use of SMART (Specific, Measurable, Achievable, Relevant and Time-bound) commitments and formal accountability frameworks, have improved transparency and comparability across actors, thereby strengthening procedural accountability.

2. Despite procedural improvements, a persistent gap remains between commitments on paper and progress in practice. Institutional fragmentation, siloed mandates, misaligned financing architectures and weak connections between climate policy and nutrition delivery have limited the ability of food and health systems to withstand shocks and achieve sustained nutrition outcomes.

3. Financing arrangements have been a key contributor to this gap. Short-term, project-based funding, declining official development assistance and the failure to account for the health and environmental externalities of current food systems have constrained investment in long-term, integrated and equity-focused transformation, while unmanaged conflicts of interest have further complicated governance and accountability.

4. Substantive nutrition outcomes have been more likely where governance arrangements have moved beyond procedural accountability to embedding commitments within coherent financial, institutional and resilience frameworks. Approaches that strengthen cross-sector coordination, align public finance with nutrition and climate objectives, empower communities and link accountability to delivery have been better positioned to support equitable and resilient food and health system transformation in a changing climate.

GOVERNANCE AS A DRIVER OF FOOD AND HEALTH SYSTEM TRANSFORMATION

Within a changing climate, effective governance is key to promoting healthy diets for everyone. Governance shapes how food systems and health systems function, as both stand-alone and interconnected domains (Box 5.1). It also dictates how responsibilities, resources and delivery capabilities are shared across different sectors. As climate change leads to more frequent and severe shocks, governance plays a crucial role in determining whether food and health systems can maintain dietary quality, provide essential nutrition services and reduce inequities.

Recent years have witnessed significant progress in nutrition governance.[1,2] The widespread adoption of SMART (Specific, Measurable, Achievable, Relevant and Time-bound) commitments and formal accountability frameworks, from the Organisation for Economic Co-operation and Development's Development Assistance Committee to the NAF, has increased transparency, monitoring and comparability across actors. This shift from vague pledges towards clearly articulated responsibilities represents meaningful progress in procedural accountability. For instance, the accountability frameworks have advanced the clarity, specificity and measurability of commitments themselves. However, procedural advances alone are insufficient. Clearly defined commitments must be supported by financial, institutional and delivery systems capable of withstanding climate-related shocks and reaching those most at risk.[3,4] Without governance arrangements that align commitments with financing, resilience planning and equity objectives, even well-specified commitments risk falling short of their intended impact.

Within this context, the current advances in accountability offer a chance to improve nutrition governance, moving beyond procedural compliance towards more substantive forms of accountability. By facilitating better integration among food systems, health systems, climate policy and public finance, governance can help embed nutrition commitments within the financial, institutional and resilience frameworks required to deliver sustained and equitable nutrition results under climate stress.[5]

BOX 5.1
Effective governance

Effective governance is defined as the rules, institutions, coordination arrangements and accountability processes that allow public and non-state actors to plan, fund, implement and monitor joined-up action. Within the context of this report, effective governance more closely refers to the capacity to set up, implement and coordinate action across the food, health, climate, social protection and other sectors that shape nutrition outcomes across food and health systems.

From procedural accountability to substantive accountability

Building on recent advancements in accountability, nutrition governance now features clearer commitments, stronger reporting requirements and improved monitoring mechanisms. The wide adoption of SMART commitments and formal accountability frameworks has improved transparency and comparability among different actors, helping to advance the global nutrition community towards more clearly articulated responsibilities. These developments mark important progress in procedural accountability and have consolidated the foundations of nutrition governance.[6,7]

However, as climate-related risks intensify, procedural accountability alone is unlikely to be sufficient to deliver sustained and equitable nutrition outcomes. The effectiveness of commitments increasingly depends on whether they are part of coherent governance strategies that connect goals with the capacity to deliver.[5] This highlights the need for substantive accountability, which refers to how well commitments are embedded within financial, institutional and policy frameworks that support implementation, withstand shocks and tackle structural inequities.

The gap between procedure and substance

The persistent gap between procedure and substance is rooted in the same governance and financing structures that commitments are meant to fix. Systemic roots of this gap include institutional fragmentation and siloed mandates, misaligned financing architecture and vertical disconnects and climate marginalisation.

Institutional fragmentation and siloed mandates: The gap between procedural and substantive accountability is a direct and predictable consequence of deep institutional fragmentation.[1,8] Governance is fractured horizontally (across sectors) and vertically (from global to local). This fragmentation is particularly damaging when addressing cross-cutting threats. For example, risks like antimicrobial resistance and zoonotic diseases, such as Avian influenza, are intrinsically linked to food production activities like intensive livestock farming and cannot be managed by a ministry of health alone.[9] They require governance that substantively binds agriculture, environment and health. Yet, current fragmented structures tend to produce procedural responses including commitments that are formally registered and reported but lack the cross-sectoral mandates, shared financing or joint delivery mechanisms needed to address the underlying problem.

Misaligned financing architectures: Financing mechanisms may mirror and reinforce institutional fragmentation. In practice, many financing arrangements favour short-term, procedurally defined projects. Traditional funding streams like international aid and philanthropic funding are vital but carry structural risks such as 'political vulnerability' and 'donor dependency' (Table 5.1). These characteristics incentivise funding bodies to favour projects that are easily measurable, carry low political risk and deliver rapid, visible results (e.g. a vitamin supplementation programme). Conversely, the long-term, complex, substantive reforms required for transformation face structural disincentives. Such reforms are politically challenging and often misaligned with annual aid budget cycles.

The most significant misalignment is the failure to account for the 'hidden costs' (health and environmental externalities) of the current system.[10] As the recent EAT-*Lancet* Commission on sustainable and just systems for healthy foods suggests, public finance (via subsidies) can incentivise the production of commodities that drive these externalities, while private finance prioritises sales of products that may therefore inadvertently perpetuate existing problems. This problem goes beyond misaligned incentives alone,

raising questions about corporate political activity within nutrition governance. Evidence shows that commercial actors can shape research agendas, lobby against public interest regulation and influence policy processes through funding relationships, institutional access and revolving-door ties with regulators. Within such contexts, conflicts of interest play out in governance arrangements that place commercial actors in positions where profit motives can shape rule setting, implementation or oversight.[11] This means that engagement with private actors requires clear safeguards, including disclosure requirements, transparency regarding funding, participation, and limits on decision-making roles (where conflicts are high) and institutional firewalls between regulatory functions and commercial influence.[12]

Emerging instruments like blended finance and development impact bonds are promoted as solutions but remain marginal.[13,14,15] Their high transaction costs, bespoke design and the difficulty of standardising metrics for complex social outcomes mean they are not yet scalable alternatives. They remain complements to, not substitutes for, the core public financing that should be reformed.

Vertical disconnects and climate marginalisation: The gap between procedural and substantive accountability is reinforced by a vertical disconnect between global goals and national implementation tools. Global goals are becoming more substantive. For instance, the 28th UN Climate Change Conference United Arab Emirates Declaration explicitly links climate and food.[16,17] However, the formal instruments of national implementation fail to translate this integration. Nutrition remains critically under-prioritised in these climate policy instruments. A 2025 analysis found that only 2% of Nationally Determined Contributions (NDCs) and 16% of National Adaptation Plans (NAPs) included explicit resource mobilisation plans targeting nutrition.[18] While public climate funding has grown, the share directed to food systems declined between 2017 and 2022.[19] These figures show a governance gap between climate policy and nutrition delivery. Nutrition is sometimes mentioned in climate plans, but rarely linked to budgets, mandates or implementation systems. The higher inclusion in NAPs than NDCs suggests that nutrition enters more easily through adaptation planning than through mitigation or resource mobilisation. Even so, inclusion remains limited. Better integration will require cross-sector authority, aligned budgets and nutrition indicators within climate planning and reporting.

TABLE 5.1

Major financing sources for nutrition and resilience: Opportunities and challenges

Financing source	Opportunities and benefits	Challenges/risks	Illustrative examples
Domestic public financing (e.g. government budgets)	Aligned with national plans; high potential for realigning existing capital (e.g. subsidy reform) and raising new revenue (e.g. health taxes on specific foods).	Limited fiscal space (e.g. post-Covid-19 debt); political economy of reform (e.g. lobby groups); nutrition is often under-prioritised.	Nutrition budget within national health or agriculture ministries.
Official development assistance	Provides catalytic capital and technical support for domestic policy reform (e.g. subsidy repurposing).	Declining volumes due to geopolitical/national pressures; short-term priorities (humanitarian aid) crowd out long-term reform; donor dependency.	Donor-funded vitamin supplementation; school feeding; crisis response programmes.
Private-sector investment	Mobilises large-scale capital for supply chain efficiency, fortification and innovation in sustainable foods.	Pervasive conflicts of interest (e.g. ultra-processed food industry); commercial motives often conflict with public health/ sustainability goals; risk of undue policy influence.	Food industry research and development into fortified staples.
Philanthropic funding (e.g. foundations)	Flexible and risk tolerant; can act as a catalyst by funding innovation, accountability platforms and policy research.	Dependent upon donor priorities; limited scalability; accountability concerns.	Foundation-supported nutrition initiatives or catalytic platforms.
Innovative finance (e.g. blended finance, impact bonds)	Incentivises outcomes within niche applications; can de-risk private investment in specific areas (e.g. climate-resilient infrastructure).	High transaction costs and complexity; difficulty in standardising metrics; remains small scale with low uptake; not a substitute for core public finance.	Development Impact Bond for maternal and child health; blended finance vehicle for climate-smart agriculture.

Pathways to substantive transformation

The gap between procedural and substantive accountability is not inevitable. Several proven governance interventions demonstrate how to embed financing, cross-sector coordination, climate alignment, resilience and equity within commitment design and delivery. However, these interventions depend on institutional and political conditions that are not present in all settings. Their transferability depends on factors such as cross-ministerial coordination capacity, sustained political commitment, administrative capability and the ability to sustain funding over time. These conditions are especially important within many low- and middle-income contexts, where N4G commitments often face tighter fiscal constraints and weaker implementation systems.

Multisectoral coordination moves beyond siloed commitments by institutionalising cross-sectoral action. For example, Denmark's 2021 dietary guidelines substantively combine health and climate aims through binding public

procurement standards.[20] Ethiopia's Seqota Declaration binds multiple ministries to ending child stunting through an aligned, multisectoral financing mechanism.[21] At the global level, the Committee on World Food Security's Voluntary Guidelines on Food Systems and Nutrition (2021) provide a consensus framework for coherent policies, and the Alliance of Champions for Food Systems Transformation commits members to integrate their national pathways into NDCs and NAPs.[22,23]

Community-led governance ensures equity becomes a design principle rather than a checkbox. For example, Brazil's National Plan for Agroecology and Organic Production embeds family farming and local knowledge within state structures, backed by dedicated budgets linking farms to school feeding.[24,25] Multi-level food laboratories and urban food policy councils embed participatory processes that shift power to affected communities,[26,27]

Capital redirection represents an additional substantive lever. This requires reforming the US$540 billion in annual agricultural subsidies towards sustainable, nutrition-sensitive production[28,29] (Box 3.2), and implementing fiscal tools (taxes on certain foods and beverages) that internalise health externalities while funding public health programmes. Table 5.2 presents a framework mapping these reforms into practical actions, organised around four strategic shifts and delivered through three policy levers.

TABLE 5.2
Mapping strategic goals to policy actions for resilient food systems

Strategic goals and policy actions	Strengthen governance and coordination	Mobilise and align financing	Empower communities and consumers
Policy coherence and cross-sector integration	Establish integrated governance structures such as food system councils and Committee on World Food Security guidelines; mandate a One Health approach.	Repurpose harmful subsidies (approximately US$540 billion) with just transition mechanisms; implement health taxes on specific foods and beverages to internalise hidden costs.	Promote demand-side strategies including dietary guidelines and waste reduction; regulate food environments through marketing restrictions and labelling.
Resilience and climate adaptation	Integrate food systems into climate strategies including non-communicable diseases and National Adaptation Plans; link nutrition and climate data.	Develop blended finance targeting substantive outcomes such as climate-resilient value chains.	Expand shock-responsive social protection to safeguard dietary quality; buffer climate and economic risks.
Equity and accountability	Institutionalise community participation in governance through food policy councils; recognise community rights, including food sovereignty.	Create equity-sensitive financing facilities targeting smallholders and women, blending public, private and philanthropic resources.	Support participatory structures that elevate local knowledge and agency in decision-making.
Data, monitoring and impact	Evolve monitoring platforms such as the Nutrition Accountability Framework to track substantive integration of finance, climate and equity, alongside SMART criteria.	Link financing to substantive performance through outcome-based accountability rather than just inputs.	Build disaggregated and locally relevant data systems to guide inclusive policies and track equity.

Abbreviation: SMART, Specific, Measurable, Achievable, Relevant and Time-bound.
Source: Food and Agriculture Organization of the United Nations, United Nations Development Programme, United Nations Environment Programme. A multi-billion-dollar opportunity: Repurposing agricultural support to transform food systems. Rome, Italy: Food and Agriculture Organization of the United Nations, 2021.

The framework operates through the following four interconnected shifts that collectively move food system governance from procedural alignment towards substantive transformation.

Policy coherence and cross-sector integration form the foundation, requiring coordination to become enforceable rather than aspirational. Integrated food system councils or equivalent platforms must be equipped with formalised authority and shared key performance indicators across ministries, ensuring health, agriculture and climate portfolios are jointly accountable for outcomes.[2] Financial levers operationalise these mandates through subsidy repurposing and fiscal instruments that reward sustainable production and healthy consumption (e.g. health taxes on specific foods and beverages), and demand-side policies align market incentives with public objectives.[29]

Resilience and climate adaptation then embeds nutrition firmly within national climate architecture. By incorporating nutrition targets into national plans, governments position resilience as a shared metric across ministries and unlock climate finance for nutrition-relevant actions.[30] Blended finance mechanisms channel public and private capital into climate-resilient value chains, and shock-responsive social protection systems ensure households maintain dietary quality during crises.[13,14]

Equity and accountability ensure governance reform translates into fairness and inclusion by moving decision-making closer to affected communities. Embedding participatory mechanisms and rights-based approaches within national frameworks gives local actors a genuine voice in agenda setting and monitoring.[25,26] Financing windows targeted to women, smallholders and marginalised groups provide the means for participation to deliver tangible outcomes, and community-led monitoring and grievance systems transform accountability from top-down audit into continuous dialogue.

