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ANALYSIS OF THE CROP INSURANCE SYSTEM IN UZBEKISTAN

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Prepared by:
Center for Economic Analysis and Rationing
Republic of Karakalpakstan

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LIST OF ABBREVIATIONS AND ACRONYMS

- JSC "Uzagrosugurta"** State Joint Stock Insurance Company "Uzagrosugurta".
- JV SEMURG INSURANCE JSC** Universal Insurance Company.
- GAP** Gross agricultural output.
- NGO** Non-governmental non-profit organisation.
- Working Group** Temporary scientific and analytical working group formed for the implementation of the project.
- VCC** Village council of citizens
- FGD** Focus Group Discussion.
- Dehkan farms** A dehkan farm is a family smallholding engaged in production and sale of agricultural products on the basis of personal labour of family members on a land plot granted to the head of the family in lifetime inheritable ownership.
- Aul/makhalla** Aul - local community, territorial unit.
- Bodies of self-government** Bodies of self-government of citizens are rural citizens' assemblies, kishlaks and auls, as well as makhallas of cities, settlements, kishlaks and auls.
- Fruit and vegetable sector** The fruit and vegetable sector is a sector of the economy where fruit and vegetable products are produced and services are provided to producers of fruit and vegetable products.
- Farmer** A farmer is the head and founder of a farm.
- Farm** A farm is a business entity engaged in the production of agricultural products and other activities not prohibited by legislation, using land plots provided on lease
- Khokimiyat** Local authority.
- Research** Project evaluation is always research. Therefore, they can be used interchangeably in the text of the report
- Case** A case is a description of a specific situation or case study of the beneficiaries of a project.
- Stakeholders** Farms or farm associations interested in the project, in solving a given problem, etc.
- Storytelling** Storytelling is a qualitative project appraisal tool to be used to illustrate the achievements of the project.

INTRODUCTION

Agricultural insurance is one of the levers for ensuring sustainable development of agricultural production, which largely determines the economic condition of not only the subjects in the agricultural sector, but also the social situation of the rural population. The organization of insurance for agricultural risks, especially for crops, finding optimal conditions and models, as well as optimizing both the overall agricultural insurance system and the crop insurance system, have important production, economic, and social significance.

Agricultural production has historically been one of the high-risk sub-sectors of Uzbekistan's national economy because the conditions and results of production and economic activity of agricultural enterprises are highly dependent on random, primarily weather-related factors.

In this regard, the development of an agricultural insurance system as an element of sustainable agricultural production is relevant.

Therefore, one of the priority directions of the Strategy for the Development of Agriculture of the Republic of Uzbekistan for 2020-2030 is to fully support sectors and areas vulnerable to climate change and to implement support mechanisms for climate-adapted agricultural technologies.

In this direction, the task of improving insurance mechanisms in accordance with the strategic priorities and needs of the agricultural food sector is the most relevant, which implies the creation of necessary conditions and opportunities for farmers and dekhkan farms to develop crop insurance systems.

The agricultural insurance market in Uzbekistan is currently at the stage of active development. In this regard, the issues of analyzing the system of agricultural crop insurance and developing scientific and practical recommendations for the formation of this system are important. These efforts are based on studying advanced foreign experience to determine the possibility of adapting it to our conditions while taking into account both regional and sectoral features of agriculture.

The Republic of Karakalpakstan is one of the major regions located in the Aral Sea basin. If we take into account that forty million people live in the five Central Asian countries located in the Aral Sea basin¹, with four million living in close proximity to the sea, and a significant portion of these four million residing in the Republic of Karakalpakstan, we can grasp the scale and consequences of the Aral Sea drying up. An optimal and adapted agricultural insurance system helps to reduce and mitigate the environmental and socio-economic problems in the project target areas of the Republic of Karakalpakstan (Karauzyak, Kegeyli, and Kanlikul districts), aiming to increase the resilience of the local population and promote green, inclusive development in the most affected communities in the region.

At present, intensive technologies adapted to global climate change are being massively introduced into the agricultural sector throughout the country. Intensive horticultural plantations and greenhouses are being established, new crop and tree varieties are being developed, and infrastructure facilities are being built.

All these innovations are subject to varying degrees of risk from different categories and types that affect the agricultural activities of agricultural enterprises. In other words, agricultural activities involve risk. Therefore, it is important to insure the property of agricultural producers and the agricultural products they grow. Insurance provides a guarantee of compensation for damage caused by various natural disasters.

¹ Regional efforts to restore the Aral Sea ecosystem <https://www.usaid.gov/ru/kazakhstan/news/regional-efforts-restore-aral-sea-ecosystem>.

To date, only two insurance companies provide agricultural insurance services in the country: Uzagrosugurta JSC and Semurg Insurance Company. It should be noted that the State Joint Stock Insurance Company Uzagrosugurta is one of the largest universal insurance companies in Uzbekistan, effectively operating through a wide branch network, including 13 regional directorates, 174 district and city branches, and 20 subsidiaries of insurance agencies.

JV JSC SEMURG INSURANCE is a new partner in the Uzbek market for the development of the insurance industry. It is a universal insurance company with experts of international standing and local specialists in the insurance business, with more than 25 branches in all regions of our republic.

For 2016-2020, only at JSC Uzagrosugurta, the number of insured events decreased by 50% and amounted to just over 7.0 thousand units. During the same period, with insurance payments growing by 1.2 times, the profitability of the company increased from 20.9% in 2016 to 51.3% in 2020.

The main services of these companies are:

- insurance of financial losses of agricultural producers due to low yields of orchards;
- insurance of financial losses of agricultural producers due to low yields as a result of hailstorms;
- insurance against damage or loss of trees, vineyards and their seedlings as a result of natural disasters, etc.
- unfavourable natural phenomena, including frost;
- water scarcity and low water in irrigation sources;
- diseases and pests;
- fire and lightning;
- unlawful acts of 3 persons and other risks;
- insurance of financial losses of agricultural producers as a result of low yields.

As studies show, the main reasons for the underdevelopment of agricultural insurance in the agricultural sector are:

- Lack of an optimal and adapted insurance system;
- weak consideration of territorial, regional and sectoral peculiarities in insurance;
- lack of knowledge about the legal and economic aspects of agricultural insurance systems;
- underdeveloped system and mechanism of realisation of agricultural insurance;
- poorly implemented system of digitalisation and IT technologies in the agricultural insurance system;
- underdevelopment of innovative methods of insurance;
- underdevelopment of the index insurance system;
- lack of confidence of insurance subjects in fulfilment of obligations of insurance companies;
- delay in payment of programmes, i.e. 6-8 months after the occurrence of an insured event;
- difficulties related to the collection of reliable statistical data;

- limited insurance programs, which cover only a few crops, due to the lack of reliable statistical data on all cultivated crops;
- lack of continuous monitoring and collection of statistical data on all cultivated crops;
- index insurance does not cover localised risks or incidents occurring on a particular farm, etc.

These and other problems of more complex form are manifested in remote regions with special climatic conditions, to which the selected pilot districts of the Republic of Karakalpakstan belong.

All listed indicators and indexers will be used in the collection of primary and secondary information, as well as included in the questionnaires for the questionnaire survey.

Objective of the Study: To analyze the insurance system in Uzbekistan and the best world practices. To develop recommendations for improving the insurance system in agriculture and promoting the introduction of an effective insurance mechanism for agricultural crops.

Scope of the Study: Republic of Karakalpakstan (Karauzyak, Kegeyli, and Kanlikul districts). This includes farmers who have insured crops or agricultural activities, farmers who do not use the services of insurance companies to insure crops or agricultural activities, and insurance companies engaged in insurance activities in agriculture.

Methodology of Conducting a Sociological Survey:

- **A. Geography of the Questionnaire Survey and Sociological Research:** Pilot districts of the Republic of Karakalpakstan - Karauzyak, Kegeyli, and Kanlikul districts. Selected farms and insurance companies, including JSC “Uzagrosugurta” and “Semurg Insurance,” etc.
- **B. Sample:** Farms, clusters, insurance companies, and the local population aged 18-60. The focus group includes farms engaged in agricultural activities, specialists/managers of Rural Assemblies of Citizens (RAC), economic entities, district-level khokimiyats, and insurance companies.
- **C. Sample size:**
 - Up to 25 questionnaires from each pilot district, up to 75 questionnaires in total for the three project districts (farms engaged in agricultural activities but not using the services of an insurance company for crop insurance).
 - Up to 10 questionnaires from each pilot area, up to a total of 25 questionnaires for the three project areas (farms engaged in agricultural activities and using the services of a crop insurance company).

1 | ANALYSIS OF THE WORLD EXPERIENCE IN INSURANCE OF AGRICULTURAL CROPS

For Uzbekistan, where the agricultural sector is one of the leading sectors of the national economy, defining effective forms and mechanisms of insurance based on the study of foreign experiences in agricultural crop insurance and identifying opportunities to introduce adapted forms to the country's conditions is an urgent task.

In regions where the vulnerability of territories and agricultural sectors to climate change is very high, such as the rural areas of the Republic of Karakalpakstan, this issue becomes doubly relevant. Many countries around the world are actively developing and supporting agricultural risk insurance as an effective tool to increase the sustainability of the agricultural sector.

Each country uses different strategies to develop and support agricultural insurance, but all of them can be divided into purely commercial and state-supported programs..



In the U.S., studies and analyses of literature sources show that the formation of insurance systems in general, and agricultural insurance in particular, occurs in various countries over a long period and under the influence of many specific factors: geographical, territorial, regional, interregional, socio-economic, political, and more. As a result, each country's insurance system is inherently unique and deserves attention.

Therefore, in world practice, scientists and practitioners distinguish two main models of agricultural insurance: the American and European models. The American model of agricultural insurance is characterized by extensive state participation in supporting agricultural risk insurance. The central element of state support is the provision of subsidies to pay part of the insurance premium, which reduces the cost of insurance for agricultural producers and ensures widespread adoption.

The European model is characterized by minimal state intervention and is essentially private.

In the United States, the establishment of an agricultural insurance system was initiated by the Senate in 1922. The first government insurance program was launched in 1939 with the establishment of the Federal Crop Insurance Corporation (FCIC) to implement the program. Since then, the insurance program has undergone many changes. Until 1994, the Federal Crop Insurance Program operated independently of disaster compensation programs, resulting in low farmer participation since farmers could receive reimbursements without insurance.

The Federal Insurance Reform Act of 1994 stipulated that reimbursement for catastrophic losses would only be provided if the farmer participated in the Catastrophe Insurance Program (CAT). However, farmers are required to pay the administrative costs of this program. In the event of natural disasters and catastrophes, the program provides 50% coverage for crop losses (calculated based on crop yields over the previous 10 years - APH) and 55% coverage for price losses. Since 1996, farmers have been able to participate in this program on a voluntary basis (RMA - Risk Management Agency of the US Department of Agriculture). Additionally, they can purchase supplementary insurance policies under the Multi-Price Compensation Insurance (MPCI) schemes.

In the U.S., agricultural producers are offered a wide range of insurance products and coverage levels. By increasing the level of premium subsidies, the government enhances producer participation in the agricultural insurance program.

Insurance programs are provided through private insurance companies, but the government supports them with administrative and operating subsidies, as well as reinsurance support.

One of the most important programs administered by the USDA is the Federal Crop Insurance Program, which provides protection against major risks to mitigate economic losses in agriculture. The Federal Crop Insurance Corporation (FCIC), a wholly governmental entity, was established to help maintain economic stability in agriculture through a robust crop insurance system. The FCIC sets premium rates, determines subsidy amounts, and approves new insurance products.

Federal crop insurance is available to farmers only through private insurance companies. Typically, the Standard Reinsurance Agreement outlines the amount of risk assumed, whereby insurance providers must cede a portion of the assumed liability to reinsurance. Insurance companies are responsible for all aspects of policyholder service and guarantee the payment of premiums to the FCIC. In turn, the FCIC reinsures agricultural risks and compensates for administrative and operating costs associated with providing insurance services.

Under the Federal Agricultural Reform and Improvement Act, the insurance system was reorganized in 1996, leading to the establishment of the Risk Management Agency (RMA). The RMA is an independent division of the Department of Agriculture and is part of the Farm and Foreign Agricultural Service.

The FCIC's mission is to maximize insurance protection for agricultural producers through licensed private agents and brokers. Since both public and private sectors are involved in the crop insurance program, relationships between market entities are regulated through contracts between the policyholder (farmer organization) and the insurer, as well as reinsurance agreements between the FCIC and private insurers.

An insurance contract is an agreement between a farmer (policyholder) and an insurer who undertakes to indemnify losses for a specified premium. Each party has the right to terminate or suspend the contract at the end of each agricultural year. If not terminated, the contract is automatically extended for the following year.

The terms and conditions for crop insurance contracts developed by the FCIC are published in the Code of Federal Regulations. Terms and conditions developed by the private sector cannot be published as instructions but are noted in the Code. Insurance premium rates are also approved by the FCIC.

The FCIC is responsible for administering the crop insurance program. However, the Risk Management Agency oversees its activities, maintains regional offices, and employs about 600 staff members involved in promoting existing programs and marketing new insurance products.

The Risk Management Agency conducts annual quality control reviews of insurance companies and officially approves the results. These reviews, including the scale and significance of any errors, are recorded in an information database. Insurance companies with error rates below the normative value are rewarded, while those with higher levels of violations face sanctions.

In the USA, subsidized agricultural insurance is provided by the Risk Management Agency (RMA). While the RMA develops insurance products, private insurance companies offer the insurance services. Subsidies are paid directly to the insurance companies, and farmers only need to cover their share of the premium. The government provides a subsidy to farmers when they purchase an agricultural insurance policy.

The primary government insurance programs in the United States are the Multi-Peril Crop Insurance Program and the Catastrophic Risk Protection Program. The Multi-Peril Crop Insurance Program protects against various natural disasters, including drought, excess moisture, flooding, high winds, and hail².

Several sub-programs support specific types of crops (e.g., alfalfa, almonds, apples, apricots, avocados, bananas, barley, beans, blueberries, buckwheat, sesame). The Average Revenue Coverage Program provides subsidies when income shortfalls (losses) in a given area or farm fall below income standards based on changing crop and price averages. Payments are capped based on historical data for agricultural producers.

Additionally, there are insurance programs tailored to the geographical and sectoral specifics of crops. For example, the Stacked Income Protection Plan (STAX) is designed exclusively for upland cotton crops, as cotton producers are not eligible for ARC or PLC. STAX is a regional income plan that can be used alone or in combination with a basic policy or insurance plan. It is similar to the Area Revenue Protection (ARP) plan, which can be selected as a stand-alone policy or alongside individual or regional insurance plans.

New programs also include coverage for crops grown with or without irrigation and the addition of hemp to the list of insurable commodities.

The federal crop insurance program in the USA provides protection against significant risks to reduce economic losses in agriculture. The program offers nine coverage levels from which farmers can choose when insuring their crops³. The insurance premium amount depends on the selected coverage level: higher production guarantees and price levels result in higher premiums. Farmers have the flexibility to select different types of insurance coverage.

In the USA, more than 100 crops have specific insurance programs available, with over 370 insurance products offered. This range allows for comprehensive insurance coverage for agricultural enterprises, including:

- Crop or income insurance;
- Regional or farm-specific insurance;
- Capital asset insurance (e.g., fruit trees or nurseries);
- Whole farm insurance.

Farmers can choose from various types of insurance coverage tailored to their needs.

² R. Ismailova, Z. Baymagambetova, O. Misnik Subsidizing Agricultural Crop Insurance: Foreign and Domestic Experience Journal: Economics and Statistics, Issue 1/2019, pp. 32-36 www.stat.gov.kz

³ Askerov, Sh.S. Features of Risk Management in Agricultural Production <https://cyberleninka.ru/article/n/osobennosti-risk-mene>

AGRICULTURAL RISK INSURANCE PROGRAMMES IN THE USA⁴

Insurance programme	Characteristics and peculiarities of insurance programmes
Revenue Assurance (RA)	<p>The programme protects the producer's income from falling below a set level of guaranteed income:</p> <ol style="list-style-type: none"> 1. Offers protection against a decline in a farmer's income due to falling prices, or low yields, or a combination of the two; 2. Provides an autumn crop price option that allows the use of two prices - the autumn price at the time of harvest or the forecast crop price set in the spring (when the insurance contract is signed) - to determine the level of guaranteed income per unit area (1 acre).
Multiple-Peril Crop Insurance (MPCI)	<p>Insurance features:</p> <ul style="list-style-type: none"> ▪ Government Subsidies: Government subsidies may be available to farmers who purchase this programme. ▪ Coverage: The insurance covers more than 76 crops, including sesame. <p>Protection Against Risks: The programme provides protection against reduced production due to lower yields caused by various risks, including:</p> <ul style="list-style-type: none"> ▪ Drought ▪ Excess moisture ▪ Frost and freezing ▪ Wind ▪ Flood ▪ Plant pests and diseases <p>Additional Coverage: It also compensates for reseeded costs in cases where poor quality of the produced goods results from violations of sowing terms.</p> <p>Coverage Level: The level of coverage is based on the average yield of each individual farmer or farm, using data from the last 4 to 10 years. For farmers with less than four years of production data, a special adjustment variable is applied.</p> <p>Farmer's Choice: Farmers can choose a coverage amount ranging from 80% to 85% of the average crop yield and a percentage of the assumed price (from 55% to 100%), as approved annually by the Risk Management Agency. If the actual crop yield is less than the insured amount, compensation is calculated as the product of the difference in yield and the selected percentage of the approved price.</p>
Income Protection Insurance (IP)	<p>This type of insurance is based on the average yield of each farm and protects against a decrease in farm income due to price and/or yield reductions. The guaranteed income level and the insurance premium are calculated based on a forecast price set in the spring. Compensation is provided if the total income from all crops falls below the coverage amount.</p>
Group Risk Plan (GRP)	<p>Features of insurance:</p> <ul style="list-style-type: none"> ▪ Regional Focus: The insurance is regional, aimed at covering risks from yield reductions. ▪ County/District Basis: It relies on county/district indicators rather than individual farm indicators. ▪ Simplified Procedure: The insurance procedure is simplified and less costly compared to MPCI insurance. ▪ Minimal Information Required: Only the amount of acreage planted is needed to provide coverage. ▪ Coverage Levels: Farmers can choose from five insurance coverage levels: 70%, 75%, 80%, 85%, or 90% of the expected yield for the county/district. Only one coverage level can be selected per crop-insurance area combination. ▪ Yield Calculation: The planned yield level for a county/area is calculated by the National Agricultural Statistical Service based on general crop yield trends.

