

## AGRICULTURAL INSURANCE BY THE STATE SUPPORT OPERATIONS

**Gafforov Anvarjon Uktamovich**

*"FAROVON INSURANCE" JSC Deputy Director General (Independent researcher)*

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### Annotation

This article analyzes the practices of using insurance mechanisms in the state support of agriculture. Experiences of developed countries in agricultural insurance are studied, as well as comparative analyzes of models of using insurance mechanisms in support of agriculture are presented.

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### Introduction

Based on the specific characteristics of the agrarian sector, rich experience has been accumulated in many developed countries of the world on the implementation of an effective system of financial support and insurance of agriculture, in particular, producers of agricultural products.

Sustainable development of agriculture and food chain of the Republic of Uzbekistan requires conducting state policy on the basis of new approaches. Food security depends on a wide range of socio-economic, demographic and environmental factors and is one of the main components of the country's development. In recent years, as a result of the implementation of a number of measures to strengthen food safety in our country, Uzbekistan has strengthened its position in the world and gradually improved its position in global rankings. In 2018, the Republic of Uzbekistan took 52nd place among 119 countries according to the Global Hunger Index, reaching a "moderate" level with an index of 12.1.

However, achieving the stability of the supply of food products for the population in need of social protection, increasing the purchasing power of low-income families, and preventing sudden changes in the price and quantity of products are among the problems that need to be solved.

The main goal of this priority direction is to develop and effectively implement a state policy aimed at ensuring food security for all residents of the republic.

The priority direction is aimed at providing the population with safe and quality food products at stable prices. This serves to achieve the Sustainable Development Goals (SDGs) of the Republic of Uzbekistan, including the goals set in the UN's 2nd SDG "Eliminate hunger, ensure food security, improve consumption and promote sustainable agriculture".

Currently, governments in developed countries are active participants in the process of managing the risks inherent in agriculture, and are trying to help producers and consumers manage risks better. It should be noted that for the local agrarian economy, the need to use insurance services that can support agricultural producers (farmers and/or farmers, clusters) in case of damage from natural disasters is also

relevant.

In particular, in accordance with the Decree of the President of the Republic of Uzbekistan No. PF-5853 of October 23, 2019, the strategy for the development of agriculture of the Republic of Uzbekistan for 2020-2030 was approved, according to which: "improvement of crediting and insurance mechanism in accordance with strategic directions and needs of agriculture and food chain" is defined.

Also, on the basis of the state program for the implementation of the development strategy of New Uzbekistan for 2022-2026, approved by the Decree of the President of the Republic of Uzbekistan, "The year of human dignity and active neighborhood", "Expanding the scope of state support in agriculture and implementing new mechanisms of insurance The strict definition of tasks such as "Consideration of the adoption of the Law on Agricultural Risk Insurance" was an impetus for the rapid development of this sector. (PF-60 dated 28.01.2022).

The insurance sector allows effective management of risks related to the use of new technologies in the network, risks in the use of credit resources, risks arising during the sale of agricultural products through the stock exchange system. The development of quality insurance services and government programs in this regard will ensure the financial stability of agricultural producers, reduce state budget expenditures aimed at supporting the agrarian sector.

### **Literature review**

The analyzed problems are covered in the works of various foreign scientists, including M.Miranda, D.Vedenov (2001), H.Si-nan (2008), V.H.Smith (2012), N.I.Pavelko (2013), S.M. In the works of Nedbaeva (2009), G.E. Yakovlev (2013), I.I. Glotova (2013), T.A. Baymisheva (2015), the role of state policy in agricultural insurance, as well as the participation of public-private partnerships in the organization of agriculture, are discussed in different ways. analyzed on the example of countries' experiences.