Data, monitoring and impact complete the cycle by transforming accountability into a driver of substantive change. Platforms like the NAF should evolve from static registries of SMART commitments into dynamic tools that measure how well pledges integrate financing, climate, resilience and equity.[5,31] Linking funding allocations to these substantive indicators creates feedback loops that direct resources towards genuinely integrated actions, and disaggregated, locally relevant data enables communities to verify progress and guide correction.[32,33] Together, these four shifts create a governance system within which accountability measures are integrated continuously, financing flows towards substantive outcomes and communities shape the policies affecting their nutrition security under climate stress.

2024. Côte d'Ivoire.
A young girl helping her mother at her stall.
© SUN Movement.

06

Alignment of Nutrition for Growth commitments with food systems frameworks, substantive accountability and gender equity

KEY FINDINGS

1. Commitments made at the Nutrition for Growth Tokyo 2021 and Paris 2025 Summits show strong attention to food systems, with most focusing on diets, nutrition and health and on governance arrangements to support action. In contrast, fewer commitments address resilience and environmental dimensions, reflecting uneven attention across the elements needed for food systems transformation.

2. When commitments link food and health systems, the emphasis has tended to fall on dietary outcomes and nutrition-specific health services, such as counselling, supplementation and treatment. Broader links to agricultural production, resilience and food supply stability are less frequently made, suggesting that integration often centres on service delivery rather than on upstream system conditions.

3. Although many commitments involve coordination, advocacy, research and capacity-building, it is unclear how they fit into existing food systems frameworks. This pattern points to a continued focus on processes and inputs, while actions that directly reshape system performance and outcomes remain less clearly articulated.

4. While procedural aspects of accountability have strengthened, actual integration remains limited. Commitments that explicitly link food and health systems are more likely to reflect resilience and equity concerns, while financing arrangements and gender-responsive action continue to lag. This highlights a persistent gap between ambitions and the conditions needed for delivery.

ALIGNMENT OF NUTRITION FOR GROWTH COMMITMENTS WITH FOOD SYSTEMS FRAMEWORKS, SUBSTANTIVE ACCOUNTABILITY AND GENDER EQUITY

Since 2013, the global nutrition community, from governments to donors, civil society organisations, multilateral organisations and the private sector, has registered commitments to support achieving the global nutrition targets by 2030 through the N4G Summits. Following an extensive development process, the NAF was launched in 2021 to ensure commitments meet SMART criteria, enabling systematic assessment of both progress towards targets and cross-sectoral coherence.[1]

While commitment tracking has assessed progress over time and monitored how well commitments align with the global nutrition targets, less is known about how commitments align with comprehensive food systems frameworks and how food and health actions intersect within the global commitment architecture.[2,3] Understanding commitment patterns shows where global actors are directing attention and resources, where critical gaps exist and whether the integration called for in policy discussions is reflected in actual commitments.

This chapter examines commitments from the N4G Tokyo 2021 and Paris 2025 Summits to assess 1) whether and how commitments embrace food systems approaches and align with recommended monitoring frameworks; 2) the nature and depth of commitments at the intersection of food and health systems; 3) whether procedural accountability advances translate into substantive accountability that integrates financing, resilience and equity objectives; and 4) the depth of gender integration across nutrition-related sectors.

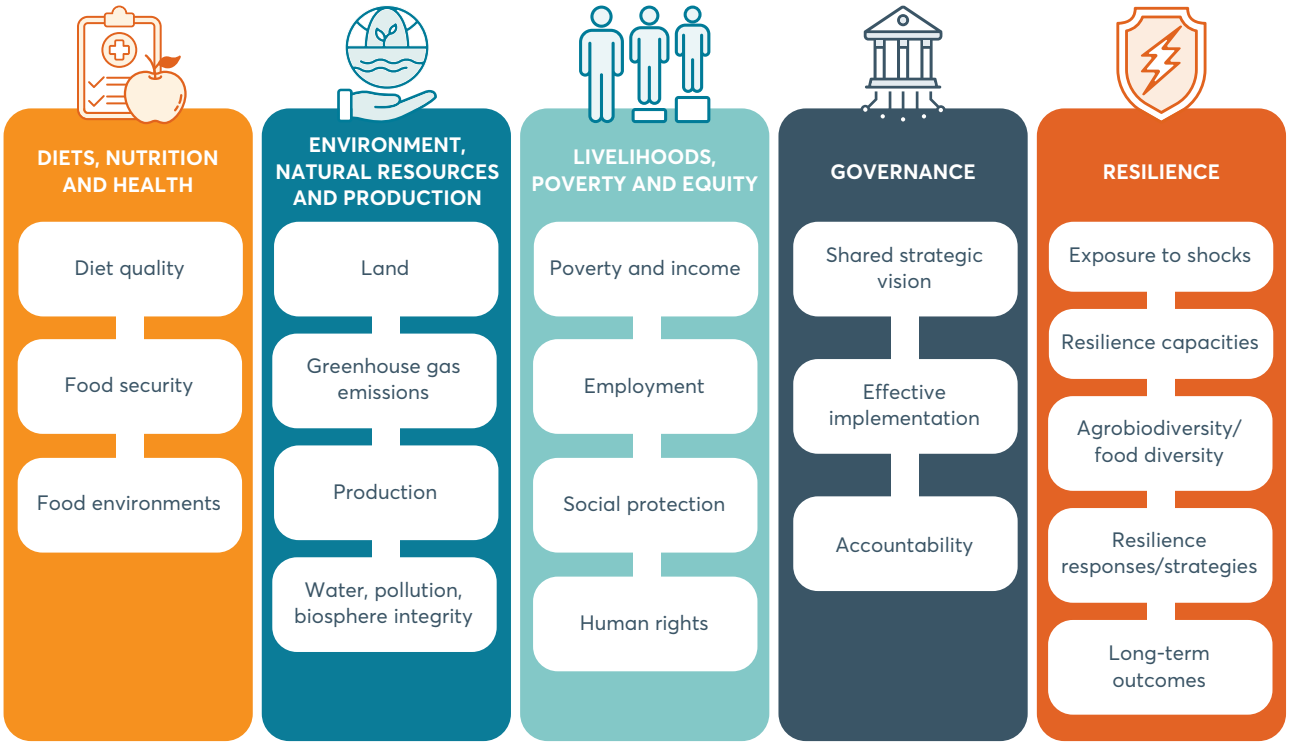
Food systems frameworks and indicators for monitoring

In recent years, substantial progress has been made in developing frameworks and monitoring guidance for assessing food systems transformation. Building on the High-Level Panel of Experts framework as a guiding principle, Fanzo et al. (2021) developed a comprehensive framework that positions nutrition and health as a key thematic area alongside diets.[4] Other themes within this framework include environment, natural resources and production, livelihoods, poverty and equity, governance and resilience. Each thematic area is further classified into specific domains, creating a structure of six thematic areas and 19 domains (Figure 6.1). Schneider et al. (2023) subsequently undertook an extensive consultative process to operationalise this framework, identifying 50 indicators and developing a baseline for monitoring food systems transformation actions globally.[5]

Commitments made at the N4G Tokyo 2021 and Paris 2025 Summits were assessed using this framework and indicator guide. The objectives of the analysis were to assess 1) the extent to which N4G commitments align with the six thematic areas and 19 domains of the food systems framework; 2) whether monitoring indicators selected by commitment makers align with those recommended by Schneider et al.[5];

and 3) the characteristics and focus areas of commitments positioned at the intersection of food and health systems. This assessment provides the first systematic review of whether the global commitment architecture reflects the integrated, multisectoral approach increasingly recognised as necessary for protecting nutrition within climate change.

FIGURE 6.1
Food system thematic areas and domains



Source: Fanzo J, Haddad L, Schneider KR, *et al.* Viewpoint: rigorous monitoring is necessary to guide food system transformation in the countdown to the 2030 global goals. *Food Policy* 2021; **104**: 102163.

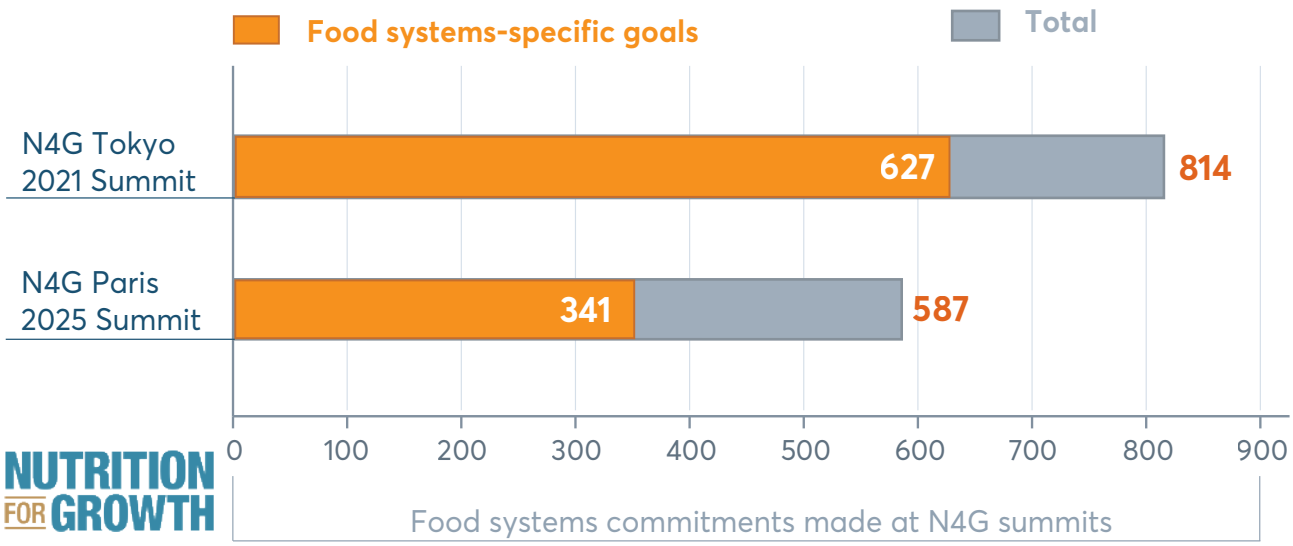
Commitment patterns: Food systems and food–health integration

Across the two summits, 1,485 commitments were registered in the NAF.[a] In 2021, 814 commitments were made in Tokyo. In 2025, 587 commitments were made in Paris. Of these, food systems–related commitments were those associated with the 2021 or 2025 UN Food Systems Summit or classified under the N4G thematic area on food systems transformation (nutrition transition to sustainable, climate-smart and resilient food systems). Commitments at the food–health intersection were identified as those classified under both the N4G thematic area of "nutrition, health and social protection" and the food systems transformation theme (either through association with the UN Food Systems Summit or classification under the N4G food systems thematic area).

a Commitment data in the NAF is self-reported by commitment makers, and the thematic classification system allows multiple selections. Commitments classified under multiple themes tend to have lower SMART scores. The patterns reported in this chapter should therefore be interpreted as reflecting how commitment makers describe their own commitments, which may not correspond exactly with the substantive content of those commitments.

The emphasis on food systems is evident. More than 75% of commitments at the N4G Tokyo Summit (627 of 814) and over 55% of goals (341 of 587) at the Paris Summit were self-reported by commitment makers as food systems–specific commitments (Figure 6.2). Furthermore, irrespective of the N4G Summit, most food systems commitments were made by country governments (549, 55% of the total) and civil society organisations (177, 18% of the total). Of the 988 commitments categorised as food systems related, 750 were also registered under the N4G health theme (nutrition, health and social protection) and thus addressed both food and health system actions (data not shown).

FIGURE 6.2
Food systems commitments made at the N4G Tokyo 2021 and Paris 2025 Summits



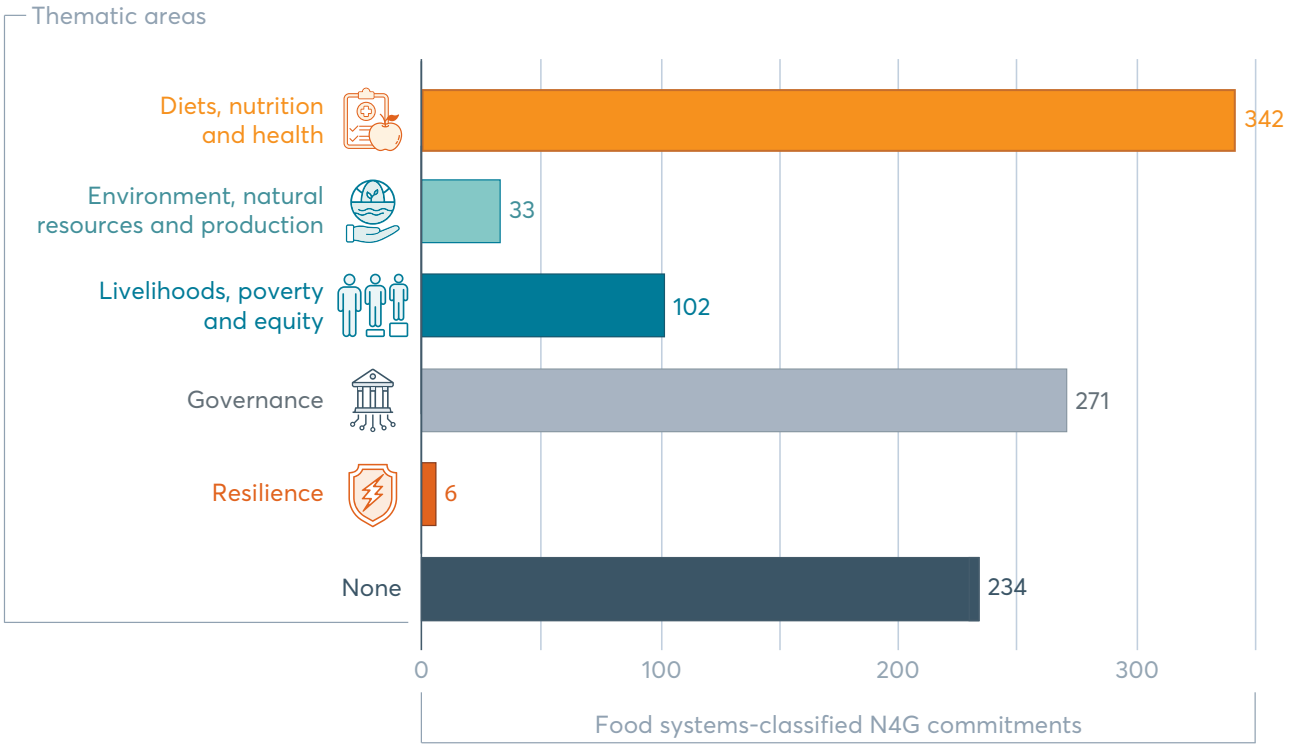
Abbreviation: N4G, Nutrition for Growth.

