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Editorial

# Introduction to Special Issue *Toward Food Security in Africa*

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**Abstract:** Living well below 10% of the global average income, 34% of humankind and 65% of Africans have less to spend on food each day than what USD 3 can buy in the United States. The resulting nutritional deficits cause severe health problems, especially for children whose physical and mental development they permanently impair. Governments promise reform – often – but have achieved no progress during the last decade. In fact, the rapid ecological harms they continue to facilitate contribute greatly to food insecurity. Focusing on Africa, the present volume discusses food insecurity: what it is, the forms it takes, its distribution and its evolution over time, its main drivers with emphasis on responsible parties, and viable reforms toward food security for all.

**Keywords:**
1. Food insecurity
2. Healthy diet
3. Measuring undernourishment
4. Nutritional deficits
5. Poverty
6. Seasonal hunger

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Edited by Anne Gongwe, Jean Mboma, and Florence Opondo, this Special Issue of Journal ASAP is dedicated to achieving secure access to adequate food, especially on the African continent. This goal has been widely endorsed for a long time. In our era, a highly prominent such endorsement occurred at the 1996 World Food Summit in Rome, where 186 governments, 112 of them represented by their Heads of State, made this solemn promise:

> "We pledge our political will and our common and national commitment to achieving food security for all and to an ongoing effort to eradicate hunger in all countries, with an immediate view to reducing the number of undernourished people to half their present level no later than 2015" (Rome Declaration 1996).

For the year of the World Food Summit, the UN Food and Agriculture Organization (FAO) reported 791.5 million chronically undernourished people worldwide, 193.6 million of them in Africa (FAO et al. 2011, 44). From that year (1996) forward, both numbers kept rising until, in the wake of the 2008-09 global food price crisis, the global number of chronically undernourished was on the verge of breaking above the 1-billion mark for the first time in

human history. At this point, the FAO modified its definition of undernourishment with the result that the 1996 number was revised upward to 931 million and the 2009 figure downward to 867 million. With the new definition, a consistently rising count of undernourished people was transformed into a consistently declining count and the embarrassing break above the 1-billion level was averted (FAO 2012, 9 and 51). *The Economist* magazine celebrated this vindication of neoliberal globalization with a gleeful editorial (Economist 2012).

According to the latest FAO report, the global number of undernourished people declined from 2005 to 2014, reaching a low of 538.7 million, 7.3% of humankind ... and then rose consistently from there to reach a reported 733.4 million or 9.1% of the humanity in 2023 (FAO et al. 2024, 5–8). The traditional name of the annual report, *The State of Food Insecurity in the World*, was in 2017 revised to a more upbeat *The State of Food Security and Nutrition in the World* – though the old acronym "SOFI" is still commonly used – and the list of organizations jointly vouching for the report has been expanded to five UN agencies: the Food and Agriculture Organization (FAO), the International Fund for Agricultural Development (IFAD), the United Nations Children's Fund (UNICEF), the World Food Programme (WFP), and the World Health Organization (WHO).

Throughout this entire period, additional governmental commitments kept coming. There was the 1999 *UN Millennium Declaration* ("to halve, by the year 2015, the proportion of the world's people … who suffer from hunger"), followed in 2000 by the *Millennium Development Goals* ("halve, between 1990 and 2015, the proportion of people who suffer from hunger") (Key Indicators for Asia and the Pacific, 2009) and eventually, in 2015, followed by *Agenda 2030* (Sustainable Development Goal 2: to "end hunger, achieve food security and improved nutrition and promote sustainable agriculture"). Commitments to end undernourishment were also made specifically in and for Africa, notably in the 2014 *Malabo Declaration* (Target III: "Ending Hunger in Africa by 2025") and in the 2015 *Africa Agenda 2063 (Aspiration 1:* envisioning "a prosperous Africa based on inclusive growth and sustainable development" with the key goal of ensuring a continent of "healthy and well-nourished citizens").

