

**TERRITORIAL DISPARITIES AND THE DYNAMICS OF AGRICULTURAL INVESTMENT IMPLEMENTATION IN ROMANIA: ANALYSIS OF MEASURES DR-15 AND DR-20 IN THE 2023–2027 NATIONAL STRATEGIC PLAN**

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**Abstract**

*This study examines the regional disparities and implementation status of Measures DR-15 and DR-20 under Romania's National Strategic Plan 2023–2027. The main objective of the study is to analyze regional differences in participation, funding allocation, and development orientation associated with these two measures. The methodology is based on data provided by the Agency for the Financing of Rural Investments (AFIR), covering the implementation status as of August 2025. Key indicators for Measures DR-15 and DR-20 were processed and analyzed using Tableau software to identify spatial patterns and regional specializations. The results reveal a clear differentiation in development trajectories across regions: the North-West and South regions emerge as core areas of relatively balanced growth, combining new orchard establishment, restructuring processes, and substantial contract volumes. The West and South-East regions are primarily oriented toward modernization through restructuring and mechanization and the Centre region plays a specialized role as the main supplier of planting material. In contrast, the Bucharest–Ilfov region and parts of the North-East remain marginal, characterized by limited participation or delayed implementation.*

**Keywords:** territorial disparities; agricultural investments; PNS 2023–2027; DR-15; DR-20; rural development; Romania

**JEL Classification:** Q12, Q18, R11, R58

**1. Introduction**

The Common Agricultural Policy (CAP) is the European Union's (EU) longest standing and most integrated policy framework, established in 1962 to support agricultural production and ensure food security. Over time, the CAP has provided substantial reforms to address market developments, societal expectations, and environmental challenges, evolving from a system focused on production support to one emphasizing sustainability, competitiveness, and rural development. Currently, the CAP combines direct payments aimed at stabilizing farmers' incomes with rural development measures designed to strengthen territorial cohesion and enhance the resilience of rural areas across the EU (European Commission; Pe'er et al., 2020; Hill, 2023; D'Andrea et al., 2025)

Within the reformed CAP framework for the 2023–2027 programming period, Member States implement policy objectives through National Strategic Plans designed to reflect specific territorial, economic, and structural conditions. In Romania, the 2023–2027 National Strategic Plan prioritizes targeted agricultural investments as a key instrument for enhancing competitiveness, promoting sustainable farm development, and reducing persistent territorial disparities (Luca et al., 2023).

The 2023–2027 National Strategic Plan in Romania includes specific investment Measures such as DR-15 - “Investments in Orchard Farms” and DR-20 “Investments in the Livestock Sector”, designed to modernize agricultural holdings and enhance farm infrastructure. DR-15 targets productive investments aimed at improving competitiveness and operational efficiency, while DR-20 focuses on supporting investments that increase sustainability, such as energy efficiency, digitalization, and climate-resilient practices. (Chițea, 2023; Miroslav et al., 2023; Chiurciu et al., 2024)

Regional inequalities have been widely documented as a persistent challenge in agricultural development, affecting economic performance and food system balance. In Romania, some regions lag in farm structure, productivity, and investment capacity, leading to structural imbalances and economic losses (Popescu et al., 2025; Stoicea et al., 2025). These findings highlight the need for targeted policies to reduce disparities and promote balanced regional development.

Despite the availability of EU and national support, Romania continues to face significant regional disparities in agricultural development. Differences in farm size, infrastructure, access to finance, and technical capacity lead to uneven investment absorption and slow modernization in less developed regions.

## 2. Data and Methodology

This study adopts a quantitative and comparative approach to analyze the implementation of the Measure DR-15 and Measure DR-20 under Romania’s 2023–2027 National Strategic Plan, at the level of Romania’s Development Regions. Official data from The Payment Agency for Rural Development and Fishing (AFIR) were used, including the contracted project number, plantation area supported by the project - ESTABLISHED (ha), plantation area supported by the project – RECONVERSION (ha), plantation area supported by the project - for projects that only provided for the purchase of equipment (ha), number of seedlings (for fruit nurseries), public contracted value (EURO) and the amount paid at the county level for DR-15 and number of contracts, contracted public value (EURO) and paid value (EURO) for DR-20. Visual analysis using Tableau software visualizes regional disparities, quantifying territorial imbalances in fund absorption.

