

# Food Security: An important parameter

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### ABSTRACT

Considering a doubling of the global population, food production has increased dramatically during the last half-century, allowing for a remarkable reduction in the fraction of the world's population that is hungry. Despite this, more than one in every seven individuals today does not get enough protein and energy from

their diet, and even more suffer from micronutrient malnutrition. The world is now confronted with a new set of difficulties that are intertwined. Although the global population will continue to rise, it is expected to reach 9 billion people by the middle of the century.

**Key Words:** *Food Security; Environmental effects; Food and Agriculture Organization; Biogeophysical*

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### SHORT COMMUNICATION

**I**ncreased affluence is a primary correlate of slower population growth, and with better purchasing power comes increased consumption and a higher demand for processed foods, meat, dairy, and fish, all of which put pressure on the food supply chain. At the same time, food producers are facing increased competition for land, water, and energy, and the need to mitigate the numerous negative environmental effects of food production is becoming more apparent [1]. The paradigm of "food security" has expanded, matured, proliferated, and varied in the years since the 1974 World Food Conference. At the time of writing, there were around 200 alternative definitions of the phrase. A pool of genetic material left silently in a corner of the rain forest is a good analogy. We come upon a single, primitive life form one minute and the forest floor is teeming with different species the next, and the air is dazzling with the flash of multi-colored wings. Food security has evolved from its humble beginnings into a veritable cornucopia of ideas. Quite the opposite is true. I'd want to propose that the many definitions of "food security" reflect the nature of the food crisis as experienced by poor people. Furthermore, I believe that in this type of environment, the "post-modernist" school of thought will be a useful guide. Within a post-modern framework, I will argue that comprehending food security necessitates an explicit awareness of complexity and diversity, as well as a prioritisation of the subjective perspectives of the food insecure [2].

Food is produced, processed, distributed, prepared, and consumed as

a result of dynamic interactions between and within the biogeophysical and human environments, resulting in food systems that support food security. Food security is harmed when food systems are challenged because they involve food availability (production, distribution, and exchange), food access (affordability, allocation, and preference), and food consumption (nutritional and societal values and safety). A variety of variables, in addition to climate change and/or other agents of environmental change (e.g. violence, HIV/AIDS), can cause such stress, and they can be particularly severe when these factors act in concert. Food systems are rapidly changing as a result of urbanisation and globalisation. Climate change has the potential to impact food systems in a variety of ways, including direct effects on crop production, market shifts, food pricing, and supply chain infrastructure. Climate change's proportional importance for food security varies by area. Climate change, for example, is one of the most commonly recognised drivers of food insecurity in southern Africa because it operates as both an underlying, long-term concern and a short-term shock. Because of the inadequate ability to cope with shocks and minimise long-term pressures, coping methods that may be available in other regions are either unavailable or inappropriate in this region. Other factors, such as labour concerns and the availability and quality of ground water, play a role in other locations, such as parts of India's Indo-Gangetic Plain [3].

Food security is defined by the Food and Agriculture Organization (FAO) as "a condition in which all people have physical, social, and

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economic access to sufficient, safe, and nutritious food that fits their dietary needs and food preferences for an active and healthy life at all times." (1). The four fundamental characteristics of food supplies are availability, stability, access, and usage, according to this definition. The first dimension is the availability of sufficient food, or the agricultural system's overall ability to meet food demand. The agro-climatic basics of crop and pasture production (2), as well as the full range of socio-economic and cultural factors that influence where and how farmers operate in response to markets, are among its subdimensions. The second component, stability, refers to people who are at high risk of losing access to the resources they need to eat enough food, either because they can't protect themselves *ex ante* from income shocks or because they don't have enough "reserves" to smooth consumption *ex post*, or both. Climate variability is a major driver of unstable access; for example, landless agricultural labourers who rely nearly entirely on agricultural wages in a location with variable rainfall and minimal savings are at high risk of losing access to food. Individuals with unstable access to food can exist even in agricultural communities with no climate variability; for example, landless agricultural labourers who fall ill and are unable to earn their daily wages would lack stable access to food if, for example, they are unable to take out illness insurance [4].

