

## 2022 Global Nutrition Report

This is a summary of the following report: *Global Nutrition Report (2022) 2022 Global Nutrition Report: The state of global nutrition.*

<https://globalnutritionreport.org/reports/2022-global-nutrition-report/>



The global nutrition crisis – already severe before the COVID-19 pandemic – has worsened, with worrying trends across every form of malnutrition, from hunger to obesity. Policy interventions to date are failing to reverse these trends, while conflict around the world (including the war in Ukraine) and the cascading impacts of climate change persist.

At the 2022 Tokyo Nutrition for Growth (N4G) Summit, stakeholders stepped up to make unprecedented commitments to improve global nutrition. As part of these efforts, the Global Nutrition Report was endorsed to create the world's first independent Nutrition Accountability Framework (NAF) (Box 1). The NAF ensures that all nutrition commitments, including and beyond N4G, can be made Specific, Measurable, Achievable, Relevant and Time-Bound (SMART) and are captured, standardised and monitored transparently.

The 2022 Global Nutrition Report analysed commitments registered in the NAF and found much to celebrate, with 198 stakeholders from 84 countries making 433 commitments and with 897 goals to improve nutrition. Most were made by 78 country governments (in a non-donor role), followed by 56 civil society organisations, 30 private sector businesses, 21 donors, 7 international organisations and 7 academic institutions. Collectively, stakeholders committed over USD 42.6 billion, with a strong focus on prioritising low- and lower-middle-income countries in Africa and Asia. The report outlines a strong intention to support leadership

and governance in addressing undernutrition. A significant proportion of commitments are aligned with key global maternal, infant and young child nutrition targets. Furthermore, there are increased efforts to improve the SMARTness of goals, with a quarter of commitments ranking high for SMARTness.

There are still gaps in several critical areas. Specifically, the report summarises the increased need for:

**A far broader constituency of actors to step up worldwide and make commitments that can be accounted for in improving nutrition**

**Commitments to reflect sustained and increased external and domestic public and private financing for nutrition that can be easily tracked**

**Far greater attention to be paid to food security that truly includes nutrition security in commitment-making**

**Commitments that will bring transformative policies for our food system and deliver universal access to healthy, affordable and sustainably produced food**

**Commitments that promote universal access to nutrition care services that are integrated in the health system**

The report showcases the value of the NAF, sets the baseline for monitoring actions and serves as a call to action for all stakeholders. Only by seeing everyone's contribution accounted for, monitored, and reported can we deliver change and build resilience across the most vulnerable communities globally.

### Box 1 Tools and platform available as part of the NAF

- The NAF Platform is a central, online and publicly available platform for stakeholders to sign up, register and, later, to report on the progress of their commitments.
- The Nutrition Action Classification System is a classification system that identifies types of action taken as “enabling”, “policy” or “impact”. Each classification is further divided into four distinct sub-categories.
- The Nutrition Action SMARTness Index is a ranking system that enables the assessment and reporting of the SMARTness of commitments as “high”, “upper moderate”, “lower moderate” or “low”.
- The NAF Commitment Tracker is an online, interactive platform for making all data on commitments publicly available.

For more information about the NAF, please visit <https://globalnutritionreport.org/resources/naf/>

## The impact of climate change on nutrition: Learning from four countries

This is a summary of the following report: *World Vision (2022) The impact of climate change on nutrition: Policy brief.*

<https://www.worldvision.ie/about/publication/s/the-impact-of-climate-change-on-nutrition/>

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The effects of climate change have already taken hold across the world. Despite low greenhouse gas emissions, Africa is bearing the brunt of such changes, with severe weather patterns ranging from droughts to flooding, alongside devastating food security and health impacts. Climate change affects all forms of malnutrition through pathways and interlinkages related to the three determinants of malnutrition identified in the UNICEF Conceptual Framework.<sup>1</sup>

Programmes that do not include adaptations to climate change struggle to improve malnutrition. World Vision Ireland's Access Infant and Maternal Health Plus Programme has been implemented in areas affected by climate change that have experienced challenges in improving nutritional outcomes.

This policy brief explores the different forms of climate and nutrition challenges experienced by communities targeted by the programme. The brief is based on a study commissioned by World Vision Ireland, which explored challenges and local responses to the climate and nutrition problems experienced in four African countries – Mauritania, Sierra Leone, Tanzania and Uganda – producing case studies for each.

The case studies found that both agricultural production and food hygiene practices have been severely affected by droughts and floods; women's time and work burdens have increased, subsequently impacting infant and young child feeding practices; food quality has deteriorated; food prices have increased; diets have deteriorated in both quantity and quality; and water-borne diseases have increased – all of which are attributed to climate change.

### Adaptations and mitigations

Both communities and World Vision staff described several programme approaches that appeared most promising in meeting the challenges described: the promotion of conservation agriculture and keyhole gardens; the introduction of drought-tolerant and biofortified crops; new water sources and treatments; fuel conservation measures; gender equality activities; and training on post-harvest handling and measures to prevent communicable diseases. The ways in which the programme and communities responded were notable; they used existing pro-

<sup>1</sup> <https://www.unicef.org/media/113291/file/UNICEF20Conceptual20Framework.pdf>

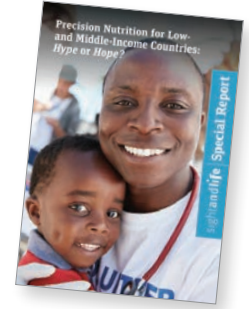


Drought in the Somali region of Ethiopia is hitting the population very hard

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## Precision nutrition in low- and middle-income settings