In assessing these governmental commitments and the evolution of undernourishment over time, it is essential to take a closer look at the official definition of undernourishment which the FAO newly introduced in 2012. The fine print of the annual report for that year explicates the new definition with commendable clarity:

> "undernourishment" has been defined as an extreme form of food insecurity, arising when food energy availability is inadequate to cover even minimum needs for a sedentary lifestyle.…the FAO indicator is designed to capture a clearly – and narrowly – defined concept of undernourishment, namely a state of energy deprivation lasting over a year (FAO et al. 2012, 50).

This still operative official definition has four key elements. A person is to count as undernourished at some particular time just in case this time *is part of a period of more than one year* during which the *food energy* that is *available to her* – also referred to as her *dietary energy intake* (FAO et al. 2012, 50) – is insufficient *to cover even minimum needs for a sedentary lifestyle*. Let us look more closely at these four elements of the FAO's definition. Let us unpack these four essential elements.

First, the definition focuses solely on dietary energy. But human beings do not live on calories alone. They need various proteins, vitamins, minerals, and other micronutrients to be adequately nourished, nay even to survive. Deficiencies in such nutrients are extremely widespread among poor people in less developed countries. Three such deficiencies, in

particular, each cause hundreds of thousands of annual deaths, especially among children aged 0 to 59 months old. **Vitamin-A** deficiency substantially increases deaths from measles, diarrhea, and malaria, and also causes much vision impairment and blindness. **Iron** deficiency results in widespread anemia, causing maternal and perinatal deaths and deaths in young children. **Zinc** deficiency contributes substantially to deaths from diarrhea, pneumonia, and malaria in children under five. Also important are **iodine** deficiency, which impedes intellectual development and physical growth, and **essential fatty acids deficiency**, which impedes growth in children and increases their susceptability to infection.[1] By ignoring such specific nutrient deficiencies in its definition, the FAO is failing to recognize as undernourished all those hundreds of millions of people who take in sufficient energy (calories) but do not get some of the specific nutrients essential to healthy survival.

Second, the FAO definition focuses solely on dietary intake. But not all nutrients a person ingests are absorbed by her or his body. Many people in impoverished regions are infected with parasites that can consume as much as one-third of the nutrition they ingest. And others there suffer from diseases that impede the absorption of nutrients through the small intestine. By ignoring these common problems through its exclusive focus on intake, the FAO is further enlarging its undercount of the world's undernourished by failing to recognize all those whose nutrient intake is adequate even while their nutrient absorption is not.

Third, the FAO's operative definition counts a person as undernourished only if her energy intake is "inadequate to cover even minimum needs for a sedentary lifestyle." But many poor people in less developed countries do not, and cannot, indulge in such a lifestyle. The 1800 daily kilocalories that may suffice to keep an academic going do not suffice to sustain a rickshaw driver, whose income depends on transporting heavy loads on battered roads, often uphill, or a homemaker who must collect firewood, grind cereals, participate in harvesting, wash clothes in the local river, transport large jugs of water from a distant well, all while carrying her infant on her back. Heavy physical activity can increase calorie consumption by a factor of 5 to 17 (about 7-fold for activities such as jogging, cycling, and swimming), thereby tripling or quadrupling daily energy consumption. By defining undernourishment in terms of the minimum requirements of a sedentary lifestyle, the FAO is then failing to recognize as undernourished all those millions who get enough food for a sedentary lifestyle but not enough for the work they do, and must do, to sustain themselves and their families.

Fourth, the FAO counts only nutritional deficits that last for "over a year." This decision was crucial in keeping the number of undernourished from breaking above 1 billion by erasing the effect of the global food price spike in 2008 (and the similar spikes in 2011 and 2022).[2] This decision also erases from the record famine and hunger events that do not last a full year, including seasonal undernourishment, frequent during wintertime and during dry season in Africa. Every year, millions suffer life-threatening food shortages when the lean season (June to August) combines with severe poverty to quadruple the number of food insecure people in West and Central Africa (WFP 2024b, cf. WFP 2024c). The FAO's official justification for its decision is remarkable:

> The reference period should be long enough for the consequences of low food intake to be detrimental to health. Although there is no doubt that temporary food shortage may be stressful, the FAO indicator is based on a full year (FAO et al. 2012, 50).

