FOOD INSECURITY PEOPLE FROM ROMANIA AND NEIGHBOURING COUNTRIES

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Abstract: *Food insecurity represents a pressing social and economic challenge in Romania and its neighbouring countries, affecting vulnerable populations such as low-income families, children, and the elderly. This paper aims to analyze the causes, consequences, and potential solutions to food insecurity in the region. Using recent statistical data, literature review, and case studies, the study highlights the impact of poverty, unemployment, social inequalities, and environmental factors on access to adequate nutrition. The findings reveal significant disparities between urban and rural areas and underline the urgent need for targeted policies, social programs, and community-based interventions. The paper concludes with recommendations to improve food security, emphasizing the importance of coordinated efforts at local, national, and regional levels.*

Key words*: food insecurity, poverty, social inequalities, public policies, community interventions*

INTRODUCTION

Food insecurity remains one of the most persistent and complex social challenges in Europe, particularly in regions where economic vulnerability, rural marginalisation, and social inequalities intersect. Although Romania and its neighbouring countries benefit from adequate national food supplies, a significant share of the population continues to experience insecure or inconsistent access to nutritious food. This gap between food availability and effective access reflects deeper structural issues related to poverty, affordability, and unequal distribution of resources. According to international datasets such as Our World in Data and FAO food security indicators, moderate or severe food insecurity affects millions across Eastern Europe, disproportionately impacting low-income rural households, children, and the elderly [20-24].

In Romania, rising living costs, rural–urban disparities, and limited purchasing power remain key determinants of food insecurity. Similar patterns are observed in neighbouring states such as Bulgaria, Serbia, Moldova, and Ukraine, where socio-economic instability, demographic decline, and environmental pressures further hinder the capacity of households to secure a balanced diet. Ukraine faces additional challenges linked to recent conflict-driven disruptions, which have significantly weakened local food systems and increased vulnerability among already at-risk populations [17-18].

Food insecurity is closely linked to broader socio-economic conditions. Poverty, unemployment, limited access to social services, and insufficient safety nets increase the likelihood that households will struggle to afford sufficient and diverse foods. Environmental factors also play a role: climate variability, extreme weather events, and declining agricultural productivity in some areas reduce both the stability of food supply and the affordability of essential staples. Evidence from Our World in Data highlights that even in countries with generally strong food systems, a portion of the population continues to face dietary constraints or uncertainty regarding their next meals [1-4].

Understanding food insecurity in Romania and neighbouring countries requires a multidimensional perspective that considers economic, social, and environmental

determinants simultaneously. This study builds on recent statistical evidence and comparative analyses to explore the prevalence, causes, and consequences of food insecurity in the region. It examines disparities between countries, identifies the most vulnerable population groups, and evaluates how structural inequalities shape access to adequate nutrition.

By synthesising empirical trends with insights from regional literature and case studies, the paper aims to provide a comprehensive overview of food insecurity in Eastern Europe. The ultimate goal is to support informed policy-making and community-level interventions that can strengthen resilience, reduce inequality, and ensure that all individuals, regardless of income or residence, can meet their basic nutritional needs [12-15].

MATERIALS AND METHODS

This study uses a quantitative and comparative analytical approach based on secondary data to examine food insecurity in Romania and neighbouring countries. The methodological design integrates harmonised international datasets, socio-economic indicators, and relevant literature in order to explore both the magnitude and determinants of food insecurity across the region.

The primary source of data is Our World in Data (OWID), specifically the "Hunger and Undernourishment" database, which compiles globally comparable indicators on food insecurity, dietary availability, poverty, and vulnerability. These data are derived from the Food and Agriculture Organization (FAO), World Bank, Gallup World Poll, and other international statistical systems.

To ensure a comprehensive perspective, additional information was retrieved from:

- FAO State of Food Security and Nutrition in the World (SOFI) reports,
- Eurostat indicators on poverty and material deprivation,
- National statistical offices of Romania and neighbouring countries,
- Peer-reviewed academic literature addressing food insecurity in Eastern Europe.

The study focuses on Romania and the countries with which it shares geographic and socio-economic proximity: Bulgaria, Hungary, Serbia, Moldova, and Ukraine. These countries were selected due to regional similarities, shared historical and economic ties, and comparable structural drivers of food insecurity.