Among the scientists of our country, Sh.Zaynutdinov, A.Shermammedov, the risks encountered in the management process and their analysis, types of risks and forms of management, A.Abdullaev, the scientific and theoretical foundations of farms, which are considered one of the advanced forms of production organization in the agricultural sector, A.Abdug'aniev, agriculture and those who have conducted scientific research on the issues of its role in the economy, its importance, and increasing its efficiency. Although this area has been widely studied in the researches of our country's scientists, in the context of the liberalization of the economy and the acceleration of structural reforms, the research on the management of risks in the activities of farms requires a new approach.

On time, the Minister of Agriculture of the Republic of Uzbekistan (J. Khojaev) said: "Today, agriculture accounts for 30% of the GDP, but it is evident that what we are doing is not enough and that we have great potential. In the last two years, we have done a lot in agriculture. In particular, clusters and cooperatives were established. We have started many initiatives for water conservation and land development.

Now, in the next decade, we need to implement many fundamental reforms to turn agriculture into a real "driver" of the economy. Because it is not wrong to say that agriculture was almost untouched in 30 years. He emphasized that we need to implement reforms today so that our products, in general, our innovations in agriculture can be truly competitive with other countries. Based on the above, the purpose of this study is to generalize the experiences of foreign countries in the management of risks in agriculture and to justify the possibilities of application in the agricultural sector of our country.

### **Research methodology**

In the article, the scientific and theoretical approaches to the topic from the scope of the topic are studied and observed. Also, in many existing models, the state coordinates insurance conditions, subsidizes insurance premiums, covers part of the insurance organization's administrative costs related

to the provision of insurance services, and provides state protection in case of high-level risks. In case of major catastrophes, the state can provide national subsidized programs or international reinsurance mechanisms to insurance organizations. At the same time, studying the specific features of risk management in the organization and management of agricultural activities in foreign countries serves as an important resource for implementing their beneficial aspects in the development of agriculture/farms (clusters) in Uzbekistan.

We performed regression analysis using Excel's Data Analysis feature. The bond density is  $r = 0.992474054$  based on the scale. Hence, based on this scale, the correlation coefficient between the indicators has a very strong correlation level. According to the data,  $a_0 = -157331$ ,  $a_1 = 8.056$ ,  $a_2 = 0.00075$ , the straight-line regression formula took the following form:

$$KBYU (y) = 8,056KBBS (x1) - 0,00075KBBKR (x2) - 15, 7331$$

Hence, the regression coefficient  $a_1$  determines the relationship between the resulting sign ( $y$ ) and the factor sign ( $x$ ). This indicates how many units the resulting character increases when the factor character increases by one unit. We use the F-criterion to verify the adequacy of the regression equation ( $Y=8,056-0x1-0,00075x2$ ).

According to the observed data, the calculated  $F_p$  (calculated, observed F) index was compared with the corresponding critical index  $F_k$ , (F critical, tabular).

F account = 4.25, F table = 295.595

Since  $F$  is a table  $> F$  in the calculation, the (1) econometric model is considered adequate.  $T_k = 2,262$ ,  $T_{a_0} = -3,9$ ,  $T_{a_1} = 15,38$ ,  $T_{a_2} = -6,19$ .

