

RESEARCH ON THE CURRENT SITUATION IN THE FIELD OF AGRICULTURAL INSURANCE

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Abstract

Sub-measure 17.1 is aimed at risk management at farm level and was introduced to help farmers compensate for their costs of establishing crops if these crops were affected.

In this paper, the situation on the market of insurance companies and the evolution of agricultural insurance in the period 2016-2020 were studied, the situation of accessing the funds used to support risk management and risk prevention at farm level, a study was carried out at the national level, and for the South Development Region – West Oltenia, a thorough analysis was made regarding the situations of the funding requests of this sub-measure.

During this period, 8,196 funding applications were requested at national level, with a value of non-refundable support of 72,846,032.80 lei, of which 6,720 funding requests with a value of non-refundable support of 58,711,579.18 lei were eligible, 1157 with a value of non-refundable support of 11,432,329.26 lei were ineligible, and 319 with a value of non-refundable support of 2,702,124.36 lei were withdrawn. In the South - West Oltenia Region, they submitted and financed, in the analyzed period 2019 – 2020 a total of 585 funding applications. From the total of 585 funding requests selected for payment, in this analysis period, 2019-2020, the most were in Dolj county with a total of 353 funding requests, in second place is Olt county with 162 funding requests, followed by Vâlcea, Mehedinți and Gorj counties with 35, 33 and 2 funding requests, respectively

Keywords: insurance, farmer risks, european funding requests,

INTRODUCTION

Extreme weather phenomena are among the most serious hazards that can affect people's lives and can cause great material losses and even loss of human life.

Recently, Romania aligned itself with the European standard in terms of compensating the amounts spent by farmers for crop insurance. Therefore, the empirical analysis indicates that high-risk farmers are more likely to select income insurance contracts and higher coverage levels [Makki, SS and Somwaru 2001], a fact also recorded in other studies.

Similar analyzes showed that farmers' desire for crop insurance increased with increasing disaster shocks and risk perception. Parametric analysis also confirmed that disaster shocks and risk perception have a significant and positive impact on farmers willingness to provide crop insurance [Zhao, YY 2021].

Starting from these premises, we will analyze some aspects related to the role of the state in insurance activity, the development of the insurance market and agricultural insurance.

In this paper, a study was carried out regarding the situation on the market of insurance companies and the evolution of

agricultural insurance in the period 2016-2020, the situation of accessing the funds used to support risk management and risk prevention at farm level.

The study was carried out at the national level, and in the South-West Oltenia Development Region a thorough analysis is being made regarding the situations of the funding requests of this sub-measure. Scientific knowledge is realized through the scientific analysis of the surrounding world, the analysis that is realized from different points of view. The process of scientific research uses all the methods and theories on them, procedures and rules,

MATERIALS AND METHODS

The following studies and analyzes were carried out in this work:

a) The situation on the market of insurance companies and the evolution of agricultural insurance during 2016 – 2020 was studied;

b) The situation of accessing the funds used to support risk management and risk prevention at farm level (accessed through Sub-Measure 17.1) was studied.

The study was carried out at the national level, and in the South-West Oltenia Development Region a thorough analysis is being made regarding the situations of the funding requests of this sub-measure.

RESULTS AND DISCUSSIONS

1. The situation on the market of insurance companies

In the first nine months of 2020, the insurers accumulated gross written premiums (PBS) in the amount of approximately 8.51 billion lei [<https://asfromania.ro/ro/a/2145/2020>], a volume increasing by approximately 4.8% compared to that recorded in the same period of the previous year:

- gross written premiums related to general insurance (GA) are worth about

elements that constitute the research methodology [Staic, Uliu, Vladu 2022]. As a funding submeasure that opened its submission session in 2019, this study was conducted between 2019 and 2020.

The research was done at the level of the country and the South-West Oltenia Development Region, and the situations of the funding requests for this sub-measure are presented. The analysis of the existing data was made both from the numerical point of view of the beneficiaries of insurance premiums, and from the point of view of their values.

