

## STUDIES CONCERNING WORLD, EUROPEAN AND NATIONAL FOOD SECURITY

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### Abstract

The term food security appeared in the interwar period and over time there have been numerous attempts to define the notion. At global, European and national level, food security policies are regulated by a number of institutions and organizations with a supervisory, guiding and controlling role. The most important institutions dealing with food security regulation worldwide are: WHO, FAO, IFPRI, at European level: European Commission, Council of the European Union and European Parliament, and at national level: MADR, ANPC, ANSVSA and the Ministry of Health. Food insecurity is a prolonged lack of “sufficient safe, nutritious food to maintain a healthy and active life” (FAO, 1996) and is generally caused by extreme poverty. In the context of food security, extreme poverty is synonymous with acute food shortages. The factors can be varied: from high prices, to economic recessions, natural disasters, political unrest and violent conflicts. Two thirds of the world's population vulnerable to food insecurity live in African countries, or in countries with a large population such as: India, Bangladesh, Indonesia, Pakistan. In these countries, food security is correlated with both poverty and the many conflicts, we can add here environmental pollution, limited access to water resources. Regarding Romania, the agri-food stability is influenced by a series of factors starting from the reduction of the available agricultural areas, the precarious endowment of the Romanian farmer. A possible food crisis in our country will be generated, most likely by a mismanagement of an already existing vulnerability.

**Key words:** food security, vulnerability, agri-food stability, food crisis

The aim of interventions to stop food insecurity is to give the right to life and reduce vulnerability in the affected community, where programs to prevent and combat food insecurity will aim to increase the availability, accessibility and usefulness of safe and healthy food. More specifically, this involves supporting primary food production - agriculture, animal husbandry and fish farming (Brown L., 2000). These programs can also generate paid activities and jobs. In some cases, maintaining or sustaining access to the agri-food market by building motorways that facilitate trade between producers and consumers could become another solution in the event of a food crisis.

At present, social assistance programs are more focused on direct food aid. Food security assessments do not differ in purpose and methodology from assessments in general, but they focus more on analysis, ie by what means individuals strive to ensure their own food security and the extent to which they manage to achieve it.

The overall objective of a food security assessment is to measure and understand the

degree of food insecurity. It is therefore important to determine whether external intervention is needed to enable those affected to find themselves within the limits of a short- or long-term sustainable food security.

### *Global and European food security approaches*

In all food security assessments, the situation of each monitored group should be clarified in order to predict an imminent food crisis or the duration of an insecurity situation. More precisely, it must be established what resources they have, how much arable land, pastures, animals, labor. Food security is not necessarily static. It may also exist in cases of seasonal fluctuations under normal conditions in terms of availability, access and utility. It is important to note that for each situation of food insecurity, specific and particular means are intervened on that situation and state intervention is not always mandatory. Ensuring food security for a global population of 7.6 billion, and an estimated 9 billion by 2050, is a major challenge from a climate change perspective.

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Agriculture has always been considered the interface between the environment and human activity, and therefore has the "solution" for substantial interventions in two of humanity's global problems: food security and maintaining a stable climate. The world population reached 7.6 billion people in 2018, more than double the level of 1960 (FAO, 2018). A recent report by FAO, IFAD, UNICEF, WFP and the WHO estimates that, despite significant population growth, the share of malnourished people in the world has fallen from 14.7% in 2000 to 10.8% in 2013, but has risen again, at 11% in 2016. Studies show that by 2050, when the world's population will exceed nine billion people and food production will have to increase by 70% (FAO, 2018), climate change could obstruct efforts to ensure global food security. Thus, any event related to climate change, being demonstrated by several studies that climate variability threatens food security through negative effects on crop productivity endangers food security.

Agriculture is an important component of the national economy. The development and efficiency of agriculture has contributed to increasing the purchasing power of the population as a result of cheaper food (Istudor N., 2019). Economic growth is a necessary condition, but it is not enough to eradicate poverty and malnutrition, whatever the stage of development. An appropriate economic and social policy is absolutely necessary to achieve the level of general access to food.

The EU currently produces much more expensive food than the US because the subsidy is in addition to the normal cost of production and thus food has a high social cost and low competitiveness in the international market.