Alignment with the food systems framework and at the food–health intersection

Highest alignment was with the "diets, nutrition and health" theme. The assessment found that most goals (342) aligned with this thematic area, followed by "governance" (271 goals), "livelihoods, poverty and equity" (102 goals) and "environment, natural resources and production" (33 goals). The thematic area of "resilience" had the smallest number of commitments (six goals) (Figure 6.3).

FIGURE 6.3

Alignment of food systems–classified N4G commitments with the food systems framework thematic areas



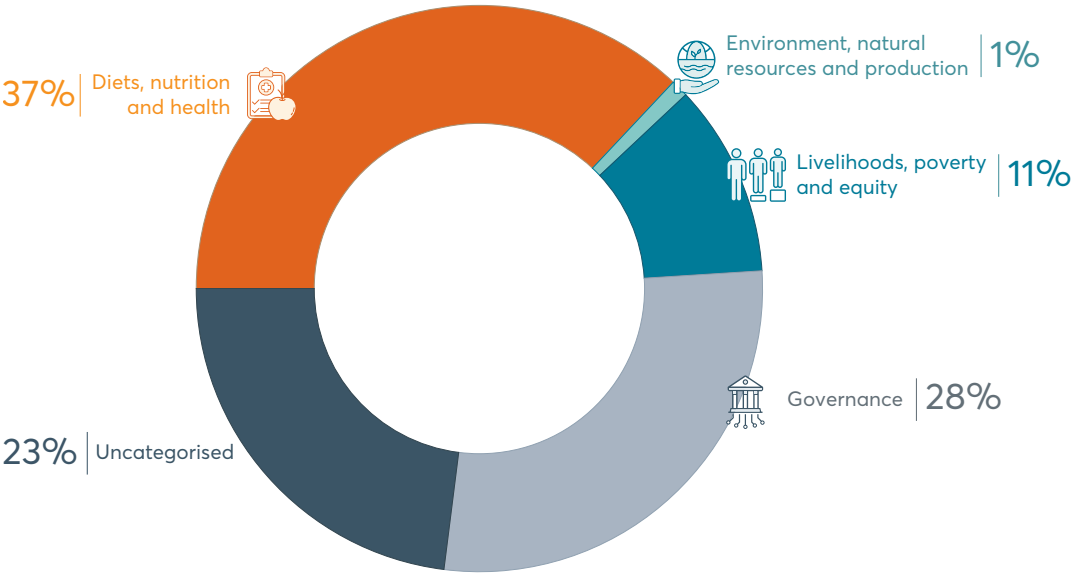
Abbreviation: N4G, Nutrition for Growth.

Food–health system integration is focused on dietary outcomes and nutrition-specific health services. The concentration in the "diets, nutrition and health" and "governance" thematic areas suggests that when commitment makers explicitly integrate food and health systems, they focus primarily on dietary outcomes and nutrition-specific health services, such as counselling, supplementation or treatment and the governance mechanisms needed to coordinate across sectors. This pattern aligns with evidence that effective nutrition action requires both direct service delivery through health systems and enabling conditions through food systems, bound together by governance structures that facilitate integration.

Many food systems goals could not be categorised. There was considerable goal misalignment, both at the level of the thematic areas and within the thematic areas. More than 200 goals identified as being related to food systems did not align with any thematic area and were uncategorised (Figure 6.3). Examples included goals that focused on establishing partnerships, supporting advocacy, conducting research, data collection, education and training and organisational capacity-building. While most commitments could be classified within a thematic area, only 253 of 271 governance goals were classifiable. Of the 1,485 commitments, 750 commitments were positioned at the food–health intersection, revealing a broadly similar but more concentrated pattern (Figure 6.4). Most fell within "diets, nutrition and health" (37%), followed by "governance" (28%), "livelihoods, poverty and equity" (11%) and "environment, natural resources and production" (1%). Notably, approximately 23% of food–health commitments could not be categorised under any thematic area within the food systems framework (Figure 6.4).

FIGURE 6.4

Alignment of food system–focused and health system–focused commitments with the food systems framework thematic areas
N4G commitments are classified as both food systems commitments and under the "nutrition, health and social protection" theme



The 23% of food–health commitments that remain uncategorised signal a significant challenge. These commitments typically focus on establishing partnerships, supporting advocacy, conducting research, collecting data, providing education and training or building organisational capacity. While these enabling activities are important, their prevalence outside the thematic framework suggests that commitment makers may be focusing on process and inputs rather than substantive system changes and outcomes.

Low alignment with monitoring indicators recommended for tracking food systems transformation. Beyond thematic alignment, the assessment examined whether commitment makers selected monitoring indicators consistent with those recommended by Schneider et al. (2023)[5] for tracking food systems transformation. A four-category metric was developed to evaluate alignment between selected and recommended indicators. Only 8% of assessed food systems commitments fell under the high or moderate match categories (39 commitments had high alignment; 25 were moderate), most of which fell under the thematic area of "diets, nutrition and health". The lowest alignment was found among commitments focused on governance (data not shown).

Indicator misalignment poses challenges beyond measurement. Without appropriate indicators, commitments become difficult to monitor, progress cannot be assessed and accountability weakens. This challenge is particularly acute for food–health–climate integration, where recommended indicators for climate-smart agriculture, resilience and environmental sustainability are relatively new and not yet widely adopted in nutrition monitoring systems. If commitment makers are unfamiliar with these indicators or lack the capacity to measure them, commitments in these areas will remain difficult to track, potentially contributing to the observed under-representation of resilience and production-focused commitments.

Substantive accountability in government commitments

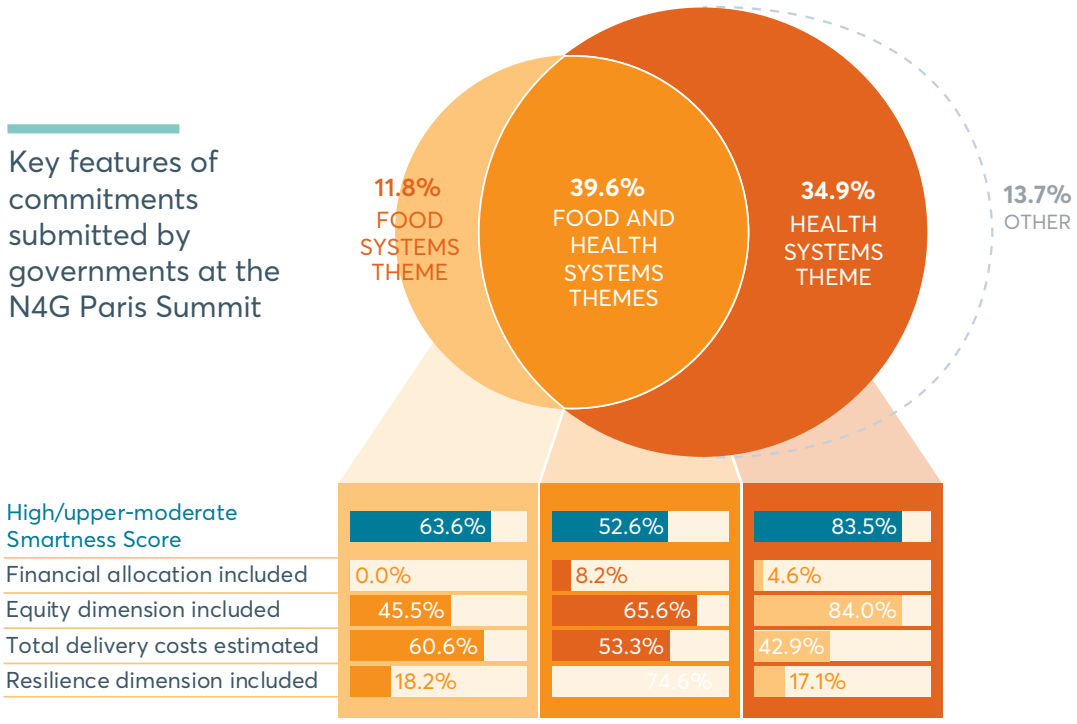
Government commitments from the N4G Paris 2025 Summit provide an empirical test of whether procedural advances (SMART criteria, clear indicators) are accompanied by substantive integration.[b] Focusing on commitments linked to food systems, health systems and their intersection reveals how current governance structures support or constrain delivery capacity under climate stress. Analysis of government commitments confirms that procedural accountability has strengthened significantly: more than half achieved high or upper-moderate SMART scores, rising to greater than 80% among health-focused commitments (Figure 6.5). However, progress towards substantive accountability varied markedly across the four key dimensions.

Financing integration remains weak. None of the food system–only commitments specified secured financial resources at submission. Only 4.6% of health system commitments and 8.2% of integrated food–health commitments included confirmed financing, compared to nearly one-quarter of commitments in other thematic areas. While 40% to 60% of commitments estimated total delivery costs, these projections were rarely backed by secured funds, revealing a persistent gap between planning and fiscal integration. This pattern may reflect both substantive weaknesses and disclosure constraints in government budgeting processes.

Resilience and equity integration show striking variation by commitment type. Fewer than 18% of single-theme commitments (food only or health only) explicitly address resilience. In sharp contrast, 74.6% of commitments that integrate food and health systems include resilience dimensions, suggesting that cross-system governance facilitates more anticipatory and adaptive approaches. Equity considerations follow a different pattern: prominent in 84% of health system commitments but present in only 45.5% of food system–only commitments, highlighting persistent challenges in embedding fairness within food system governance. These findings show that while procedural accountability is now firmly established, substantive accountability is achieved primarily where governance arrangements explicitly link food and health systems.

b Improvements in commitment design, including greater specificity and stronger thematic alignment, strengthen procedural accountability but are not sufficient on their own to deliver improved nutrition outcomes. Translating procedural gains into substantive accountability, where commitments are backed by financing, delivery capacity and resilience provisions, depends on the governance and institutional conditions analysed in Chapter 5.

FIGURE 6.5
Key features of commitments submitted by governments at the N4G Paris 2025 Summit



Abbreviation: N4G, Nutrition for Growth.
Notes: Commitments with a food system theme are those selected as within the "nutrition and transition towards sustainable, climate-smart and resilient food systems" N4G thematic area. Commitments with a health system theme are those selected as within the "nutrition, health and social protection" thematic area. Commitments with food and health systems themes are those selected as within both thematic areas. "Other" refers to commitments that were not selected as either the "nutrition and transition towards sustainable, climate-smart and resilient food systems" or the "nutrition, health and social protection" thematic areas.

Patterns observed in the Paris 2025 commitments highlight several areas where governance reform can strengthen impact. On financing, the weak financing integration documented above suggests that strengthening governance connections between nutrition commitments and domestic budgeting processes, climate finance and fiscal planning could improve credibility and sustainability, especially for health systems that need to maintain nutrition services during climate-related shocks. Similarly, better integration of resilience presents a significant scope for improvement.

Although resilience is a well-understood driver of food security and healthy diets within the climate change context, many commitments do not explicitly connect nutrition objectives to resilience. Strengthening these links would allow nutrition policies to benefit from climate planning processes and funding sources while improving the resilience of food supply chains and health service delivery.

Equity considerations are strongest in health system–focused commitments but remain weaker in food system–only commitments. This indicates an opportunity to strengthen governance strategies that consistently incorporate equity across policy design, financing and accountability processes, using health systems as key entry points for reaching vulnerable populations.

Gender integration in Nutrition for Growth commitments: Accountability gaps

The N4G Paris 2025 Summit marked the first time that gender equity was recognised as a key theme in the commitment-making process. An analysis of 631 commitments submitted to the N4G Summit shows how far gender integration has advanced across nutrition-related sectors and where significant gaps remain. Overall, gender integration across commitments is limited. Of the 631 commitments, 70% (440) show no indicated connection to gender. Even among commitments related to agri-food systems and climate, 66% (267 of 406) lack any gender dimension. Despite policy discussions recognising women's central role in food systems and nutrition, gender considerations remain marginal in most nutrition commitments.

Where gender is addressed, the depth of integration is often shallow. Only 28% of all commitments (177 of 631) include any reference to gender. Among these, most are targeted commitments[c]: 147 commitments, representing 83% of gender-related commitments and 23% of all commitments, focus primarily on women and girls as beneficiaries. In contrast, only 16 commitments (3% of all commitments) are gender inclusive, and just 14 commitments (2%) are gender transformative.

The integration of gender, agri-food systems and climate action is particularly weak. While about half of all commitments (324) include specific actions related to agri-food systems, only 9% (57) include explicit climate action, with an additional 4% making nonspecific climate references. Within agri-food systems and climate-related commitments, gender integration remains low: only 25% (101) include targeted gender actions, and inclusive and transformative actions together account for less than 7%. Additionally, among commitments aimed at women within agri-food systems and climate, nearly one-quarter identify children as the ultimate beneficiaries, reflecting a persistent framing of women's nutrition mainly through their reproductive and caregiving roles.

The analysis also shows a narrow understanding of women's roles in agri-food systems. Among the 16 gender-inclusive commitments, only six explicitly identify women as farmers or producers and commit to allocating resources accordingly. Only two commitments address gender gaps in food security or nutrition data systems, and very few acknowledge women's roles in food processing, value chains or innovation. Male engagement is mentioned in only two transformative commitments, highlighting the limited attention to shifting gender norms and care responsibilities.

