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**Australian Government**

**Department of Foreign Affairs and Trade**

# MULTISECTORAL NUTRITION PROGRAMMING

## GUIDANCE NOTE

2024

## INTRODUCTION

Sustainable development requires good nutrition.

Nutrition underpins progress in health, education, employment, poverty reduction, and addressing gender and social inequalities.

Ending malnutrition is a Sustainable Development Goal (SDG). Improving nutrition is essential to achieve many other SDGs, and malnutrition is a barrier to their attainment.

The Australian Government is committed to the United Nations 2030 Agenda for Sustainable Development and its SDGs. At the 2021 Tokyo Nutrition for Growth Summit, Australia committed<sup>1</sup> to preparing guidance to support enhanced consideration of nutrition across our development assistance programming, to bolster progress in reducing malnutrition and achieving the SDGs.

The purpose of this Guidance Note is to support Department of Foreign Affairs and Trade (DFAT) program managers and funded partners to integrate nutrition into development programming, and to facilitate a multisectoral approach to improving nutrition. In doing so it advances Australia's contribution to improving global nutrition and sustainable development.

The Guidance Note aligns to Australia's International Development Policy<sup>2</sup>, which commits to supporting sustainable development and lifting people out of poverty.

The Guidance Note includes:

- [An overview of nutrition and its impact on development](#)
- A description of ways in which DFAT programs - across all sectors - can be strengthened to improve their impact on nutrition, including:
  - [Types of interventions](#)
  - [Programming principles](#)
  - [Monitoring, evaluation and learning](#)
  - [Nutrition and gender equality](#)
  - [Nutrition and disability equity and rights](#)
  - [Nutrition and climate change](#)
- Sector-specific guidance for integrating nutrition into new and existing programs, and example impact pathways, including:
  - [Nutrition and health programming](#)
  - [Nutrition and social protection programming](#)
  - [Nutrition and WASH programming](#)
  - [Nutrition and education programming](#)
  - [Nutrition and agriculture programming](#)
  - [Nutrition and humanitarian programming](#)

Support to apply this guidance is available from the Nutrition Focal Point in DFAT's Global Health Division. Enquiries can be made to [health.policy@dfat.gov.au](mailto:health.policy@dfat.gov.au).

This document replaces previous DFAT nutrition guidance<sup>3</sup>. It reflects the most recent global evidence and practice on multisectoral nutrition programming. This document is complemented by the [DFAT Nutrition-Sensitive Agriculture and Food Systems Guidance Note](#).

<sup>1</sup> Global Nutrition Report, [Australian Government Nutrition Pledge 2021: Department of Foreign Affairs and Trade](#).

<sup>2</sup> DFAT (2023) [Australia's International Development Policy](#)

<sup>3</sup> DFAT (2015) Nutrition in Australia's aid program, Operational Guidance note.

## UNDERSTANDING NUTRITION AND MALNUTRITION

The following guidance is to assist DFAT program managers and funded partners across all sectors to understand key nutrition concepts, how nutrition impacts development, and the value of integrating nutrition into development programming across sectors.

### Defining malnutrition

Malnutrition refers to all nutritional status disorders, including deficiencies, excesses or imbalances in a person's intake of energy and/or nutrients. Malnutrition includes:

- **Undernutrition**, which includes:
  - **Wasting**: low weight-for-height, which usually indicates recent and severe weight loss due to a lack of food or an infectious disease.
  - **Stunting**: low height-for-age, which results from chronic or recurrent undernutrition.
  - **Underweight**: low weight-for-age. A child who is underweight may be wasted, stunted, or both.
  - **Micronutrient deficiencies**: inadequate intake of vitamins and minerals, such as iron.
- **Overweight and obesity**, which result from excess energy intake and which can lead to **diet-related non-communicable diseases** (NCDs), such as heart disease, diabetes and certain cancers associated with poor diet quality. These types of malnutrition are often collectively referred to as **overnutrition**.

### Causes of malnutrition

The **immediate causes** of malnutrition are an unhealthy diet, poor infant feeding and care practices, and infectious disease. An unhealthy diet results in food intake that is inadequate in quality, quantity, or balance. Infectious diseases can lead to malnutrition by impairing nutrient absorption.

Malnutrition however has a wide range of **underlying causes**. These include factors that impede access to and the affordability of safe and nutritious foods (**food security**) and the consumption of a healthy diet, such as unhealthy food environments. They also include factors that impede access to clean water and sanitation, access to health services, and child feeding practices. These causes are exacerbated by poverty, gender and social inequalities, and exclusion of groups who experience social disadvantage, as well as by conflict, climate change and economic shocks.

### Burden of malnutrition

Today, every country is affected by one or more forms of malnutrition. Many countries face a '**double burden of malnutrition**', meaning that undernutrition and micronutrient deficiencies coexist with overweight and obesity or diet-related NCDs, within individuals, households and communities, and across the life course.

Malnutrition, in every form, presents significant threats to human health and development.

A child that does not receive good nutrition during the critical first **1,000 days of life** – the start of pregnancy to a child's second birthday – lacks the essential nutrients required to develop bones and muscles, power brain development, and support the immune response to infection. Such children are at risk of stunting, which can cause irreversible damage to **cognitive development** leading to disability, and are more **susceptible to illness**. They typically perform less well at school and have lower work productivity and earning capacity in adulthood, as well as greater health care costs. Their situation can trap them and their families in a cycle of **poverty** and constrain community, national and regional **economic development**.

Girls and women of reproductive age who do not receive good nutrition are at risk of **poor maternal and birth outcomes** including premature birth, having a child of low birth weight and maternal mortality. The risks for girls and women with disabilities are compounded due to the additional barriers they face accessing nutritious food and health services. A key contributing factor to poor maternal and birth outcomes is anaemia, which is most commonly caused by iron deficiency. Anaemia also causes fatigue and can reduce productivity.

Overweight and obesity have consequences across the life course. Being overweight or obese is associated with poorer immediate physical and psychosocial health outcomes, and an increased risk of developing NCDs such as diabetes. Unhealthy diets are the leading risk factor for NCDs. NCDs are the number one cause of **death and disability** globally. NCDs can increase household health care costs and reduce household earning capacity which exacerbates poverty and impedes economic development.

Good nutrition helps to build individual and community **resilience**. Those experiencing malnutrition have an increased susceptibility to illness and vulnerability to shocks arising from factors such as public health threats and climate change.

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## The scope of the problem

- Nearly half of all **deaths among children** under five years of age are due to malnutrition.
- Globally, more than one in five children under five years of age (22 per cent) have **stunted growth**.
  - *Papua New Guinea has the third highest prevalence of stunting globally (51 per cent)*
  - *The prevalence is 46 per cent across Melanesia, and 45 per cent in Timor-Leste.*
- Thirty per cent or almost one in three women of reproductive age globally have **anaemia**.
  - *The prevalence is 47 per cent in Cambodia, and 38 per cent in Solomon Islands.*
- Globally, 43 per cent of adults are **overweight**, and 16 per cent are **obese**, more than double the rate 30 years ago.
  - *One quarter (25 per cent) of all adults in the Pacific region are obese.*
  - *Polynesia (58 per cent) and Micronesia (47 per cent) have the highest rates of obesity among adults globally.*
- The **double burden of malnutrition** – the co-existence of undernutrition together with overweight and obesity – has surged globally across all age groups.
  - *In Indonesia, among children under five years of age, 31 per cent are stunted and 11 per cent are overweight.*
- Twenty-nine per cent of the global population (2.33 billion people) are **food insecure**, meaning they do not have regular access to safe and nutritious food.
  - *Fifty-seven per cent of people in Papua New Guinea and 54 per cent of people in Timor-Leste are food insecure.*

Source: FAO, IFAD, UNICEF, WFP and WHO (2024) [The State of Food Security and Nutrition in the World 2024](#)

## NUTRITION PROGRAMMING

The following guidance is to assist DFAT program managers and funded partners across all sectors to recognise ways new or existing programs can be strengthened to improve their impact on nutrition.

### Types of interventions

There are three internationally accepted types of interventions for addressing malnutrition:

- **Nutrition-specific interventions:** Address the **immediate causes** of poor nutrition such as inadequate food and nutrient intake, feeding, child care practices, and high burden of infectious diseases. Examples include: adolescent, preconception and maternal health and nutrition interventions; micronutrient supplementation and fortification; dietary supplementation and diversification; promotion of optimal breastfeeding and complementary feeding practices; treatment of severe acute malnutrition; disease prevention and control; and nutrition interventions in emergencies.
- **Nutrition-sensitive interventions:** Address the **underlying causes** of poor nutrition such as food insecurity, poor availability and accessibility of adequate caregiving resources, and poor access to health services and to a safe and hygienic environment. Importantly they incorporate specific nutrition goals and actions. They can be a platform to deliver nutrition-specific interventions, with potential to increase their scale, coverage and efficacy. Examples of nutrition-sensitive interventions include: agriculture and food security; early childhood development; schooling; gender equality and the empowerment of women and girls; disability equity; maternal mental health and psychosocial wellbeing; social protection; WASH; and health and family planning services.
- Interventions can also **build an enabling environment** for nutrition, where momentum and commitment are generated and translated into action. Areas for intervention include knowledge and evidence; policy and governance; and leadership and political will, capacity and financial resources.

### Programming principles

DFAT program managers and funded partners should consider the following principles when designing and implementing programs, to maximise their impact on nutrition:

- **Target those most vulnerable to malnutrition:** programs can target those most vulnerable to malnutrition based on age (for example children under two, adolescent girls), physiological status (for example pregnant or breastfeeding), or disability. Programs can also target those most vulnerable to malnutrition based on level of poverty, food insecurity or geographic location. This can help reach households and individuals most at risk and likely to benefit from the program.
- **Focus on the ‘first 1,000 days’:** the period from the start of pregnancy to a child’s second birthday is a crucial window of intervention, as it is the most critical period of growth and development for a child and poor nutrition during this time can have severe and irreversible consequences.
- **Take a multisectoral approach:** a multisectoral approach can involve sectors contributing to other sectors’ goals, or multiple sectors intentionally coming together and collaborating to achieve shared outcomes. Opportunities for collaboration will vary by context. Poor nutrition is caused by a wide range of factors, that span multiple sectors – health, agriculture, education, social protection, WASH among others. Addressing nutrition therefore requires intervention and collaboration across multiple sectors.
- **Where possible apply a One Health approach:** In line with taking a multisectoral approach, a One Health approach is a core principle for DFAT health programming<sup>4</sup> and relevant for the planning of nutrition interventions. A One Health approach aims to sustainably balance and optimise the health of animals, ecosystems and humans, recognising they are interconnected. It is a way of conceiving multisectoral and transdisciplinary approaches to complex problems, like malnutrition, to have a greater impact than any one sector or discipline can have by working in isolation. An example of the application of the One Health

<sup>4</sup> DFAT (2023) [Partnerships for a Healthy Region: One Health Guidance Note](#)

approach to nutrition programming is diarrhoea that is contributing to nutrient malabsorption and malnutrition among children may have multiple causes requiring the human, animal and environmental sectors to work together to identify and mitigate them.

