

FOOD SECURITY IN ROMANIA – BEYOND THE STATISTICAL DATA

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Abstract

This study highlights what statistical data hides in respect to food security in Romania. Even statistics show that food security is achieved; individuals are at various stages of food and nutrition insecurity. The objective of the study is to analyze food security beyond the statistical data that show an average trend, trying to answer the question whether all people have access to sufficient and nutritious food. The results show that 15 percent of people live with less than \$3 a day and they have limited dietary choices, which hide forms of malnutrition.

Key words: food security, nutrition security, malnutrition

Introduction

Ensuring food security and improved nutrition are ones of the goals of sustainable development, put forward at the 2030 Agenda for Sustainable Development of the United Nations (UN, 2015). Food security is an issue largely discussed in research papers, reports and official documents. FAO assesses the global progress towards reducing hunger worldwide and annually reports on the State of Food Insecurity in the World (SOFI). The terms food security, food security and nutrition, and food and nutrition security are used in ways specifically intended to make a distinction between food security and nutrition, or nutrition security.

Since 1996, when FAO defined food security as a situation “when all people at all times have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.” (FAO 1996), the definition of food security developed itself. The term nutrition has been added to food and, currently, FAO defines food and nutrition security as a situation when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life” (FAO 2011, p.10). The addition of the term nutrition has engendered new approaches where individuals are the key aspect of food related problems.

In Romania, the macroeconomic indicators show that food security is ensured (Istudor et al. 2014). Still, in rural areas, where people are poor, they have imbalanced diets, as forms of malnutrition. This raises the question whether nutrition security has really been achieved in Romania. Thus, the objective of this research is to analyze the food and nutrition security of the poor.

The hypothesis tested in this piece of research is: (H1) The problems of food security in Romania do not result from inadequate food supply, but from households’ lack of purchasing power. The hypothesis is in line with other findings. Alexandri (et al. 2015) pointed out that, although Romania has significant agricultural resources, it is one of the most vulnerable European countries from the point of view of its population’s food security. Romania’s problems related to food insecurity are given by the differences in the standards of living between the urban and rural areas (Alexandri, 2013). Ion and Popescu (2013) argued that food security is ensured in Romania, but only on average, without considering the extremes. This research analyzes the food security of the poor. In the first part, the indicators of food security and situation of the poor are presented. In the second

part of the paper, the food security indicators are analyzed and discussed in line with other findings. Finally, conclusions are drawn in relation to testing the research hypothesis.

1. Materials and methods

The issue of food security appraisal is broadly discussed in research papers and reports. FAO operates with a specific system of indicators to estimate the state of food security in one country (FAO, 2017). The most relevant indicators for this research, regarding Romania, are shown in Figures 1, 2 and 3. Three decades have been considered for analysis – 1990, 2000 and 2016 or 2013 or 2011, as the last statistical years with available data.