⁴ Enhanced Coverage Option. <https://www.rma.usda.gov/en/Fact-Sheets/National-Fact-Sheets/Enhanced-Coverage-Option>; Insurance Resources Policies, handbooks, and more. <https://www.rma.usda.gov/en/Topics/Insurance-Resources>.

Insurance programme	Characteristics and peculiarities of insurance programmes
Guaranteed Residual Income Protection (GRIP)	<p>Insurance features:</p> <ul style="list-style-type: none"> ▪ County/District Data: Benefits are based on county/district average yield data. ▪ Income Protection: The insurance protects against potential income loss caused by significant reductions in county/district yields or crop prices. After the publication of county/district yield data, the income from the sale of crops (crop value in monetary terms) is calculated by April 16 of the following crop year. ▪ Reimbursement: Farmers receive reimbursement if the county/district income is below the guaranteed level. If the income is above the defined level, no payment is made, even if the farmer has suffered a loss.
Crop Revenue Coverage (CRC)	<p>Insurance features:</p> <ul style="list-style-type: none"> ▪ Average Yield Basis: Coverage is based on the average yield of the farmer over a certain period. ▪ Price Options: The highest of two prices is used to calculate the full guarantee: <ul style="list-style-type: none"> ▪ The forecast crop price set in the spring (base price), or ▪ The autumn price at harvest time (harvest price). ▪ Premium Consistency: The guaranteed income level may increase, but the insurance premium remains unchanged. This insurance compensates for drops in income due to lower prices, lower yields, or a combination of both.
Insurance Against Income Loss Due to Natural Disasters and Market Fluctuations (AGR)	<p>Insurance features:</p> <ul style="list-style-type: none"> ▪ Wide Range: The insurance covers a wide range of crops, including strategic ones like sesame. ▪ Total Income Protection: The main objective of this programme is to insure the farmer's total income. <p>Coverage Options: Farmers can choose from three insurance coverage levels: 65%, 75%, or 80%.</p> <p>Premium Calculation: The insurance premium depends on the coverage level chosen by the farmer, calculated by multiplying the farmer's gross income by the selected coverage level.</p> <p>Coverage and Payment Variation: Coverage levels and payment rates may vary depending on the number of crops produced and are selected based on county/district documentation.</p> <p>PS. If the farmer's actual income falls below the loss point (calculated by multiplying the agreed upon gross income by the selected insurance coverage level), the loss is reimbursed to the producer. In the event of a drop in income, a payment of 75% or 90% of each dollar lost is made to the policyholder.</p>
Catastrophic Risk Protection Programme (CAT)	<p>Insurance features:</p> <ul style="list-style-type: none"> ▪ Loss Coverage: Crop losses exceeding 50% are covered at 55% of the expected market value of the crop. ▪ Federal Funds: Federal funds are allocated to pay the premium for catastrophic risk coverage. ▪ Administrative Fee: Farmers must pay a \$100 administrative fee for each insurable crop at each location. Cash-strapped farmers may be exempt from this fee.

In general, the agricultural risk insurance system in the United States is characterized by the following aspects:

- **Basis of Insurance:** The system is based on multi-peril insurance subsidized by the US government.
- **Application Timing:** Insurance applications must be made prior to planting.
- **Coverage Basis:** Coverage is based on historical yields.
- **Production Values:** These are determined using forecast prices or futures quotes (data from commodity exchanges).
- **Premium Rates:** Calculated according to coverage levels and natural risks causing crop loss.
- **Payments:** Made if yield or income falls below the guaranteed level.

The agricultural insurance and risk management system in the US is subsidized by the government and provides protection against most natural perils, including drought, excessive moisture, flood, hail, high winds, and other catastrophic events.

A distinctive feature of the U.S. agricultural insurance system is that insurance is provided on a crop-by-crop basis. Another notable feature is the use of specially designed programs such as Multiple-Peril Crop Insurance (MPCI).

There are three main forms of MPCI programs:

1. **Catastrophic Risk Protection (CAT):** This provides catastrophic risk protection with minimal coverage. The premium for this coverage is fully paid by the state.

Group Risk Plan (GRP) and Buy-Up Coverage: This includes “buy-up coverage,” which allows farmers to choose higher coverage levels (in 5% increments) and higher prices (up to 100% of the actual market value) than those available under the CAT program. The government’s role is limited to covering administrative expenses for insurance companies and a portion of the net insurance premium. The net premium, which is part of the gross premium, covers losses directly and consists of the pure net premium for risk plus a risk (insurance) surcharge.

The net premium is a primary component of the gross premium required to cover current and future payouts and to establish insurance reserves. Essentially, it represents the insurance rate excluding additional loads, such as fees for insurance agents and brokers).

The net premium is calculated based on the net rate and is composed of two main components:

- **Risk Premium:** This is the fundamental part of the net premium, representing the expected cost of covering insured risks;
- **Risk surcharge** – the portion that is intended to cover potential excesses in the number of claims relative to their average value.

3. **The Non-Insured Assistance Program (NAP)** is designed to protect producers of crops excluded from standard programs, such as citrus, pears, peppers, plums, and flax. Coverage under this program is similar to that of the CAT program but requires at least 35% of losses in a specific region (usually affecting about 5 producers) to trigger indemnity.

Under the CAT policy, farmers receive minimum insurance coverage. Purchasing this policy is a prerequisite for participating in other government-subsidized programs. The CAT program covers 50% of a farmer’s average crop at a price equal to 55% of the expected market value of the crop.

The Buy-Up Coverage program allows farmers to cover a higher percentage of their crop (in 5% intervals) and its price (up to 100% of the actual market value) compared to the CAT program. The insurance premium is based on rates for each crop in each region and data on the farm's crop value

The difference between GRP and Buy-Up Coverage is that GRP coverage is based on the average yield of the insured crop in the county, not on specific farms. Thus, if the county yield falls below the insured level, the producer is compensated even if the yield on their farm is above average.

Advantages of a crop insurance system for farms include:

- The opportunity to make individualized risk management decisions.
- The legal and economic feasibility of using crop insurance as collateral for loans.
- Participation and personal responsibility for risk management choices.
- The ability to use crop insurance to enhance marketing plans before harvest.
- Timely receipt of crop insurance reimbursements.
- Flexibility to meet World Trade Organization requirements.

In the United States, the regional risk insurance system holds a distinct place within the crop insurance framework^{5,6}. **Regional Risk Protection Insurance (ARPI)** is a regional plan that provides coverage based on the experience of the entire region or county.

ARPI offers protection against widespread crop or revenue losses in a county through the Area Yield Protection (AYP) and Area Revenue Protection (ARP) options. It is important to note that individual farm incomes and yields are not considered under ARPI, and individual farms may experience reductions in income or yield without compensation.

Current ARPI policies cover barley, corn, cotton, grain sorghum, popcorn, rice, soybeans, wheat, and forage. The primary benefit of “underwriting” plans based on regional approaches is that they minimize the potential for adverse selection and moral hazard, as individual producers do not have more information about expected county or regional yields than insurers. Likewise, individual behavior generally does not significantly affect realized average county yields or incomes.

Despite these benefits, ARPI policies account for a relatively small share of the U.S. crop insurance market, representing about one percent of all insured acres. This is partly due to basis risk—the risk that farm-level values will differ from county-level values. Basis risk can lead to situations where policyholders receive reimbursements that either exceed or inadequately cover their losses. In extreme cases, producers might receive reimbursements without having experienced losses, or vice versa.

It is believed that in climate-sensitive areas, such as those targeted by pilot projects, area-level insurance may improve farmer welfare, sometimes more than farm-level insurance.

The U.S. Department of Agriculture's (USDA) Risk Management Agency (RMA) announced an expansion and enhancements to its sesame insurance policy for the 2021 crop year.

The expansion and enhancement of the sesame insurance plan better meet the needs of producers in the region and will help improve the integrity and sustainability of the program, according to the agency. These changes include:

⁵ Feasibility of insuring local food production - Final Research Report Order Number: 12FPC320F0125 A Report for USDA Risk Management Agency and Farm Production and Conservation – Business Center January 2021,

⁶ Crop Policies <https://www.rma.usda.gov/en/Policy-and-Procedure/Crop-Policies>.

Sesame Policy Improvements:

- The program has been expanded to 8 counties in Georgia and Alabama, and by written agreement to 55 counties without actuarial crop records in Alabama, Florida, and Georgia⁷.
- Clarified policy provisions
- Added cancellation and end dates of February 28 for Alabama and Florida
- Added December 31 coverage end date for Alabama and Georgia.
- Revised to require representative samples under Section 14 of the Basic Provisions.

The Risk Management Agency (RMA) is allowing additional flexibilities due to the coronavirus pandemic by continuing to support sesame seed producers through approved insurance providers (AIPs). This support includes handling policies, claims, and agreements. RMA staff are working with AIPs and other customers via phone, mail, and email to maintain sesame crop insurance coverage for growers. Growers with sesame crop insurance questions or needs should contact their insurance agents about conducting business remotely (by phone or email).

Crop insurance is sold and transacted exclusively through private insurance agents. A list of insurance agents is available online through the [RMA Agent Locator](#). Producers can use the RMA Cost Estimator, to calculate their insurance premium online.

BOX 1. SOME DATA ON USDA'S RISK MANAGEMENT AGENCY (RMA)⁸ 2022.

- The 10-year loss ratio aligns with the target rate.
- The improper payment rate has been less than 3% for 8 consecutive years, one of the lowest rates in government.
- Product Review: Insurance rates are reviewed frequently and effectively using historical program experience.
- Producer Investment: \$43.3 billion in premiums collected over the past 10 years.
- Expanding America's farm safety net:
- More Products Insured: Over 50 insurance products developed through the 508(h) process overseen by the Federal Crop Insurance Corporation (FCIC) Board.
- Options Available: 134 crops insured, up from 112 in 2000; 604 varieties insured, up from 325 in 2000; 36 plan types, up from 20 in 2012.
- Coverage Levels: Producers opted for higher levels of coverage.
- Investments in customer service:
- Written Agreements: Processing time for individual coverage applications decreased by 35% during the pandemic, from an average of 13.35 days to 8.74 days.
- Public Engagement: In 2022, RMA engaged 700,000 public participants through informational outreach efforts.

Expanding Risk Management Tools:

Whole Farm Income Protection:

- Insurance coverage increased from \$8.5 million to \$17 million.
- 16,700 policies sold and \$961.2 million in premiums received from 2015 to 2022.
- Reduced paperwork for easier reporting.
- Micro Farm program added in 2022 to protect small diversified producers.
- Additional policies earning premium: Policies have grown significantly since 2015.

Organic Insurance:

⁷ Summary of Changes for the Actual Production History (APH) Sesame Pilot Crop Provisions (2021-0396). <https://www.rma.usda.gov/-/media/RMA/Policies/Sesame/2021/Sesame-Pilot-Crop-Provisions-21-0396.ashx>

⁸ <https://www.rma.usda.gov/en/Fact-Sheets/National-Fact-Sheets/Enhanced-Coverage-O>; United States Department of Agriculture Federal Crop Insurance Corporation Sesame Pilot Crop Provisions. <https://www.rma.usda.gov/-/media/RMA/Policies/Sesame/2021/Sesame-Pilot-Crop-Provisions-21-0396.ashx>

- Organic policies have increased significantly since 2013. From 2013 to 2022, a total of 86,685 policies were sold and 12,996,020 acres insured.
- Top 10 best-insured organic commodities: 1. Corn, 2. Apples, 3. Soybeans, 4. Wheat, 5. Blueberries, 6. Almonds, 7. Wine grapes, 8. Peanuts, 9. Potatoes, 10. Citrus.
- Growers purchased organic cover crops for over 70 crops.

Source: <https://www.rma.usda.gov/en/Fact-Sheets/National-Fact-Sheets/Enhanced-Coverage-O>

Since the 2011 harvest, sesame has been included in the federal crop insurance program as part of a pilot program for selected counties in Texas and Oklahoma⁹. The entire procedure, from drafting the insurance contract and determining the insurance policy to calculating the premium and indemnity amount, is widely publicized on the Risk Management Agency portal¹⁰.

Sesame is included in the list of crops (31 crops, including strategic crops) such as wheat, canola, oats, rice, cotton, soybeans, peanuts, maize, and barley to which the “Extended Coverage Option (ECO)” in the insurance system applies. ECO is a new crop insurance option providing additional area-based coverage for a portion of a farmer’s basic crop insurance policy. It must be purchased as an endorsement to a yield protection, income protection, income protection with crop price exclusion, actual production history, or dollar yield-based insurance policy. ECO offers farmers a choice of 90% or 95% trigger levels (trigger means the percentage of expected yield or income at which a loss becomes payable)¹¹.

Example of insurance premium and indemnity calculation in sesame insurance¹²:

- Insurance premium calculation
- calculation of insurance indemnity.

Acres: 200

Practice: Irrigated

Average APH Yield for the Producer: 640 pounds/acre

Coverage Level: 75%

Production Guarantee (Average Yield x Coverage Level): 480 pounds/acre

Price Election (Base Contract Price): \$0.28 per pound

Percentage of Price Election: 100%

Share: 100%

County Average Yield: 600 pounds/acre

Base Rate: 0.186

Degree Factor: – 1.33

Fixed Rate: 0.036

Ratio of Producer’s Average APH Yield to County Average Yield: 1.07 (640 ÷ 600)

Premium Rate: 0,206 (0.036 + 0.186 × (1,07)-1.33)

⁹ Sesame Pilot Insurance Program Training Handbook. October 2010.

¹⁰ https://www.google.ru/search?q=sesame+insurance+usda&newwindow1&sxsrf=APwXEdelikO2MK1iG6bAjZ MYU_5viTAQ%3A1680781716935&ei=ILEuZMXUOOCtXc8PoY-38Ak&AnABeACAAZ0BiAHNBjIBAZA

¹¹ Extended Coverage Option. Extended Coverage Option (ECO) | PMA (usda.gov)

¹² APH Sesame (Pilot) Crop Insurance Standards Handbook/ 2018 and Succeeding Crop Years. <https://www.rma.usda.gov/-/media/RMA/Handbooks/Underwriting---24000/Sesame/2018-24180-APH-Sesame-Crop.ashx>

A. Example 1 – Premium Calculation

Insurance premiums under the Sesame Pilot Program are calculated according to the provisions of Section 7(c). **To calculate the premium, use the following formula:**



Canada/ There are three different programs in Canada to cover crop risks:

Crop Insurance (CI): This program provides protection to producers against losses caused by natural hazards such as drought, flood, hail, frost, excessive moisture, uncontrolled diseases, and pests. Coverage is provided to the farmer in the form of a guarantee of the harvested crop and is *based on the farmer's individual statistics*.

Net Income Stabilization Account (NISA): This is a personal income stabilization fund. Producers have the opportunity to make annual cash deposits into their NISA account, which is matched equally by the government. The producer can use the funds accumulated in the account in years when their income falls below a set level.

Agricultural Income Disaster Assistance (AIDA): This program provides assistance in the event of natural disasters. It is designed to help producers facing a catastrophic drop in income due to risk factors beyond their control that are not covered by the other two programs and that threaten their very existence.



European Union. There are different approaches to agricultural insurance in the countries of the European Union, primarily differing in the degree of state participation in the insurance system.



Germany. In Germany, insurance is managed by mutual insurance associations. The first such association was established in 1797. Insurance in Germany primarily covers only one risk: hail, and it covers more than 80 percent of agricultural crops. Typically, farmers who are insured are members of these associations, but non-members can also obtain insurance. This type of insurance is well-regarded among German farmers and is used as a reliable risk management tool.

Monitoring and assessment of insurance damage are conducted by association members themselves, using an interregional system of appraisers. Farmer-appraisers must come from a different region than the one where the assessment is carried out, which helps prevent abuse. If unclaimed insurance reserves are formed, these funds are distributed to the members by decision of the General Assembly of the association. The funds allocated for insurance reserves by mutual insurance associations are tax-free, provided they do not exceed a certain percentage of the insured amount.

Unlike many other countries, especially those in the European Union, ***there is currently no state support for agricultural insurance schemes in Germany***. Insurance premiums are not subsidized by the government. Although the German government does not intervene in risk prevention and insurance decisions, there are funds and emergency measures available at both national and state level to compensate for losses due to natural disasters (including earthquakes, avalanches, landslides, floods, tornadoes and hurricanes, volcanic eruptions and fires) and equivalent adverse weather risks such as drought, frost, hail, heavy rain and storms (BMEL, 2018).

In Germany, there is an established market of several competing crop insurance companies, specializing mainly ***in hail insurance solutions, which is the most common insured risk in Germany (approximately 70% of all crops)***. While hail insurance was introduced in


the 18th century, multi-risk insurance products have only emerged more recently. Drought insurance, in particular, is still in its infancy.


In 2015, only 0.5% of all arable land was insured against accumulation risks, including drought (GDV, 2016). In 2013, the insurance tax on weather risks such as hail, storm, heavy rain, frost, and flood was reduced from 19% to 0.03% of the insured sum. However, drought insurance products remain subject to a tax of 19%, paid by the insured (GDV, 2016).


FIGURE 1: AVAILABLE MEASURES FOR AGRICULTURAL DROUGHT RISK MANAGEMENT IN GERMANY¹³

Private insurance solutions		State emergency measures
Combined Hail Insurance VVaG	Bavarian Insurance Chamber	Risks equivalent to natural disasters and adverse weather conditions. Maximum loss coverage is 80% for businesses at risk of bankruptcy, with an average reduction in profitability of 30%
		Liquidity guarantee provided by the Landwirtschaftliche Rentenbank
Environmental Insurance	Munich Re	Permitted use of protected natural areas for growing animal feed and high-yield crops.
		Additional options for deferring payment of taxes, social insurance, and land rent.