## 3. Results and discussion

The centralized data for Measure DR-15 - “Investments in Orchard Farms”, within the 2023–2027 National Strategic Plan, updated as of 26 August 2025, provide a clear overview of the implementation status as well as the economic and agronomic impact of this measure.

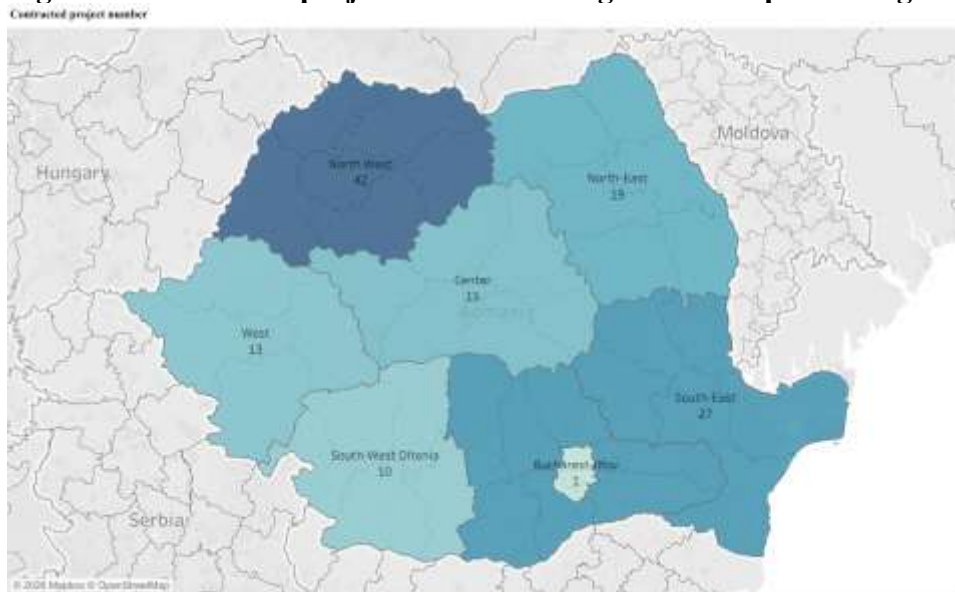
**Table 1. Overview of DR-15**

County	Contracted project number	Plantation area supported by the project - ESTABLISHED (ha)	Plantation area supported by the project - RECONVERSION (ha)	Plantation area supported by the project - for projects that only provided for the purchase of equipment (ha)	Number of seedlings (for fruit nurseries)	Public contracted value (EURO)	Amount paid (EURO)
<b>TOTAL</b>	<b>154</b>	<b>1.370,95</b>	<b>1.175,07</b>	<b>626,90</b>	<b>2.363.119</b>	<b>106.230.657,00</b>	<b>5.993.602,79</b>

*Source: AFIR, August 2025*

Table 1 provides an overview of the implementation of agricultural investment projects under the Measure DR-15. A total of 154 projects were contracted, covering a combined plantation area of 1,370.95 hectares. Of this, 1,175.07 hectares were supported through reconversion activities, while 626.90 hectares were allocated to projects that only funded the purchase of equipment. The total number of seedlings distributed through fruit nurseries reached 2,363,119. Financially, the projects represent a total public contracted value of 106,230,657 euro, with 5,993,602.79 euro already paid to beneficiaries. The distribution of hectares across different project types suggests a strategic focus on both replanting/reconversion and equipment modernization, which may have important implications for regional agricultural development and long-term productivity growth.

