GENERATIONAL RENEWAL IN AGRICULTURE AND ITS ROLE IN SUSTAINABLE RURAL DEVELOPMENT: A CASE STUDY OF SĂLAJ COUNTY, ROMANIA

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Abstract: *The aim of this paper is to analyze the process of generational renewal in the agriculture of Sălaj County, regarded as a determining factor for ensuring the continuity of sustainable rural development. The study investigates the age structure of farm holders, the size and typology of agricultural holdings, and the extent of young farmers' participation in the support measures provided under the Common Agricultural Policy (CAP). The results reveal the low proportion of young farmers and underline the need to reinforce public policies that promote generational renewal as a core component of sustainable rural development in Romania.*

Keywords*: Sălaj County, SP CAP, generational renewal, financial support*

INTRODUCTION

Generational renewal in agriculture is a topic that has been intensively analyzed in the specialized literature, given its essential role in ensuring the continuity of agricultural activities and the vitality of rural areas in the long term. The continuous reduction in the number of farms and farmers at the European Union level highlights the urgent need to support the establishment of a new generation of farmers [7]. The aging of the agricultural population is a strategic issue for the entire sector.

Both in developed countries, where the agricultural population is aging, and in developing countries, where young people are migrating to urban areas, the agricultural sector is undergoing profound transformations in human resources. This situation forces decision-makers and local actors to rethink traditional labor structures and identify adaptive solutions to maintain the sustainability of agricultural production. The labor shortage is mainly determined by rural depopulation, the aging of farmers, and the decreasing interest of young people in careers in agriculture [1].

Romania has one of the lowest shares of young farmers, decreasing since 2010, and the main obstacles are difficult access to land, financing and training. As youth-run farms are more innovative and competitive, addressing the generational renewal gap is essential for the transition to modern and sustainable agriculture [4].

Young farmers are an essential driver of sustainable agricultural development [6]. They are characterized by a more pronounced entrepreneurial spirit, and the new generations show a much higher concern for environmental protection compared to older farmers [5,8] Although rural areas cover most of the national territory, they are not an attractive option for young people. Even in cases where they have higher education in agriculture, their interest in returning to or settling in rural areas remains low [3].

Financial support for the establishment of young farmers within the framework of rural development programs in Romania plays a fundamental role in facilitating generational change in agriculture, constituting an essential condition for consolidating the demographic and socio-economic structure of rural communities [2]. At the same time, it is important to highlight the fact that some studies show that financial support must be complemented by advisory services, professional training, and facilitating the transfer of holdings in order to produce long-term effects [9].

The involvement of younger generations in agriculture contributes to the revitalization of rural communities, increasing employment and adopting innovative solutions for natural resource management.

Romania has benefited from funds for the establishment of young farmers since the National Rural Development Programme 2007-2013 (NRDP 2007–2013), this type of support has been maintained in the NRDP 2014–2020 period and is currently continued through the CAP Strategic Plan 2023–2027 (CAP Strategic Plan 2023–2027). However, the financial allocations have proven insufficient, which has led to the non-financing of a considerable number of applications, even if they were declared eligible, thus highlighting the discrepancy between the real needs of the rural environment and the available resources.

The study aims to investigate the dimensions and implications of the generational renewal process in agriculture, analyzing how the demographic structure of farmers, young people's access to productive resources and the efficiency of support measures under the Common Agricultural Policy (CAP) influence the sustainable development of the rural environment. By capitalizing on the conceptual framework regarding the aging of the agricultural population and the decline of the rural workforce, the study aims to highlight the strategic role of young farmers in the modernization and competitiveness of the agricultural sector. Although successive rural development programs have introduced measures dedicated to young farmers, their impact is often limited by persistent structural constraints. Analyzing these dynamics in specific territories, such as Sălaj County, it becomes possible to have a contextualized understanding of the factors that stimulate or inhibit the participation of young people in agriculture.

Sălaj, located in northwestern Romania, is a county characterized by a pronounced rural profile, where agriculture plays an important role in the local economic structure. However, an advanced demographic aging process, a predominance of small and very small farms and a low level of technological innovation are noted, elements that amplify the difficulty of installing a new generation of farmers. The analysis of Sălaj as a case study allows the identification of a set of specific challenges, but also of opportunities for rural revitalization through generational renewal policies.

