

## *The reality of agricultural insurance in Algeria*

### *واقع التأمين الفلاحي بالجزائر*

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#### ***Abstract:***

This study aims to highlight the reality of insurance in the agricultural sector in Algeria, and to reach the goal, we discussed the types of agricultural risks and how to insure them through a contract of agricultural insurance. With highlighting the obstacles that limit the spread of this type of insurance in Algeria, and highlighting the insurance industry's portfolio and market share in Algeria. This is based on the descriptive analytical approach. The study showed the multiplicity of agricultural insurance products, such as plant and animal insurance, and the public sector's acquisition of this market.

**keyword:** agricultural risks ; agricultural insurance contract ; agricultural insurance products in Algeria.

**JEL classification code :** G22, Q1,Q19.

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## **1. Introduction :**

The agricultural sector is considered one of the important sectors in any economy, as it represents the primary source of farmers' income and food production in societies, and despite the importance of this sector, it is considered one of the weakest and most vulnerable economic sectors, as agricultural production is affected by factors outside the control of the farmer, perhaps the most important of which are natural factors, Which shows the farmers need for an insurance system that can fully or partially protect them from the risk of losing part of production, or even the risk of lower product prices, and many countries lack this type of protection for the agricultural sector.

### **The main problematic:**

Considering that agriculture is one of the important economic sectors in Algeria, our research came as an attempt to find out the reality of agricultural insurance in Algeria, and by answering the following main problem:

### **-What is the reality of the agricultural insurance sector in Algeria?**

In order to answer this main question and for the purpose of taking note of all the merits and particles of the topic, it was necessary to answer some sub-questions that flow into the same template as the topic and which of them:

- What are the risks to the agricultural sector?
- What are the insurance products for the agricultural sector and what are the mechanisms of their operation in Algeria?
- What is the extent of the contribution of insurance to the promotion of the agricultural sector in Algeria?

**Study hypotheses:** To answer the previous main problem and its supplementary sub-questions, we started from the following hypotheses:

- The agricultural sector is exposed to many dangers, which nature is its main source.
- There are various forms of agricultural insurance products, such as vegetable and agricultural products.
- Agricultural insurance contributes effectively to protecting the Algerian farmer from various dangers.

### **the importance of studying:**

The importance of the topic is highlighted in the following points:

- Highlighting the importance of agricultural insurance as one of the means that can contribute to the automatic balance of the economy and advancing agricultural, economic and social development, which is one of the main sources needed to finance agricultural activity.
- Demonstrate the ability of insurance to stimulate economic and social development by creating a profitable market for insurance companies, as well as providing appropriate insurance coverage to farmers...

### **research model:**

We used an analytical descriptive approach to study our topic by describing phenomena

Threats to the sector and its analysis and knowledge of how all this will go through in theory, but on the one hand

Applied, we will analyze the phenomenon under study by analyzing the documents and publications related to agricultural insurance.

### **previous studies:**

In our study, we relied on various books in English, various theses and Theses University, laws, orders and ministerial publications, websites.....

The first study is an intervention by the researcher Amer Osama entitled The role of insurance in supporting agricultural development. A case study of Algeria during 2002/2013

This will take place on November 23/24, 2014 at the level of Hasiba Bin Bawali Al-Chlef University in the framework of the forum

The ninth international entitled: In the light of international economic variables and challenges so that the researcher's study aimed to identify the extent of the impact of agricultural insurance on agricultural development in Algeria during the period, as well as to address the most important problems facing the proper application of various agricultural insurance programs, and among the most important findings are the following:

- Agricultural insurance reduces the effects of risks and damages to agricultural crops and livestock, and this threatens food security.
- Agricultural insurance in Algeria faces many obstacles, including the farmers' unwillingness to bear additional burdens as a result of the high insurance premiums.
- It is a method aimed at reducing losses as well as maintaining food security and achieving self-sufficiency.

On this basis, the following elements will be covered in this research:

- Agricultural hazards and their types.
- Definition of agricultural insurance.
- The reality of agricultural insurance in Algeria.