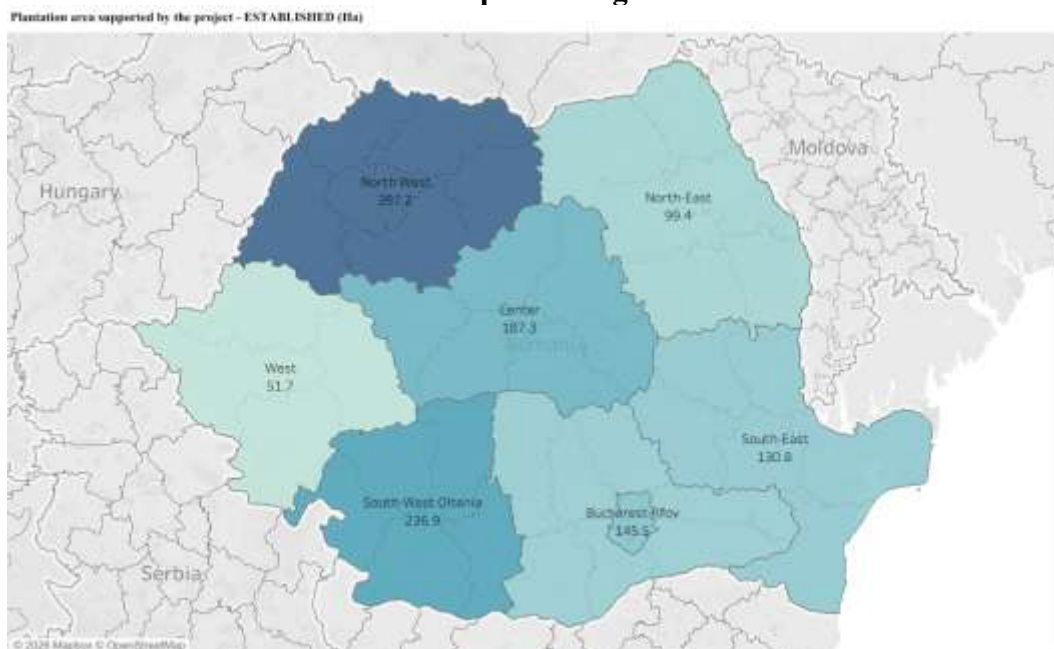
**Figure 1. Contracted project number among the Development Regions**



Source: author's own contribution based on data from AFIR, August 2025

Figure 1 illustrates the regional distribution of contracted projects across Romania, revealing a significant disparity between the country's development regions. The North West region is the clear leader with 42 projects, nearly double the count of the next highest regions, the South and South-East (each with 27 projects). In contrast, the Bucharest-Ilfov area shows the lowest activity with only one project recorded. The remaining regions, including the North-East, West, Center, and South-West Oltenia, show moderate engagement ranging from 10 to 19 projects. Visually, the darker shading in the north suggests a concentrated hub of project approval or fund absorption, while the southern and central areas maintain a more uniform, lower density of contracts.

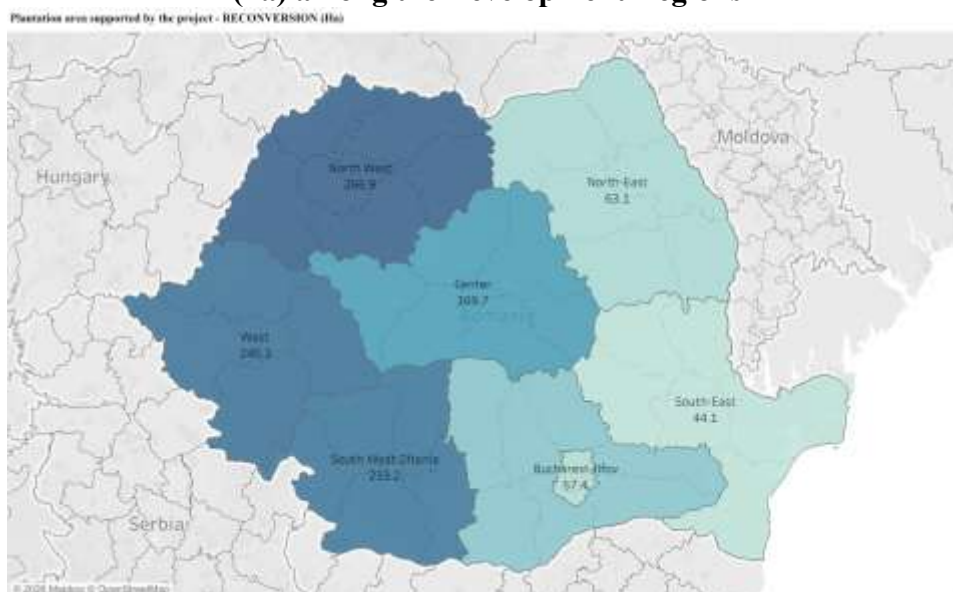
**Figure 2. Plantation area supported by the project - ESTABLISHED (ha) among the Development Regions**



