Position paper

Global Food and Nutrition Security

Background

Food and nutrition security is one of the biggest challenges facing the world. By 2030, everyone should have enough to eat and have access to a healthy and balanced diet. This sustainable development goal, SDG 2, was adopted by all members of the United Nations in 2015 as part of the 2030 Agenda. However, there is still a long way to go before it is achieved. Following decades of progress, the number of people suffering from hunger and food and nutrition insecurity has gradually risen again since 2017. According to the latest estimates, 582 million people could still be affected by hunger in 2030.[1]

In 2023, an estimated 733 million people worldwide did not have enough to eat – around 9 per cent of the global population. This is 152 million more people than before the outbreak of the coronavirus pandemic.[1] The main drivers of the increase in the number of people suffering from hunger are conflicts, economic shocks, accompanied by growing inequality and persistently high food prices, and extreme weather events due to the advancing climate crisis.

In addition, 35 per cent of the world's population are unable to afford a healthy diet (65 per cent of the population in sub-Saharan Africa).[1] They meet their calorie requirements mainly through consuming staple crops such as wheat, maize and rice. As a result, two billion people are suffering from hidden hunger in that they do not take in enough micronutrients to meet their vitamin and mineral needs.[2]

At the same time, shifting dietary patterns and lifestyles (increased consumption of processed foods, less daily exercise. etc.) have led to a global rise in overweight and obesity, including in countries that continue to be severely affected by undernutrition. Worldwide, around 43 per cent of adults (2.5 billion people) are overweight, more than 70 per cent of whom are in low-income and middle-income countries. Approximately 16 per cent (890 million people) live with obesity.[3] This brings with it an increased risk of diet-related, non-communicable diseases (e.g. diabetes and cardiovascular diseases).

As well as having repercussions on health, all forms of malnutrition have economic consequences: a society in which many people are unable to perform to their full potential due to poor nutritional status is significantly weakened economically and faces increasing public health expenditure for the treatment of diet-related diseases. The annual costs of malnutrition come to USD 4.1 trillion, a figure which includes productivity losses due to undernutrition and micronutrient deficiencies as well as economic and social costs of overweight and obesity.[4] By way of comparison, this is roughly equivalent to Germany's entire economic output (gross domestic product – GDP) for 2022![5]

Further costs are incurred as a result of environmental burdens along the entire food value chain. In food production especially, greenhouse gas emissions, monocultures and the overexploitation of resources are resulting in damage to the climate, soil and biodiversity

For the majority of the global population, current agricultural and food systems provide neither healthy food nor prosperity, nor do they respect planetary boundaries: estimates of the hidden social, health and environmental costs of current agricultural and food systems vary from

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USD 11.6 to 15 trillion per annum, equivalent to around 10-12 per cent of global GDP.[6]

Food security comprises both the quantitative and qualitative dimensions of food. It also includes food safety and thus emphasises the importance of food not posing a risk to health. [7]
Food and nutrition security goes beyond food security. It also necessitates access to adequate health care and social welfare, including a healthy environment, clean drinking water and sanitation. These are the conditions that enable the human body to properly utilise the food it consumes.[8]

The global situation: data, facts and figures

Mathematically speaking, the world produces enough food to sufficiently nourish everyone on the planet. However:

- around 733 million people (9 per cent of the global population) do not have enough to eat[1]
- 2.8 billion people (35 per cent of the global population) cannot afford a balanced, healthy diet[1]
- 2 billion people do not have a sufficient micronutrient intake[2]
- 1.6 billion women (aged 15-49 years) and children under the age of five suffer from hidden hunger[2]
- 2.5 billion people (43 per cent of people over the age of 18) are overweight, 16 per cent (890 million people) live with obesity[3]

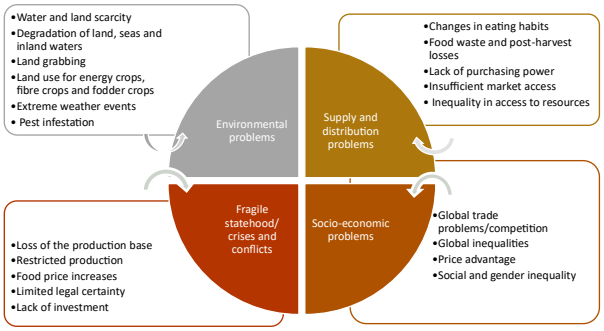

Figure 1. Causes of global food and nutrition insecurity (Source: GIZ)