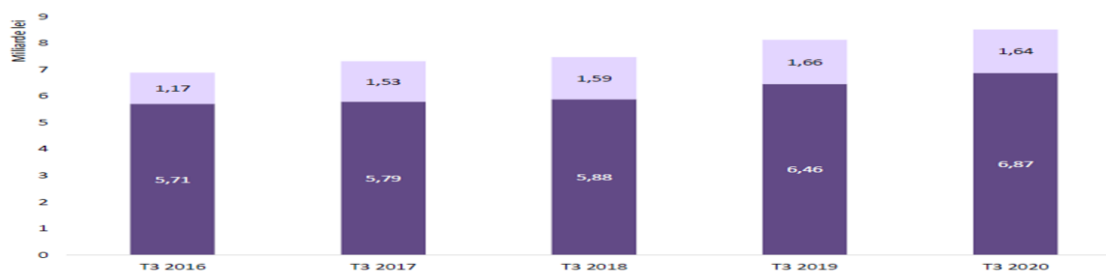
c) A description was made, in detail, from the numerical point of view of the beneficiaries of insurance premiums, but also from the point of view of their values (2019-2020 period).

The situations presented above have been presented in tabular and graphical form and described in detail as follows:

1. the situation on the market of insurance companies
2. the evolution of agricultural insurance
3. the situation of agricultural insurance financing requests at the national level.
4. the situation of agricultural insurance financing requests at the level of the South - West Oltenia Region

6.87 billion lei, up 6.3% compared to the same period of the previous year;

The agricultural insurance market currently covers 10% of all general insurance policies. The causes that determined this situation are diverse and take the form of: the disintegration of land ownership, the large number of non-performing autonomous producers, the abandonment of agricultural enterprises and optimal agricultural installations for food production, unfavorable environmental factors that have caused significant financial losses for agricultural



producers.

Figure 1 Dynamics of distribution by insurance segments in the first 9 months related to the period 2016 – 2020 (billion lei) (source <https://asfromania.ro/>)

Figure 1 shows that the insurance trend in the period 2016-2020 was positive, but it does not have a particular increase, and the ratio between life insurance and general insurance has changed. General insurance, which also includes agricultural insurance, grew faster. The number of insurers involved in the field of agricultural insurance is relatively low, only 10 companies out of 28 insurers. In 2020, the top 5 of the market share in 2020 are classified CITY INSURANCE SA (20.05%), EUROINS ROMANIA ASIGURARE REASIGURARE SA (11.68%), ALLIANZ TIRIAC (11.68%), OMNIASIG VIG (11.45%) and GROUPAMA (9.29%).

On September 30, 2020, there were 28 insurance companies active on the insurance market, authorized and regulated by the ASF, of which 15 practiced only general insurance activity ("AG"), 7 practiced only life insurance activity ("AV") and 6 practiced composite activity.

The insurance market in Romania is characterized by a medium to high degree of concentration. In the first 9 months of 2020, approximately 89% of the total volume of gross written premiums was made by 10 insurance companies out of the 28 companies that carried out insurance/reinsurance activity on September 30, 2020.

Table 1. The companies with the largest volumes of gross written premiums and their share in the total market (general and life insurance) in the first 9 months of 2020 (source: <https://asfromania.ro/>)

Nr.crt.	Societate	Cota de piață
1	CITY INSURANCE	20,05%
2	EUROINS ROMANIA ASIGURARE REASIGURARE SA	11,68%
3	ALLIANZ TIRIAC ASIGURĂRI SA	11,08%
4	OMNIASIG VIG(fosta BCRASIGURARE VIG)	11,45%
5	GROUPAMA ASIGURĂRI SA	9,29%
Total 1-5		64,15%
6	NN ASIGURĂRI DE VIAȚĂ SA	7,37%
7	ASIROM VIENNAINSURANCE GROUP SA	5,61%
8	GENERALI ROMANIA ASIGURARE REASIGURARE SA	5,38%
9	UNIQA ASIGURĂRI SA	3,25%
10	BCR ASIGURĂRI DE VIAȚĂ VIENNAINSURANCE GROUP SA	3,04%
Total 1-10		88,82%
Alte societăți		11,18%
TOTAL		100%

2. The evolution of agricultural insurance

Agricultural insurance is part of general insurance classes 8 and 9.

