

## ASPECTS REGARDING THE IMPACT OF LOCAL ACTION GROUPS (LAG) FINANCING THROUGH LEADER, ON RURAL DEVELOPMENT OF THE ELIGIBLE TERRITORY IN ROMANIA

Luxita Georgiana STAIC<sup>1</sup>, Marius VLADU<sup>2</sup>

<sup>1</sup>University of Agronomic Sciences and Veterinary Medicine of Bucharest, 59 Marasti Blvd, 011464, Bucharest, Romania, Phone: +40763542720, E-mail: georgistaic@gmail.com

<sup>2</sup>University of Craiova, Faculty of Agronomy, Department of Agricultural and Forestry Technology, 19 "Libertății" Street, Craiova 200583, Dolj County, Romania, Phone: +40744870085, E-mail: mariusvladu@yahoo.fr

*Corresponding author:* georgistaic@gmail.com

### Abstract

*This article analyzes the local action groups in terms of the impact of funding obtained through measure 19 LEADER of the National Rural Development Program. Has it benefits or not? How relevant are the indicators achieved and their contribution to the economic and social development of the LAG territory. Also, the progress made by the local action group in the period between the approval of LDS by MARD and 31.01.2021, the degree of fulfillment of the assumed obligations as well as direct or indirect connections between financing are subject to analysis received through measure 19 LEADER, the indicators achieved and the degree of rural development of the area. Regarding the evaluation of the local action groups, the additional bonus stage, the one that analyzes their activity in the period between the LDS approval, respectively the year 2016 and 31.01.2021 (with reference to the programming period 2014-2020) finances the structures with over 21 million euro, financial allocations from other NDRP sources. In view of this additional funding, over 60% of public-private partnerships attracted additional funds, resulting in over 3,400 jobs, which is a positive premise for the rural development of the LAG.*

**Key words:** LAG, LEADER, development, rural, strategy, evaluation

### INTRODUCTION

The 239 local action groups in Romania are authorized following the approval of the Local Development Strategy (LDS) by the Managing Authority. Each LDS is unique and specific to each LAG, starting from the individuality of the territory and the uniqueness of the LEADER approach, namely the seven basic principles: territorial approach, bottom-up approach, local partnerships, innovation, integrated approach, cooperation, funding and local management. Obviously, each LDS must meet certain eligibility and scoring criteria in order to be evaluated and subsequently approved.

It must contain objectives structured according to the National Rural Development Plan, but especially, in order to be eligible, it must be elaborated based on a bottom-up approach, starting from the basic needs of the targeted territory [12]. In the period 2014-

2020, the 239 local action groups received an allocation in public value of 563,515,550.96 euros. Most local action groups are found in the North-East and South regions, with the highest financial allocations. On average, the highest value of the allocation is in the West region, 3,096,948,392 euros above the national average of 2,357,809,837 euros and the lowest in the Bucharest-Ilfov region, 1,155,099.61 euros, below the national average. In the Local Development Strategy based on which it operates, each Local Action Group assumes certain performance indicators arising from the implementation of projects that are subject to funding received through measure 19 LEADER [1]. The indicators do not show the same amount at the level of each local Action Group [8]. Depending on the particularities of each local action group, monitoring indicators can be found such as: the number of jobs created as a result of LDS implementation, the number of supported

agricultural holdings, the number of supported non-agricultural businesses, etc. [13], [9].

## MATERIALS AND METHODS

The information presented will highlight the economic - financial aspects of the local action groups at national and regional level resulting from obtaining the financing through M19 LEADER.

The financial allocation obtained within sub-measure 19.2 (the budget of the Local Development Strategy), the absorbed financial allocation, as well as their percentage quantification will be highlighted.

For a simpler example, certain analyzes will be made using the averages of the values, both at national and regional level, due to the large volume of data. The data resulted from the administrative analysis of the documents as well as from their own processing, using mathematical modeling: Pearson's correlation coefficient and polynomial function. Regarding mathematical modeling, the most commonly used is the person's correlation coefficient  $r$  (linear correlation coefficient), which measures the degree of correlation between variables.

$$r_{xy} = \frac{\sum_i (x_i - \bar{x}) \cdot (y_i - \bar{y})}{\sqrt{\sum_i (x_i - \bar{x})^2 \cdot \sum_i (y_i - \bar{y})^2}}$$

where:  $X$  and  $Y$ - are the averages for the samples. The correlation coefficient  $r$  has values between -1 and 1. The + or - sign shows the type (direction of the relationship), and the numerical value shows the intensity of the relationship, as follows: 1 - perfect inverse, negative correlation; 0 - zero or no correlation; 1 - perfect direct-positive correlation. In this case, the existence of correlations between various variables will be verified, directly or indirectly resulting from the financing of the Local Action Groups through measure 19 LEADER.