As of January 2019, all drought insurance products available in Germany are index-based. Index-based insurance provides compensation if a set parameter, such as the amount of rainfall, deviates from a predetermined level. In other words, crops are insured against loss-causing events, such as drought, rather than direct losses in the field.

 **France.** France¹⁴ has a Natural Catastrophe Fund that indemnifies losses on agricultural crops and pasture-raised farm animals. The risks insured include excessive rainfall, floods, frosts, droughts, hurricanes, epidemics, and parasites. The Fund is financed through an additional premium added to property insurance contracts.

 **Italy.** In Italy, agricultural insurance is primarily provided by private insurance firms, although there is significant financial assistance from the government. **Hail is almost the only risk insured** comprehensively. However, small crop insurance programs are available for frost affecting grapes, fruit, and artichokes. The government covers 50% of the premium costs, while farmers cover the remaining half; in some cases, local authorities contribute up to 10% of the premiums).

 **Spain.** Spain's state measures to compensate for crop losses due to natural disasters are considered among the most effective in Europe. Insurance in Spain covers nearly all risks. The government subsidizes both crop and animal insurance, with over 70% of farmers, approximately 90% of crops, and 70% of animals insured. On average, the subsidization rate is 53% of total insurance premiums, with 40-45% covered by the central government and 10-15% by the regional government.

Three different types of insurance policies are offered in Spain:

- Covering only one type of risk (exceptional).
- Covering multiple risks (multiple).

¹³ Agricultural drought risk management in Germany: Insurance solutions and other public support measures. Factsheet/ March 2019.

¹⁴ Agricultural insurance: experience of foreign countries. <https://www.agro.uz/ru/11>.

- Providing coverage for all risks beyond the producer's control (all-risk).

Catastrophic losses are compensated primarily for farms that have insured their crops or animals. All risks are reinsured through the state reinsurance company. In the event of natural catastrophes, the state does not make payments, as agricultural insurance schemes cover almost all risks affecting farmers' incomes.

The extensive range of insurance programs available has been a key factor to the success of the Spanish insurance system, ensuring broad participation by agricultural producers. The system relies on close cooperation between the private sector and the state, with participation available to both large and small agricultural producers, either individually or through associations.



Turkey. The Turkish¹⁵ public-private partnership model, inspired by the Spanish model, serves as an example for many countries. On June 14, 2005, the "Agricultural Insurance Law" (Law No. 5363) was enacted, leading to the establishment of the Insurance Pool (TARSİM). The operations of this pool are managed by Tarım Sigortaları Havuz İşletmesi A.Ş., with insurance companies participating in the pool as equal partners¹⁶.

The Turkish Agricultural Insurance Pool (TARSİM) has been successfully operating in the insurance market since 2006. Agricultural insurance models, programs, and levels of development vary globally, and the partnership model involving the government, private sector, and non-governmental organizations is particularly suitable for countries like Turkey with diverse agricultural products.

The establishment of TARSİM in 2006 was inspired by the Spanish agricultural insurance system. Over the past 16 years, the system has been continuously improved and has become the standard for agricultural insurance in Turkey.

To date, four countries have successfully implemented the insurance pool system: the United States, Canada, Spain, and Turkey. After Turkey and Azerbaijan signed an agricultural insurance cooperation agreement in 2020, TARSİM became a model for Azerbaijan and supervised the agricultural insurance process there. The Agrar Insurance Fund began operations in 2020 with the issuance of its first policy, and TARSİM continues to contribute to this new system.

A similar process is underway in North Macedonia, where studies are being conducted on possible cooperation. There are also plans to establish cooperation with Uzbekistan.



Israel. For more than half a century, Israel has been actively supporting the development of domestic agricultural insurance at the state level. The State Fund for Protection against Natural Catastrophes oversees agricultural insurance issues in the country, including subsidizing premium rates (35% for all types of crop and animal insurance) and reinsurance of risks. Additionally, the state covers 80% of premiums paid to agrarians under a separate program for protection against natural catastrophes.



Russia. The agricultural insurance market in the Russian Federation is currently in a phase of active development. In 2011, the Russian Federation adopted Federal Law No. 260-FZ dated July 25, 2011, "On State Support in the Sphere of Agricultural Insurance".

¹⁵ Agricultural insurance: experience of foreign countries. <https://www.agro.uz/ru/11>.

¹⁶ Insurance in Turkey/ <https://www.sigorta.com.tr/ru/sigorta-bilgileri/turkiyede-sigortacilik>.


According to this Law, state-supported insurance is available only for the risks of crop loss, perennial plantings, and farm animals. Losses are defined as a decrease in actual yield compared to planned volumes by 30% or more, or the loss of perennial plantings over an area greater than 40%. The 30% conditional deductible significantly worsens the insurance conditions. Typically, the planned yield is based on the average yield over the previous five years.

The Russian agricultural insurance system has several characteristics in common with foreign systems. Advantages include:

- Availability of state subsidies.
- Availability of various insurance programs (“Red Policy”, “Green Policy”).
- Extensive coverage of various agricultural crops.

Disadvantages of the Russian agricultural insurance system include:

- Animal insurance, like in the USA, is not subsidized.
- Unlike Spain and France, there are no income insurance programs for agricultural producers.

 **Republic of Belarus.** Currently, agricultural insurance in the Republic of Belarus is underdeveloped and primarily consists of compulsory insurance for crops, animals, and poultry. The state reimburses part of the insurance premiums for compulsory coverage at 95% of the insurance premium, with the remaining 5% contributed by agricultural organizations¹⁷.

In line with the State Programme for the Development of Agrarian Business in Belarus for 2016-2020, aimed at increasing the financial sustainability of agricultural producers and the sustainable development of rural areas, one of the directions for improving state support measures was the development of an effective agricultural risk insurance system. This system, which includes state support, is designed to meet WTO criteria:

- **Whole Farm Insurance:** Payments depend solely on income, not on the type or volume of products (including livestock) produced, or the prices, whether domestic or world, applied to such products, or the inputs used.
- **Eligibility:** Payments begin only if the income loss derived from agriculture exceeds 30% of the average gross income or net income equivalent.
- **Reimbursement:** Not more than 70% of the producer’s income loss for the year in which the producer becomes eligible.

These measures highlight some features of an effective agricultural insurance mechanism:

- A developed system of state support.
- Various forms of state participation (e.g., reimbursement of part of the damage or subsidization of insurance premiums).
- Clear criteria for programs with state participation.

A systematic approach, which includes:

- A legal and regulatory framework that meets the interests of all parties involved (state, insurance companies, agricultural producers).

¹⁷ I.A. Kazakevich, L.V. Shabunya. Mechanism of Agricultural Insurance in Belarus as a Financial Tool for Sustainable Development. Institute of Systemic Research in Agriculture of the National Academy of Sciences of Belarus, Minsk, Belarus. Vesti National Academy of Sciences of Belarus. Agrarian Sciences Series. 2018. Vol. 56. No. 2. pp. 151–163.

- A state structure that performs the role of a coordinator (such as the Ministry of Agriculture or a special agency).
- Pooling of financial resources through special funds or reinsurance operations with state guarantees.



Kazakhstan. The Law of the Republic of Kazakhstan “On Mandatory Insurance in Crop Production,” adopted in 2004, aimed to achieve three main goals: **First**, to protect agricultural producers from crop losses due to unfavorable weather conditions. **Second**, to help agricultural producers access rural finance to safeguard loans from default caused by adverse weather. **Third**, to improve the effectiveness of state programs supporting crop production¹⁸.

Currently, state support for compulsory crop insurance includes a 50% reimbursement to insurance companies and Mutual Insurance Societies for the amount of insurance payments¹⁹. However, this subsidy mechanism reduces the motivation of insurance companies to accurately assess losses and may even lead to collusion between the insurer and the insured to overestimate the amount of insurance payments²⁰. Loss adjustment and 50% compensation are managed through the Financial Support Fund for Agriculture, which also covers the fund’s operational expenses.

Over the entire period of the Act, the number of insurance companies that were licensed under this class of insurance has decreased from 6 in 2004 to 2 in 2018²¹. Financial indicators for compulsory crop insurance over the past 5 years, as presented in Table 2, also show a decline in insurers’ interest in this line of business. Given the high risk associated with crop insurance, insurance (reinsurance) organizations are reluctant to cover these potential losses.

Additionally, the number of compulsory insurance contracts has significantly decreased: from 3,194 contracts in 2014 to 400 in 2018. Similarly, the number of insured objects has dropped from 144,522 to 400 (see Table 2).

TABLE 1. MAIN INDICATORS OF INSURANCE IN CROP PRODUCTION ²²

Indicator	2014	2015	2016	2017	2018
Number of insurance contracts, pcs	3194	1755	1630	829	400
Number of insurance objects under concluded contracts	144522	1755	97227	39257	400
Insurance premiums, thousand KZT	482485	394312	419174	390643	299164
Insurance payments, thousand KZT	1065762	157995	21702	76550	29581
Loss ratio, %	220,89	40,06	51,77	19,60	9,9

Note: Compiled on the basis of the data of the National Bank of the Republic of Kazakhstan.

Thus, agricultural producers expected to be provided and guaranteed property interests only by the state, but not by insurance organizations. However, in 2020, a new insurance system for the agro-industrial complex was introduced. The insurance operator is the Agrarian Credit

¹⁸ Association of Insurers of Kazakhstan. Crop Insurance: A Continuing Story. Insurance Market No. 3, 2016

¹⁹ Azhibaeva A.A. Problems and Prospects of Mandatory Crop Insurance in Kazakhstan. Agro-Market Problems No. 1, 2009, pp. 58-62

²⁰ Shestakova M.V. Experience of Subsidizing Agricultural Insurance Abroad. Bulletin of KrasGAU No. 2, 2013, pp. 166-168

²¹ Shinkeeva G. Analysis of the Insurance Sector of Kazakhstan in 2017. AO “Rating Agency RFC” / Almaty, 2017

²² R.Ismailova, Z.Baimagambetova, O.Misnik. Subsidising crop insurance: foreign and domestic experience. Journal. Economics and Statistics. 1/2019, pp. 32-36.

Corporation (ACC), a subsidiary of Baiterek Holding, as designated by the Order of the Minister of Agriculture of the Republic of Kazakhstan dated September 10, 2021, No. 271.

Reference: The Agrarian Credit Corporation is a state company providing credit services to agrarian enterprises in Kazakhstan. ACC was established according to the Resolution of the Government of the Republic of Kazakhstan dated January 25, 2001, No. 137, “**On Issues of Crediting the Agrarian Sector**”. The pilot project had two stages: the first was the creation of a specialized ACC institute with 100% state participation, and the second involved establishing a network of regional financial institutions—rural credit partnerships—with about 500 employees by March 2001.

The primary goal of ACC is to promote the industrialization and diversification of the agrarian sector by developing an affordable lending system for the agro-industrial complex in Kazakhstan.

Unlike the compulsory crop insurance in effect since 2004, the new system has several innovations:

Voluntary Insurance: Insurance in the agro-industrial complex is now voluntary.

No Industry Restrictions: There are no restrictions on the types of industries; any area within the agrarian sector can be insured.

State Support: The government subsidizes insurance premiums to encourage agricultural producers and make insurance contracts more affordable, with over 3 billion tenge allocated from the national budget.

As of September 5, 2022, subsidies amount to 80% of the insurance premium under agro-industrial complex insurance contracts, as per the amendments to the Order of the Minister of Agriculture of Kazakhstan dated May 19, 2020, No. 172 “On Approval of the Rules for Subsidizing Insurance Premiums”.

The new system addresses issues identified in the compulsory crop insurance scheme. Only insurance companies licensed by the Agency of the Republic of Kazakhstan for Regulation and Development of Financial Markets are allowed to participate. Three international reinsurance companies with an “A” rating in the global insurance market are involved, reinsuring risks covered by domestic companies. This ensures guaranteed payments in case of insurance claims.

All procedures, from contract signing to payments, are managed via an electronic digital signature on the agricultural insurance information service, hosted on the Kezekte.kz platform since January 2023. Agricultural producers must register annually on Kezekte.kz at the end of the calendar year and pay a subscription fee, which was 10 MCI in 2023. Automation of processes minimizes human error and ensures transparency.

Insurance products:

New insurance programs for intensive and semi-intensive orchards have been launched in Kazakhstan since September 2022. The insurance market now offers the following products:

I. Insurance in crop production:

- Soil moisture deficit index insurance (2 phases) (Policy Document 1)
- Soil moisture deficit index insurance (3 phases) (Policy Document 2)
- Soil moisture surplus index insurance (Policy Document 3)
- Soil moisture deficit index insurance for winter crops (3 phases) (Policy Document 4)
- Pasture biomass level index insurance (Policy Document 5)

- Perennial plantations insurance - apple trees (Policy Document 13)
- Apple crop insurance (Policy Document 14).

II. Insurance in livestock breeding:

- Cattle insurance (ordinary coverage) (Policy Document 6)
- Cattle insurance (extended coverage) (Policy Document 7)
- Small cattle insurance (ordinary coverage) (Policy Document 8)
- Small cattle insurance (extended coverage) (Policy Document 9)
- Horse insurance (ordinary coverage) (Policy Document 10)
- Horse insurance (extended coverage) (Policy Document 11)
- Bird insurance (Policy Document 12).

According to the Agrarian Credit Corporation, Kazakhstan now insures crops against drought and rain. Applications for insurance contracts are accepted on the Kezekte.kz website. In 2023, the cost of an insurance contract for farmers is reduced by 80% due to state subsidies.

Previously, the list of insurable crops included cereals (wheat, barley, oats, maize) and oilseeds (sunflower, rape, flax). This year, the list has expanded to include buckwheat, millet, grain sorghum, spring triticale, spring rye, peas, chickpeas, lentils, soybeans, safflower, and mustard.

According to the ACC, starting from 2023, there have been changes in tariffs for index insurance products. For example, if a farmer insured a thousand hectares, then at the conclusion of the insurance contract, at a rate of 50 thousand tenge per hectare, the insurance premium will be 1 million 750 thousand tenge (1000 hectares * 50 thousand tenge * 3.5% insurance rate). Of this amount, KZT 1 million 400 thousand is paid by the state in the form of subsidies (80% of the insurance premium).

In the event of an insured event, the farmer will receive an insurance payment of 16,500,000 tenge (1,000 ha * 50,000 tenge * 33%), which is the maximum amount of 33% of the insured value for a two-phase insurance contract.

According to ACC data, during the three years of implementing soil moisture index insurance, agrarians received 2.552 billion tenge in insurance payments, which is 1.6 times higher than the total insurance premiums paid. Farmers paid a total of 1.5 billion tenge in premiums, with 787 million tenge covered by state subsidies.

Generalization of foreign experience is presented in Table 2.

CONCLUSIONS TO THE FIRST CHAPTER

The study reveals several key insights into agricultural insurance:

Dual Nature of Agricultural Insurance:

Agricultural insurance serves as both a tool for state regulation of agricultural production and is itself subject to state regulation. Insurance programs and conditions are typically developed and established by the state.

Systematic Approach:

Agricultural insurance is implemented systematically within the framework of a unified state policy on agriculture.

Varied Insurance Programs:

Each country has distinct insurance programs tailored to the needs of different categories of policyholders.

Many agricultural insurance systems share common features consolidated in relevant legislative acts. Most modern laws governing agricultural insurance were developed in the 1970s and 1980s, reflecting extensive experience in agricultural insurance. During the 1990s, these laws were revised to enhance the efficiency of insurance protection, considering the interests of agricultural producers, the state, insurance companies, and other stakeholders.

Abroad, specialized state institutions or agencies are established to manage agricultural insurance. These institutions develop annual insurance plans approved by the government and incorporated into the national budget.

To ensure the sustainability of insurance operations, *special funds are created using federal and regional budgets, and reinsurance operations are conducted with state guarantees.*

Foreign insurance technologies offer various approaches to protecting agricultural production. Each insurance program has unique features that allow farmers to select the most suitable conditions. However, some programs have limitations.

Limiting the level of insurance coverage for crop insurance, usually 50-85 per cent, does not provide compensation for all the damage caused by a natural hazard. For example, in Spain, the total insured amount is 60%, meaning that producers receive compensation for just over half of the damages.

In the US, the Group Risk Plan program assumes the county average yield, which may exclude farmers with yields above the average from receiving compensation, even if their yields are significantly reduced.

Income insurance programs are often inaccessible to small or start-up farms, which are most vulnerable to market fluctuations.

Despite their advantages, foreign agricultural insurance systems exhibit a degree of duality. While some countries have achieved significant improvements in crop insurance, unresolved issues persist. Specifically, protection against natural risks strengthens farm incomes but often fails to adequately address the needs of small, economically unstable, and weak farms.

In improving Uzbekistan's agricultural insurance system and market formation, applying international experience in building, developing, and enhancing agricultural insurance can be beneficial. The national insurance system in agriculture has unique developmental features and challenges, necessitating a tailored approach to forming an effective system and mechanism for insuring agricultural and strategic crops..