## **2. Agricultural hazards and their types:**

### **1.2. Definition of agricultural danger:**

The chance of something happening that will have an impact on objectives. A risk is often specified in terms of an event or circumstance and the consequences that may flow from it. Risk is measured in terms of a combination of the consequences of an event and their likelihood. (CHADDAD, AL HUSNI, & PROF.B, 2008, p. 25)

The risk is defined as the various things that affect the farmer and the agricultural investments, whether they are natural, such as rain, wind, etc., and economic, such as the high prices of some chemicals used in agriculture, as well as the emergence of some biological and microbiological diseases. (conseil national des assurances, 2014, p. 10)

The agricultural danger can also be defined: it is the possibility of a sudden and unexpected accident, whether for the farmer or his farmland, and the cause may be a natural or economic, biological factor

### **2.2.Types of agricultural risk:**

The agriculture sector is one of the sectors most vulnerable to risk in light of environmental and climatic changes, and the following figure shows some of the dangers faced by farmers:

**Fig.1** : Some of the dangers faced by farmers, which push them to carry out the process of agricultural insurance:



**Agricultural insurance remains the only way to prevent these risks**

*Source: Quraishi Al-Eid, 2017, p. 274.*

Risks can be characterized according to a number of elements, including: (IFAD, 2010, p. 13)

- **Covariance:** The degree to which they are correlated across households within a community or region, ranging from independent (affecting one person) to highly covariate (affecting everyone at the same time).
- **Frequency:** How often they occur.
- **Types and severity of losses incurred:** Shortfalls in seasonal production and income, damage to assets and loss of life.

As illustrated, at one extreme are highly covariate risks that generally occur with low frequency (such as floods, hurricanes and severe drought) , but that can have catastrophic impacts within affected regions. For example, the 2002 drought in Ethiopia affected most of the country and led to 12.5 million people requiring food aid. In addition to

short-term humanitarian challenges arising from loss of life, production and income, the associated loss of or damage to key assets can make recovery slow and uncertain. Without help, many people may slip into long-term poverty.

At the other extreme, there is a wide array of risks that are weakly if at all covariate, but that occur with high frequency. These risks impact more randomly on individual households (e.g. deaths and illnesses of people or livestock), but the proportion of total households affected each year is often predictable. Many of the risks that affect seasonal yields and production are the result of localized weather and pest problems That affect groups of households – or even just some fields within a farm. For example, a severe frost might be localized to a mountain valley, or an aphid attack might destroy a minor crop within a single community.

Between these two extremes lie a variety of risks that are moderately covariate and that occur with moderate frequency. These include losses in production and income or damage to assets due to less-severe drought, excess rainfall, or market and price.

### **3. Definition of agricultural insurance:**

By agricultural insurance we mean that the contract that provides the farmer with stability and adequate protection for his money and maintains his standard of living, and there is no doubt that the farmer who does not have any insurance on his crop is subject to a low standard of living if his crop perishes, so crop insurance means if the income level is guaranteed and income is guaranteed In the rural community it is reflected on the national income of the country as one of its active players in the country's economy. (Badawi, 2009, p. 4)

**Also** It is an activity in the market by private or government insurance companies and often with government support measures, and there is a growing interest in risk and insurance management to promote agriculture and investment, access to credit, and provide financial stability to farmers and other actors in the agricultural value chain . (J A Dick & wang, 2010, p. 4)

It is an activity carried out by all types of agricultural insurance institutions to protect farmers from expected and unexpected dangers, and this is to ensure a steady income and achieve agricultural development.

### **1.3. Agricultural insurance contract:**

It is a process that takes place between the private or public insurance company and the insured who is often the farmer and livestock keeper, as well as the owners of agricultural cooperatives, as the insured company is obligated to provide the due compensation in the event of the insured dangers mentioned in the insurance contract, in exchange for Premiums paid by the insured party upon concluding the contract. (the official gazette of the algerian, 2006, pp. 3-4)

### **2.3. The benefits of agricultural insurance:**

Agricultural insurance has several benefits that can be summed up in the following: (zin al-abidin, 2004, pp. 11-12)

- Exit the production cycle, especially among small farmers, whose financial ability does not allow them to assume large and successive risks.
- Maintaining income and regularity over the years, and thus the regularity and continuity of agricultural production for society as a whole.
- Improving the position of the agricultural product with the lenders, as insurance guarantees the repayment of agricultural loans, and hence the continued contribution of financial institutions to lending the product.
- Agricultural insurance, if applied, can be an alternative to the state's contribution to the provision of aid during years of food shortages to societies, and therefore it represents indirect support that reduces the effects of disasters on the state budget.
- Enabling the farmer to exploit all his potentials to the maximum degree in production due to reassurance, and thus the agricultural insurance achieves increased production.
- Contributing to raising productivity by specialization, as specialization increases production efficiency and lack of insurance. The agricultural producer diversifies its activities on several products to secure his pension and income, thus not benefiting from specialization in the production of the product with the highest advantage in production.