[1] These five common deficiencies are thoroughly discussed in Caulfield et al. (2006) and Kiani et al. (2022).
[2] See world food price data at https://www.fao.org/worldfoodsituation/foodpricesindex/en/

The implied claim that hunger is detrimental to health only if it lasts for more than a year is blatantly incorrect. We know from the historical record of famines and hunger strikes that, with sufficient clean drinking water, human beings can survive without food for about 45–60 days at a low activity level. Even when they can get a little food, people in famines often succumb in well under a year – many historical famines have been shorter and still killed tens of thousands of people. Moreover, there are hundreds of studies documenting the long-term health effects of even brief periods of undernourishment especially on children. Such temporary food shortage often permanently impedes mental and physical development, causing lifelong deficits in height, health, and mental functioning (including stunting and wasting). In fact, there are documented health deficits in children whose mothers suffered hunger a generation before (Bhalotra et al. 2011). By recognizing only undernourishment lasting for over a year, the FAO is failing to recognize all those millions of people whose health is ruined by shorter periods of inadequate nutrition. These people constitute a substantial proportion of the 9 million human beings (including 3 million children) who die annually from hunger (WFP 2021, WFP 2024a) – even though they die from inadequate nutrition and nothing else. Many die in under a year after losing their access to adequate food as a result of some adverse change in their circumstances, due to famine, war, or natural disaster, for example, or due to an emergency affecting their household or community, such as disease or accident, loss of employment, a failed harvest, or soaring prices of other necessities such as fuel and transport. Yet, all these people are excluded from the FAO's undernourishment count because they did not manage to survive their nutritional deprivation for a full year.

In response to criticism such as the above (Lappé et al. 2013, Pogge 2016), the FAO has recently been providing data also on two broader indicators of undernourishment. One of these broader indicators is food insecurity, further differentiated into moderate and severe. The FAO reports that, from 2014 to 2023, the number of people suffering from moderate or severe food insecurity had risen by over 50% worldwide (from 1,544 to 2,325 million) and in Africa even by over 65% (from 512 to 847 million) (FAO et al. 2022, 26, and FAO et al. 2024, 15). Like the above-cited data on chronic undernourishment, these figures show that, while the global food situation had improved in the run-up to 2015, the target date of the Millennium Development Goals, it clearly has very seriously deteriorated since that time, starting long before the COVID-19 pandemic and Russia's invasion of Ukraine. One important driver of this deterioration is climate change which, caused by enormous greenhouse gas emissions in the global North, has its most devastating effects in the global South – especially in Africa, where it brings droughts, desertification, and extreme temperatures that make most agricultural labor biologically impossible. In addition, many politicians felt they had done a good deed by adopting their Agenda 2030 and hence could postpone well into the 2020s any serious efforts toward realizing the Sustainable Development Goals formulated therein.

The other, even broader indicator of undernourishment the FAO has introduced is the ability to afford a healthy diet. Converted at purchasing power parities into so-called international dollars (which are meant to reflect the purchasing power that a U.S. dollar has in the United States), the cost of such a diet varies regionally depending on how high or low the prices of essential foodstuffs are relative to prices in general. For the year 2022, the FAO reports that the global average cost of a healthy diet was 3.96 international dollars per person per day – with the highest cost found in the Caribbean (5.16) and South America (4.29), and the lowest cost in Northern Europe (3.28) and North America (2.96) (FAO et al. 2024, 25).