Despite these gaps, a few high-ambition commitments show what is achievable. Of the 30 commitments classified as inclusive or transformative, 21 are at the national or subnational level, mainly in low- and middle-income regions. Ten of the 16 inclusive commitments and 11 of the 14 transformative commitments are led by governments, particularly in Africa. These commitments focus on changing opportunity structures, including paid parental leave and breastfeeding support, women's access to finance and social protection, girls' education and economic empowerment.

c The degree of gender integration was based on the N4G Paris 2025 Recommendations for Developing Commitments on Nutrition and Gender Equality: Call to Action.
Targeted: Directly addressing the specific nutritional needs of women and girls at different stages of their lives, ensuring support is personalized and effective.
Inclusive: Engaging women and girls, especially those in marginalized or underserved communities, in the decision-making process (design, implementation and/or execution of interventions, programmes or commitments).
Transformative: Working to break down systemic and structural barriers and increase women's and girls' agency, access and control over the social and economic resources that influence their nutrition outcomes.

07

2006. Pursat, Cambodia.
A woman casting a fishing net from a boat on the Tonle Sap River.

Conceptualising the interconnectedness of food systems and health systems

KEY FINDINGS

1. Nutrition outcomes under climate change depend on how food and health systems work together during periods of stress and shock. Countries maintaining healthy diets have achieved this by adapting food availability and access while ensuring continuity of essential nutrition and health services.

2. Despite growing recognition of the links between food systems, health systems and climate risks, action has often remained fragmented. Breakdowns in coordination, financing, operational capacity and data have limited the ability to translate this interdependence into consistent delivery, especially under crisis conditions.

3. The Food and Health Systems for Equitable Nutrition (FHEN) Framework introduced in this chapter brings these strands together by placing healthy diets at the centre of coordinated food and health system action within a changing climate. By focusing on leadership and governance, financing, operational capacity, and research, monitoring and data, it offers a shared way of thinking about how different systems must align to sustain nutrition outcomes when shocks and stressors intensify.

4. The framework treats climate and environmental change as an overarching system condition – stressors and shocks acting on both food and health systems – and then translates that into a usable map of supply- and demand-side action channels across both systems. By pairing these channels with four cross-cutting enablers (governance, financing, operational capacity and research, monitoring and data), it helps pinpoint where integration is required, what bottlenecks will prevent delivery and what enabling investments are needed, rather than simply restating that systems are interconnected.

5. Unlike frameworks that track sector actions in parallel, this framework links actions and enablers to a single outcome logic spanning environmental soundness and resilience, social equity and gender empowerment and economic prosperity. This makes it easier to translate commitments into policy packages, align donor financing and indicators around a common results architecture and assess substantive accountability rather than procedural compliance alone.

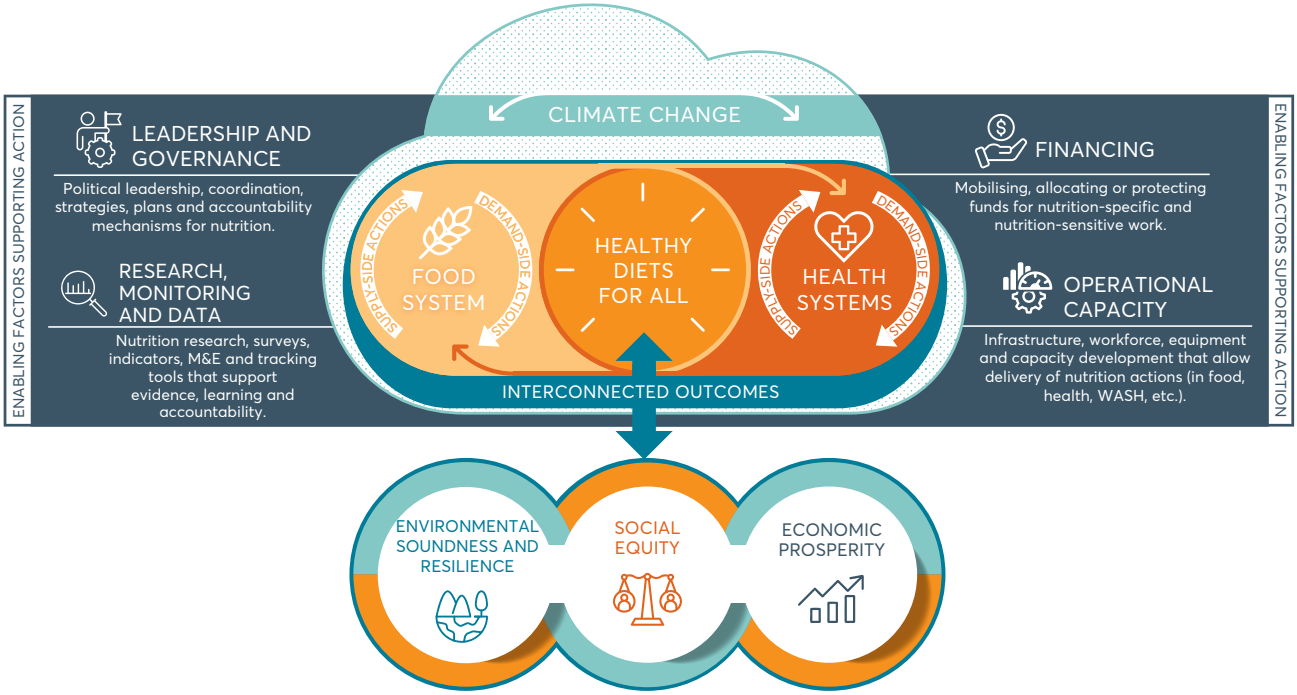
CONCEPTUALISING THE INTERCONNECTEDNESS OF FOOD SYSTEMS AND HEALTH SYSTEMS

Evidence throughout this report shows that nutrition outcomes within climate change depend on coordinated action across food and health systems. Countries that maintained nutrition during Covid-19 did so by integrating food system interventions with adapted health service delivery and social protection, not through parallel sectoral responses (Chapter 2). Transitions towards sustainable, nutritious diets require simultaneous food systems transformation and health system support through supplementation, fortification and counselling to ensure micronutrient adequacy (Chapter 3).

Substantive accountability matters more than procedural compliance: embedding financing, cross-sectoral coordination, climate alignment, resilience and equity within the design and delivery of commitments is critical to achieving nutrition outcomes (Chapter 5). Barriers constraining women in food systems directly limit their healthcare-seeking capacity and health system barriers reduce their productive participation in agriculture, creating compounding effects that climate change intensifies (Chapter 4). Yet, commitments remain fragmented. While more than 75% of food systems commitments at the N4G Tokyo 2021 Summit also addressed health, substantive integration was weak. Few commitments included secured financing; governance commitments proved difficult to classify within existing frameworks; and resilience considerations remained marginal, except where commitments explicitly connected both systems (Chapter 6).

This gap between recognition of interdependence and operational integration points to a need for analytical tools that integrate across food, health and climate portfolios while protecting delivery capacity under shocks and stressors. This chapter introduces the FHEN framework that positions healthy diets as an outcome requiring simultaneous, coordinated action across both systems under climate stress (Figure 7.1). The framework is structured around four enabling functions: 1) leadership and governance; 2) financing; 3) operational capacity; and 4) research, monitoring and data. The functions operate across systems to determine the ability to deliver interconnected outcomes (environmental soundness and resilience, social equity and gender empowerment, economic prosperity) that both enable and result from improved nutrition (Box 7.1). With explicit action channels, enabling requirements and outcome interdependencies, the framework provides a tool for designing more integrated commitments, identifying implementation bottlenecks and strengthening accountability for nutrition results within climate change.

FIGURE 7.1
Achieving healthy diets for all through food and health system transformation within a changing climate



Abbreviations: M&E, monitoring and evaluation; WASH, water, sanitation and hygiene.

BOX 7.1
Interconnected outcomes and healthy diets

Healthy diets are both underpinned by, and contribute to, the following outcome domains:

- **Environmental soundness and resilience** refers to whether actions to improve diets and nutrition are compatible with, and ideally strengthen, the integrity of land, water, biodiversity and climate systems.[1]
- **Social equity** refers to how benefits and burdens are distributed across and within households, and whether policies and programmes expand the rights, agency and material conditions of women, girls and other marginalised groups.[2]
- **Economic prosperity** refers to impacts on livelihoods, incomes, productivity and fiscal space, including for small-scale food producers, workers along food supply chains and low-income consumers.[3]

Across these domains, healthy diets are shaped by the stability and sustainability of food, health and social protection systems, and by who can access them during shocks. It also feeds back into all three domains by reducing preventable disease burdens, strengthening human capacity to cope and recover, increasing agency of vulnerable groups and shifting demand towards more nutritious diets that can be produced within environmental limits.[4]

A rationale for an integrated framework

The FHEN framework positions climate and environmental change as the overarching context within which food and health systems operate. Climate pressures affect both systems through long-term stressors such as shifts in temperature and rainfall, rising climate variability and slow-onset degradation of soils, water resources and biodiversity, as well as through acute shocks such as floods, droughts, storms, wildfires and heatwaves. On the supply side, these shocks and stressors disrupt agricultural and fisheries production, damage health and water, sanitation and hygiene infrastructure and interrupt supply chains for food and essential health and nutrition commodities.[5,6] On the demand side, they reduce incomes and employment, increase food price volatility, drive displacement and raise climate-sensitive disease burdens and care costs, creating a persistent risk environment for diets, health services and nutrition[5,7] (Appendix 2 provides more details and examples). The framework specifies action channels within both food and health systems through a supply–demand lens.

Food systems supply-side actions shape what foods are produced, processed, stored and distributed with what stability, safety and nutrient quality under climate stress. This includes climate-smart agriculture and water management, diversification towards nutrient-dense crops, storage and cold chain investments to reduce FLW, in addition to procurement and trade actions that affect the availability and price stability of nutritious foods.

Food systems demand-side actions shape what people can obtain and choose to eat. This includes affordability and purchasing power measures, social protection design and food environment actions that influence relative prices, marketing exposure and access to healthier options in schools, workplaces and retail settings. Demand-side action also covers behaviour and norms change measures that support shifts towards healthy, nutritious diets while maintaining micronutrient adequacy.

Health systems supply-side actions include coverage and quality of essential nutrition actions across the life-course (antenatal care, postnatal care, child health, adolescence and non-communicable disease care); the availability and distribution of trained staff and community platforms; commodities for nutrition interventions; water, sanitation and hygiene and infection control in facilities; and readiness to prevent and manage diet-related non-communicable diseases.[8] Supply-side adaptations during Covid-19 (such as moving acute malnutrition screening to family-based models in Indonesia and shifting vitamin A delivery to community channels in Sierra Leone) enabled continuity when facility-based delivery was disrupted.

Health systems demand-side actions include tackling financial, geographic and social barriers to care; fostering health and nutrition literacy; building trust in providers; and ensuring awareness and uptake of health-linked entitlements and social protection that buffer nutrition shocks. Demand-side barriers, such as needing permission to leave home, lacking funds for transport and time constraints from care work, prevent women from accessing services even when available. Addressing these constraints requires coordination between health system policies and broader gender equity measures.

The supply–demand lens shows points of necessary integration. Dietary shifts, (demand-side food system action) require health system support (supply-side health system action) through counselling and supplementation to ensure nutritional adequacy. Climate-smart agriculture (supply-side food system action) requires health system readiness (supply-side health action) to manage changing disease burdens and nutrition needs. Social protection (demand-side action for both systems) must be designed to reach both food system producers and health service users, particularly women who face barriers in both domains. Resilience (cross-cutting requirement) depends on actions requiring integrated governance rather than parallel sectoral planning: pre-positioning resources, flexible coordination and the ability to adapt delivery modalities across both systems simultaneously.

Whereas important frameworks conceptualising food systems or health systems for nutrition already exist,[9,10,11] this framework is novel in that it simultaneously addresses health and food systems within a changing climate. The framework offers a concrete, interdisciplinary way to address interconnected challenges and polycrises (Box 2.1), consider synergies and trade-offs, align indicators with commitments and deliver multiple outcomes.

Four enablers that determine the ability to deliver

In this framework, four enabling functions operate across food and health systems and shape how climate shocks and stressors translate into nutrition outcomes. Drawn from the NAF classification system but extended to explicitly address food–health–climate integration, they are understood as broad categories of actions and capacities that support the design, delivery and accountability of nutrition-relevant policies, programmes and investments.

Leadership and governance refer to actions that shape the way countries and organisations are governed and operate with respect to advancing the food and nutrition agenda across sectors, and to the mechanisms by which food and nutrition policies are decided and actors are held to account.[12] This includes political leadership for nutrition; mandates and coordination arrangements across food, health, social protection, environment and climate portfolios; national nutrition strategies and plans; and formal processes for participation and accountability at national and subnational levels. Governance also concerns equity, participation and protection of vulnerable groups,[13] including whether women, marginalised communities and other disadvantaged groups are represented in decision-making processes that affect diets and health.

The financial function covers actions whose aim is to secure, raise, allocate or protect financial resources and investments for nutrition-specific and nutrition-sensitive actions (Box 3.3). In this framework, this includes domestic public budgets, external assistance and private investment that influence diets and nutrition through food, health and social protection systems. The analysis considers both the volume and the composition of financing, and whether resources are sustained and targeted to populations at the highest nutritional risk.

The operational function refers to the infrastructure and capacity development that enable the delivery of nutrition actions. It covers actions to strengthen, across relevant sectors, the human resources, facilities, equipment, supply chains and training needed to provide nutrition-specific and nutrition-sensitive services. In this report, operational functions also include health facilities and community platforms, frontline workers and their skills, storage and post-harvest infrastructure, water and sanitation services in public facilities and systems for delivering social protection and school meals.

Research, monitoring and data cover actions that improve nutrition research and innovation, and the availability, quality and use of nutrition-relevant data, indicators and surveillance to support learning and accountability. This includes routine data systems, surveys and surveillance, monitoring and evaluation and learning-oriented research. Attention should be paid to whether data systems capture dietary quality, nutritional status, coverage of essential nutrition actions, climate risks and inequities by gender, age and income, and whether this data is used to inform policy and practice.

2024. Jalisco, Mexico.
Heat stress impact on agriculture workers.
© Rafael Duarte/ILO.

08

Recommendations and policy implications

KEY FINDINGS

1 Across actors and contexts, improving nutrition outcomes under climate change depends less on defining new priorities than on changing how action is organised and supported. Fragmented governance, short-term financing and weak alignment between commitments and implementation continue to limit delivery, especially during shocks.

