

Food Deserts and Food Insecurity

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Project:

http://denisemeeks.com/journalism/glo_599/



Introduction

Between 1975 and 2023 the world's population nearly doubled

<https://www.worldometers.info/world-population/>

By 2050 the world will need to feed more than 9 billion people

<https://nca2014.globalchange.gov/report/sectors/agriculture#intro-section-2>

Agricultural improvements alone cannot alleviate food insecurity

Violence, prejudice, disinformation, disease and lack of technology, funding and clean water all contribute to hunger and malnutrition, which disproportionately affect the marginalized groups

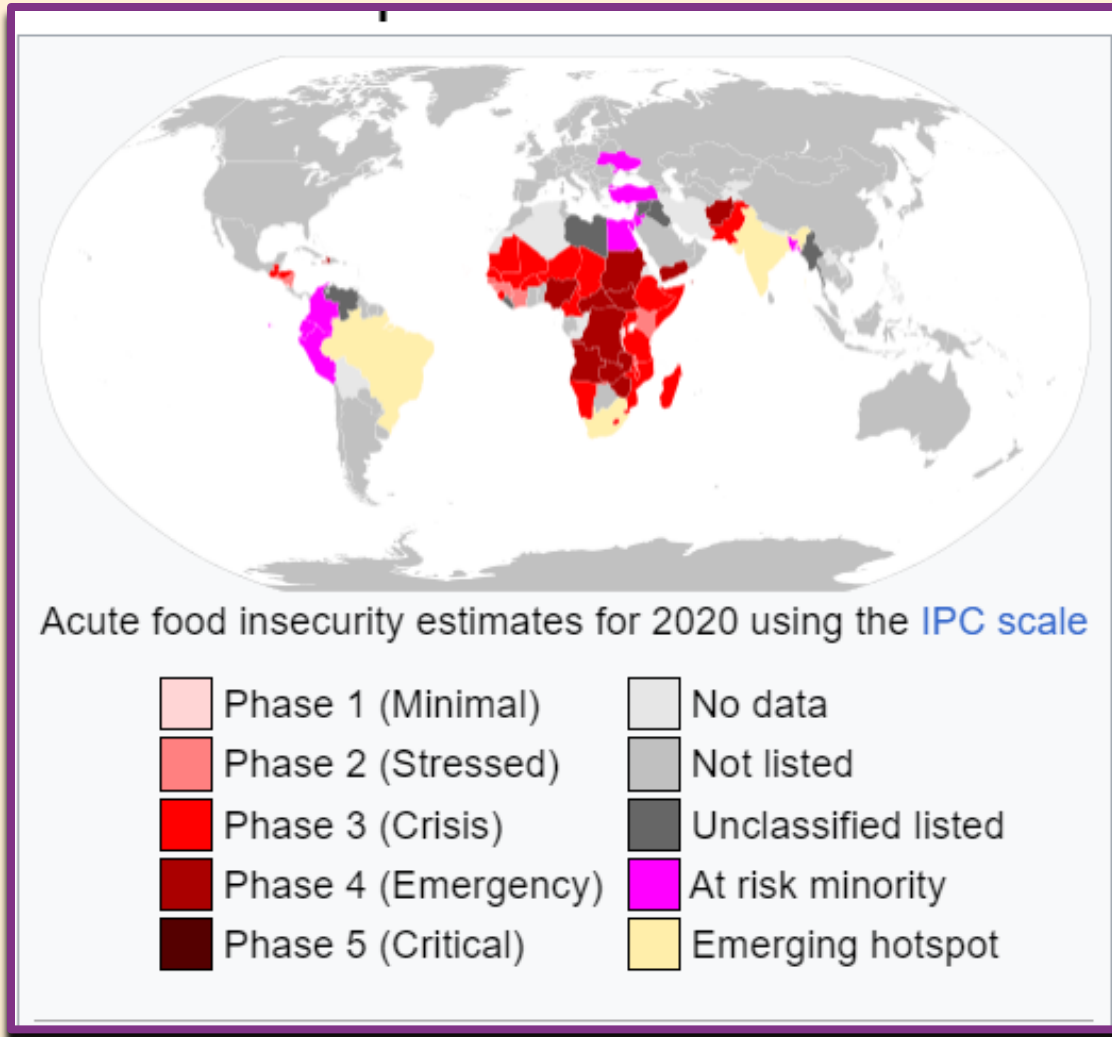


Image source: Food insecurity, ArcMachaon, Jul. 13, 2020

Wikipedia food security during the COVID-19 pandemic

https://en.wikipedia.org/wiki/Food_security_during_the_COVID19_pandemic#/media/File:Acute_food_insecurity_forecast_for_2020_including_coronavirus_famines.svg

