THE INVESTMENT SUPPORT CAPACITY FOR TECHNOLOGY OF SMALL FARMS AND RURAL HOUSEHOLDS IN WESTERN ROMANIA

KAPACITETI ZA INVESTICIONU PODRŠKU TEHNOLOŠKOJ MODERNIZACIJI MALIH FARM I RURALNIH DOMAĆINSTAVA U ZAPADNOJ RUMUNIJ

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ABSTRACT

This paper targets the developments concluded within specifically delimited areas of LEADER axis, namely selected territories of Local Action Groups. The reason of this choice is related to the potentially large physical and economic size of the farms and households where the funding availability for co-financing and supporting the non-eligible expenditure is different to the small and medium farms and agricultural households. The aim of the analysis is to find and quantify the capacity of the small farming operations which are usually retrieved in LAGs where their relative small projects have a better chance to contract the public support compared to the national competition of the Programme (NRDP). The present analysis selects LAG territories from different geographical regions of Romania with different cultural, entrepreneurial and agricultural background and quantifies and compares the private contribution at the scale of the territories in order to check the assumption that the supporting capacity of small farms and agricultural households is very limited. As the conclusions highlight the capacity is far from being reduced or small particularly when the scale of operations is relatively small. Also, the financial surroundings and the overall success of the implementation are the best public-private-partnership success story in Romania for the last century-quarter.

Key words: investment, technology, private co-financing.

REZIME

Rad se bavi razvojnim merama koje su sprovedene u oblastima pod okriljem programa LEADER, odnosno u nadležnosti lokalnih akcionih grupa (LAG). Istražene su mogućnosti sufinansiranja malih i srednjih farmi i poljoprivrednih domaćinstava u izabranim oblastima, kao i dostupnost finansijske podrške u slučaju neprihvatljivih troškova. Analiza je izvršena s namerom da se utvrde i kvantifikuju kapaciteti za podršku malim farmama posredstvom lokalnih akcionih grupa. Male farme imaju veću mogućnost da ostvare državnu podršku u okviru relativno malih projekata koje sprovode lokalne akcione grupe nego u okviru nacionalnih projekata (NRDP). Predmetna analiza obuhvata oblasti u nadležnosti lokalnih akcionih grupa (u različitim geografskim područjima Rumunije i s različitim kulturološkim, preduzetničkim i poljoprivrednim karakteristikama) i poredi privatne doprinose na nivou izabranih oblasti s namerom da ispita hipotezu po kojoj su kapaciteti za podršku malim farmama i poljoprivrednim domaćinstvima veoma ograničeni. Dobijeni rezultati potvrđuju da kapaciteti za podršku nisu ni ograničeni ni zanemarljivi, pogotovo ukoliko je opseg aktivnosti relativno mali. Štaviše, ukupan uspeh implementacije navedenih projekata u postojećem finansijskom okruženju predstavlja najuspešniji primer javno-privatnog partnerstva u Rumuniji u poslednjih 25 godina.

Ključne reči: investicije, tehnologija, privatno sufinansiranje.

INTRODUCTION

The capacity to support public investments via the specific funding programmes of the EU has two type of own contribution for the beneficiaries: the co-financing of the eligible expenditure and the non-eligible expenditure associated to the implementation of the project. According to the type of investment in agriculture and/or rural economy the share supported by the beneficiary with both types of compulsory contributions can sometimes even exceed half of the total budget. While the rural economy investments are well and clear separated by the non-agricultural character of the interventions and business as stipulated by the Romanian National Rural Development Programme 2007-2013, the investments in agriculture have mainly targeted the increase of economic competitiveness in order to help the farmers cope with the new wide and open market of the EU. This is to say that most investments in agriculture were targeting new machinery in agricultural production or further along the agri-food chain

conditioning and/or processing of primary agricultural goods. During the period of Romania's pre-accession to the EU most experts in agricultural and rural development were extremely doubtful regarding two critical points: the management skills of the farmers, from project management to farm management, and their financial capacity to support and further handle the public funding they might access. If the first aspect was tackled by the compulsory component of the Programme by training and acquiring competencies, the second bottleneck remained to be supported by a limited capacity of guarantees for the investment credits assumed by the future beneficiaries. Related to this reality, the expectations in terms of levels and volumes of investments were rather low.