Anyone familiar with food prices in North America will understand that purchasing a healthy diet in the United States for under USD 3 per person per day is difficult, if not impossible, considering that getting healthy food at the lowest prices often requires time and money for

travel. In the year of the latest FAO assessment, 2022, the U.S. Department of Agriculture calculated the weekly cost of its cheapest healthy diet, the Thrifty Food Plan, at USD 219.60 per week for a reference family of four.[3] This comes to USD 7.84 per person per day, 165% more than the cost of a healthy diet assessed by the FAO.

| Region | 2017 | 2018 | 2019 | 2020 | ▼ 2021 |
|---|---|---|---|---|---|
| Madagascar | 97.1 | 97.3 | 97.1 | 97.8 | 97.8 |
| Malawi | 94.5 | 94.9 | 95.4 | 95.8 | 95.9 |
| Burundi | 95.8 | 95.0 | 95.0 | 95.7 | 95.9 |
| Central African Rep. | 94.6 | 94.5 | 94.4 | 94.5 | 94.6 |
| Nigeria | 90.2 | 91.1 | 91.8 | 93.1 | 93.5 |
| Liberia | 91.8 | 91.6 | 91.4 | 91.6 | 92.8 |
| Haiti | 84.7 | 84.7 | 86.9 | 88.9 | 92.6 |
| Mozambique | 91.2 | 90.6 | 90.8 | 91.9 | 92.5 |
| Niger | 92.9 | 91.4 | 90.4 | 90.9 | 92.0 |
| Congo | 88.6 | 90.0 | 90.0 | 90.8 | 91.5 |
| Zambia | 88.5 | 88.2 | 88.6 | 89.6 | 90.0 |
| Guinea | 88.5 | 89.0 | 88.8 | 88.7 | 89.1 |
| Angola | 81.4 | 82.7 | 83.9 | 86.7 | 88.1 |
| Lesotho | 83.2 | 83.4 | 83.8 | 87.0 | 87.9 |
| Dem. Rep. Congo | 94.2 | 91.0 | 88.9 | 87.1 | 85.5 |
| Sudan | 88.4 | 90.9 | 93.6 | 94.1 | 85.4 |
| Tanzania | 85.9 | 85.5 | 84.8 | 85.1 | 85.0 |
| Guinea-Bissau | 84.4 | 84.9 | 82.9 | 83.9 | 84.6 |
| Ethiopia | 85.8 | 84.1 | 83.4 | 83.3 | 83.8 |
| Sierra Leone | 84.2 | 84.2 | 81.3 | 82.5 | 83.5 |
| Chad | 82.7 | 80.9 | 79.3 | 82.4 | 83.1 |
| Pakistan | 81.0 | 79.8 | 81.4 | 83.5 | 82.8 |
| Benin | 90.6 | 86.8 | 82.4 | 82.1 | 82.6 |
| Rwanda | 87.0 | 83.9 | 81.9 | 84.6 | 82.0 |
| Uganda | 84.5 | 83.4 | 82.9 | 82.6 | 81.7 |
| Sao Tome and Principe | 76.6 | 76.3 | 76.7 | 77.3 | 78.2 |
| Burkina Faso | 83.0 | 79.7 | 76.8 | 77.6 | 77.6 |
| Ghana | 80.0 | 78.6 | 77.0 | 78.1 | 77.4 |
| Nepal | 80.3 | 77.2 | 75.0 | 77.1 | 76.4 |
| India | 78.8 | 73.2 | 71.4 | 76.2 | 74.1 |
| Philippines | 70.1 | 70.0 | 68.4 | 74.2 | 74.0 |
| Laos | 75.3 | 73.6 | 72.7 | 74.7 | 74.0 |
| Kenya | 77.4 | 74.5 | 73.7 | 74.5 | 74.0 |
| eSwatini | 77.1 | 75.8 | 75.0 | 75.3 | 73.8 |
| Myanmar | 71.0 | 66.6 | 63.3 | 62.3 | 73.8 |
| Côte d'Ivoire | 77.7 | 73.4 | 72.0 | 72.8 | 72.9 |
| Gambia | 72.6 | 70.8 | 69.6 | 71.8 | 72.2 |
| Mali | 77.3 | 74.5 | 69.7 | 71.4 | 72.0 |
| Indonesia | 72.8 | 71.0 | 69.5 | 70.2 | 70.8 |
| South Africa | 65.3 | 64.9 | 65.1 | 67.0 | 66.7 |
| Bangladesh | 75.3 | 72.5 | 70.8 | 68.7 | 66.1 |
| Djibouti | 65.8 | 66.4 | 65.2 | 66.7 | 65.3 |
| Mongolia | 58.5 | 55.2 | 55.0 | 60.0 | 64.1 |
| Fiji | 44.9 | 45.8 | 52.9 | 56.8 | 63.7 |
| Jamaica | 57.9 | 57.1 | 57.9 | 64.0 | 62.6 |
| Mauritania | 61.7 | 61.1 | 59.7 | 60.9 | 62.4 |
| Egypt | 67.4 | 70.1 | 67.2 | 63.2 | 61.6 |
| Cameroon | 59.2 | 58.8 | 58.7 | 59.8 | 60.5 |
| Botswana | 63.2 | 60.8 | 59.8 | 63.4 | 60.3 |
| Namibia | 55.4 | 55.2 | 56.6 | 59.0 | 59.5 |
| Suriname | 44.5 | 45.0 | 43.9 | 54.3 | 58.6 |
| Kyrgyzstan | 56.3 | 47.2 | 45.0 | 55.3 | 58.2 |
| Sri Lanka | 56.6 | 52.0 | 48.5 | 54.0 | 55.5 |
| Belize | 50.9 | 50.7 | 49.4 | 57.0 | 53.0 |
| Bhutan | 51.2 | 45.5 | 42.3 | 45.7 | 45.2 |
| Senegal | 53.5 | 48.0 | 45.9 | 46.2 | 45.0 |
| Honduras | 48.5 | 48.0 | 46.5 | 49.7 | 44.8 |
| Tajikistan | 49.8 | 44.6 | 44.0 | 46.8 | 44.3 |
| Armenia | 37.1 | 37.9 | 40.0 | 39.0 | 41.4 |
| Cabo Verde | 44.5 | 42.2 | 39.7 | 44.0 | 41.2 |