2 The most progress is made when food systems, health systems, climate policy and social protection are planned and delivered together. The recommendations in this chapter prioritise strengthening integration, resilience, equity and accountability as core conditions for impact, rather than stand-alone interventions.

RECOMMENDATIONS AND POLICY IMPLICATIONS

This chapter draws on the evidence reviewed in this report to identify priority areas for action to improve delivery of integrated food–health–climate outcomes. The recommendations are grouped by actor type, recognising that implementation depends on coordinated roles across government, donors, global platforms, civil society and the private sector, and are aligned with the four enablers: leadership and governance; financing; operational capacity; and research, monitoring and data. These recommendations are offered as considerations informed by the report's findings rather than as a universal prescription. Many governments and partners may already be pursuing some or all these directions, and the relevance and sequencing of specific actions will depend on national and subnational contexts, including existing policy frameworks, institutional capacity, fiscal conditions and the nature of the shocks and stressors each setting faces. Where action is already underway, the recommendations may help identify areas for deepening integration or strengthening accountability and/or assess existing synergies versus trade-offs; where it is not, they may serve as a starting point for dialogue among the actors involved.

Several of the recommendations below build on priorities identified through the N4G Paris 2025 thematic working groups and earlier commitment processes, including on climate-smart agriculture, environment regulation, subsidy reform and data systems for decision-making. Where this is the case, the report's contribution is not to restate these priorities but to identify, based on the evidence reviewed, why progress against different recommendations has been limited and what may be needed to overcome persistent barriers. In particular, the analyses in Chapters 5 and 6 point to three structural constraints that cut across multiple recommendation areas: institutional fragmentation that prevents cross-sector mandates from translating into joint delivery; financing architectures that favour short-term, procedurally defined projects over the longer-term systemic reforms that transformation requires; and weak alignment between global commitments and national implementation instruments, particularly NDCs and NAPs, where nutrition remains marginal.

At the same time, several recommendations reflect priorities that emerge specifically from this report's analysis and are not prominently featured in existing commitment frameworks. These include the integration of food and health system actions as a condition for effective resilience (Chapter 6), the distinction between procedural and substantive accountability as a governance requirement (Chapter 5), the need to address health system readiness alongside food systems transformation (Chapter 7), and the finding that gender integration in nutrition commitments remains shallow and narrowly framed despite policy recognition of women's central role (Chapter 6). These areas represent gaps in the current commitment architecture that future commitment makers can address.

Governments (national and subnational)

Strengthen cross-sector governance and deliver integrated food–health–climate action.

Cross-sector governance can be strengthened by establishing joint mandates across agriculture/food, health, social protection and climate ministries, with tailored implementation plans, and shared and aligned indicators and monitoring to ensure synergies and trade-off management. Public action can be directed towards healthier food environments – more affordable nutrient-dense foods, greater availability and uptake of diverse plant-based foods, focusing on supporting vulnerable population subgroups and less exposure to high-sugar and ultra-processed products – while supporting context-appropriate reductions in high-emissions animal-source foods where consumption is excessive. Link these actions to routine health services and food-for-health delivery platforms, including counselling, supplementation, fortification and the provision or prescription of nutritious foods for vulnerable groups. Embed nutrition actions and indicators within NDCs/NAPs and health plans (including universal health coverage).

Implement climate-smart agriculture and post-harvest action as an integrated delivery package.

Support diversified production to reduce climate risk and expand the supply of nutrient-dense plant-based foods, including legumes, fruits, vegetables and other locally appropriate crops. Invest in infrastructure and supply chain to ensure storage, handling, processing and transport mechanisms that protect perishable foods during heat and disruption. Apply safeguards so productivity and efficiency programmes reduce emissions and resource use without driving expansion into water-stressed or biodiversity-sensitive areas.

Institutionalise shock response packages across food and health delivery platforms.

Establishing in advance the triggers, roles and decision authority for responding to climate shocks can help ensure essential services continue without delay for responding to climate shocks. Pre-positioning key inputs (cash/food resources, nutrition supplies, essential medicines) in high-risk areas, supported by a coordination mechanism empowered to reallocate staff, budgets and supplies across sectors, can improve response times. Use contingency delivery modalities when routine channels are disrupted (mobile/outreach services, temporary distribution points, digital transfers). Budget and procurement rules should allow rapid scale-up while also remaining flexible and adaptable to different contexts and scenarios.

Embed equity and gender in eligibility, benefit design and access across food and health systems.

Design food, health and social protection measures to reach women and vulnerable groups. Addressing barriers linked to income, time and mobility will be critical. Concrete actions include securing women's land rights, targeting extension to women farmers, designing accessible credit and insurance, reducing time poverty through infrastructure investments, ensuring transfers reach women directly and adapting health service delivery. Sex-disaggregated and vulnerability-disaggregated monitoring will be critical to assess reach, equity and whether interventions are changing dietary quality across groups.

Donors, development banks and climate finance providers

Adopt a single integrated results framework and indicator set and use it to assess ability to deliver over time.

Track whether commitments have secured financing, cross-portfolio governance, delivery capacity at scale, outcome-level data systems and resilience provisions that maintain services during shocks.

Build flexible monitoring that supports course correction and longer-term delivery.

Nutrition outcomes respond slowly and can deteriorate quickly under repeated shocks, so short funding cycles and fixed log frames incentivise narrow, short-term outputs over sustained coverage and dietary quality. Multi-year commitments with built-in reprogramming space, routine learning reviews and nutrition outcome tracking can help trigger course correction as contextual conditions change or unexpected trade-offs emerge.

Fund shock-ready delivery packages with flexible finance.

Pre-positioned resources, triggers for activation and rapid scaling mechanisms to improve continuity across health and food systems during climate shocks.

Promote financing and interventions that integrate equity and nutrition from the beginning.

Embed nutrition within medium-term expenditure frameworks, repurpose agricultural subsidies towards diverse nutrient-dense foods, use fiscal measures to address health and environmental externalities, access climate finance for nutrition actions and support financing flexibility for rapid scaling during shocks.

Make inclusion measurable in funded programmes.

Sex- and vulnerability-disaggregated monitoring and minimum standards for access and participation can help ensure that funded programmes reach those most at risk, with corrective action when gaps persist.

Fund more inter- and trans-disciplinary research.

This would both help reveal interconnections and possible trade-offs across domains (e.g. health and food systems) and ensure more informed evidence-based interventions, while also considering the different visions, preferences and priorities of the many stakeholders involved in the transformation of both health and food systems.

Recognise current constraints in the donor landscape and invest in financing diversification.

In a period of contracting nutrition-relevant official development assistance, support domestic resource mobilisation, stronger public financial management and national financing systems for integrated food–health delivery so that implementation is not wholly dependent upon external funding. Where possible, use concessional finance and technical support to help countries build durable budget lines, procurement systems and shock-responsive financing mechanisms.

Global platforms, UN agencies and accountability bodies

Adopt a robust integrated framework and use recommended indicators to monitor progress, updating accountability assessments (e.g. NAF) with new research and evidence.

Mechanisms remain dynamic when frameworks clarify which systems are engaged, which enablers are required, which outcomes are targeted and which trade-offs must be managed.

Address indicator misalignment through framework harmonisation and capacity development.

Without appropriate indicators, commitments become difficult to monitor and progress cannot be assessed. Global platforms and accountability bodies should therefore strive towards being dynamic and support regular harmonisation between multiple existing nutrition, food systems, health, climate and financing monitoring systems. They should also work towards reducing reporting burdens and duplication of efforts, and improve comparability. Monitoring indicators will need to be periodically readjusted as new conditions and gaps emerge.

Evolve accountability from procedural compliance to substantive integration.

Assess whether commitments specify secured financing, whether governance structures coordinate implementation across portfolios, whether operational capacity is adequate to deliver at scale, whether data systems track outcomes and whether resilience provisions maintain delivery during shocks. Expand frameworks to support learning and adaptation alongside monitoring.

Strengthen cross-sector governance for ability to deliver as a commitment quality requirement.

Commitments can be strengthened by specifying responsible agencies, funding sources, delivery mechanisms and minimum data for tracking implementation and trade-offs, reinforcing that deliverability depends on how effectively food, health, climate and financing systems are brought together.

Civil society, women's organisations, community-based platforms and frontline providers

Strengthen participatory governance and community-based platforms.

When planning and allocating resources, including formal space for collective organisations such as women-led groups, producer organisations and other community-based associations strengthens equity and effectiveness by reflecting local realities and climate risks. Trust, accessibility and cultural relevance shape uptake in both food and health systems.

Embed equity and gender in eligibility, benefit design and access across food and health systems.

Address barriers linked to income, time and mobility. Link community platforms to both systems to support extension, counselling, service uptake and mutual support during shocks.

Use accountability systems as platforms for learning and course correction.

Use the integrated framework and recommended indicators to make implementation gaps visible and to guide necessary iterative changes in the case of shocks or unexpected trade-offs.

Private-sector engagement

Improve nutrition performance of the private sector.

Key mechanisms include accountability measures as well as improved incentives and regulations. The overall rules of the market within which actors (businesses, governments, investors, consumers) are working need to change. This requires coordinated action across all actors to ensure that nutritious food is more available, affordable, desirable and accessible. Markets will change when governments, international institutions, investors and businesses leverage the full range of private-sector tools, innovations and financial instruments, redirecting these such that they help achieve access to nutritious foods for healthier diets and better nutrition. The guiding principles for private-sector engagement were agreed by dozens of actors at the N4G Paris 2025 Summit in the Paris Declaration on Business and Nutrition 2030.

Develop and apply clear rules and guiding principles for transparent and accountable private-sector engagement.

Governments, UN agencies and accountability bodies can advance this by establishing nutrition and emissions disclosure requirements, conflict-of-interest standards, transparency regarding participation and funding, limits on industry roles in public decision-making where risks are high and independent verification of compliance. These measures can support the alignment of corporate food portfolios with sustainable healthy dietary goals, with transparent reporting on nutrition and emissions impacts.

Support small- and medium-sized private-sector food systems actors that produce nutritious, healthy and safe foods.

Invest in climate-resilient, nutrition-sensitive (perishable and nonperishable healthy foods) supply chains, particularly post-harvest infrastructure in low-income settings. Governments can enable this through tax incentives, dedicated grants or concessional loans, public procurement and regulatory support that lowers entry barriers for small- and medium-sized enterprises producing nutritious foods. Financing mechanisms will be more attractive where they reduce transaction costs, provide blended risk sharing and use clear eligibility and reporting standards.

2014. Maderia, Ethiopia.
A woman feeds her child a nutritious porridge made from locally available ingredients.
© Nesbitt/UNICEF Ethiopia.

09

Implementing recommendations in the real world

IMPLEMENTING RECOMMENDATIONS IN THE REAL WORLD

The recommendations in this report are based on a strong and converging body of academic evidence. They reflect what is known to improve nutrition outcomes, build resilience and connect food systems with climate and equity goals. However, it is important to acknowledge the significant and evolving changes within the global context for implementing these recommendations.

Official development assistance from the Organisation for Economic Co-operation and Development's Development Assistance Committee members declined by approximately 9% in 2024, with a further 9% to 17% reduction projected for 2025.[1] The four largest donors, France, Germany, the United Kingdom and the United States, are cutting development budgets simultaneously for two consecutive years. Cuts equivalent to 44% of donor support for the World Health Assembly nutrition targets are projected to deprive 2.3 million severely malnourished children of treatment and cause an estimated 369,000 additional child deaths per year.[2] The World Food Programme expects 40% less funding in 2025.[3] As this report has emphasised throughout, nutrition programmes depend on simultaneous delivery across health, food, social protection and data systems. The integrated platforms critical for resilience to shocks (Chapter 2) are the most vulnerable to cross-sectoral defunding. Misaligned financing architectures and donor dependency, as analysed in Chapter 6, compound this vulnerability: when nutrition funding flows through fragmented, externally dependent channels rather than integrated domestic systems, cuts in any single funding stream can disrupt delivery across multiple sectors simultaneously.

The current situation supports the analysis presented in this report. When nutrition commitments rely primarily on externally funded, short-term projects, cuts in official development assistance translate directly into programme collapse. The current moment confirms that transformation cannot depend solely on expanding the range of donors; it must centre on strengthening national institutions, reallocating existing resources and deepening integration across sectors.

In times of fiscal constraint, the focus should shift from expansion to prioritisation. The systemic fragmentation (Chapter 6) and the gap between procedural and substantive accountability become starker when resources shrink. Procedural commitments, even if SMART and well documented, are insufficient unless embedded within stable financial and institutional frameworks. This requires identifying interventions that generate co-benefits across nutrition, climate adaptation and livelihoods. Redirecting even a fraction of the approximately US$540 billion in annual agricultural subsidies towards increasing the availability of nutrient-dense foods, embedding nutrition within routine primary healthcare and social protection systems and strengthening food environment regulations are more financially viable than creating entirely new programmes. Priority measures include taxes on unhealthy products, subsidies for healthier foods, reformulation of packaged foods, trans-fat elimination, front-of-pack labels and restrictions on marketing unhealthy foods to children.[4]

Political resources are also scarce. Governments are managing inflation, debt, climate shocks and geopolitical instability. Nutrition risks are being treated as discretionary unless they are framed as essential to economic productivity, health system sustainability and climate resilience. Embedding nutrition commitments within medium-term expenditure frameworks, national climate strategies and social protection reforms increases their political durability and reduces the likelihood that nutrition is treated as an optional add-on vulnerable to cuts. Implementation may also need to be more incremental than ideal models suggest. More achievable pathways may include phased reform of subsidy structures, pilot programmes for integrated food, health, and climate action at the subnational level and stepwise strengthening of monitoring systems.