- **Use a mix of interventions:** neither nutrition-sensitive nor nutrition-specific interventions can address or prevent malnutrition alone. A combination of nutrition-specific and nutrition-sensitive interventions are required to adequately address the various causes – immediate and underlying – of malnutrition. Nutrition-specific interventions often lack scale and coverage to be effective. Nutrition-sensitive interventions can enhance the scale and effectiveness of nutrition-specific actions, for example by including nutrition social and behaviour change communication or the distribution of micronutrient fortified products in agriculture, social protection and school health programs.
- **Ensure nutrition objectives and indicators are included in design:** programs that address the causes of malnutrition such as food insecurity may not automatically result in improvements to nutrition. To ensure programs reach their full potential to improve nutrition, nutrition objectives and indicators need to be integrated into the monitoring, evaluation and learning (MEL) system as part of program design.
- **Consider double-duty interventions, and do no harm:** programs can address undernutrition and overnutrition simultaneously, by targeting their many shared drivers, such as food environments and early childhood nutrition. These are known as ‘double-duty interventions’. Programs that focus on only one dimension of malnutrition carry a greater risk of unintended harm. Programs that address undernutrition only can unintentionally contribute to overnutrition, such as through providing food supplements that contribute excess energy, fat, salt or sugar, or by increasing household income that is then spent on less healthy foods. Programs to address undernutrition can be adapted to also address overnutrition. To monitor and avoid unintended consequences, programs should consider having indicators to measure undernutrition and overnutrition outcomes.
- **Consider the context:** interventions to improve nutrition should be informed by international best-practice, and be grounded in evidence-based interventions, but be tailored to the specific needs and capacities of the country where they are delivered. Some interventions may benefit from a pilot to ensure there is an evidence base for their implementation and they are feasible in the given context. Considerations should also include the relationship between gender and social norms, power dynamics and nutrition outcomes for groups who experience social disadvantage and increased vulnerability to malnutrition.
- **Recognise traditional and Indigenous food systems:** when planning nutrition programs or interventions consideration should be given to understanding traditional and Indigenous food systems, food cultures and food knowledge, and how these can be leveraged to address nutrition challenges. Consideration should also be given to the **perspective of First Nations Australians** – a commitment under Australia’s International Development Policy – and ways their strengths, capacities and experiences can support efforts to address nutrition challenges internationally.
- **Involve groups experiencing social disadvantage and increased vulnerability:** meaningful engage and be led by groups who represent those most vulnerable to malnutrition, such as women and girls with disabilities, in program design and implementation. This is invaluable for effective and inclusive nutrition programming given their lived experience and meaningful participation also enables accountability and respect for individual autonomy and capacities.
- **Consider commercial determinants of health:** the private sector can influence diets and nutrition positively and negatively. For example, food businesses can contribute to improvements in nutrition by reducing the salt content of their products, and can contribute to poor nutrition through targeted marketing of products such as breast-milk substitutes and sugar-sweetened drinks. The influence of commercial actors on nutrition-related programming and policy should be carefully considered.

## Monitoring, evaluation and learning

A robust MEL system is critical for measuring the impact of programming on nutrition outcomes and generating evidence to strengthen future programs. The following objectives and indicators should be considered early on, as part of program design.

### Objectives

The following are **common nutrition objectives** used in programming:

- Improve the nutritional status of a target population.
- Improve the consumption of nutritious foods for improved diet quality.
- Improve the availability of and access to diverse and nutritious foods.
- Reduce the availability and marketing of less healthy foods (foods high in fats, sugars and/or salt).
- Improve infant and young child feeding practices.
- Improve access to essential nutrition services (such as micronutrient supplementation).
- Improve the diagnosis and management of acute malnutrition.

### Indicators

There are a wide range of **indicators** that can be used to monitor nutrition. Indicators should be determined by the types and causes of malnutrition the program aims to address, and which factors, if measured, would help to attribute any change in nutrition to program activities. Indicators will also be determined based on available data.

Indicators should enable monitoring of unintended negative impacts of the program on nutrition.

The use of **anthropometric** indicators (for example prevalence of stunting, overweight) is most appropriate when either a program is nutrition-specific and aims to address the direct causes of malnutrition, or when a program takes a multisectoral approach and aims to address several underlying causes of malnutrition. Indicators like stunting take time to change at a population level, potentially exceeding the programming cycle, and should be complemented by additional nutrition indicators such as diet quality.

To support identification and monitoring of inequities, where appropriate indicator data should be disaggregated by sex, age and disability status and other social determinants relevant to the context.

The following are some commonly used indicators for monitoring **nutrition status**:

- Prevalence of stunting among children under five.
- Prevalence of wasting among children under five.
- Prevalence of anaemia among women of reproductive age.
- Prevalence of low birth weight.
- Prevalence of overweight among children under five.
- Prevalence of overweight and obesity among adults.

The following are examples of indicators used to monitor the **immediate causes** of malnutrition:

- Rate of exclusive breastfeeding in the first six months.
- Diet quality indicators, such as Minimum acceptable diet for children (6-23 months), and Minimum dietary diversity for women and children (6-23 months).
- Proportion of women receiving iron supplements during pregnancy.
- Salt/sodium intake among adults.
- Raised blood sugar levels or prevalence of diabetes.
- Nutrition knowledge, attitudes and practices results.
- Proportion of children under five with diarrhoea receiving oral rehydration solutions.

The following are examples of indicators used to monitor the **underlying causes** of malnutrition:

- Prevalence of food insecurity.
- Availability of mandatory legislation on food fortification.
- Development and implementation of policy to protect children from the harmful impact of food marketing.
- Proportion of women reporting increased influence or decision-making power over household income.
- Rates of school attendance by girls and/or children with disabilities.
- Proportion of community using safely managed sanitation facilities and drinking water services.
- Number of beneficiaries receiving food, non-food items, cash transfers, vouchers as percentage of planned.

### Data collection

Existing sources of data should be utilised where available. Where they exist, Demographic and Health Surveys (DHS) and UNICEF Multiple Indicator Cluster Surveys (MICS) can provide nationally representative data for a wide range of indicators in relation to population, health and nutrition. Some countries also undertake National Nutrition Surveys.

The following are useful **existing sources of data** on nutrition-related indicators at country, regional and global level:

- [The State of Food Security and Nutrition in the World](#)
- [Global Nutrition Report](#)
- [Global Nutrition Monitoring Framework](#)
- [WHO Global Health Observatory](#)
- [SDG Global Database](#)

The following provide useful **guidance and tools** for nutrition-related data collection:

- [FAO Nutrition Assessment](#)
- [WHO Technical Expert Advisory group on nutrition Monitoring \(TEAM\)](#)

### Nutrition and gender equality

Gender inequality is both a **cause and a consequence** of malnutrition. Improving nutrition enables gender equality, which in turn improves nutrition.

Girls and women are **more susceptible to malnutrition** than boys and men for several reasons:

- **Unique biological needs:** adolescent girls and women have greater demands for iron due to menstrual losses, and have increased nutritional demands while pregnant and breastfeeding. Almost one-third of women of reproductive age globally have anaemia due to iron deficiency<sup>5</sup>.
- **Social, cultural and political gender norms:** context-specific gender inequalities stemming from unequal power relations, restrictive gender norms and roles, and discriminatory laws and policies can mean girls and women experience a greater domestic work burden, constrained employment opportunities and restricted access to income and productive resources (such as education, land, financing and social networks). This can limit the ability of girls and women to produce, access and consume foods required for a healthy diet, and to access health services. Girls and women have less decision-making power over food purchases and food allocation within households, are more likely to eat less, eat last and to consume the least nutritious foods. Girls and women can be at risk of forced school withdrawal, early marriage and pregnancy, and gender-based violence, each increasing their vulnerability to malnutrition by reducing their educational attainment, earning capacity and autonomy, leading to reduced access to a healthy diet and health services. These barriers, risks and outcomes are heightened for girls and women with disabilities.

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<sup>5</sup> FAO, IFAD, UNICEF, WFP and WHO (2024) [The State of Food Security and Nutrition in the World 2024](#)



Malnutrition among girls and women **amplifies gender inequalities**, by reducing educational attainment, earning capacity and life opportunities. It weakens their immunity to infections and increases their risk of **life-threatening complications** during pregnancy and childbirth.

Improving nutrition among girls and women not only improves **their own health and development outcomes**, but the nutrition, **health and development outcomes of their children**. Children born to malnourished mothers have an increased risk of death and impaired development, with lifelong consequences for their growth and development.

Women are often **responsible for food provision and child care**. Improvements in women's empowerment and education can improve maternal and child nutrition, as women with more education and autonomy are more likely to make informed decisions about nutrition for both themselves and their families.

Programs can improve their impact on nutrition and outcomes for girls and women by:

- **Undertaking gender, disability and social inclusion analysis** to understand the relationship between norms, relations, power dynamics and nutrition outcomes for groups and design responsive nutrition programs.
- **Meaningfully including girls and women in the design and implementation** of programs when aiming to improve nutrition.
- **Gathering sex and age disaggregated data and evidence** that can inform policy and program decisions, and strengthen accountability, for improving nutrition for girls and women.
- Improving **access to affordable nutritious foods** for girls and women, such as through incentives and subsidies, and mandatory food fortification.
- **Engaging men, boys and broader communities** through local platforms to facilitate supportive social norms and behaviour change to improve gender norms and related nutrition outcomes.
- Implementing policies and legal measures to **protect girls and women from less healthy foods**, such as marketing restrictions, and front-of-pack labelling.
- Improving **access for girls and women to essential nutrition services** – such as micronutrient supplements – before and during pregnancy, and while breastfeeding including in humanitarian crises.
- Implementing gender-transformative policies and legal measures that **strengthen the social and economic empowerment of girls and women**, such as equal rights to asset ownership and family-friendly policies.
- Accelerating the **elimination of discriminatory gender and social norms**, such as by enabling equitable sharing of food, household resources and domestic and care work.
- Improving access for girls and women, and influential family members, to **nutrition information** such as through relevant media channels and by strengthening the coverage and quality of nutrition counselling.
- Meaningfully consider how to **involve women in program income generating activities** to increase their direct control of household income.
- Expanding access for girls and women to **social protection programs**, including in humanitarian crises, to improve access to nutritious diets.

DFAT program managers and funded partners should also refer to the [DFAT Gender Equality, Disability and Social Inclusion analysis – Good practice note](#).

## Nutrition and disability equity and rights

There are strong links between malnutrition and disability. Women, men, boys and girls with disabilities are **more susceptible to malnutrition than their peers without disabilities**, due to barriers to accessing nutritious food, nutrition information and services, and the additional costs of meeting specific dietary and feeding requirements. Children with disabilities are three times more likely to be malnourished than children without disabilities, and twice as likely to die from malnutrition during childhood.<sup>6</sup> This is due to a combination of factors:

- **Functioning difficulties** affecting feeding.

<sup>6</sup> Kuper, H. and Heydt, P. (2019) The Missing Billion: Access to health services for 1 billion people with disabilities

- Ineffective feeding practices due to lack of knowledge of specific **skills among caregivers**.
- **Attitudinal, social or cultural causes**, such as the exclusion or neglect of children with disabilities.
- Poor **availability of appropriate food** in the home.
- **Exclusion from schools** and school-based food and nutrition programs.