In the analysis, the values of the correlation coefficient ( $r$ ) and the determination coefficient will be presented ( $R^2$ ).

## RESULTS AND DISCUSSIONS

The activity of the Local Action Group is subject to periodic evaluation in order to establish its level of performance and possibly to be bonused or penalized [3]. Its evaluation is made according to the data reported by each local action group to the Managing Authority based on the indicators previously established and assumed. It should be mentioned that the main role of evaluating the implementation of the LDS of a local action group is to reveal the progress made and not to propose a penalty [4]. At the same time, the purpose of the evaluation is to study to what extent the proposed actions were well substantiated in the ex-ante stage of LDS elaboration, starting from the SWOT analysis of the eligible territory of the Local Action Group. Thus, some well-identified actions will lead to the minimization or resolution of the deficiencies initially identified, this being reflected mainly in the living standard of the citizens from the LAG territory. In the opposite sense, proposed actions without a correct identification of the insufficiencies of the territory will not lead to encouraging results, will not attenuate the existing disparities, thus minimizing the impact of financial allocation due to measure 19 LEADER. The migration of the rural population to the urban centers or other developed countries is an assiduous problem of the Romanian village[2]. In the 2014-2020 period, with reference to the local action groups, two rounds of bonuses / penalties were proposed, based on the normative acts MARD Order No. 553 Since 27.11.2019 [5] which provides the reference period the moment between the LDS approval and 30.09.2019 and MARD Order No. 57 Since 11.03.2021 [6], which provides for the bonus based on the evaluation of the activity of the Local Action Group the period between the LDS approval until 31.01.2021. The relevant aspects of the two stages are presented in Table 1. It is observed that the two stages have similarities, but also substantial differences. If the first stage contains "mandatory" thresholds to be reached, applying penalties where they did not fall within the specified limits, the second stage of

the bonus has an optional character, but implicitly derives from the achievement of the necessary indicators of fulfilled in the first stage, the evaluated type horizon being longer. Also, if the first stage of the bonus involved the distribution of the amounts collected due to non-compliance with the

minimum indicators, the LDSs value at national level remaining the same, the second stage came with additional allocations, the LDSs value being supplemented by 21,308,254.58 euros the amount of 584,824,805.51 euros [7].

Table 1. Relevant aspects of the evaluation of local action groups activity, in the two bonus stages.

<b>Bonus according to OMARD 553/27.11.2019 - reference period 2016*-30.09.2019 - includes penalties [4]</b>	<b>Additional bonus according to OMARD 57-11.03.2021 - reference period 2016*- 31.01.2021 [5]</b>
Indicators: <ul style="list-style-type: none"> <li>➤ reaching a level of at least 60% contracted value relative to the total value of LDSs (including operating expenses)</li> </ul>	Indicators: <ul style="list-style-type: none"> <li>at least 80% contracted value (19.2)</li> <li>➤ at least 50% value paid (authorized payments / total value LDSs- 19.2</li> <li>➤ jobs created &gt; = 80%</li> </ul>
Bonus value = 2,522,162.40 euros	Bonus value = 21,308,364 euros
Bonus funds come from the amount of penalties collected	The funds come from the amounts available at sM 19.2 and 19.4 -NDRP 2014-2020
Number of bonused LAGs = 18	Number of bonused LAGs = 146
The distribution of amounts is done according to an algorithm	The distribution of the amounts is made equally to the 146 LAGs (145,947 euros)
LAGs penalized in S-V Oltenia = 1 = 101,416.61 euros Bonused LAGs in S-V Oltenia = 4 = 583,202.66 euros	Bonused LAGs in S-V Oltenia = 16 = 2,335,152 euros Dolj = 5; Gorj = 2; Mehedinti = 4; Olt = 2; VL = 3
The value of LDSs = 563,516,550.93 euros	The value of LDSs = 584,824,805.51 euros