Where fiscal space is most constrained, sequencing should favour entry points that deliver the highest co-benefits at the lowest political and administrative cost. Integrating nutrition into existing primary healthcare platforms (e.g. through life-course counselling, micronutrient supplementation and growth monitoring within routine antenatal, postnatal and child health contacts) builds on infrastructure and workforce already in place and avoids the start-up costs of new programmes. Similarly, strengthening nutrition components within established social protection systems, such as adding dietary diversity criteria to school feeding or linking cash transfers to nutrition messaging, can improve dietary quality at marginal additional cost. Regulatory measures that reshape food environments, including front-of-pack labelling, restrictions on marketing unhealthy foods to children and trans fat elimination, require political commitment but relatively modest public expenditure and can generate fiscal returns through health taxes on sugar-sweetened beverages or other unhealthy products. These entry points contrast with more complex reforms, such as large-scale subsidy restructuring or the creation of new cross-ministerial governance bodies, which may yield greater systemic impact but require longer lead times, broader coalitions and sustained political capital. A practical sequencing strategy would therefore begin with integration into existing delivery platforms and low-cost regulatory action, use early gains to build political credibility and institutional capacity and phase in structural reforms as conditions allow.

A final reality check concerns the cost of inaction. Cutting nutrition funding does not eliminate risk but compounds it. Climate shocks, food price volatility and the rising prevalence of diet-related diseases generate substantial long-term economic costs. Withdrawing preventive and nutrition-sensitive programmes may ease budgets in the short term but will increase later expenditure on healthcare and lost productivity. For every dollar invested in addressing undernutrition, a return of US$23 is expected.[5]

The current situation does not alter the strategic direction set out in this report. The recommendations remain valid, but their successful implementation requires sharper prioritisation, strong domestic policies and sequencing that is firmly grounded in political feasibility.

Within this context, the Food and Health Systems for Equitable Nutrition (FHEN) Framework proposed in this report is intended to support the shift from diagnosis to implementation. It can be used to improve the design of N4G commitments by requiring clearer links between objectives, financing, delivery systems and accountability. It can also inform donor and development bank financing decisions by making cross-sector coordination, resilience provisions and equity measures part of funding conditions. However, better-designed commitments are a starting point, not an endpoint. The framework's greater value lies in its application to national planning processes, including NAPs, NDCs, health strategies and social protection reforms, where it can help identify where responsibilities sit, which trade-offs need to be managed and which delivery systems need to be financed. Ultimately, the test of the framework is not whether it produces more integrated commitments, but whether it supports more integrated action: durable budget lines, functioning coordination across ministries, delivery platforms that reach those most at risk and systems that maintain essential services when shocks occur.

2022. Takoma Park, Maryland, USA.
An employee stocks shelves at the Takoma Park Silver Spring Co-op in Maryland, USA.
© Tom Witham/USDA.

10

Conclusion

DELIVERING HEALTHY DIETS UNDER COMPLEXITY AND INTERCONNECTEDNESS

A large and growing body of global commitments frames nutrition as an outcome requiring action across food systems and health systems. The food system sustainability and transformation agenda has emphasised dietary shifts towards plant-based, nutrient-dense foods and reduced intake of red meat, sugar and ultra-processed products, revealing how these shifts depend on both demand and supply.[1,2,3,4]

Supply-side measures are needed to expand access to diverse, nutrient-dense foods by strengthening value chains, reducing post-harvest loss and spoilage and aligning incentives so producers and businesses can supply healthier options at scale, particularly through production incentives, healthier food procurement and processing, better storage (which would also reduce food loss) and fairer retail prices and access.[5,6]

On the demand side, guidance of consumer preferences towards healthier food can be shaped through nutrition education and literacy that highlights the value and benefits of healthier diets.[7,8] Awareness will need to be accompanied by food environment measures that increase purchasing power and ensure the availability, affordability, convenience and desirability of healthier foods for all consumer groups, especially for low-income consumers, who often cannot afford healthier options.[4,9,10]

Health systems can strengthen this shift by promoting healthier nutrition through counselling, treatment adherence, supplementation and fortification platforms and targeted support for groups facing higher nutritional risk, while also responding to diet-related disease burdens that influence household food choices. This is why nutrition should be increasingly positioned as a core function of universal health coverage and primary healthcare, delivered through life-course packages of essential nutrition actions alongside non-communicable disease prevention and basic treatment in routine care.[11,12]

Yet, the complexity of implementing such a broad portfolio of actions, especially under escalating climate pressures, can appear daunting, discouraging stakeholders, from governments and global agencies to civil society organisations.[13,14] Multiple needs, competing priorities and cross-system interdependencies accumulate faster than decision-making and delivery capacity, leaving actors uncertain about where to focus first and how to proceed.

While the full set of recommendations is presented in Chapter 8, a small number of priority actions stand out for each actor group. For governments, the highest-impact entry points are integrating nutrition into existing primary healthcare and social protection platforms, where delivery infrastructure is already in place, and embedding nutrition targets within national climate strategies (NDCs and NAPs) to unlock climate finance and strengthen cross-sector governance. For donors, development banks and climate finance providers, the priority is to shift towards multi-year, flexible financing that supports integrated food–health delivery and maintains services during shocks, while investing in domestic financing systems so that implementation is not wholly dependent upon external aid. For global platforms and accountability bodies, evolving accountability from procedural compliance to substantive integration by assessing whether commitments are backed by secured financing, cross-sector coordination and adequate delivery capacity can strengthen the credibility and impact of the global commitment architecture. For civil society and community-based organisations, the priority is to secure formal space in governance and planning processes, linking community platforms to both food and health systems to support service uptake, mutual accountability and resilience during crises. For the private sector, transparent nutrition and emissions disclosure, aligned with guiding principles agreed at the N4G Paris 2025 Summit, is a necessary foundation for credible engagement.

Within this context, the framework presented in this report is useful because it makes interdependencies visible, identifies where synergies can be captured and flags trade-offs that require explicit management. The framework is not a silver-bullet solution, and it does not remove the governance, financing and operational constraints that shape delivery. However, building on long-standing calls for bundled action, the framework can serve as a starting point for operationalising integration across systems and defining plausible first steps, supporting more coherent commitment and intervention packages and clearer accountability for environmental soundness and resilience, social equity and gender empowerment and economic prosperity across food and health systems.[15,16] Ultimately, multi-stakeholder involvement and flexible monitoring and evaluation will be critical for continuously improving commitments and interventions, building synergies and managing sometimes unanticipated trade-offs or unexpected shocks. Among the policy levers available, one stands out for its potential to anchor this integration: positioning nutrition as a core function of universal health coverage and primary healthcare. Doing so would embed life-course nutrition actions, from counselling and supplementation to growth monitoring and diet-related non-communicable disease prevention, within the delivery platform that reaches the largest number of people, particularly women and children in low- and middle-income countries. It would also create a durable institutional home for nutrition within health systems, reducing the risk that nutrition is treated as a discretionary add-on vulnerable to funding cuts. Achieving healthy diets for all will require action well beyond the health sector, across food systems, social protection, climate policy and governance. But a health system that treats nutrition as central to its mandate can serve as both a foundation and an accelerator for this broader transformation.

APPENDIX 1:

Synergies and trade-offs in supporting nutrition through climate-smart agriculture, sustainable healthy diets and reduction of food loss and waste

TABLE A1
Synergies and trade-offs in climate-smart agricultural strategies

Adopting climate-smart agricultural practices	Synergies	Trade-offs	Supporting actions to address trade-offs
Improved seed or fertiliser access	• Close yield gaps, offsetting up to 25% of emissions from agricultural expansion. • Reduce vulnerability to climate shocks, limiting price increases and safeguarding food security by retaining food supply. • Can increase availability of diverse foods where improved inputs support diversified production, improving dietary quality and micronutrient intake.	• Higher fertiliser demand may cause price spikes and supply disruptions. • Equity risks: benefits may concentrate among well-resourced farmers with access to credit, irrigation and markets, leaving smallholders more vulnerable. • Increased fertiliser use can increase nitrate contamination of drinking water where runoff is poorly managed, raising health risks in exposed communities.	• Stabilise supply and prices through public procurement buffers, predictable import rules and targeted transport/storage support. • Provide input subsidies and credit access for low-income farmers. • Promote soil testing and site-specific nutrient management; invest in extension services. • Monitor water quality in agricultural areas (health system role).
Crop rotation	• Implement natural pest control and biological nitrogen fixation to lower emissions by reducing demand for synthetic fertilisers and pesticides. • Diversify on-farm food production, potentially improving household dietary diversity. • Reduce vulnerability to climate shocks, limiting price increases and safeguarding food security.	• Greater knowledge and planning requirements for farmers. • Additional operations (multiple planting/harvesting windows) increase labour demands and may reduce off-farm work opportunities. • If rotation crops are less preferred or harder to prepare, households may sell them and continue eating staples, limiting dietary diversity gains despite production diversification.	• Provide extension schools and planning support for farmers for field rotation design and timing. • Support labour-saving equipment, shared services or coordinated planting and harvesting to reduce time burdens. • Promote locally acceptable, nutrient-dense rotation crops and behaviour change support so production gains translate into dietary improvements.

Livestock production efficiency	• Improve carcass size or milk yield to reduce methane emissions per unit output by decreasing herd size needed. • Increase availability of animal-source foods that provide high-quality protein and micronutrients (iron, zinc, vitamin B12). • Raise farm incomes when efficiency gains are retained by producers.	• Lower costs per unit may increase demand and total production, offsetting emissions reductions (rebound effect). • Increased feed demand diverts crop land to feed production, exacerbating environmental pressures and reducing land for human food crops. • Smaller producers may be less competitive and exit markets, concentrating production and increasing rural poverty.	• Link efficiency support to emissions intensity benchmarks and caps/ guardrails on herd expansion to prevent rebound effects. • Prioritise crop residues, by-products and forage crops on marginal land for feed rather than dedicating prime crop land. • Provide grants and credit to smallholder farmers for improving fodder quality, animal health and housing. • Health system role: provide dietary counselling on balanced animal-source food consumption; monitor and treat diet-related non-communicable diseases as consumption patterns shift.
Land-based practices (minimum tillage, cover cropping, agroforestry)	• Increase soil carbon sequestration and build resilience to erosion and water stress. • Improve long-term soil fertility and productivity. • Can diversify farm outputs (e.g. fruits, nuts from agroforestry), improving dietary diversity.	• Lower yields in early years as soils adjust, reducing food availability and farm incomes during transition. • High initial labour demands may reduce time for off-farm work or caregiving, affecting household welfare.	• Provide time-bound transitional payments, concessional credit and insurance products designed for early-year yield variability. • Establish custom-hiring centres for appropriate machinery; provide training on timing and residue management to reduce labour intensity. • Ensure social protection programmes maintain household food access during the transition period (health system role).
Holistic grazing or regenerative agriculture	• Increase soil carbon stocks through improved pasture management. • Build resilience to drought and maintain forage quality under climate stress. • Can improve livestock health and productivity.	• Maintaining stocking rates while improving pasture quality may push expansion into new land or displace environmental pressure elsewhere. • May reinforce continued livestock expansion and reduce incentives for diversification towards lower-emissions production systems. • Rotational grazing requires infrastructure (fencing, water points) and active management; upfront costs can exclude smaller herders.	• Align grazing support with land use planning and monitor land conversion to prevent expansion-driven emissions. • Provide subsidised or collective infrastructure (fencing, shared water points, mobile troughs) and community-managed systems for small herders. • Set clear limits on herd expansion and link grazing support to diversification and emissions targets.

TABLE A2
Synergies and trade-offs in sustainable healthy diets

Adopting sustainable healthy diets	Synergies	Trade-offs	Supporting actions to address trade-offs
Plant-based diets and health	• Reduce premature mortality by 20% (10 million deaths prevented) through reduced risk of cardiovascular disease, cancer and type 2 diabetes. • Reduce food systems emissions by 50% (flexitarian) to 75% (fully plant based). • Reduce health system burden from diet-related non-communicable diseases.	• Risk of inadequate intake of some micronutrients for specific population groups, if dietary change is poorly designed. • Access to diverse nutrient-dense foods remains uneven across settings. • Behaviour change may be slow where prices, food environments and social norms favour less healthy diets.	• Create demand for selected nutrient-dense foods (e.g. increasing consumption of green leafy vegetables) through food-based dietary guidelines and nutrition education. • Link dietary transition support with direct health system interventions: micronutrient supplementation, fortification programmes and vitamin A supplementation. • Integrate nutrition counselling into antenatal care, child health services and non-communicable disease prevention programmes. • Provide behaviour change communication through community health platforms. • Use procurement standards and healthcare delivery platforms to provide or prescribe nutritious foods for priority groups.
Making plant-based diets affordable and accessible	• Increased consumption of whole grains, vegetables, fruits, legumes and nuts fosters sustainable production and provides critical health benefits for populations. • Reduced consumption of sugar, red meat and processed meat reduces mortality and the prevalence of non-communicable diseases.	• Affordability remains a major barrier: as of 2021, 58% of the global population could not afford a healthy diet, the majority of whom (over 75%) live in Africa. • Sustainable healthy diets are 18–29% more expensive than current diets in low-income countries, requiring careful transition planning. • Subsidy reform may face political resistance from affected industries.	• Reduce food loss and waste to lower production costs and food prices. • Promote socioeconomic development to raise household purchasing power. • Implement full-cost accounting of environmental impacts to adjust relative prices. • Integrate nutrition into social protection design; ensure food assistance programmes (school feeding, maternal/child nutrition) provide diverse, nutrient-dense foods, not just staples (health system role). • Use taxes on unhealthy foods and sugar-sweetened beverages to help fund subsidies for nutrient-dense plant-based foods.

Ensuring dietary transitions support climate adaptation and mitigation	• Reduce demand for emissions-intensive animal-source foods, achieving up to 50% average emissions reductions. • Build resilience by diversifying diets and reducing dependence on climate-vulnerable animal-source food systems. • National food-based dietary guidelines can guide population-level dietary shifts.	• Food-based dietary guidelines show modest emissions reduction potential (12% to 13%) when guidance on meat and dairy is not specific. • Dietary recommendations to increase animal-source foods for specific nutrient needs could increase emissions substantially.	• Strengthen food-based dietary guidelines with explicit, specific guidance on limiting meat and dairy intake. • Implement climate-smart agricultural practices that support production of diverse, nutrient-dense plant foods while reducing emissions. • Coordinate food environment policies (labelling, marketing restrictions, retail placement) with dietary guidance.