The analysis examines a set of key indicators widely used to assess food insecurity at national level, including:

- Moderate or severe food insecurity (% of population), based on the FAO's Food Insecurity Experience Scale (FIES);
- Prevalence of undernourishment, measuring chronic dietary energy deficiency;
- Poverty and risk of social exclusion, Eurostat metrics;
- GDP per capita (current USD), reflecting economic capacity;
- Population at risk of poverty or severe material deprivation;
- Food expenditure share where available;
- Urban–rural disparities in food access.

The study applies a cross-country comparative framework, examining both absolute values and relative differences between Romania and neighbouring states. The analytical strategy includes:

- Descriptive statistics to present levels of food insecurity and socio-economic vulnerability.

- Trend analysis based on multi-year data from OWID to identify structural patterns and recent developments.
- Contextual interpretation using socio-economic indicators (poverty, GDP per capita, rural vulnerability) to explain observed differences.
- Qualitative synthesis of existing literature and policy documents to interpret findings in a broader regional context.

The analysis does not involve inferential statistical modelling, as the objective is to describe and compare existing patterns rather than to predict outcomes. However, relationships between variables (e.g., poverty and food insecurity) are examined through interpretative reasoning supported by empirical evidence [5-7].

As the study relies exclusively on secondary data, potential limitations include gaps in data availability for certain countries or years, differences in survey methodologies, and the reliance on modelled estimates where direct data are unavailable (e.g., for undernourishment in conflict-affected areas). These limitations are acknowledged and considered in the interpretation of results [8-11].

RESEARCH RESULTS

The evolution of the number of people experiencing moderate or severe food insecurity between 2015 and 2022 in Romania and its neighbouring countries is presented in Table 1. The data reveal distinct regional patterns shaped by socio-economic conditions, policy responses, and external shocks, particularly the COVID-19 pandemic and, in Ukraine's case, the escalation of conflict. [15] (Table 1)

Table 1.

Number of moderately or severely food insecure people

Year/Country	Bulgaria	Hungary	Moldova	Romania	Serbia	Ukraine
2015	1,100,000	1,100,000	600,000	3,800,000	1,100,000	8,900,000
2016	1,000,000	900,000	700,000	3,300,000	1,200,000	10,000,000
2017	900,000	900,000	800,000	2,900,000	1,100,000	9,600,000
2018	900,000	700,000	900,000	2,800,000	1,100,000	8,199,999
2019	900,000	800,000	800,000	2,700,000	1,100,000	8,800,000
2020	1,100,000	1,000,000	800,000	2,600,000	1,300,000	10,000,000
2021	1,100,000	1,200,000	700,000	3,200,000	1,300,000	12,000,000
2022	1,000,000	1,500,000	800,000	3,800,000	1,200,000	12,400,000

Source: [15]

Romania shows a significant decline in food insecurity from 3.8 million people in 2015 to 2.6 million in 2020, suggesting improvements in income levels and social support schemes. However, the sharp increase to 3.2 million in 2021 and 3.8 million in 2022 indicates renewed vulnerabilities, likely linked to rising living costs, inflation, and the pandemic's economic impact.

Ukraine consistently registers the highest levels of food insecurity in the region. Although the number decreased slightly from 10 million in 2016 to 8.2 million in 2018, it increased sharply again after 2019, reaching 12.4 million in 2022. This trend closely mirrors the severe disruptions to household livelihoods, agricultural production, and food supply chains caused by ongoing conflict.

In Bulgaria and Serbia, food insecurity levels remain relatively stable, fluctuating around 1 to 1.3 million people. These moderate variations suggest that although both countries maintain relatively resilient food systems, persistent poverty pockets—especially in rural areas—continue to affect food access for a significant share of the population.

Hungary displays a more dynamic pattern, with a decrease to 700,000 in 2018, followed by a marked increase to 1.5 million in 2022. This upward trend points to growing socio-economic pressures and widening inequalities affecting food affordability.

Moldova exhibits the lowest absolute numbers, yet fluctuations between 600,000 and 900,000 reflect the vulnerability of low-income households in a country with limited economic resilience.