The following problem areas are regarded as causes of global food and nutrition insecurity (see Figure 1):

Environmental problems

In 2050, it is estimated that up to 10 billion people will need to be fed.[8] This means that food production will need to be increased further.[9] Current global food production is the single biggest cause of environmental degradation. Viewed on a cross-sectoral basis, global food systems cause up to 42 per cent of greenhouse gas emissions and use 70 per cent of all freshwater resources. 37 per cent of utilised marine fish stock worldwide are considered to be overfished.[10] [11] The upshot of this is that we need to produce more using fewer resources. At the same time, however, the way in which we produce food also needs to change. This is because 78 per cent of agricultural land is used for animal farming[12], and more than 40 per cent of global calorie intake comes from just three staple crops (maize, rice and wheat).[13]
Monoculture farming is problematic as it is more susceptible to crises, diminishes water and soil quality and does not provide sufficient nutrients for a healthy diet. The fall in beneficial organisms caused in part by pesticide use also has an adverse impact on agricultural productivity. Changing the way in which food is produced requires greater food diversity and hence changes in consumption.
In addition, in many countries, land and access rights are unclear or not sufficiently protected, while land and production resources are neither evenly allocated nor adequately managed. For example, many smallholders find it more difficult to access land due to large-scale land purchases or leasing by mostly foreign investors (land grabbing). In fisheries and aquaculture, small-scale producers often lose out to economically and socially stronger players in the blue economy when it comes to accessing marine resources.

Supply and distribution problems

Extreme weather events such as droughts and floods are responsible for 80 per cent of the total damage and crop losses in agriculture. For a third of the countries that have experienced a rise in undernutrition in their populations since 2005, direct links can be established with severe droughts.[14] Food loss and waste is responsible for 8-10 per cent of all greenhouse gas emissions[1], as 25-30 per cent of the total food produced globally is either lost or wasted.[15] In the fisheries and aquaculture sector, the share of post-harvest losses and waste is even as high as 30-35 per cent.[16] Low-income countries account for 54 per cent of global post-harvest losses, primarily due to a lack of processing, refrigeration and transport facilities.[17] Knowledge of processing methods designed to extend shelf life, such as drying and fermentation, is often inadequate and the necessary infrastructure is also lacking. The potential of renewable energy for decentralized refrigeration and drying options has yet to be fully exploited. Added to this supply issue is the problem of distribution: even where there is an adequate supply of food, lack of purchasing power and insufficient market access can prevent people from being able to access sufficient quantities of high-quality food.

Problems of fragile statehood, crises and conflicts

Control over land and water is often at the heart of armed conflicts. In this context, the rural population loses its production base completely or is only able to produce to a limited degree due to the high security risk and destroyed infrastructure and production factors. Food prices often

skyrocket. Even in the absence of violent conflicts, people frequently hold off from investing in rural areas in fragile contexts due to the lack of legal certainty. Economic shocks and the climate crisis often heighten tensions or exacerbate conflicts by intensifying competition for limited natural resources and income opportunities. By the same token, food and nutrition insecurity leads to greater fragility and conflict. As a result, food and nutrition insecurity on the one hand and crises and conflicts on the other are often interrelated and mutually reinforcing.

Socio-economic problems

Domestic agricultural subsidies in high-income countries can bring down international commodity prices for agricultural goods.[18] The produce of small farmers in middle-income and low-income countries is thus squeezed out of the market and dependence on food imports in countries with a high proportion of small farmers increases. Seventy per cent of these countries are importers of staple foods.[19] This dependence means that their food supply is extremely vulnerable to fluctuations in price.

At household level, food and nutrition insecurity and unequal distribution are exacerbated by the lack of gender equality. Across the world, access to land and other productive resources, such as fertiliser and seed, is significantly worse for women. Due to these limitations, the productivity of female farmers is 24 per cent lower. Furthermore, women in agriculture earn 18 per cent less than men on average.[20] Women play an important – albeit thus far underacknowledged – role in small-scale fisheries, particularly in the post-harvest segment where they represent around 50 per cent of the workforce.[21]

International agreements, initiatives and platforms for food and nutrition security

The United Nations **Committee on World Food Security (CFS)**[22] is a key platform for developing global food and nutrition security strategies to eliminate hunger and malnutrition through improved policy convergence. In addition to representatives of governments and UN organisations, civil society actors are included by the Committee in the discussion and decision-making processes. A High Level Panel of Experts on Food Security and Nutrition (HLPE)[23] provides independent, comprehensive and evidence-based analysis and advice at the request of the CFS .