TABLE 2. COMPARISON OF AGRICULTURAL INSURANCE ORGANIZATION SYSTEMS ABROAD

Country	U.S.A.	Canada	Spain	France	Russia
Legislation	<p>1.Federal Crop Insurance Reform Act of 1994;</p> <p>2.Agricultural Risk Protection Act (ARPA).</p> <p>3. Farm Bill 2014.</p>	<p>1.Stabilisation of Agricultural Production Act 1959;</p> <p>2.The law "Protection of Farm Income Levels";</p> <p>3.Farm Income Protection Act;</p> <p>4. Regulation of manufacturing insurance in Canada;</p> <p>5. Federal, Provincial and Territorial Framework Agreement (now the Canadian Agricultural Partnership).</p>	<p>1.Law No. 87 of 29.12.1978,</p> <p>2.Regulation 2329/79 of 14.09.1979</p>	<p>1.Act of 17.07.1984, №706</p>	<p>1. Resolution of the Government of the Russian Federation No. 758 dated November 1, 2001 "On State Support for Insurance in the Agro-Industrial Sector";</p> <p>2. Federal Law No. 260-FZ dated July 25, 2011 "On State Support in the Field of Agricultural Insurance"</p>
Insurance participants	<ul style="list-style-type: none"> ▪ FCIC - Federal Crop Insurance Corporation; ▪ RMA - Risk Management Agency (1996). 	<p>Federal government and provincial governments.</p>	<p>ENECA is the state agricultural insurance agency;</p> <ul style="list-style-type: none"> ▪ AGROSEGURO is an insurance pool; ▪ CCS is a reinsurance consortium. ▪ Insurance Participants: ▪ -producers of agricultural products from the private sector and the state. 	<ul style="list-style-type: none"> ▪ National Commission for Agricultural Risks; ▪ FNGCA - national guarantee fund for agricultural production; ▪ CCR - central reinsurance fund. 	
Insurance programmes	<p>1.Multi-peril crop insurance (MPCI);</p> <p>2.Group Risk Plan (GRP) programme;</p> <p>3.Income Insurance Programmes.</p>	<p>1. Crop Insurance Programme (CIP);</p> <p>2. Net Income Level Insurance Scheme (NISA).</p>	<p>1. Crop insurance programmes (all types of major crops, aquaculture);</p> <p>2. Animal insurance programmes.</p>	<p>1.Crop Insurance Programmes.</p>	

Country	U.S.A.	Canada	Spain	France	Russia
Insurance terms and conditions	<p>1.1 More than 76 crops are included;</p> <p>1.2 Risks - drought, overwatering, hail, storm, frost, insect damage, plant diseases;</p> <p>1.3 The amount of coverage is selected by the commodity producer within 50-85% of the average yield for a number of years;</p> <p>1.4 The unit cost for calculating the loss is chosen within the range from 55 to 100% of the product price.</p> <p>2.1 The basis for determining damage is a measure of the expected yield of a particular county;</p> <p>2.2 The level of insurance coverage is chosen by the producer independently - 70, 75, 80, 85, 90% of the expected harvest of the district</p> <p>3.1 Protection against natural disasters and market fluctuations;</p> <p>3.2 Income, including part of the amount of income from animals and aquaculture, shall be insured;</p> <p>3.3. The level of insurance coverage is 65,75,80%;</p> <p>3.4 The payout percentage for each dollar of loss is 75.90%.</p>	<p>1.1 The crop is insured in case of its reduction from unfavourable weather factors;</p> <p>1.2 50, 60, 70, 80, 90 per cent of the crop value is accepted for insurance cover;</p> <p>1.3 Subsidy rate - 67 per cent</p> <p>2.1 The commodity producer shall provide information on income received during the previous three years;</p> <p>2.2 Opening a personal savings account in perpetuity consisting of two sub-accounts: to the first, the farmer contributes 2 per cent of the amount of income from the sale of agricultural products, and to the second, the federal and provincial governments each contribute 1 per cent of the estimated income.</p>	<p>1.1 Twenty-eight crop species are included;</p> <p>1.2 Protection against multiple risks - frost, hail, drought, flood, fire, pests, disease;</p> <p>1.3 The total level of the sum insured is 60% of the experience of the last 5 years;</p> <p>1.4 Subsidy level - from 20 to 75 per cent, i.e. subsidy amounts are differentiated</p> <p>2.1 Risks - diseases and other hazards;</p> <p>2.2 Subsidy level - from 20 to 75 per cent.</p>	<p>1. Subsidy level - 50 per cent</p> <p>2. The National Guarantee Fund compensates losses on individual crops exceeding 27 per cent on all products exceeding 14 per cent.</p>	

Country	U.S.A.	Canada	Spain	France	Russia
Advantages of the system	<ul style="list-style-type: none"> regulation of agricultural insurance by special legislative acts; availability of various insurance programmes; wide insurance coverage of various crops; providing protection not only against natural risks, but also against the risk of changes in market conditions. 	<ul style="list-style-type: none"> regulation of agricultural insurance by special legislative acts; the availability of different insurance programmes; NISA programme allows to exclude compensation for technological and professional miscalculations of farmers. 	<ul style="list-style-type: none"> availability of pet insurance programmes; differentiated approach to subsidies. 	<ul style="list-style-type: none"> the existence of state guarantees of compensation for damages. 	
Disadvantages of the system	<ul style="list-style-type: none"> not to be subsidised by animal insurance; under the GRP programme, a producer may have low yields on cultivated areas and not receive a payment. 	<ul style="list-style-type: none"> economically weak farms and beginning farmers cannot participate in the NISA programme. 	<ul style="list-style-type: none"> Lack of income insurance programmes. 	<ul style="list-style-type: none"> Lack of income insurance programmes; the use of a single tariff; substantial delay in payment terms. 	

2 | ASSESSING THE CROP INSURANCE SYSTEM IN UZBEKISTAN

(LEGISLATIVE ACTS REGULATING INSURANCE IN THE AGRICULTURAL SECTOR, TAKING INTO ACCOUNT DIFFERENT TYPES OF CROPS, ESPECIALLY STRATEGICALLY IMPORTANT ONES)

In the early years of independence, significant attention was devoted to the issues of agricultural insurance in the Republic of Uzbekistan. The Law of the Republic of Uzbekistan “**On Insurance**” was adopted on May 6, 1993, under No. 833-XII. This law established the legal framework for the development of insurance, the formation of the insurance market, and the role of insurance in the social and economic development of the Republic. It also guaranteed the satisfaction of the insurance needs of citizens and legal entities, ensuring the protection of interests and compliance with the obligations of all participants in insurance relationships.

For reference: This law was repealed in accordance with the decision of the Oliy Majlis of the Republic of Uzbekistan on April 5, 2002, No. 359-II “On Enactment of the Law of the Republic of Uzbekistan ‘On Insurance Activity’”.

Given the evolving economic reforms in the Republic, a new Law of the Republic of Uzbekistan “**On Insurance Activities**” (No. ZRU-730) was adopted and came into force on November 23, 2021. **Article 1** of this law, “**The Purpose and Scope of this Law**,” states that its purpose is to regulate relations in the field of insurance activities. This law does not apply to state social insurance and state health insurance.

After gaining independence, the Government of the RUz. has developed and adopted a number of relevant legal acts, including in the field of insurance of crops, property and other assets of agricultural enterprises.

To further ensure the insurance protection of agricultural enterprises’ property against natural disasters and other unforeseen events, and in line with the Law of the Republic of Uzbekistan “On Insurance,” the Cabinet of Ministers adopted Decree No. 608 on December 23, 1993, “**On State Compulsory Insurance of Property of Agricultural Enterprises Against Natural Disasters and Other Unforeseen Events.**”

No. 608 “On state compulsory insurance of property of agricultural enterprises”.

The resolution noted the introduction of state compulsory insurance of property of inter-farm organisations, agricultural enterprises of all ministries and departments of the Republic of Uzbekistan from 1 January 1994. The state compulsory insurance of property for these entities was to be carried out by the state insurance bodies of the Republic of Uzbekistan.

The decree established that state compulsory insurance would cover the following:

- **Crops:** Agricultural crops (excluding orchard and vineyard harvests) in the event of loss or damage due to drought, insufficient heat, excessive moisture, rot, frost, freezing, hail, downpour, storm, hurricane, flood, mudflow, water scarcity, or low water levels in irrigation sources, and other unusual meteorological or natural events for the given area, as well as diseases, plant pests, and fire.
- **Livestock:** Cattle, sheep, and goats aged six months and older; pigs aged four months and older; horses, camels, mules, donkeys, and reindeer aged one year and older. Insurance covers death (including natural death, forced slaughter, or destruction) as a result of natural disasters, infectious diseases, electric shock, and fire. Livestock with breeding certificates are also insured against death due to non-infectious diseases and other accidents.

- **Poultry and Fur-bearing Animals:** Poultry and fur-bearing animals aged six months and older; rabbits aged four months and older; and bee colonies are insured against death (including natural death, forced slaughter, or destruction) caused by natural disasters, infectious diseases, and fire.
- **Buildings and Structures:** Buildings, structures, perennial plantings, fishing vessels, transport vessels, and other property are insured against loss or damage due to floods, storms, hurricanes, downpours, hail, unusually heavy snowfall for the area, landslides, mudslides, subsurface water action, mudflows, lightning strikes, earthquakes, subsidence, fires, explosions, accidents, droughts, frost, plant diseases and pests, storms, fog, ice damage, and grounding.

Insurance payments for each agricultural enterprise were calculated by the state insurance authorities twice a year based on the records and reports of the agricultural enterprises and were payable on the following dates:

- 30 процентов – до 1 июня;
- 30 процентов – до 1 сентября;
- 40 процентов – до 1 ноября.
- 30% by June 1;
- 30% by September 1;
- 40% by November 1.

A penalty of 0.05% per day was charged for late payments. Additionally, the rates for state compulsory insurance payments were approved. Agricultural enterprises that did not receive insurance indemnity for a particular type of property for three years were granted a 10% discount on insurance payments, increasing to 20% after four years, and 30% after five or more years.

A Republican reserve fund for the insurance of agricultural enterprises' property was established, financed by:

- Deductions of 10% from payments on state compulsory insurance of agricultural enterprises' property;
- Excess revenue over expenditures on state compulsory insurance.

The resources of this reserve fund were kept in a special account by the Main Department of State Insurance of the Republic and were used when insurance indemnity payments to agricultural enterprises were insufficient.

Deductions from state compulsory insurance payments were also allocated for:

- Financing measures to prevent loss or damage to insured agricultural crops, animals, and other property (1%);
- Covering the operational expenses of state insurance bodies, including public awareness campaigns and other insurance-related activities (4%).

For reference: *This resolution was repealed in accordance with the decision of the Cabinet of Ministers of the Republic of Uzbekistan on March 6, 1997, No. 125 "On Issues of Organisation of Activity of the State Insurance Company 'Uzagrosugurta'".*

To promote the effective development of the insurance services sector and create favorable conditions for the insurance protection of agricultural producers and the general population, the President of the Republic of Uzbekistan issued Decree No. UP-1713 on February 25, 1997, establishing the **State Joint Stock Insurance Company "Uzagrosugurta"** based on the Main Department of State Insurance under the Ministry of Finance.

The main objectives of “Uzagrosugurta” include:

- Providing insurance protection for the property and products of agricultural producers;
- Assessing the creditworthiness of agricultural producers-borrowers and offering insurance guarantees to cover loans allocated by commercial banks for the development of agricultural production and projects;
- Insuring the repayment of funds advanced for agricultural production;
- Providing a range of insurance services to legal entities and individuals, ensuring the protection of personal and property interests of the rural and urban population.

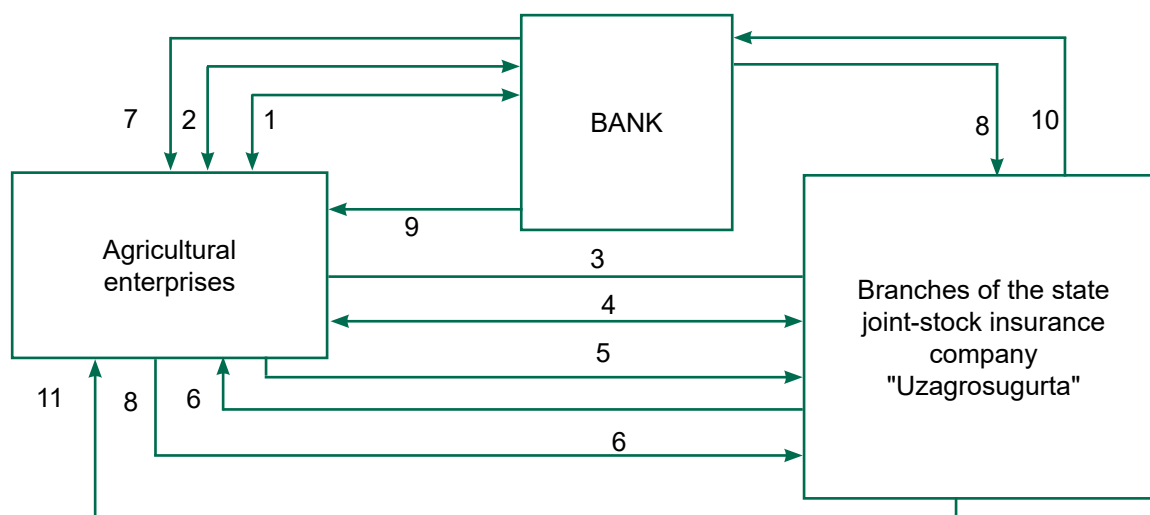
According to this Decree of the President of the Republic of Uzbekistan, the authorized capital of the State Joint Stock Insurance Company “Uzagrosugurta” is set at 2 billion soums. The company and its regional branches are exempt from income and property taxes for five years, with the provision that all funds saved from tax exemptions are to be directed towards increasing the company’s insurance (reserve) fund.

In accordance with this Presidential Decree, the Cabinet of Ministers of the Republic of Uzbekistan issued Resolution No. 125 on March 6, 1997, “On the Organization of Activities of the State Insurance Company ‘Uzagrosugurta’,” which defined the priority direction of the company’s activities as providing insurance protection for the property interests of agricultural producers, enterprises, and the rural population.

Additionally, the scheme for insuring the liability of agricultural enterprises for non-repayment of bank loans, as well as insuring the repayment of funds advanced for agricultural production and under futures contracts, was approved along with the corresponding insurance rates (Figure 1):

- Liability insurance for agricultural enterprises against non-repayment of bank loans at a rate of 2.5%;
- Insurance for the repayment of funds advanced for agricultural production and under futures contracts at a rate of 1% of the insured amount.

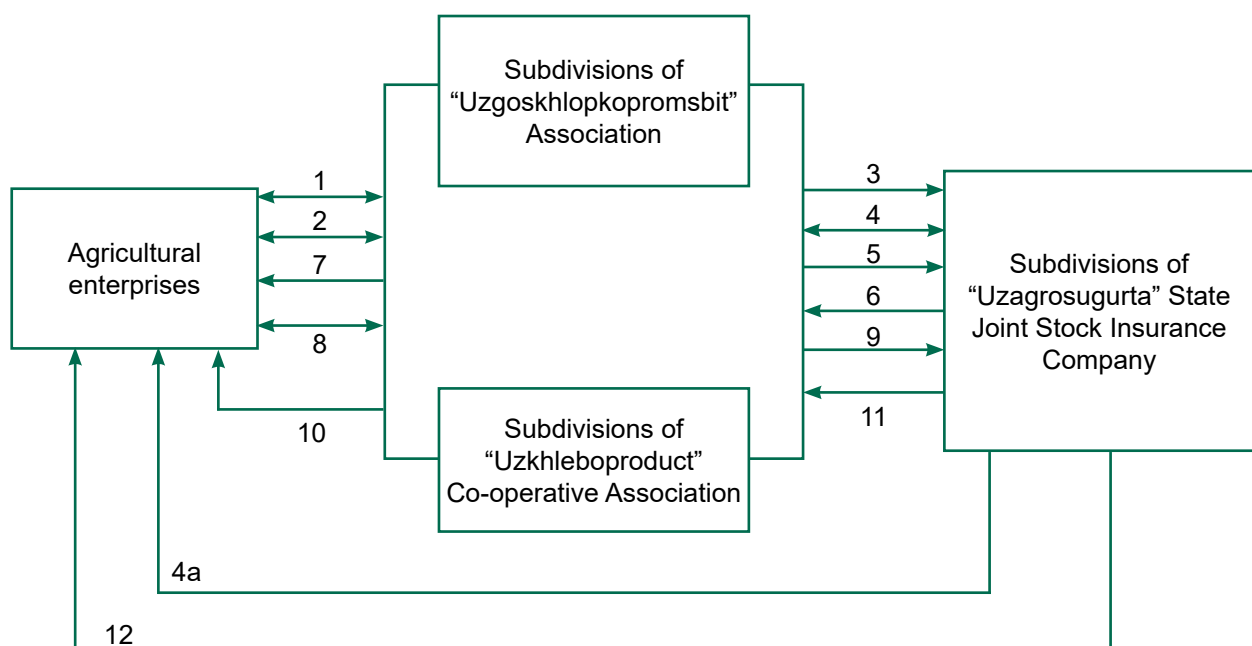
FIGURE 2. SCHEME OF OPERATIONS FOR INSURING NON-PAYMENT RISKS OF BANK LOANS TO AGRICULTURAL ENTERPRISES



Sequence of operations for insuring risks of non-payment of bank loans by agricultural enterprises:

1. The agricultural enterprise submits a loan application to the bank, along with a feasibility study on how the loan will be utilized.
2. The bank prepares a loan agreement with the agricultural enterprise, as well as a pledge agreement for liquid property, which must be registered with the Ministry of Justice of the Republic of Karakalpakstan or the Department of Justice of the regional khokimiyats.
3. The agricultural enterprise submits a package of documents (loan agreement, balance sheet for the previous period, agreements, contracts regarding the use of the loan, etc.) to the branch of the “Uzagrosugurta” insurance company”.
- 4 The “Uzagrosugurta” insurance company branch reviews the loan agreement, assesses the purpose of the loan, and evaluates the financial condition of the agricultural enterprise. Based on this assessment, the insurance branch prepares an insurance contract covering the risk of non-payment of the bank loan, as well as an insurance agreement on the pledged property.
5. Based on the insurance contract, the agricultural enterprise transfers the calculated insurance premium to the account of the “Uzagrosugurta” insurance company branch. If the enterprise lacks funds on the day the insurance contract is signed, the bank deducts the insurance premium from the loan amount and transfers it within three days to the company’s account.
6. The “Uzagrosugurta” insurance company branch issues an insurance policy to the agricultural enterprise and provides a report on the project that is subject to financing.
7. The bank disburses the loan to the agricultural enterprise.
8. If the loan or part of it is not repaid, the bank and the agricultural enterprise notify the “Uzagrosugurta” insurance company branch of the occurrence of an insured event.
9. The bank forecloses on the pledged property.

FIGURE 3. SCHEME FOR INSURING THE REPAYMENT OF FUNDS ADVANCED FOR AGRICULTURAL PRODUCTION UNDER FUTURES CONTRACTS



10. The “Uzagrosugurta” insurance company branch pays the insurance compensation to the bank for the portion of the loan that is not covered by the pledged property.