Overall, the data demonstrate that food insecurity remains a widespread and persistent challenge in Eastern Europe, shaped by structural inequalities, economic shocks, and geopolitical instability. (Figure 1)

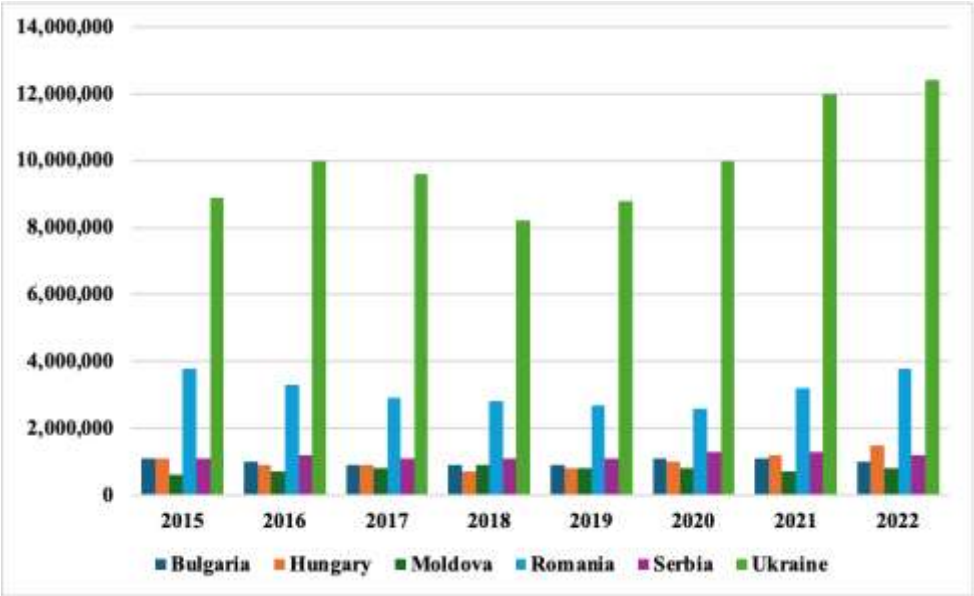

Figure 1. Dynamics of moderately or severely food insecure people (mil.)

Source: Original by authors

The population data for Romania and its neighbouring countries between 2015 and 2022 reveal consistent demographic decline across most of the region, a trend that has important implications for labour markets, economic resilience, and food security [24] (Table 2).

Table 2.

Population dynamics

Year/ Country	BULGARIA	HUNGARY	MOLDOVA	ROMANIA	SERBIA	UKRAINE
2015	6,984,230	9,797,750	2,835,980	19,815,620	7,095,380	45,784,900
2016	6,894,140	9,757,500	2,803,190	19,702,200	7,058,320	45,616,830
2017	6,803,470	9,726,760	2,755,190	19,588,720	7,020,860	45,436,040
2018	6,710,800	9,706,096	2,707,200	19,473,970	6,982,600	45,208,910
2019	6,616,730	9,694,820	2,664,220	19,371,650	6,945,230	44,957,460
2020	6,550,700	9,670,420	2,635,130	19,265,250	6,899,130	44,680,010
2021	6,507,300	9,630,093	2,595,810	19,122,060	6,834,330	44,298,640
2022	6,830,000	9,680,000	3,040,000	19,170,000	6,790,000	41,050,000

Source: [24]

Romania shows a steady decrease from 19.8 million in 2015 to around 19.1 million in 2022, reflecting long-term depopulation driven by low birth rates and sustained emigration. Similar patterns are visible in Bulgaria and Serbia, both of which lose several hundred thousand inhabitants over the period. These demographic contractions reduce the

working-age population and may intensify vulnerability among older and rural communities.

Hungary maintains relative demographic stability, fluctuating only slightly around 9.7 million inhabitants. Moldova, despite long-term emigration, displays a sharp increase in 2022, likely due to methodological changes or the temporary presence of refugees and return migrants.

Ukraine presents the most dramatic decline, from 45.7 million in 2015 to 41.0 million in 2022—a loss exacerbated by conflict, displacement, and rising mortality. This demographic shock has profound consequences for food production capacity and household food security.