Source: own processing after [www.madr.ro](http://www.madr.ro) (accessed 30.06.2021)

\*The moment of LDS approval

The analysis of the contracted funds reveals the following situation: the average value of the funds contracted at national level from LDS (19.2) is 1,884,891.76 euros. Above the average of the contracted national value are found the North-East, South, West, South-West Oltenia and North-West regions, at the top of the ranking being the West region, with an average of 2,501,067.33 euros (Figure 1). On the other hand, below the national contracted average value are the South-East, North-West, Center and Bucharest-Ilfov regions, which also have the lowest contracted value at 19.2 and 802,573.90 euros, respectively (Figure 1). As a percentage, the average contracted value compared to the average value of LDS (19.2), at regional level, places the North East region on the first place (92.66%), followed by the Center queen

(90.86%). The South-West Oltenia region contracted funds in a percentage of 88.74%, the ranking being concluded by the Bucharest-Ilfov region, with a contracting degree of 60.73% (Figure 3). The situation of the paid funds compared to the contracted funds (average values) places the South-West Oltenia region at the forefront, with an average of the paid value of 1,245,335.29 euros, above the national average of 1,064,600.63 euros. On the marginal place is the Bucharest-Ilfov region, with an average of the paid value of 204,238.59 euros, well below the average national value, as shown in Figure 2. As a percentage, the average value paid compared to the average value of LDS (19.2) places the North-East region in first place (62.50%), followed by the South-West Oltenia region (61.74%), the ranking being

concluded by the Bucharest-Ilfov region (23.54%). The situation changes if we talk about the ratio of the average value paid to the average value contracted from LDS (19.2). In this case, the South-West Oltenia region is the leader in paid contracts (71.63%), which

means a high degree of implementation, followed by the South region (70.21%). The Bucharest-Ilfov region paid 41.90% of the value of the contracted funds, as shown in Figure 3.

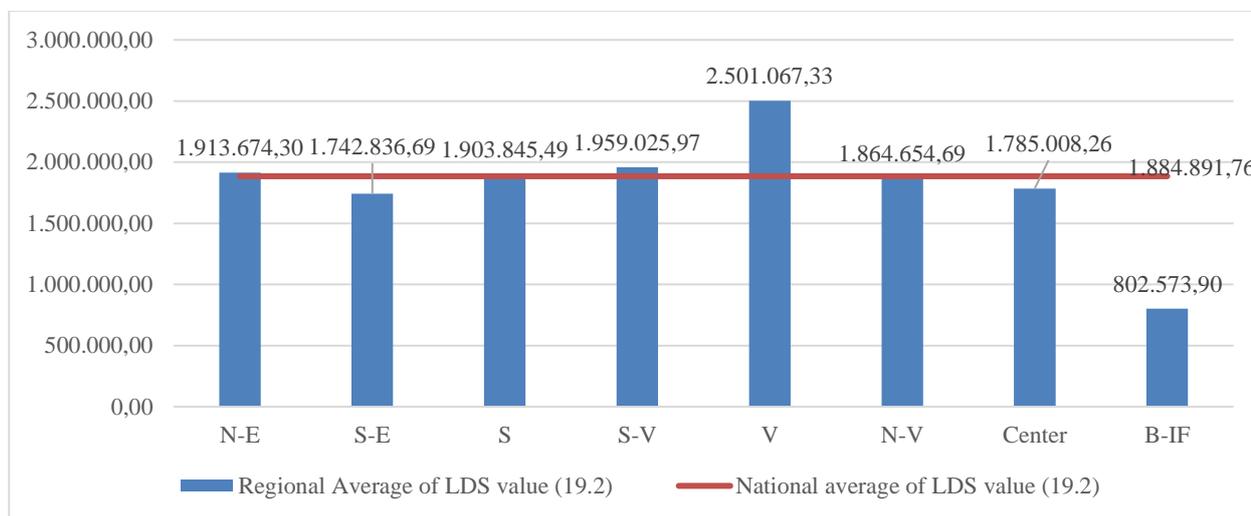


Fig. 1. Average LDS-19.2 value distributed at national and regional level (euro)  
 Source: own processing according to data collected [www.madr.ro](http://www.madr.ro) (30.06.2021)