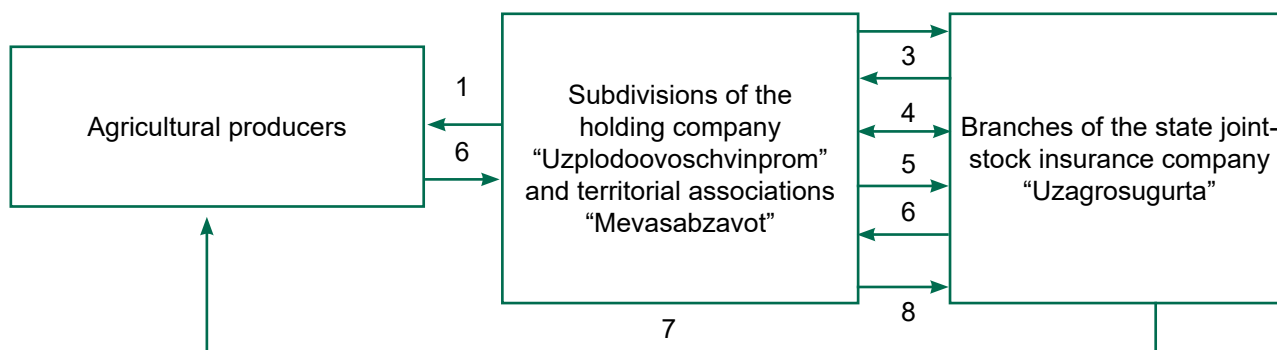
11. After paying the insurance compensation, the right to recover the agricultural enterprise’s debt, up to the amount of the paid compensation, is transferred to the “Uzagrosugurta” insurance company branch. The branch then proceeds to collect the debt according to the civil legislation of the Republic of Uzbekistan.

To further enhance the insurance protection system for rural producers, the Cabinet of Ministers of the Republic of Uzbekistan adopted Resolution No. 132, dated March 25, 1999, **“On the Insurance of Liability for Timely Settlements under Contracts for the Purchase of Fruit and Vegetable Products, Milk, and Livestock.”**

The proposal by the State Joint Stock Insurance Company “Uzagrosugurta” to introduce liability insurance for procurement organizations, ensuring the timely settlements under contracts for the purchase of fruit and vegetable products, milk, and livestock, was approved, along with the corresponding implementation schemes (Figures 3 and 4).

The responsibility for conducting this type of insurance was assigned to the State Joint Stock Insurance Company “Uzagrosugurta,” with the insurance tariffs set at 2% of the insured amount for contracts related to the purchase of fruit and vegetable products, and 1% for contracts concerning the purchase of milk and livestock.

FIGURE 4. SCHEME OF LIABILITY INSURANCE FOR TIMELY SETTLEMENTS UNDER CONTRACTS FOR THE PURCHASE OF FRUIT AND VEGETABLE RAW MATERIALS



2.1. SEQUENCE OF OPERATIONS TO INSURE LIABILITY FOR TIMELY SETTLEMENTS UNDER CONTRACTS FOR THE PURCHASE OF FRUIT AND VEGETABLE RAW MATERIALS

1. Subdivisions of “Uzplodoovoschvinprom-holding” and territorial associations “Mevasabzavot” (hereinafter referred to as “the Policyholder”) enter into contracting agreements (hereinafter referred to as “Purchase Agreements”) with agricultural producers for the procurement of fruit and vegetable raw materials (hereinafter referred to as “Products”). The Purchase Agreements specify all necessary details, including the assortment, quantity, and quality of the Products, their cost on the contract date, the settlement procedure, and the mutual property responsibilities of the parties for any non-fulfillment or improper fulfillment of their obligations.

2. The Policyholder applies to branches of the insurance company “Uzagrosugurta” (hereinafter referred to as “the Insurer”) to conclude a liability insurance contract for ensuring timely settlements under the Purchase Agreements (hereinafter referred to as “the Insurance

Contract”). The application must be accompanied by the Policyholder’s balance sheet (as of the most recent date with a tax inspection mark) and the contracts for the sale of finished products.

3. The Insurer reviews the submitted documents, determines the Policyholder’s solvency, and, if satisfactory, enters into the Insurance Contract. This contract specifies the Insurer, the Policyholder, the agricultural producer, and the Purchase Agreement, along with the subject of the Insurance Contract, the sum insured, the insurance payment, the validity period, the legal addresses and details of the parties, the date of signing, and the signatures of the Policyholder’s and Insurer’s heads, certified by the appropriate seals. The insurance covers the risk of full or partial non-payment by the Policyholder for the delivered Products if delayed by more than 5 days due to circumstances beyond the Policyholder’s control. The Insurer’s liability limit, as agreed with the Policyholder, is set at 50% of the amount due under the Purchase Agreement, minus any advance payment. The Insurance Contract remains valid for the duration of the Purchase Agreement and for up to six months after its expiration if an insured event occurs.

4. The Insurance Contract takes effect upon receipt of the calculated insurance payment into the Insurer’s demand deposit account. The Insurer then issues an insurance policy to the Policyholder within three days of receiving the payment. This policy serves as proof that the insurance coverage has commenced.

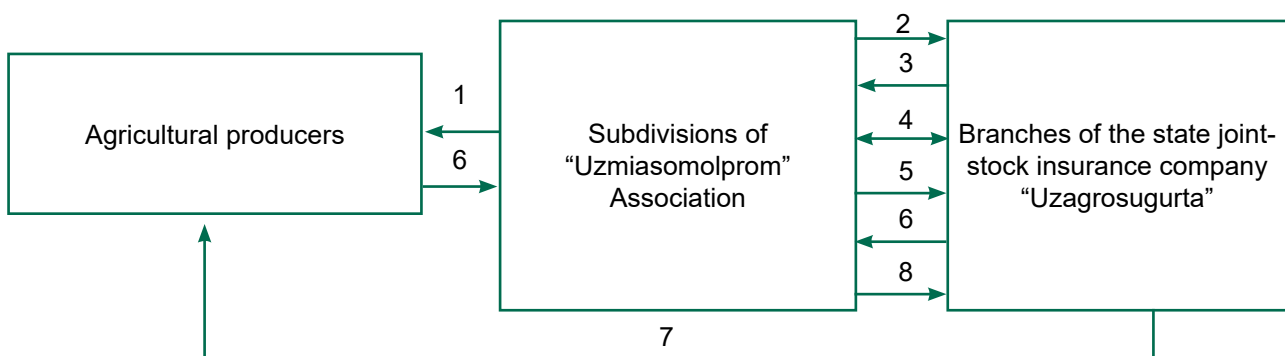
5. If the Policyholder fails to make full or partial payment for the Products within five days after the due date specified in the Purchase Agreement, the Policyholder must notify the Insurer of the occurrence of an insured event.

6. The Insurer, together with the Policyholder and the agricultural producer, drafts an act verifying the occurrence of the insured event within 10 days of receiving the notification.

7. The Insurer pays the insurance indemnity to the agricultural producer within three days of finalizing the insurance act.

8. The Policyholder has 90 days from the indemnity payment date to repay the debt without incurring additional charges. After this period, the Policyholder must pay a fee for using the insurance fund’s resources, calculated from the indemnity payment date to the actual repayment date, with a maximum repayment period of six months. The fee is set at 0.1% above the penalty rate for late product payments under the Purchase Agreement, or at least the refinancing rate of the Central Bank of the Republic of Uzbekistan. Any remaining amounts are recovered according to the established legal procedures.

FIGURE 5. SCHEME OF LIABILITY INSURANCE FOR TIMELY SETTLEMENTS UNDER MILK AND LIVESTOCK PURCHASE CONTRACTS



To foster a competitive insurance services market, enhance the quality of insurance activities, and ensure the financial stability of insurers, Presidential Decree No. PP-618 dated April 10, 2007, was issued. This decree, titled “**On Measures for Further Reforming and Developing the Insurance Services Market**”, along with the Program for Reforming and Developing the Insurance Market of the Republic of Uzbekistan for 2007-2010, outlines several measures:

- **Legislative Improvement:** Further enhancement of the legislative and regulatory framework for insurance, aligning with international practices.
- **Expansion of Services:** Increasing the range and quality of insurance services, particularly in entrepreneurial activities, import-export operations, long-term life insurance, and accumulative insurance types.
- **Market Integration:** Integrating the national insurance market into global insurance markets.
- **Training and Development:** Improving the training, retraining, and professional development of insurance sector employees.

To establish a separate Regulation for insurance companies and insured residents—both individuals and legal entities—in the economic sectors, and in accordance with the Presidential Decree of the Republic of Uzbekistan No. PP-618 of April 10, 2007, “On Measures for Further Reform and Development of the Insurance Services Market,” unified requirements and standards for providing reinsurance services have been established. The “**Regulation on Unified Requirements and Standards for Providing Reinsurance Services**” has been approved by the Minister of Finance of the Republic of Uzbekistan.

The unified requirements set forth in this Regulation are mandatory for resident insurers in the Republic of Uzbekistan providing reinsurance services within the country. The standards for providing reinsurance services consist of standard reinsurance concepts and conditions for providing reinsurance services. These standards apply to the provision of reinsurance services unless otherwise stipulated by legislation or reinsurance contracts.

Reinsurance services are provided based on a reinsurance contract, which must be in written form. Failure to comply with this requirement renders the reinsurance contract invalid. The reinsurance contract is concluded through the submission of an offer (proposal to conclude the contract) by the reinsured (reinsurance broker) and its acceptance (acceptance of the offer) by the reinsurer.

A reinsurance contract may be concluded by preparing:

- a) a single document containing all the terms and conditions;
- b) a general reinsurance contract (agreement) and reinsurance slips prepared based on it.

When risks are transferred for reinsurance through the submission of a reinsurance slip by the reinsured (reinsurance broker) to the reinsurer based on a previously concluded general reinsurance agreement, the conditions of the general agreement are an integral part of the reinsurance slip. Each reinsurance slip is considered a separate reinsurance contract.

When concluding a reinsurance contract between insurers-residents of the Republic of Uzbekistan, each party is required to demand a copy of the insurance license from the other party. If it is discovered that one party has transferred or accepted risks for reinsurance (insurance) in classes not specified in the insurance license, the party discovering this fact must terminate (withdraw/reject) the offer or, if the risk has been accepted (transferred) for reinsurance, terminate the reinsurance contract.

The reinsurance contract must specify:

- Full names of the parties;
- Number, place, and date of conclusion of the reinsurance contract;
- Duration of the reinsurance contract;
- Object of reinsurance;
- Insurance case and exclusions;
- Risks transferred for reinsurance;
- Territory of insurance coverage (area where insurance protection applies);
- Procedure for transferring and accepting risks for reinsurance;
- Insurance sum and reinsurance premium under the reinsurance contract;
- Reinsurance commission;
- Rights and obligations of the parties;
- Procedure, terms, and currency of payments for reinsurance premiums, insurance compensations, and other payments under the reinsurance contract;
- Actions of the parties in the event of an insurance claim;
- Procedure for determining the amount of insurance compensation under the reinsurance contract;
- Consequences of errors or omissions by the parties in transferring and accepting risks for reinsurance;
- Procedure for terminating the reinsurance contract;
- Responsibility of the parties for non-performance or improper performance of contractual obligations;
- Dispute resolution procedure;
- Details of the parties;
- Position, surname, first name, and patronymic of the representatives of the parties;
- Signatures of the representatives of the parties.

To stimulate the development of the insurance system, strengthen the material and technical base and financial stability of insurers, expand their regional representation, and increase public trust in insurance organizations, as well as in accordance with the Law of the Republic of Uzbekistan “On Insurance Activity” and the Presidential Decree of the Republic of Uzbekistan No. PP-4412 of August 2, 2019, “**On Measures for Reforming and Ensuring the Accelerated Development of the Insurance Market of the Republic of Uzbekistan**”, the Cabinet of Ministers of the Republic of Uzbekistan adopted Resolution No. 413 of November 27, 2002, “**On Measures for Further Development of the Insurance Services Market**”.

The Agency for the Development of the Insurance Market under the Ministry of Finance of the Republic of Uzbekistan has been designated as the authorized state body responsible for regulating and developing insurance activities.

Annual expense norms for legal entities on voluntary types of insurance have been set at 2% of the annual revenue from product sales (works, services).

To form a stable insurance fund for food-grade wheat, ensure its strictly targeted use from state resources, and protect the domestic consumer market, the Cabinet of Ministers of the Republic of Uzbekistan adopted Resolution No. 54 of March 28, 2008, “**On Approval of the Regulation on the Procedure for Establishing, Storing, Refreshing, and Using the Insurance Fund for Food-Grade Wheat**”, and approved the Regulation on the Procedure for Establishing, Storing, Refreshing, and Using the Insurance Fund for Food-Grade Wheat.

The food-grade wheat insurance fund is inviolable and cannot be spent without the decision of the Cabinet of Ministers of the Republic of Uzbekistan.

JSC “Uzdonmahsulot” ensures the timely establishment of food-grade wheat in the insurance fund, its proper storage, and adherence to the inviolability of the insurance fund, as well as the timely updating of the food-grade wheat insurance fund.

Food-grade wheat placed in the insurance fund must strictly meet established quality indicators and standards.

Food-grade wheat in the insurance fund is stored in strictly designated grain reception and processing enterprises, in special silo containers (silos) determined by the decisions of the President of the Republic of Uzbekistan.

Since 2017, measures have been systematically implemented in the republic to create favorable conditions for further development of the financial market, expand the scope of quality financial services for the population, support the activities of insurance organizations, and protect the rights and legitimate interests of consumers in this sector.

At the same time, at the current stage of reforms, the active development of financial services aimed at ensuring stable economic growth, improving the quality and standard of living of the population necessitates the strengthening of the role of the insurance market and the widespread use of insurance tools in the republic.

To insure the activities of economic entities in the agricultural sector of our country—farmers, dehqan farms, and private household owners, as well as individual entrepreneurs—the Presidential Decree of the Republic of Uzbekistan No. PP-3317 of October 9, 2017, “**On Measures to Improve the Activities of the Joint Stock Company ‘Kafolat Insurance Company’**”, was adopted, defining the main tasks and areas of activity of the Joint Stock Company “Kafolat Insurance Company”:

1. Providing insurance protection to business entities through insurance of collateral and leasing objects against damage, fire, and natural disasters, as well as insurance of property, equipment, and goods in transit and insurance against all business risks.
2. Providing comprehensive insurance against all risks for industrial enterprises and construction projects in various economic sectors.
3. Offering insurance protection to legal and physical persons within the framework of state programs for the socio-economic development of regions, expanding coverage in all regions of the republic to provide a wide range of insurance services in collaboration with the “Mahalla” and “Nuroni” funds and the Youth Union of Uzbekistan.
4. Ensuring personal insurance protection for the population, including insurance against infectious diseases.
5. Implementing housing insurance in accordance with programs for building houses for youth.
6. Expanding insurance activities by creating new innovative insurance products.

7. Establishing virtual offices and new channels for insurance services using modern information technologies, developing insurance services through the Internet with online payment options.
8. Implementing mechanisms for automated exchange of information about real estate in cooperation with the State Committee of the Republic of Uzbekistan on Land Resources, Geodesy, Cartography, and State Cadastre (now the Cadastre Chamber) to provide insurance services to the population.
9. Collaborating with international organizations in the field of insurance and reinsurance.
10. Providing insurance services to small businesses and entrepreneurs through insurance contracts (insurance of business risk from loans and leasing operations) against non-repayment of all types of credit..

To further reform and ensure dynamic development of the national insurance market, introduce new in-demand types of insurance services, increase consumer trust in the insurance market, and in accordance with the State Program for Implementing the Strategy of Actions on Five Priority Areas of Development of the Republic of Uzbekistan for 2017-2021 in the “Year of Active Investments and Social Development,” the Presidential Decree of the Republic of Uzbekistan No. PP-4412 of August 2, 2019, **“On Measures for Reforming and Ensuring the Accelerated Development of the Insurance Market of the Republic of Uzbekistan”** was adopted.

This decree outlines the main directions for reforming and accelerating the development of the insurance market in Uzbekistan, including:

- Improving the legal framework in the field of insurance, including the gradual implementation of international standards and best global practices.
- Institutional development of the insurance regulation system to ensure the reliability and stability of the insurance market through effective regulation and prudential supervision mechanisms.
- Increasing the capitalization, solvency, and financial stability of professional insurance market participants, improving the quality of their assets, and developing insurers’ investment activities.
- Developing and expanding the insurance market infrastructure by activating the activities of insurance brokers, improving the system of insurance agents, implementing bancassurance mechanisms, and enhancing the role of professional market participants.
- Strengthening consumer protection and other insurance activity participants, increasing insurance literacy, and enhancing trust in insurance, ensuring market transparency.
- Expanding the volume, spectrum, and quality of insurance services by introducing new innovative products and developing traditionally demanded insurance products.
- Widespread use of modern information technologies in organizing and regulating insurance activities, actively implementing and developing electronic insurance services.
- Improving the system of training, retraining, and advanced training of insurance market specialists, applying modern teaching methods, and stimulating scientific research in insurance.
- Forming and maintaining a positive image, as well as increasing the investment attractiveness of the national insurance market, including through its integration with international and foreign insurance markets.

Approved:

- “Roadmap” on accelerated development of the insurance market of the Republic of Uzbekistan for 2019-2020;
- Target indicators of accelerated development of the insurance market of the Republic of Uzbekistan for 2019-2022.
- Personal responsibility is assigned to the heads of ministries, departments, local government bodies, and other organizations for the timely, complete, and high-quality implementation of the measures outlined in the “Roadmap” and for achieving the target indicators.

Agreed:

- The phased increase in the minimum charter capital of insurers from 2020 to 2022, differentiated by types of insurance activity.
- The increase of the maximum size of the reserve fund of insurance organizations to 50% of the charter fund, formed from contributions up to 20% of revenues and classified as deductible expenses.
- The implementation of electronic policy mechanisms (E-policy) for certain types of insurance, including through the Internet, mobile applications, and info-kiosks, equating them to paper insurance contracts.