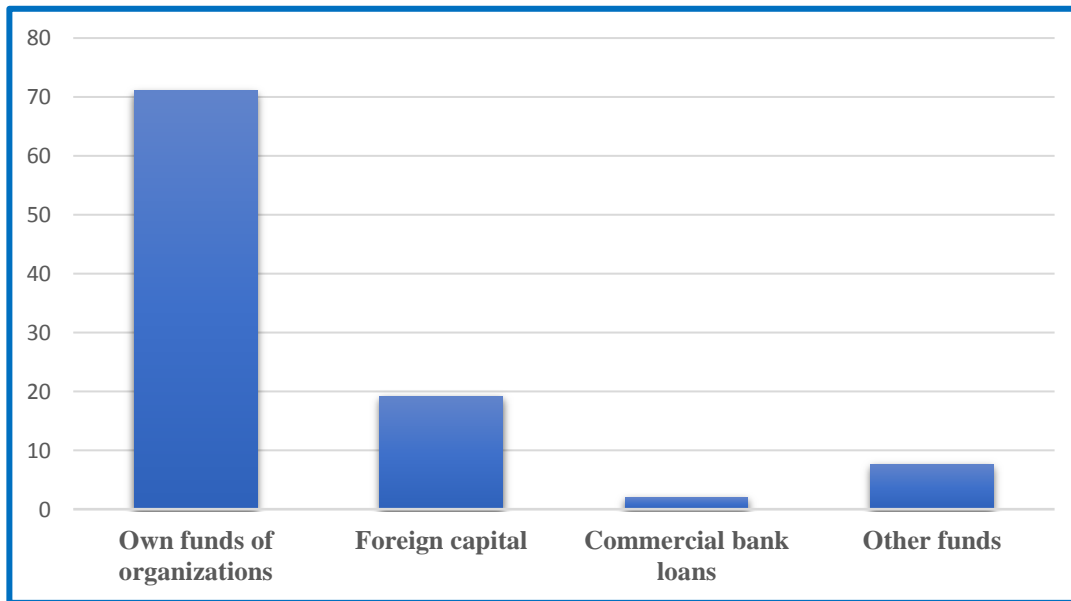
Since  $T_{a_1} > T_k$  in the calculation,  $a_1$  means that the regression coefficient is significant. From the above regression analysis, the following conclusions can be drawn: an increase in the number of people employed in existing businesses by 1 percentage point will lead to an increase in the share of businesses in GDP by 8,056 per cent.

### Analysis and discussion of results

Today, in all economically developed countries, various methods of insurance of the agricultural sector are used. Crop yield insurance, income insurance, as well as income stabilization insurance are recognized as common areas of insurance in agriculture.

At the same time, five different models of state support and public-private partnership can be distinguished in the international practice of agricultural insurance. These are the high-performance model of cooperation between the public and private sectors (USA); state-led insurance models (Canada and Israel); agricultural insurance model through insurance partnerships (Spain and Turkey); will vary depending on the characteristics of these models. Below we cover the features of each model in more detail.

In 2020, innovative technologies in agriculture were financed mainly from the organization's own funds (69.7%). Since 2017, the contribution of other funds has increased (55.4%). In 2021, we can see that the funding from the organization's own funds has increased by 16.4 times compared to 2013.



**Figure 1. Sources of financing of innovative technologies, in percent**

In 2021, 71.0% (2956.0 billion soums) of expenditures on technological, marketing and organizational innovations will be financed by the organization's own funds, 19.2% (799.1 billion soums) by foreign capital, 2.1% (88.4 billion soums) commercial banks, 7.7% (318.8 billion soums) financed from other funds (Figure 1).

### **High Efficiency Model of Public-Private Interaction (USA)**

The US agricultural insurance system is distinguished by the fact that the government has been paying great attention to the mechanism of risk management in this area. Subsidized agricultural insurance in the country is provided by the Federal Agricultural Insurance Corporation. Its duties include: setting insurance premium rates, granting subsidies and approving insurance products. In turn, its activities are controlled by the Risk Management Agency (RMA) of the US Department of Agriculture. Federal insurance programs are organizations that take full responsibility for providing all types of insurance services to policyholders, as well as through the involvement of private insurance organizations that guarantee the payment of insurance coverage. The main task of the federal corporation is to supervise the activities of insurance organizations that provide subsidized insurance services. In the US, the agricultural insurance system is mandatory and requires a license to practice. The allocated subsidies are on average 50% of the insurance premium, covering 70% of the insurance coverage. The amount of subsidies can be 30-60 percent in a particular section of crops. Insurance coverage covers a total of 85 different types of crops. Also, farmers have the obligation to use more than 150 insurance products with high level of risk (Multi-risk insurance) and index insurance. The successful development of such a partnership (between the state and the private sector) is the fact that the real problems and needs of agricultural producers (the opinions and opinions of the insured are constantly studied) are clearly defined by the state.