Source: author's own contribution based on data from AFIR, August 2025

Based on Figure 2, the project has successfully established a significant plantation area across seven distinct regions, totaling approximately 1,370 hectares. The distribution is notably concentrated in the North West, which leads the initiative with 397.2 hectares, followed by South-West Oltenia and the Center region. In contrast, the West region shows the lowest established area at 51.7 hectares. This geographical visualization suggests a robust regional development strategy, with a clear focus on the northern and southern-central parts of the country.

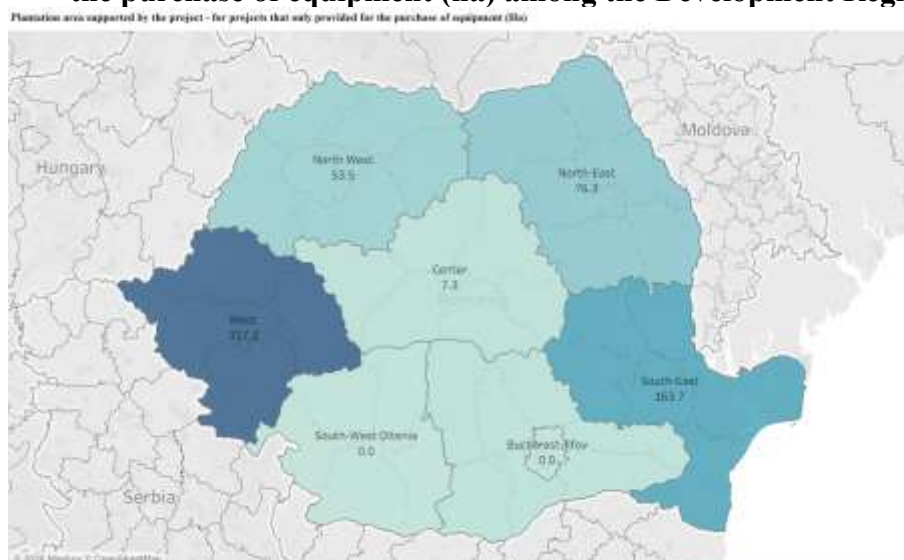
**Figure 3. Plantation area supported by the project - RECONVERSION (ha) among the Development Regions**



*Source: author's own contribution based on data from AFIR, August 2025*

Figure 3 illustrates the distribution of plantation areas supported by a "RECONVERSION" project across various regions of Romania, measured in hectares (ha). There is a clear geographic disparity in the project's impact, with the highest concentration of supported land located in the North West (266.9 ha), followed closely by the West (240.3 ha) and South-West Oltenia (233.2 ha) regions. Conversely, the eastern and southern portions of the country show significantly lower engagement, particularly in the South-East (44.1 ha) and North-East (63.1 ha). This data suggests that the reconversion efforts are currently heavily skewed toward the western half of the country.

**Figure 4. Plantation area supported by the project - for projects that only provided for the purchase of equipment (ha) among the Development Regions**



Source: author's own contribution based on data from AFIR, August 2025

Figure 4 illustrates the distribution of plantation areas in Romania supported by a specific project focused on equipment purchase, measured in hectares (ha). The West region emerges as the clear leader with the largest supported area at 317.2 ha, followed by the South-East (163.7 ha) and the North-East (76.3 ha). In contrast, the South-West Oltenia and Bucharest-Ilfov regions show no activity (0.0 ha) for this specific equipment-based initiative, while the Center region shows a minimal footprint of only 7.3 ha. Overall, the data reveals a significant geographical disparity, indicating that the project's impact and the demand for new equipment were heavily concentrated in the western and eastern extremities of the country.