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Food insecurity and food deserts

Food insecurity: the limited or uncertain availability of nutritionally adequate and safe foods, or limited or uncertain ability to acquire acceptable foods in socially acceptable ways

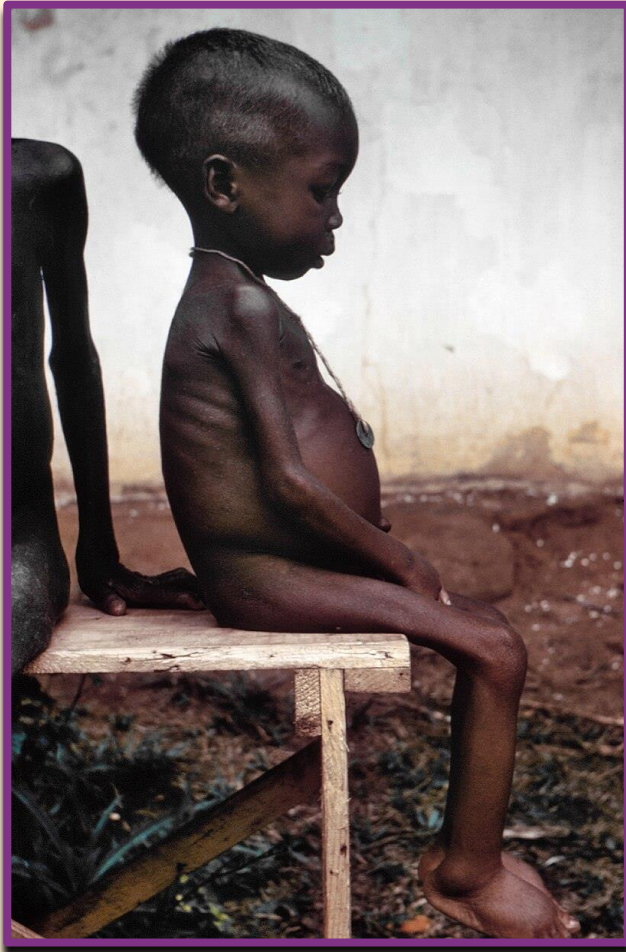
Food deserts: areas with high poverty rates and low access to grocery stores and nutritious food

<https://www.medicalnewstoday.com/articles/what-are-food-deserts>



Image source: Sugary, high calorie snacks are components of a food desert
D. Meeks, Walmart, Tucson, Arizona, Jan. 18, 2024, [CC BY-SA 4.0](https://creativecommons.org/licenses/by-sa/4.0/)

Conflict, climate change, natural disasters and pandemics



Conflict is the major cause of hunger, destroying transportation systems, driving inflation and causing violence when groups compete for resources

<https://www.wfpusa.org/articles/global-food-crisis-10-countries-suffering-the-most-from-hunger/>

70% of the world's hungry population live in areas of war and violence

<https://www.wfp.org/global-hunger-crisis>

Climate change affects health and safety, life quality, economic growth, food production, water resources, energy distribution, transportation, public health, international trade and national security

https://nca2018.globalchange.gov/downloads/NCA4_Ch01_Summary-Findings.pdf

Natural disasters, including tsunamis, earthquakes, hurricanes, tornadoes, wildfires, floods and insect swarms also have major effects on food distribution networks and hunger

<https://www.paho.org/en/health-emergencies/food-and-nutrition-disasters>,

<https://www.azolifesciences.com/article/Investigating-the-Impact-of-Disasters-on-Food-and-Agriculture.aspx>

Discrimination, inequitable distribution of federal funding, poor infrastructure and inadequate access to nutritious food are made worse by pandemics, including COVID-19

https://www.feedingamerica.org/sites/default/files/2021-03/National%20Projections%20Brief_3.9.2021_0.pdf

Image source: Starved girl found in a relief camp during the Nigerian-Biafran war, L. Conrad/CDC, Late 1960s, Wikipedia malnutrition

https://en.wikipedia.org/wiki/Malnutrition#/media/File:Starved_girl.jpg, public domain

Nutrition and Health

20% of young people aged 2 to 19 years and 42% of adults are obese, putting them at risk for heart disease, type 2 diabetes and some cancers

Two of the leading causes of heart disease and stroke are high blood pressure and high cholesterol

Unhealthy diet is responsible for up to 45% of all cardiometabolic disease deaths

