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1. What do we mean by food security? The definition of food security adopted during the World Food Summit of 1996 is still relevant to date: "Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life" [1]. This widely accepted definition points to four critical dimensions of food security:

Key message

The world is far behind schedule to meet Sustainable Development Goal #2, Zero Hunger, by 2030. Progress has reversed since the COVID-19 pandemic. Conflict and shocks are among the root causes of food insecurity, but the most important one is the dependency of poor people on global food markets. These markets do not secure access to food and constrain domestic food production. The concentration of corporate power puts food security out of the control of public governance.

0. Introduction

Despite increased instability due to, for example, climate change, the volatility of international food markets, changes in political regimes, and growing regional conflicts, the food security of the Netherlands now and in the future is not at stake [1]. In contrast, after decades of progress, global food security is declining, specifically in low and middle-income countries. This note summarises what we understand by food security, indicates global trends, and identifies the root causes of food insecurity. We conclude by highlighting how the Netherlands contributes to global food security and recommend four ways the Netherlands can contribute to reversing the trend of declining food

- Food availability: The availability of sufficient quantities of food of appropriate quality, supplied through domestic production or imports, including food aid.
- Food access: Access by individuals to adequate resources for acquiring appropriate foods for a nutritious diet.
- Utilization: Food can only provide a state of nutritional well-being if it is utilised as part of a healthy diet accompanied by clean water, sanitation, and adequate health care.
- Stability: Access to adequate food must be continuous to be food secure. Actors should not risk losing access to food as a consequence of sudden shocks (e.g. an economic or climatic crisis) or cyclical events (e.g. seasonal food insecurity). The concept of stability refers to food security's availability and access dimensions.

security.

An estimated 150 million people faced acute food insecurity in 2023. This number is expected to grow due to compounding shocks from increasing extreme weather events, climate change, and escalating conflicts such as in Sudan. Over the past decades, food availability has improved worldwide due to a general increase in global food production [14]. Yet, access to food has been increasingly hampered by conflict, regional crises, and global economic shocks, leading to 2.33 billion people or 28.9% of the world population, being moderately or severely food insecure [2].

2. What is the global state of food security?

Between 713 and 757 million people have faced hunger in 2023 which is 1 out of 11 people in the world. [2] In Africa, 1 out of every 5 people faces hunger, a number that is expected to grow, while hunger remains unchanged in Asia and is dropping in Latin America and the Caribbean [2]. An estimated 150 million people faced acute food insecurity in 2023. This number is expected to grow due to compounding shocks from increasing extreme weather events, climate change, and escalating conflicts such as in Sudan [7].

The world faces the triple burden of malnutrition. It consists of undernutrition (stunting and wasting), overnutrition (overweight and obesity) and micronutrient deficiencies (lack of vitamins and minerals). More than one billion people over the age of 5 are estimated to be living with obesity worldwide, while half a billion are living with underweight or thinness [11]. Globally, one hundred forty-eight million children under the age of 5 (22.3%) are affected by stunting.



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Micronutrient deficiencies are most dangerous for pregnant women and children. Anaemia among women not only disrupts their own Enough food is produced in the world to feed each and everybody. Food insecurity is a distributional problem aggravated by the commoditisation of food and the concentration of power. Food security is increasingly in the hands of a few global corporations and out of control of public governance.

health but also has adverse effects on pregnancy and breastfeeding children. Accounting for population growth, the number of women affected increased from 493 million in 2000 to 571 million in 2019 [10].

Despite progress in the early years of the millennium, food insecurity is on the rise again. This concerns acute food insecurity as well as people's inability to keep adequate, healthy diets, causing malnutrition.

3. What factors play a role?

The food security of a population is one of the principal outcomes of a food system. If the food system functions well, the interactions between its actors (from farmers to consumers) and its components (from farms to institutions) are able to secure a stable delivery of enough healthy food and a well-nourished population. If food systems do not function well or are disturbed, that delivery becomes constrained. We list several vital causes here why particular food systems in Low and Middle-Income Countries (LMIC) cannot secure people's access to healthy food without claiming to be exhaustive.

For consumers, dependency on international food markets is in itself not a problem as long as the physical supply is guaranteed and purchasing power is maintained. With current free global trade, food flows where there is purchasing power.

- Over the past 50 years, food consumption patterns worldwide have become more similar. This increase in homogeneity worldwide highlights the establishment of a global standard food supply [5]. Natural advantages and large-scale bulk production of such foods in exporting countries resulted in historically low international food commodity prices. Import is now favoured over domestic production in many LMIC. This has increased the dependence of mainly low-income net-importing countries on international food markets for their national food security [7].
- 2. Government budget reforms in LMIC have influenced a decline in public support and opportunities for domestic food production. Mozambique, for example, a country highly dependent on the import of rice from Asia, could be self-sufficient in domestically grown rice if supported by national trade policy and public investments in agriculture.
- For consumers, dependency on international food markets is in itself not a problem as long as the physical supply is guaranteed and purchasing power is maintained. With current free global trade, food flows where there is purchasing power. This applies at all levels, from states to individual persons. The Black Sea Deal, allowing for grain trade during the Russia-Ukraine war, for example, mainly resulted in the export of maise to the animal industry in Spain and the Netherlands and only to a marginal extent in the export of wheat to Africa [6].
 Trade liberalisation also resulted in an increasing concentration of corporate power in global food markets. For example, the global grain trade is controlled by only four corporations. This affects the governance of food systems and the space of influence of other stakeholders to pursue other interests than only commercial, such as food price stability and food security.