MATERIALS AND METHODS

The choice of the observation scale pointed to the Local Action Groups (LAG) as an integrated approach of agriculture and rural development with the widest coverage of supported actions from investment support to non-agricultural investments

in rural economy. In order to verify the pre-supposed lack of supporting public investments by private co-financing, particularly in modernising agriculture for increasing the overall competitiveness on the common market, the LAGs represent the perfect options since most of the proposed and contracted projects are generally at small scale when approached as physical or economic size. The types of investments observed spread as typology to a relatively wide range moving from adjustments in the choice of biological material (Cvejić, 2016; Pavlov, 2015; Tabaković, 2016; Vujaković, 2015) to innovation-based production control, mainly in crop technologies or further to production in protected areas (Bursić, 2016; Ljevnaić-Mašić, 2015, Dimitrijević, 2016). A special emphasis was given to the impact of the investments using modern technologies such as ICT in optimising the production process but also the link of the outputted production to the market (Kamenko, 2015 and 2016; Mutavdžić, 2016). The general provisions of setting up the Local Development Strategies (LDS) under the LEADER Axis as part of the National Rural Development Programme [11] [12] allowed access to any type of investment part of the programme within any of the other three axes. The particular methodology for implementation of the LDSs had to prove the needs and the problems of the territories in relation with the requested support and interventions as part of the selection and contracting of the LEADER support. The total number of selected and functional LAGs amounted 163 LEADER territories with a coverage of 63 % of the national territory (142,000 km² out of 238,391 km² total), including 58 % of the total eligible population. The two selected LAGs are from the Western Romania both located in favourable agricultural conditions in the Western Romanian Plain, near former industrial sites deserted in the early 90's. The first one includes 14 rural localities and one town (as requested by the methodology) and covers 1,308 km² and 69,253 inhabitants with an average population density of 53 pop./km² [14]. The second LAG has 1 urban and 18 rural localities and counts 59,139 inhabitants for an administrative area of 1,716.5 km² with an average population density of only 13.99 pop./km² [13]. The overall implementation success for the relevant measures supported in the LDSs where private contribution as co-financing was involved is the measure of observations used to support the findings and conclude upon the capacity to undertake consistent investments in technology.

the present analysis are the final reporting results as certified and paid expenditures linked to the beneficiaries spent contributions after the concluded financial period of the programme (NRDP 2007-2013). The detailed layout of the two budgets are presented in the Tab. 1 and Tab. 2 for the respective LAGs. The indication of measures in format XX.X.XXX reflect the original

Table 1. Financial implementation of Local Development Strategy LAG LMJ

Measure	% of total	Total Cost	Public contributions			Private contributions	
			Total	EFARD	National		
		Amount		80%	20%	Amount	%
41.1.121	22%	1,704,207 €	732,809 €	586,247 €	146,562 €	971,398 €	57%
41.1.123	12%	198,812 €	99,406 €	79,525 €	19,881 €	99,406 €	50%
41.1.125	13%	315,785 €	315,785 €	252,628 €	63,157 €	n.a.	0%
41.3.312	9%	290,768 €	223,668 €	178,934 €	44,734 €	67,100 €	30%
41.3.322	42%	1,059,332 €	1,059,332 €	847,466 €	211,866 €	n.a.	0%
421	2%	14,000 €	14,000 €	11,200 €	2,800 €	n.a.	0%
TOTAL		3,582,904 €	2,445,000 €	1,956,000 €	489,000 €	1,137,904 €	

Source: Reporting on Implementation of LDS LAG LMJ [16]

codification of the LEADER Axis (first two digits), the Programme Axes (the third digit) and the specific Programme Measures (the last three digits). Of initial relevance to our analysis are the measures implemented via the LDSs involving private contributions from the side of the beneficiaries (contracting applicants), namely 41.1.121 - Farm modernisation, 41.1.123 - Increasing the added value of agricultural and forestry products, 41.3.312 - Support for creation and development of micro-enterprises. The further interest is later shifting to the first above mentioned method to focus over the investment in technology for agricultural production. In the case of the LAG LMJ the data presented in Tab. 1 indicate that 43 % of the