It is established that from 1 January 2020:

- The unified tax rate for legal entities – insurance (reinsurance) brokers and insurance agents is set at 13% of commission fees.
- Insurance (reinsurance) organizations are not allowed to participate in the charter funds of other insurance (reinsurance) organizations, except for participation in the charter funds of insurance organizations in different branches of insurance, with restrictions on mutual participation.
- The authorized state body, based on the analysis of insurance tariffs applied by insurers, consumer satisfaction with the quality of insurance services, and the effectiveness of insurance products, will establish the minimum level of insurance reserves ensuring their adequacy to the risks covered.
- Special attention is given to the establishment of relationships between insurance companies and agricultural entities, including farmers, dekhkans, specialized agro-clusters, and other entities operating in the agricultural sector, based on market principles.
- To ensure effective organization of the activities of the Insurance Market Development Agency under the Ministry of Finance of the Republic of Uzbekistan and in accordance with the Presidential Decree No. PP-4412 dated August 2, 2019, “On Measures for Reforming and Accelerating the Development of the Insurance Market in the Republic of Uzbekistan,” the Cabinet of Ministers of the Republic of Uzbekistan adopted Resolution No. 1060 dated December 31, 2019, “On the Organization of the Activities of the Insurance Market Development Agency under the Ministry of Finance of the Republic of Uzbekistan,” which approves the structure of the Insurance Market Development Agency and its regulations.
- The regulations of the Insurance Market Development Agency under the Ministry of Finance of the Republic of Uzbekistan define its status, tasks, functions, rights, responsibilities, organizational and reporting procedures, as well as the functional duties

and responsibilities of its leaders. The Agency is the authorized state body responsible for regulating and developing the insurance market and ensuring the protection of the rights and legal interests of all participants in insurance relationships, and it is accountable to the Ministry of Finance of the Republic of Uzbekistan.

- To widely implement the system of protecting entrepreneurs cultivating cotton and cereal crops through insurance against losses caused by various natural disasters, the Cabinet of Ministers of the Republic of Uzbekistan adopted Resolution No. 505 dated June 17, 2019, “**On Measures to Improve the System of Insurance for Future Cotton and Cereal Crops**”. The Regulation on the Procedure for Insuring Future Cotton and Cereal Crops has been approved.
- This regulation establishes the procedure for insuring future cotton and cereal crops and applies to all entities engaged in the cultivation of these crops, including cotton-textile manufacturers and specialized agro-clusters.

Annually, 4% of the subsidized loans provided by Uzagrosug’urta JSC for cultivating cotton and cereal crops is allocated for insurance expenses. Insurance contracts must be finalized by:

- **February 1** for cereal crops;
- **June 1** for cotton crops.

According to insurance contracts for future crops, up to **80%** of the total insurance premiums received from the insured entities for cotton and cereal crops will be covered by Uzagrosug’urta JSC. The remaining **20%** of the insurance compensation will be covered by a budget subsidy allocated by the Ministry of Finance of the Republic of Uzbekistan to Uzagrosug’urta JSC.

The insurance covers the financial interests of the policyholder related to damage caused by a reduction or loss of agricultural crop yield due to insured risks specified in the insurance contract.

Monitoring is conducted by a working group on a regular basis for each entity cultivating cotton and cereal crops to assess crop conditions and the adequacy of future yields to ensure the repayment of subsidized loans provided by commercial banks.

The working group coordinates the targeted use of subsidized loans by commercial banks to agricultural enterprises cultivating cotton and cereal crops during the insurance contract period and approves the monitoring schedule throughout the crop development period.

Entities cultivating cotton and cereal crops submit insurance claims to the territorial branches of the insurance company, including information on sown areas and yield plans. Insurance premiums (from the policyholder’s own funds, commercial bank loans, and other sources not prohibited by law) must be transferred to the insurer’s account within 30 working days after the insurance contract is signed.

Insurance premiums (at the expense of the policyholder’s own funds, credits of commercial banks and other sources not prohibited by law) are transferred by the insurer to the insurer’s account within 30 working days after the conclusion of the insurance contract.

Insurer obligations take effect upon payment of the insurance premium. The insurer’s obligations do not take effect if the insurance premium is not paid by the contract’s due date. Monitoring of sown areas is conducted by the insurer and commercial bank (if the policyholder received a subsidized loan) within 30 days after planting, with on-site visits.

Insurer obligations take effect upon payment of the insurance premium. The insurer's obligations do not take effect if the insurance premium is not paid by the contract's due date. Monitoring of sown areas is conducted by the insurer and commercial bank (if the policyholder received a subsidized loan) within 30 days after planting, with on-site visits.

Following the monitoring results, a separate monitoring report is prepared for each entity. The documentation required to support insurance claims includes:

- **For damage from lightning strikes, hurricanes, hail, heavy rain (jalla), drought, extreme soil moisture, heavy snowfall, frost, low or highwater levels (flooding)** – a report from the hydrometeorological service;
- **For fire damage** – a report from the local fire department; for damage from pests or diseases – a report from the authorized organization confirming pest damage and the treatment, along with a copy of the contract with the organization;
- **For damage from untimely and incomplete delivery of mineral fertilizers** – a report from the authorized organization confirming the quantity of fertilizers provided and a copy of the contract with the organization;
- A report from the local agriculture department confirming complete harvesting of the crop;
- Reports from the preparatory (receiving) organization and local statistics department confirming the delivery of the harvested crop to the procurement organization.

No additional documents are required beyond those specified.

The difference between the yield per hectare accepted by the insurer and the actual yield per hectare in the current year (based on the weighted average purchase price used in calculating the insurance premium) is considered a loss. The amount of insurance compensation is calculated within the insurance coverage limit, considering the gross yield obtained by the policyholder from the total area of crops (based on reports from the procurement organization) and the amount of the insurance premium paid.

If the insurer identifies non-compliance with agronomic requirements during planting, cultivation, and harvesting, insurance compensation is reduced by:

- 5% for applying less than the required amount of fertilizers;
- 5% for excessive weed growth;
- 5% for not timely watering.

Insurance compensation may be reduced by 5% if the expected (approved) yield is not achieved.

FIGURE 6. SCHEME OF INSURANCE FOR FUTURE HARVESTS OF RAW COTTON AND GRAIN CROPS, INCLUDING PAYMENT OF INDEMNITIES UPON INSURED EVENTS

Stages	Responsible	Precautionary measures	Deadline
Stage 1	Economic entity, insurance organisation, commercial bank growing cotton raw material and ear crops	Pays the insurance premium to the insurer	Within 30 working days after conclusion of the insurance contract
Stage 2	Insurance organisation	Provides the insurance policy to the insurer	Within 3 working days after payment of the insurance premium
Stage 3	Economic entity, insurance organisation growing cotton raw material and ear crops	Informs the Insurer of the circumstances that caused the Insurable Event	Insurance within 10 working days after the date of discovery of the accident
Stage 4	Insurance organisation, working groups	Inspects crop damage on site and draws up a report	Within 10 days of notification
Stage 5	Economic entity, insurance organisation growing cotton raw material and ear crops	Applies to the insurer with a written application for crop damage indemnity	At the end of the insurance period
Stage 6	Insurance organisation	Insurance is awarded based on this ruling (long term care insurance or long-term waiver insurance) when an enrollment decision is made	Within 15 days from the date of submission of the application
Stage 7	Insurance organisation, economic entity engaged in the cultivation of cotton raw material and bush grain crops	The insurer will pay the said compensation (up to 80% of the total reduced insurance premium).	Within 5 working days
Stage 8	Insurance organisation	To cover more than 80 per cent of the total amount of insurance indemnity determined by the insurer, the budget subsidy is provided by the Ministry of Finance of the Republic of Uzbekistan with the relevant calculation	As required
Stage 9	Ministry of Finance	Having studied the information, the insurer prepares an opinion on the allocation of budget subsidies for the payment of insurance indemnity	Within 15 days
Stage 10	Ministry of Finance	Allocates a budget subsidy to the insurer to cover more than 80 per cent of the established insurance indemnity	Within 10 days
Stage 11	Insurance organisation, economic entity engaged in the cultivation of cotton raw material and ear crops	At the expense of the budget subsidy, the insurer will pay the insurance indemnity and submit a report to the Ministry of Finance of the Republic of Uzbekistan	Within 5 days

CONCLUSIONS TO THE CHAPTER TWO

Currently, key areas of agriculture, including crop and livestock production, face significant risks due to climate change, water scarcity, and various crop diseases and pests. The results of agricultural production are highly dependent on weather and climatic conditions.

Agricultural production is characterized by a high level of risk, natural hazards, and emergencies. Natural hazards such as droughts, hail, and floods can lead to severe losses. These risks complicate the attraction of large-scale investments in agro-industrial production and affect the financial and economic situation of enterprises and rural populations.

Guaranteed insurance coverage is a crucial factor in enhancing the financial stability of agricultural enterprises, promoting employment growth, and improving the welfare of rural populations. However, insurance companies currently operate based on internal regulations that are not officially registered with the Ministry of Justice.

Since 1990, 36 normative-legal documents related to agricultural insurance have been adopted in the Republic of Uzbekistan. These include 4 laws, 1 Presidential Decree, 8 Presidential Resolutions, 17 Cabinet Resolutions, and 6 other normative-legal acts concerning relevant ministries and departments. Despite this, no single comprehensive legal document regulating the agricultural insurance system has been developed.

In developed countries, agricultural entities widely use insurance services to protect their farms from losses. However, in Uzbekistan, this service is not popular among farmers, dekhkan farms, and private subsidiary farms for several reasons. Insurance companies in this sector are slow and uncertain in implementing agricultural insurance policies.

Agricultural producers face several risks:

Production Risk: Common in crop production, this risk is assessed based on crop yield and measured by statistical indicators reflecting deviation from average yields.

Price or Market Risk: Agricultural producers have gradually adapted to price fluctuations over the past decade, but these fluctuations remain a significant risk.

Institutional Risk: This arises from changes in economic policy, legal regulations, and agrarian policy.

Financial Risk: Related to capital formation, accumulation, and enterprise financing, this risk is influenced by changes in lending rates, equity capital, and liquidity.

Personal Risk: Involves potential accidents such as illness or loss of labor capacity of the farm head, which can significantly impact economic activity.

In addition to these primary risks, there are risks related to non-fulfillment of contractual obligations and property risk.

In Uzbekistan, the most common type of agricultural insurance is for the shortfall of future harvests of cotton and grain crops, with approximately 90% of insurance premiums allocated to this type of risk. While a large volume of voluntary crop insurance contracts is signed annually, only 10-15% are enforced, with actual liability under these contracts being less than 20% of the amount specified.

This situation reduces the effectiveness of insurance in compensating damages from natural disasters. Agricultural insurance is also challenged by high administrative and production costs due to the dispersion of clients across the country, which increases the share of administrative costs relative to insurance premiums. Insurance companies often cover these costs through income from other types of insurance, which is not ideal for insurers.

The probability of damage in agricultural insurance is significantly higher than in other sectors, and with current capitalization levels, insurers might face bankruptcy without state support, even with coverage of only 20-30% of the crops in the republic.

Many countries provide state support to agriculture in the event of natural disasters. In Uzbekistan, the draft law “On Agricultural Risk Insurance” has been submitted for Government review. To enhance the efficiency of the agricultural sector, an optimal insurance model is needed to protect the interests of both farmers and insurers.

State support in the form of subsidized insurance premiums is more effective for supporting agricultural producers than direct aid for catastrophic losses. This support helps to stabilize farmers’ incomes, attract capital for long-term agricultural projects, and enhance the strategic goal of ensuring food sovereignty. Additionally, insurance protection stimulates investment, reduces dependency on natural disasters, and provides social and employment benefits.

TABLE 3. LIST OF NORMATIVE-LEGAL ACTS ON INSURANCE IN AGRICULTURE OF THE REPUBLIC OF UZBEKISTAN

No.	Title of the legal act	Date of acceptance and number	Main content
Laws of the Republic of Uzbekistan			
1.	On Insurance	Law of the Republic of Uzbekistan 6 May 1993, №. 833-XII	This Law has lost its force in accordance with the Resolution of the Oliy Majlis of the Republic of Uzbekistan No. 359-II of 5 April 2002 «On enactment of the Law of the Republic of Uzbekistan «On Insurance Activity». This Law defined the legal basis for the development of insurance, the formation of the insurance market, the role and place of insurance in the socio-economic development of the Republic, guaranteed the fullest satisfaction of the needs of citizens and legal entities in insurance services, ensured the protection of interests and compliance with the obligations of all participants in insurance relationships.
2.	On compulsory State social insurance against accidents at work and occupational diseases	Law of the Republic of Uzbekistan. Adopted by the Legislative Chamber on 26 June 2008 Approved by the Senate on 28 August 2008	The purpose of this Act is to regulate relations in the field of compulsory State social insurance against industrial accidents and occupational diseases.
3.	On compulsory insurance of civil liability of the employer	Law of the Republic of Uzbekistan. Adopted by the Legislative Chamber on 11 November 2008 Approved by the Senate on 27 March 2009	The purpose of this Act is to regulate relations in the field of compulsory insurance of the civil liability of employers.
4.	On insurance activity	Law of the Republic of Uzbekistan Adopted by the Legislative Chamber on 15 June 2021, Approved by the Senate on 27 August 2021	The purpose of this Law is to regulate relations in the field of insurance activity. This Law shall not apply to relations related to State social insurance and State medical insurance.

No.	Title of the legal act	Date of acceptance and number	Main content
Decrees of the President of the Republic of Uzbekistan			
5.	On the establishment of the state joint-stock insurance company Uzagrosugurta	Decree of the President of the Republic of Uzbekistan dated 25 February 1997, № UP-1713	Regulates issues on ensuring effective development of insurance services, creation of favourable conditions for insurance protection of agricultural producers and population on the proposal of the Ministry of Finance, Ministry of Agriculture and Water Resources of the Republic of Uzbekistan, «Uzgoshlopkopromsbyt» association of «Uzkhleboproduct» corporation, commercial banks, «Pakhta-bank», Gallabank, «Mewa Sabzavotbank» the State Joint Stock Insurance Company «Uzagrosugurta» was established on the basis of the Main Department of the State Insurance Company «Uzagrosugurta».
Decision of the President of the Republic of Uzbekistan			
6.	On measures for further reforming and developing the insurance services market.	Decree of the President of the Republic of Uzbekistan dated 10 April 2007, № PP-618	Addresses the issues of further formation of a competitive market of insurance services, development of modern types and improving the quality of insurance activities, increasing the level of capitalisation and ensuring the financial stability of insurers, expanding their regional network, as well as improving the methods of insurance regulation.
7.	On approval of the regulation on the order of laying the insurance fund of food wheat, its storage, refreshing and use	Decree of the President of the Republic of Uzbekistan from 28 March 2008, № 54	The present Regulation regulates the issues of laying the insurance fund of food wheat, its storage, refreshing and use.
8.	On Additional Measures for Further Reforming and Developing the Insurance Services Market	Decree of the President of the Republic of Uzbekistan dated 21 May 2008, № PP-872	On further improving insurance activity, increasing capitalisation and financial stability of insurers, expanding their regional network and stimulating the participation of insurance companies in investment processes, as well as ensuring effective protection of the rights of consumers of insurance services.
9.	On measures to improve the activities of the joint-stock company «Insurance Company Kafolat»	Decree of the President of the Republic of Uzbekistan from 9 October 2017, № PP-3317	On issues of increasing the range of insurance services for the population and business entities based on international standards, introduction of modern information and communication technologies, creation of an effective system of insurance of property interests of individuals and legal entities, as well as the introduction of modern methods of corporate governance in order to further improve insurance activity in the country.
10.	On Measures to Expand Mechanisms for Financing and Insurance Protection of Export Activities	Decree of the President of the Republic of Uzbekistan dated 24 May 2019, № PP-4337	In accordance with the decree of the President of the Republic of Uzbekistan dated 20 December 2018 № PP-4069 «On measures to strengthen the promotion and stimulation of exports», as well as in order to create the necessary conditions for the effective implementation of mechanisms of export and pre-export financing, insurance of export credits and risks

No.	Title of the legal act	Date of acceptance and number	Main content
11.	On measures to reform and ensure accelerated development of the insurance market of the Republic of Uzbekistan	Decree of the President of the Republic of Uzbekistan dated 2 August 2019 NO. PP-4412	Aimed at further reforming the national insurance market and ensuring its rapid development, introducing new types of insurance services in high demand, increasing consumer confidence in the insurance market, as well as in accordance with the state programme to implement the strategy of action on five priority areas of development of the Republic of Uzbekistan in 2017 - 2021.
12.	On the organisation of the activities of the agency for the development of the insurance market under the Ministry of Finance of the Republic of Uzbekistan	Decree of the President of the Republic of Uzbekistan dated 31 December 2019, No. 1060	Pursuant to the decree of the President of the Republic of Uzbekistan dated 2 August 2019 № PP-4412 «On measures to reform and ensure the accelerated development of the insurance market of the Republic of Uzbekistan», as well as to ensure the effective organisation of the Agency for the development of the insurance market under the Ministry of Finance of the Republic of Uzbekistan.
13.	On additional measures for the digitalisation of the insurance market and the development of the life insurance sector	Decree of the President of the Republic of Uzbekistan dated 23 October 2021, № PP-5265	In order to ensure the accelerated development of the national insurance market, increase consumer confidence in the insurance market, as well as the implementation of the tasks defined in the State Programme for the implementation of the Strategy of actions on five priority directions of development of the Republic of Uzbekistan in 2017-2021 in the «Year of Support for Youth and Promotion of Public Health»,
Resolution of the Cabinet of Ministers of the Republic of Uzbekistan			
14.	On the Establishment of the Social Insurance Fund under the Cabinet of Ministers of the Republic of Uzbekistan	Resolution Of the Cabinet of Ministers of the Republic of Uzbekistan and the Federation of Trade Unions of Uzbekistan Dated August 4, 1993, No. 391	This resolution has been repealed in accordance with the resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated February 22, 2021, No. 87 “On the recognition of certain decisions of the Government of the Republic of Uzbekistan as having lost their significance (Presidential Decree of the Republic of Uzbekistan dated September 27, 2020, No. UP-6075 ‘On measures to improve the business environment in the country by introducing a system for reviewing outdated legislative acts’)”
15.	On State Mandatory Insurance of Agricultural Enterprises’ Property	Resolution Of the Cabinet of Ministers of the Republic of Uzbekistan dated December 23, 1993, No. 608	This resolution has been repealed in accordance with the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated March 6, 1997, No. 125, “On Issues Related to the Organization of Activities of the State Insurance Company ‘Uzagrosugurta’.”
16.	On issues of organisation of activity of the state insurance company «Uzagrosugurta»	Resolution Of Cabinet of Ministers of the Republic of Uzbekistan from 6 March 1997, № 125	In accordance with the Decree of the President of the Republic of Uzbekistan from 25 February 1997 № UP-1713 «On the establishment of the State Joint Stock Insurance Company «Uzagrosugurta» defined priority directions of the State Joint Stock Insurance Company «Uzagrosugurta» providing insurance protection of property interests of agricultural producers, enterprises and population living in rural areas.

