

ASPECTS OF FOOD SECURITY

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Abstract. *The quest for security has accompanied humanity throughout its evolutionary development, from the Stone Age to the present day. Security is identified with a state of protection, with the physical and moral survival of the individual, with their freedom and rights, and with their spiritual and social development. This defines the multifaceted nature of the concept of “security,” which centers on the individual and society. Human security has many dimensions, of which food security is vital. Given its significance, the management of food security is a matter of state policy and national security. This article traces the origins, evolution, and current state of food security on a global, European, and national scale.*

Keywords: Food security; FAO; IPC

1. INTRODUCTION

The pursuit of security has become a primary concern and goal. It has accompanied humanity throughout its evolutionary development, from the Stone Age to the present day. Security is identified with a state of protection, the physical and moral survival of the individual, their freedom and rights, and their spiritual and social development. This defines the complex nature of the category of “security,” whose subjects are the individual and society. Human security has many dimensions, of which food security is vital, because without constant access to safe food and drinking water, human existence is unthinkable.

The diversity of human needs and their hierarchical arrangement are the subject of the scientific interests of the American psychologist Abraham Maslow (1908–1970). According to him, the needs at the lowest level (physiological needs—water, food, shelter) must be fully satisfied before moving on to the next levels. Food security ensures that the population has access to sufficient safe food and drinking water.

U.S. President Franklin Roosevelt played a significant role in food policy and security in the aftermath of the Great Depression. In his speech to Congress (1941), he articulated the principles of the Four Freedoms, which were subsequently adopted by the UN General Assembly (1948) in the Universal Declaration of Human Rights:

- freedom of speech;
- freedom of religion;
- freedom from want;
- freedom from fear. (Roosevelt, 1941)

2. THE EVOLUTION OF FOOD POLICY AND THE ROLE OF THE FAO

Following the Great Depression, Franklin Roosevelt launched the New Deal program, which included reforms related to food security and the country’s economic development. The main priorities of this program were: support for the agricultural sector, agricultural subsidies, reducing unemployment, and social security. For President Roosevelt, food and economic security were the foundation of national security, without downplaying the role of military security.

In 1945, in Quebec City, Canada, a specialized agency for food and agriculture (FAO) was established under the United Nations, which launched a global campaign against hunger. Currently, the organization is headquartered in Rome and has 195 member states.

The main tasks of the FAO are as follows:

- leading the international fight against hunger;
- monitoring and improving international food security;
- analyzing, improving, and coordinating the development of sectors—land and water resources, agriculture, forestry, and fisheries.

The activities of the Food and Agriculture Organization are carried out through its departments (Table 1).

Table 1: FAO Divisions

№	Department
1.	Agriculture and Consumer Protection
2.	Biodiversity
3.	Land and Water
4.	Climate
5.	Fisheries and Aquaculture
6.	Forestry
7.	Economic and Social Development
8.	Cooperation and Management of Programs for Sustainable Agricultural Development and Food Security

Compiled by: the authors

3. MEASURING FOOD SECURITY: INDICATORS AND THE IPC CLASSIFICATION

The analysis of the state of the food crisis in a given region (country) uses the following indicators:

- Food Security Phase Classification (IPC);
- analysis of extreme food and water needs;
- capacity and response for humanitarian aid.

The UN's Integrated Food Security Phase Classification (IPC) includes five phases of food security (IPC Global Partnership, 2021) (Table 2)

Table 2: UN Classification of Food Security

#	Phases	Description
1.	Minimal	Households meet their basic food and non-food needs
2.	"Stress"	Households have reduced food consumption but can still afford food
3.	"Crisis"	Food shortages, reduced availability, and malnutrition
4.	"Emergency"	Severe food and drinking water shortages, malnutrition, and disease
5.	"Disaster"	Extreme lack of food, water, and social assistance. Death

Adapted from IPC Global Partnership (2021) by the authors

4. FOOD SECURITY AS A HUMAN RIGHT AND INTERNATIONAL COMMITMENTS

Article 25 of the Universal Declaration of Human Rights, adopted by the United Nations General Assembly (1948), states:

“Article 25: Everyone has the right to a standard of living, including food, clothing, housing, medical care, and necessary social services, that is necessary to maintain his or her health and well-being and those of his or her family.” (United Nations General Assembly, 1948, Art. 25)

To combat acute food crises, the Global Network Against Food Crises (GNAFC) was established to coordinate efforts to prevent and address them. It is an international organization whose members include the United Nations, the World Bank, governments, the European Union, and non-governmental organizations. Each year, the organization prepares reports on acute food crises caused by military conflicts, climate-related disasters, and economic crises. These reports serve as the basis for making urgent decisions and taking action in regions affected by food crises.

The international community has committed to ensuring an adequate standard of living for every citizen of the planet through the International Covenant on Economic, Social and Cultural Rights, adopted in 1966 by the UN General Assembly and entered into force in 1976. To date, this covenant has been ratified by 171 countries. Article 11, paragraph 1 of this covenant states: “the right to an adequate standard of living, including adequate food, clothing..., as well as the continuous improvement of living conditions.” (United Nations General Assembly, 1966, Art. 11)

At the FAO World Food Summit (1996), food security was defined as “a state in which all people, at all times, have physical, economic, and social access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life.” This forum also established World Food Day, which is observed annually on October 16 and is dedicated to the fight against hunger worldwide. The United Nations World Food Programme (WFP) plays an active role in combating food crises in various regions and has therefore been awarded the Nobel Peace Prize.

In 2000, the United Nations, with the participation of 191 member states, adopted eight Millennium Development Goals. The main ones were to combat hunger, poverty, inequality, and disease by 2015. These goals became the basis for establishing 17 Sustainable Development Goals (SDGs) with a target date of 2030. The elimination of extreme poverty and hunger stand out as the leading sustainable development goals.

Food security is linked to access to sufficient safe food and drinking water, which are essential for human health. Access to water and nutritious food is a fundamental human right.

Food security has four main pillars:

- Physical availability.
- Economic accessibility.
- Biological accessibility.
- Stability and consistency in availability.

5. THE FOUR PILLARS OF FOOD SECURITY

Physical accessibility means access to sufficient quantities of food. The sufficiency and availability of a diverse food supply are linked to global climate change. Food must be accessible to everyone, regardless of whether it is sourced from the domestic market and/or imported.

Economic accessibility means that people must have the financial means to secure the necessary amount of nutritious food. Price fluctuations in global markets can threaten food security. A surge in food prices could push more than 1 billion people into malnutrition and extreme poverty.

Biological sufficiency refers to each person’s need for an optimal amount of nutrients to sustain life, which includes an energy intake appropriate to their physiology and age. Biological access to food is also linked to food and water safety and all of the requirements listed above. Climate change increases the risk of gastrointestinal diseases, zoonoses, and food poisoning.

The fourth pillar of food security is the stability, consistency, and availability of food at all times, without the risk of shortages due to financial or political reasons. The stability of food supplies is influenced

by climate change and the seasonality of agricultural production. Threats to the stability and consistency of food availability will increase with population growth, and this could destabilize global food security. The struggle for drinking water and food, driven by climate change, has the potential to cause a serious collapse of the food system and to intensify the trend of migration of hungry and thirsty people from the impoverished South to the wealthier North.

The four pillars are interconnected, and their goal is to ensure that everyone on the planet has access to sufficient quantities of high-quality food.

According to the FAO, 60% of the population faces food insecurity for the following reasons:

- a mismatch between the increased natural population growth and the limited food resources;
- 3 billion people do not have access to a healthy diet;
- 40% of the population suffers from water scarcity;
- climate change;
- soil erosion.

Even Europe is threatened by a food crisis due to climate change, natural disasters, and strained relations between some countries. The Scandinavian countries rank among the world's leaders in food security. In these countries, only 15% of household income is spent on food, while at the other end of the spectrum are countries like Nigeria, where about 60% of family income goes toward food.