This experience is heightened for girls and women with disabilities. It is also often women that are responsible for providing adequate nutrition for children with disabilities. The **barriers to accessing relevant nutrition information and support** generates additional financial, time, and psychological pressures on mothers and female relatives.

**Malnutrition can cause or contribute to disability throughout the life cycle.** Maternal malnutrition can increase the risk of an infant having a disability. Poor nutrition in childhood can affect development leading to learning disabilities. The cumulative impact of poor nutrition in adults and older people can cause dietary-related non-communicable diseases such as diabetes and associated disabilities.

**Disability inclusion requires a twin-track approach** combining measures to ensure all nutrition-related programs are inclusive of people with disabilities, with specific initiatives to address unmet needs, tackle inequalities, and empower people with disabilities.

Programs can improve their impact on nutrition and outcomes for people with disabilities by:

- **Including people with disabilities, and their representative organisations**, in program design, implementation, monitoring and evaluation.
- **Adapting nutrition information and campaigns to be accessible** to people with disabilities, using formats such as Easy Read and Braille, multimedia channels and sign interpretation.
- **Improving the identification of people with disabilities and the collection and use of disability data** to inform nutrition policy and programs. (For example, the [Washington Group Short Set on Functioning](#) and [UNICEF Module on Child Functioning](#) can be embedded in household surveys to identify children with disabilities.)
- Conducting **outreach to identify children with disabilities**, particularly those not enrolled in school, and **provide specific guidance to families on feeding children** with different impairments as well as **support to access specific food items and devices** to aid food preparation and feeding (for example straws).
- **Training nutrition service providers** to understand the links between nutrition and disability, nutrition-related risks and barriers faced by people with disabilities, how to overcome feeding difficulties, and the rights and requirements of people with disabilities (as well as specific topics such as assessing nutrition status and feeding practices of people with disabilities, effective counselling on managing dietary and feeding challenges, and using assistive products including modified feeding implements and utensils).
- Providing **tailored support to enable the participation of people with disabilities and their parents and caregivers** in nutrition support groups (for example transportation, sign language interpretation).
- Producing **community awareness materials** to tackle stigma and improve understanding of the rights of children with disabilities and links between disability and nutrition.
- Conducting **research** that strengthens the evidence base on what works to address the causes of malnutrition for people with disabilities.
- **Engaging organisations of people with disabilities (OPDs)** in nutrition programming, building the understanding of the value of disability-inclusive programming and the links between disability and nutrition among key stakeholders, and supporting advocacy of OPDs for inclusive and appropriate support services and programs.

DFAT program managers and funded partners should also refer to the [DFAT Disability Inclusive Development Guidance Note](#).

## Nutrition and climate change

Climate change is a **threat** to food security and nutrition. Changing weather patterns caused by global warming are leading to an increase in heatwaves, heavy rainfall and droughts, which are in turn resulting in failed harvests and **diminished food production, food shortages and rising food prices**. Together with loss of biodiversity, and damage to water, air and soil quality, climate change **reduces the quantity, diversity and quality of nutritious foods available** to purchase and consume. This **increases food insecurity and the risk of malnutrition in all its forms**, as consumers shift to low-cost and nutrient-poor foods. Climate change, by disrupting access to clean and safe water, also **increases children's exposure to infectious diseases** which increases their risk of malnutrition. Climate change can also increase risk of malnutrition by **impeding child feeding and care practices**, such as by reducing time available for child care, and **disrupting access to health facilities and nutrition services** such as micronutrient supplementation and growth monitoring.

At the same time, what food is consumed and how that food is produced affects the environment and contributes to the **triple planetary crisis: climate change, pollution and biodiversity loss**. Food systems contribute up to a third of global greenhouse emissions. **Food production, processing, packaging and transportation** contribute to greenhouse gas emissions (namely methane, nitrous oxide and carbon dioxide), the degradation of natural resources and biodiversity loss. **Highly processed foods** are associated with greater greenhouse gas emissions, biodiversity loss and plastic production than unprocessed or minimally processed foods. Promoting **healthy diets, from sustainable food systems**, has the potential to mitigate these environmental impacts.

Climate change disproportionately impacts those **most vulnerable to malnutrition**. Programs that aim to improve nutrition can **mitigate the impacts of climate change, and improve resilience**.

DFAT program managers and funded partners should consider how programs address the impacts of climate change on food security and nutrition, to ensure long term improvements in nutrition, health and development.

DFAT program managers and funded partners should also refer to the [DFAT Good Practice Note on Integrating Climate Change into Development Assistance for Implementing Partners](#).

## NUTRITION AND HEALTH PROGRAMMING

The following guidance is to assist DFAT health program managers and funded partners to integrate nutrition into programming.

A **healthy diet is essential to health and development**. Improved nutrition is an important contributor to improved infant, child and maternal health, safer pregnancy and childbirth, lower risk of non-communicable diseases (NCDs), and improved mental health and longevity.

Improving nutrition can also **enhance resilience** to disease outbreaks, through its relationship to immunity. For example, the COVID-19 pandemic demonstrated that malnutrition can exacerbate impacts as undernutrition compromises the body's immunity, and obesity predisposes individuals to the disease's most serious impacts.

Improved nutrition outcomes are thus a **key marker** of improved health outcomes.

**Health systems** play an essential role in the delivery of '**nutrition-specific**' interventions which directly address nutritional status and the immediate causes of malnutrition, such as provision of micronutrient supplementation during pregnancy. Health systems also play a role in delivery of '**nutrition-sensitive**' interventions which address underlying causes of malnutrition, such as provision of reproductive health services.

Ensuring **equitable access** to effective nutrition interventions within health systems is pivotal in improving diets, **preventing and treating** under- and overnutrition and diet-related chronic disease, **reducing costs and strain** on health workers and health systems, and ultimately improving health and social outcomes. Inclusive gender-responsive health systems and behaviours of health providers are key in shaping an individual's access to and use of health care.

Health systems are well placed to reach **mothers and infants** during the critical window of opportunity to prevent malnutrition – the first 1,000 days of a child's life, from conception to two years of age. Health systems however should endeavour to tackle **malnutrition in all its forms, at all life stages**.

DFAT health programs can improve nutrition outcomes by supporting the delivery and reach of the following nutrition interventions which **actors within the health sector are best placed to deliver**:

- **Protect, promote and support exclusive breastfeeding:** Create an enabling environment for breastfeeding in health facilities, and offer counselling to enable mothers to exclusively breastfeed for the first six months of life, and continue breastfeeding until at least 24 months.
- **Assess and manage child wasting:** Identify and manage infants and children with moderate or severe acute malnutrition, including provision of appropriate supplementary foods.
- **Appropriate complementary feeding/introduction of solids:** Offer nutrition counselling to enable caregivers to provide children aged six to 23 months with appropriate solid foods.
- **Child growth monitoring and assessment:** Weight and height or length assessments for children under five years of age to identify undernutrition (stunting, wasting) or overweight. The collection of monitoring and assessment data should be complemented by action, for example through provision of appropriate nutrition counselling.
- **Micronutrient supplementation:** In high-risk settings, provide infants and children with iron, vitamin A, and iodine supplementation; menstruating non-pregnant adolescents girls with iron and folic acid supplementation; and non-pregnant women with iron, folic acid and iodine supplementation. Tackling **anaemia** during adolescence improves pre-pregnancy nutritional status. Children may receive zinc supplementation to manage diarrhoea.
- **Nutritional care of women during pregnancy:** Poor nutritional status during pregnancy can affect the woman's health, increase the risk of birthing complications, impact negatively on the infant's birthweight, and increase the infant's risk of stunting (which can be intergenerational). Provide pregnant women with nutrition counselling on a healthy diet and with iron and folic acid supplementation through routine antenatal care. In high-risk settings, provide energy and protein dietary supplements, and vitamin A and calcium supplementation, and provide postpartum women with iron and folic acid supplementation.

- **Nutritional care for at-risk older persons:** Provide older people affected by undernutrition with oral supplemental nutrition complemented with dietary advice.
- **Nutritional care for people with disabilities:** Provide support to people with disabilities who experience difficulties eating and/or swallowing food to meet their nutritional requirements. Provide rehabilitation services which include specific therapeutic activities for people with disabilities to improve basic oral motor skills and nutrient intake, and support access to assistive products.
- **Nutritional care for persons with specific conditions:** Individuals with HIV, tuberculosis and several other conditions require specific nutritional care in high-risk settings including supplementation and dietary advice.
- **Nutrition in emergencies:** In humanitarian disaster and emergency settings, enable optimal infant and young child feeding, provide appropriate solid foods and micronutrient supplementation for children and infants, and provide nutrition support and micronutrient supplementation for pregnant and breastfeeding women.
- **Detection and management of diet-related NCDs:** Assess, diagnose and treat individuals at risk of diet-related NCDs such as heart disease and diabetes, including provision of nutrition counselling.
- **Sexual and reproductive health services:** Providing women and girls with inclusive access to family planning improves nutrition by: reducing their risk of HIV and sexually transmitted infections which deplete the nutritional status of women and their children if pregnant; raising awareness and capacity for birth spacing which provides a critical window (24 months) for mothers to rebuild their nutritional status after pregnancy and have healthier, safer pregnancies; reducing rates of adolescent pregnancy and the associated nutritional and health risks posed to both mother and child; and improving education, employment and economic outcomes for girls and women which improve nutrition outcomes.
- **Infectious disease control:** Infectious disease can reduce nutrient absorption and is a leading cause of malnutrition. Preventative screening, treatment and vaccination against gastrointestinal infections and parasites (for example malaria, rotavirus, worms) can protect children from illness and malnutrition. Children with poor nutrition are more vulnerable to infectious disease, thus integrating nutrition into infectious disease prevention and control programs is recommended (see also WASH).

DFAT health programs can also improve nutrition outcomes by supporting the following nutrition interventions, which actors within the health sector are well placed to lead yet require a multisectoral approach and strong political will for effective and sustainable implementation:

- Develop and implement national nutrient- and food-based **dietary guidelines**.
- **Nutrition education and counselling** promoting healthy diets in different settings (for example schools, hospitals).
- Accessible **social and behaviour change communication** and mass media campaigns for healthy diets.
- **Fiscal policies** promoting healthy diets, such as taxation on sugar-sweetened drinks and subsidies on healthy foods and beverages.
- Policies to protect children from the harmful impact of **food marketing**.
- **Reformulation** for healthier food and drink products (for example elimination of trans-fatty acids).
- **Fortification** of condiments and staple foods with micronutrients.
- Public food **procurement** and service policies that make healthier diets more readily available (for example at sporting events, cultural events, schools).
- Front-of-pack labelling as part of comprehensive nutrition **labelling** policies for facilitating consumers' understanding and choice of food for healthy diets.
- Protection, promotion and support of optimal breastfeeding practices, including creating **enabling environments for breastfeeding** (for example workplaces), and the adoption of decrees **regulating marketing of breastmilk substitutes** and to ensure families have access to accurate information about the benefits of breastfeeding.