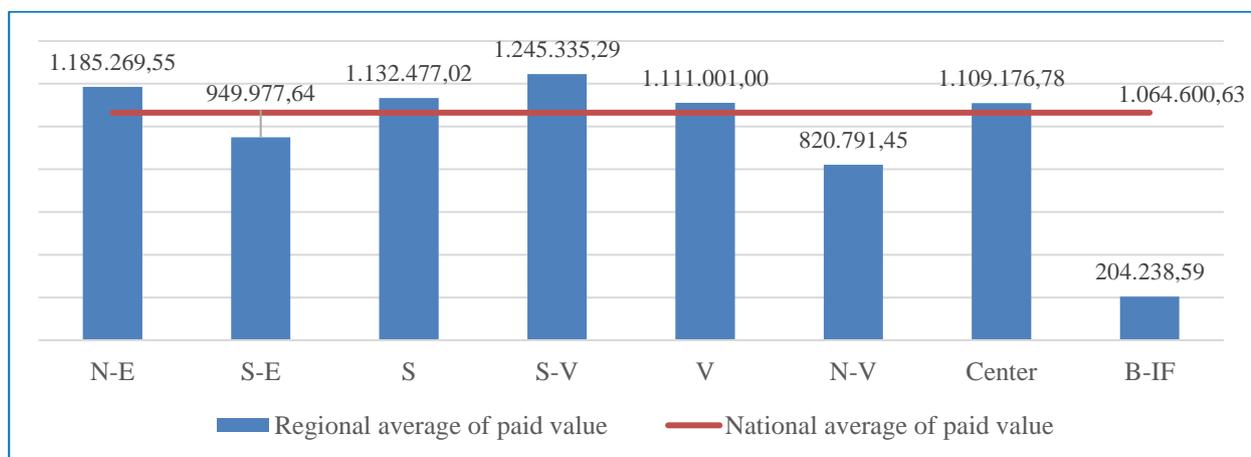


Fig. 2. Average paid value distributed at national and regional level (euro)  
 Source: own processing according to data collected [www.madr.ro](http://www.madr.ro) (30.06.2021)

One of the indicators assumed in the Local Development Strategies of all LAGs is the number of jobs created. By assuming and approving the Local Development Strategy by the Management Authority, the Local Action Group has to create a certain number of jobs, which derives from the implementation of the IN actions within the proposed financing measures [11]. The number of jobs created at the level of the reference period (31.01.2021) is significantly higher than the number of jobs assumed in the stage of elaboration of the

local development strategy, in total being exceeded by 234 [10]. Most regions have exceeded the number of jobs assumed, only three of them being below the proposed level, as shown in Table 2. Obviously, the specificity of the measures proposed for funding contributes to the sizing of this indicator, some requiring more human resources, others not. Analyzing Table 2, we can conclude that the funding absorbed through measure 19 LEADER, within the NRDP has a positive impact on the region

from an economic and social point of view, in this case the two structures being interconnected. In order to deepen the impact that this indicator has at the level of each region, we will analyze its influence on the degree of relative poverty, respectively if there is any correlation between the two variables. It should be mentioned, however, that the degree of relative poverty is an indicator whose analysis requires a long enough time horizon to observe its evolution. Thus, in the data presented in Table 3, we observe that the highest degree of relative

poverty is in the NW region (41.1%) and 549 jobs were created and the lowest is in the B-IIfov region (2.9%), where 57 jobs were created. The S-Muntenia region, through the proposed measures, contributed to the creation of 638 jobs, this having a poverty rate of 26%. The tabular representation in Table 4 as well as the graphical representation in Figure 4, demonstrate the fact that between the two variables there is a direct positive moderate correlation, respectively there is a certain influence of the poverty rate on the number of jobs created.



Fig. 3. Situation of the main financial indicators of the LAGs on 31.01.2021  
Source: own processing according to data collected [www.madr.ro](http://www.madr.ro) (30.06.2021)

Table 2. The situation of the number of jobs assumed, respectively created on 31.01.2021

Region	No of jobs proposed in LDS	No of jobs created
N-E	479	549
S-E	460	381
S-Muntenia	546	638
S-V Oltenia	390	329
V	400	459
N-V	438	534
Center	470	532
B-IIfov	62	57
<b>Total</b>	<b>3,245</b>	<b>3,479</b>

Source: Own processing according to data [www.madr.ro](http://www.madr.ro).