- Insurance contributes to poverty alleviation for agricultural producers who are mainly dependent on agriculture, especially in the countryside, and thus achieving economic security for large segments of society, and this has political and economic returns.

#### 4. The reality of agricultural insurance in Algeria:

##### 1.4.Products of the agricultural insurance market in Algeria:

The insurance market offers a number of insurance services, and we will offer some agricultural insurance products that are marketed by the National Fund for Agricultural Cooperation through the following table:

**Table 1 :** Agricultural insurance products marketed by the National Fund for Agricultural Cooperation:

Plant production insurance	Animal production insurance	Industrial risk insurance
- Comprehensive agricultural insurance. - Palm Comprehensive Insurance. -Potato Comprehensive Insurance. -Cold Insurance - Cold and fire insurance together. -Crop Burn Insurance. -Securing the irrigation network during operation. -Securing fruit trees. - Tomato comprehensive insurance. - Comprehensive olive insurance -Securing green houses	-Cattle Comprehensive Insurance. - Comprehensive sheep insurance. -Horses Comprehensive Insurance. -Beauty comprehensive insurance. - Comprehensive poultry insurance. -Beekeeping comprehensive insurance -Turkey Insurance. - <u>Auto Insurance:</u> *Trailer lockout *Securing tractors and agricultural equipment. *Securing rental agricultural equipment	-Fire and explosion insurance. -Insurance for loss of exploitation after the fire. -Civil liability insurance for farmers. - Equestrian civil liability insurance. -Veterinary Liability Insurance. -Multiple risk insurance for residents. - Damage caused by water

*Source: Zuhair Ammari, Oussama Amer, 2014, p 6.*

From the above table it is clear to us that the agricultural risks covered in the insurance market in Algeria are especially climatic risks (cold, snow, floods, ...) and health risks (the death of herds due to a



specific disease, or orders for preventive slaughter, ...) in addition to Traditionally covered risks such as building insurance and equipment against fire and theft. (Tahri, 2016, p. 379)

**2.4. Agricultural insurance in Algeria for the period 2018/2019:**

Insurance is one of the most important means to cover agricultural risks in Algeria, as it constitutes a financial means because compensation is the income of farms more stable, so the farmer who suffers a loss receives compensation that enables him to resume his activity, as it is a guarantee for obtaining loans, it increases the solvency of the farmer, but it does not represent Only a small percentage of the insurance market as a whole.

"Agricultural": 11.8% increase Agricultural risks show an increase of 11.8% with a 2.1% share of market.

The “fire & multi-risk agricultural”, “plant production” sub-branches, "Animal production" and "multi-risk machinery & agricultural equipment" show increases 22.9% respectively; 32.3%; 23.7% and 7.8%. Unlike the sub-branch "Farmer civil liability" which shows a decline of 37.7%.

**Table 2:** *Agricultural insurance quotas in Algeria for the 2018-2019* Period:

*Unit: one million dinars.*

<i>In dinars</i>	<i>Business Number</i>		<i>Market value</i>		<i>Development</i>	
	<i>30/06/2019</i>	<i>30/06/2018</i>	<i>2019</i>	<i>2018</i>	<i>%</i>	<i>the value</i>
<i>Agricultural insurance</i>	<b>1435051163</b>	<b>1290300122</b>	<b>2.1%</b>	<b>2.0%</b>	<b>11.8%</b>	<b>151348962</b>
<i>Various fires and agricultural hazards</i>	63519246	51896889	0.1%	0.1%	22.9%	11839969
<i>Vegetable production</i>	385464411	291086094	0.6%	0.4%	32.3%	94121074
<i>animal production</i>	416176208	342984355	0.6%	0.5%	23.7%	79829407
<i>Human responsibility hazards</i>	121974271	195778431	0.2%	0.3%	-37.7%	-73804160
<i>Agricultural machinery dangers</i>	432277936	401149090	0.6%	0.6%	7.8%	31128847
<i>Other agricultural hazards</i>	15639092	7405267	0.0%	0.0%	111.2%	8233825