Current sodium guidelines recommend getting less than 2,300 milligrams a day, but the average American consumes more than 3,400 milligrams per day

More than 70% of the sodium that Americans eat comes from packaged, processed, store-bought and restaurant foods

Source: <https://www.cdc.gov/chronicdisease/resources/publications/factsheets/nutrition.htm>,
<https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1002981>



Image source:Crunchy snacks are convenient but not a replacement for fruit and vegetables, D. Meeks, Walmart, Tucson, Arizona, Jan. 18, 2024
CC BY-SA 4.0

Food security and education



Image source: Vegetables are a healthy choice,
D. Meeks, Sprouts, Tucson, Arizona, Jan. 18, 2024
[CC BY-SA 4.0](#)

Nutrition education is related to better health, improved financial security and a higher quality of life

https://www.ers.usda.gov/webdocs/publications/42711/12716_ap036_1_.pdf

Food nutrition labels, removal of unhealthy foods from school and work environments, calorie information in fast food outlets, food literacy programs and public service ads can be used to educate consumers

https://academic.oup.com/heapro/article/30/suppl_2/ii77/645595?login=false

Promoting healthy food options in corner convenience stores in underserved areas increased the sales of fruits and vegetables and improved diets of vulnerable populations

https://www.ers.usda.gov/webdocs/publications/42711/12716_ap036_1_.pdf

Increasing healthy food options doesn't necessarily show an immediate benefit of eliminating food deserts because of poor food choices

<https://www.canr.msu.edu/news/food-insecurity-and-food-deserts-how-are-they-related>

Programs providing school meals, teacher training, parental education can improve nutrition and eating habits

https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=A%20Success%20Story%20-%20USDA-FAS%20McGovern-Dole%20and%20Save%20the%20Children%27s%20PALAM-A%20Project%20is%20Feeding%20Thousands%20of%20School%20Kids%20in%20Sri%20Lanka_Colombo_Sri%20Lanka_CE2022-0016.pdf

United Nations organizations, International Red Cross Committee, USAID and U.S. Bureau for Humanitarian Assistance and other organizations provide nutrition education and agriculture technology infrastructure which are most effective when they address the specific agricultural and cultural needs of a population

<https://www.foodassistanceconvention.org/downloads/sumrec/fac2022nr.pdf>

Federal and state programs, including SNAP, WIC and others aimed at helping the poor, women, children and minorities, allow individuals to purchase nutritious food and improve health and wellbeing

<https://www.feedingamerica.org/take-action/advocate/federal-hunger-relief-programs>,
<https://www.fns.usda.gov/programs>

Local solutions, including food banks and community gardens, frequently provided by volunteer organizations, are often best at addressing the social, political, economic and cultural needs of a community