Insurance class 8 includes: fire and natural calamities, which covers damage or loss related to goods, other than those mentioned in classes 3-7, caused by: a) fire; b) explosion; c) storm and other

natural calamities; d) nuclear energy; e) subsidence and landslides; Insurance class 9 includes other damages or losses related to other goods than

those mentioned in classes 3-7, caused by: a) hail; b) frost; c) theft; d) other events, not covered by class 8;

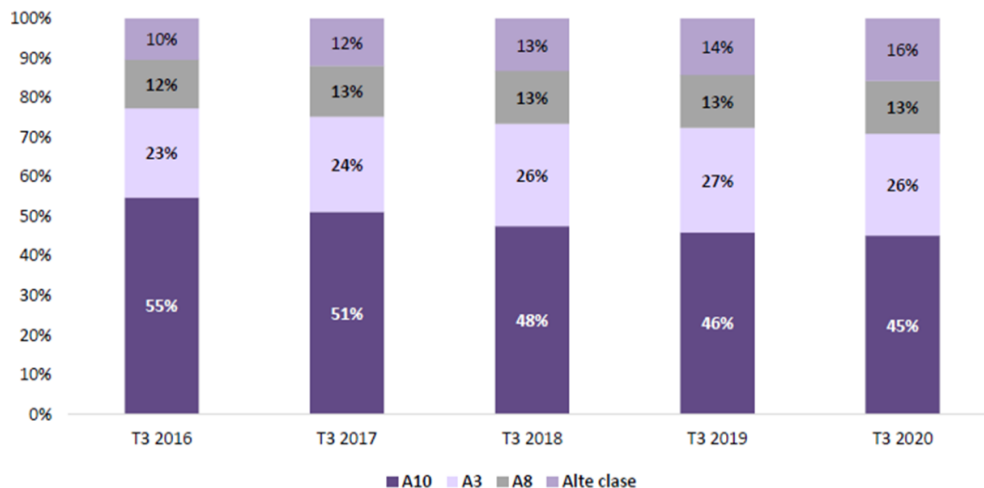


Figure 2 Dynamics of the structure by general insurance classes (source: <https://asfromania.ro>)

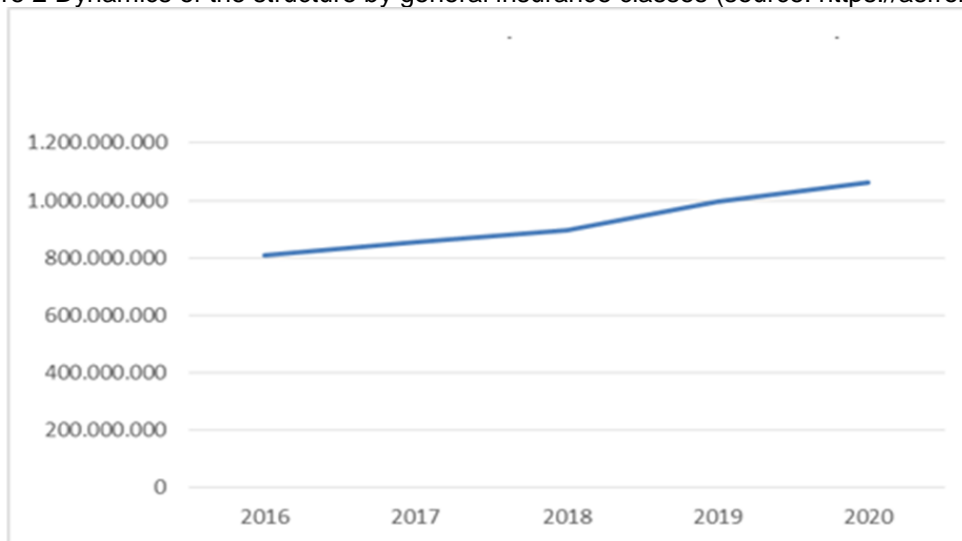


Figure 3 Evolution of insurance from class 8 and 9 in the period 2016-2020 (source: <https://asfromania.ro>)