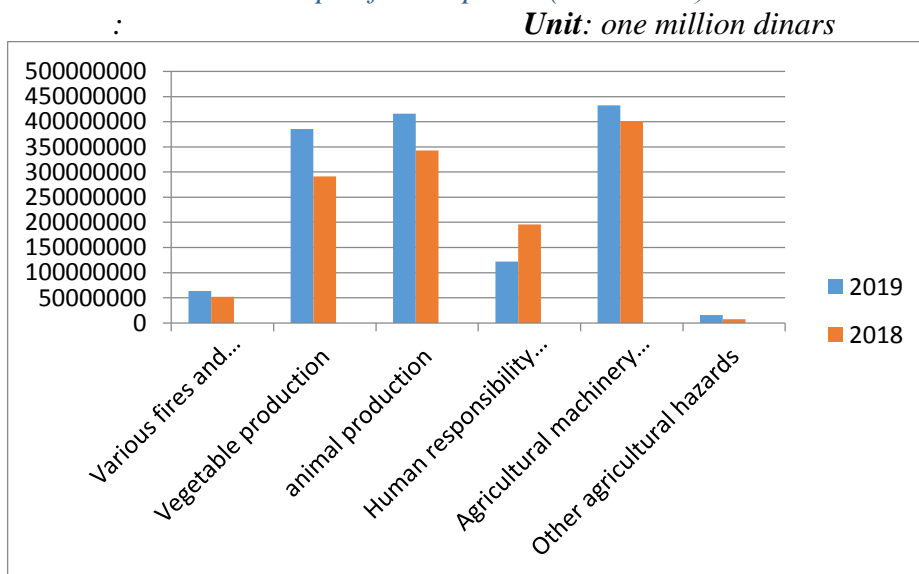
*Source: Prepared by the two researchers and based on the National Insurance Council reports,;2019*

Insurance is one of the most important means to cover agricultural risks in Algeria, as it constitutes a financial means because the compensation within the farms is more stable, so the farmer who suffers a loss receives compensation that enables him to resume his activity, as it is a guarantee for obtaining loans, it increases the solvency of the farmer, but it does not represent Only a small percentage of the insurance market as a whole.

Where the number of agricultural insurance business increased in the year 2019 estimated at 11.8%, and this increase is explained by the increase in insurance premiums for: animal production, agricultural equipment hazards, plant insurance premiums, fire and other agricultural risks, with percentages, respectively, 23.7%, 7.8%, 32.3 %, 22.9%, 111.2% from the portfolio of this insurance industry, due to the increase in these premiums due to the large number of fires caused to the agricultural crops.

On the other hand, there was a 37.7% decline in premiums for human liability.

**Fig.2:** The number of agricultural insurance business in Algeria developed for the period(2019/2018)



*Source:* Prepared by the two researchers and based on the National Insurance Council reports,;2019

We note through this figure that the number of equipment insurance work for farmers is ranked first in the agricultural insurance sector, followed by animal and vegetable insurance with very high business numbers compared to the rest of the products, and this is conclusive evidence of the increased

demand for these types of products and the reason for the increased demand is due to the large number The risks faced by the farmers in these areas.

And if it is compared to the product of other agricultural hazards, which occupies the last rank with a very small business number.

The business figures for most products in 2019 were better than 2018.

**Table 3:** table showing the percentages of public and private institutions in the agricultural insurance sector in 2019 :

**Unit:** one million dinars

<i>In dinars</i>	<i>public companies</i>	<i>private companies</i>	<i>mixed companies</i>	<i>total market</i>	<i>private companies market share</i>
<i>Agricultural insurance</i>	<b>1387675821</b>	<b>47375342</b>	-	<b>1435051163</b>	<b>3.3%</b>
<i>Various fires and agricultural hazards</i>	54025837	9493409	-	63519246	14.9%
<i>Vegetable production</i>	384192959	1271452	-	385464411	0.3%
<i>animal production</i>	390985229	25190979	-	416176208	6.1%
<i>Human responsibility hazards</i>	121952254	22017	-	121974271	0.0%
<i>Agricultural machinery dangers</i>	420880450	11397486	-	432277936	2.6%
<i>Other agricultural hazards</i>	15639092	-	-	15639092	-

*Source:* Prepared by the two researchers and based on the National Insurance Council reports,;2019.