MATERIALS AND METHODS

The analysis is based on an integrated methodological approach that combines quantitative tools with a documentary examination of the main institutional sources relevant to the study of generational renewal in agriculture. The empirical approach used statistical data provided by the National Institute of Statistics (INS), including the results of the 2021 Population and Housing Census, along with operational information from the Agency for Rural Investment Financing (AFIR), regarding the participation of young farmers in support measures under the CAP. These data allowed for the characterization of the demographic structure of farmers, the identification of the typology of agricultural holdings, and the analysis of the degree of access to interventions dedicated to the installation of young farmers.

The empirical material was complemented by a documentary analysis of the Sălaj County Development Strategy 2021–2027, as well as official reports on the implementation of the CAP for the period 2023–2027. The integration of these documents provided a necessary interpretative framework for understanding the strategic directions and institutional context that influence the process of generational renewal in the territory.

Methodologically, the study adopts a comparative perspective through which the dynamics of generational renewal in Sălaj County is evaluated in relation to regional and national trends. This approach allowed for the identification of local particularities, structural constraints that limit the installation of young farmers, as well as opportunities that can

contribute to the consolidation of sustainable rural development. By combining statistical analysis with the contextual interpretation of strategic documents, the research approach provides a comprehensive picture of the processes that shape the evolution of agriculture at the county level.

RESEARCH RESULTS

Sălaj County, located in northwestern Romania, has the second-lowest urbanization rate in the region (39.7%), reflecting its predominantly rural character. The county faces a shrinking and aging agricultural population, with limited involvement of young farmers. This demographic imbalance poses major challenges to agricultural continuity and sustainable rural development.

Figure 1. North West Region, Romania

Source: [10]

The analysis combines quantitative and documentary methods, using data from the National Institute of Statistics (INS), the 2021 Population and Housing Census, and the Agency for Rural Investments Financing (AFIR), complemented by the Sălaj County Development Strategy 2021–2027 and official CAP program reports for 2023–2027.

A comparative approach was applied to evaluate generational renewal trends in Sălaj County in relation to regional and national patterns, emphasizing both structural constraints and potential pathways toward sustainable rural development.

Sălaj County shows a significant aging of the farming population, with less than 10% of farm holders under 40 years old. Most farms are small and fragmented, which limits competitiveness and access to investments.

Figure 2. Romania, Sălaj County

Source: [10]

This demographic imbalance poses a major challenge to agricultural continuity and highlights the need for targeted measures to attract and support young farmers.

According to the 2021 Population and Housing Census, the rural population of Sălaj County represented 61.3% of the total population, confirming the county's predominantly rural character. As of January 1st, 2024, the resident population reached 237,896 inhabitants, showing a slight decrease compared to the previous year. This demographic trend, combined with the aging structure of farm holders, highlights the increasing need for policies that stimulate generational renewal and ensure the long-term sustainability of rural communities.

The analysis of the generational renewal process in agriculture in Sălaj County highlights a set of structural trends that reflect both local particularities and the general dynamics of Romanian agriculture. The results obtained from the analysis and processing based on INS, RPL 2021, AFIR data and strategic documents confirm that the county is facing an accelerated aging of the agricultural population, a significant fragmentation of holdings, as well as a relatively low level of participation of young farmers in CAP support measures. The main results are presented below, summarized in tables for clarity and analytical coherence.

A first major result of the analysis is the distribution of farmers by age group. The data confirms the predominance of farmers over 55 years of age and the low proportion of young farmers. This demographic structure generates vulnerabilities in terms of the continuity of agricultural activities and the capacity for innovation.

Table 1.

Demographic structure of farmers in Sălaj

Age group	Identified features
< 40 years	Low share; low level of generational continuity
40–54 years old	Intermediate segment, moderately involved in agricultural activities
> 55 years	Dominant share; aging agricultural workforce

Source: processing according to [12,13,14]

The demographic structure indicates a dominance of the elderly segment, which emphasizes the need for support measures aimed at the establishment of young farmers. (table 1)

The agricultural structure of Sălaj County is highly fragmented, characterized by a very large number of farms, of which almost 99% do not own arable land. (Table 2) This situation indicates the predominance of subsistence households or small farms oriented towards non-arable activities, significantly limiting the capacity of the agricultural sector to modernize.

The very low number of farms with arable land (570 units) shows that the real productive base of the county's agriculture is extremely narrow. Under these conditions, economic opportunities are limited, and the establishment of young farmers becomes difficult, as access to land is an essential condition for the development of viable farms.

Overall, this atomized agricultural structure has negative implications for competitiveness, the adoption of modern technologies and generational renewal, underlining the need for land consolidation policies and restructuring of farms in Sălaj County.