In figures 2 and 3 we can see both the dynamics of the structure by general insurance classes, as well as the value evolution of class 8 and 9 insurance during 2016-2020. From the analysis of From the research carried out, it is quite clear that farmers have become increasingly interested in crop insurance premiums from the National Rural Development Program (PNDR) 2014-2020, amid the drought. It must be said that agricultural insurances have a

existing data, an increase in the volume of insurance in these classes during this period is evident. It is observed that there is a stronger growth from the year 2019 since measure 17.1 was introduced relatively small weight in the insurances in Romania, and the causes are both legislative and human in nature. According to market data, in Romania approximately 15% of agricultural crops are insured, while insurance companies are generally limited to problem areas.

Recent studies show that informing farmers about the basic risk significantly reduces farmers' desire to buy a hypothetical precipitation insurance product. Combining basis risk and premium subsidy information reduces the negative effect, while the effects of subsidy information are not robust [Gaurav, S ; Chaudhary, V 2019]. Our findings suggest the need to address baseline risk in the design of weather insurance as well as the communication of climate risk management to farmers.

In 2020, the year in which the drought mostly affected agricultural crops, discussions were started between MADR and the Financial Supervisory Authority, with insurers, but also with farmers' associations, in order to find convenient solutions.

The drought affected 1.6 million hectares of crops established in the fall of 2019, for which farmers received compensation, 92% paid, but also 1.2 million hectares of crops established in the spring of 2020, for which no more found money in the budget. In this context, the degree of indebtedness of farmers affected by the drought, as a result of the year 2020, increased from about 30% to about 80-90%, reaching that about 25% of those affected do not have the possibility of establishing spring crops . The emergence of these phenomena determined the increase in the impact of risk perception, attitude towards risk and other personal characteristics of farmers and the farm on

the actual purchase of catastrophe insurance by farmers [Ogurtsov, VA; van Asseldonk, MAPM and Huirne 2009].

Besides these. studies have shown that farmers prefer weather index insurance to informal risk management strategies, and farmer characteristics have a significant impact on the adoption of risk management strategies [Dylan Turner, Francis Tsiboe 2022].

3. The situation of agricultural insurance financing requests at the national level through submeasure 17.1. until July 1, 2021

Analysis of funding requests for submeasure 17.1

In this material, we studied the situation of agricultural insurance financing requests using existing data on the official portal for the period 2019-2021 [<https://portal.afir.info/>].

Thus, during this period, 8,196 funding applications were requested at national level, with a value of non-refundable support of 72,846,032.80 lei, of which 6,720 funding requests with a value of non-refundable support of 58,711,579.18 lei were eligible, 1157 with a value of non-refundable support of 11,432,329.26 lei were ineligible, and 319 with a value of non-refundable support of 2,702,124.36 lei were withdrawn.

Figures 4 and 5 show the evolution of funding requests by year, as well as the value of the requested non-reimbursable support.