According to the FAO (2024), in 2024, approximately 1.7 billion people were affected by low crop yields due to soil degradation and ecosystem threats. Global food prices rose by an average of 4.3% in 2025 compared to 2024. Global prices for vegetable oils and dairy products have risen. The crisis in the dairy sector is caused by a 25% drop in production, while high energy costs are driving up vegetable prices.

The Food and Agriculture Organization (FAO), with its mission to ensure the sustainability of food and agricultural systems, has defined 10 elements of agroecology.

The first group consists of environmental measures and includes:

- diversification and variety of crops and livestock;
- knowledge creation, sharing, and innovation in agriculture;
- positive interactions (in crop and livestock farming);
- reducing dependence on external resources;
- circular economy (closing the cycle of food, materials, biomass, and water);
- resilience to pests and climate change.

The second group consists of socio-economic issues:

- a focus on the health and working conditions of farmers and rural communities;
- support for healthy eating, local foods, and traditions;
- the establishment of transparent policies regarding access to land, water, and markets;
- the circular economy (connecting producers and consumers).

There is a correlation between food insecurity and poverty (Table 3)

Table 3: The world's poorest countries facing food crises

#	Country	The cause of the food crisis	GDP (in bill. \$)	Population (in mill. people)
1.	South Soudan	Political instability	29,9	11,1
2.	Burundi	Underdeveloped agriculture	2,15	13,4
3.	Central African Republic	Abundant natural resources, political instability	3,03	6,0 (80% starving)
4.	Malawi	Weak agriculture, drought	10,78	21,5
5.	Mozambique	Terrorism,	24,55	34,5

		natural disasters		
6.	Somalia	Civil War, Piracy	13,89	19,0
7.	DR Congo	Economic crisis	79,24	104,0 (60% of the population is under 1,5\$ per day)
8.	Liberia	Civil war, epidemics	5,05	5,4
9.	Yemen	Civil war, a devastated economy	16,22	34,4
10.	Madagascar	Natural disasters, underdeveloped agriculture	18,1	30,3

Compiled by: the authors, based on World Bank (2024) data.

The following conditions are observed in the countries listed:

- a population explosion (rapid population growth);
- underdeveloped agriculture, whose output is unable to meet basic food needs;
- water scarcity;
- political instability;
- natural disasters;
- economic crises.

Food security is becoming a critical global issue for the following reasons:

- more than 295 million people in 53 countries suffer from acute food insecurity due to a severe lack of food, drinking water, and social assistance;
- over 10% of the population is undernourished;
- 820 million people are victims of chronic food insecurity;
- over 1.9 million are on the brink of starvation. [Annual Report of the Global Network Against Food Crises, 2025]

In 2026, food insecurity is on the rise in Asia and Africa due to disrupted food supply chains; crises in the supply of raw materials for fertilizers; dependence on grain imports from Ukraine; military conflicts (Russia-Ukraine; the Middle East and Africa); and a slowdown in global economic growth.

According to the UN World Food Programme, over 45 million people are at risk of mass starvation. The risk of food crises has increased in Sudan, Yemen, Ethiopia, Nigeria, Haiti, and other countries. Sudan relies on imports for 80% of its grain supply.

Some of the world's poorest countries—Sri Lanka, Pakistan, Kenya, and others—are dependent on fertilizer supplies for food production. In these countries, food prices are rising to levels where 80% of the population is unable to secure sufficient food intake.

The war in the Middle East is having a cumulative effect, not only on energy prices but also on the global economy.