Table 3. Number of jobs created and relative poverty rate

Region	Relative poverty rate* = %	No. of jobs created
N-E	41.1	549
S-E	31.1	381
S-Muntenia	26	638
S-V Oltenia	31.6	329
V	14.7	459
N-V	14.7	534
Center	21.2	532
B-Ilfov	2.9	57

Source: Own processing according to data www.madr.ro and \*Tempo Online.

Table 4. Table representation of the values of the correlation between the number of jobs created and the relative poverty rate

Correlation	r	R2	R2	R2	R2
No. of jobs created/ Relative poverty rate	Coef. Pearson 0.5029*	Linear function 0.253	Polynomial function - 2nd degree 0.534	Polynomial function - 3rd degree 0.813	Polynomial function - 4th degree 0.9127

Source: Own processing.

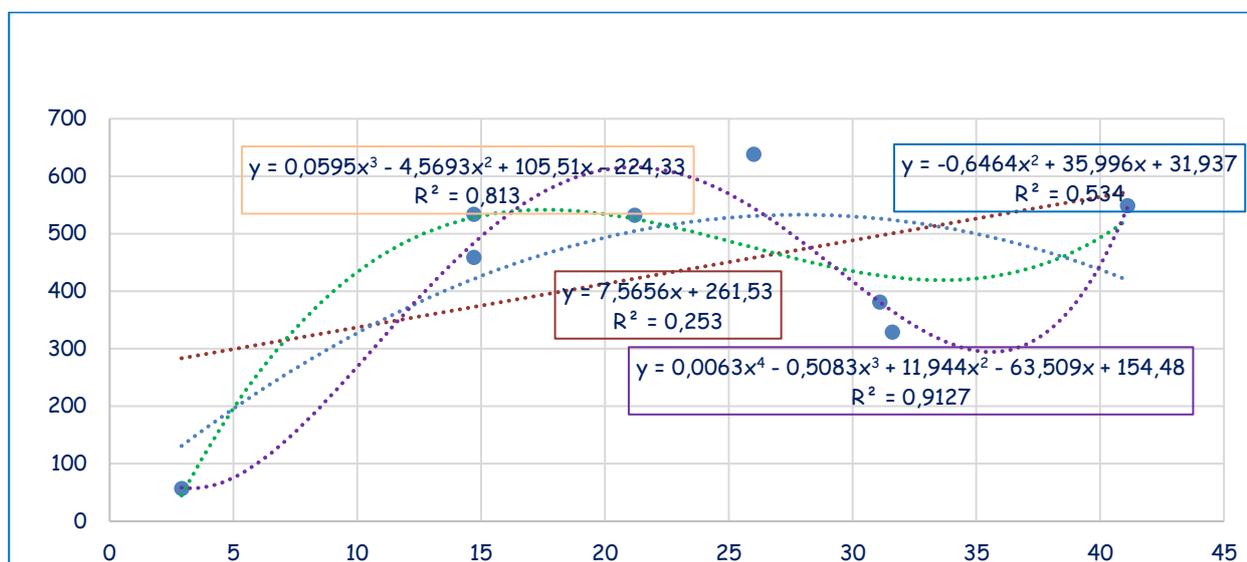


Fig. 4. The correlation between number of jobs created and the poverty rate

Source: Own design.

Another perspective to analyze to what extent through the jobs created contributed to the prosperity of the region, more specifically to the rural development of the LAG territory, is to analyze the correlation between the average value allocated at LDS, by region and the average of places created work. Table 5 shows the average value allocated in LDS, by regions as well as the average number of jobs created on each Local Action Group in each region. The highest average value allocated within the LDS is in the West region (2,501,067.33 euros) as well as the highest average of jobs created, 24.16. In B-Ilfov, the region with the lowest average allocated value

of LDS, the average job created is 14.25. In the case of the two variables, it is observed that a clearly defined rule is not followed, the jobs created not being influenced, strictly by the average value of the financial allocation / LDS. This aspect is also reinforced by the values of the correlation coefficients in Table 6, as well as by the graphical representation of the polynomial function in Figure 5. The Pearson coefficient has a value of 0.4797, which according to Colton's\* rules means that there is a moderate positive correlation between the two variables. From the point of view of the polynomial function, their degree 4 shows that there could be a direct positive correlation between the two variables.

Table 5. Average allocated value/LDS and average number of jobs created.