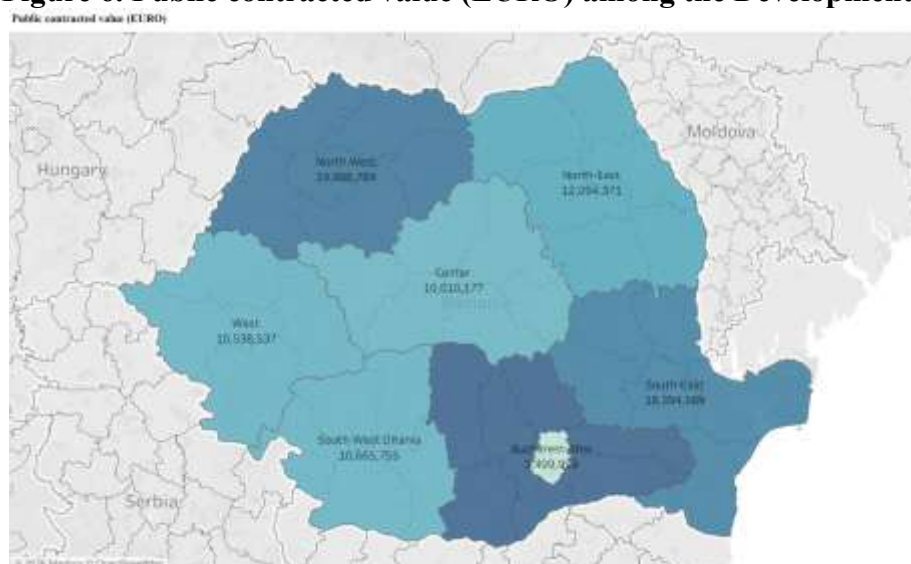
**Figure 5. Number of seedlings (for fruit nurseries) among the Development Regions**



Source: author's own contribution based on data from AFIR, August 2025

Figure 5 illustrates the distribution of fruit nursery seedlings across Romania's development regions, revealing a highly centralized production landscape. The Center region is the clear leader, accounting for the highest volume with 1,548,355 seedlings, followed by the North West with 747,000. In contrast, the North-East and South shows significantly lower activity (63,176 seedlings, respectively 4.588 seedlings), while the remaining regions, West, South-West Oltenia, Bucharest-Ilfov, and South-East, report zero production according to this specific dataset. This data suggests that Romania's fruit nursery industry is concentrated in the Transylvanian and central highland areas, likely due to favorable pedoclimatic conditions or established regional agricultural infrastructure.

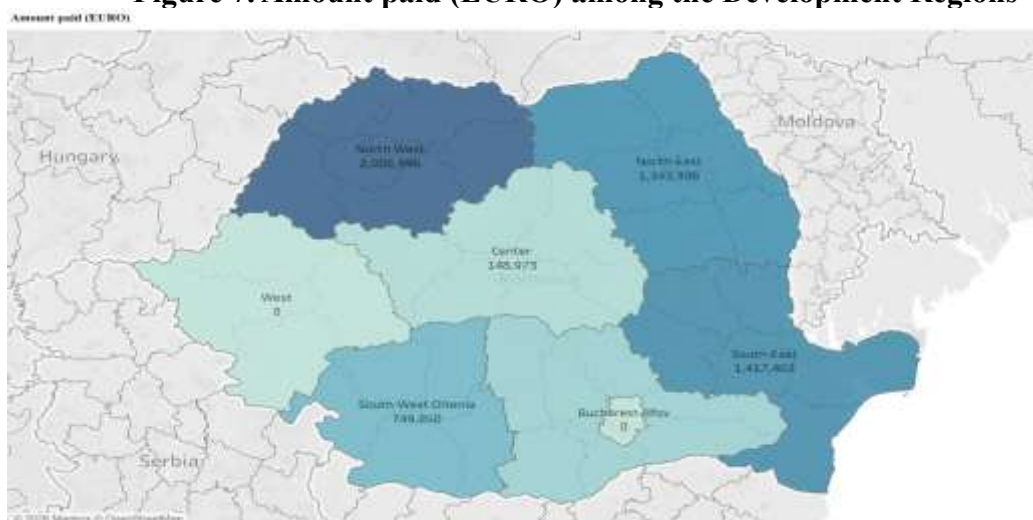
**Figure 6. Public contracted value (EURO) among the Development Regions**



Source: author's own contribution based on data from AFIR, August 2025

Figure 6 shows the distribution of Public Contracted Value (EURO) across Romania's development regions, revealing a notable disparity in investment levels. The North West and South regions leads with approximately 20 million euro, closely followed by the South-East at approximately 18.4 million euro, suggesting these areas are primary focal points for public spending. Overall, the data highlights a concentrated investment strategy in the northern and eastern corridors compared to the more moderate figures seen in the Center and West.