This is a summary of the following paper: *Sight and Life* (2022) *Precision Nutrition for Low- and Middle-Income Countries: Hype or Hope*. <https://sightandlife.org/resource-hub/magazine/precision-nutrition-for-low-and-middle-income-countries-hype-or-hope>



**P**recision nutrition (Box 1) is an emerging area of research that falls under the umbrella of precision medicine – an approach that has yielded big wins in developed countries across areas such as targeted cancer therapy or microbiome sequencing, following the introduction of Big Data into healthcare. Physicians have known for decades that individuals respond individually to different treatment regimens, yet only now do they have the tools at their disposal to delve into the reasons behind this. While targeted treatments may therefore yield the greatest benefit on an individual level, precision medicine creates a dilemma for public health professionals who deal with healthcare at the population level. This is especially pertinent for lower-income countries, where resources are often constrained to the point that even basic healthcare remains a challenge. Is a move towards precision nutrition therefore irrelevant, or do these very challenges increase the need for more precise, efficient approaches?

The authors of the report highlight the importance of targeting the most vulnerable groups with a precision nutrition approach. Using the example of pregnant women with anaemia – which affects between 33% and 75% of pregnant women in developing countries (Abdallah et al, 2022) – such a strategy could deliver cost-effectiveness, given that interventions could be distributed in smaller amounts rather than through costly blanket supplementation. Anaemia reduction can boost productivity by providing additional economic benefits for this group, and increasing nutrient status in mothers can reduce the subsequent burden of disease in their children, reducing healthcare costs further down the line. This represents a more strategic application of resources rather than the blanket approach that national health systems employ today.

The report also highlights a pyramid infographic that outlines the accessibility of different approaches (p. 14) and methods (p. 15). It notes that demographic surveys, which make up the bulk of many nutrition research projects, are at the base of the pyramid – accessible and not constrained by resources, yet imprecise and limited – with lifestyle data collection presenting the next step in personalisation. Such data (diet, physical activity, dietary diversity, etc.) are commonplace, but not routinely measured in all settings. At the tip of the pyramid, and currently too costly for many low- and middle-income countries (yet becoming more accessible), are genetic and omics methods. These are not yet routine in high-income settings, but are currently available through many private healthcare sys-

tems. The spectrum of phenotype measurements (anthropometry and clinical biomarkers) at the accessible end of the pyramid, and of metabolic indicators (wearable devices, oral glucose tolerance tests, gut microbiota analysis, etc.) at the other end, are also represented here.

Although this road map for the future may be exciting, representing a shift from generic guidelines such as the Food Pyramid towards targeted, personalised and ultimately precision nutrition (p. 77), the field remains in its infancy, and scale-up of such technology remains unfeasible within many poorer health systems.

*“Precision nutrition is in its early stages and too soon to introduce as a treatment for chronic diseases in the general population. Research is being conducted on the application of precision nutrition for obesity, metabolic syndrome, certain cancers, and type 2 diabetes”*

(Harvard T.H. Chan School of Public Health, 2023)

A detailed breakdown of this report is beyond the scope of this summary, but readers are encouraged to explore this topic further by accessing the full report. It also provides a useful glossary of precision nutrition terminology (p. 6), helping readers make sense of a complex topic where nutrition, biochemistry, genomics and the computer sciences intersect.

### Box 1 What is precision nutrition?

Precision nutrition evaluates an individual's unique DNA, race, gender, health history, lifestyle habits, microbiome and metabolic response to specific foods or dietary patterns to determine the most effective eating plan to prevent or treat disease. It aims to provide safer and more effective ways to prevent and treat disease by providing more accurate and targeted strategies. Precision nutrition assumes that each person may have a different response to specific foods and nutrients, so that the best diet for one individual may look very different from the best diet for another.

### References

- Abdallah F, John S, Hancy A et al (2022) Prevalence and factors associated with anaemia among pregnant women attending reproductive and child health clinics in Mbeya region, Tanzania. *PLOS Global Public Health*, 2, 10. <https://journals.plos.org/globalpublichealth/article?id=10.1371/journal.pgph.0000280>
- Harvard T.H. Chan School of Public Health (2023) The Nutrition Source: Precision Nutrition. <https://www.hsph.harvard.edu/nutritionsource/precision-nutrition/>

gramme models, local partners, community structures and innovation to address the devastating effects of climate change on nutrition.

### Generalisable recommendations for programmes to improve nutrition in the context of climate change

Given the far-reaching consequences of climate change on nutrition, well-integrated and *flexible programmes* are required. These will necessarily span different sectors, such as agriculture, health, gender, disaster risk reduction and others. Building resilience in each sector is essential; gender empowerment is also key.

A flexible and *localised strategy* for climate change and nutrition is needed, drawing on a set of core project models and a mechanism to diagnose and adapt according to context. For example, local partners can draw on local and indigenous knowledge. Local agriculture research stations make plant available varieties that are adapted to the new climate conditions and to local pests and diseases.

*Capacity building* at all levels of the organisation for climate change adaptation is also necessary. Drawing up guidelines using in-house and global resources is necessary, with a full list of possible measures to take.

Strong *community resilience* is essential to adapt to climate change, and this can be nurtured to help communities cooperate, adapt, advocate and innovate in the face of the new challenges.

A *systematic monitoring* system designed to cross all sectors is necessary for organisations to share their experiences and build evidence about challenges and effective strategies.

It is extremely urgent that the devastating effects of climate change on nutrition should be addressed. This series of case studies shows that communities and organisations can work together in a myriad of ways to try and build local resilience. However, mitigation on a global scale is imperative.