Region	Average value -LDS/LAG-euro	Average of created jobs/LAG
N-E	1,913,674.30	12.20
S-E	1,742,836.69	10.58
S-Muntenia	1,903,845.49	15.19
S-V Oltenia	1,959,025.97	11.75
V	2,501,067.33	24.16
N-V	1,864,654.69	17.23
Center	1,785,008.26	15.65
B-Ilfov	802,573.90	14.25

Source: Own processing according to data [www.madr.ro](http://www.madr.ro) accessed on 30.06.2021

Table 6. Table representation of the values of the correlation between the number of jobs created and the average of the allocated value / LDS

Correlation	r	R2	R2	R2	R2
Average of no of jobs created/Average of LDS value-LAG	Coef. Pearson	Linear function	Polynomial function - 2nd degree	Polynomial function - 3rd degree	Polynomial function - 4th degree
	0.4797*	0.2301	0.7034	0.7195	0.9401

Source: Own processing.

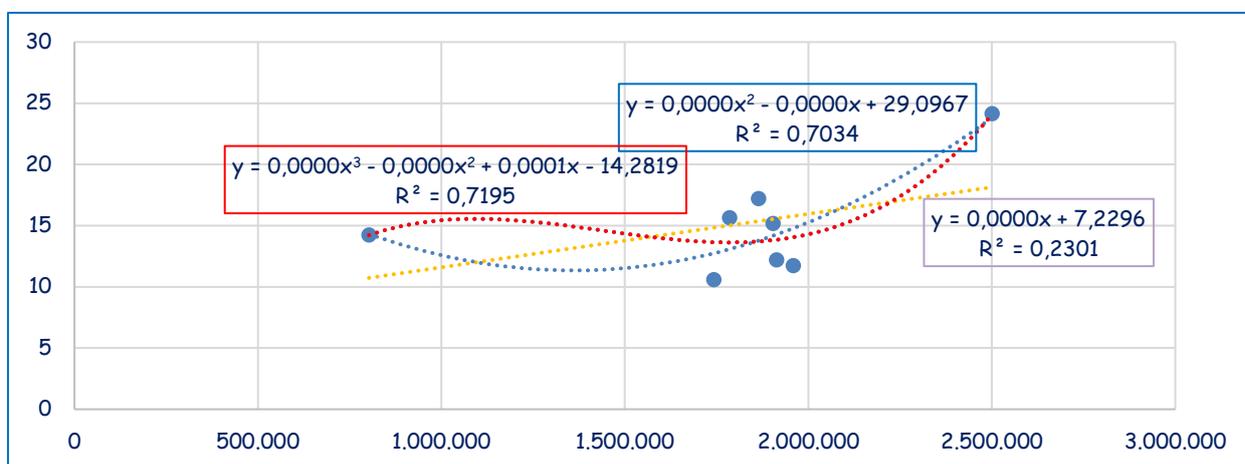


Fig. 5. The correlation between the average number of created jos and the average of LDS value/LAG, graphic design.

## CONCLUSIONS

According to the analyzed data we can admit the positive contribution of the financing obtained by the Local Action Groups through measure 19 LEADER to the rural development of the financed regions. In the second stage of the bonus, the additional one, 146 local action groups were rewarded, more than half of their total, more precisely 61.08%. The additional bonus increased the LDS-19.2 budget, at national level by 21,308,364 euros. This aspect shows a good promotion of the measures within LDS as well as the interest of the community for development.

By absorbing the allocated funds, over 3,400 jobs have been created, maybe insufficient at the moment for the labor force needs in the

respective rural community, but these are still a premise for evolution. In fact, the jobs created have contributed to the development of both the economic and the social component, many of the new employees coming from disadvantaged categories. Moreover, the number of jobs, unequal at the level of each analyzed region suggests the application of one of the innovative principles of the LEADER approach, the "bottom-up" principle, respectively the dimensioning of the need starting from the preliminary analysis of the territory and, of course, depending on the allocation financial.

## REFERENCES

- [1] Alecu, I.N, Fintineru, A., Badea, A., Baci, G.A., 2015, Local Action Groups (LAGS) and Their Impact

on the Process of Rural Development in Romania, Agrarian Economy and Rural Development - Realities and Perspectives for Romania. 6th Edition of the International Symposium, November 2015, Bucharest, 373–76. Bucharest: The Research Institute for Agricultural Economy and Rural Development (ICEADR).

<https://www.econstor.eu/handle/10419/163328>, Accessed on 30.06.2021.

