

RISK MANAGEMENT AND INSURANCE PREMIUMS FOR CROPS, ANIMALS AND PLANTS: FRAMEWORK, INFLUENCE, FINANCIAL IMPACT, FORECASTS

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Abstract

This study aims to analyze European risk management measures for producers in the plant and livestock sector and their influence on farmers. In recent years, the National Rural Development Program NRDP has included Measure 17.1 - Insurance premiums for crops, animals and plants. This allows agricultural producers to claim a partial incentive of the value of the insurance premium paid to the insurance company. As is well known, agricultural production is deeply dependent on climate change, which requires farmers to have easier access to insurance through which to partially offset losses from natural disasters or other adverse events. Such risk management schemes must be able to cover, in addition to losses caused by adverse climatic events (floods, droughts, soil erosion, etc.) also those caused by animal and plant diseases, pest infestations and incidents of environment (toxic waste discharges, etc.), providing overall protection to farmers who face interruptions of activity and / or loss of production due to such incidents. Among the new risk management tools provided by Measure 17, Romania has chosen to promote the stimulation of farmers' involvement in risk prevention and management schemes through support for the insurance premium. In 2020, the Funding Agency for Rural Investments allocated 15 million Euros, of which farmers attracted 10,807,760.84 Euros. In 2021, the institution made available the amount of 31.2 million Euros. At the end of September 2021, the session is open and reveals a wide popularity. A number of 3,622 applications are submitted with a total value of 7,991,285.94 Euro. The paper aims to analyze the concrete situation of some farmers benefiting from this scheme in 2020 which are examples to follow. The dimensions of the areas allocated to the crops are analyzed in correlation with the insurance premiums paid, partially reimbursed and with the insured values in case of damage.

Key words: crops insurance, risk management, European incentives

Through the Common Agricultural Policy, Romania benefits from two types of financial support: direct payments granted under the 1st Pillar and non-reimbursable financial aid granted on the basis of investments made by farmers, through the 2nd Pillar (NRDP 2014-2020).

Each of the two pillars provides support through two different European funds. Thus, direct payments through Pillar I have as their source EAGF (European Agricultural Guarantee Fund), while Pillar II payments have as source EAFRD (European Agricultural Fund for Rural Development). The latter, whose tools have benefited the unit analyzed in the present paper, is carried out in Romania through the National Rural Development Program (NRDP 2014 – 2020).

Starting from the initiative of the European Council on support for rural development through the European Agricultural Fund for Rural Development (EAFRD), the National Strategic Plan for Romania, which is the instrument for the

implementation of the National Rural Development Program for the period 2007 - 2013, was developed. Finally, NRDP is the instrument for accessing the European Agricultural Fund for Rural Development (EAFRD) and has been developed for the 2007 – 2013, 2014-2020 and 2021 – 2027 intervals (AFIR, 2018).

The paper follows the NRDP Measure 17.1 - Insurance premiums for crops, animals and plants. This allows agricultural producers to claim a partial incentive of the value of the insurance premium paid to the insurance company.

MATERIAL AND METHOD

The necessary studies for the elaboration of this paper have been carried out during the years 2020 – 2021, using as sources of information especially the primary data. In this regard, a series of interviews were carried out at the headquarters of the 16 agricultural units studied, units which

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benefit from insurance premiums and grants by the NRDP, in Iasi County. The studied 16 units had a total of 49 insurance premiums submitted for a 70% grant to AFIR. The documents of the units regarding the evolution of the areas used for crops in the agricultural year 2020 – 2021, the financial accounting documents regarding the evolution of the yield of the crops and other aspects were analyzed.

On the other hand, data from secondary sources, respectively the specific literature in Romania and abroad was used, including the statistical directories available at national level.

Both the data obtained in the analysis of the documents of the agricultural units as well as those of the specialized literature were processed and interpreted in order to highlight the size of each unit analyzed separately.

RESULTS AND DISCUSSIONS

Statistical observations highlight the regularity and reality of the occurrence of certain events caused by natural factors or by human activity itself, the damage caused can be assessed only approximately. The uncertainty consists in the fact that the subjects (natural or legal persons) on whom the respective dangers hover, the intensity and the moment of occurrence of the event cannot be identified (Șeulean V. et al, 2008).

Since immemorial times, people have been concerned with preventing and bearing in common the damage caused by uncertain adverse events (natural disasters and accidents).

Compensation for these damages is possible through two procedures:

- the individual effort of each person who can set up their own special purpose reserves (coverage of damages in case of damage);
- the joint effort to set up a fund, organized according to the law, based on the contribution of a large number of people threatened by the same danger (Halep I, 2019).