We note from the table that the percentage of public sector control over the agricultural insurance sector is very high compared to private institutions, which is only 3.3 of the total sector, and its absence is almost complete in some insurance, such as plant production insurance and human responsibility risks as well as various agricultural risks.

Through this study ,There are many obstacles that hinder the spread of agricultural insurance services, the most important of which are: (manhal & abdul karim, 2009, p. 12)

1. The farmers' lack of awareness of the benefits of insurance and their fear of every new activity, their unwillingness to bear additional burdens, and their heavy reliance on the state to provide support and aid, and therefore a major initial effort is required in raising awareness and education.

2. The lack of specialized experts in the field of agricultural insurance, and the weak field practice, which reflects negatively in the calculation of installments and compensation and convincing farmers of the importance of insurance in supporting and protecting agricultural production.
3. The absence of government support almost, the high cost of premiums and the unwillingness of insurance companies to cover in risky agricultural areas, all of which are major obstacles to the spread of agricultural insurance services.
4. Inadequate agricultural and insurance policies in front of the proliferation of agricultural insurance services due to their lack of compliance with global developments in this field, and the failure to give agricultural insurance services sufficient space in these policies, such as providing annual credits, allocating development programs, and providing credit facilities to companies involved in agricultural insurance and other matters Related to the promotion and spread of agricultural insurance services.
5. The inefficiency of agricultural guidance in Algeria, which is mainly related to the availability of farmers guides who have sufficient qualifications and incentives that drive them to guide farmers towards agricultural insurance, since most farmers are illiterate and it is difficult to convince them of insurance.
6. The diversity and nature of the risks, each of which needs to be studied according to the nature of the region, production systems, climatic conditions and the risks surrounding diseases and pests.
7. Agricultural risks are greater than the risks involved in property and may sometimes reach the level of public disasters, and this requires special insurance coverage measures that take into account this aspect.
8. The experiences of countries that preceded the field of agricultural insurance, especially in Africa, are not encouraging for many insurance companies to enter in this field.
9. The nature of the agricultural community, especially the traditional one, in which the spirit of solidarity prevails, which reduces their interest in insurance.

## **5. Study Results :**

- The control of the public sector over agricultural insurance and the presence of the private sector is almost non-existent.
- The agricultural insurance services in Algeria face many obstacles, the most important of which is the lack of information From the agricultural and animal activities, the weak insurance culture and the farmer's unwillingness to bear burdens Additional and heavy dependence on the state through the assistance provided by the farmer.
- Agricultural hazards cause potential material and financial losses to wealth or income as a result of accidents Specific damage to various products, whether plant, animal or agricultural equipment.

## **6. Conclusion :**

The agricultural insurance is considered one of the most important means for managing agricultural risks, as it has great importance in agricultural development through its impact on increasing agricultural investments as well as its role in maintaining agricultural activity, as it gives a new breath to the farmer in the event of dangers for the resumption of activity.

The agricultural sector is one of the most important sectors in Algeria, as it means a great interest in it through the efforts made to develop this sector, but given the reality of agricultural insurance in Algeria, it did not receive the desired attention despite the diversity of agricultural insurance products, this is due to several reasons, the most important of which is the absence of culture Insurance is for the Algerians in general, and the farmers in particular.

### **Hypothesis testing :**

**Hypothesis 1:** The assumption is wrong, and this is because there are many risks facing the agricultural sector, such as natural hazards, and the high prices of fertilizers, biological diseases ...

**Hypothesis 2:** The premise is wrong for the diversity of agricultural

insurance products, such as plant, animal and industrial products.

**Hypothesis 3:** The hypothesis is correct because the agricultural insurance protects the farmer from various dangers if he applies all his tools and strategies.

### **Recommendations**

- The need to raise the degree of insurance awareness of farmers through advertising campaigns in order to persuade farmers the need for insurance.
- Reducing compensation periods to a minimum so that the farmer can continue his activities as well as improving the image of insurance companies in front of farmers.
- Organizing sensitization days in the various peasant areas so that the peasant does not have to move to attend.

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