

STUDIES ON THE ESTABLISHMENT OF IRRIGATION SYSTEMS THROUGH NON-REIMBURSABLE FUNDS

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Abstract

The establishment of irrigation systems falls under the provisions of Articles 73 and 74 of Regulation (EU) 2021/2115 of the European Parliament and Council from December 2, 2021, and contributes to strengthening market orientation and increasing the competitiveness of agricultural farms, both in the short and long term, including a greater focus on research, technology, and digitalization. The analysis of establishing local irrigation systems will be conducted in areas not currently served by existing irrigation infrastructure and will outline the entire water cycle from source to plant, covering the components defined within the irrigation system according to current legislation. In 2024, 14 projects were financed through DR-26, with a total eligible value of 10.36 million euros. Of this amount, 6.71 million euros came from public funds, and 3.65 million euros represented the contribution of beneficiaries. In 2025, the number of projects increased to 29, almost double the previous year. The total eligible value of the projects reached 20.52 million euros, of which 13.09 million euros were public funds, and 7.43 million euros were the contribution of beneficiaries.

Keywords: irrigation, establishment, funded projects, agriculture, rural development

INTRODUCTION

Irrigation is one of the oldest and most important agricultural practices, with the role of ensuring the water needs of plants during periods of rainfall deficit (Bălan 2024). In the context of climate change and the increase in drought phenomena, the development and modernization of irrigation infrastructure becomes essential for food security and for increasing agricultural productivity (Robu et al. 2020). Lack of water is the main limitation of production in many agricultural regions, and the use of efficient irrigation systems contributes not only to the stability of crops, but also to the sustainable use of natural resources

(Luca, Sticea, and Marcoie 2021). In addition to its economic role, irrigation also has a social component, as it provides stable jobs and supports rural communities in maintaining viable agricultural activity. In addition, irrigation can contribute to crop diversification, allowing farmers to obtain products with higher added value and respond to market demands (Pelea, Costescu, and Man 2016).

However, investments in irrigation systems involve high costs, which are difficult for farmers to support exclusively. Therefore, public funds, especially those from European rural development programs, play a major role in supporting

these projects (Suciu et al. 2019). Through financing schemes, farmers have the opportunity to access resources to modernize existing infrastructure or to create new irrigation systems, sharing financial responsibility between public funds and their own contribution (Costescu et al. 2015).

At European and national levels, agricultural policies aim not only to increase yields, but also to adapt to climate change, reduce water losses, and protect the environment. In this sense, the funds allocated to irrigation are not just simple subsidies, but represent strategic instruments for the modernization of agriculture and the sustainable development of the rural environment (Bălănică 2023). Thus, irrigation and the financing dedicated to it simultaneously contribute to increasing the resilience of agriculture, ensuring the economic stability of farmers, and strengthening competitiveness on the European market (Cvejić, Pintar, and Zupanc 2021).

MATERIALS AND METHODS

The data comes from the selection reports published by AFIR for sub-

measure DR–26 in 2024 and 2025. Information about each project was taken: year, region, county, eligible value, public funding and beneficiary contribution. The data was extracted and centralized by regions and counties. The eligible values, public part and beneficiary contribution were calculated. Subsequently, the projects with the highest and lowest values were identified and comparisons were made between 2024 and 2025, in order to highlight territorial differences and the level of financial involvement of beneficiaries..

RESULTS AND DISCUSSIONS

This paper analyzes the situation of projects financed through DR–26 at the national level in 2024 and 2025, based on official reports published by AFIR. The data were centralized by regions and counties, and the analysis follows both the geographical distribution of investments and the level of financial involvement by beneficiaries. The results provide an overview of the interest in irrigation at the national level and the way in which farmers respond to financing opportunities.

Table 1

Status of projects financed by DR–26 – Establishment of irrigation systems, at national level in 2024 (euro)

Year	Region	County	Eligible Value	Public Value	Contribution Beneficiary
2024	1. North - East	IASI	675.000	438.750	236.250
		BOTOSANI; SUCEAVA	769.188	499.972	269.216
		NEAMT	749.632	487.261	262.371
	2. South - East	BUZAU	769.231	500.000	269.231
		VRANCEA	769.217	499.991	269.226
		VRANCEA	769.111	499.922	269.189
		VRANCEA	769.230	499.999	269.231
		VRANCEA	686.839	446.445	240.394
		VRANCEA	768.950	499.817	269.133
	3. South - Muntenia	DAMBOVITA	615.328	399.963	215.365
		GIURGIU	676.079	439.451	236.628
		CALARASI	769.231	500.000	269.231
		CALARASI	797.347	500.000	297.347
	4. West	TIMIS	781.996	500.000	281.996