Globally, the issue of food security is largely accounted for, analyzed and managed by the United Nations, which has set up institutions and bodies with expertise in the field of agri-food.

FAO - Food and Agriculture Organization of the United Nations provides information and support on the state of the world in terms of food security, provides support where the situation requires it and helps implement measures through aid, long-term projects and emergency operations.

The Codex Alimentarius Commission has been involved in creating a system of rules and laws agreed both nationally and internationally. Codex Alimentarius is a global benchmark through a set of standards, codes and assessments for everything from the production process from the production of the raw material to the final product, from the general standards applicable to all foods to product-specific standards, or food.

At European Union level, there is a strong emphasis on regulating the use of additives and flavorings, controls to ensure compliance with standards, precaution and scientific advice - the European Food Safety Authority (EFSA), safety limits for both food contact materials, as well as for feed additives, veterinary medicines and plant pesticides, ensuring that they are safe for humans, animals and the environment.

The first to talk about food security in Romania is Bulgaru Mircea, who in his book "The Right to Eat", defines food security as a fundamental human right and as an integral part of national security. He believes that it is the duty of governments to ensure the food security of their populations, to respect the right to life of every individual (Bulgaru, 1996).

## MATERIAL AND METHOD

In the research we used online versions of several journals, brochures and book volumes to analyze the perspectives of different authors on the notion of food security.

Quantitative research is carried out by the method of observation and by the procedure of analysis of statistical data (secondary data), which covers the national level and the international or global level.

All data used were taken from the official websites of organizations, ministries and governments.

## RESULTS AND DISCUSSIONS

The indicators established by the FAO with regard to food security in the light of the four major dimensions of this notion are:

- Availability;
- Access;
- The use;
- Stability.

The indicators will be covered according to their classification within one of the 4 dimensions of food security, will be explained as a notion, calculation method and information used and where there is data in this regard will be compared the values of indicators in Romania with the values global indicators for the period 2016-2019.

Food availability at national, regional or local level exists when food is physically available because it has been produced, processed, imported or transported. Availability means that the food is visible and exists in the region.

Food accessibility is how individuals can obtain available food. Obviously food becomes accessible through production, stock, purchase, exchange, supply, loan or food aid.

Therefore, the accessibility of food is guaranteed by resource-income, financial resources, the distribution of this income and the price of raw materials. Accessibility also depends on social, institutional, commercial, protection and social assistance rights.

Food utility is how individuals use food and it depends on their quality, stock, production and basic nutritional principles. Food utility is influenced by endemic diseases, poor hygiene or age or sex.

Food stability is the reliability and stability in the food distribution chain from one year to the next. This notion refers to both the stability of production and the stability of access.

For the second year in a row, Singapore, Ireland and the United States have retained their top three food security leaders.

Table 1

**Top 5 food security leaders**

Top five countries	Food security score (out of 100 points)
1. Singapore	87.4
2. Ireland	84.0
3. United States	83.7
4. Switzerland	83.1
5. Finland	82.9
6. Norway	82.9

For the first time in the history of this index, Singapore occupies the first position in GFSI 2018. Singapore is here partly due to the growth of about 30% of GDP per capita in the period 2012-2018, as well as the share of only 6.9% of the average expenditure allocated by a household for the purchase of food - the accessibility of food is very high. Beyond GDP growth, Singapore, of all the countries analyzed by this index, has the lowest tariffs on agricultural imports.

GFSI 2019 reveals that almost all countries in the index (88%) have a sufficient source of food for their population. However, according to the Food and Agriculture Organization's report on the state of food security and nutrition in the world, more than 820 million people in the world are hungry.

This is a problem not only in a few selected countries, but also in many countries around the world: more than a third of GDP countries show that more than 10% of their population is malnourished.

The Global Food Security Index 2019 also showed an increase in global food prices, with the strongest increases observed in Venezuela and Syria, stressing the need for greater efforts to make nutritious and quality food more affordable, accessible to lower-income populations.

In 2019, Romania ranks 38th in the world, with a total score of 70.2 out of 113 countries included in the Global Food Security Index (GFSI), a report written by the research division The Economist Intelligent Unit and supported by Corteva Agriscience.