Overall, shrinking and ageing populations represent an additional structural challenge for regional food security, reinforcing the need for targeted social protection and sustainable rural development policies. (Figure 2)

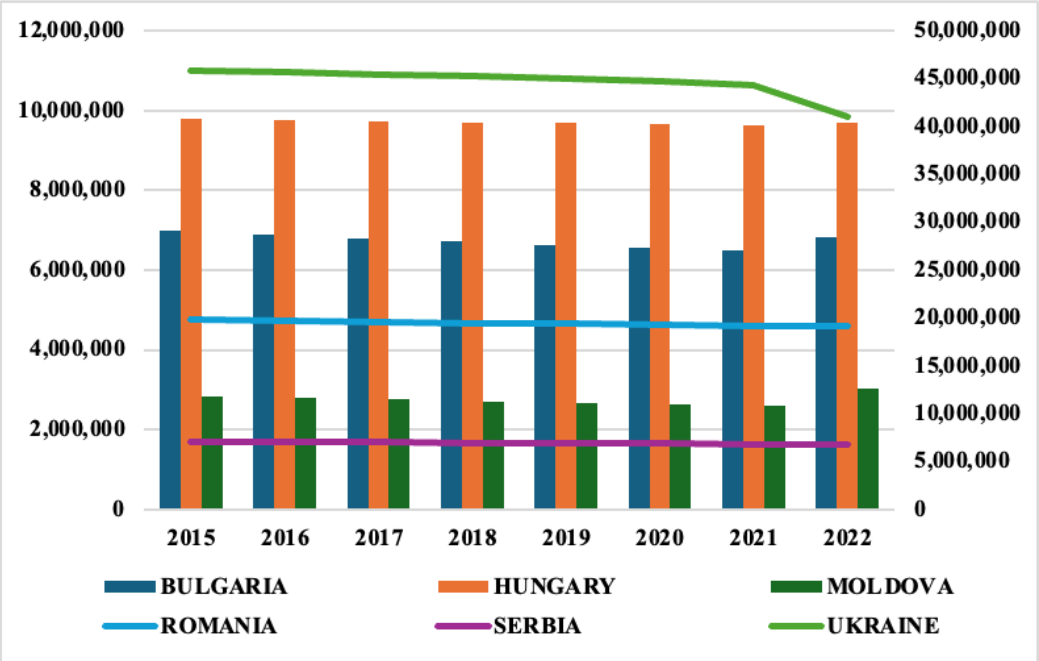

Figure 2. Population dynamics in Romania and neighbouring countries

Source: Original by authors

Table 3.

Moderately or severely food insecure people (%)

Year/ Country	BULGARIA	HUNGARY	MOLDOVA	ROMANIA	SERBIA	UKRAINE
2015	15.75	11.22	21.15	19.17	15.5	19.44
2016	14.5	9.22	24.97	16.74	17	21.92
2017	13.22	9.25	29.03	14.8	15.66	21.13
2018	13.41	7.21	33.24	14.37	15.75	18.14
2019	13.6	8.25	30.02	13.93	15.83	19.57
2020	16.79	10.34	30.35	13.49	18.84	22.38
2021	16.9	12.46	26.96	16.73	19.02	27.09
2022	14.64	15.49	26.31	19.82	17.67	30.21

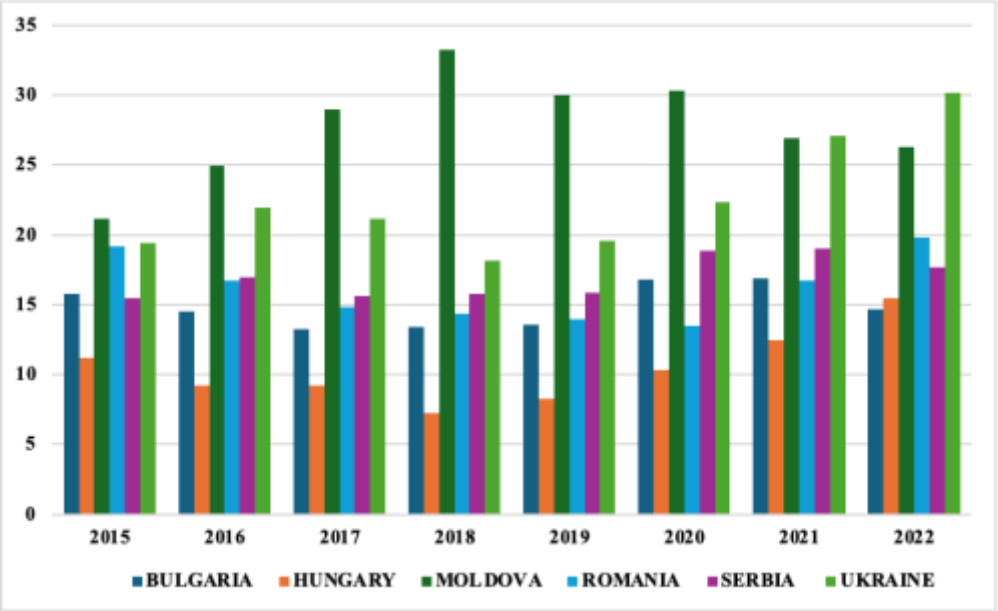

Figure 3. Dynamics of moderately or severely food insecure people (%)