### **State-preferred insurance models (Canada, Israel)**

Agricultural insurance in Canada has a history of more than 60 years as a voluntary form of insurance. In some (five) provinces of Canada, there are state-owned companies called Royal Agricultural Insurance Corporations that operate on market principles. In emergency situations, these corporations can receive financial assistance from the government, subject to repayment. In other provinces, subsidized insurance programs have been introduced relatively recently (10-13 years), and services are

provided by special departments of the federal Ministry of Agriculture of the province. The Canadian government covers most of the insurance costs (the average amount of subsidies is 60% of the insurance premium). However, only 40% of the total insurance premium is paid by the farmer (subsidies are directly transferred by the state to insurance companies). Canadian private insurance companies provide limited insurance products (mainly hail, fire) to agricultural policyholders that are not subsidized. Currently, there are about 30 public insurance programs in Canada that implement public policies to manage risk and increase income for agricultural enterprises.

Agricultural insurance in Israel has been developing on the basis of active state support for half a century. The KANAT fund for the protection of natural disasters in the country controls agricultural insurance, and also allocates insurance premiums (35% of all types of agricultural crops and animals) and subsidies for insurance of reinsurance risks. The government also pays up to 80 percent of insurance premiums to farmers under The Natural Disaster Program. This program is administered by the state through the KANAT Foundation. In addition, this organization provides insurance for almost all types of crops, as well as animal and aquatic insurance programs across the country.

Similarly, if we focus on our national agricultural insurance sector. According to the decision of the President of the Republic of Uzbekistan dated November 20, 2018:

a) As part of the "Agricultural Diversification and Modernization" project (hereinafter - the Project), on August 4, 2020, between the Republic of Uzbekistan and the International Fund for Agricultural Development, an additional loan in the amount of 46.2 million US dollars, as well as a loan for grant funds in the amount of 800 thousand US dollars the signing of the agreement (hereinafter referred to as the loan agreement) is one of the main factors of the development of this sector.

If we look at the insurance company "Uzinsurance" JSC (Agrasugurta JSC) specializing in agriculture. According to the "Business Plan" developed by "Uzinsurance" JSC SK for 2022, today there are more than 100 types of insurance in the system of this society, and about 20 of them are popular types of insurance with high demand. As of December 31, 2021, a total of 1.2 million insurance contracts have been concluded within the framework of current insurance types, 704 thousand (60.3 percent) contracts are optional insurance types and the remaining 463 thousand (39.67 percent) contracts are mandatory insurance types. 83.4 trillion within these contracts. 51% of insurance liability is accepted, and voluntary insurance types make up 51%. 261 billion in total during the reporting year. Soum insurance premium income is provided. 177 billion of this collected insurance premium. soums (67.8 percent) to voluntary insurance types, 84 bln. soums (32.2 percent) correspond to types of compulsory insurance. A total of 35 bln. soum insurance compensation has been paid.

The role of "Uzagrosugurta" joint-stock company in economic support and insurance protection of agricultural producers in our republic is incomparable. If we look at the data from an analytical point of view, among the companies operating in our republic, it is distinguished by the high level of trust in "Uzinsurance" JSC, the timely fulfillment of obligations under insurance contracts, and the high volume of insurance services provided. It is also important to fulfill the insurance obligations by the society and to pay the damages caused to the policyholders on time.

As a result of the work carried out by the Society during the years 2019-2021, it is possible to observe an increase in the income of insurance premiums from year to year. In particular, the Society provided: in 2019 - 253 billion soums (an increase of 41.5 percent) from insurance premiums, and its share in the insurance market was 14.6 percent; In 2020 - 178.2 billion soums of insurance premiums were provided (70.6 percent compared to the previous year), the share in the insurance market was 9.5 percent; In 2021 - 261 billion soums of insurance premiums were provided (46.5% growth), the share in the insurance market was 9%. In turn, in 2022, it is forecasted that the Society will provide insurance premiums of 320 billion soums (an increase of 23 percent), and the share in the insurance market is expected to be 9.4 percent.