The 38th place in the world is due to access to food, food quality and food insecurity prevention programs. Romania ranks 38th in the Global Food Security Index 2018 (GFSI) ranking, with a total score of 68.9 points - an improvement of one point compared to 2017, among the three criteria analyzed, our country obtaining the best score for Food quality and safety (32nd place in the world), followed by Food Availability (35th place) and Accessibility (43rd place). According to the report for 2019, in Romania there is an increase in food standards, the existence of a guide for a healthy diet and the presence of a plan to improve national quality and food safety standards, as well as a relatively low level of food waste. We have potential for the development of food infrastructure and irrigation capacity, but we do not have favorable scores in terms of agricultural research and the development of local infrastructure for which few funds are allocated. At the level of 2016, Romania was on the 42nd place in the world with a total score of 65.5, while 2017 and 2018 marked the rise and maintenance on the 38th place with the general scores of 75.2 for 2017, respectively 74.5 for 2018 (FAO, 2018). Food stability through food security policies at sectoral level has seen a major change, represented by the continuous reporting to the Common Agricultural Policy. Romania's food security is affected by a series of risks and threats, unmanaged economic crises, diminishing vital economic resources due to the lack of projects for the reconstruction of critical infrastructures or the tendency to monopolize substantial parts of natural resources (Table 2).

Poverty or social exclusion is another potential trigger for food insecurity, soil degradation, climate change. Agri-food stability is also influenced by the evolution of international markets, there is a trade disadvantage compared to EU products, as there is a dependence on imports. Romania's foreign security is already affected not by the lack of food but by the increase in imports, the decrease in the level of consumption in domestic production and the lack of a coherent strategy for sustainable development. I believe that Romania has all the chances to be among the countries with a precarious food security through low agricultural production, the constant increase of prices superimposed on a low purchasing power, which makes the massive segments of the population not afford to monthly income to

provide the necessary food for a quality life. We have the potential for the development of food infrastructure and irrigation capacity, but we do not

have favorable scores in terms of agricultural research and the development of local infrastructure for which few funds are allocated.

Table 2

Food security ranking

Ranking	Country	2019			
		Overall Score	Accessibility	Availability	Quality and Safety
1	Ireland	84	90.5	76.8	87.7
2	Switzerland	83.1	83.8	84.3	78.2
=3	Finland	82.9	84.1	78.6	91.8
=3	Norway	82.9	81.9	81	90.5
5	Sweden	82.7	85	78.1	89.4
6	Netherlands	82	85.6	76.2	88.9
7	Austria	81.7	85.4	78.6	81.1
8	Germany	81.5	84.9	79.1	79.8
9	Denmark	81	85.4	74.8	87.2
10	Belgium	80.7	84.4	76.2	83.9
11	France	80.4	83.8	74.8	87.1
12	UK	79.1	83.6	74.4	80.9
13	Portugal	77.8	81.3	70.9	88
14	Italy	75.8	82.5	68.3	79.7
15	Poland	75.6	81.1	69.3	79.5
16	Spain	75.5	82.3	65.9	84.7
17	Greece	73.4	77.8	64.9	86
18	Czech Republic	73.1	82.6	66.3	68.1
19	Hungary	72.7	80.8	66.1	70.5
20	Belarus	70.9	76	62.9	80.2
21	Romania	70.2	79.3	64.3	64.1
22	Russia	69.7	79.8	60.1	70.9
23	Slovakia	68.3	78.6	62.1	59.4
24	Bulgaria	66.2	79	54.2	66.8
25	Serbia	62.8	73.9	53	61.8
26	Ukraine	57.1	63.9	50	59.6

Source: FAO Food Security Index

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## CONCLUSIONS

Food insecurity is a prolonged lack of “sufficient safe, nutritious food to maintain a healthy and active life” (FAO, 1996) and is generally caused by extreme poverty. According to

INS calculations, it is estimated that Romania's population will decrease, which will bring with it serious problems related to labor force and production capacity. In our country 45.7% of the population lives in rural areas and 30% of the population works in agriculture compared to the EU, which has a rural population of 23.6% and an employed population of up to 14%.

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