Lastly, at the level of broader health systems strengthening, there are opportunities to **integrate nutrition within health systems**, across all six of the WHO Health System Building Blocks, which DFAT health programs can support:

- **Leadership and governance:** Integrate nutrition into national health planning, by ensuring health sector plans include nutrition objectives and national targets that align with global nutrition targets. Foster synergies within the health sector and with other relevant sectors given the multisectoral nature of nutrition. Ensure nutrition interventions consider nutrition equity for both under- and overnutrition, so no one is left behind.
- **Health workforce:** Ensure health workers receive adequate nutrition training on the integrated delivery of nutrition interventions across the life course, and are equipped to provide quality nutrition counselling and care, including to groups who experience social disadvantage and are a risk of being left behind.
- **Financing:** Allocate adequate financial resources to integrate nutrition care into health systems including prevention, early detection of malnutrition and its management for all. Recognise investing in nutrition improves health and can reduce health care spending over the medium- and long-term.
- **Access to nutrition-related health products:** Ensure essential, quality assured nutrition-related health products (such as micronutrient supplements) are included in national essential medicines lists, and are available, affordable, accessible and properly administered through the health system.
- **Health service delivery:** Increase the effective coverage of nutrition interventions through the health system, with a focus on reaching those most left behind. Integrate nutrition interventions where appropriate into health services with high coverage (for example immunisation). Nutrition services within health systems should be regularly monitored and evaluated to address inequities in delivery, coverage and access.
- **Information systems:** The collection, analysis and dissemination of high-quality disaggregated nutrition data should be mainstreamed in public health information systems, to underpin the design, implementation and monitoring of equitable nutrition interventions.

Integrating nutrition within health systems requires careful **consideration** of (i) the causes of malnutrition in each country; (ii) the appropriate interventions for national and subnational contexts; (iii) who currently has access to health services and who does not; and (iv) the extent of financial hardship incurred through out-of-pocket payments for health services.

## Case study: Better Investment for Stunting Alleviation (BISA) program, Indonesia

Indonesia is the largest economy in Southeast Asia. However, the country still faces challenges in nutrition and child development outcomes. In response to this, in 2018 the Government of Indonesia (GoI) launched the *National Strategy to Accelerate Stunting Prevention (2017-2021)*. The Strategy aimed to prevent stunting by strengthening the execution of existing multi-sectoral policy frameworks and drive consolidation and convergence of national and subnational programs.

To support the GoI deliver on the *Strategy*, from 2019 to 2024 DFAT partnered with Save the Children and Nutrition International through Power of Nutrition on the BISA program. The program was implemented in Indonesia's West Java and East Nusa Tenggara provinces where the prevalence of stunting was high, and aimed to reduce stunting by improving nutrition for women, adolescent girls, and young children.

BISA introduced a social and behaviour change communication (SBCC) package – with nutrition campaigns, counselling and peer education provided through community health outreach services – focused on improved maternal, infant and young children nutrition including hygiene practices. BISA provided technical assistance to target districts and health service providers to improve the delivery of, access to, and use of micronutrient supplement by pregnant women, adolescent girls, and children under five years of age. The program also provided technical assistance to the national, provincial and district governments to improve the allocation and effective use of funding and human resources.

Through its five-year lifecycle BISA contributed to the effective implementation of the *National Strategy to Accelerate Stunting Prevention*. The program improved micronutrient supplement stocks at Village Health Centres. It also provided access to high-impact nutrition services and reached 1.3 million people including women, children aged under two, students with additional needs and adolescent girls. The program's innovative approach to SBCC for stunting prevention has been independently replicated in villages outside BISA target areas.

The following papers share insights from the program on: [gender equality, disability and social inclusion](#), [SBCC](#), and [health system strengthening](#). Find out more: [Power of Nutrition BISA webpage](#).



Home visit by Integrated Health Post's Cadres. Source: Power of Nutrition

The following table provides examples of pathways through which health programs can positively impact nutrition outcomes, and example indicators.

| Example health activity or entry point                        | Example nutrition impact pathways (if → then)  | Example intermediate outcome indicators   | Example end-of-program outcome indicators   |
|---|--|---|---|
| Policy and institutional support                              | Integrated health plan identifies populations most vulnerable to malnutrition → primary health care services are bolstered with additional nutritional status screening, and the promotion of breastfeeding and appropriate complementary feeding → improved infant diets and health | Evidence of a national health plan that includes nutrition components with explicit targeting of geographical areas or population groups with high rates of malnutrition and food insecurity<br><br>Proportion of target population with access to integrated health and nutrition primary care services  | Proportion of infants 0–5 months of age who are fed exclusively with breast milk during the previous day (exclusive breastfeeding)<br><br>Minimum dietary diversity in children 6-23 months   |
| Joint planning and targeting of health and nutrition services | Health services offer integrated services to prevent, detect and manage nutritional issues → children are proactively screened for nutritional issues and offered early treatment → better child nutrition and health outcomes   | Proportion of relevant institutions reporting collaboration between nutrition and health programs (for example per policies, plans)<br><br>Proportion or number of geographic areas with high prevalence of child malnutrition (wasting, stunting or overweight) targeted by integrated health and nutrition activities                         | Prevalence of children aged 0–59 months who are more than two standard deviations below the median weight-for-height of the WHO Child Growth Standards (wasting)<br><br>Prevalence of children aged 0–59 months who are more than two standard deviations below the median height-for-age of the WHO Child Growth Standards (stunting)<br><br>Prevalence of children aged 0–59 months who are more than two standard deviations above the median weight-for-height of the WHO Child Growth Standards (overweight) |
| Breastfeeding promotion                                       | Women of reproductive age are targeted with support and information on exclusive breastfeeding → greater proportion of women successfully breastfeed for longer → better infant nutrition and health outcomes  | Evidence of measures adopted to regulate marketing of breastmilk substitutes and ensure accuracy of information about the benefits of breastfeeding<br><br>Proportion of new mothers provided with breastfeeding counselling<br><br>Proportion of health facilities that meet standards for providing an enabling environment for breastfeeding | Proportion of infants 0–5 months of age who are fed exclusively with breast milk during the previous day (exclusive breastfeeding)<br><br>Prevalence of children aged 0–59 months who are more than two standard deviations below the median height-for-age of the WHO Child Growth Standards (stunting)  |



## NUTRITION AND SOCIAL PROTECTION PROGRAMMING

The following guidance is to assist DFAT social protection program managers and funded partners to integrate nutrition into programming.

Malnutrition is both a cause and manifestation of **poverty**, and poverty is both a cause and consequence of malnutrition. Malnutrition leads to children having poorer cognitive skills, lower school attainment and reduced wages in adulthood, leading to increased probability of living in poverty. In turn, poverty increases the risk of children becoming and remaining malnourished and of relapsing into malnutrition if they have recovered. The **intergenerational** cycle of poverty and malnutrition can persist for generations, as undernourished mothers are more likely to give birth to undernourished children and children born into poor households are at greater risk of being poor in adulthood. This cycle **exacerbates existing inequalities** and undermines health, development and human capital.

Addressing malnutrition through social protection programs is a **powerful tool** for improving the lives of those in vulnerable situations. By reaching those who are affected by food insecurity, poverty, gender and social inequalities, and inadequate diets, the social protection sector can provide comprehensive support to improve their nutritional status. Social protection programs can help improve diets by **removing economic barriers** to nutritious foods, **increasing access** to nutrition services, and **preventing negative coping behaviours** (for example reduced food consumption or switching to less nutritious foods).

Social protection programs have vast potential to support nutrition outcomes due to their **scale**, their **coverage** of individuals and households in vulnerable situations, their command of large resource flows compared with national nutrition interventions, and their capacity for **rapid scale-up during a crisis**.

Social protection programs include **social transfers** (cash and in-kind transfers), social insurance (such as health insurance), **labour market policies** (including family-friendly policies, such as paid parental leave and care services) and **social welfare services** and **referrals** provided by social service workforce.

Social protection programs can **impact nutrition** through multiple pathways:

- **At household level, social transfers** can enhance food access by providing food directly (through food distributions or using vouchers redeemable at a local retailer); by helping households increase their food production (through agricultural inputs/livestock transfers); or by increasing household purchasing power, either directly (through cash transfers) or indirectly (through lump sum grants to support livelihoods).
- **At community level, cash transfers** can boost local markets and increase economic opportunities. They can also generate an increased demand for health care, which may, under certain circumstances, encourage health system actors to provide higher-quality services, including for improved nutrition. Transfers supporting food production may help increase the availability and affordability of nutritious food on the market.
- **Social protection can contribute to women and girls' improved nutrition**, health and well-being through promoting the utilisation of healthcare services, increasing expenditure on nutritious food, and improving knowledge and behaviours on health and nutrition. Gender-responsive approaches may provide specific social protection support to girls and women for specific nutritional needs in adolescence, pregnancy and while breastfeeding, providing access to sexual, reproductive and maternal health services through health insurance, or linking to complementary interventions that challenge discriminatory gender norms.
- **Social protection programs** can also offer an excellent opportunity to **promote greater awareness of and provide education on important nutritional issues and behaviour change communication on gender and social norms** (for example, around equitable sharing of food, household resources and care work). Traditionally, this has been achieved through the convening power of delivering transfers at a fixed location and time, where beneficiaries can be reached with key health and nutrition messages. With a move towards delivery through technology (for example paying transfers through bank accounts or mobile phones), there is the ability to use innovative communications technologies to relay information, messaging, and advice.
- 'Cash Plus' describes social protection programs that **combine cash transfers with one or more complementary evidence-based interventions which can reinforce and expand positive nutritional impacts**. These can include additional benefits or in-kind transfers; information and social and behaviour change

communication; or linkage to other services. These programs have two main components: i) a 'nutrition-sensitive' cash transfer (that is sufficient to achieve nutrition objectives); and ii) 'nutrition-specific' interventions and linkages to other sectoral services (for example health) to improve infant and young child feeding practices, as well as health-seeking behaviour, hygiene and access to treatment of acute malnutrition.

- **School meals**, another form of social protection, can improve nutrition outcomes for school-age children and adolescents, contributing to better concentration and improved education outcomes. These outcomes are enhanced when school meals are nutritious and combined with a broader set of essential nutrition services, such as micronutrient supplementation, deworming prophylaxis, food and nutrition education, and healthy food environments in and around schools.
- **Family-friendly labour policies**, such as paid parental leave, breastfeeding support, and affordable quality child care, can help support optimal infant and young child feeding and early childhood development.

There are a number of **opportunities throughout the design and delivery** of social protection programs to improve nutrition outcomes particularly by ensuring: adequacy of payments to acquire nutritious foods; coverage of populations at-risk of malnutrition; and comprehensiveness of the program approach to include other nutrition-sensitive and nutrition-specific activities, including through 'cash plus' approaches. **Coordination** with other sectors invested in nutrition, as well as the capacity of these sectors, is important throughout the design and delivery of nutrition-sensitive social protection programs.