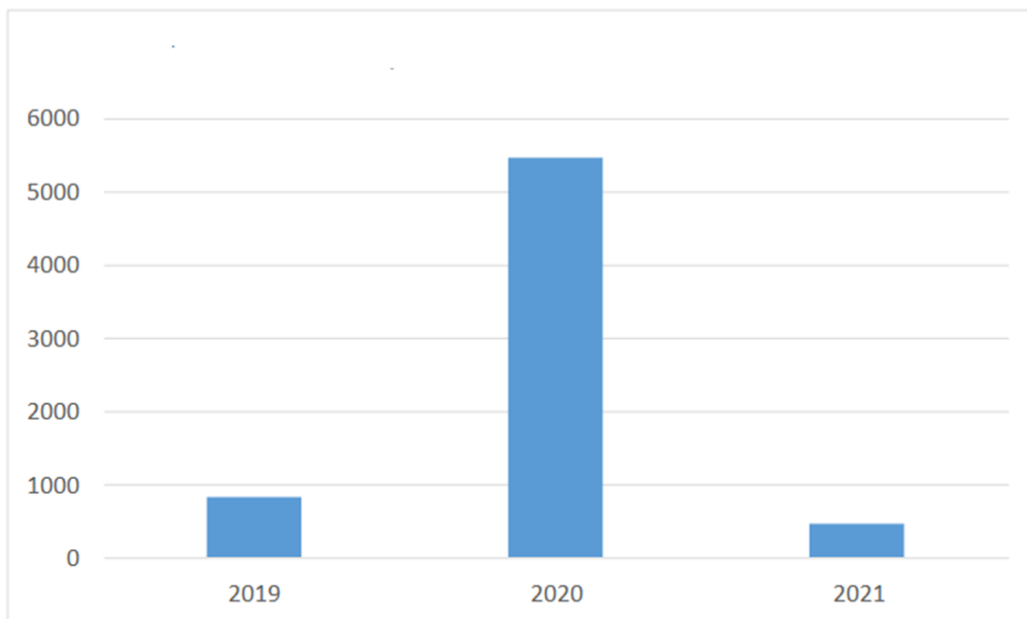


Figure 4 The situation of funding applications submitted between 2019 and July 2021 at the national level (source: afir.info)

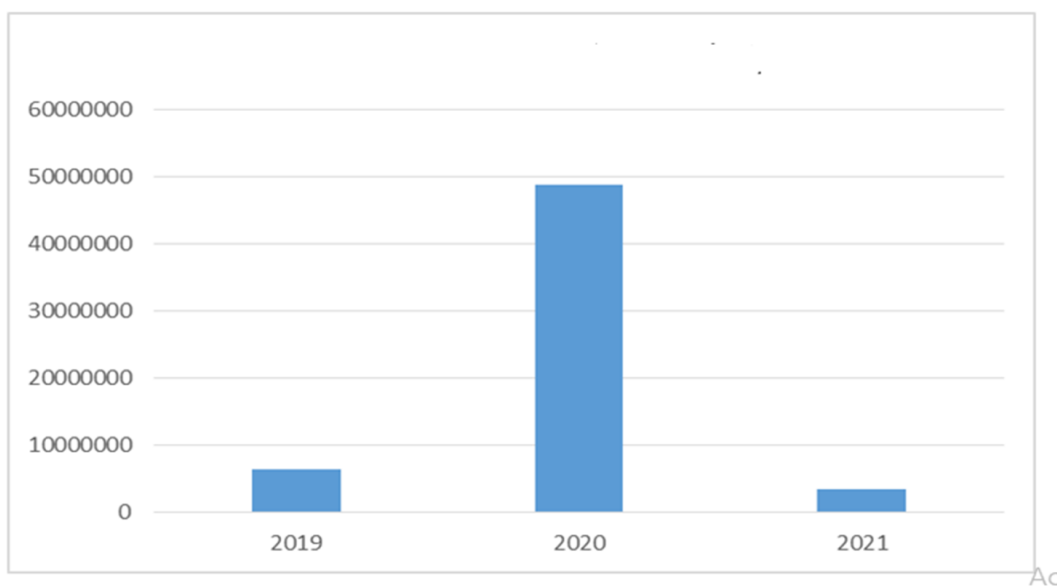


Figure 5 The value situation of funding requests submitted between 2019 and July 2021 at the national level (source: afir.info)

4. The situation of agricultural insurance financing applications at the level of the South-West Oltenia Region until January 1, 2021

Table 2 shows that in the South - West Oltenia Region, through Submeasure 17.1

- "Insurance premiums for crops, animals and plants" of the National Program for Rural Development have submitted and financed, in the analyzed period 2019-2020, a total of 585 funding applications.

Table 2 Number of funding requests in the Oltenia Region (source: afir.ro)

Nr.crt	Anul	Regiunea Sud-est Oltenia					Total
		Dolj	Gorj	Mehedinți	Olt	Vâlcea	
1	2019	63	0	3	17	17	100
2	2020	290	2	30	145	18	485
Total		353	2	33	162	35	585

In 2020, a total of 485 funding applications were submitted and financed, the most being in Dolj county with 290 funding applications, in 2nd place is Olt county with 145 funding applications, in 3rd place is Mehedinți county with 30 funding applications, and on the last places are Vâlcea counties with 18 funding applications and Gorj county with 2 funding applications. From the total of 585

funding requests selected for payment, in this analysis period, 2019-2020, the most were in Dolj county with a total of 353 funding requests, in second place is Olt county with 162 funding requests, followed by Vâlcea, Mehedinți and Gorj counties with 35, 33 and 2 funding requests, respectively

