Food and Agriculture Organization of the United Nations
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BRIEF

# Measuring Adaptive Food and Nutrition under the Global Goal on Adaptation

## Operationalizing Belém Adaptation Indicator (e) under Target 9(b) Decision 12/CMA.7 | COP30, Belém

*November 2026, for release at COP31*

### Background

Article 7 of the 2015 Paris Agreement established the **Global Goal on Adaptation (GGA)** to enhance adaptive capacity, strengthen resilience and reduce vulnerability to climate change. The United Arab Emirates (UAE) Framework for Global Climate Resilience, adopted at COP28, provides the overarching framework for advancing this goal. At COP30 in Belém, Decision 12/CMA.7 adopted **59 Belém Adaptation Indicators** to track progress towards the Framework's targets and established the Belém-Addis Vision on Adaptation to support their operationalization. The indicators are the result of a two-year technical process (2023–2025) under the UAE-Belém Work Programme. Parties mandated further technical work to develop indicator metadata and methodologies for consideration at CMA.9 (COP32, November 2027), including through a technical task force under the Belém-Addis Vision on Adaptation and with support from international organizations.

In response to paragraph 25 of Decision 12/CMA.7, which calls on international organizations to support the operationalization of the Belém Adaptation Indicators, this brief[1] presents initial considerations on **indicator 9(b)e on food and nutrition**. As custodians of food security and nutrition indicators under Sustainable Development Goal (SDG) 2 and co-Secretariat of the United Nations Expert Group on Food Security and Nutrition Statistics, the United Nations Children's Fund (UNICEF), the Food and Agriculture Organization (FAO) and the World Health Organization (WHO) propose to collaborate on developing a measurement methodology for this indicator to inform COP32.

### Significance of indicator 9(b)e on food and nutrition

Indicator 9(b)e aims to measure progress on food and nutrition, including as a result of climate change adaptation, as a contribution to Target 9(b) on food and agriculture.

Indicator 9(b)e is the only Belém indicator that aims to track progress on food security and nutrition. This is significant given that climate hazards are threatening to stall and even reverse progress in meeting SDG 2 and global nutrition targets. The Intergovernmental Panel on Climate Change finds with high confidence that climate change has already increased food insecurity and malnutrition in many communities, with children, pregnant women and low-income households most affected.[2] Between 2024 and 2050, climate change is projected to leave an additional 40 million children affected by stunting and 28 million suffering from wasting.[3] Quality measurement of the impact of climate change adaptations on nutrition and food security is a critical dimension in determining their effectiveness.

> **Target 9(b):** By 2030, all Parties have advanced implementation of climate-resilient food and agricultural production and distribution systems and have progressively increased sustainable and regenerative production and equitable access to adequate food and nutrition for all.
> **Indicator 9(b)e:** PROPORTION OF THE POPULATION WITH EQUITABLE ACCESS TO ADEQUATE FOOD AND NUTRITION, INCLUDING AS AN OUTCOME OF ADAPTATION ACTIONS WHERE APPLICABLE.

### Using SDG 2 – zero hunger – as a foundation for monitoring indicator 9(b)e

The **SDGs** are 17 interconnected global goals adopted by all United Nations Member States in 2015 to guide action towards ending poverty, protecting the planet and improving well-being by 2030. **SDG Goal 2 zero hunger** aims to end hunger, achieve food security, improve nutrition and promote sustainable agriculture by 2030. Progress towards the SDGs is monitored through a global indicator framework, developed and maintained by the United Nations Inter-Agency and Expert Group on SDG Indicators (IAEG-SDGs), under the authority of the United Nations Statistical Commission and formally adopted by the United Nations General Assembly. All indicators under SDG 2.1 and 2.2 refer to important dimensions of food security and nutrition that together reflect the acute and chronic impacts of climate hazards on populations. Nutrition outcome indicators are important to include, alongside food insecurity indicators, as the nutritional status of a population is influenced by multiple complex drivers beyond food insecurity alone.

1 This brief is complementary to the following paper already issued: Zaidi, Z., Crumpler, K., Wolf, J. & Bernoux, M. 2026. Measuring the food and agriculture indicators of the Global Goal on Adaptation. Rome, FAO. <https://openknowledge.fao.org/items/7238d698-ef5c-4ea5-a410-bbac545fac8a>.

2 Intergovernmental Panel on Climate Change, 'Summary for Policymakers', In *Climate Change 2022: Impacts, Adaptation and Vulnerability, Working Group II contribution to the Sixth Assessment Report*, 2022, Cambridge University Press.

3 Bill & Melinda Gates Foundation, The Race to Nourish a Warming World: 2024 Goalkeepers Report, 17 September 2024, Modeled projections for 2024–2050.