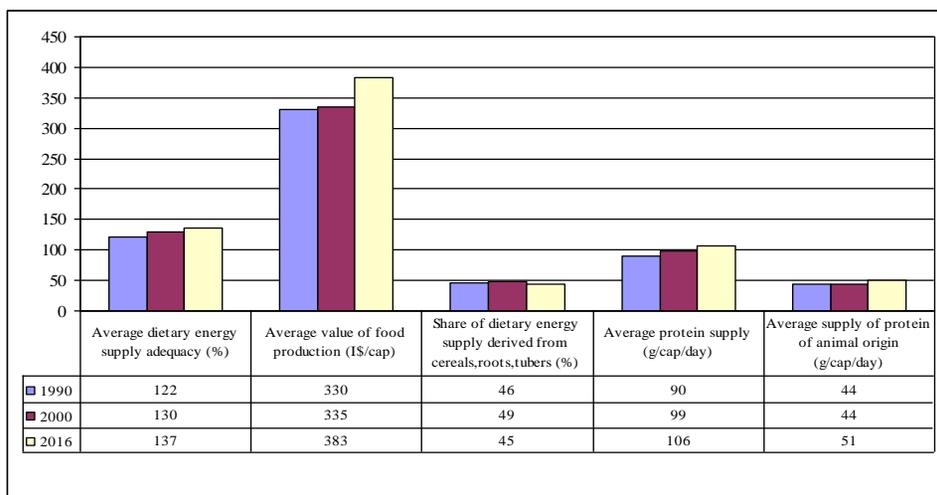


Figure 1. Food availability in Romania

Source: Food security indicators, FAO, 2017

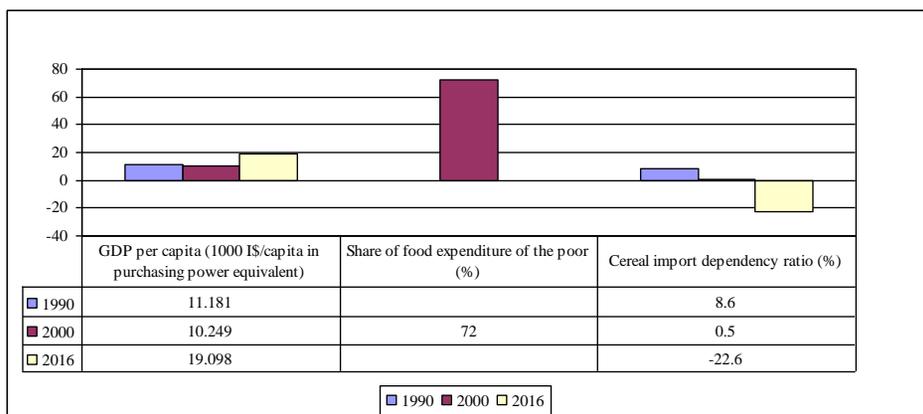


Figure 2. Food access and stability in Romania

Source: Food security indicators, FAO, 2017

Food availability in Romania is presented in Figure 1. It comprise, as main indicators, the average dietary energy supply adequacy, the average value of food production, the share of

dietary energy supply derived from cereals, roots and tubers, and the average protein supply.

The access group comprises indicators that show the economic and physical access to food and markets (Figure 2). The main indicators are the gross domestic product per capita and the share of food expenditure of the poor. Among the stability group of indicators, the cereal import dependency ratio is presented in Figure 2. It shows how much of the available domestic food supply of cereals has been imported and how much comes from the country's own production. Negative values indicate that the country is a net exporter of cereals.

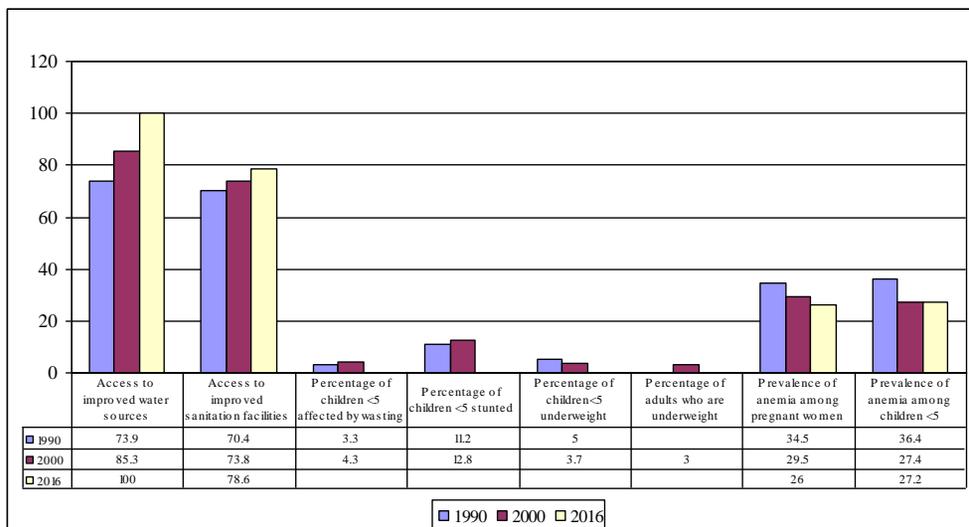


Figure 3. Food utilization in Romania (%)