**Gender and social norms are a critical consideration in social protection program design and delivery approaches.** It is critical to carefully consider and identify strategies to tackle (and not reinforce) discriminatory gender and social norms so cash transfers can realise their potential. Complex social dynamics and the distribution of decision-making power, labour and food within households can be highly gendered and hierarchical. **Providing women greater control of household finances for food and productive assets can play a critical role in improving household nutrition and food security. However, it is also true that cash transfers may risk reinforcing women's traditional household and social roles.** For example, linking to cash transfers activities such as vaccinations, regular visits to a health care facility, or regular school attendance by children, and complying with health and nutrition promotion activities often reinforce the status quo where women are expected to carry the burden of health care, food provision and managing cash transfer payments responsibly. Furthermore, **'conditionalities' attached to cash transfers when punitive can be counterproductive**, especially for remote populations. Other **more effective strategies to tackle gender and social norms** may include linking cash transfers with support services designed to educate and mentor families (and all members of the community) about the importance of nutrition and household food practices.

DFAT social protection program managers and funded partners can strengthen the **impact** of programs on nutrition by:

- Advocating for the inclusion of **nutrition objectives**, actions, and/or goals into social protection programs
- Including in evaluations of social protection programs **indicators** that cover diet and nutrition outcomes, to determine positive as well as potentially negative unintended outcomes.
- Ensuring program eligibility captures populations **most vulnerable to malnutrition** (such as pregnant women, or people with disabilities) and removes barriers to them accessing social protection such as inaccessible information and services, and under identification in government datasets.
- Where feasible, designing and implementing transfer programs to pursue a **'cash plus' model** tailored to the context and its nutritional challenges (for example families receiving transfers also receive information, counselling and support for optimal child care and feeding practices, strategies for addressing discriminatory gender and social norms, and uptake of services such as micronutrient supplementation).
- Setting **transfer values that are sufficient** to achieve nutrition and health-related objectives (the amount of the transfer should be sufficient to meet the cost of a nutritious diet over time, and account for additional costs faced by people with disabilities). This may also require a **market-based analysis**, to determine the local availability and cost of diverse and nutritious foods.
- Where food distribution occurs, ensuring it supports **dietary diversity** and where possible includes local nutrient-rich foods.

- Enhancing **cross-sectoral coordination, governance and capacity building** of nutrition-sensitive social protection programs.
- Incorporating nutrition-sensitive social protection interventions into regional **humanitarian** response and preparation.
- Supporting greater reach and promotion of women’s enrolment in health insurance and inclusion of adequate sexual, reproductive and maternal health services especially for informal workers.

### **Case study: Child Nutrition and Social Protection Project, Papua New Guinea**

The Australian Government is supporting the World Bank and Government of Papua New Guinea to implement the first social protection program in the country.

The pilot program is addressing critical nutrition issues and the high childhood stunting rates (Papua New Guinea has the third highest prevalence of stunting globally<sup>7</sup>) in four provinces, with the plan of expanding to eight provinces by 2027.

The Government of Australia has invested AUD21 million into this program. This critical support has facilitated an additional USD80 million World Bank loan to the Government of Papua New Guinea to ensure children are well nourished and can thrive.

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<sup>7</sup> FAO, IFAD, UNICEF, WFP and WHO (2024) [The State of Food Security and Nutrition in the World 2024](#)

The following table provides examples of pathways through which social protection programs can positively impact nutrition outcomes, and example indicators.

| Example social protection activity or entry point          | Example nutrition impact pathways (if → then)   | Example intermediate outcome indicators   | Example end-of-program outcome indicators   |
|--|---|---|---|
| Policy and institutional support                           | Government capacity and awareness built on links between social protection and nutrition → multisectoral endorsement for social protection and nutrition programming → nutrition-sensitive social protection policy endorsed and implemented during times of crises   | Evidence for a national nutrition policy that includes social protection components<br><br>Evidence for a social protection strategy that targets nutrition outcomes  | Proportion of those most vulnerable to malnutrition with access to social protection programs<br><br>Prevalence of children aged 0–59 months who are more than two standard deviations below the median weight-for-height of the WHO Child Growth Standards (wasting)   |
| Joint planning of social protection and nutrition services | Populations most vulnerable to malnutrition have greater access to financial resources through social protection programs → increased resourcing to purchase nutritious foods → greater dietary diversity → better nutrition and health outcomes  | Evidence that social protection programs designed to intentionally reach mothers with young children or others most vulnerable to malnutrition<br><br>Proportion or number of villages/areas where nutrition programs are implemented that are linked to social protection programs<br><br>Percentage of households that purchase more diverse and nutritious foods | Minimum dietary diversity in children 6–23 months and women of reproductive age<br><br>Consumption of less healthy foods (high in fats, sugars and/or salt) among children 6–59 months and women of reproductive age<br><br>Prevalence of children aged 0–59 months who are more than two standard deviations below the median weight-for-height of the WHO Child Growth Standards (wasting)<br><br>Prevalence of children aged 0–59 months who are more than two standard deviations above the median weight-for-height of the WHO Child Growth Standards (overweight) |
| Gender equality  | Social and behaviour change communication activities engage the whole community → women have greater access to financial resources through social protection programs → women have increased decision-making/control of resources → greater dietary diversity for household → better nutrition and health outcome | Proportion of women that share decision-making on how transfers received through social protection program are used<br><br>Percentage of women and influential family members that demonstrate knowledge of optimal child feeding practices<br><br>Percentage of women that purchase more diverse and nutritious foods  | Minimum dietary diversity in children 6–23 months and women of reproductive age<br><br>Prevalence of children aged 0–59 months who are more than two standard deviations below the median height-for-age of the WHO Child Growth Standards (stunting)<br><br>Prevalence of children aged 0–59 months who are more than two standard deviations above the median weight-for-height of the WHO Child Growth Standards (overweight)  |

## NUTRITION AND WASH PROGRAMMING

The following guidance is to assist DFAT WASH program managers and funded partners to integrate nutrition into programming.

The three main immediate causes of undernutrition – unsuitable or insufficient food intake, poor care practices, and disease – can be **directly or indirectly related** to inadequate access to safe water, sanitation and hygiene (WASH).

The **direct pathways** through which inadequate WASH conditions (such as open defecation and lack of handwashing facilities or behaviour) are linked to nutritional status relate to the ingestion of faecal pathogens:

- **Diarrhoea:** Diarrhoea is a symptom of infections caused by organisms, most of which are spread by faeces-contaminated water, a consequence of poor WASH. Repeated episodes of diarrhoea contribute to undernutrition by hindering the **absorption of nutrients**. Diarrhoea is a leading cause of illness and death among children globally. Children who are undernourished are **more vulnerable** to diarrhoea, with a higher risk of suffering more frequent and severe episodes of diarrhoea.
- **Parasitic infections such as intestinal worms:** in the absence of safe sanitation and hygiene these parasites are transmitted via contact with, or ingestion of, soil contaminated with faeces that contain worm eggs. Such infections cause **blood loss and reduced appetite** and can lead to anaemia, reduced growth and impaired cognitive development.
- **Environmental Enteric Dysfunction (EDD):** EDD is a chronic infection of the small intestine caused by extended exposure to faecal pathogens and poor WASH conditions. It reduces **nutrient absorption**, leading to undernutrition and poor growth.

Approximately **half of all undernutrition** is associated with repeated diarrhoea or intestinal worm infections as a direct result of inadequate WASH conditions.

Other WASH-related diseases such as **malaria, acute respiratory infections and neglected tropical diseases** such as trachoma, dengue and chikungunya are also associated with undernutrition.

**Indirect pathways** through which poor WASH conditions are linked to nutritional status relate to the broader **socio-economic environment**. The time taken to collect safe water, and/or the cost of purchasing safe water where not readily available in the home affect the amount and quality of water consumed, as well as hygiene practices, which in turn impact on nutrition. Access to safe water also impacts on the ability to grow and prepare nutritious food. The time taken to collect water – which in most communities is primarily the responsibility of women and children – as well as time spent sick with waterborne diseases, can reduce time available for child care, school attendance or participation in income generation activities, which perpetuate poverty and further contribute to malnutrition.

Interventions that improve WASH conditions are essential to **safeguarding nutrient absorption**, and thus contribute to improved nutrition outcomes.

DFAT WASH programs can strengthen their **impact** on nutrition if they:

- **Target geographic areas affected by undernutrition** (as indicated by high rates of wasting and/or stunting), or areas where nutritional status is likely to **deteriorate** (populations facing stress related to food security or other shocks). A place-based approach can be applied to target the specific circumstances of the geographic area and to actively engage and work collaboratively with local people.
- **Focus on the mother/caretaker-malnourished child unit.** Children are most vulnerable to the adverse effects of malnutrition in the first 1,000 days of life, from pregnancy through to a child's second birthday. For these young children, interventions which primarily target mothers/caretakers (for example through their access to clean water) may have a significant impact not just on them but also on their children.
- **Emphasise social and behaviour change.** Enabling access to water and sanitation facilities needs to be accompanied with suitable hygiene behaviour to prevent malnutrition. Joint social and behaviour change programs to improve WASH and nutrition can educate communities on how to recognise and combat the causes of malnutrition.

- **Integrate nutrition in design and monitoring.** During design include nutrition objectives and appropriate indicators to monitor and evaluate impacts on nutrition.
- **Improve coordination among relevant sectors** (for example WASH, nutrition, health, education). Strengthen communication and coordination among stakeholders to maximise expertise and sustain impact, such as by developing coordination bodies, joint planning or joint training for WASH and nutrition project staff.
- **Ensure and reinforce the principle of the WASH ‘minimum’ package** - a combination of WASH service delivery and awareness-raising around the importance of safe hygiene practices - in health and nutrition centres, as well in households in communities affected by undernutrition.
- **Support accessible and inclusive WASH.** Addressing barriers to WASH for women, girls, people with disabilities and older persons and providing tailored messages on hygiene practices for caregivers of children with disabilities and those who require assistance with self-care can support improved sanitation and hygiene and enhanced opportunity to manage underlying causes of malnutrition.

Integrated WASH and nutrition interventions can **focus specifically on households affected** by undernutrition and ‘mother/caretaker-malnourished child unit’, or have a broader **preventative approach in communities** (for example working through schools, health services) where undernutrition persists. Aligning WASH and nutrition programming allows each to maximise their impact, increase cost-effectiveness and sustainability, and create greater benefits for beneficiaries.

Applying a **One Health** approach – which aims to sustainably balance and optimise the health of people, animals and ecosystems – to integrated WASH and nutrition programming delivers multiple benefits to the health and wellbeing of people, animals, plants and ecosystems.