At the same time, the Society provides insurance of agricultural products against various risks, types of micro-insurance, including "Insurance of population risks related to farming activities, property and residential buildings" and "Insurance of family entrepreneurs' business properties and buildings". By introducing insurance products "box 6" (korobochnaya straxovka) and increasing the scope of services provided to the population through these types of insurance by 1.5 times, it is expected to receive 4-5 billion soums of insurance premiums next year.

In 2022, 130 billion soums (113 percent) of insurance premiums are forecast for agricultural and business property insurance. It is envisaged to implement the following works in order to ensure the income of this insurance premiums:

1. Improvement of the agricultural insurance system, including "Insurance of agricultural risks" on the implementation of the Decree No. to develop proposals for the adoption of the Law on";
2. In order to ensure insurance protection of agricultural enterprises operating in the direction of fruit and vegetable production: - insurance of export contracts of agricultural products against political and commercial risks; – putting into practice the procedure of covering 50% of insurance premiums from the state budget to fruit and vegetable clusters, cooperatives and farms with export contracts. 682 insurance contracts for livestock insurance were concluded this year and 179.5 million soums of insurance premiums were provided. In 2022, it is planned to provide 327 million soums of insurance premiums due to the conclusion of 850 insurance contracts of this type of insurance. In 2022, 500 million soums of insurance premiums will be provided in the field of fishing. In 2022, more than 1 billion soums of insurance premiums will be collected for the insurance of risks in the poultry industry. In turn, in 2022, insurance premiums of 3.1 billion soums are expected to be provided by increasing the number of insurance contracts to 230 for the insurance of leased agricultural machinery and fixed assets.

Information in place: agriculture and business property insurance in 2021: A draft procedure for covering 50 percent of insurance premiums from the state budget to fruit and vegetable clusters, cooperatives and farms with export contracts was developed and submitted to the Ministry of Agriculture and the Ministry of Finance. In order to ensure the implementation of the decision of the President of the Republic of Uzbekistan No. 5017 dated March 3, 2021 "On additional measures for further state support of livestock industries", in 2021, in cooperation with the Insurance Market Development Agency of the Republic of Uzbekistan, Uzbekbaliqsanoat, a tripartite measure on insurance of risks in the fishery sector - The action plan has been developed and approved. Insurance of fish and fishery technological equipment was organized mainly for it. Together with the "Poultry Industry" association, in 2021, the procedure for insurance of existing poultry in poultry enterprises operating in the republic was developed and presented for implementation.. On May 3, 2021, an agency agreement on the insurance of leased agricultural machinery and fixed assets was signed with "Uzagrolizing" JSC, and in 2021, 160 insurance contracts were concluded and insurance premiums of 1.5 billion soums were provided.

### Conclusions and suggestions

Based on foreign experiences, it is appropriate to make the following suggestions to ensure the economic stability of agro-industrial producers through state support of agricultural insurance in our Republic:

- introduction of public-private partnership (PPP - Public-Private Partnership) models in agricultural insurance based on the experience of developed countries in Uzbekistan;
- in order to ensure the reliability and financial stability of the insurance system, on the basis of the government's decision, to establish an insurance fund specialized in agricultural insurance and to unite insurance companies to this fund (as an example of the "Seguros Agrarios Combinados"

program of Spain);

- development of mutual insurance companies and improvement of legal base;
- to increase the minimum amount of authorized capital of insurance organizations in order to ensure the reliability and financial stability of the insurance system;
- development of a network of agricultural consumer insurance cooperatives;
- to attract insurance companies of different types of ownership to the agricultural insurance market, to create a healthy competitive environment between them;
- Development of targeted programs to expand the scope of insurance contracts between agricultural enterprises and insurance companies and conclude them in a modern way "ONLINE";
- it is desirable to transfer crops (grain and rice products) aimed at meeting the needs of the country's population from voluntary insurance to mandatory insurance (as an example of the US agricultural insurance system).

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