In 2024, through sub-measure DR–26 – Establishment of irrigation

systems, projects were approved in several regions of the country, all

following the same financing principle: part from public funds (up to 500,000 euros) and the rest as a contribution from the beneficiaries. In the North-East Region, Iași County has a project of 675,000 euros, financed with 438,750 euros from public funds, and the remaining 236,250 euros represents the beneficiary's contribution. Botoșani and Suceava counties feature a joint project worth 769,188 euros, with 499,972 euros from the state and 269,216 euros borne by farmers. In Neamț, the project totals 749,632 euros, of which 487,261 euros represent public funds, and 262,371 euros come from the beneficiary. In the South-East Region, Buzăul has a project of 769,231 euros, where the public contribution is maximum (500,000 euros), and the difference of 269,231 euros goes to the beneficiary. Vrancea County stands out for a large number of projects, five in total, with very close eligible values, around 769,000 euros, except for one smaller one (686,839 euros). Public funding for projects in Vrancea varies

between 446,445 and 500,000 euros, the rest being borne by the beneficiaries. In the South-Muntenia Region, Dâmbovița County has a smaller project, of 615,328 euros, of which almost 400,000 euros come from public sources and 215,365 euros from the beneficiary. In Giurgiu, the project is worth 676,079 euros, with 439,451 euros from public funds and 236,628 euros from private contributions. Călărași County has two large projects: one worth 769,231 euros and another worth 797,347 euros, the latter being the largest project in the table. Both receive 500,000 euros from public funds, the difference – between 269,231 and 297,347 euros – being borne by farmers. In the West Region, Timiș County benefits from a project worth 781,996 euros, of which 500,000 euros come from public funding and the remaining 281,996 euros from the beneficiary's contribution, which places it among the projects with the highest own contribution (Table 1).

Table 2

Status of projects financed by DR–26 – Establishment of irrigation systems, at national level in 2025 (euro)

Year	Region	County	Eligible Value	Public Value	Contribution Beneficiary
2025	1. North - East	BACAU	769.231	500.000	269.231
	2. South - East	VRANCEA	858.075	500.000	358.075
		BRAILA	1.059.604	500.000	559.604
		CONSTANTA	769.231	500.000	269.231
		TULCEA	382.399	248.559	133.840
		TULCEA	748.993	486.845	262.148
		TULCEA	772.744	500.000	272.744
	3. South - Muntenia	DAMBOVITA	769.080	499.902	269.178
		TELEORMAN	769.200	499.980	269.220
		ARGES	769.231	500.000	269.231
		PRAHOVA	165.722	107.719	58.003
		IALOMITA	662.996	430.947	232.049
		CALARASI	769.231	500.000	269.231
		IALOMITA	769.231	500.000	269.231
		IALOMITA	537.629	349.458	188.171
		IALOMITA	766.965	498.527	268.438
	4. South-West Oltenia	OLT	768.202	499.331	268.871
		OLT	500.000	325.000	175.000
	5. West	TIMIS	768.897	499.783	269.114
		ARAD	634.354	412.330	222.024
		TIMIS	768.804	499.722	269.082
		TIMIS	769.100	499.915	269.185
		TIMIS	769.230	499.999	269.231
		ARAD	769.230	499.999	269.231
		TIMIS	503.135	327.037	176.098
	6. North - West	SATU-MARE	769.000	499.850	269.150
		BIHOR	629.026	408.866	220.160
		BIHOR	768.963	499.825	269.138
	7. Center	COVASNA	769.230	499.999	269.231

In 2025, through the measure DR–26 – Establishment of irrigation systems, projects were financed in all development regions of the country, with the same principles as in 2024: the public part is capped at 500,000 euros, and the difference up to the eligible value is covered by the beneficiaries. In the North-East Region, Bacău County has a project of 769,231 euros, with 500,000 euros of public funding and 269,231 euros of own contribution. In the South-East Region, Vrancea County has a project of 858,075 euros, of which 500,000 euros are public funds and 358,075 euros are the beneficiary's share. In Brăila, it is the largest project in the table, of over 1 million euros (1,059,604 euros), with a very high beneficiary contribution, 559,604 euros. In Constanța, the project has a standard value of 769,231 euros, divided between public and private funds. In Tulcea there are four projects with different values: a small one, of 382,399 euros, with public funding of only 248,559 euros; a medium project, of 748,993 euros; and two close to the ceiling, between 769,000 and 773,000 euros, each with maximum public funding. In the

South-Muntenia Region, the counties have several projects: Dâmbovița, Teleorman, Argeș and Călărași have projects of approximately 769,000 euros each. Prahova has the smallest project in the table, of only 165,722 euros, of which 107,719 euros are public funds. Ialomița stands out with four projects: two close to the ceiling, one of 662,996 euros and another smaller one, of 537,629 euros. In the South-West Oltenia Region, Olt County has two projects: a large one, of 768,202 euros, and a smaller one, of 500,000 euros. In the West Region, Timiș stands out for a large number of projects – five in total – most of them at the standard value of 769,000 euros, but there is also a smaller one, of 503,135 euros. Arad has two projects: one of 634,354 euros and one at the ceiling, of 769,230 euros. In the North-West Region, Satu Mare County has a project of 769,000 euros, and Bihor two projects: one of 629,026 euros and another close to the ceiling, of 768,963 euros. In the Center Region, Covasna County has a standard project, of 769,230 euros (Table 2).

CONCLUSIONS

In 2024, 14 projects were financed through DR–26, with a total eligible value of 10.36 million euros. Of this amount, 6.71 million euros came from public funds, and 3.65 million euros represented the contribution of the beneficiaries.

In 2025, the number of projects increased to 29, almost double the previous year. The total eligible value of the projects reached 20.52 million euros, of which 13.09 million euros were public funds, and 7.43 million euros were the contribution of the beneficiaries.

Comparing the two years, it is observed that in 2025 both the number of projects,

the total value of investments and the contribution of the beneficiaries doubled, which shows a growing interest in the development of irrigation systems and an increased financial involvement of farmers.

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