TABLE A3
Synergies and trade-off strategies focused on reducing food loss and waste

Reducing food loss and waste	Synergies	Trade-offs	Supporting actions to address trade-offs
Improvements in post-harvest storage, processing and distribution systems	• Reduce losses from heat, humidity and pests, which are intensifying within climate change. • Stabilise food supply and reduce seasonal price spikes, improving year-round access to nutritious foods.	• Increased refrigeration and energy-intensive storage systems can raise greenhouse gas emissions, potentially offsetting gains from reduced food loss and waste. • Infrastructure investments may not be affordable for smallholder farmers and small enterprises. • Benefits may accrue for larger operations with capital access, widening inequities.	• Prioritise low-emissions storage technologies: hermetic bags, improved ventilation, solar-powered cooling and climate-controlled silos, rather than energy-intensive refrigeration. • Provide subsidised or collective infrastructure for smallholders: state-subsidised food reserves, shared storage facilities. • Support portable, scalable technologies appropriate for small-scale producers.
Trade expansion	• Redistribute surplus food from regions with excess to regions facing production shortfalls, improving food access during climate shocks. • Diversify supply chains and increase the number of exporting regions, reducing vulnerability to localised climate extremes.	• Increased emissions from transport if fossil fuel–dependent logistics are used. • Over-reliance on imports from a small set of countries heightens risk if climate extremes strike multiple suppliers simultaneously. • May undermine local food production and farmer livelihoods if not managed carefully.	• Invest in low-emissions transport infrastructure and logistics systems. • Establish diverse trading partnerships to avoid over-reliance on limited suppliers. • Harmonise food safety and quality standards to facilitate efficient cross-border distribution. • Balance trade expansion with support for local food production and regional food systems.
Improvements in the food supply chain	• Reduce waste at stages where products carry the full emissions burden from production through processing. • Increase efficiency and lower costs throughout the food system, potentially improving affordability.	• Economic feedback effects, such as lowered food prices and political and practical barriers.	• Implement consumer education campaigns, awareness-raising and behavioural nudges to improve household storage and reduce plate waste. • Link food loss and waste reduction to food assistance programmes: redirect recovered food through school feeding, emergency food distribution and nutrition programmes.

APPENDIX 2:
Factors and effects across systems in the framework

This table provides an operational guide for identifying action points across domains. It shows how climate, food systems and health systems affect nutrition through both supply-side mechanisms (what is produced, processed and delivered) and demand-side mechanisms (what people can access, afford and choose). Policymakers and practitioners can use this table to identify intervention points within their mandate and to recognise where coordination with other sectors is essential.

Domain	Factors affecting nutrition	Supply-side effects on nutrition	Demand-side effects on nutrition
Environment and climate	• Temperature. • Precipitation and rainfall patterns. • Extreme climate events (floods, droughts, storms, heat wave). • Soil, water and biodiversity degradation. • Sea level rise and ocean acidification.	• Disrupts agricultural and fisheries production through lower yields, higher crop and livestock failure risk and changing fish stocks. • Increases post-harvest losses and food safety risks due to heat and humidity. • Reduces availability of wild foods. • Reduces nutrient density (protein, iron, zinc) in some staple crops. • Damages health; water, sanitation and hygiene; and market infrastructure. • Disrupts supply chains for food and essential health and nutrition commodities.	• Reduces incomes and employment in climate-sensitive livelihoods, compressing food budgets. • Increases seasonality and volatility in access to nutritious foods through price spikes. • Raises climate-sensitive disease burdens (diarrhoeal diseases, vector-borne diseases, heat stress) and associated care costs. • Drives displacement and raises time and financial costs for accessing care, interrupting continuity of nutrition and health services.
Food systems	• Food production systems and input use. • Land use patterns and crop/livestock diversification. • Storage, cold chain, processing and retail structures. • Food environments, marketing exposure and labelling. • Domestic and international food trade, public procurement and distribution systems.	• Determines composition and diversity of food output across major food groups (staples, pulses, fruits and vegetables, animal-source foods, oils and sugar). • Influences volumes and types of processed foods in markets, including products high in fats, sugars and salt. • High post-harvest losses and weak cold chains lower availability, stability and quality of perishable nutrient-dense foods. • Procurement and distribution arrangements influence whether diverse, nutrient-dense foods reach different regions, seasons and population groups.	• Sets relative prices and affordability of nutritious foods compared with energy-dense, nutrient-poor options. • Shapes local food environments through density and types of outlets, and placement, labelling and promotion of different foods. • Affects consumer exposure, including that of children and adolescents, to promotion of products high in fats, sugars and salt. • Uses school, workplace and safety net food provision to establish routine dietary patterns across population groups.

Health systems	• Coverage and quality of essential nutrition actions across the life-course (antenatal care, postnatal care, breastfeeding support, infant and young child feeding, child health, adolescent health, non-communicable disease care). • Availability, distribution and competencies of health workers and community health workers. • Facility readiness: nutrition commodities; supply chains; guidelines; water, sanitation and hygiene; and infection control. • Financial protection and user fee policies for primary care and nutrition services. • Community outreach, referral and links to social protection.	• Expands coverage of growth monitoring, nutrition counselling, breastfeeding promotion, infant and young child feeding support, micronutrient supplementation, wasting care and other key nutrition services. • Shapes availability and quality of obesity- and diet-related non-communicable disease prevention, screening and treatment. • Adequate or poor water, sanitation and hygiene and infection control in facilities influences infection-related undernutrition. • Strengthens or weakens frontline capacity for regular, nutrition-focused counselling and follow-up.	• Care-seeking for maternal, child and non-communicable disease–related nutrition services is shaped by costs, distance, wait times and perceived quality. • Health and nutrition literacy, trust in providers and social norms influence use of services and adherence to advice. • Awareness and uptake of health-linked entitlements and social protection benefits buffer or fail to buffer nutrition shocks. • Social and behaviour change communication influences dietary practices, infant feeding and healthcare-seeking patterns.

NOTES

Executive summary

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ABBREVIATIONS

CGIAR	Consultative Group on International Agricultural Research
Covid-19	coronavirus disease 2019
FAO	Food and Agriculture Organization of the United Nations
FBDGs	food-based dietary guidelines
FLW	food loss and waste
GNR	Global Nutrition Report
HLPE	High Level Panel of Experts on Food Security and Nutrition
IEG	Independent Expert Group
IPC	Integrated Food Security Phase Classification
M&E	monitoring and evaluation
N4G	Nutrition for Growth
NAF	Nutrition Accountability Framework
NAP	National Adaptation Plan
NDC	Nationally Determined Contribution
NIPN	National Information Platforms for Nutrition
PSNP	Productive Safety Net Program
SMART	Specific, Measurable, Achievable, Relevant and Time-bound
SUN	Scaling Up Nutrition
UN	United Nations
UNICEF	United Nations Children's Fund
USDA	United States Department of Agriculture
WASH	water, sanitation and hygiene
WHA	World Health Assembly

GLOSSARY

Accountability	The obligation of stakeholders to answer for and accept responsibility for their commitments and actions. Accountability ensures that decisions, programmes and policies of stakeholders are implemented, meet their stated objectives and respond to the communities they aim to benefit. Procedural accountability refers to the extent to which nutrition commitments have specificity and strong thematic alignment, such as being SMART (Specific, Measurable, Achievable, Relevant and Time-bound), but may not be sufficient to deliver improved nutrition outcomes. Substantive accountability goes beyond well-specified commitments to assess whether actions are backed by secured financing, institutional capacity, coordination mechanisms and resilience planning.
Accountability mechanism	Independent mechanism for setting standards and requirements for accountability, based on well-established principles and methods. Accountability mechanisms are central to holding those responsible to account, through active engagement, interaction and verification and tracking of reported information. Such mechanisms provide opportunities to collaborate, discuss, learn, share best practices and experiences and encourage further action. See procedural versus substantive accountability.
Agri-food systems	The interconnected processes and actors involved in supplying inputs, producing, processing, storing, transporting, trading, packaging, distributing, retailing, marketing, preparing and consuming food, and the outcomes these systems generate for nutrition, health, equity, livelihoods and the environment.
Agrobiodiversity	The diversity of crops, livestock, species and genetic resources within food systems that supports dietary diversity, ecosystem resilience and sustainable production.
Animal-source foods	Foods derived from animals, including meat, fish and other aquatic animals, eggs and dairy products, which can provide high-quality protein and essential micronutrients but vary widely in environmental impact, accessibility and nutritional relevance across contexts.
Blended finance	Financing approaches that use public or philanthropic funds to mobilise additional private investment by sharing risks or lowering barriers to entry for development-relevant activities.
Civil society organisation	Non-state, nonprofit organisation that represents, advocates for or delivers services on behalf of communities or constituencies.
Climate adaptation	The process of adjustment to actual or expected climate shifts and their effects in order to moderate harm or exploit beneficial opportunities for nutrition, health and livelihoods, particularly for vulnerable populations.

Climate change	Long-term shifts in temperature, precipitation patterns, sea levels and the frequency and intensity of extreme weather events. Climate change may be due to natural internal processes, natural external forces (such as volcanic eruptions or solar variations) or persistent human-caused changes in the composition of the atmosphere or land use.
Climate shocks	Sudden, extreme climate-related events such as droughts, floods, storms or heat waves that disrupt food, health and social systems.
Climate stressors	Long-term climate and environmental pressures, such as rising temperatures, water scarcity and soil degradation, that gradually undermine system performance and resilience.
Climate-smart agriculture	An approach that helps to guide actions needed to transform and reorient agricultural systems to effectively support development and ensure food security under a changing climate. This includes those that aim to – in ways that do not negatively impact the climate – increase productivity, strengthen resilience to climate stress, reduce greenhouse gas emissions and/or support access to or production of nutrient-dense foods, particularly for smallholder farmers and vulnerable groups.
Cross-sectoral/ Multisectoral	Coordinated policies, programmes and/or actions across multiple sectors, such as health, agriculture, education, social protection, water and sanitation and finance, to address the underlying and immediate causes of malnutrition.
Development finance institutions	Public or multilateral financial institutions established to support development objectives through the provision of finance and related instruments. Examples include the World Bank, the African Development Bank and the Asian Development Bank.
Dietary diversity	Dietary diversity (or dietary variety) refers to the variety in the number and types of foods in a person's diet over a reference period. Consensus is in process on the optimal standardised measure for dietary diversity, though indicators such as minimum dietary diversity for women are gaining in popularity. It is also used as a proxy measure for food security, adequacy of energy/nutrient intake and diet quality.
Dietary quality	The extent to which a diet meets nutritional needs, supports health and avoids excessive intake of nutrients associated with disease risk. It includes variety and/or diversity (within and across food groups), adequacy (sufficiency of nutrients or food groups compared to requirements), moderation (foods and nutrients that should be consumed with restraint) and overall balance (composition of macronutrient intake). This should translate into diets that meet nutrient requirements, include a variety of foods across food groups, ensure appropriate macronutrient distribution and limit added sugars, salt and unhealthy fats, as well as consider exposure to food safety hazards.

Dietary transition	Dietary transition refers to long-term shifts in the composition and patterns of diets within populations, typically associated with economic development, urbanisation and changes in food systems, leading to changes in the types, quantities and quality of foods consumed (e.g. shifts towards diets higher in fats, sugars, animal-source foods and processed foods).
Donor	Any stakeholder making a commitment outside their own geographic boundaries, entity or workforce, for example by providing financial, technical or in-kind (non financial) resources to support actions, programmes or initiatives. For example, a government can make commitments to improve nutrition through financial or non financial support in another country. Similarly, philanthropies, private-sector businesses and multilateral organisations can function as donors.
Enabling actions	One of three categories of the Nutrition Action Classification System, identifying actions to establish an enabling environment for effective nutrition action across all sectors (including multisectoral actions). These actions are designed to improve the contextual – social, economic, political, cultural or environmental – conditions within which effective and sustained action aiming to improve nutrition outcomes is taken. They reflect the willingness to act on nutrition and ensure readiness for political commitment, capacity and coordination across different administrative levels and among decision-makers in nutrition and all other involved sectors.
Environmental soundness	The extent to which food and nutrition actions protect or enhance land, water, biodiversity and climate systems rather than degrading them.
Equity	Equity seeks to reduce avoidable or remediable disparities in outcomes (e.g. dietary intake, nutritional status and related conditions/diseases) caused by structural barriers in access to high-quality food or health systems goods or services, among individuals or population groups (which can be based on socially, economically, demographically or geographically defined characteristics).
Financial	A sub-category of the enabling action category of the Nutrition Action Classification System. It includes actions that aim to secure, raise or commit financial resources and investments for nutrition-specific and/or nutrition-sensitive actions. For the Nutrition for Growth (N4G) Paris 2025 Summit, France as the host focused on two main categories of commitments, those that were financial and those that were political (all commitments that were not financial), a distinction for which the Global Nutrition Report (GNR) accounted while maintaining the structure of the Nutrition Action Classification System.
Food environment	The underlying conditions, such as the availability, accessibility and desirability of food, that shape dietary patterns and nutritional status outcomes. As well as the physical environment, this encompasses the economic, political, social and cultural contexts within which people and their dietary options and choices are situated.

Food loss and waste	Food that is produced for human consumption but is not ultimately eaten. It refers to the reduction in quantity or quality of food along the supply chain, during the production, post-harvest handling, storage, processing, retail, food service and consumption stages.
Food and nutrition security	Food and nutrition security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life, and when adequate food, health, care and feeding practices ensure optimal nutritional status. This includes having consistent access to safe, affordable foods and beverages that promote well-being while preventing, and, in some cases, treating disease. It encompasses the quantity, safety and nutritional content of foods and beverages and their economic and physical accessibility.
Food sovereignty	The right of peoples, communities and countries to define their own food and agriculture systems, prioritising locally appropriate, culturally acceptable, sustainable and equitable food production, distribution and consumption. Food sovereignty emphasises local control over resources, participation in decision-making and protection of livelihoods, particularly for small-scale producers and Indigenous groups.
Food supply chain	The activities and actors that take food from production through consumption to the disposal of its waste, including input supply, production, processing, storage, transportation, trading, packaging, distributing, retailing, marketing, preparing, consuming and disposing of food waste.
Food system	The interconnected elements (including environment, people, inputs, processes, infrastructures and institutions) and activities that relate to the production, processing, distribution, preparation and consumption of food, and the outputs of these activities, including socioeconomic and environmental outcomes.
Food systems resilience	The capacity of food systems to anticipate, absorb, adapt to and transform in response to shocks and stresses, such as climate extremes, conflict or economic crises, while ensuring food and nutrition security for all, in the short and long term.
Gender integration	The process of assessing the implications for women and men of any planned action, including policies, programmes and legislation, in all areas and at all levels, with the goal of ensuring that gender perspectives and gender equity are central to their design, implementation, monitoring and evaluation.
Gender-transformative action	Policies, programmes and interventions that actively seek to change inequitable gender norms, roles and power relations in order to achieve lasting gender equity, rather than simply recognising, responding to or accommodating existing inequities.