Source: Food security indicators, FAO, 2017

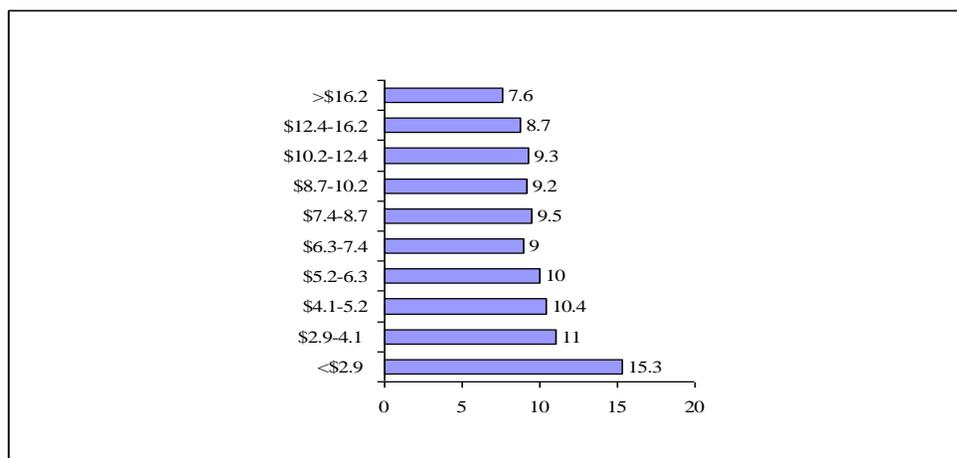


Figure 4. The shares of persons by groups of income, in Romania, 2014 (%)

Source: author calculations based on the Romanian Statistical Yearbook 2015, p.172

The main indicators of the utilization group are presented in Figure 3: the access to improved water sources, the access to improved sanitation facilities, the percentage of

children under 5 years affected by wasting, the percentage of children under 5 years stunted, the percentage of children under 5 years underweight, the percentage of adults who are underweight, the prevalence of anemia among pregnant women, the prevalence of anemia among children under 5 years.

The answer to the research question whether all people in Romania have physical and economic access to food should be searched in the number of people who live in poverty. Figure 4 illustrates the number of persons in groups of income, in Romania. The poorest people, who live on less than \$2.9 a day, account for 15.3 percent of the population, while the group of people who live on more than \$16.2 a day account for 7.6 percent. Almost fifty percent of the Romanian people live on less than \$6.3 a day.

2. Results and discussions

The average dietary energy supply adequacy is higher than 100 percent, which demonstrates that the dietary energy supply is higher than the dietary energy requirements. In 1990, the supply exceeded the requirements by 22 percent, in 2000 by 30 percent, and in 2016 by 37 percent.

The average value of food production has an upward trend, its values were I\$330/person in 1990, I\$335/person in 2000 and I\$383/person in 2013. The latter is higher in Romania compared to the average value of food production in the world: I\$311/person and of I\$272/person in developing countries, but lower than its value of I\$491/person in developed countries. In other European countries, the value of food production is I\$1084/person in Denmark, I\$938/person in Ireland, I\$795/person in the Netherlands.

The share of dietary energy supply derived from cereals, roots and tubers was 45 percent in 2011, down from 49 percent in 2000. It still has a high value that reveals the importance of carbohydrates in people's diet and low budget pattern of consumption. The value of this indicator is close to the world average of 52 percent and of developing countries of 56 percent. In developed countries, the share of dietary energy supply derived from cereals, roots and tubers is only 32 percent. We may argue that the pattern of consumption in Romania is not varied, since almost half of dietary energy supply comes from cereals, roots and tubers. This claim is sustained by the results of other studies (Alexandri and Luca, 2016), that revealed a deficient consumption in qualitative terms in Romania, due to the high share of calories from cereals and potatoes.