**Table 1.** Countries in which over 40% of the population cannot afford a healthy diet. These include a large majority of African countries (highlighted).
*Source:* Food Systems Dashboard 2024.

[3] https://fns-prod.azureedge.us/sites/default/files/media/file/CostofFoodJul2022Thrifty.pdf

Despite setting the cost of a healthy diet at such an unrealistically low level, the FAO found that, in 2022, 64.8% of Africans and 34.4% (2,826 million) of the world's population were undernourished by this standard (FAO et al. 2024, 29; see also Table 1). These are frightful figures, especially when the very low stipulated cost of a healthy diet is juxtaposed to the global average income which, in the same year 2022, corresponded to 62 international dollars per person per day.[4] We have created a world in which nearly 3 billion human beings cannot afford a healthy diet because they are reduced to well under one-tenth of the global average income.

Over the last two centuries, humanity has achieved enormous gains in its scientific, technological, economic, and administrative capacities and, partly as a result, has become highly interconnected. This makes it possible greatly to reduce the vulnerability of human beings to local conditions. If certain foodstuffs are scarce in a certain area, for example, they can easily be brought there. In fact, many countries – including Japan, Singapore, and Norway – routinely import much of their food, not merely in crisis times or during the off-season. Scandinavians eat plenty of fresh fruits and vegetables year-round, even during their long and dark winter months. They never lack access to a healthy diet because the buying power of their incomes makes it lucrative for relevant firms to serve them with a steady supply of high-quality foods.