Under Germany's Presidency of the G7 in 2015, the goal was set of lifting 500 million people in developing countries out of hunger and malnutrition by 2030[24]. This commitment was reaffirmed in 2022 with the establishment of the **Global Alliance for Food Security** (**GAFS**)[25], together with the World Bank. The **Global Alliance against Hunger and Poverty** (**GAHP**)[26] was launched under Brazil's G20 Presidency in 2024 to combat food and nutrition insecurity and poverty.

In addition, there are a number of initiatives and agreements supported by governments, the private sector, the scientific and academic community and civil society. One of the most important such initiatives is the **Scaling Up Nutrition (SUN)**[27] Movement. Set up in 2010, this seeks in particular to improve coordination of food and nutrition security measures and increase transparency in the use of funds. SUN pursues a multi-sectoral, multi-level approach in its activities and focuses on measures in the first 1,000 days. Another initiative is **Nutrition for Growth** (**N4G**)[28], a series of global summits tied to the Olympic Games and held every four years since 2013. They are designed to help end hunger and malnutrition through political and financial commitments. The **UN Food Systems Summit** (**UNFSS**)[29] in 2021 initiated a global process aimed at transforming agrifood systems. It brings together stakeholders at various levels in an effort to set up sustainable and resilient systems by 2030. The aim of the summits (**UNFSS Stocktaking Moments**), which take place every two years, is to consolidate progress and reinforce the interconnectedness of food systems to global challenges. The **Committee on Fisheries** (**COFI**)[30] is a global forum where member states of the Food and Agriculture Organization meet every two years to discuss challenges and measures for promoting sustainable fisheries and aquaculture (including in the context of food and nutrition security) and to identify solutions.

Our position

The causes of malnutrition are manifold and are rooted in a number of different sectors and at different social and political levels. Measures to combat food and nutrition insecurity need to reflect this complexity.

In this context, GIZ takes the following positions:

Current agricultural and food systems do not provide healthy food or prosperity, nor do they respect planetary boundaries

As well as being a source of greenhouse gas emissions, agricultural and food systems also consume 70 per cent of fresh water. These are just two of the reasons why such systems currently generate hidden costs of around USD 11.6 trillion per annum (in the order of 10 per cent of global GDP). Unhealthy dietary patterns alone, which are linked to non-communicable diseases, among other things, entail annual costs of around USD 8 trillion. Although agricultural and food systems also provide a huge number of jobs, the sector often fails to provide either fair employment opportunities or a fair income. An extensive transformation of our agrifood systems is needed to guarantee long-term food and nutrition security, protect the environment and climate, enhance resilience to crises and promote social and economic goals.

No food and nutrition security without legal certainty
First and foremost, this includes safe and equitable access to land and water, especially for women. Other conditions are good governance, the curbing of corruption and violent conflict as well as the removal of trade barriers. The right to food, which was described in 1999 in the UN International Covenant on Economic, Social and Cultural Rights as the right to the availability, accessibility, adequacy and quality of food, is regarded as a guiding principle.

Women and girls need more rights and better education
Women and girls perform a wide range of duties in agriculture, livestock farming, fisheries, aquaculture and caring for the family, especially in child nutrition. For example, they are mostly responsible for buying and processing food, but tend to have little say in how money is used. They are neglected as far as food consumption is concerned, which is why there are 150 million more women than men going hungry worldwide.[31] Furthermore, women only have around 14 per cent of land rights and are therefore severely disadvantaged in terms of their agricultural production.[32] It is therefore crucial to improve the education and rights of women and girls, taking into account their particular needs and interests. In addition, men, boys and other members of the community should also be closely involved in the measures in order to achieve positive, gender-specific transformative impacts, embedded in the context of women's lives.

Our recommendations

The most important actions recommended by GIZ are set out below:

Prioritise the transformation of agricultural and food systems
If eating habits and nutritional settings shift towards healthy dietary patterns that intensify food production on a sustainable basis and halve food losses and food waste, it will be possible for a future population of 10 billion people to feed itself healthily within planetary boundaries.

Focus rural development on realising the right to food
The promotion of agriculture, fisheries, aquaculture and rural development should focus systematically on the goal of tackling hunger and achieving global food and nutrition security. Since 2004, the Committee on World Food Security's Voluntary Guidelines on the Right to Food have provided practical instructions for governments on implementing the right to food in policy terms, as well as strategies and recommendations on implementing the right to food in relevant sectors.