Table 2. Financial implementation of Local Development Strategy LAG MVC

Measure	% of total	Total Cost	Public contributions			Private contributions	
			Total	EFARD	National		
		Amount		80%	20%	Amount	%
41.1.111	0%	6,000 €	6,000 €	4,800 €	1,200 €	n.a.	0%
41.1.121	42%	1,590,056 €	795,028 €	636,022 €	159,006 €	795,028 €	50%
41.1.141	2%	90,000 €	90,000 €	72,000 €	18,000 €	n.a.	0%
41.3.312	21%	783,883 €	548,718 €	438,974 €	109,744 €	235,165 €	30%
41.3.322	22%	834,519 €	834,519 €	667,615 €	166,904 €	n.a.	0%
421	1%	11,235 €	11,235 €	8,988 €	2,247 €	n.a.	0%
AT	12%	454,256 €	454,256 €	363,405 €	90,851 €	n.a.	0%
TOTAL		3,769,949 €	2,739,756 €	2,191,804 €	547,952 €	1,030,193 €	

Source: Reporting on Implementation of LDS LAG MVC [15]

RESULTS AND DISCUSSION

The concluded financial results of the implementation of the LDSs in the two LEADER territories were considered relevant for the findings due to the often reallocations between different measures and interventions. The figures considered and used in

overall budget was allocated to measures involving private contribution from the beneficiaries in different shares (30-57 %) according to the measure and the total value of the project. Almost 1/3 of the total cost for the implemented projects (31,76 %) was originating in private co-financing, also graphically presented in the Graf. 1.

In the case of the second screened LAG, the MVC, a larger share was modelled for the allocations for measures involving private contributions (63 %) and the private expenditure for implementation represents over 1/4 (27,32 %) of the total used budget as showed in detail in Tab. 2 and graphically in Graf. 1. In both tables the data linked to the relevant selected measures is highlighted in red. Comparatively, in both situations the total amount represented by private contributions as compulsory expenditure stipulated in the EU Regulation, the NRDP and the LDS exceeds the amounts for measures with 100 % public support such as the ones dedicated for rural infrastructure (41.3.322). Considering the scale of the investments for all types of support a larger expenditure in private investments compared to the rural infrastructure's implemented budgets indicate a serious commitment to cope with the agriculture's competitiveness lagging EU average.

Fig. 1. Shares of Public and Private Financing on Selected Measures for the two LAGs

Source: Reporting on Implementation of LDS LAG MVC [15] and LMJ [16]

The interest for the dedicated measure for modernising the agriculture (41.1.121) becomes highly visible at the level of all LAGs in Romania considering that the final accounts highlight the amount of 43,619,976 Euro paid on concluded contracts [17]. The amounts certified and paid are the only relevant data for the purpose of the paper since allocated and contracted are less relevant given the possibility to return certain amounts considered inappropriately spent in implementation. Analysing the situation and the shares of the agriculture modernising measure for the two selected LAGs, we can observe (Graf.2) the prevalent dominance in the total private contribution of beneficiaries.

The LAG MVC uses over 3/4 of the private contribution (77.17 %) to co-finance the investments in modernisation of agriculture while the LAG LMJ reaches 85.36 % of total private contribution for the same type of investments. The capacity to mobilise amounts of 795,028 Euro (LAG MVC) or even 971,398 Euro (LAG LMJ) to support the total public and private investments in territories with 60-70,000 inhabitants proves determination for strategic development.

Fig. 2. Shares of Modernising Agriculture Measure in Private Financing for the two LAGs

Source: Reporting on Implementation of LDS LAG MVC [15] and LMJ [16]

CONCLUSION

The high levels of private co-financing observed in the concluded budgets of the two LAGs for selected relevant measures and particularly for the agriculture modernising measure indicated beyond doubt a high capacity to support the investments in technology as a requirement to close the competitiveness gap to the EU average even in the case of small farms and rural households in Western Romania. Overpassing all other types of rural investments with public support within the frame of the National Rural Development Programme and Local Development Strategies as part of the LEADER Axis, the elevated demand for investments in technology links with the condition of the Romanian agriculture from the pre-accession to EU and indicates a clear priority and a commitment mark from the side of the farmers. All estimations prior to the NRDP opening regarding the reduced level of knowledge and experience and moreover the reduced capacity to co-finance important projects proved errored when most LAGs concluded with over 90-95 % of committed budget where certain territories contributed with 1/3 as private contribution, mostly in modernising agriculture. This represents a highly positive evaluation for the first programming exercise with EU and national support within the frame of a compulsory public private partnership, the LAGs.

