

## Managing Total Well-Being: An Eradication of Hunger Strategy for Optimal Health and Quality of Life

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### ABSTRACT

Hunger and food security remain complex global challenges affecting an estimated 690 million people in the world, impacting on physical health, cognitive development, economic productivity and social stability of communities. This study aims to explore a holistic approach to hunger eradication as an integral component of improving the total well-being of individuals and communities. Using a systematic review of current literature (2020-2025) from Scopus, Web of Science, and Google Scholar databases, the research analyzed eight key themes: structural causes of hunger, multidimensional impacts, sustainable food systems, technological innovation, community empowerment, public policy interventions, mental well-being, and climate resilience. The results show that interventions that focus solely on increasing food production are not effective enough without improvements to distribution systems and economic justice. The most successful food security programs are those that integrate interventions across sectors (agriculture, health, education and social protection) and involve local communities in planning and implementation. A holistic approach that integrates sustainable food systems, technological innovation, community empowerment, appropriate public policies and climate-resilient agricultural practices has proven effective in addressing hunger while improving overall well-being.

**Keywords:** Food Security, Wellbeing, Quality of Life

## 1 Introduction

Food security and hunger eradication remain complex global challenges in the 21st century. Despite rapid advances in technology and agriculture, around 690 million people in the world still experience chronic hunger [1]. Hunger not only impacts the physical health of individuals but also affects cognitive development, economic productivity, and the social stability of society as a whole. According to the World Health Organization (WHO), nutritional deficiencies contribute to approximately 45% of deaths of children under the age of five and lead to a significant reduction in cognitive capacity throughout life [2].

Hunger and malnutrition should be viewed as a multidimensional problem related not only to food production, but also to distribution, accessibility and proper utilization. Recent research has shown that interventions focused solely on increasing food production are not sufficient to effectively address hunger [3]. An approach that integrates food systems with health, education and social protection services is needed to create sustainable impact. True food security means not only having enough food available, but also ensuring that every individual has access to nutritious food that supports optimal functioning of the body and mind.

The concept of holistic well-being emphasizes that the fulfillment of nutritional needs is the foundation for the development of other aspects of life. Research in neuroscience and development economics reveals a strong correlation between nutritional status and cognitive ability, work productivity and even subjective happiness [4]. When individuals are free from the worries of hunger and malnutrition, they can allocate mental and physical energy to more meaningful productive activities, education, and social participation. Therefore, hunger eradication efforts need to be designed

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by considering their long-term impact on the entire spectrum of human well-being, from physical health to mental resilience and socio-economic well-being.

Amidst the advancement of modern civilization, hunger remains a pressing issue that requires serious attention from various parties. The fact that millions of people still lack access to adequate and nutritious food is a humanitarian challenge that cannot be ignored. The impact of hunger is not only felt on an empty stomach, but has long-term consequences that affect all aspects of human life. Therefore, a comprehensive hunger eradication strategy needs to consider total health and quality of life. This article explores a holistic approach to addressing hunger as an integral component in improving the total well-being of individuals and communities.

## 2 Literature Review

### Food Security

Food security has been a central concept in global development discourse over the past few decades. The Food and Agriculture Organization (FAO) defines food security as a condition in which "all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food to meet their food needs and preferences for an active and healthy life" [1]. This definition emphasizes four key dimensions of food security: availability, access, utilization, and stability. The World Food Programme (WFP) expands the definition by emphasizing that food security also includes the ability to obtain food in a dignified manner and without being forced to adopt destructive survival strategies [5].

The role of food security in socio-economic development is fundamental. Engler-Stringer (2024) describes food security as a key element of substantive freedom that enables individuals to pursue a life they value. WHO (2021) shows a direct link between improved food security and broader development outcomes, including improved health, education and economic productivity. In a sustainable development perspective, food security plays a central role as a link between the various Sustainable Development Goals.. Vărzaru (2024) illustrates how food security interacts with at least 14 of the 17 SDGs, demonstrating its strategic position as a catalyst for achieving the overall sustainable development agenda.

### Wellbeing

Wellbeing has become a multidimensional concept that has received widespread attention in various disciplines. The World Health Organization (WHO) defines well-being as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity" [2]. This definition emphasizes the holistic nature of well-being that goes beyond mere physical health conditions. Meanwhile, Proctor (2024) defines subjective well-being as "a person's cognitive and affective evaluation of their life", which includes an assessment of life satisfaction and a balance of positive and negative emotions. Burchardt & Ickler, (2021) extend this concept by defining well-being as the conditions that enable individuals and communities to thrive in both the material and non-material aspects of their lives, including job quality, work-life balance, health, education, social connections, civic participation, environmental quality, and security.