4. What is the Dutch impact on food security worldwide?

In 2024, the Netherlands earned EUR 47.4 billion mainly due to exporting dairy, eggs, meat and ornamental plants to European markets. Cocoa, processed in the Netherlands, and fruits and vegetables also ranked high. Of the total value, three-quarters was traded to EU member states and one-quarter to markets outside Europe. In 2023, only EUR 2.2 billion was traded in African markets (mainly South Africa, the Ivory Coast, Ghana, Senegal, and Nigeria). Commodities traded to Africa included milk powder, onions, and poultry remains.

Besides its very limited, direct supply of food to LMIC, the Netherlands impacts indirectly through Dutch-owned companies, Netherlandsbased companies, and its foreign trade policy and ODA. Dutch-owned export companies active in LMIC are mainly concentrated in high-tech knowledge areas, such as seed and starting materials, equipment and processing machinery. Many of these companies operate in public-private partnerships and benefit from

government subsidies to overcome investment hurdles and earlystage business development risks in LMIC. Dutch-owned companies active in LMIC also export Dutch food products which could, but not necessarily do, compete with local producers.



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Dutch-owned import companies in the trade and processing of food commodities such as soy and palm oil indirectly affect food security

4b. What can the Netherlands do to enhance food security worldwide?

locally. Large-scale production for global markets impacts national food systems through competition for land, has implications on the environment and various economic effects at different levels. Many of these Dutch-owned companies have signed voluntary corporate social responsibility agreements and/or cooperate with Dutch ODA programmes on sector reforms.

Although the Netherlands is an international hub in agro-commodities, such as cocoa and coffee, trade and processing, most formerly Dutchowned companies have been taken over by international multinationals based in the Netherlands because of its strategic location and tax advantages. Their trade contributes to foreign direct exchange and government income, employment and income by producers. Still, only a minority of smallholder commodity farmers in LMIC earn or could earn a living income from primary commodity production [17]. These international corporations do not have to abide by Dutch law, including corporate social responsibility, nor honour appeals for the adoption of voluntary standards.

Dutch direct contributions to food security of specific food items, notably animal proteins and horticultural products, are significant in Europe. In contrast, globally and specifically in African food markets, the Netherlands does not play a role of significance in direct food security. The Netherlands contributes indirectly to food security in LMIC in a few specific areas with knowledge and technology.

Considering our analysis of causes of food insecurity in LMIC [3] and the current impact of the Netherlands on food security in LMIC (4a), we identify four areas of potential intervention:

1. Realistically speaking, the Netherlands does not have many options for counteracting concentration in the agro-commodity markets, as these are dominated by multinational companies that easily evade national laws and regulations [9]. Possible Dutch efforts could concentrate on reducing the dominance of major players and/or reducing the negative effects of concentration. As a member of the EU and the OECD, the Netherlands can put and keep the international regulation of multinational companies on the **agenda.** Recognising and countering the influence of large companies on countries' trade policies is of great importance in this regard. In times of increasing instability and major shocks affecting food systems, the OECD and the EU must coordinate their policies and not allow themselves to be tempted into protectionism since this mainly harms poor producers and consumers in LMIC.

2. Governments worldwide, and notably in LMIC, need to shift from agricultural to food policies to secure public access to healthy food.

We observe policy incoherence between Dutch ODA overseas and domestic economic and agricultural policies and consumption patterns in the Netherlands. Aligning more principles of sustainable consumption in the Netherlands with international and ODA policy can be further explored.

Current international trade agreements and relations leave adequate room for developing and implementing such food policies, which prioritise domestic production and intra-regional trade over international import. Many governments lack experience with interministerial and multi-stakeholder policymaking or are subject to lobbying by powerful stakeholders. This locks them into maintaining a status quo of dependency on foreign food imports. **The** Netherlands government can support national governments in LMIC with food policy development and call upon the corporate social responsibility of Dutch food export and trade companies.

3. We observe policy incoherence between Dutch ODA overseas and domestic economic and agricultural policies and consumption patterns in the Netherlands. Aligning more principles of sustainable consumption in the Netherlands with international and ODA policy can be further explored. Longterm projects that are well aligned with donor countries' national policies have contributed most to food security in LMIC over the last few years [8]. Dutch companies with added value in strategic sectors important to LMIC, such as seeds and processing industries, can be supported through public-private partnerships and export

- subsidies to expand their operations.
- 4. Transforming food systems to sustainably produce healthy food is not only a matter of intent but takes knowledge. Many LMIC have committed themselves at the UN Food System Summit of 2021 to transform their domestic policies, but struggle with the design and implementation of pathways towards agreed goals. **The** Netherlands can provide support in terms of knowledge, assistance, capacity development and sharing of experiences.



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