

## COVID CRISIS AND THE NEED TO ENSURE FOOD SECURITY AND SAFETY IN THE E.U.

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### ABSTRACT

Food security is one of the main problems that humanity has faced throughout its existence, it is generally analyzed globally, although it is rather a major problem in national security, along with economic, financial or demographic security. It is defined as the ability of the state and society to ensure the availability of food for its entire population in sufficient quantity and quality to ensure an active and healthy life. On the other hand, food security, as defined by the FAO it refers to the access of people from all times to nutritious and safe foods, which should meet both their needs and food preferences in order to ensure an active and healthy life.

In this paper we aim to analyze how the COVID-19 crisis has influenced food security and safety, but also to justify the need to ensure their local and regional level. The data underlying the study are part of statistics from FAO, Eurostat and the National Institute of Statistics. The indicators used were the self-sufficiency rate, for the main food categories, both for Romania and for the E.U. and share of non-regular and employed farm labor. Based on the study, conclusions were drawn regarding the risk due to of COVID-19 on food safety and security.

**Keywords:** food safety, food security, agriculture, COVID-19.

### INTRODUCTION

As early as 1789 Thomas Malthus states in his work entitled "Essay on the Principles of Population" that "the need of the population is much greater than the power of the earth to produce the means of subsistence for man" (Hofman, 2012), economic thinking, the issue of the emergence of a food crisis generated by the development of the modern world. Subsequently, these ideas were developed, discussed and became the basis of the concepts of Food Security and Food Safety (Alexandri and Luca, 2016). At present, food security is closely linked to the terms of globalization and sustainable development, being part of human security and referring primarily to national security, and then to regional security or world security (Mărcuță et al., 2018). It refers both to direct risks related to the emergence of interstate conflicts, and to unconventional risks such as those related to population migration as a result of conflicts or economic problems, which result in economic migration that can

destabilize a country's economy or a geographical area.

At the level of the European Union, numerous measures have been taken over time that aim to reduce the "food risk, danger that is generated at local, national, regional level, both politically and economically by various political, economic, financial actions, etc.", but which is closely related to the "environmental risk" that is caused by human actions through intensive agriculture, industry development, deforestation, the use of polluting materials, but also natural causes (floods, drought, etc.) (E.U., 2017).

In this context, it is increasingly foreshadowed that the field of agricultural production is an area of strategic importance, which together with the field of national security (Grodea, 2017), will be the one that will ensure the food power of a state or a region, it being defined as "the ability of a state to meet the food security needs of its people, but also to ensure strategic food surpluses in order to guarantee its dominance in food and grain markets, in relation to countries that do not have this surplus or they

are discouraged from holding or using this type of power” (Agenda 21, 1992).

Amid the world population growing, which according to data from the U.N. report (U.N., 2019) will reach over 10 billion in 2050, amid the global food crisis, it is considered that one of the major features of the global world in the XXI century is food power which consists in ensuring control over food markets and ensuring commodities necessary.

In this context, the World Resources Institute emphasizes the need to move from a global model of food production and consumption to a model based on a global agricultural system that is connected to the principles of sustainable development and the requirements of ensuring human security follow the principle of cooperation between peoples and states in areas such as preventing food waste, combating pollution, combating desertification, converting salt water into drinking water etc. (Mărcuță et al., 2013).

Another concept that appears in the 2030 Agenda adopted by the U.N. member states is that of ”global governance” which refers to the collective management of the signatory states in areas such as combating poverty, underdevelopment, food waste, malnutrition, etc. (Agenda 21, 1992).

In this context, both national and regional security must be redefined in relation to food security, which must be based on economic, data and trade policies to capture and dominate food markets to eliminate the vulnerabilities specific to the century in which we live.

Romania, as a member country of the E.U. addresses the issue of food self-sufficiency in the context of its participation in the Common Agricultural Policy, but defines its own strategy in the European model of agriculture (Vasile et al., 2011). The self-sufficiency of agricultural production which is defined as the share of domestic consumption covered by domestic production (Romanian Academy, 2017), is considered as the main guarantor of food security of a country, hence important need to be given by Romania to this aspect.