REFERENCES

- Bursić, Vojislava, Vuković, Gorica, Gvozdenac, Sonja, Petrović, Aleksandra, Popović, Aleksandra, Marinković, D., Petrović M. (2016). Abuse of plant protection products. Journal on Processing and Energy in Agriculture, 20 (4), 189-192.
- Cvejić, Sandra, Jocić, S., Radeka, I., Jocković, M., Miklič, V., Mladenov, V., Lončarević, V. (2015). Evaluation of stability in new early-maturing sunflower hybrids. Journal on Processing and Energy in Agriculture. 19 (5), 255-258.
- Dimitrijević, Aleksandra, Šundek, Brankica, Blažin, S., Blažin, D. (2016). Production conditions for greenhouse vegetable production on small scale family farms. Journal on Processing and Energy in Agriculture. 20 (1) , 21-24.

- Kamenko, I., Dimitrijević, Aleksandra, Kulić, F., Nikolić, P. (2016). Web based application for optimal greenhouse production system selection. *Journal on Processing and Energy in Agriculture*, 20 (4), 182-185.
- Kamenko, I., Jakovljević, B., Kulić, F., Nikolić, P., Bugarski, V. (2015). Web based application for visualization of geospatial data in agriculture. *Journal on Processing and Energy in Agriculture*, 19 (2), 108-111.
- Ljevnaić-Mašić, Branka, Nikolić, Ljiljana, Džigurski, Dejana, (2015). Weeds in organic production of pepper (*Capsicum annuum* L.): Bioindicators of habitat conditions. *Journal on Processing and Energy in Agriculture*, 19 (5), 266-272.
- Mutavdžić, Beba, Novković, N., Vukelić, Nataša, Radojević V. (2016). Analysis and prediction of prices and price parties of corn and wheat in Serbia. *Journal on Processing and Energy in Agriculture*, 20 (2), 106-108.
- Pavlov, M., Todorović, G., Crevar, M., Tolimir, M., (2015). Influence of hybrid combinations on the maize seed traits. *Journal on Processing and Energy in Agriculture*, 19, (5), 233-235.
- Tabaković, Marijenka, Jovanović, Snežana, V., Kojić, Jasna, Stanisavljević, R., Štrbanović, R., Šimić, B., Popović, Vera, (2016). Stability of morphological traits of maize seed under different production conditions. *Journal on Processing and Energy in Agriculture*, 20 (2), 77-80.
- Vujaković, Milka, Marjanović-Jeromela, Ana, Jovičić, Dušica, (2015). Viability of oil rape seed (*Brassica napus* L.). *Journal on Processing and Energy in Agriculture*, 19 (4), 171-174.
- Ministry of Agriculture and Rural Development, National Rural Development Programme 2007-2013, versions 02.2008, 07.2008, 03.2009, 12.2009, 06.2010, 04.2011, 07.2011, 03.2012, 05.2012, 12.2012, 11.2013, 08.2014, 09.2014, 09.2015, Bucharest
- Council Regulation no. 1698/2005 regarding the support for rural development granted from the European Fund for Agriculture and Rural Development (EFARD)
- Local Development Strategy Local Action Group MVC 2010-2013, http://www.gal-mvc.ro/files/_Strategie%20GAL%20Vaile%20Crisurilor%20Alb%20si%20Negru%20FORMAT%20ELECTRONI.pdf
- Local Development Strategy Local Action Group LMJ http://www.galluncamuresuluidejos.ro/images/gal/Strategie%20Lunca%20Muresului_modificata_MAI%202014.pdf
- Report on Financial implementation of Local Development Strategy of the Local Action Group MVC, 2015
- Report on Financial implementation of Local Development Strategy of the Local Action Group LMJ, 2015
- Report on Financial implementation of Local Development Strategy of the Local Action Groups in Romania, December 2015

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