The following table provides examples of pathways through which WASH programs can positively impact nutrition outcomes, and example indicators.

| Example WASH activity or entry point           | Example nutrition impact pathways (if → then)   | Example intermediate outcome indicators  | Example end-of-program outcome indicators   |
|--|---|--|---|
| Policy and institutional support               | National commitment to targeting areas with high rates of malnutrition and food insecurity → increased coverage of WASH services and provision of hygiene and nutrition education for those vulnerable to malnutrition → reduced gastrointestinal illness → improved nutritional status   | <p>Evidence for joint sectoral planning between WASH, health and nutrition at national/sub-national level</p> <p>Proportion of targeted institutions with (increased) expenditure for joint WASH and nutrition programming</p> <p>Evidence for enhanced government capacity for joint WASH and nutrition needs assessment</p> <p>Proportion of households vulnerable to malnutrition in target areas with access to safely managed drinking water services and sanitation facilities</p> <p>Proportion of households vulnerable to malnutrition in target areas receiving hygiene and nutrition education</p>  | <p>Evidence for increased joint WASH and nutrition budget allocation and spending</p> <p>Prevalence of gastrointestinal illness among target population</p> <p>Prevalence of children aged 0–59 months who are more than two standard deviations below the median weight-for-height of the WHO Child Growth Standards (wasting)</p> <p>Prevalence of children aged 0–59 months who are more than two standard deviations below the median height-for-age of the WHO Child Growth Standards (stunting)</p>   |
| WASH and nutrition community-level programming | Hygiene promotion campaigns and increased access to WASH facilities in schools and health facilities → mitigate risks from infection by reduced open defecation, unsafe water use and poor hygiene practices → reduced prevalence of gastrointestinal illness and infectious disease → improved nutrient absorption → improved nutritional status | <p>Proportion or number of villages/areas where joint nutrition and WASH programs implemented</p> <p>Proportion or number of villages/areas with a high prevalence of wasting and/or stunting engaged in WASH activities</p> <p>Proportion or number of households in target areas participating in activities where both nutrition and WASH messages were delivered</p> <p>Proportion or number of health care facilities/nutrition centres in target areas with access to safely managed drinking water services and sanitation facilities</p> <p>Proportion or number of schools/education institutions in target areas with access to safely managed drinking water services and sanitation facilities</p> <p>Proportion or number of households in target areas with access to safely managed drinking water services and sanitation facilities</p> | <p>Proportion of households that demonstrate handwashing with soap</p> <p>Number of communities in target area declared open defecation free</p> <p>Prevalence of gastrointestinal illness and infectious disease among target population</p> <p>Prevalence of children aged 0–59 months who are more than two standard deviations below the median weight-for-height of the WHO Child Growth Standards (wasting)</p> <p>Prevalence of children aged 0–59 months who are more than two standard deviations below the median height-for-age of the WHO Child Growth Standards (stunting)</p> |

## NUTRITION AND EDUCATION PROGRAMMING

The following guidance is to assist DFAT education program managers and funded partners to integrate nutrition into programming.

Poor diets and malnutrition have **devastating effects** on children's health, **school performance and ability to learn**. Healthy, well-nourished children and adolescents **learn better**, and as adults they lead healthier and more productive lives.

Optimising nutrition early in life – during the first 1,000 days, from conception to a child's second birthday – provides the best possible start to life. However the first two decades of life, during which children and adolescents are often **engaged in education**, contain **critical phases of development and growth**.

**Education systems** - such as early childhood services, primary and secondary schools – provide a second window of opportunity to support the **prevention of malnutrition in all its forms**. They are a key setting for improving nutrition throughout childhood and adolescents, while also laying good **foundations** for health and wellbeing later in life.

Education systems provide an ideal platform to address complex nutrition challenges. Education- or school-based nutrition interventions can support better diets and nutrition, and foster healthier food practices and outlooks in **children and adolescents**, as well as the wider **school community**. They can also promote community **socioeconomic development** and local food systems that are conducive to better diets. Importantly, school nutrition-related programs can also deliver improved **education outcomes**, especially for girls. For example, the regular provision of nutritious school meals has been shown to improve not only diet quality for children in vulnerable situations, but also school attendance and enrolment, particularly for girls.

Education systems – such as early childhood services, primary and secondary schools – can improve nutrition in several ways. These present entry points for DFAT education program managers and funded partners to strengthen the impact of programs on nutrition:

- **Providing school-based or school-linked health and nutrition services.** Schools provide a setting to reach children and adolescents with age-appropriate health services that can improve their nutritional status – either directly such as with micronutrient supplementation, or indirectly such as with hand-washing promotion which can prevent infections that aggravate or precipitate malnutrition. Other examples include vaccination, malaria control, deworming, oral health promotion, sexual and reproductive health services, school-based growth monitoring and **school feeding**, which is the provision of meals that support students meet their nutritional needs.
- **Promoting a healthy school food environment and adequate and safe school food.** The school food environment involves all of the spaces within and beyond the school premises where food is available and consumed (for example canteens, tuck shops, kiosks, food vendors) and the composition of those foods. It also involves the information available about food and nutrition, and the promotion and pricing of foods (for example marketing, advertisements, promotions). The food environment shapes how accessible, affordable, desirable and convenient specific foods are. A healthy school food environment enables and encourages the school community (students, families and staff) to make food choices that contribute to better diets. Intervention examples include policy to restrict the marketing of less healthy foods at and near schools, and standards to ensure the nutritional adequacy of foods sold or meals served at schools.
- **Integrating effective food and nutrition education throughout the whole school system.** School-based food and nutrition education (SFNE) aims to foster long-lasting food outlooks, skills, practices and habits that are conducive to better health and wellbeing in children and their families. SFNE should comprise a combination of evidence-based and behaviourally-focused educational strategies that are context specific, involve influencers of food practices (for example students, parents, staff, community) and are **reinforced by an enabling school food environment**. Intervention examples include integrating SFNE into national school curricula, and repurposing school gardens as learning platforms.
- **Stimulating inclusive procurement and value chains for school food.** For schools that provide meals to students, linking schools' demand for safe, diverse and nutritious food to local food production (prioritising available supply from small-scale farmers at local or national levels) can increase the benefits and widen the beneficiaries of school meal initiatives to include not only those who **consume** the food but those who



**produce** the food. This is known as ‘**home-grown school feeding**’. Inclusive local food procurement practices can create meaningful market opportunities for small-scale farmers, including women, and contribute to economic development. It can also promote the value of local dietary habits and traditional nutritious food, strengthen local food systems and promote environmental sustainability.

- **Reaching children excluded from mainstream or formal education.** Those most vulnerable to malnutrition – such as girls, and children with disabilities – are also most at risk of exclusion from education and other school-based activities due to social norms, discriminatory policies and practices and inaccessible facilities. Initiatives to improve inclusion in education systems can not only enhance educational attainment but contribute to improved nutrition outcomes as they increase access to school-based or school-linked food, nutrition and health services. Such services should also be adapted to reach children with disabilities in education facilities that sit outside the mainstream system.

To be successful, education- or school-based nutrition interventions require providing **adequate resources and support** to school and program staff to enable them to implement related policies and programs. An **enabling policy and institutional environment** are key for sustainability. Successful interventions also require effective **partnerships** at the national level between the education sector and health, agriculture, local development, finance, social welfare and other relevant sectors, and at the local level between school staff, program staff and the community. Interventions may benefit from a pilot to ensure their feasibility.

### Case study: Farm to School Initiative, Vanuatu

Following volcanic eruptions in 2017-18 on the island of Ambae in Vanuatu, thousands were evacuated. Upon return in 2019, most households were engaged in agriculture and took time to recover, during which many struggled to pay school fees. Witnessing this, the Ambaebulu Junior Secondary School (AJSS) Principal conceived the Farm to School concept, which initially involved helping parents cover their school fees through the provision of 'in-kind' agricultural produce.

DFAT, through its investment in the Vanuatu Skills Partnership (VSP) under the Ambae Recovery Program, has supported the Farm to School initiative since its beginning in 2019. Partners include the AJSS, Ministry of Education and Training (and its partner, the Ministry of Health), Ministry of Agriculture, Livestock, Forestry, Fisheries and Biosecurity, Ministry of Tourism, Trade, Commerce and Ni Vanuatu Business, and VSP.

Over time the multisectoral Farm to School initiative has evolved and expanded. This includes local farmers supported to improve the quality of their produce; development of a small farm at the school; training and coaching of school kitchen staff in how to create new recipes for students using local food; and use of local foods by the school to generate income and promote food security through food processing activities.

The initiative has wide-ranging impacts including: providing reliable access to a market for local farmers which supports their income generation and ability to enrol their children in school; increased savings for the school from reduced food importation costs and sales from food processing activities; increased knowledge among school kitchen staff of how to prepare healthy meals using local foods; increased availability of healthy meals for students; and increased awareness among students – and the wider school community – of the benefits of eating healthy local foods.

The Farm to School initiative has expanded to 14 other schools in Penama and one pilot school on the island of Tanna.

VSP supports this initiative through providing technical support for the Farm to School initiative including partnership brokering, monitoring and evaluation (tools and reporting), and management and governance.

Find out more: [Farm to School Initiative: Ambaebulu School - YouTube](#)



*Students pose with local dishes. Source: VSP*

The following table provides examples of pathways through which education programs can positively impact nutrition outcomes, and example indicators.

| Example education activity or entry point | Example nutrition impact pathways (if → then)   | Example intermediate outcome indicators   | Example end-of-program outcome indicators   |
|---|---|---|---|
| School feeding                            | <p>School feeding programs → better school retention rates → improved education outcomes → improved nutrition outcomes among students</p> <p>School feeding programs include nutrition education → greater access to nutritious food → improved diet quality → improved education performance and nutrition</p> <p>School feeding programs → greater access to nutritious food → reductions in anaemia among adolescent girls → improved pre-conception health → better maternal and infant health outcomes</p> | <p>Proportion or number of schools with a school feeding program</p> <p>Evidence of school menu planning that complies with nutrition standards.</p> <p>Proportion or number of education institutions with a high prevalence of anaemia targeted by school feeding programs with fortified foods</p> | <p>Prevalence of children and adolescents aged 5–19 years who are more than one standard deviation below the median BMI for age of the WHO growth reference for school-aged children and adolescents (underweight)</p> <p>Minimum dietary diversity for girls aged 15 years and above</p> <p>Prevalence of anaemia among adolescent girls in school</p>           |
| Health and nutrition school programming   | <p>Strengthening the capacities of schoolteachers to deliver nutrition and health education → students receive education on hygiene and nutrition → increased good hygiene practices such as hand washing → reduced gastrointestinal illness among students → improved nutritional status</p>   | <p>Number of schoolteachers trained in nutrition and health education</p> <p>Number of schools in target areas participating in nutrition and health activities or programming</p> <p>Number of school aged children (5-19 years) reached by school nutrition and health program</p>                  | <p>Prevalence of gastrointestinal illness among students in target areas</p> <p>Prevalence of children and adolescents aged 5–19 years who are more than one standard deviation below the median BMI for age of the WHO growth reference for school-aged children and adolescents (underweight)</p> <p>Prevalence of anaemia among adolescent girls in school</p> |
| School food environment                   | <p>Nutrition standards for foods and drinks sold within school zone → reduced availability of foods or drinks high in saturated fats, salt and sugars within school zone → reduced consumption of less healthy foods/drinks among school students</p>   | <p>Evidence for a national or provincial school food or nutrition policy</p> <p>Number or proportion of schools with nutrition standards/policy</p> <p>Number or proportion of schools where sugar-sweetened drinks (and/or other less healthy products) are unable to be purchased or accessed</p>   | <p>Consumption of sugar-sweetened drinks (and/or other less healthy products) by children and adolescents aged 5-19 years</p> <p>Prevalence of children and adolescents aged 5–19 years who are more than one standard deviation above the median BMI for age of the WHO growth reference for school-aged children and adolescents (overweight)</p>               |

## NUTRITION AND AGRICULTURE PROGRAMMING

The following guidance is to assist DFAT agriculture program managers and funded partners to integrate nutrition into programming. Further guidance for integrating nutrition into agriculture programming is available in the [DFAT Nutrition-Sensitive Agriculture and Food Systems Guidance Note](#).