## MATERIAL AND METHODS

The data underlying the article represent both the bibliographic study of the literature and the use of data that are part of the statistics of FAO, Eurostat and the National Institute of Statistics. The methods used were documentation, processing, analysis and comparison. The indicators were self-sufficiency rate, for the main categories of food products, both for Romania and for the E.U. and share of non-regular and employed farm labor. They were analyzed in dynamics, for the period 2015-2018. The obtained results were presented through the graphs, following their evolution in the analyzed period.

## RESULTS AND DISCUSSION

Every crisis whether it is economic, pandemic, generated by the occurrence of natural disasters, wars, etc. brings to the fore discussions related to food security, food sovereignty and the need to ensure self-sufficiency.

Analyzing the impact generated by the COVID crisis on agriculture, we can start from the premise that, at least for this year, 2020, the impact may be high in terms of input supply, given that the Chinese market has been a major supplier of chemical fertilizers, for example, this has hampered the supply of world markets given the restrictions on the movement of goods.

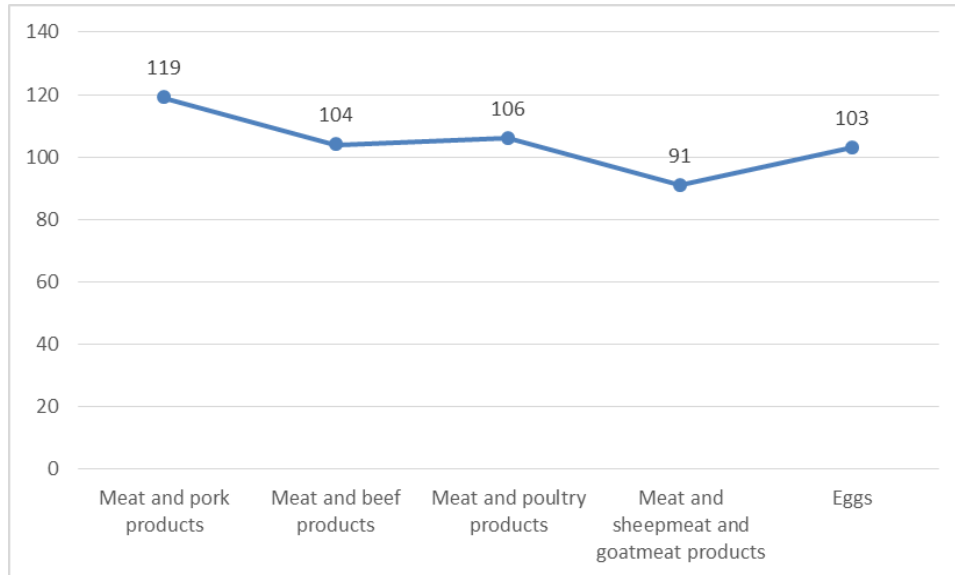
However, a major problem is related to the circulation of seasonal labor, which has made it difficult to work on farms in Western Europe. France, the Netherlands, Germany, Poland were the countries that imposed restrictions on labor movement, and this brought to the surface the social problems related to working conditions and incomes of seasonal workers.

Regarding the zootechnical production, in those agricultural exploitations in which the work is automated, the risks are low, the blockages being related again to the supply chain and to the sales one.

In order to follow the existing situation in Romania, but also at the E.U. level. We analyzed the Eurostat data, as well as the data provided by NIS.

At the E.U. level, there has been a high rate of food sufficiency for most states for decades. In 2018, the general self-sufficiency rate for animal foods was 103%. For meat and meat products, this rate was 122%. It is

thus found that the trade balance is positive, the only exception being represented by meat and sheepmeat and goatmeat products, for which the rate is 91% (Figure 1).