[2]Dumitru, E. A., Micu M.M., Tudor, V.C., 2019, Conceptual approaches regarding the Romanian rural, Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development, 19 (2): 121–128.

[3]NRDP 2014-2020, Guide of Local Action Groups for implementing the LDS -V01- Approved by OMARD No. 90/07.04.2017, <https://www.madr.ro/axa-leader/leader-2014-2020.html>, Accessed on 30.06.2021.

[4]Operational procedure manual for coordinating, verifying and monitoring of the implementation of the LDS, ED II, Revision 5, <https://www.madr.ro/axa-leader/leader-2014-2020.html>, Accessed on 30.06.2021.

[5]Order MARD No. 553 of 27.11.2019 Regarding the Approval of the 8<sup>th</sup> version of the LAG Guide for LDS Implementation, [https://www.madr.ro/docs/dezvoltare-rurala/Axa\\_LEADER/2014-2020/2019/Ordin-553-din-27.11.2019-aprobare-versiunea-08-Ghid-GAL-implementare-SDL.pdf](https://www.madr.ro/docs/dezvoltare-rurala/Axa_LEADER/2014-2020/2019/Ordin-553-din-27.11.2019-aprobare-versiunea-08-Ghid-GAL-implementare-SDL.pdf), Accessed on 30.06.2021.

[6]Order MARD No. 57 of 11.03.2021 Regarding the Approval of the Second Edition, Revision 5 of procedure manual for coordinating, verifying and monitoring of the implementation of the LDS („ n.d. [https://www.madr.ro/docs/dezvoltare-rurala/Axa\\_LEADER/2014-2020/2021/Ordin-57-11.03.2021-aprobare-Editia-II-Revizia-5-Manual-procedura-coordonare-verificare-si-monitorizare-implementarea-SDL.pdf](https://www.madr.ro/docs/dezvoltare-rurala/Axa_LEADER/2014-2020/2021/Ordin-57-11.03.2021-aprobare-Editia-II-Revizia-5-Manual-procedura-coordonare-verificare-si-monitorizare-implementarea-SDL.pdf), Accessed on 30.06.2021.

[7]Report of the LDS evaluation of implementation – LAG additional bonus no. 221327/ 05.07.2021, [www.madr.ro](http://www.madr.ro), Accessed on 30.06.2021.

[8]Rusu, A., 2021, Local initiatives for rural development, Scientific Papers-Series Management Economic Engineering in Agriculture and Rural Development, 21 (2): 545-550.

[9]Rusu, A., 2021, The role of local action groups in rural Romania in the period 2011-2021, Scientific Papers-Series Management Economic Engineering in Agriculture and Rural Development, 21 (2): 551-554.

[10]Staic, L. G., Vladu, M., 2020, Studies Concerning the Evolution of the Leader Approach, Part of the Common Agricultural Policy, as a Support for Sustainable Development of the Rural Area, Scientific Papers-Series Management Economic Engineering in Agriculture and Rural Development , 20 (4): 495–500.

[11]Staic, L. G., Vladu, M., 2021, Studies concerning the effect of the ongoing evaluation of the implementation of the local action groups strategies financed by leader, in rural development in Romania, Scientific Papers-Series Management Economic

Engineering in Agriculture and Rural Development 21 (1): 705-714.

[12]The situation regarding the degree of contracting payments and the number of jobs created, necessary in the implementation evaluation stage of LDS – The additional bonus of LAGs – Approved by OMARD 57/11.03.2021, [https://www.madr.ro/docs/dezvoltare-rurala/Axa\\_LEADER/2014-2020/2021/Situatie-privind-gradul-de-contractare-plata-si-a-numarului-de-locuri-de-munca-create-necesare-in-etapa-de-evaluare-a-implementarii-SDL.pdf](https://www.madr.ro/docs/dezvoltare-rurala/Axa_LEADER/2014-2020/2021/Situatie-privind-gradul-de-contractare-plata-si-a-numarului-de-locuri-de-munca-create-necesare-in-etapa-de-evaluare-a-implementarii-SDL.pdf), Accessed on 30.06.2021.

[13]Turek, R.A, Rahoveanu, M.M., 2013, socio-economic development prospects of rural areas in the context of application of leader program in romania, Scientific Papers-Series Management Economic Engineering in Agriculture and Rural Development 13 (4): 295-302.