**Figure 7. Amount paid (EURO) among the Development Regions**



Source: author's own contribution based on data from AFIR, August 2025

Figure 7 illustrates the distribution of amounts paid, in EURO, across different development regions of Romania, revealing a significant disparity in funding or expenditure. The North West region stands out as the primary recipient with the highest figure at 2,006,996 euro, followed by the South-East and North-East regions, which also show substantial amounts exceeding 1.3 million euro. Conversely, the West and Bucharest-Ilfov regions are marked with a value of 0, suggesting either a lack of data for these specific areas or that no payments were allocated there during this specific reporting period. This geographical distribution highlights a clear concentration of financial activity in the northern and eastern parts of the country, while the central and southern-western regions receive comparatively moderate amounts.

The regional breakdown reveals a clear differentiation in development trajectories. The North-West and South regions function as core areas of relatively balanced growth, combining new orchard establishment with restructuring processes and substantial contract volumes. The West and South-East regions display a development model focused predominantly on modernization, with an emphasis on restructuring and mechanization. Meanwhile, the Centre region occupies a specialized role, acting as the primary source of planting material. In contrast, the Bucharest–Ilfov region, along with parts of the North-East, remains marginal to these dynamics, either through minimal engagement or delayed implementation. Overall, the uneven distribution of allocated weights indicates a pronounced concentration of financial resources and policy benefits within a limited set of regions, raising concerns regarding territorial cohesion and the equitable impact of pomological policies.

The centralized data for Measure DR-20 - “Investments in the Livestock Sector” within the 2023–2027 National Strategic Plan, updated as of 26 August 2025, provide a clear overview of the implementation status as well as the economic and agronomic impact of this measure.

**Table 2. Overview of DR-20**

County	Number of contracts	Contracted public value (EURO)	Paid value (EURO)
<b>TOTAL</b>	<b>167</b>	<b>165.348.471,50</b>	<b>6.241.743,42</b>

Source: AFIR, August 2025

Table 2 provides an overview of the implementation of agricultural investment projects under the DR-20 measure. A total of 167 projects were contracted, a financially, the projects represent a total public contracted value of 165,348,471 euro, with 6,241,743 euro already paid to beneficiaries.

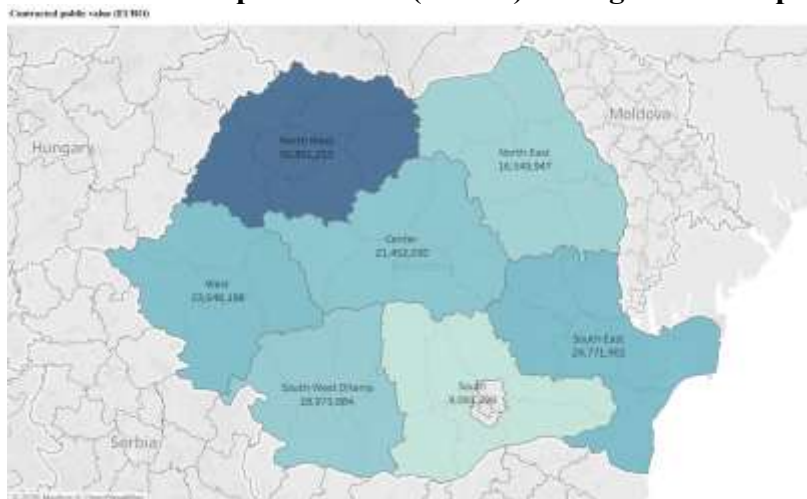
**Figure 8. Number of contracts among the Development Regions**



Source: author's own contribution based on data from AFIR, August 2025

In Figure 8 there is a noticeable disparity in the distribution of contracts, with a clear concentration in the northern and central parts of the country. The North West region leads significantly with 46 contracts, nearly double the activity seen in most other areas, followed by the Center region with 30. In contrast, the southern regions show much lower engagement, particularly the South region, which records the lowest count at only 6 contracts. This geographic trend suggests a stronger economic or administrative momentum in the Transylvanian and northern counties.