No.	Title of the legal act	Date of acceptance and number	Main content
17.	On insurance of liability for timely payments under contracts for the purchase of fruit and vegetable products, milk and livestock	Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated March 25, 1999, No. 132	This resolution has been repealed in accordance with the Decree of the Cabinet of Ministers of the Republic of Uzbekistan from 27 November 2002 № 413 «On measures to further develop the market of insurance services.
18.	On the amount of social insurance contributions	Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated July 30, 1999, No. 372	Aimed at strengthening social protection for the population, ensuring the non-budgetary Pension Fund under the Ministry of Finance of the Republic of Uzbekistan with reliable sources of funding, as well as for the effective and targeted use of social insurance funds received by the Employment Promotion Fund and the Federation of Trade Unions Council
19.	On Amending the Regulation on Social Insurance and Social Security for Members of Dehkan Farms	Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated May 31, 2006, No. 102	This resolution has been repealed in accordance with the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated February 22, 2016, No. 46 «On Approving the Regulation on the Procedure for Paying Insurance Contributions to the Extra-Budgetary Pension Fund under the Ministry of Finance of the Republic of Uzbekistan by Citizens of the Republic of Uzbekistan Working Abroad and Certain Categories of Persons Whose Working Time Cannot Be Accounted For, as Well as the Procedure for Accounting Their Work Experience and Earnings Used for Pension Calculation.»
20.	On Approving the Regulation on the Procedure for Creating and Using the Seed Insurance Fund	Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated April 3, 2014, No. 80	In accordance with the Law of the Republic of Uzbekistan «On Seed Production» and in implementation of the Resolution of the President of the Republic of Uzbekistan dated July 15, 2013, No. PP-2003 «On Approving the Plans for Developing Normative, Legal, and Other Acts Aimed at Implementing the Referenced Legal Norms,» the Regulation on the Procedure for Creating and Using the Seed Insurance Fund has been approved.
21.	On Measures to Improve the System of Insurance for Future Cotton and Cereal Crops	Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated June 17, 2019, No. 505	Aimed at ensuring the implementation of the Cabinet of Ministers' resolutions: «On Measures for the Broad Introduction of Market Mechanisms in Agriculture» No. 149 dated February 28, 2018, and «On Additional Measures to Further Stimulate the Cultivation of Cereal Crops» No. 959 dated November 27, 2018, as well as the extensive introduction of a protection system through insurance for agricultural entities growing cotton and cereal crops against damage caused by various natural disasters.
22.	On the approval of the regulations governing the insurance procedures for livestock in private households and business entities engaged in livestock activities	Resolution of the Cabinet of Ministers of the Republic of Uzbekistan September 30, 2019, No. 830	In accordance with the resolution of the President of the Republic of Uzbekistan «On the organization of activities of the State Committee of Veterinary and Livestock Development of the Republic of Uzbekistan» dated March 28, 2019, No. PQ-4254, the Cabinet of Ministers has approved the Regulations on the insurance procedures for domestic animals kept in auxiliary households and business entities engaged in the field of livestock.

No.	Title of the legal act	Date of acceptance and number	Main content
23.	On measures to further improve the national export-import insurance company Uzbekinvest	Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated January 30, 2020, No. 46	Aimed at implementing the Resolution of the President of the Republic of Uzbekistan «On measures to expand the mechanisms of financing and insurance protection» dated May 24, 2019 PP-4337, by the resolution of the Cabinet of Ministers of the Republic of Uzbekistan, the export-import national insurance company «Uzbekinvest» was transformed into a joint-stock company «Export-import insurance company «Uzbekinvest».
24.	On Approval of the Regulations on the Procedure for Compensation of Expenditures for Insurance Premiums when Exporters Use Insurance Services as Collateral	Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated August 25, 2020, No. 512	In order to ensure the implementation of the Resolution of the President of the Republic of Uzbekistan «On measures to further support export activities» dated May 7, 2020 PP-4707, the Regulation on the procedure for reimbursement of expenses for payment of insurance premiums when exporters use insurance services as collateral was approved.
25.	On additional measures to improve the procedure for the provision of electronic insurance services	Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated December 14, 2020, No. 780	Aimed at ensuring the implementation of the Resolution of the President of the Republic of Uzbekistan «On measures to reform the insurance market of the Republic of Uzbekistan and ensure its accelerated development» dated August 2, 2019 No. PQ-4412, as well as the widespread use of modern information technologies, active implementation and development of electronic types of insurance services.
26.	On Amendments and Additions to the Rules for Compulsory Civil Liability Insurance of Vehicle Owners	Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated September 27, 2021, No. 609	In accordance with the Law of the Republic of Uzbekistan «On Amendments and Additions to Certain Legislative Acts of the Republic of Uzbekistan» dated August 25, 2021 No. ZRU-711, the procedure for receiving insurance compensation by drivers for road accidents without the participation of employees of the internal affairs bodies was approved.
27.	On measures to develop the state social insurance system	Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated September 20, 2022, No. 515	In accordance with the Decree of the President of the Republic of Uzbekistan dated July 25, 2022 No. PF-175 «On approval of the strategy for social protection of the population of the Republic of Uzbekistan», a Social Insurance Fund was created under the Ministry of Finance, which does not have the status of a legal entity and payments for state social insurance are established from the account of this fund.
28.	On Amendments and Supplements to the Regulation on the Procedure for Compensating Expenses for Paying Insurance Premiums When Exporters Use Insurance Services as Collateral, Aimed at Improving the Procedure for Insuring Activities Related to Export Support	Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated November 25, 2022, No. 673	In order to improve the system of financial support for exporters when using insurance mechanisms, as well as to align with legislative acts the procedure for compensating expenses for paying insurance premiums when exporters use insurance services as collateral.

No.	Title of the legal act	Date of acceptance and number	Main content
29.	On approval of the regulation on the procedure for providing insurance services in electronic form	Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated December 5, 2022, No. 694	In order to ensure the implementation of the Resolution of the President of the Republic of Uzbekistan «On additional measures to digitalize the insurance market and develop the life insurance industry» dated October 23, 2021 PP-5265.
30.	On measures for further development of the insurance services market	Resolution of the Cabinet of Ministers of the Republic of Uzbekistan November 27, 2002, No. 413	In accordance with the Law of the Republic of Uzbekistan «On Insurance Activities» and the Resolution of the President of the Republic of Uzbekistan dated August 2, 2019 No. PP-4412 «On measures to reform and ensure accelerated development of the insurance market of the Republic of Uzbekistan» and in order to stimulate the development of the insurance system, strengthen the material and technical base and financial stability of insurers, expand their regional representation and increase public confidence in insurance organizations.
Regulatory legal acts adopted by interested ministries and departments			
31.	Instruction on conducting compulsory state insurance of property of agricultural enterprises.	Ministry of Finance Republic of Uzbekistan 20 December 1993, № 56/24 [Registered by the Ministry of Justice of the Republic of Uzbekistan on 1 March 1994 Registration No. 24]	In accordance with the Law of the Republic of Uzbekistan «On Insurance» and the Cabinet of Ministers Decree «On state compulsory insurance of the property of collective farms, state farms and other state agricultural enterprises» from 23 December 1993 № 608, the property of all agricultural enterprises growing agricultural products is subject to state compulsory insurance.
32.	List of measures provided by the allocation of funds from insurance premiums, aimed at preventing loss of life, damage to crops, livestock, buildings, structures, property of state, agricultural enterprises, shirkat, public organisations, dekhkan (farm) farms and rental enterprises, property of citizens and ensuring the safety of passengers.	Registered by the Ministry of Justice of the Republic of Uzbekistan on 9 February 1994 Registration No. 29]	This List has been repealed in accordance with the order of the Minister of Finance of the Republic of Uzbekistan dated January 7, 2003, No. 9 «On Recognizing Some Regulatory Legal Acts of the Ministry of Finance of the Republic of Uzbekistan as No Longer in Force» and was removed from the state register by the order of the Minister of Justice of the Republic of Uzbekistan dated February 5, 2003, No. 34-mx.
33.	Clarification on the procedure for registering insurance organizations	Ministry of Finance of the Republic of Uzbekistan dated 03.05.1999 No. 34 [Registered by the Ministry of Justice of the Republic of Uzbekistan dated May 21, 1999 No. 733]	The Law of the Republic of Uzbekistan «On Insurance» stipulates that Gosstrakhnadzor maintains a single state register of insurers, associations of insurers, as well as a register of insurance brokers.

No.	Title of the legal act	Date of acceptance and number	Main content
34.	On the Approval of the Regulations on Uniform Requirements and Standards for the Provision of Reinsurance Services	Order of the Minister of Finance of the Republic of Uzbekistan [Registered by the Ministry of Justice of the Republic of Uzbekistan on January 29, 2011. Registration No. 2190]	The Regulations on Uniform Requirements and Standards for the Provision of Reinsurance Services have been approved.
35.	On the Repeal of the Regulations on the Social Insurance Commission of Enterprises, Organizations, Departments, Farms, Educational Institutions, and Amendments to It	Order of the Minister of Labor and Social Protection of the Population of the Republic of Uzbekistan [Registered by the Ministry of Justice of the Republic of Uzbekistan on September 16, 2015, Registration No. 431-2] August 29, 2015, No. 32-b	In accordance with the Decree of the President of the Republic of Uzbekistan No. PP-1251 dated December 30, 2009, «On Measures to Improve the Structure of the Ministry of Labor and Social Protection of the Republic of Uzbekistan» and No. PP-1252 dated December 30, 2009, «On the extra-budgetary Pension Fund under the Ministry of Finance of the Republic of Uzbekistan,» the Regulations on the Social Insurance Commission of Enterprises, Organizations, Institutions, Farms, and Educational Institutions, approved by the Ministry of Social Security of the Republic of Uzbekistan (list No. 431, April 9, 1998), have been declared null and void.
36.	On Amendments and Changes to the Regulation on Investment Activities of the Insurer and Reinsurer	Order of the Minister of Finance of the Republic of Uzbekistan [Registered by the Ministry of Justice of the Republic of Uzbekistan on December 22, 2021. Registration No. 1982-2]	In accordance with the Decree of the President of the Republic of Uzbekistan dated April 13, 2021 No. UP-6207 «On Measures for the Further Development of the Capital Market», amendments and changes were made to the Regulation on Investment Activities of the Insurer and Reinsurer.

3 | ANALYSIS OF INSURANCE COMPANIES OF UZBEKISTAN IN THE FIELD OF AGRICULTURAL CROPS AND THEIR LIST OF INSURANCE COMPANIES

The agricultural sector in Uzbekistan is distinct from other sectors of the national economy due to the often unpredictable nature of production activities and results, which are closely tied to biological and weather-related factors. Consequently, agriculture is one of the riskiest sectors of the economy. Developing a robust insurance system is crucial for ensuring the stable organization of agricultural production.

In recent years, Uzbekistan has implemented several legislative acts, resolutions, and regulatory documents related to the insurance market. Notably, the Law of the Republic of Uzbekistan “On Insurance Activities” (No. ZRU-730, dated November 23, 2021) has strengthened the regulatory framework for insurance activities, contributing to more dynamic development in various economic sectors.

Among the adopted regulatory legal acts, the adoption of the Resolution of the President of the Republic of Uzbekistan dated August 2, 2019 No. PP-4412 “On measures to reform and ensure accelerated development of the insurance market of the Republic of Uzbekistan” is of great importance. In accordance with this resolution, one of the main goals is to reform the insurance market of the Republic of Uzbekistan and ensure its accelerated development.

Among the significant regulatory acts is the Resolution of the President of the Republic of Uzbekistan No. PP-4412, dated August 2, 2019, “On Measures to Reform and Ensure Accelerated Development of the Insurance Market of the Republic of Uzbekistan.” This resolution aims to reform and accelerate the development of the insurance market. A key objective of this resolution was the establishment of the Agency for the Development of the Insurance Market under the Ministry of Finance of the Republic of Uzbekistan (hereinafter referred to as the Agency). The Agency was created to oversee insurance market regulation and improve the insurance system for future harvests of raw cotton and cereal crops.

The Agency is the authorized state body responsible for regulating and developing the insurance market, ensuring the protection of the rights and legitimate interests of all participants in insurance relations, and reporting its activities to the Ministry of Finance of the Republic of Uzbekistan.

According to the Decree of the President of the Republic of Uzbekistan No. UP-269, dated December 21, 2022, «On Measures to Implement Administrative Reforms of the New Uzbekistan,» the «Ministry of Economy and Finance of the Republic of Uzbekistan» was established on January 1, 2023, replacing the Ministry of Finance. As per Appendix 3 of this Decree, the Agency for the Development of the Insurance Market was abolished from January 1, 2023, and its functions were transferred to the Ministry of Economy and Finance. A new «Department for the Development of Capital and Insurance Markets» was created under this Ministry. According to Appendix 4 («Temporary Regulation on the Ministry of Economy and Finance of the Republic of Uzbekistan») of the Ministry’s order No. 26, dated March 13, 2023, the Ministry’s main tasks in insurance include ensuring transparency and openness in the insurance market, protecting the rights of insurance consumers, licensing insurance activities, and certifying actuaries.

The Agency’s decisions, within its authority, are binding on all professional participants in the insurance market. Its responsibilities included:

- The Agency was responsible for organizing training, retraining, and professional development for insurance market specialists, including international experts.
- Licensing insurance activities and certifying actuaries.

In addition, an extra-budgetary fund of the Insurance Market Development Agency under the Ministry of Finance has been established.

Based on the 30th goal defined in Presidential Decree № UP-60 “On the Strategy of Development of New Uzbekistan for 2022-2026” from January 28, 2022, expanding state support and introducing new insurance mechanisms in agriculture have been defined as priority tasks.

Additionally, an extra-budgetary fund was established to support the development of the insurance market.

In line with the 30th goal outlined in Decree No. UP-60, dated January 28, 2022, “On the Strategy of Development of New Uzbekistan for 2022-2026,” expanding state support and introducing new insurance mechanisms in agriculture has been defined as a priority.

The Cabinet of Ministers adopted Decree No. 505 on June 17, 2019, “On Measures to Improve the System of Insurance for Future Harvests of Raw Cotton and Grain Crops,” and Decree No. 830 on September 30, 2019, “On Approval of the Procedure for Livestock Insurance in Households and Economic Entities Engaged in Animal Husbandry.” These documents are crucial for the development of agricultural insurance.

To further enhance the legal protection of insurance activities and the industry’s development, the Legislative Chamber adopted the Law of the Republic of Uzbekistan “On Insurance Activity” on June 15, 2021, and it was approved by the Senate on August 27, 2021. This legal framework supports the freedom of activity for insurance organizations, diversification of services, and protection of economic entities’ rights.

The Strategy for Agricultural Development includes measures to improve agricultural insurance infrastructure and mechanisms:

- Creating a database on agribusiness insurance, digitalizing, and organizing monitoring by the agricultural insurance system.
- Conducting research on agricultural insurance forms and systems, actuarial studies, and developing insurance products based on international projects financed by foreign institutions.
- Developing training programs and organizing courses and seminars on agricultural insurance and yield insurance.
- Subsidizing agribusiness and insurance company activities in agricultural insurance.

The insurance market in Uzbekistan has shown positive changes. For instance, the number of insurance organizations increased from 36 in 2019 to 41 in 2022, a 14% rise. The total charter capital of these organizations grew 2.5 times, reaching 1,884 billion soums (see Table 4).

TABLE 4. STRUCTURE OF THE INSURANCE MARKET OF THE REPUBLIC OF UZBEKISTAN

No	Structure of the insurance market	2019	2020	2021	2022	2022 in % to 2019
1.	Number of insurance organisations, units.	36	40	42	41	114,0
	including life insurance, units.	8	8	8	8	-
2.	Total authorised capital of insurance organisations (in billion UZS)	755,2	1439,2	1590,0	1884,0	2.5 times
3.	Number of insurance brokers, units.	5	5	5	7	1.4 times
4.	Number of actuaries	5	5	5	5	-
5.	Number of insurance agents, units	8657	8900	9581	9155	105,8
	including legal entities	2388	2639	2820	2625	110,0
6.	Number of insurance organisations that are members of the Payment Guarantee Fund	17	19	23	23	1.4 times

The number of insurance brokers increased from 5 to 7, while the number of actuaries remained unchanged. The number of insurance agents reached 9,155 by 2022, reflecting a 5.8% increase compared to 2019.

As of January 1, 2023, 34 insurance companies were operating in the general insurance sector, and 8 in the life insurance sector. Of these 34 general insurance companies, only 2-3 are state-owned, with the remainder being private firms (see Appendix 2).

Notably, the volume of insurance premiums in the general insurance market rose by UZS 1,262.6 billion by the end of 2022 compared to 2021. The insurance company JSC “IMPEX-INSURANCE” saw a significant increase, with its premiums rising by UZS 68728 million during this period. JSC “IMPEX-INSURANCE” was granted license series SF No. 00022 on October 5, 2021, to conduct both voluntary and compulsory insurance across various classes (1-17) of general insurance.

The Joint-Stock Company “IMPEX-INSURANCE” was granted a license series SF No. 00022 on October 5, 2021, for the conduct of voluntary and compulsory insurance in the classes 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, and 17 of general insurance. <https://imda.uz/ru/impex-vidana-litsenziya/>.

Conversely, JSC “GARANT INSURANCE GROUP” experienced a 52.4% decrease in premiums in 2022 compared to 2021 (see Appendix 1). JSC “UZAGROSUGURTA,” which provides insurance services to the agro-industrial complex, saw an increase of UZS 135,647 million in premiums for 2022 compared to the previous year. At the same time, we note that in JSC GARANT INSURANCE GROUP this indicator decreased by 52.4% in 2022 compared to 2021 (Appendix 1).