Solutions

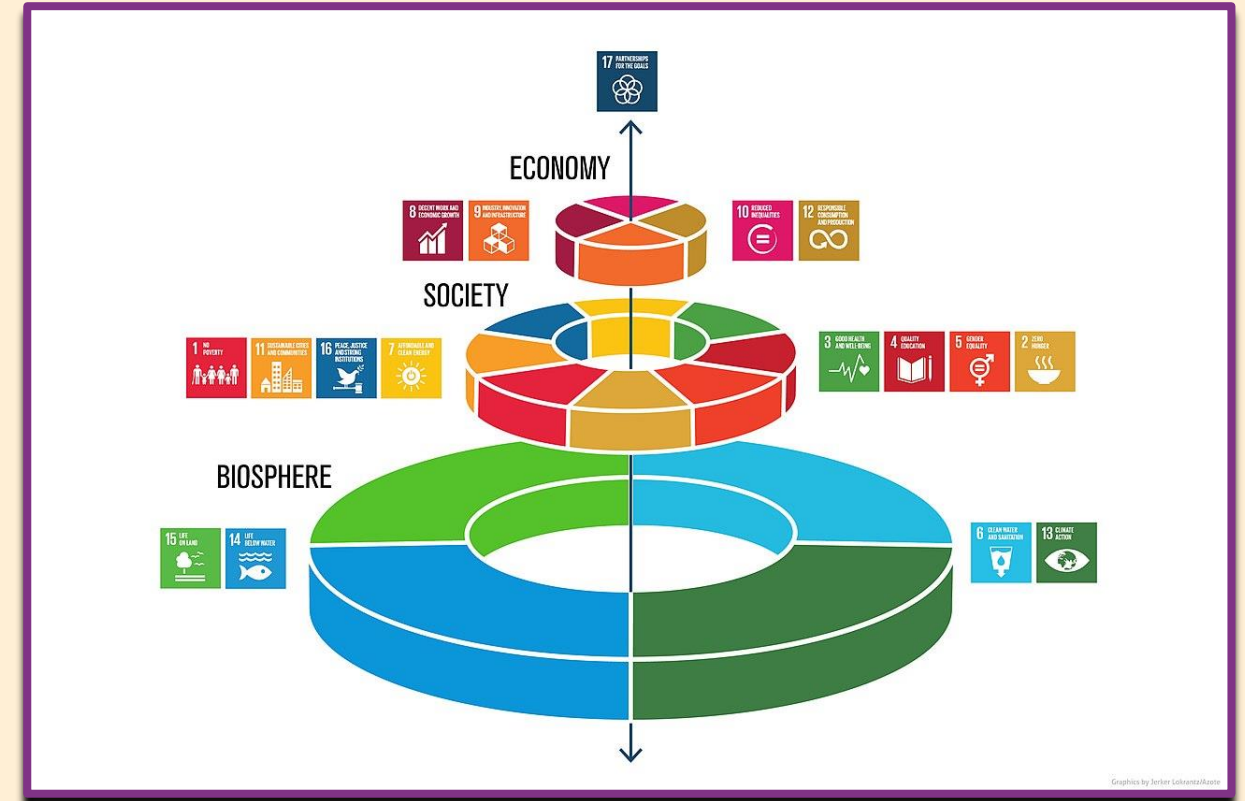
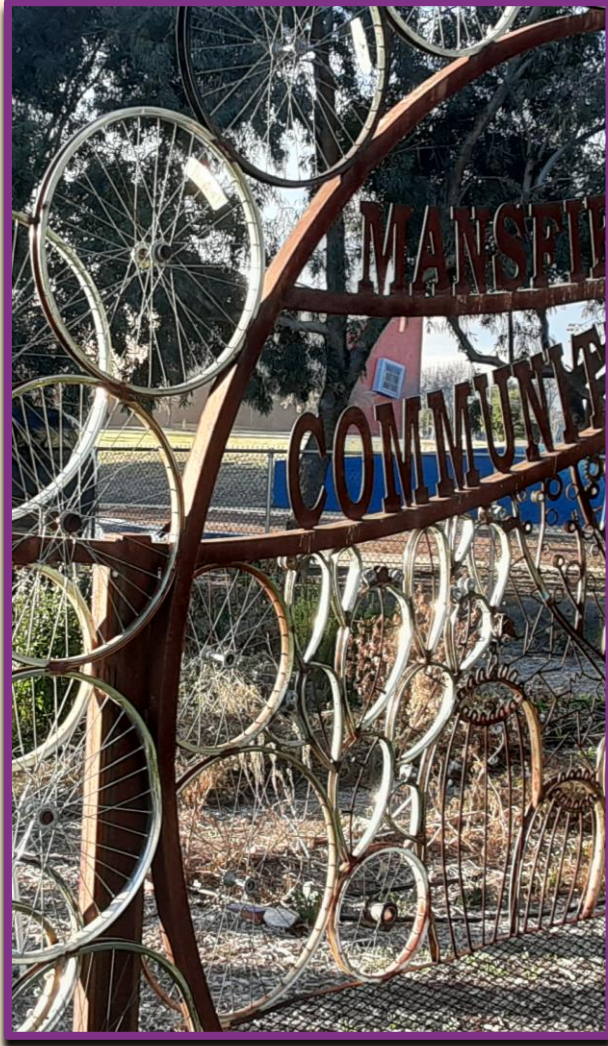


Image source: U.N. Sustainable Development Goals, Azote, Stockholm Resilience Centre, Stockholm University
Jun. 13, 2006
Wikipedia earth
https://en.wikipedia.org/wiki/Sustainable_Development_Goals#/media/File:SDG_wedding_cake.jpg
CC BY 4.0

Observations and Conclusions



Hunger and food insecurity are complicated, widespread international problems affected by economic, political and social issues, including conflict, climate change, natural disasters and pandemics

The poor, women, children and minorities disproportionately suffer from food insecurity because of inequities in agriculture, food distribution and clean water systems

Poor nutrition leads to chronic diseases, disability and early death, reduces quality of life, stresses social welfare and health care systems

Individuals and families need long-term nutrition education to change eating habits and convenient access to healthy food

While international, national and state efforts to provide healthy food and nutrition education are necessary to reducing hunger and food insecurity, local efforts that address the needs and reflect the cultural practices of communities are critical

If and when marginalized groups are given access to resources and education, hunger and food insecurity can be significantly reduced,