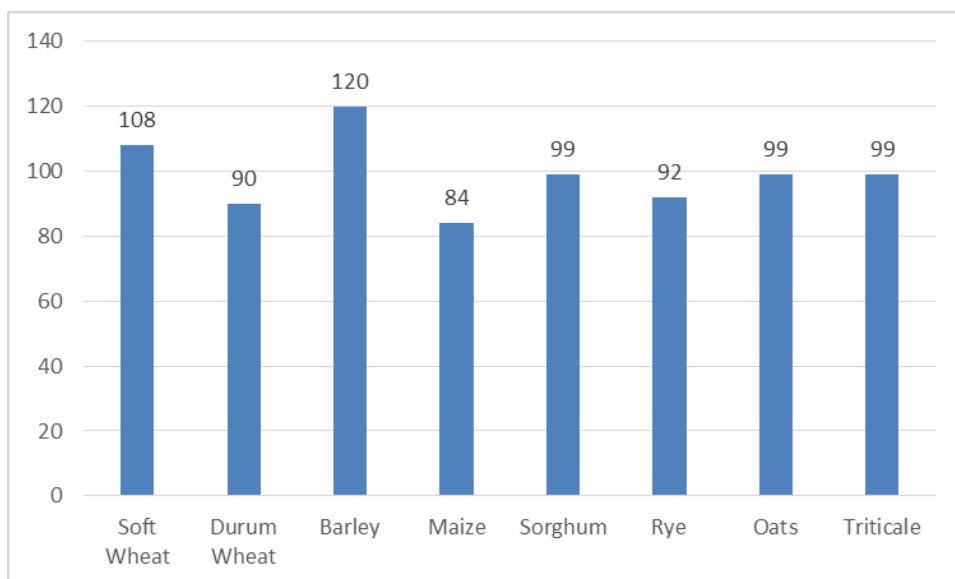


Source: own processing according to FAO data

Figure 1. The evolution of the level of self-sufficiency to the main food groups of animal origin in EU in 2018 (%)

For cereals, the self-sufficiency ratio in 2018 was 101%, which shows that the trade balance is close to zero for most categories of cereals. By cereal categories, the value of the rate is presented for the following graph. It is thus found that for soft wheat and barley they

cover the rate of 100%, in sorghum, oats and triticale the trade balance is negative. For durum wheat, maize and rye the rate has values below 100%, indicating a negative trade balance (Figure 2).



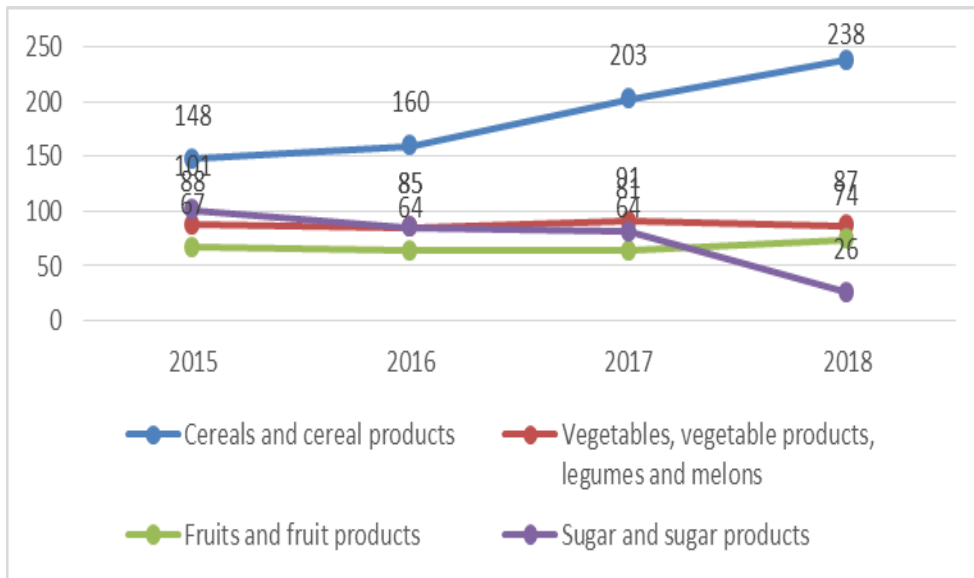
Source: own processing according to FAO data

Figure 2. The evolution of the level of self-sufficiency to the grain production in EU in 2018 (%)

In this context, there may be some deficiencies in providing the quantities of feed or raw material needed to obtain fuel. Also, a reduction in international trade may have the effect of increasing the prices of agricultural products.