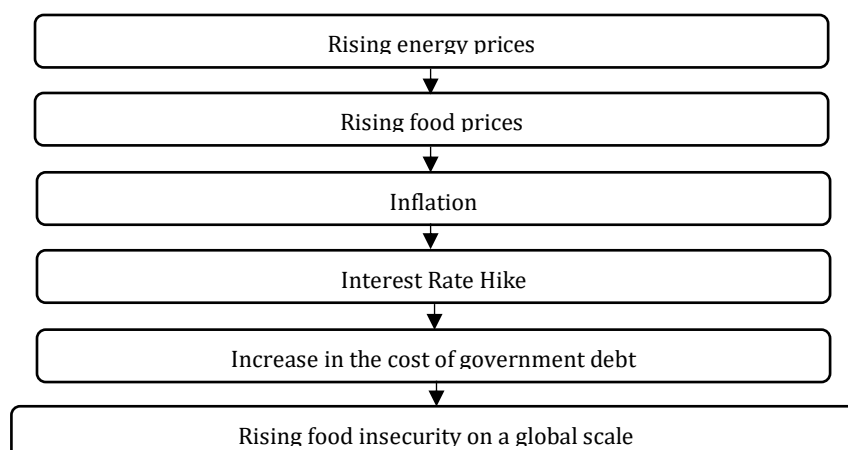


Figure 1: Economic Impact of the War in the Middle East on the Global Economy and Food Insecurity

7. FOOD SECURITY IN THE EUROPEAN UNION AND BULGARIA

Ensuring food security requires not only sufficient food supplies but also food safety, which involves strict controls over production, processing, and storage throughout the food chain, “from farm to table.”

According to the European Union, the key factors for quality of life are:

- food security and sustainable agriculture, which ensure affordable, healthy, and safe food by promoting the production of high-quality agricultural products;
- nature conservation and the protection of water resources.

The measures listed above, which relate to food security, are set out in the European Union’s Strategic Agenda for 2024–2029. (European Council, 2024)

There are over 9 million farms in the European Union, employing over 17 million agricultural workers. The food industry is the largest manufacturing sector in the EU. It provides employment for 4.6 million people. The sector is the world’s largest exporter of agricultural and food products.

The European Union’s priority areas related to food security are:

- building a sustainable food system;
- safeguarding the EU’s food independence;
- ensuring food safety;
- supporting sustainability throughout the food chain;
- a civil protection plan for climate-related disasters.

Bulgaria’s food security is linked to ensuring that food is physically and financially accessible to every Bulgarian citizen. The National Development Program 2030 (Ministry of Finance of the Republic of Bulgaria, 2020) emphasizes the sustainable development of agriculture, which will ensure that the population has access to affordable food.

The wars in the Middle East and Ukraine pose a serious threat to national food security. Rising prices for energy resources, agricultural fertilizers, and plant protection products inevitably drive up food prices, making food less affordable. Domestic food production is unable to meet food needs, necessitating imports. The Commission for Protection of Competition warns that the number of farms raising cows, sheep, and goats is drastically declining. (Mazganova, 2026) This threatens meat and milk production, causing prices for these food products to rise and their availability to decline. According to K. Vatev, our country’s food security is at enormous risk for the following reasons:

- domestic production of agricultural seeds is less than 5%;
- Bulgaria is dependent on imports of fertilizers and plant protection products;
- vegetable production is declining in favor of industrial crops. (Vatev, 2024)

The main challenges to Bulgaria’s food security are as follows:

- organizational and structural problems in the agriculture and food industry sectors;
- expensive energy sources, fertilizers, and plant protection products, resulting from military actions in the Middle East that threaten logistics;
- climate change;
- the inability of Bulgarian agricultural production to meet the food needs of the population;
- political instability and a lack of continuity in agricultural and food industry policy;
- the country lacks a long-term food security strategy to achieve self-sufficiency in staple foods for the Bulgarian population;
- the country needs to establish a system of continuity in the bioeconomy, particularly with regard to expanding the production of environmentally friendly agricultural and food products. (Nikolova-Alexieva & Valeva, 2019)

8. CONCLUSION

Global population growth, climate change, soil erosion, water scarcity, and military and civil conflicts pose enormous threats to food security. Given its significance, managing food security is a matter of public policy and national security. Finding optimal solutions to these problems has become a primary task for humanity.

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