The average protein supply is 106 g/person/day, higher than FAO recommendations. About 10-15 percent of daily calories should come from proteins (FAO, WHO, 2003). It could be expressed as an average daily recommended intake level of 50 grams per person (Keats and Wiggins, 2014). Out of 106 g/person/day, 51 grams are protein of animal origin, higher than the average world consumption of 31 g/person/day and the average consumption of 25 g/person/day in developing countries. The average protein supply reveals the structure of the diet; about 50 percent of people's consumption of protein comes from meat, animal fats and products, milk and milk products, eggs, fish, seafood and aquatic products. The rest of 50 percent come from vegetal origin products, such as mushrooms, beans, peas, nuts, quinoa and other cereals.

The gross domestic product per capita in Romania is I\$19,098/person in 2016, up from I\$11,181/person in 1990. This indicator helps for evaluating the economic access of people to food. Compared to the world average of I\$14,463/person, the level of GDP per person, in Romania, is higher. Compared to the developed countries' average of I\$37,094/person, the level of GDP per person, in Romania, is much lower.

The share of food expenditure of the poor shows the proportion of food consumption over total consumption for the lowest income quintile of the population. Its level, in Romania, was 72 percent in 2003, close to its level in developing countries.

Among the stability group of indicators, the cereal import dependency ratio is presented in Figure 2. In Romania, its value is negative, except the periods 1990 and 2000, at the start of the transition to the market economy, when economical, social and political environment was unstable and countries consumed the national strategic reserve of cereals.

Some indicators of the utilization group are presented in Figure 3. In 2003, in Romania, 100 percent of population has access to improved water sources, and 78.6 percent has access to improved sanitation facilities. Both indicators are on upward trends, and they are higher than the world averages. Still, 21.6 percent of the population remains without access to improved sanitation facilities.

In 2000, 4.3 percent of children under 5 years old were affected by wasting, and 12.8 percent of children under 5 years old were stunted. Although these levels are lower than the world average, they were growing in the period under analysis, which shows the precarious situation, in particular in rural areas, where low income families do not have access to varied and nutritious food. In the same year, 3.7 percent of children under 5 years old and 3 percent of adults were underweight.

The levels of anaemia among children and pregnant women have downward trends, but still they register high levels of 27.2 percent, respectively 26 percent. The prevalence of anaemia is an important health indicator. Anaemia is a condition in which the number of red blood cells (and consequently their oxygen-carrying capacity) is insufficient to meet the body's physiologic needs (FAO, 2017). Anaemia has various causes. Iron deficiency is thought to be the most common cause of anaemia, but other nutritional deficiencies (including vitamin B12 and vitamin A), acute and chronic inflammation, parasitic infections, and inherited or acquired disorders that affect haemoglobin synthesis, red blood cell production or red blood cell survival, can all cause anaemia (FAO, 2017).

The data for prevalence of under nourishment, prevalence of vitamin A deficiency in the population, and prevalence of school-age children (6-12 years) with insufficient iodine intake have not been reported for Romania in Food Security indicators data base.

Previous research (Ion, 2017) established that the average consumption corresponds to a budget of \$3.28 a day, considering the average prices of food in Romania. Going back to Figure 4, 26.3 percent of people with incomes below \$4 a day are excluded from this pattern of consumption, because they spend about 72 percent on food (Figure 2), meaning \$1.08 for the first quintile of income and \$2.52 for the second one.

Conclusions

The study presents an analysis of food security in Romania. Considering the food security indicators, we draw the conclusion that food security is widely ensured in Romania, although there still are a number of poor people who live under the threat of food insecurity. This category of people, accounting for 15.3 percent of population, suffer of malnutrition, reported as lacking in micro and macronutrients, mainly caused by a lack of purchasing power. This conclusion validates the hypothesis: (H1) The problems of food security in Romania do not result from inadequate food supply, but from households' lack of purchasing power. Furthermore, the daily diet is not diversified, since almost half of it is based on cereals, roots and tubers.

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