The **food system is highly vulnerable** to climate change, disasters, disease outbreaks, biosecurity threats, supply chain disruptions and conflict. These, and other **external shocks**, can all affect **agricultural production** and yields, the **supply of food**, and in turn the availability, affordability and consumption of diverse, safe and nutritious foods and diets. Such production challenges are compounded by, though also drive, changes in **consumer demand** away from traditional foods towards more processed, energy-dense and nutrient-poor foods, which contributes to malnutrition.

Agriculture is a **direct way** to improve the **availability, accessibility and affordability** of safe and nutritious foods (food security) and improve nutrition outcomes, particularly of those in **rural areas**.

Agriculture can improve nutrition through several core pathways:

- **Agriculture as a source of food.** This is the most direct route to improving the diet (quantity and quality) by ensuring year-round access to adequate, safe, nutrient-rich food. It is based on two assumptions: (1) that increases in **production diversity** of a range of foods (including dairy, fish, fruits, grains, livestock, root crops and vegetables) can enhance **food availability and access** to a diverse diet; and (2) that increased **food availability and access** will lead to greater **intake** and improved nutrition outcomes at the individual level. However, there is not always a positive correlation between increased quantity and diversity of production of nutritious foods and improved nutrition. In many cases, nutritious foods have a higher market value and may be **sold for income rather than consumed**. Nutrition knowledge, education and positive attitudes promotion need to be included to improve the **utilisation** and uptake of these foods into diets and attempt to negate unintended consequences.
- **Agriculture as a source of income.** This assumes that an increase in income from agriculture-related activities (including processing and sale of agricultural products or wages earned) can be used to access **health services** and/or purchase higher quality, **nutrient-rich food** that is consumed by individual household members. This pathway can only be effective if local **food environments** are conducive to supporting households to be able to utilise income to purchase nutritious foods – that is diverse, safe and nutritious foods **need to be available at an accessible price** at local markets. Activities promoting nutrition knowledge, education and positive attitudes need to also be included to **improve the utilisation of income** generated through agriculture projects to be used to purchase nutritious foods, inputs that allow them to produce more nutritious foods, and/or health care related expenditures that can contribute to improving nutrition.
- **Agriculture as a driver of food prices.** Improving post-harvest handling and storage, processing and preservation of nutritious foods can **reduce food loss and waste**, and increase the availability of nutritious foods throughout the year. This can help to **stabilise food prices** during lean seasons and increase the **availability** of nutritious foods to maintain diet quality.
- **Agriculture to empower women and enable gender equality and inclusion.** Women engaged in agriculture often do not have access to the same **resources** as men. Women often have lower ownership and use of land, livestock, agricultural inputs and equipment, limited access to markets, agricultural extension and finance services, and limited decision-making power over household income. These **gender inequities can limit the potential for women** to produce food, achieve financial stability, or expand their businesses. They also limit the agriculture sector's potential to produce nutrient-rich foods. **Agriculture programs can contribute to improved nutrition by addressing gender inequities in the agri-food system and empowering women**, which gives women greater access to and control over resources and assets, improved capacity, and enhanced power to make decisions. **Inclusive agriculture** also creates livelihood opportunities for people with disabilities – who experience similar barriers to accessing agricultural inputs and equipment, markets, and extension and finance services – and contributes to improved nutrition.

DFAT agriculture programs can strengthen their **impact** on nutrition if they:

- Ensure explicit **nutrition objectives and indicators are included in the design**, and track and mitigate potential negative outcomes or unintended consequences (such as the use of income from the sale of cash crops to purchase less healthy foods).
- **Assess the context** at the local level, to design appropriate activities to address the types and causes of malnutrition and how current agriculture or food system practices may be contributing to this.
- Target **those vulnerable to malnutrition** and tailor programs to improve equity through participation, access to resources and decent employment.
- Maintain or **improve the natural resource base**, through sustainable, climate-resilient agriculture practices.
- **Empower women and enable gender equality** by ensuring access to productive resources, income opportunities, extension services and information, credit, labour and time-saving technologies and supporting their voice in household and farming decision making. Equitable opportunities to earn and learn should be compatible with safe pregnancy, young child feeding and care practices.
- Facilitate diversification and **increase production of nutrient-dense crops and small-scale animal source foods**. Identify opportunities to leverage existing available nutritious traditional and indigenous foods and farming practices.
- Improve **processing, storage and preservation** to retain nutritional value and food safety, to reduce seasonality of food insecurity and post-harvest losses, and to make healthy foods convenient to prepare.
- **Expand markets and market access** for those in vulnerable situations, particularly for marketing nutritious foods.
- Incorporate **nutrition education and awareness activities** that create incentives and foster positive attitudes that encourage households to make decisions that support the consumption of nutritious foods and better nutrition.
- **Collaborate with other sectors and programs** to address concurrently the multiple underlying causes of malnutrition, and achieve higher level nutritional status indicators such as a micronutrient deficiency, stunting and wasting.

Operationalising agriculture projects and interventions that address the underlying causes of malnutrition has been coined '**nutrition-sensitive agriculture**'. Nutrition-sensitive agriculture is a food-based approach to agricultural development that puts **nutrient-rich foods and dietary diversity at the focus** of program design. The overall objective of this approach is to produce good nutrition outcomes for people over the long-term, while minimising unintended negative nutrition consequences of agriculture interventions and policies.

Not all agriculture programs will be nutrition-sensitive and require a primary or secondary objective to improve nutrition. However all DFAT agriculture program managers and funded partners should **ensure a 'do no harm' approach is implemented – that is no negative impact on nutrition results from program implementation**. This could mean including basic monitoring and evaluation related to diet quality to ensure deterioration of diets is not occurring. The most common negative impact of income-focused agriculture programs can be the utilisation of income to purchase less healthy foods which can deteriorate diet quality and increase risk factors for NCDs.

Applying a **One Health** approach – which aims to sustainably balance and optimise the health of people, animals and ecosystems – to nutrition-sensitive agriculture programming delivers multiple benefits to the health and wellbeing of people, animals, plants and ecosystems.

### Case study: TOMAK (To'os Ba Moris Di'ak or Farming for Prosperity), Timor-Leste

TOMAK is a 10-year (2016-2026), AUD50 million program funded by DFAT, aiming to improve agriculture-based livelihoods, food security and dietary diversity in the targeted rural areas of Timor-Leste. The program recognises that most rural households rely on subsistence agriculture and face high rates of malnutrition.

The program is delivered in partnership with the Government of Timor-Leste (Ministry of Agriculture, Livestock, Fisheries and Forestry; Ministry of Health; Secretary of State for Equality; and municipal authorities), a national organisation for people with disabilities (Ra'és Hadomi Timor Oan), and the private sector. The program operates in Bobonaro, Baucau and Viqueque municipalities.

TOMAK is supporting households to successfully produce nutritious food, to improve the availability of nutritious food for sale and their own consumption and for consumption by the wider community through improved market links. Nutrient-rich commodities supported by TOMAK include livestock (pigs and chickens – including eggs), horticulture crops (shallots and green leafy vegetables), staple and root crops (red rice and orange-fleshed sweet potato) and legumes (cowpeas, common bean, and mung bean). The program has a twin-track approach: it is working to boost the production and availability of nutritious food, while working to increase knowledge and awareness among value chain actors and the wider community of the importance and value of nutritious food to drive consumption.

A key component of TOMAK's nutrition-sensitive agriculture activities has been the development of a comprehensive 8-part curriculum on nutrition-sensitive agriculture. The curriculum provides participating producers and households with training and guidance on producing nutritious foods and accessing markets, as well as nutrition education on the value and importance of consuming a healthy diet, particularly for women and children. The curriculum has been endorsed by the Government of Timor-Leste and is used by the National Public Training Institute and by other implementing partners in Timor-Leste working to improve nutrition through agriculture.

Find out more: [TOMAK webpage](#) or [TOMAK Facebook page](#).



*Women wash vegetables during a community cooking demonstration. Source: DFAT*

The following table provides examples of pathways through which agriculture programs can positively impact nutrition outcomes, and example indicators.

| Example agriculture activity or entry point | Example nutrition impact pathways (if → then)   | Example intermediate outcome indicators  | Example end-of-program outcome indicators   |
|---|---|--|---|
| Food production                             | <p>Introduce technologies that improve resilience of nutritious food crops to extreme weather events and changing climates → increase year-round availability of nutritious food → improve household food access → improve diets</p> <p>Introduce technologies that improve resilience of nutritious food crops to extreme weather events and changing climates → increase yields and productivity → increased market diversity and availability of nutritious foods → improve household income → improve diets</p> | <p>Change in the availability of nutritious foods for families in target area</p> <p>Costs of a nutritious and healthy diet</p> <p>Household species production diversity (species richness)</p> <p>Household Diet Diversity (Food access measure of food security)</p>  | <p>Minimum dietary diversity in children 6-23 months and women of reproductive age</p>  |
| Gender equality                             | <p>Introduce climate smart agricultural technologies specifically designed for women → increase income generated and controlled by women → women spend income on acquiring more nutritious foods for household → improve child diet quality</p>   | <p>Proportion of women that share decision-making on how income generated from sale of agriculture products are used</p> <p>Proportion of households that purchase diverse and nutritious foods</p> <p>Percentage of household income allocated to the acquisition of food</p>   | <p>Minimum dietary diversity in children 6-23 months and women of reproductive age</p>  |
| Home Grown School Meal Programs             | <p>Invest in smallholder agriculture to supply school feeding programs → households generate more nutritious foods for own consumption and additional income → use income to purchase nutritious foods → diet quality improved</p> <p>Invest in smallholder agriculture to supply school feeding programs → households generate more nutritious foods for income → school food menus provide nutritious foods to students → diet quality improved</p>   | <p>Change in the availability of nutritious foods for families in target area</p> <p>Cost of a nutritious and healthy diet</p> <p>Household species production diversity (species richness)</p> <p>Proportion of school food menus in target area that provide nutritious balanced meals</p> <p>Percentage of people in target area that have increased household income</p> | <p>Minimum dietary diversity in children 6-23 months and women of reproductive age</p> <p>Dietary diversity in school aged children</p> |

## NUTRITION AND HUMANITARIAN PROGRAMMING

This Guidance Note aims to support the integration of nutrition into development programming, though it must be recognised that the majority of DFAT's nutrition-related expenditure is through humanitarian programming.

The following guidance is to assist DFAT humanitarian program managers and funded partners to integrate nutrition into programming.

**Humanitarian crises** – driven by conflict, climate change, epidemics and disasters – are often **characterised by** limited access to nutritious, safe and affordable food and water, disruptions in essential health and nutrition services, and constraints to optimal child feeding, care and hygiene practices.