In Romania, the self-sufficiency rate increased for cereals and cereal products by

90% in 2018 compared to 2015. However, the trade balance registered negative and decreasing values during the analyzed period for vegetables, vegetable products, legumes and melons, and also for sugar and sugar products. A negative balance was also registered for fruits and fruits products, with a slight improvement in 2018 (Figure 3).

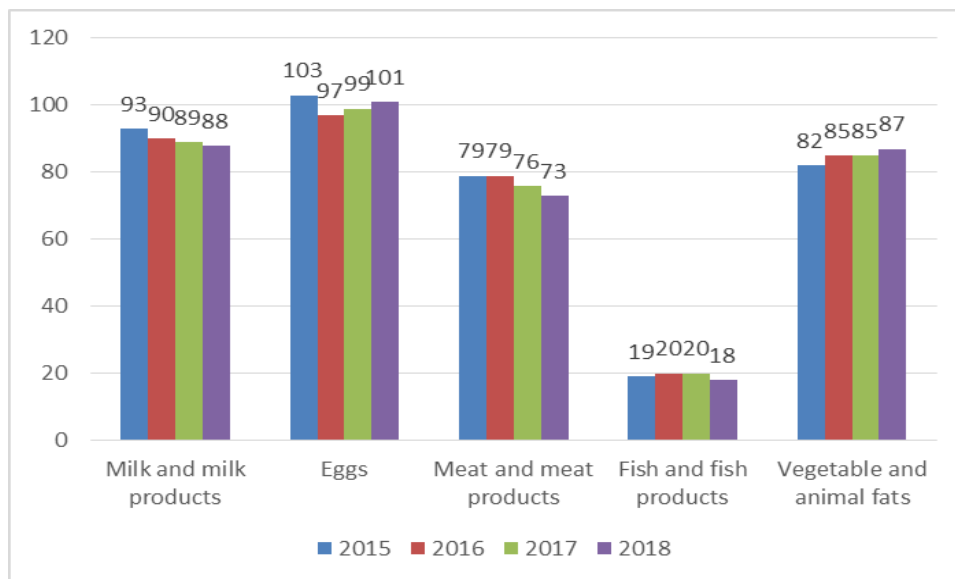


Source: own processing according NIS data, Consumer availability of the population

Figure 3. The evolution of the level of self-sufficiency to the main groups of vegetal food products in Romania (%)

For the main categories of food products of animal origin, the trade balance is negative in Romania in the period 2015-2018. The only products that register percentages of

over 100% being eggs with a self-sufficiency rate of 101% in 2018 and 103% in 2015. Only milk and dairy products are slightly closer to the rate of 100% (Figure 4).



Source: own processing according NIS data, Consumer availability of the population

Figure 4. The evolution of the level of self-sufficiency to the main food groups of animal origin in Romania (%)

The problem of food deficits in Romania cannot be solved in the short term. They can be covered by imports, but in crisis situations, such as COVID, there are certain restrictions that could endanger the movement of goods and the supply of the population. The solution is to increase domestic production. Romania, as a member state of the E.U., as part of the Common Agricultural Market cannot adopt support measures that distort markets. But punctual solutions can be found by stimulating production for certain categories of products, for certain cultures or categories of animals.

On the other hand, both nationally and in the E.U. a number of measures have been

taken to help support agriculture. Thus, at national level there have been increases in state aid, increasing the level of payments received in advance by farmers, extending the periods for submitting payment applications, financial support for various rural development programs, flexibility for the use of European funds or for programs, market support, maintaining supply chains or insuring seasonal workers.

Eurostat data show that the countries with the highest dependence on seasonal workers in the E.U. are Italy, Spain, the Netherlands, the United Kingdom, France, Greece, Belgium and Germany, followed by Romania (Figure 5).