Source: Original by authors

Between 2015 and 2022, the prevalence of moderate or severe food insecurity in Eastern Europe followed uneven trajectories, shaped by structural socio-economic vulnerabilities and successive external shocks. In Romania, levels decreased steadily from above 19% in 2015 to around 14% by 2018–2020, reflecting temporary gains in affordability and social stability. This progress proved fragile: by 2021, food insecurity had risen again to 16.7% and approached 20% in 2022 as rising inflation and post-pandemic economic pressures disproportionately affected low-income households.

Bulgaria recorded a similar pattern of improvement until 2019, followed by a notable deterioration during the pandemic years, when values climbed toward 17%. Hungary, traditionally positioned among the more secure countries in the region, reached its lowest level in 2018 (7.21%), but experienced a pronounced increase thereafter, culminating in 15.49% in 2022—an indication of widening inequality and reduced food affordability despite broader economic resilience.

Serbia remained comparatively stable, oscillating between 15% and 19%, a reflection of longstanding structural challenges, particularly in rural areas. Moldova consistently registered the highest prevalence in the region, exceeding 30% in several years. These elevated levels point to chronic income limitations, reduced purchasing power, and persistent economic fragility.

Ukraine's trajectory shows persistently high food insecurity, rising sharply after 2020 and reaching over 30% by 2022. Conflict, displacement, and disruptions to agricultural production have intensified the vulnerability of households across the country.

Taken together, these trends suggest that food insecurity in the region is deeply influenced by socio-economic inequalities, demographic pressures, and the ability or inability of national systems to absorb shocks. Countries with weaker social protection and lower household incomes exhibit the highest and most volatile levels, while even relatively stronger economies face rising pressures during periods of crisis.

CONCLUSIONS

Food insecurity in Romania and neighbouring countries remains a deeply rooted socio-economic challenge, shaped by persistent inequalities, demographic decline, and exposure to compounding crises. Although the region benefits from relatively stable food availability, a significant share of the population continues to face barriers in accessing sufficient and nutritious food. The comparative analysis shows that improvements recorded in several countries prior to 2020 proved fragile, with recent increases in food insecurity highlighting the vulnerability of households to inflation, rising living costs, and disruptions caused by the pandemic and geopolitical instability.

Romania, Bulgaria, and Serbia exhibit similar patterns of moderate progress followed by renewed deterioration, demonstrating that food security gains cannot be sustained without robust social protection mechanisms. Hungary's experience reinforces this conclusion: despite stronger macroeconomic performance, widening inequalities have led to a significant rise in food insecurity, revealing the limitations of growth-driven approaches when structural vulnerabilities persist. Moldova and Ukraine present the highest levels of food insecurity in the region, underscoring the cumulative effects of chronic poverty, economic fragility, and, in Ukraine's case, severe conflict-driven disruptions to livelihoods and food systems.

Given these findings, several policy recommendations emerge. Strengthening social safety nets, particularly food assistance programs targeting low-income families, the elderly, and rural communitieshould be a priority. Measures to improve the affordability of nutritious foods, such as subsidies for essential staples, support for local producers, and the expansion of school feeding programs, can mitigate the impact of economic instability on household diets. Increasing investments in rural development, infrastructure, and employment opportunities is essential for reducing structural disparities that disproportionately affect rural populations. Regional collaboration could further enhance resilience, especially in areas such as emergency preparedness, supply-chain coordination, and climate adaptation.

Future research should explore the micro-level dynamics of food insecurity, including household coping strategies, the role of remittances, and the impact of dietary transitions on nutritional outcomes. Longitudinal analyses examining the effects of inflation, climate variability, and labour migration on food access would strengthen understanding of the mechanisms driving vulnerability. Additionally, qualitative studies focusing on lived experiences of food insecurity could complement statistical data, offering deeper insight into the social and psychological dimensions of the phenomenon.

Overall, the study highlights the need for integrated, sustained, and evidence-based approaches to food security. Ensuring that all individuals in the region have reliable access to adequate food is both a moral imperative and a foundation for long-term social and economic development.

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