**A robust set of food security and nutrition indicators already exist under SDG 2.1 and 2.2,** as follows:

| Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture | | Custodian |
|---|---|---|
| **2.1** By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round | **2.1.1** Prevalence of undernourishment | FAO |
| | **2.1.2** Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale | FAO |
| **2.2** By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons | **2.2.1** Prevalence of stunting (height for age <–2 standard deviation from the median of the WHO Child Growth Standards) among children under 5 years of age | UNICEF and WHO |
| | **2.2.2** Prevalence of malnutrition (weight for height >+2 or <–2 standard deviation from the median of the WHO Child Growth Standards) among children under 5 years of age, by type (wasting and overweight) | UNICEF and WHO |
| | **2.2.3** Prevalence of anaemia in women aged 15 to 49 years, by pregnancy status (percentage) | WHO |
| | **2.2.4** Prevalence of minimum dietary diversity, by population group (children aged 6 to 23 months and non-pregnant women aged 15 to 49 years) | UNICEF and FAO |

These indicators are well-established globally, and global, regional, subregional, national and (when available) subnational historical data are already publicly available, for example through the UNICEF-WHO-World Bank Group Joint Malnutrition Estimates, UNICEF global nutrition databases, WHO global databases and FAOSTAT.[4,5,6,7] These existing indicators can be used immediately as available overarching data on food security and nutrition.

Other existing or new indicators relevant for monitoring access to adequate food and nutrition can be explored as we consider and anticipate evolving measurement needs post-2030. For example, national, regional and global estimates for the Cost and Affordability of a Healthy Diet have been disseminated since 2020 and are available on FAOSTAT.[8]

## Key challenges for operationalization

While food security and nutrition data and monitoring systems exist globally, there are challenges in using them to monitor indicator 9(b)e, *Proportion of the population with equitable access to adequate food and nutrition, including as an outcome of adaptation actions where applicable*:

- **"Equitable access to adequate food and nutrition" is multidimensional and a standard definition is needed** to determine what constitutes equity and adequate food and nutrition, with clear guidance on how it should be measured across population groups in the context of the Belém Adaptation Indicator.
- **There is no globally agreed definition of climate adaptation actions relevant to food security and nutrition.** A global definition of climate adaptation actions sensitive to food security and nutrition is needed, as well as disaggregation[9] methodology that the Parties can apply according to national priorities, aligned to National Adaptation Plans.
- **Climate-specific disaggregation and impact studies are not yet consistently available.** Attributing changes in food security and nutrition outcomes to specific adaptation actions remains a methodological challenge. While studies increasingly examine the associations between climate hazards and nutrition outcomes (e.g., heat exposure and child wasting and stunting, or precipitation variability and food insecurity), more robust methodologies are needed to demonstrate that observed changes are attributable to adaptation interventions across multiple systems and sectors. A practical solution is needed to address this dimension of the indicator.

## Recommendations for a way to monitor Belém indicator 9(b)e on food and nutrition

At COP31, Parties will decide how to advance progress for implementing the GGA and its follow-up processes, including the Belém Addis Vision and technical work on the Belém Adaptation Indicators. Our organizations stand ready to support Parties in the way forward, and propose a potential timeline for collaboration, depending on the outcomes of COP31.

- **Immediate:** Use the complete suite of current SDG 2.1 and 2.2 indicators and the emerging Cost and Affordability of a Healthy Diet indicators to inform baseline data for indicator 9(b)e.
- **2026-2027:** In consultation with the technical taskforce and other processes established under the Belém Addis Vision, confirm approach to and develop agreed methodology to monitor indicator 9(b)e with the United Nations Expert Group on Food Security and Nutrition Data and Statistics and subsequently carry out initial testing in collaboration with selected Parties.
- **By COP32/CMA.9 (November 2027):** Present updated metadata for indicator 9(b)e.

On behalf of UNICEF, FAO and WHO, as custodians of global food security and nutrition indicators and co-Secretariat of the United Nations Expert Group on Food Security and Nutrition Statistics, we offer our ongoing support to the Parties in this process and call for investments to be made to make rapid progress towards November 2027.

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4 UNICEF, WHO, World Bank, Joint Child Malnutrition Estimates – Levels and Trends, 2025 edition, 21 July 2025, <https://data.unicef.org/resources/jme/>.
5 United Nations Children's Fund, 'Nutrition Overview', <https://data.unicef.org/topic/nutrition/child-nutrition/>.
6 World Health Organization, 'The Global Health Observatory', <https://www.who.int/data/gho>.
7 Food and Agriculture Organization of the United Nations, 'Suite of Food Security Indicators', <https://www.fao.org/faostat/en/#data/FS>.
8 Food and Agriculture Organization, 'Cost and Affordability of a Healthy Diet', <https://www.fao.org/faostat/en/#data/CAHD>.
9 Decision 12/CMA.7, Annex, para. 1, esp. para. 1(a). UNFCCC. <https://unfccc.int/sites/default/files/resource/cma2025_19a02E.pdf>.