Promote sustainable production and the supply of healthy food
Actors along agricultural value chains are given support in order to increase the availability of safe and healthy food. Key aspects of this are to increase production in a way that is socially and environmentally sustainable and introduce climate-adapted local cultivation of a diverse range of crops based on adapted varieties in order to reduce dependences. Supported practices should preserve biodiversity and contribute to soil protection and rehabilitation. Like aquaculture, sustainable fisheries play a key role in providing rural and coastal communities with healthy aquatic food. It is therefore crucial that global fish stocks are managed sustainably through ecosystem-based fisheries management.

Promote access to food through social protection and higher incomes
Transfer measures, including vouchers for the (subsidised) purchase of basic foodstuffs such as rice, oil and flour, can be used to improve vulnerable population groups' access to food, as can the temporary subsidisation and provision of inputs such as fertiliser and seeds. To improve access to food in the long term, we combine these measures with policy advice and steps to diversify and increase income, such as the further processing and marketing of animal and plant-based products.

Safeguard access to land and water
Smallholders need secure and equitable access to land in order to be able to farm sustainably and successfully. International cooperation can support partner countries in shaping national policies, land use planning and land registration in such a way that they contribute to food and nutrition security, or at least do not jeopardise it. Through international initiatives for greater information and transparency, it can help generate sustainable investment in food production.

Improve access to healthy food
Due to the increasing availability and lower prices of ultra-processed foods with a low nutrient content compared with fruit and vegetables, measures need to be taken to improve access to healthy food and make it more affordable, especially for women, young children and other vulnerable groups. Making healthy food visible, for instance through labelling, can support healthy consumption (use) of food.

Improve nutrition for women and young children
Nutrition during the critical first 1,000 days of human life, from conception to a child's second birthday, is crucial. A failure to take action during this period will impair a child's mental and physical development and will in most cases be irreversible. It may also result in obesity, diabetes and other

chronic illnesses later on in life. Improving nutrition during this critical 1,000-day window has the potential to save lives, support children in their full development and help them achieve greater economic prosperity in future.[33]

Reduce losses, make consumption sustainable
Food losses can be cut by investing in improved storage and refrigeration, as well as in the processing and transport infrastructure. Moreover, curbing food waste can make an important contribution to global food and nutrition security. Using natural resources responsibly, for example reducing the amount of agricultural raw materials used to generate bioenergy, also enhances food and nutrition security. The same applies to limiting meat consumption, especially in high-income countries. The voluntary commitment to comply with social and environmental standards has already been tested successfully in many instances. Appropriate labelling of products enables consumers to make conscious decisions in support of environmentally sustainable and fair consumption.

Minimise risks, make provisions
Adapting production to climate change, crop insurance and local strategies for disaster risk reduction are all measures required to reduce risks for farmers. These measures also need to consider food and nutrition security. Social protection systems designed to provide health care and ensure provision for old age are also important, one example being school feeding programmes. Governments can make important contributions to food and nutrition security, in particular by implementing economic regulation mechanisms that prevent extreme fluctuations in food prices and put in place a well-functioning early warning system.

Provide stability, peacebuilding and social cohesion
In the event of crises, conflicts and natural disasters, the immediate need for food must be addressed, livelihoods protected, and the medium-term and long-term resilience of the affected population strengthened. Any action taken needs to be conflict-sensitive, specific to the particular context and promote peace. One way in which this can be done is by setting up local dispute resolution mechanisms. As part of transitional development assistance, short, medium and long-term measures – such as temporary social transfers and nutrition interventions – can be combined with undertakings aimed at starting or resuming food production activities (agriculture/fisheries/aquaculture).

Respond to multiple challenges with integrated solutions
Integrated approaches are required both to mitigate multiple crises and to sustainably transform agricultural and food systems. As well as incorporating the different sectors, such as health and education, the approaches need to address different levels. They should be structured holistically and also consider the interactions between the environment, the economy and social aspects in order to develop holistic and sustainable solutions. It is also important to incorporate local communities and indigenous knowledge into the planning and implementation of these integrated strategies so as to make them more effective and increase their acceptance.

Increase coherence and improve nutrition governance
To improve the policies, frameworks and steering structures for food and nutrition security, we advise national, regional and local government partners and institutions on improving coordination between different sectors and stakeholders, developing coherent policies, laws and plans for coordination and implementation, and ensuring sufficient financial, organisational and human resources. Support is also provided for multi-sectoral planning, coordination and monitoring processes.

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