Well-being plays an important role in various aspects of individual and societal life. Sonnentag et al., (2023) point out that well-being is not only the result of success in various domains of life but also serves as a strong predictor of better health, more satisfying social relationships, and higher work productivity.. Helliwell et al., (2023) in the World Happiness Report asserts that countries with higher levels of well-being generally exhibit stronger social cohesion, more effective institutions, and greater resilience to crises, demonstrating the strategic role of well-being in building resilient and sustainable societies

### Quality of Life

Quality of life is a multidimensional concept that describes individuals' perceptions of their position within the context of the culture and value system in which they live, in relation to their goals, expectations, standards, and concerns [2]. Opinions extend this definition by describing quality of life as general well-being consisting of objective evaluations and subjective assessments in a variety of life

domains including physical health, material well-being, social relationships, personal development and activities, and emotional well-being [13] [14].

At the individual level, Muntyanu et al., (2023) show that quality of life acts as a strong predictor of physical and mental health, work productivity, and social engagement. In the context of sustainable development, quality of life should be a key objective of economic and social policies, proposing a transition from the conventional economic growth paradigm towards a sustainable welfare economy that explicitly aims at improving the quality of human life while maintaining ecological sustainability [16][17].

### 3 Research Methods

This study used a systematic review method with the stages in Figure 1:



Gambar 1. Research Flow

Stage 1. Determination of Criteria, This study uses a systematic review method with a structured protocol. Researchers set inclusion criteria that included primary and secondary studies published in the period 2020-2025, and addressed multidimensional aspects of hunger including: structural causes, health and economic impacts, sustainable food systems, technological innovation, community empowerment, public policy, mental well-being, and climate resilience.

Stage 2. Article Searches, Researchers conducted systematic searches on leading electronic databases including Scopus, Web of Science, and Google Scholar using keyword combinations such as "food insecurity", "hunger", "malnutrition", "sustainable food systems", "quality of life", "wellbeing" and "climate-resilient agriculture". Additional searches were conducted through bibliography searches of relevant articles and reports from international organizations such as FAO, WHO, and UN-ECOSOC to obtain relevant literature.

Stage 3. Article Analysis, The analysis process was conducted in two stages: an initial screening based on title and abstract, followed by a review of the full text to ensure relevance and methodological quality. Secondly, a narrative synthesis of the data was conducted using a thematic approach. Findings from the various studies were organized into key themes: (1) structural causes of hunger, (2) multidimensional impacts on health and economy, (3) sustainable food systems, (4) technological innovation, (5) community empowerment, (6) public policy interventions, (7) mental well-being, and (8) climate resilience.

Stage 4. Reporting and Recommendations, The results of the analysis are presented in the form of a comprehensive narrative that integrates the various findings into a holistic framework on hunger eradication. Evidence-based recommendations are formulated for various stakeholders, including policymakers, non-governmental organizations, and researchers, with an emphasis on multisectoral and sustainable approaches to address global hunger.

### 4 Results and Discussion

Hunger is not simply a matter of the absence of food, but a manifestation of more complex and profound structural injustices. As stated by Alaimo et al., (2020), hunger often occurs not because of an absolute lack of food availability, but rather due to the inability to access available food. This reality confirms that efforts to eradicate hunger need to consider economic, social and political factors that hinder

access to food. Barrett (2020) in his research shows that interventions that only focus on increasing food production without improving distribution systems and economic justice tend to fail to address the real root causes of hunger.

The impact of hunger and malnutrition on health and productivity creates a cycle of poverty that is difficult to break without appropriate interventions. Longitudinal studies by Palacios et al., (2022) reveal the startling fact that children who experience malnutrition in the first 1000 days of life experience significantly reduced cognitive functioning, lower educational achievement, and smaller earnings as adults. Quantitatively, each episode of childhood stunting is associated with a 4.6% reduction in annual earnings in adulthood, illustrating the long-term economic impact of hunger. Victora et al., (2021) reinforces these findings by demonstrating that micronutrient deficiencies such as iron, zinc and vitamin A do not only cause physical impairment but also impede cognitive function and learning ability, subsequently affecting an individual's productive capacity throughout his or her life

Sustainable food systems are a key foundation for effective hunger eradication strategies. El Bilali et al., (2021) define a sustainable food system as one that provides food security and nutrition for all without compromising the economic, social and environmental basis for future generations. This paradigm emphasizes the importance of a balance between meeting current needs and protecting resources for the future. The EAT-Lancet Commission's comprehensive study Tuyishimire et al., (2025) emphasizes the urgency of transforming global food systems to produce healthy diets from sustainable food production systems. This transformation includes crop diversification to reduce dependence on monocultures, reduction of food wastage that currently accounts for one-third of global production, as well as implementation of environmentally friendly agricultural practices that minimize soil degradation and greenhouse gas emissions.