One important reason for the dire global food situation is then the global distribution of income and wealth. People lack food because they cannot afford to buy it. Of many places where undernourishment is rampant it is true that, if the people there had more money, then food would be produced for, and delivered to, those places. This insight draws our attention to the existing, enormously unequal distribution of income and wealth in the world. This inequality has rapidly emerged in the colonial and early post-colonial period and is now deeply entrenched as those at the top of this distribution have both the incentive and the power to defend their lopsided shares. In 2022, the richest 1% of the human population owned 44.5% of global private wealth while the poorest 50% owned less than 1% (UBS 2023, 121). Mostly through their influence on powerful national governments, that of the United States first and foremost, the rich can and do ensure that the world economy is structured so as to preserve and enlarge their advantage.

To be sure, the global income and wealth distribution is not the only relevant factor. There are hard-to-reach areas with small populations that are expensive to supply and therefore might suffer undernourishment even if they could afford a healthy diet at typical prices. And then there are disruptions – such as wars, civil wars, economic sanctions, natural disasters, pandemics, economic crises – which may trigger severe local food shortages. But even with such disruptions, money matters. When an earthquake disrupts transportation in a rich country, such as Japan, people are quickly supplied by helicopter, whereas in poor areas, such as Syria or Sudan, people often wait in vein for relief. And when disruptions generate local scarcity, then the more affluent tend to outbid and outmaneuvre the poor to get preferential access to whatever is available.

What can be done to improve the global food situation and, in particular, to bring down the exceptionally high incidence of undernourishment in Africa? The foregoing remarks suggest three broad approaches to the problem. One involves the reduction of poverty through economic growth in impoverished regions and especially through faster-acting and ecologically less harmful reductions of economic inequality, with special emphasis on the poorest households, including their children. A second approach involves improvements in production and delivery with the aim of raising the quality and lowering the prices of the assortment of foodstuffs available for purchase. Important components of this second approach are reduction

[4] In 2022, the global average income in terms of purchasing power was reported to be equivalent to USD 22,555 per person per year, or USD 61.79 per person per day (www.theglobaleconomy.com/rankings/gdp_per_capita_ppp).

of food waste at all stages, good long-term planning to maintain soil quality and delivery infrastructure, and aligning local production and consumption of foodstuffs so as to hold down transportation costs. The third approach involves anticipating, preventing, mitigating, and adapting to disruptions which, in this era of rapid climate change, are becoming ever more frequent and severe. The present volume explores ideas in these directions, with special emphasis on the African continent whose people unjustifiably suffer a grossly disproportional share of global nutrient deficiencies.

## References

Africa Agenda 2063 (2015). Retrieved from https://au.int/agenda2063/aspirations

Agenda 2030 (2015). Retrieved from: https://documents-dds-ny.un.org/doc/UNDOC/GEN/N15/291/89/PDF/N1529189.pdf

Bhalotra, S., Sanhueza, C., & Wu, Y. (2011). Long-Term Economic Consequences of the 1960 Chile Earthquake. Retrieved from https://dokumen.tips/documents/long-term-economic-consequences-of-the-1960-chile-earthquake-2017-10-27-1.html

Caulfield, L. E., Richard, S. A., Rivera, J. A., Musgrove, P., & Black, R. E. (2006). Stunting, Wasting, and Micronutrient Deficiency Disorders. In D. T. Jamison, J. G. Breman, A. R. Measham, G. Alleyne, M. Claeson, D. B. Evans, P. Jha, A. Mills, & P. Musgrove (Eds.), *Disease Control Priorities in Developing Countries* (2nd ed., pp. 551–567). Washington, D.C.: World Bank. Retrieved from https://pubmed.ncbi.nlm.nih.gov/21250337/

Economist (2012). Not a Billion after All. *The Economist*, 10 October 2012. Retrieved from http://www.economist.com/blogs/feastandfamine/2012/10/hunger

FAO, IFAD, UNICEF, WFP and WHO (2024). *The State of Food Security and Nutrition in the World 2024 – Financing to end hunger, food insecurity and malnutrition in all its forms*. FAO. Retrieved from https://doi.org/10.4060/cd1254en