Table 3 The amount of funding requests in the South - West Oltenia Region (source: afir.info)

7	Anul	Valoare (euro)	Regiunea Sud- Vest Oltenia						Total(euro)					
			Dolj		Gorj		Mehedinți		Olt	Vâlcea	Eligibil	Public		
1	2019	Eligibil	282.522		0		7.845		54.397		43.736		388.502	
		Public		155.387		0		902		29.918		24.055		210.263
2	2020	Eligibil	866.904		2.994		76.350		294.397		65.856		1.306.503	
		Public		602.687		438		53.445		206.077		46.099		908.748
Total		Eligibil	1.149.426		2.994		84.196		348.795		109.593		1.695.006	
		Public		758.074		4.38		54.347		235.996		70.154		1.119.011

Table 4. Access situation in relation to the total amount allocated to submeasure 17.1 (source: afir.info)

Situția	Regiunea Sud-vest Oltenia					Total
	Dolj	Gorj	Mehedinți	Olt	Vâlcea	
Număr de cereri de finanțare	353	2	33	162	35	585
Valoare publică(euro)	758,074	438	54.347	235.997	70.155	1.119.012
% din suma alocată submăsurii 17.1	1771	0,001	0.127	0,551	0,164	2,615

*Submeasure 17.1 had a total allocated value of 42,797,487 Euros (source: afir.info)

Tables 3 and 4 show that in the South-West Oltenia Region, through Submeasure 17.1 - "Insurance premiums for crops, animals and plants" of the National Rural Development Program, a total of 585 of funding requests with a total eligible value of 1,695,006 euros and a total public value of 1,119,011 euros. The highest eligible value is in Dolj county with 1,149,426 euros (non-refundable public value of 758,074 euros), in 2nd place is Olt county with an eligible value of 348,795 euros (non-refundable public value of 235,996 euros), in 3rd place is the county Vâlcea with an eligible value of 109,593 euros (non-refundable public value of 70,154 euros), on the last places are the counties of Mehedinți and Gorj, which have the eligible values of financing requests of 84,196 euros and 2,994 euros respectively (non-refundable public values are 54,347 euros in Mehedinți county and respectively 4,381 euros in Gorj county).

It is noted that in 2019, in the South-West Oltenia Region, the percentage of funding through this sub-measure was 55%, where the total eligible value was 388,502 euros, and the non-refundable total public value was 210,263 euros.

In 2020, it is observed that the non-reimbursable public value increased to the value of 75%, where the total eligible value of funding requests was 1,306,503 euros, and the value of non-reimbursable support was 908,748 euros.

At the national level, Submeasure 17.1 - "Insurance premiums for crops, animals and plants" has a total budget allocation of 42,797,487 euros. Table 16 shows that the South - West Oltenia Region accessed a percentage of 2,615% (total public value 1,119,012 euros and a number of funding requests of 585). In Dolj county, the access situation is 1.771% of the allocated budget, followed by Olt (0.551%), Vâlcea (0.164%), Mehedinți (0.127%) and Gorj (0.001) counties. Indisputably, insurance is an important factor in the capital circuit necessary for farmers . The introduction

of this measure brought benefits to those who accessed it. For those whose applications were rejected, it must be said that in these cases the requirements imposed in the applicant's guide were not respected.

At the national level, Submeasure 17.1 - "Insurance premiums for crops, animals and plants" had a total budget of 42,797,487 euros allocated.

The South-West Oltenia region accessed a percentage of 2,615% (total public value 1,119,012 euros and a number of funding requests of 585). In Dolj county, the access situation is 1.771% of the allocated budget, followed by Olt (0.551%), Vâlcea (0.164%), Mehedinți (0.127%) and Gorj (0.001%) counties.