As per FAO, the global prevalence of malnutrition is 10.8% and 11.0 percent, or 794 and 815 million people, respectively, according to the statistics of 2015 and 2016. Despite all of our efforts, the global population of malnourished and hungry people continues to rise. According to the World Bank, 83 million people in 45 countries were hungry in 2017. In developed regions of the world, the proportion of undernourished persons does not surpass 5% of the population; however, it exceeds 13% in developing regions, 20% in African countries, and 13% in Asian countries. Food security has deteriorated noticeably in a number of African, Southeast Asian, and Western Asian countries. The potential of alleviating hunger by 2050 becomes doubtful if population growth remains steady (FAO, 2009). Natural disasters, military conflicts, population increase, and poverty are the main causes of hunger and malnutrition. The global financial crisis has caused changes in poverty dynamics, making hunger concerns more difficult to solve [5]. Human civilization is inextricably linked to food. As a result, improving our understanding of the cultural dimension of food security is becoming increasingly recognised as a critical component of achieving long-term, healthier diets for everyone. Culture is now widely included as one of the "deep drivers" of food security in conceptual frameworks, reflecting this progression. Despite this rising acknowledgment, culture has too frequently remained on the periphery of policymakers' and scholars' conversations on the fight against hunger. There are numerous examples of well-intentioned food security interventions that have failed due to a failure to consider cultural contexts, ranging from the rejection of culturally inappropriate food aid to the disregard for dietary recommendations that conflict with the cultural meaning of certain foods. One common flaw is that frameworks that recognise culture as a key driver rarely specify how it affects food security or how important it is in comparison to other aspects. To put it another way, while it is commonly accepted that culture matters, the questions of how and to what extent it matters remain largely unaddressed [6]. One of our society's major issues is to feed the planet in a sustainable manner. Between 1961 and 2000, the world's population grew at an

exponential rate, increasing food demand. Scientific and technological advancements, government policy, institutional involvement, and company investment, innovation, and delivery all contributed to meeting the need. Increased farm inputs and outputs, on the other hand, came at the expense of negative environmental consequences. 2,3 According to estimates, there will be 9.7 billion people on the planet in 2050, requiring almost 70% more food than is currently consumed. A megatrend is a significant change in social, economic, environmental, technological, or geopolitical factors that has the potential to transform the way a sector operates over time. The megatrends' possible impacts on the food and agriculture sectors are underlined. These and other trends, such as depletion of natural resources, urbanisation, megacity growth, changing demographics, and change food patterns, will have a substantial impact on security. Agriculture and food systems need to alter dramatically, according to the FAO [7].

Agriculture's ability to support expanding populations has long been a source of concern, and it remains high on the global policy agenda. One of the Millennium Development Goals adopted by the United Nations in 2000 was to eliminate poverty and hunger. Between 1990 and 2015, one of the Goals' objectives is to reduce the proportion of people who are hungry by half. It will be difficult to achieve this food security target. Since Malthus' *An Essay on the Principle of Population* in 1798, predictions of food security outcomes have been a part of the policy landscape (2). Some experts have expressed concern about agricultural production's ability to keep up with global food demands over the last several decades, while others have predicted that technology advancements or more cultivated land would enhance production enough to satisfy rising demands. So far, frightening forecasts of a worldwide food security disaster have proven to be false [8]. It reveals that food security is afflicted by more than just the classic policy ailment of evidence-policy misalignment. It is governed by a discourse that stems from a scientific analysis that was first charted in the early to mid-twentieth century, but was later modified. This means that the primary solution to food insecurity is to increase food production. This perspective was first taken seriously at a worldwide level in the 1930s, and it became the policy paradigm for post-World War II reconstruction. Other issues are essential, but this was supposed to be the primary objective. According to the publication, there is now a significant schism in this debate. The 'old' analysis, which dates back to the 1930s, focused on availability, hunger, and unmet need. It is now being emphasised by rising evidence and concerns about food supply pressures from social, environmental, and health perspectives. As a result, a new or "emerging" level of complexity in analysis and policy direction is emerging [9].

Despite the fact that overall food security has improved significantly over the last half-century as a result of increased global food availability per capita and lower real food prices, hunger, malnutrition, and food insecurity continue to be common. Estimates vary significantly, but around one billion people are currently malnourished, with at least one-third of the world's population at risk of malnutrition. In an era where there is enough food to feed everyone on the planet, the continuous suffering of a significant portion of mankind is recognised as morally abhorrent, and establishing proper distribution systems to solve the problem is seen as a political duty. success. Most countries have tried some form of

food assistance programme, but many of them have proven to be costly, useless, or both [10].

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