Table 2.

Structure of agricultural holdings in Sălaj County (RGA 2020)

Indicator	Number	Year
Total number of farms	**53,875**	2020
Farms without arable land	**53,305**(98.9%)	2020
Farms with arable land	**570**	2020

Source: processing after the General Agricultural Census 2020

Regarding the level of attraction of PNDR funds (2014-202) at the level of Sălaj county, we analyzed the official implementation reports available online on the website of the Ministry of Agriculture and Rural Development (MADR), the Agency for Financing Rural Investments (AFIR), so that they integrate the evolution of projects financed through PNDR. [5,6]

Table 3.

Funds attracted through PNDR in Sălaj County (2014–2024)

Indicator	Value
Contracted projects (no.)	1,455
Completed projects (no.)	1,322
Total funds raised	87.8 million euros
Payments made	77 million euros

Source: processing after [15]

The analysis shows a high level of local administrative capacity to access and implement PNDR projects, reflected by the high project completion rate (over 90% of all contracted projects). However, the funds accessed fail to compensate for the limitations generated by the fragmented land structure. Most projects support low-intensity economic activities, as the county's productive base is limited, with very few farms of the size required for large-scale agricultural investments. Thus, although the attraction of PNDR funds is substantial, their impact on generational renewal remains limited.

Table 4.

Accessing CAP interventions 2023–2027 in Sălaj County

Indicator	Value
Applications submitted (no.)	202
Total value requested	45.38 million euros
Contracted projects (no.)	164
Contracted value	26.54 million euros
Payments made	9.02 million euros
Absorption rate	34%

Source: processing after [15]

In the first two years of the CAP SP 2023-2027, Sălaj County registered a significant number of applications (202), indicating interest in agricultural investments. However, the contracting rate and the absorption rate (34%) are moderate, highlighting difficulties related to eligibility, co-financing, or administrative capacity. These results confirm that, in the absence of a consolidated land base and a sufficient number of viable farms, young farmers face difficulties in capitalizing on the opportunities offered by the CAP.

The three tables analyzed reveal a coherent structural picture, which explains why generational renewal in Sălaj County remains limited:

- The structure of farms is highly atomized, and the very small number of arable farms limits the possibility of young people settling and adopting modern technologies.
- The PNDR has generated a significant volume of investments, demonstrating interest and administrative capacity, but the impact on agricultural modernization is constrained by the small size of farms.
- The CAP 2023–2027 shows interest, but also difficulties in accessing it, accentuated precisely by the uncompetitive agricultural structure.

Thus, the results indicate a direct correlation between agricultural fragmentation, reduced attractiveness for young people and limited participation in CAP mechanisms, confirming the need for public policies adapted to the specifics of Sălaj County.

CONCLUSIONS

The analysis of the structure of agricultural holdings and the level of access to CAP and PNDR funds in Sălaj County highlights a set of structural challenges that considerably limit the process of generational renewal in agriculture. The data of the General Agricultural Census 2020 show that almost all holdings in the county - 98.9% operate without arable land, which confirms extreme agricultural fragmentation and a predominant orientation towards subsistence agriculture. This structure reduces the attractiveness of agriculture for young people, diminishes the capacity of farms to become commercial, and limits access to investments in modern technologies and agri-food value chains.

Although Sălaj County has demonstrated good administrative capacity in accessing the PNDR 2014–2024 with 1,455 projects contracted and 1,322 completed, the impact of these investments is moderate, as the productive base remains insufficiently consolidated. The implementation of the PAC Strategic Plan 2023–2027 indicates significant interest in funding (202 applications submitted), but the low absorption rate (34%) highlights persistent difficulties related to eligibility, co-financing, and administrative skills.

The results show that generational renewal in Sălaj is decisively influenced by the agricultural structure, not only by the availability of financial support. The lack of land available to young people, the small size of the holdings, and the orientation towards subsistence are major limiting factors. Therefore, the process of setting up young farmers requires integrated interventions, oriented not only towards financing but also towards restructuring and consolidating farms and increasing the attractiveness of agriculture as an economic opportunity in rural areas.

Generational renewal in Sălaj County depends on overcoming deep structural obstacles, in particular agricultural fragmentation and limited access to land. Public policies must simultaneously focus on consolidating farms, supporting young farmers, developing skills, and increasing the attractiveness of agriculture. Only through an integrated approach, adapted to the specifics of the county, can the transition to a sustainable, competitive agriculture capable of contributing to the revitalization of the rural environment be ensured.

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