Hunger and malnutrition are common among refugees and displaced populations. Wasting and oedema (forms of **acute malnutrition**) result from a decrease in food consumption and/or illness, and pose an immediate threat to children's lives during emergencies. At the same time, **stunting and micronutrient deficiencies** are often widespread in these populations, and commonly predate the onset of the acute crisis. People affected by humanitarian emergencies are also at increased risk of **diet-related NCDs**, due to increased exposure to unhealthy diets. All people affected by humanitarian emergencies are vulnerable to malnutrition, though the greatest nutritional consequences are usually borne by **children, adolescent girls, women (particularly those pregnant and breastfeeding) and people with disabilities**.

To improve nutrition outcomes in humanitarian contexts, food and nutrition responses should comprise:

- food security and nutrition assessments
- management of moderate and severe acute malnutrition
- prevention and control of micronutrient deficiencies
- support, promotion and protection of infant and young child feeding
- support and protection of food security
- provision of appropriate food assistance (that meets basic nutritional requirements)
- protection of livelihoods.

Providing food assistance to address food insecurity is unlikely to lead to a **lasting improvement** in nutritional status unless other causes of malnutrition are addressed at the same time, such as child feeding practices and vulnerability to infectious disease. Food and nutrition responses in humanitarian contexts should **work with other sectors/responses** to deliver 'nutrition-sensitive' interventions, which address **underlying causes of nutritional status**, such as WASH, health, agriculture, and shelter and settlement responses.

Good nutrition helps to ensure the **resilience** of both individuals and communities during a humanitarian crisis. Those experiencing malnutrition are more susceptible to illness and more vulnerable in the face of displacement, disease outbreaks, floods or droughts, and other shocks. Malnutrition also reduces a person's **ability to recover after a crisis** – it impairs child growth and cognitive potential, reduces immunity to disease, increases susceptibility to chronic illness, limits livelihood opportunities and reduces the ability to engage within the community.

Nutrition in emergencies and crises responses should be addressed through a **humanitarian-development nexus** approach. This should reflect meeting the **immediate nutrition needs** in times of crises, while also addressing underlying risks and vulnerabilities to **prevent malnutrition**. This may include:

- building and strengthening resilient livelihoods, with a focus on agriculture
- improving delivery capacity of health systems
- ensuring safety nets, social protection and sustainable food systems for healthy diets.



## Case study: World Food Programme (WFP) Core Funding

WFP is the world's largest humanitarian organisation focused on hunger and food security. WFP delivers food assistance in emergencies to those most in need, and works with communities to improve nutrition and build resilience. WFP also provides technical and development assistance, supporting partner governments to build capacity for emergency preparedness and response, manage supply chains and logistics and strengthen resilience against climate change.

WFP is Australia's largest humanitarian partner. DFAT provides WFP with AUD40 million in flexible core funding each year, to be allocated by WFP where humanitarian needs are greatest. DFAT also makes additional contributions to WFP for specific countries and priorities. For example in 2022-2023 Australia provided close to AUD85 million to specific crises, including in Afghanistan, Myanmar and Bangladesh.

DFAT funding has helped WFP: provide food assistance (152 million people were reached in 2023, including 80.1 million women); provide ongoing support for the re-establishment of livelihoods and food security in communities after emergencies; expand innovative food assistance initiatives that engage the private sector; contribute to improved nutrition and increased access to education for children through school feeding programs; enhance disaster preparedness and response capacities in highly vulnerable countries, including across the Pacific.



*Mothers gather at a school in Laos to discuss how WFP nutrition programs are supporting their young children. Source: WFP/Rein Skullerud.*

## REFERENCES

### Understanding nutrition and malnutrition

- FAO, IFAD, UNICEF, WFP and WHO (2024) [The State of Food Security and Nutrition in the World 2024](#).
- International Food Policy Research Institute (2024) [2024 Global Food Policy Report](#).
- UNICEF (2024) [Child Food Poverty. Nutrition Deprivation in Early Childhood. 2024 Child Nutrition Report](#)
- WHO (2024) [Malnutrition fact sheet](#).

### Nutrition programming

- Ruel MT, Alderman A (2013) [Nutrition-sensitive interventions and programmes: how can they help to accelerate progress in improving maternal and child nutrition?](#) The Lancet, Volume 382, Issue 9891, 536-551
- Gillespie S, Haddad L, Mannar V et al (2013) [The politics of reducing malnutrition: building commitment and accelerating progress](#). The Lancet, Volume 382, Issue 9891, 552 – 569
- Escher NA, Andrade GC, Ghosh-Jerath S et al (2024). [The effect of nutrition-specific and nutrition-sensitive interventions on the double burden of malnutrition in low-income and middle-income countries: a systematic review](#). The Lancet Global Health, Volume 12, Issue 3, e419 - e432
- WHO (2023) [Commercial determinants of health](#).
- USAID Advancing Nutrition (2020) [Stunting: Considerations for Use as an Indicator in Nutrition Projects](#).
- WHO (2024) [Nutrition Landscape Information System: Infant and young child feeding](#).
- WHO (2024) [Nutrition Landscape Information System: Malnutrition in children](#).
- WHO (2024) [The Global Health Observatory: Indicators Index](#).

### Nutrition and gender equality

- UNICEF (2023) [Undernourished and Overlooked: A Global Nutrition Crisis in Adolescent Girls and Women](#). UNICEF Child Nutrition Report Series.
- UNICEF (2020) [Nutrition, for Every Child: UNICEF Nutrition Strategy 2020–2030](#).
- UNICEF (2024). [Technical Guidance: Advancing Gender Equality for Optimal Nutrition in Adolescent Girls and Women](#)
- HLPE (2023) [Reducing inequalities for food security and nutrition](#).
- Scaling Up Nutrition (2020) [The call to action: Scaling up gender equality and women’s and girls’ empowerment to fight malnutrition](#).

### Nutrition and disability equity and rights

- WHO (2022) [Global report on health equity for persons with disabilities](#).
- UNICEF (2021) [Seen, Counted, Included: Using data to shed light on the well-being of children with disabilities](#)
- Kuper, H and Heydt, P (2019) [The Missing Billion: Access to health services for 1 billion people with disabilities](#)
- Wilson, D J (2021) [WFP Guidance: Inclusive Nutrition Programming for Persons with Disabilities](#)
- OHCHR (2020) [Policy guidelines for inclusive Sustainable Development Goals: Food and nutrition](#)

### Nutrition and climate change

- United Nations (2024) [Food and Climate Change: Healthy diets for a healthier planet](#).

Owino V, Kumwenda C, Ekesa B, et al (2022) [The impact of climate change on food systems, diet quality, nutrition, and health outcomes: A narrative review](#). Front. Clim. 4:941842. doi: 10.3389/fclim.2022.941842

UNICEF (2023) [The global climate crisis is a child nutrition crisis: UNICEF Agenda for Child Nutrition and Climate Action](#).

FAO (2023) [Climate action and nutrition – Pathways to impact](#).

## Nutrition and health programming

Scaling up Nutrition (n.d.) [Health](#).

WHO (2024) [Nutrition](#).

Ruel MT, Alderman A (2013) [Nutrition-sensitive interventions and programmes: how can they help to accelerate progress in improving maternal and child nutrition?](#) The Lancet, Volume 382, Issue 9891, 536-551

Bhutta ZA, Das JK, Rizvi, A et al (2013) [Evidence-based interventions for improvement of maternal and child nutrition: what can be done and at what cost?](#) The Lancet Volume 382, Issue 9890, 452-477

Heidkamp, RA, Piwoz, E, Gillespie S et al (2021) [Mobilising evidence, data and resources to achieve global maternal and child undernutrition targets and the Sustainable Development Goals: an agenda for action](#). The Lancet, Volume 397, Issue 10282, 1400-1418

Global Nutrition Report (2020) [Chapter 3: Mainstreaming nutrition within universal health coverage](#).

WHO (2019) [Essential nutrition actions: mainstreaming nutrition through the life-course](#).

United Nations System Standing Committee on Nutrition (2010) Progress in Nutrition: Sixth report on the world nutrition situation, [Chapter 3: Maternal nutrition and the intergenerational cycle of growth failure](#).

WHO (2020) [WHO Package of essential noncommunicable \(PEN\) disease interventions for primary health care](#).

Nutrition International (2017) [3 reasons why integrating nutrition and family planning is a game changer](#).

WHO (2024) [Tackling NCDs: best buys and other recommended interventions for the prevention and control of noncommunicable diseases, second edition](#).

WHO (2023) [Policies to protect children from the harmful impact of food marketing: WHO Guideline](#).

WHO (2019) [Nutrition in universal health coverage](#).

## Nutrition and social protection programming

UNICEF (2023) [Building synergies between child nutrition and social protection to address malnutrition and poverty, UNICEF Programme Guidance](#).

Scaling Up Nutrition (n.d.) [Social Protection](#).

DAI (2021) Monitoring and Evaluation of Nutrition-relevant Programmes: Guidance Document.

Social Protection Technical Assistance, Advice and Resources Facility (STAAR) (2024) [Gender-responsive social protection and health and nutrition: Thematic brief](#)

## Nutrition and WASH programming

Scaling Up Nutrition (n.d.) [Integrating WASH and nutrition actions](#).

Action Against Hunger (2022) [WASH' Nutrition: A practical guidebook on increasing nutritional impact through integration of WASH and nutrition programmes](#).

SHARE, London School of Hygiene and Tropical Medicine and WaterAid (2015) [Undernutrition and water, sanitation and hygiene: Briefing note](#).

WHO (2024) [Diarrhoeal disease](#).

Scaling Up Nutrition (n.d.) [Water, Sanitation and Hygiene \(WASH\)](#).

## Nutrition and education programming

FAO (2019) [School Food and Nutrition Framework](#).

UNESCO (2020) [Stepping up effective school health and nutrition: A partnership for healthy learners and brighter futures](#).

UNSCN (2017) [Schools as a system to improve nutrition: a new statement for school-based food and nutrition interventions](#).

WHO (2020) [Nutrition action in schools: a review of the evidence related to the nutrition-friendly schools initiative](#).

WFP (2022) [State of School Feeding Worldwide 2022](#)

## Nutrition and agriculture programming

Ruel MT, Alderman A (2013) [Nutrition-sensitive interventions and programmes: how can they help to accelerate progress in improving maternal and child nutrition?](#) The Lancet, Volume 382, Issue 9891, 536-551

FAO (2015) [Key recommendations for improving nutrition through agriculture and food systems](#).

DFAT (2023) [Nutrition-sensitive agriculture and food systems guidance note](#).

## Nutrition and humanitarian programming

UNICEF (n.d.) [Maternal and child nutrition in humanitarian action: protecting the right to nutrition in emergencies](#).

WHO (2024) [Addressing nutrition in emergencies](#).

NCD Alliance (2024) [NCDs in humanitarian settings](#).

WHO (2024) [Inclusion of noncommunicable disease care in response to humanitarian emergencies will help save more lives](#).

Sphere Association (2018) [The Sphere Handbook: Humanitarian Charter and Minimum Standards in Humanitarian Response, fourth edition](#).

European Commission (2023) [The link between nutrition and the humanitarian-development-peace nexus](#).