The second solution was imposed in time. It is based on the principle of community of risk and mutuality, by virtue of which each taxpayer participates with small sums to support and compensate those who have suffered damage as a result of the events that led to their union. This principle underlies the concept of insurance.

Insurance is a system of economic relations that involves the contribution of a large number of individuals and legal entities in setting up a money fund, given that they are threatened by the same dangers in their existence and activity, probable, possible but unsafe dangers (Alexa, Ciurel , 2008)

Commercial insurance activity is carried out by companies through specialized companies and on economic principles. Commercial insurance can

be: property, personal or civil liability. Their promotion involves insurance companies - as insurers and individuals or legal entities - as insured, in onerous relationships regarding: payment of insurance premiums, taking over protection against certain risks, compensation for damages caused by insured risks.

There are two typologies that have characterized, from an economic point of view, the society throughout history: foreign exchange savings (made with appropriate elements: foreign exchange markets, money, various financial instruments) and natural economies, in the absence of these elements, they date from times much older than the first.

In such a natural economy, we can look at the concept of insurance as a form of help between individuals in society. For example, if a house suffers a devastating fire, members of that community will help rebuild the house together; otherwise, they will not receive help in the future either. This type of insurance has survived to the present day in regions where modern exchange economies have penetrated only superficially (for example, in some countries of the former Soviet Union) (Constantinescu, 2009).

The financial resources attracted in the economic circuit through the insurance companies are used by them by being oriented either to increase the productive capital of the companies directly or through banks, or to cover the budget deficit, at the level of the central state or local administration. In both cases, the flow of financial resources from insurance companies to various beneficiaries does not increase the money supply but only redistributes it: in the first case, gaining a productive destination, the resources from insurance companies contribute to strengthening the monetary balance. and in the second case, avoid resorting to issuing money to finance the budget deficit.

When a natural or legal person decides to take out insurance, he is aware that a certain phenomenon or a complex of phenomena threatens his life, bodily integrity or property and that its production would cause him significant damage.

Although he does not have the possibility to prevent the prejudice of the considered phenomenon, the person in question has the possibility to protect himself from its harmful consequences.

By concluding the insurance, the natural or legal person, threatened by a certain future and uncertain phenomenon, agrees with a specialized company that in exchange for a sum of money the latter will take over the consequences of that

phenomenon. The risk does not disappear but only its effects move from the insured to the insurer.

Concluding the insurance contract, the insured chose between the self-protection solution and that of the protection offered by an insurance company. For him, the future acquires a certain certainty, in the sense that he knows how great is the financial effort he has to make in order to protect himself from the negative effects of the risk, in order to stabilize the financial risk. For an economic agent, the paid insurance premium becomes a production cost and for a natural person a precise expense in his family budget.

By concluding insurance contracts, the number of risks is not reduced, nor is the force of their destruction diminished, but applicants are better prepared to face them. Damages caused by unforeseen events no longer remain the responsibility of those affected by the forces of nature or accidents, but are distributed through insurance, to all insured persons.

Agricultural production in Romania has been and continues to be dependent on climatic factors, which has imposed over time the need to regulate financial mechanisms to reimburse farmers, through which to partially compensate for losses caused by climate phenomena. unfavorable and allow them to resume the increase of production.

Due to the unfavorable climatic phenomena of the last years, Romania was forced to compensate the farmers, almost every year, with consistent amounts from the state budget so that initially, in the period 2002-2014, were implemented compensation or compensation systems of farmers, which contributed to the partial reduction of production losses suffered by farmers. Since 2015, Romanian farmers have not received financial support to compensate for the payment of insurance premiums, fully bearing the financial burden of contracts concluded with insurance-reinsurance companies.

The needs analysis required the improvement of risk management measures in agriculture, including EAFRD this sub-measure, entitled SM 17.1, to subsidize insurance premiums.

This sub-measure contributes significantly to increasing the accessibility of agricultural insurance to farmers and thus to better financial protection for them in the event of damage-causing events such as adverse climatic events and quarantine infestations harmful to plants.

Its role is to encourage farmers to participate in private insurance schemes in order to properly manage the risks that may affect their agricultural production. If until their development, the vast majority of farmers were skeptical about applying

an insurance premium, with the emergence of this sub-measure, farmers are encouraged to insure their crops and / or livestock. Thus, they will be compensated in case of damage and will be reimbursed 70% of the insurance premium paid to the insurer, regardless of whether they will have any damage or not.