FAO, IFAD, UNICEF, WFP, and WHO (2022). *The State of Food Security and Nutrition in the World 2022. Repurposing food and agricultural policies to make healthy diets more affordable.* FAO. Retrieved from https://doi.org/10.4060/cc0639en

FAO, WFP, and IFAD (2011). *The State of Food Insecurity in the World 2011. How does international price volatility affect dometic economies and food security?* FAO. Retrieved from https://www.fao.org/3/i2330e/i2330e.pdf

FAO, WFP, and IFAD (2012). *The State of Food Insecurity in the World 2012. Economic growth is necessary but not sufficient to accelerate reduction of hunger and malnutrition*. FAO. Retrieved from https://www.fao.org/3/i3027e/i3027e.pdf

Food Systems Dashboard (2024). Percent of the Population Who Cannot Afford a Healthy Diet. Retrieved from https://www.foodsystemsdashboard.org/indicators/food-environments/food-affordability/percent-of-the-population-who-cannot-afford-a-healthy-diet-at-52-percent-of-income-co-hd-headcount/table

Key Indicators for Asia and the Pacific (2009). Key Indicators for Asia and the Pacific, 40th Edition. Asian Development Bank. Retrieved from https://www.adb.org/sites/default/files/publication/27727/key-indicators-2009.pdf

Kiani, A. K., Dhuli, K., Donatio, K., Aquilanti, B., Velluti, V., Matera, G., Iaconelli, A., Connelly, S. T., Bellinato, F., Gisondi, P., Bertelli, M. (2022). Main Nutritional Deficiencies. *Journal of Preventive Medicine and Hygiene* 63 (2 Suppl 3), E93–E101. https://doi.org/10.15167/2421-4248/jpmh2022.63.2S3.2752

Lappé, F. M., Clapp, J., Anderson, M., Broad, R., Messer, E., Pogge, T., & Wise, T. (2013). How We Count Hunger Matters. *Ethics and International Affairs*, 27(3), 251–259. https://doi.org/10.1017/s0892679413000191

*Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods* (2014). Retrieved from https://www.resakss.org/sites/default/files/Malabo%20Declaration%20on%20Agriculture_2014_11%2026-.pdf

Pogge, T. (2016). The Hunger Games. *Food Ethics*, 1(1), 9–27. https://doi.org/10.1007/s41055-016-0004-1

Rome Declaration (1996). Retrieved from https://www.fao.org/3/w3613e/w3613e00.htm

UBS (2023). Global Wealth Databook 2023. Union Bank of Switzerland. Retrieved from https://rev01ution.red/wp-content/uploads/2024/03/global-wealth-databook-2023-ubs.pdf

UN Millennium Declaration (2000). Retrieved from https://www.ohchr.org/en/instruments-mechanisms/instruments/united-nations-millennium-declaration

WFP (2021). In world of wealth, 9 million people die every year from hunger, WFP Chief tells Food System Summit. World Food Program. Retrieved from https://www.wfp.org/news/world-wealth-9-million-people-die-every-year-hunger-wfp-chief-tells-food-system-summit

WFP (2024a). 10 Facts about Child Hunger in the World. World Food Program. Retrieved from https://www.wfpusa.org/articles/10-facts-child-hunger/

WFP (2024b). Worsening Hunger Grips West and Central Africa amid Persistent Conflict and Economic Turmoil. World Food Program. Retrieved from https://www.wfp.org/news/worsening-hunger-grips-west-and-central-africa-amid-persistent-conflict-and-economic-turmoil

WFP (2024c). WFP Kicks off Major Lean Season Response in West Africa amid Dwindling Funding for Humanitarian Operations. World Food Program. Retrieved from https://www.wfp.org/news/wfp-kicks-major-lean-season-response-west-africa-amid-dwindling-funding-humanitarian