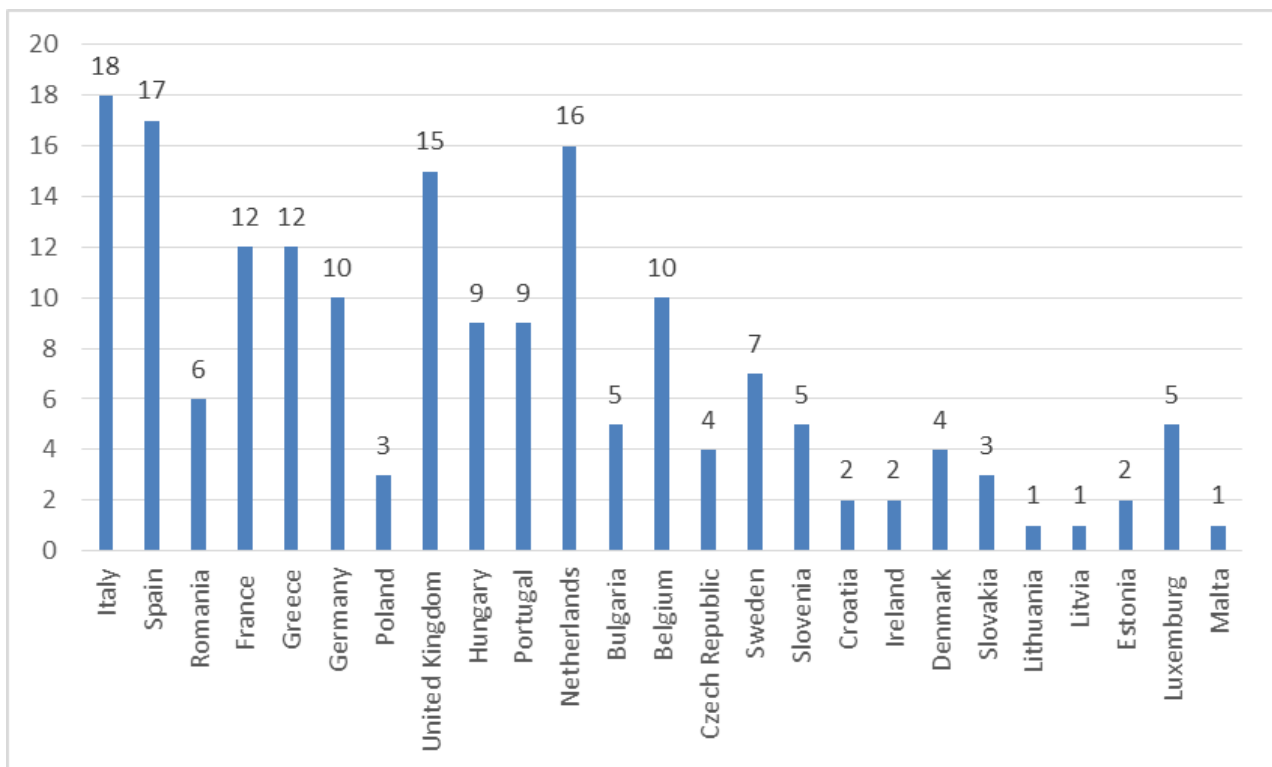


Figure 5. Share of non-regular and employed farm labour in the EU in 2018

The highest rates are 18% of labor units for Italy and 17% for Spain. Romania has a rate of 6%. The vulnerability of agricultural systems is also related to the existence of this seasonal workforce. For Western countries this seasonal workforce comes from Eastern European countries (Romania, Bulgaria, and Poland) and in conditions of pandemic crisis and with imposition of traffic restrictions it becomes a big problem.

## CONCLUSIONS

The analysed data shown that in COVID 19 crisis there were supply risks because value chains were long and complex. However, the ongoing crisis has also affected the sales of small farmers, who have faced problems resulting from changing consumption patterns on the one hand, and on the other hand related to access to markets as a result

of the introduction of restrictions on travel to these markets. Some farmers were also affected due to the reduction of the volume of activity in the HORECA field, which limited the deliveries to this sector.

Like the whole society and farmers, they had to find alternatives on the online market that would allow them to capitalize on production. For this, however, it would need additional financial resources, marketing knowledge, better business planning, so that it can adapt to current requirements.

It is clear that modern economic and political systems need to change profoundly, and this moment has been one of deep awareness of this situation. Although in the short term, the COVID crisis did not have severe effects on agriculture its prolongation could have more and more visible effects.

Although the effects of the pandemic crisis were generally negative, the pandemic also had some positive effects, these being related to the decrease of pollution, a signaled and measurable fact, to the change of way of thinking, which offered solutions to many problems that would otherwise have been considered impossible.

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