Analyzing these data shows that the confidence of farmers in the Oltenia region in submeasure 17.1 is, in most counties, low to very low. Only one county (Dolj) has a relatively acceptable number of applications, unlike the one at the opposite pole (Gorj), where the number of funded applications (2) is almost non-existent. The trend of funding requests is increasing, and this is a gratifying fact.

CONCLUSIONS

In the first nine months of 2020, the insurers accumulated gross written premiums (GPR) in the amount of approximately 8.51 billion lei, a volume increasing by approximately 4.8% compared to that recorded in the same period of 2019.

The agricultural insurance market in Romania currently covers 10% of all general insurance policies. Also, the number of insurers involved in the field of agricultural insurance is relatively low, only 10 companies out of 28 insurers.

In the South-West Oltenia Region, a total of 585 applications for funding were submitted and financed through sub-measure 17.1, in the analyzed period 2019-2020, with a total eligible value of 1,695,006 euros and a total public value of 1,119,011 euros:

At the national level, Submeasure 17.1 was allocated a total budget of 42,797,487 euros, from which it follows that the South - West Oltenia Region accessed a percentage of 2.615%. In Dolj county, the access situation is 1.771% of the allocated budget, followed by Olt counties (0.551%), Vâlcea (0.164%), Mehedinți (0.127%) and Gorj (0.001%).

Agricultural insurance is part of classes 8 and 9 of general insurance. From the analysis of the data presented, it appears that agricultural insurances have an increasing trend.

At the national level, during the analyzed period 2019 - 2020, 8196 funding applications were requested with a value of non-refundable support of 72,846,032.80 lei, of which 6720 funding requests with a value of non-refundable support of 58,711,579.18 lei were eligible, 1157 with a value of non-refundable support of 11,432,329.26 lei were ineligible, and 319 with a value of non-refundable support of 2,702,124.36 lei were withdrawn.

In the South - West Oltenia Region, through Submeasure 17.1 - "Insurance premiums for crops, animals and plants" of the National Rural Development Program, a total of 585 funding applications were submitted and financed, in the analyzed period 2019 - 2020, the most were in Dolj county with a total of 353 funding requests, in second place is Olt county with 162 funding requests, followed by Vâlcea, Mehedinți and Gorj counties with 35, 33 and 2 respectively funding requests.

The eligible value of the funding requests from the South - West Oltenia Region was 1,695,006 euros with a total public value of 1,119,011 euros. The highest eligible value is in Dolj county with 1,149,426 euros (non-refundable public value of 758,074 euros), in 2nd place is followed by Olt county with an eligible value of 348,795 euros (non-refundable public value of 235,996 euros), in 3rd place is Vâlcea county with an eligible value of 109,593 euros (non-refundable

public value of 70,154 euros), on the last places are the counties of Mehedinți and Gorj, which have the eligible values of financing requests of 84,196 euros and 2,994 euros respectively (non-refundable public values are 54,347 euros) in Mehedinți county and respectively 4,381 euros in Gorj county).

The subsidization of agricultural insurance directly or indirectly determined the increase in the number of insurances and the insured areas. However, the way in which the number of insurances and the insured areas will increase more significantly remains under discussion.

The political factor can tip the balance, and a proper management can signal these increases.

Today, precision agriculture and technology have become indispensable, even more so when we talk about their impact on farms in Romania.

Practicing precision agriculture represents the future and progress of Romanian farms. This allows profitability as well as the practice of sustainable agriculture.

The shocks suffered due to environmental or social factors can be mitigated or even eliminated in the case of the existence of performing insurances. The subsidization of agricultural insurance directly or indirectly determined the increase in the number of insurances and the insured areas. However, the way in which the number of insurances and the insured areas will increase more significantly remains under discussion.

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Practicing precision agriculture represents the future and progress of Romanian farms. This allows profitability as well as the practice of sustainable agriculture. The shocks suffered due to environmental or social factors can be

mitigated or even eliminated in the case of the existence of performing insurance. In 2019, a total of 100 funding applications were submitted and funded, the most being in Dolj county with 63 funding applications, in second place were Vâlcea and Olt counties, each with 17 funding applications. On the last places are Mehedinți counties with 3 funding requests and Gorj county where no funding request was submitted.

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