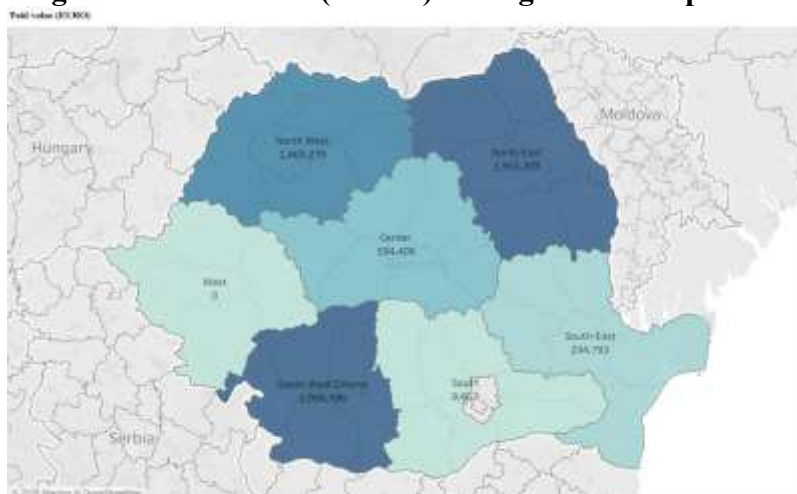
**Figure 9. Contracted public value (EURO) among the Development Regions**



Source: author's own contribution based on data from AFIR, August 2025

Figure 9 illustrates the distribution of contracted public value in euros across the various development regions of Romania, revealing a significant concentration of investment in the North West region. With a value of €50,861,213, North West leads the country by a substantial margin, nearly doubling the figures of other high-performing areas like South-East (24,771,901 euros) and West (23,648,198 euros). Central and South-Western regions show moderate levels of funding, while the South region (excluding the capital area) reflects the lowest investment at 9,091,299 euros. This data highlights a clear geographical disparity, where the North-Western part of the country appears to be the primary hub for public contracting value compared to the more modest figures found in the southern and eastern territories.

**Figure 10. Paid value (EURO) among the Development Regions**



Source: author's own contribution based on data from AFIR, August 2025

Based on Figure 10, the distribution of paid values in Euros reveals a significant regional disparity across the country. The South-West Oltenia and North-East regions lead with the highest investments, both nearing the 2 million euros mark, while North West also shows substantial activity at approximately 1.47 million euros. In contrast, the Center and southern regions report much lower figures, with the West region surprisingly recording a value of zero. This visualization highlights a clear concentration of financial flow in the northeastern and southwestern corners of the country, suggesting that economic or developmental initiatives are currently heavily localized rather than evenly distributed nationwide.

The analysis of Figures 8, 9 and 10 highlights significant territorial imbalances in terms of the distribution of public contracts, the contracted value and the actual amounts paid at regional level in Romania. The northern and central regions, especially the North-West, concentrate the largest number of contracts and the highest contracted value, indicating a high level of administrative and investment activity. In parallel, the southern and central regions record considerably lower values, both in terms of number of contracts and allocated amounts. The distribution of payments confirms these discrepancies, with significant financial flows concentrated in the North-East and South-West Oltenia, suggesting an unequal allocation of resources and uneven regional development.

#### **4. Conclusions**

Regarding the Measure DR-15 - “Investments in Orchard Farms”, the regional distribution highlights uneven development paths, with the North-West and South regions as centers of balanced growth, while Bucharest-Ilfov and some areas in the North-East remain marginal. The concentration of resources and benefits of specific policies in a few regions raises issues regarding territorial cohesion and equity of implementation.