At the same time, this sub-measure aims to stimulate farmers to benefit from insurance and to extend the scope of insurable risks by insurance companies, which can currently significantly affect the performance of agricultural holdings.

Support shall be granted to farmers who have insurance contracts for crops or livestock under the conditions covered by this sub-measure and will cover part of the eligible insurance premium paid, namely 70%.

After the first year of implementation, the Ministry of Agriculture and Rural Development carried out an analysis of the insurance contracts that benefited from support, in order to establish a reference level of the eligible insurance premium.

Applicants for this support may be any legal form holding livestock or farmland.

The risks insured and settled by AFIR are very diverse and consist of the following, in terms of agricultural crops: drought, heat, floods, hail, early autumn frosts, late spring, winter, torrential rains, excessive and long-lasting pollen. , storm, storm or strong storm, hurricane, tornado. The authors analyzed a number of 28 agricultural units with a plant production profile. Of these 28 units, 24, respectively 85.71% contracted the following risk categories: hail, torrential rains, storm, storm or heavy storm, hurricane, tornado. The remaining 4 farms studied contracted all these risks and in addition the early autumn or late spring frosts, as the case may be.).

In contrast to other EAFRD sub-measures, there are no selection criteria for this sub-measure. Thus, the funding applications are not evaluated from the point of view of the score by the applicants in order to obtain a project score. This is because there is no competition in terms of the number of funding applications or their value correlated with the non-reimbursable amount provided by EAFRD.

In both years in which the sub-measure was launched by the relevant AFIR institution, all the financing applications completed correctly and which had the policies paid to the insurer, according to the requirements, were selected and benefited from financing.

The following table summarizes the situation of a number of 16 distinct agricultural units, which applied for a total of 49 insurance policies, in order to settle them.

Centralizer regarding the studied agricultural units – ha / lei ron

Unit no.	No. of insurance premiums	Insurance premium coverage – ha	Sum per ha	Total sum	Eligible sum	AFIR non refundable
1	3	299.87	75.93	22,768.34	18,973.77	13,281.64
2	3	263.35	48.25	12,705.80	10,549.64	7,384.75
3	2	81.23	80.95	6,575.22	5,495.80	3,847.06
4	2	102.48	78.66	8,061.24	6,716.49	4,701.54
5	2	584.92	55.04	32,196.42	26,741.73	18,719.21
6	3	206.92	93.48	19,342.13	16,093.50	11,265.45
7	3	1,031.62	128.68	132,752.95	100,184.34	70,129.04
8	3	80.98	88.25	7,146.33	5,954.88	4,168.42
9	6	133.94	76.06	10,187.7	8,511.86	5,958.30
10	5	227.51	121.07	27,544.76	25,042.70	17,529.89
11	4	530.54	146.98	77,978.42	55,047.05	38,532.94
12	3	120.08	87.97	10,563.53	8,810.67	6,167.47
13	3	802.67	134.52	107,975.67	87,073.15	60,951.21
14	2	191.67	112.22	21,509.42	16,727.46	11,709.22
15	2	1,543.99	119.86	185,068.21	139,585.15	97,709.61
16	3	890.75	111.99	99,753.90	79,753.43	55,827.40
TOTAL	49	5,467.55	143.05	782,130.04	611,261.62	427,883.15

Source: own research

As can be seen in Tab. 1, were analyzed a number of 16 agricultural units that took out insurance for vegetable crops. The 16 agricultural units concluded a number of 49 insurance policies. The total amount paid to the insurance companies was over 782,000 lei. The amount reimbursed by AFIR was over 427,000 lei.

The crops for which the 16 units applied for insurance premiums were those that are usually grown in Romania, given the specific conditions in our country: wheat, corn, sunflower, soybean, rapeseed, mustard, sugar beet, barley, oats etc.

CONCLUSIONS

In 2021, the Funding Agency for Rural Investments made available the amount of 31.2 million Euros. At the end of September 2021, the session is open and reveals a wide popularity. A number of 3,622 applications are submitted with a total value of 7,991,285.94 Euro.

Of these, a number of 16 agricultural units were analyzed by the authors of this paper. The 16 agricultural units had a number of 49 insurance crops combined. The total area of the 16 units combined consists in 5,467,55 ha. The average amount that the unit paid for a ha of crop as insurance is 143.05 lei.

While in 2021 the total amount of the grants available nationwide for his Measure was 34

million Euro, in 2022 it is expected that the total amount will be of over 40 million Euros. Thus, even more agricultural units will be able to benefit from 70% of the value paid to the insurance companies.

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