Technological advances are opening new horizons in the fight against global hunger. Precision agriculture technology allows farmers to optimize resource use, biotechnology offers crop varieties that are more resistant to climate change and pests, while geographic information systems help with more efficient land use planning. The study Goel et al., (2021) shows that the application of digital technologies in agriculture can increase crop yields in rural areas of developing countries. Trevisan & Formentini (2023) and Aramyan et al., (2021) add that digital technologies also strengthen food value chains, improve market access for smallholder farmers, and reduce food wastage through better supply chain management. The adoption of communication technologies such as mobile apps also makes it easier for smallholder farmers to access market information and best agricultural practices, democratizing knowledge that was previously difficult to access in remote areas.

Active community engagement and local empowerment are crucial elements that are often overlooked in hunger eradication strategies. Mohammadi et al., (2022) proved that food security programs that involve local communities in planning and implementation have a much higher success rate than programs designed in a top-down manner. When communities are empowered to identify their own needs and solutions, interventions become more contextualized and sustainable. The gender dimension is also very important, as shown by Barth-Jaeggi et al., (2020) who found a significant correlation between increasing the status of women in society and decreasing levels of child malnutrition. Women's empowerment in household decision-making and access to productive resources has been shown to have a multiplicative effect in improving family and community food security. When women have more control over income and resources, they tend to invest more in their children's nutrition, health and education.

Appropriate public policy interventions create a conducive environment for hunger eradication efforts. Social safety net programs such as food aid, conditional cash transfers and targeted food subsidies have been shown to be effective in reducing vulnerability to acute hunger [29][30][31]. Global experience shows that these programs are most effective when designed with the local context in mind and integrated with health and education services. Investments in rural infrastructure, especially roads, irrigation and storage facilities, directly increase agricultural productivity and reduce post-harvest losses that often reach up to 40% in developing countries. At the global level, frameworks such as the UN Sustainable Development Goals (SDGs) provide a platform for collective action and international coordination. The UN-ECOSOC (2024) report reveals that achieving SDG 2 on Zero Hunger requires an increased annual investment of \$265 billion over the next decade, emphasizing the scale of the challenge and the need for greater global commitment.

An integrated approach that incorporates these various dimensions is particularly important given the systemic nature of hunger. Isolated individual interventions, such as increased food production alone or emergency food aid without system strengthening, tend to produce short-term

and unsustainable impacts. Studies by Thow (2024) and Tirado et al., (2022) identify that the most successful food security programs are those that integrate interventions across sectors, including agriculture, health, education and social protection. Such an integrated model allows for synergies between programs and maximizes impact on the multiple dimensions of hunger and malnutrition.

In the context of overall well-being, hunger eradication cannot be separated from efforts to improve mental health and psychosocial well-being. Recent studies by Cain et al., (2022) and Wolfson et al., (2021) reveal a strong link between food insecurity and increased stress, anxiety and depression. Constant worry about access to food creates a significant psychological burden, reducing overall quality of life. A holistic approach to addressing hunger needs to include psychosocial support and creating an environment that reduces the stigma associated with dependence on food aid. Supportive communities, empowering nutrition education, and programs that respect the dignity of beneficiaries are essential components of a hunger eradication strategy that prioritizes overall well-being.

Climate resilience is also a crucial component of contemporary hunger eradication strategies. Climate change threatens global food production through increased frequency and intensity of extreme weather events, changes in rainfall patterns, and increases in average temperatures. Research by Baldos et al., (2020) projects that without significant adaptation, climate change could reduce global agricultural yields by up to 25% by 2050. Integrating climate-resilient agricultural practices such as agro-forestry, efficient irrigation, and the use of climate-adaptive crop varieties is critical to ensuring long-term food security. Jena et al., (2023) demonstrated through case studies in different ecological regions that farmers who adopt climate-resilient agricultural practices are not only able to maintain productivity under changing climatic conditions but also increase their household income and food security.

## 5 Conclusion

Effective hunger eradication strategies must consider the complexity of the problem and the interconnections between nutrition, health and overall well-being. A holistic approach that includes sustainable food systems, technological innovation, community empowerment and supportive public policies is key to comprehensively addressing hunger and improving quality of life. The success of this strategy requires strong political commitment, adequate investment and active participation from a wide range of stakeholders including governments, the private sector, civil society and the international community. With this integrated approach, the vision of a world without hunger and with optimal well-being for all can become a reality in the coming decades.

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