The analyzed data for DR-20 - “Investments in the Livestock Sector” reveal a clear polarization of public investments and contracting activity in Romania, with a clear advantage of the northern regions and the Center area. The North-West region asserts itself as the main pole of contracting and investments, while the southern regions remain underrepresented, both in terms of the number of contracts and the financial values involved. These disparities highlight the need for more balanced public policies, aimed at reducing regional disparities and stimulating economic development in areas with a low level of attraction of public funds.

Overall, the findings point to a strong concentration of financial resources and policy benefits in a limited number of regions, raising concerns regarding territorial cohesion and the equitable impact of pomological policies. Such territorial imbalances highlight the importance of targeted measures within the National Strategic Plan, ensuring that funds are allocated in a way that promotes convergence, strengthens rural economies, and reduces long-standing gaps between more and less advantaged regions.

The analysis is subject to several limitations. Data for the 2023-2027 period are partial and continuously updated, so results may need adjustment as projects are completed. Economic and territorial indicators may not fully capture the real impact of investments on rural development, and reporting delays or underreporting in some counties or regions may affect comparability.

Future research could expand the analysis by incorporating complete data for the entire 2023–2027 period. Moreover, qualitative approaches, including interviews with beneficiaries and local authorities, could complement quantitative findings and help identify barriers to fund absorption and regional disparities more accurately.

#### **Acknowledgement**

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## 5. References

- [1]. Chițea, L. F. (2023). Strategic National Plan 2023-2027: Opportunities or constraints for sustainable agriculture in Romania?. In *Agrarian Economy and Rural Development-Trends and Challenges. International Symposium. 14th Edition* (pp. 157-164). Bucharest: The Research Institute for Agricultural Economy and Rural Development (ICEADR).
- [2]. Chiurciu, I. A., Maria Morna, A., Chereji, A. I., Țuțui, D., & Firățoiu, A. R. (2024). Prospects of the Hops Market In Romania Through the Prism of Common Agricultural Policy Strategic Plan 2023-2027 for Romania. *Scientific Papers Series Management, Economic Engineering in Agriculture & Rural Development*, 24(1).
- [3]. D'Andrea, M. R. P., Carillo, F., Scardera, A., & Henke, R. (2025). The Common Agricultural Policy and income disparities in Italian agriculture. *Italian Review of Agricultural Economics*.
- [4]. European Commission. Feeding Europe—60 Years of Common Agricultural Policy. Available online: <https://www.consilium.europa.eu/en/60-years-of-common-agricultural-policy/>.
- [5]. Hill, B. E. (2023). *The common agricultural policy: past, present and future*. Routledge.
- [6]. Luca, L., Giurca, D., & Cionga, C. (2023, August). Payments under the CAP National Strategic Plan 2023-2027: Coupled Support. In *Crisis after the Crisis: Economic Development in the New Normal: 2021 International Conference of Economic Scientific Research-Theoretical, Empirical and Practical Approaches (ESPERA)* (p. 107). Springer Nature.
- [7]. Miroslav, R., Adrian, B., Andrea, F., Nicoleta, M. S., & Ion, O. P. (2023). Implementation of the Common Agricultural Policy in the 2023-2027 period through the National Strategic Program. *Agricultural Management/Lucrari Stiintifice Seria I, Management Agricol*, 25(2).
- [8]. Pe'er, G., Bonn, A., Bruelheide, H., Dieker, P., Eisenhauer, N., Feindt, P. H., ... & Lakner, S. (2020). Action needed for the EU Common Agricultural Policy to address sustainability challenges. *People and nature*, 2(2), 305-316.
- [9]. Popescu, A., Dinu, T. A., Stoian, E., Șerban, V., Hontus, A., & Angelescu, C. (2025). Disparities in Romania's agriculture among the Regions of Development. *Scientific Papers Series Management, Economic Engineering in Agriculture & Rural Development*, 25(1).
- [10]. Stoicea, P., Chiurciu, I. A., & Cofas, E. (2025). Territorial Disparities, Structural Imbalances and Economic Implications in the Potato Crop System in Romania. *Agriculture*, 15(22), 2343.
- [11]. The Payment Agency for Rural Development and Fishing (AFIR), 2025.
- [12]. Tableau Software, version 2025.3, available at: <https://www.tableau.com/>.