Global nutrition targets	As referred to in the 2026 GNR, the global nutrition targets encompass 1) the six targets endorsed by the World Health Assembly in 2012 with regards to maternal, infant and young child nutrition (reduce stunting and wasting in children under 5, halt the epidemic of obesity in children under 5, reduce anaemia in women of reproductive age, reduce low birth weight and increase the rate of exclusive breastfeeding), and 2) the three diet-related voluntary global non-communicable disease (NCD) targets endorsed by the World Health Assembly in 2013 (halt the rise in diabetes and obesity, reduce salt/sodium intake and reduce the prevalence of high blood pressure/hypertension).
Governments	Public authorities at any administrative level within the remit of a country that are responsible for policymaking, regulation, service delivery or public financing. Governments may or may not function in a donor capacity.
Health systems	The organisations, people and actions whose primary intent is to promote, restore or maintain health, including delivery of essential nutrition services across the life-course. Health systems are not only hospitals and clinics, but the full network of actors, institutions and activities whose main purpose is improving health outcomes.
Impact actions	One of three categories of the Nutrition Action Classification System, identifying commitments designed to directly achieve improved nutrition outcomes (from undernutrition to obesity and diet-related NCDs in the population). The nutrition actions falling under this category use as 'tools' the policies and interventions (policy actions) already in place in an enabling environment (enabling actions) to improve the population's nutritional status.
Integration	The deliberate coordination and alignment of policies, strategies and interventions across sectors, actors and levels to address interconnected challenges, such as those related to nutrition, food systems, health systems, social protection and climate action, in a coherent and mutually reinforcing way. In this report, integration refers not only to coordination across sectors, but to aligning financing, governance, delivery platforms and accountability mechanisms.
Leadership and governance	The system by which a country or an organisation (e.g. philanthropy, food industry or health facility) is governed and operates with regards to advancing the food and nutrition agenda across sectors, as well as the mechanisms for determining food and nutrition policy and by which those in control are held accountable.
Multilateral organisation	An international or regional organisation established by multiple countries or entities to pursue shared objectives through collective action and cooperation, such as UN agencies and the West African Health Organisation. They may or may not function in a donor capacity.

Malnutrition	Inadequate and/or excessive intake of macro (calories, protein, fats) energy and/or micronutrients (from iron and calcium to vitamins). This includes both 'undernutrition' and what is sometimes referred to as 'overnutrition'. Although undernutrition is an appropriate term for caloric and nutrient deficiency (including stunting, wasting, underweight and micronutrient deficiencies), overnutrition fails to capture the complexity of poor diets that cause obesity and diet-related non-communicable diseases (NCDs) such as heart disease, hypertension and diabetes. Therefore, for the latter, the 2026 Global Nutrition Report refers instead to 'overweight, obesity and diet-related NCDs'.
Micronutrient deficiency	Micronutrient deficiency is caused by inadequate intake or absorption of one or more vitamins or minerals, increased needs, or illness, leading to suboptimal nutrition status and problems such as anaemia, impaired immunity, stunted growth, vision issues and cognitive impairment. On the other hand, although less common than deficiencies, taking in too many of some micronutrients, usually from supplementing with excess amounts, may also lead to adverse effects (micronutrient toxicity).
National Adaptation Plan	A country-led process under the UN Framework Convention on Climate Change (UNFCCC) to identify medium- and long-term priorities for adapting to climate stressors and implement strategies and programmes to address those needs, ideally integrating nutrition and health considerations.
Nationally Determined Contribution	A country's pledge in its national climate action plan under the UNFCCC, setting out how the country commits to reducing greenhouse gas emissions and/or adapting to climate change, in line with its national circumstances and capabilities.
Non-communicable diseases	Non-communicable diseases are non-infectious chronic diseases that last a long time, progress slowly and are caused by a combination of modifiable and non-modifiable risk factors including lifestyle/behavioural, environmental, physiological and genetic factors. Four key types of NCDs are cardiovascular disease (e.g. coronary heart disease, stroke), diabetes, cancer and chronic respiratory disease. Obesity is both a chronic disease and a risk factor for other NCDs. The GNR refers to NCDs related to diet (or nutrition) as 'diet-related NCDs'. These are primarily obesity, cardiovascular disease, diabetes and specific cancer types.
Nutrition Accountability Framework	The Nutrition Accountability Framework (NAF) was developed by the GNR to enable the formulation, registration and tracking of SMART nutrition commitments in the Nutrition Year of Action and beyond. The NAF was launched in September 2021 in response to the call for more action and strengthened accountability for nutrition by national governments, international organisations and the Group of Seven leaders. Building from the example of the GNR's Nutrition for Growth Tracker, the NAF is the world's accountability framework for committing to and equitably tracking nutrition action, using comprehensive and transparent methods. The goal of the NAF is to inform, shape and inspire action with independent and trusted data and evidence on policy, practice and financing that results in greater accountability and progress in advancing nutrition globally.

Nutrition action	Any strategy, policy, intervention, programme or investment intended to tackle poor diets and malnutrition in all its forms.
Nutrition commitment	The stated and formally registered intent to address poor diets and/or malnutrition in all its forms through SMART nutrition actions. A commitment is what the commitment maker is committing to achieve, tracked by the primary indicator specified in the registration form (to assess progress made). The commitment should be nutrition related, whether nutrition-specific or nutrition-sensitive. Some examples of commitments are to reduce stunting in children under 5 years of age, to reduce anaemia in women of reproductive age, to design a national nutrition action plan, to invest US$500 million in nutrition-specific interventions, to establish a regulatory body for nutrition and to increase the national budget dedicated to nutrition.
Nutrition for Growth	A global high-level political and financing forum bringing together government, civil society, philanthropy, multilateral agencies, academia and private industry to mobilise commitments and action to end malnutrition in all forms. These events have occurred every four years since the first, in 2013 in London. Endorsers of that first N4G Compact agreed to "improved transparency and mutual monitoring and accountability" and called for a framework and a global report on nutrition, and the first GNR was published soon after, in 2014. The most recent summit (as of the 2026 GNR) was in Paris in 2025.
Nutrition-sensitive	Actions or policies that target the underlying factors, systems and institutions that affect nutrition status and outcomes, such as education, agriculture, social protection, water, sanitation and hygiene, infectious disease control and reproductive health. Nutrition-sensitive actions do not have improved nutrition as the primary objective but can reduce the causes and manifestations of malnutrition and increase the scale and effectiveness of nutrition-specific interventions. To be considered nutrition-sensitive, actions must include specific references to nutrition outcomes or activities.
Nutrition-specific	Actions or policies specifically designed to resolve or prevent defined nutrition issues. These aim to address the more immediate determinants of nutrition and health, such as improving infant and young child feeding practices, food and nutrient intakes and nutrition-related health outcomes.
Official development assistance	Government aid that promotes and specifically targets the economic development and welfare of developing countries. It had been the main source of financing for development aid since adopted by the Organisation for Economic Co-operation and Development's Development Assistance Committee in 1969. Now, development grants and investments by the largest private philanthropic foundations exceed the Official Development Assistance of many of the largest donor countries.

Overweight and obesity	A person is overweight or obese if they have excessive fat accumulation that poses a risk to health. There are different methods to classify overweight or obesity depending on age. Body mass index (BMI), which is a person's weight in kilograms divided by the square of height in metres, is used as a population-level screening tool to classify overweight or obesity in adults. The World Health Organization (WHO) defines overweight in adults as a BMI greater than or equal to 25 kg/m^2, and obesity as a BMI greater than or equal to 30 kg/m^2.
Paris Nutrition for Growth Summit	The N4G Summit, hosted by the Government of France in Paris, took place 27–28 March 2025. The Summit's vision and roadmap call for decisive and bold political and financial commitments to scale up ambitions in the fight against malnutrition in all its forms and accelerate progress towards the achievement of global nutrition targets by 2030. The themes selected by France as summit host were nutrition, health and social protection; nutrition and the transition to sustainable, climate-smart and resilient food systems; nutrition and resilience to crises; nutrition and gender equality; data, research, innovation and artificial intelligence; and financing and accountability for nutrition.
Philanthropies	Non governmental, non profit entities whose primary purpose is to provide financial or in-kind resources to support public benefit activities.
Plant-based diet	A dietary pattern that emphasises foods derived primarily from plants, such as fruits, vegetables, legumes, whole grains, nuts and seeds, while limiting or excluding animal-source foods in varying degrees. Within the context of nutrition and food systems, plant-based diets are often discussed for their potential benefits for health, environmental sustainability and resilience, while requiring attention to diet quality, cultural context and micronutrient adequacy.
Policy actions	One of the three categories of the Nutrition Action Classification System, referring to strategies, policies, interventions or programmes that aim to improve nutrition outcomes both directly and indirectly. Having built an enabling environment for nutrition, this category reflects the scaling up of nutrition efforts through committing to actions in nutrition policy (including policies, strategies, interventions and/or programmes). Such actions are generally population-based strategies with a broad reach that are crucial complements to efforts to reach individuals.
Polycrisis	The simultaneous occurrence of multiple, interconnected crises, such as climate change, conflict, pandemics and economic shocks, that interact with and amplify each other, producing compounded and cascading impacts on food, health and nutrition systems that are more severe than the sum of their individual effects.
Primary healthcare	A whole-of-society approach to organising health systems that ensures essential health services are accessible, equitable and community centred across the life-course, serving as a key platform for delivering nutrition actions at scale.

Private sector (also 'private industry', 'for-profit sector' or 'business sector')	An organisation that is not owned or operated by the government and is constituted for profit. This includes any individuals, institutions, organisations, associations, coalitions and corporate philanthropic foundations that represent private-sector interests, even if any commercial activity is not directly connected.
Procedural accountability	The extent to which nutrition commitments have specificity and strong thematic alignment, such as being SMART, but may not be sufficient to deliver improved nutrition outcomes.
Research institutions	Organisations whose primary mandate is the generation, synthesis or dissemination of research and evidence.
Resilience	The capacity of a system, community or society exposed to hazards to resist, absorb, accommodate, adapt to, transform and recover from their effects in a timely and efficient manner, including through the preservation and restoration – if not enhancement – of its essential basic structures and functions.
Scaling up Nutrition	The Scaling up Nutrition Movement, led by countries, is devoted to supporting members' commitments and accountability around action on malnutrition.
Specific, Measurable, Achievable, Relevant and Time-bound	Specific, Measurable, Achievable, Relevant and Time-bound criteria are used to develop SMART nutrition commitments. For each of these five criteria, specific information (ingredients) were identified and are collected for each commitment.
Social protection	A set of policies and programmes designed to prevent or protect all people against poverty, vulnerability and social exclusion throughout their life-course, with particular emphasis on vulnerable groups.
Stakeholders	People and organisations with a vested interest in the policy being promoted or affected by a common action and decision. They are typically defined as a group based on type, including governments, philanthropies, multilateral organisations, civil society organisations, private sector, development finance and research institutions.
Stunting	Stunting refers to the impaired growth and development that children experience from poor nutrition, repeated infection and inadequate psychosocial stimulation. WHO defines childhood stunting (moderate and severe) as a length- or height-for-age z-score more than two standard deviations below the median of the WHO Child Growth Standards. Children who are stunted are also more likely to be wasted.

Substantive accountability	Substantive accountability goes beyond well-specified commitments to assess whether actions are backed by secured financing, institutional capacity, coordination mechanisms and resilience planning.
Sustainable Development Goals	A set of integrated goals, targets and indicators, agreed by the UN General Assembly in 2015, for the achievement of socially, economically and environmentally sustainable development.
Sustainable healthy diet	Dietary patterns that promote all dimensions of an individual's health and well-being, are environmentally sustainable, culturally acceptable, accessible, affordable and safe and contribute to long-term food system resilience.
Tokyo Nutrition for Growth Summit	The N4G Tokyo Summit, hosted by the Government of Japan in Tokyo, took place 7–8 December 2021. The Summit's vision and roadmap call to integrate nutrition into universal health coverage, build climate-smart food systems that promote healthy diets and nutrition and ensure livelihoods of producers and address malnutrition effectively within fragile and conflict-affected contexts. It is the immediate predecessor of the N4G Paris 2025 Summit.
Undernutrition	Undernutrition is a diet-related condition resulting from insufficient food intake to meet needs for energy and nutrients. It includes being underweight, too short (stunted) or too thin (wasted) for age or height or deficient in vitamins and minerals (micronutrients). Being undernourished means suffering from undernutrition.
Universal health coverage	Universal health coverage, also known as universal healthcare, is a healthcare system in which all people are assured access to essential healthcare services without facing financial hardship.
Wasting	Children who are too thin because of undernutrition are 'wasted'. WHO defines childhood wasting as a weight-for-length or weight-for-height z-score more than two standard deviations below the median of the WHO Child Growth Standards. Children who are wasted are more likely to be stunted.

The vision of the Global Nutrition Report (GNR) is a world free from malnutrition in all its forms.

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The GNR is the world's leading independent assessment of the state of global nutrition. We provide the best available data, in-depth analysis and expert opinion rooted in evidence to help drive action on nutrition where it is urgently needed.

A multi-stakeholder initiative comprising members from across government, donor organisations, civil society, multilateral organisations, the business sector and academia, the GNR is led by experts in the field of nutrition. The GNR was established in 2014 following the first Nutrition for Growth summit, as an accountability mechanism to track progress against global nutrition targets and the commitments made to reach them.

In 2021, the GNR created the Nutrition Accountability Framework (NAF), the world's first independent and comprehensive platform for registering SMART nutrition commitments and monitoring nutrition action. Through a comprehensive report, the NAF, interactive Country Nutrition Profiles and the NAF Commitment Tracker, the GNR sheds light on the burden of malnutrition and highlights progress and working solutions to tackle malnutrition around the world.

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