For JSC “UZAGROSUGURTA”, which directly provides services to the agro-industrial complex, insurance premiums increased by 135,647 million soums in 2022 compared to 2021.

JSC “MOSAIC INSURANCE COMPANY” had the highest increase, with reinsured premiums rising from UZS 48 million in 2021 to UZS 7.6 billion in 2022, a growth of 1,580%.

Among the 8 life insurance companies, JSC “ALFA LIFE INSURANCE” reported the highest growth, with premiums increasing by 214.6% by the end of 2022 compared to 2021 (see Appendix 2).

Currently, the republic has 18 classes of insurance. The most active classes are:

- Class 1: Accident insurance
- Class 2: Mandatory health insurance
- Class 8: Fire and natural disaster insurance
- Class 9: Property damage insurance.

For reference: In 2021, insurance premiums for Class 1 were 46.7 billion UZS, and in 2022, this figure increased to 59.3 billion UZS, representing a 26.8% growth. For Class 2, premiums were 5,197 million UZS in 2021 and decreased by 14% to 4,445 million UZS in 2022. Insurance liabilities increased from 19,753.12 billion UZS in 2021 to 50,128.1 billion UZS in 2022, showing a 153.8% growth (data for other classes are attached).

Analysis shows that agricultural crop insurance contracts are primarily within Classes 8 and 9. Out of the 41 insurance companies in Uzbekistan, only three—“Uzagrosugurta,” “My Insurance,” and “Semurg Insurance”—offer agricultural crop insurance services. As of 2022-2023, only JSC “Uzagrosugurta” and “Semurg Insurance” are actively providing these services.

Despite efforts to support agricultural insurance, the implementation of measures has been insufficient, and many plans remain partially unmet. From 2019 to 2021, no state budget investments were allocated for subsidizing insurance premiums for fruits and vegetables or for hiring foreign specialists. In 2022, the government planned to allocate 50 billion UZS (2.2% of the intended subsidy) to the agricultural sector.

Currently, the agricultural insurance market is relatively small, with many companies focusing more on agricultural machinery insurance. However, some companies are beginning to adopt insurance models from abroad, such as “SEMURG INSURANCE,” in collaboration with the Ministry of Agriculture of the Republic of Uzbekistan, “Uzagrosugurta,” and “My Insurance”.

The agricultural insurance market in Uzbekistan is facing declining interest, exacerbated by a leading local insurer, “Uzagrosugurta,” reducing its involvement due to high volatility and financial losses. For instance, agricultural insurance premiums with “Uzagrosugurta” fell from UZS 147.983 million in 2017 to 2,500 million UZS in 2021.

In the Samarkand region, the number of agricultural crop insurance contracts decreased dramatically from 1,544 in 2019 to just 4 in 2022, a 386-fold reduction.

For reference: on the activities of Uzagrosugurta.

In the agricultural sector, risks such as crop failure due to natural disasters, diseases, or pests are prevalent²³. One of the most effective risk management tools is insurance. In Uzbekistan, the Joint Stock Company “Uzagrosugurta” provides insurance services in this domain.

The primary purpose of agricultural risk insurance is to compensate agricultural producers for losses related to crops or livestock due to natural disasters, diseases, pests, and other factors. JSC “Uzagrosugurta” is a leading insurance company in the republic offering coverage in this area. The company primarily serves farms and entities supporting agricultural producers.

“Uzagrosugurta” provides over 100 types of insurance services, nearly 40 of which are tailored to agricultural producers. These include insurance for crops, various types of poultry and livestock, and agricultural machinery leased to producers²⁴. The effectiveness of “Uzagrosugurta” in this sector is evident from the increasing number of insurance contracts each year.

For instance, in 2014, “Uzagrosugurta” concluded 18,024 insurance contracts for cotton and grain crops, with insurance liabilities amounting to 143 billion soums. By 2015, the number of contracts had risen to 20,518, with liabilities reaching 178 billion soums. This included 6,250 contracts for grain crop insurance and 14,268 for cotton crop insurance. In 2015, the company paid 7.7 billion soums in insurance indemnities to farms.

Natural disasters and calamities, as force majeure events, can inflict substantial damage on agricultural products. The availability of insurance protection helps mitigate or compensate for financial losses suffered by agricultural producers. “Uzagrosugurta” is a prominent player in the domestic insurance market, offering affordable insurance products tailored to the needs of agricultural producers.

In 2015, “Uzagrosugurta” concluded 18,364 crop insurance contracts, with 4,080 for grain crops and 14,256 for cotton crops. Compared to 2014, this represented an increase of 343 contracts. The total volume of insurance liabilities under these contracts amounted to 159.6 billion soums²⁵.

Insurance premiums paid by customers are calculated based on insurance tariffs, which range from 0.1% to 10% of the sum insured..

²³ <http://agroinsurance.com/ru/uzbekistan-v-2015-godu-uzagrosugurta-vyiplatila-fermerskim-hozyaystvam-7-7-mlrd-sumov-strahovyih-vozmeshheniy/>

²⁴ <http://agroinsurance.com/ru/uzbekistan-v-2015-godu-uzagrosugurta-vyiplatila-fermerskim-hozyaystvam-7-7-mlrd-sumov-strahovyih-vozmeshheniy/>

²⁵ <http://agroinsurance.com/ru/uzbekistan-ao-uzagrosugurta-zaklyucheno-bolee-18-3-tyis-dogovorov-po-strahovaniyu-urozhaya-selhozkultur/>

It should also be emphasized that in international practice crop insurance performs two most important functions²⁶, namely:

- **Monetary Compensation:** It provides financial assistance directly to farmers, helping them cope with the aftermath of crop failure and aiding in the restoration of their agribusiness.
- **Business Continuity and Development:** Insurance not only helps farmers maintain their operations but also supports the successful development of their businesses.

Agricultural insurance, especially for future harvests, should be leveraged as a financial instrument for securing loans aimed at developing agricultural enterprises. Experience from developed countries shows that effective state support mechanisms, such as partial subsidization of insurance premiums, significantly enhance the interest of insurance companies in the agricultural sector.

According to the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated November 27, 2002, No. 413 “On measures for further development of the insurance services market,” insurance classes are specified in the insurers’ licenses. Each class represents a group of insurance types unified by common features. The content and conditions for each class are outlined in detail. Currently, various types of insurance, including those for agriculture, fall within these classes.

Insurance providers such as Uzagrosugurta JSC, My Insurance, and SEMURG INSURANCE JV, in cooperation with the Ministry of Agriculture of the Republic of Uzbekistan, offer diverse agricultural insurance services. JSC “Uzagrosugurta” provides insurance across all 18 classes of insurance, offering more than 140 services, including those for crops, livestock, and agricultural machinery. The company has established around 500 agent departments to enhance insurance protection for residents of remote villages.

Despite having licenses for all 16 classes of financial risk insurance relevant to agriculture, insurance companies face challenges due to the higher risk levels and lower profitability in the agricultural sector. For example, between 2020 and 2021, Uzagrosugurta JSC did not provide crop insurance services in the Republic of Karakalpakstan; instead, these services were offered by “My Insurance”.

“My Insurance” has been presenting its products on the national insurance market for almost 20 years, demonstrating its activity in the implementation of these reforms as a professional participant of the insurance market and occupying leading positions.

The main partners of the company are “Sanoat Qurulish Bank”, “Berlin Chemie”, “Menarini Group” and others.

The main task of the company is to provide fast and quality service to clients in case of occurrence of insurance events, fast and quality fulfilment of obligations to clients under insurance contracts.

The company provides more than 20 types of insurance services. In 2021-2022 the company will provide services on insurance of agricultural crops in the Republic of Karakalpakstan.

As the analysis shows, the company “My Insurance” has concluded contracts with farms of Karauzyak (76 farms) and Taxtakopir (8 farms) districts of the Republic of Karakalpakstan on insurance of non-repayment of loans for production of raw cotton and wheat.

Branches of JSCB “AGROBANK” in these districts filed lawsuits in the economic courts for the debts of farms for wheat, and the debts were recovered by the court in full and in the prescribed manner.

²⁶ <https://semurginsurance.uz/news/agroinsurance-2023-pervye-itogi-konferentsii/>

The Farmers' Council reviewed the non-repayment contracts of farms in Karauzyak and Taxtakopir districts with the "My Insurance" company. During the review, it was noted that according to Clause 3.1 of the agreement, the loan repayment term specified in the loan agreement (the final date) or the determination by the court for early recovery constitutes an insured event if the "Insured" (borrower) fails to meet their repayment obligations. This non-performance, such as failure to repay the loan debt, is considered an insured event.

The Council of Farms filed lawsuits with the Nukus Inter-District Economic Court to recover UZS 2.78 billion from "My Insurance" for 76 farms in Karauzyak district and UZS 3.6 billion for 78 farms in Taxtakopir district. Some lawsuits in Taxtakopir district were dismissed by the court.

It should be noted that despite the insurance contracts between the authorized banks, the insurance company, and the farms, the branches of the authorized banks failed to effectively pursue recovery actions from the insurance companies. Consequently, farms could not repay the preferential loan funds, leading to unresolved debts to the banks and expiration of contract terms.

Attention must be drawn to the fact that farms are required to transfer funds to the insurance company when receiving soft loans. A farm that has not paid the insurance premium is not eligible for soft loan funds.

Currently, agricultural enterprises predominantly use insurance for non-repayment of loans from commercial banks, and crop insurance is increasingly economically favorable. From 2019 to 2021, over 50,000 insurance contracts were concluded, with indemnities amounting to approximately 117 billion soums.

According to the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated June 17, 2019, No. 505, "On Improving the System of Insurance for Raw Cotton and Cereal Crops," preferential loans are allocated annually by JSC "Uzagrosugurta" to entities growing raw cotton and grain crops to cover insurance costs. Other branches of the agricultural sector, including horticulture, have also seen financing sources open up, with a focus on the export of horticultural products. An insurance mechanism is in place to finance harvests from seedling development to the final harvest in horticulture.

The procedures and conditions for using insurance services in the agro-industrial complex are outlined in the relevant legal acts. However, many agricultural enterprise heads lack legal expertise and necessary qualifications regarding these procedures. Therefore, the following actions are recommended:

- Enhance knowledge and legal awareness in the sector.
- Organize services to explain the agricultural insurance process.

It is proposed that ministries and relevant departments be authorized to educate agricultural producers on the importance and benefits of agricultural insurance.

Many farms currently believe insurance should only be obtained after an insured event or after crop damage, such as hail or drought, has occurred. It is crucial to note that insurance contracts must be concluded before an insured event takes place, considering the expected level of agricultural production. Only then can an insurance contract for future risks be established between the insurance company and the producer.

The research has identified systemic issues in the widespread adoption of insurance services in the agricultural sector and has formulated scientifically and practically substantiated recommendations for addressing these issues.

To implement a robust protection system for entities growing raw cotton and grain crops against damage from natural disasters, the Cabinet of Ministers of the Republic of Uzbekistan approved the procedure for insuring future harvests of raw cotton and grain crops (PCM No. 505 dated June 17, 2019). Annually, 4% of preferential loans for growing raw cotton and grain crops are allocated for insurance costs. Contracts must be registered by JSC “Uzagrosugurta” by February 1 for grain crops and by July 1 for raw cotton crops.

One of the key players in agricultural insurance is JV JSC “SEMURG INSURANCE,” operating in Uzbekistan since December 2020 (license No. 00004). SEMURG INSURANCE is unique in Uzbekistan for its international team of agro-industrial risk experts.

It has established 25 regional representative offices²⁷, including in the Republic of Karakalpakstan. Since its inception, the company has introduced international insurance products, particularly in the agrarian sector. Notably, the company now offers a new crop insurance product developed in collaboration with “Swiss Re,” the world’s leading reinsurance company for agricultural risks.

SEMURG INSURANCE” company offers the following types of insurance products/programs:

- Agricultural insurance.
- Cargo insurance.
- Property and liability insurance.
- Energy insurance.
- Equipment insurance.
- Insurance of construction and installation risks.

The agricultural insurance program is a high-quality insurance product that covers crop insurance and includes:

Crop spectrum	Protection against risks affecting the yield of agricultural crops. The insurance policy may cover the following risks:
1. Grain insurance	<ul style="list-style-type: none"> ▪ Adverse natural phenomena (frosts, soil crusting, sandstorms, floods, heavy rains, high temperatures, etc.). ▪ Water scarcity and low water availability at irrigation sources (including accidents). ▪ Diseases and damage caused by pests. ▪ Damage from animals, birds, and rodents. ▪ Fire and lightning strikes. ▪ Damage from falling aircraft and/or their debris. <p>Additionally, the policy can include coverage for:</p> <ul style="list-style-type: none"> ▪ Disruptions or cessation of electricity, heating, and water supply. ▪ Damage to greenhouse coverings due to natural disasters and/or accidents. ▪ Actions of third parties.
2. Cotton insurance	
3. Insurance of fruit trees and vineyards	
4. Insurance of vegetables	

The goal of the company is to provide clients with comprehensive risk management solutions. The main advantage and distinctive feature of Semurg Insurance is its holistic approach to protecting the client’s agribusiness.

²⁷ <https://semurginsurance.uz/about/>

Semurg Insurance's comprehensive agricultural insurance strategy encompasses the following elements:

- Assessing all risks associated with agricultural enterprises and farms.
- Developing a program to minimize these risks.
- Organizing insurance against unforeseen events.

The logistical sequence of the comprehensive approach in agricultural insurance involves several key steps:

- Analyzing the individual situation of agribusiness entities.
- Reviewing loss and risk statistics for each client.
- Offering insurance products tailored to relevant risks.

In Uzbekistan, many companies in the agricultural insurance market fail to adequately cover the losses incurred by agricultural enterprises. Typically, financial risk insurance policies primarily protect banks, leaving agricultural producers without compensation for their losses. In such scenarios, the insurance payout for crop failure is directed to the client rather than the bank.

Advantages of this program for agricultural producers include:

- The ability to compensate for losses after a crop failure.
- Protection of assets.
- Settlement of debts with creditors.
- Continuation and growth of their agribusiness.

Research and analysis of Semurg Insurance's operations suggest that the company's experience with its cotton crop insurance program presents valuable opportunities for expansion.²⁸

For instance, when insuring a cotton crop spanning over 1,000 hectares, the company conducted field monitoring and evaluated the crop's value. A contract was established to insure the cotton crop for an amount of 12,600 million soums, with a policy cost (insurance premium) of 441 million soums, representing just 0.035% of the insured amount.

Furthermore, soil analysis and expert recommendations from the company's agronomists played a crucial role in mitigating risks and enhancing cotton yields. However, due to water scarcity at the irrigation source and elevated temperatures, 60% of the cotton crop was lost. After assessing the damage and accounting for the agricultural enterprise owner's share of the loss, Semurg Insurance is projected to compensate the owner with 5,670 million soums.

Through the cotton crop insurance policy, agricultural producers gain the opportunity to:

- Receive compensation in the event of crop failure.
- Protect their investment in cotton farming.
- Recover operations after unforeseen events.
- Ensure economic stability and guarantee to business partners.

In this regard, the experience of the specialized joint-stock company Uzinsurance, which has begun insuring agricultural risks, is noteworthy.

²⁸ Infographics. What Semurg Insurance offers to agricultural producers. Vakhobov Sh.A., 2023.

Agricultural Risk Insurance System for 2022 within the Framework of Uzinsurance²⁹

<p>To provide insurance protection for agricultural enterprises involved in fruit and vegetable production and technical services:</p>	<ul style="list-style-type: none"> ▪ Insurance of export contracts for agricultural products against political and commercial risks. ▪ Implementation of a system where 50% of insurance premiums are covered by the state budget for fruit and vegetable clusters, cooperatives, and farms with export contracts. 	<p>The goal is to increase insurance premium income to 3.1 billion soums in 2022 by expanding contracts for agricultural machinery and fixed assets insurance to 230 units.</p>
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CONCLUSIONS TO THE THIRD CHAPTER

In the development of crop insurance, several challenges arise beyond organizational and financial factors, particularly due to the unique characteristics of the agricultural sector. As a result, insurance companies often exhibit reluctance to engage in agricultural insurance. The primary reasons for this hesitance include:

1. Systemic nature and scale of risks: Agricultural production is inherently more hazardous than other sectors, with outcomes significantly influenced by weather and climatic conditions. Minor fluctuations in weather can simultaneously affect multiple agricultural sectors, thereby impacting insurance companies. These dynamics contribute to the underdevelopment of agricultural insurance, rendering it riskier and more vulnerable compared to other insurance classes.
2. Prevalence of risks related to natural disasters and price fluctuations: The agricultural sector is heavily impacted by natural disasters, adverse weather changes, and fluctuations in global market prices, making risk management and prediction exceedingly difficult.
3. Temporal and spatial specificity of agricultural risks: Risks in agriculture are often influenced by both time and location-specific factors.
4. Sectoral and geographical characteristics of agricultural risks: The distinct features of various agricultural sectors and geographic regions add layers of complexity to effective risk management.
5. Insufficient methodological foundations for risk assessment: There is a notable lack of scientific and methodological frameworks for assessing agricultural risks, which complicates the evaluation of risks and the determination of insurance events and their impact on the actual income of agricultural producers.
6. Lack of specialized personnel: Many insurance companies lack employees with specialized training in agricultural insurance, limiting their ability to effectively assess and manage agricultural risks.
7. Lack of reliable statistical information: There is a scarcity of reliable and accurate statistical information necessary for assessing risk levels in agricultural production.
8. Inadequate regulatory and legislative framework: Outside of insurance related to raw cotton and wheat production, there is insufficient regulatory and legislative support, along with a lack of protections for both insurance companies and farmers.
9. Underdeveloped deductible system: The system of deductibles, which allows insurers to exclude coverage for losses up to a certain amount, is not well-established in agricultural insurance practices.

²⁹ A.U.Gaffarov. Agricultural risks, risk management in insurance. //J// Economy and Education / No. 5, 2022, 304 pages.

10. Regional peculiarity, dispersion and number of potential policyholders of agricultural commodity producers.

11. Limited incentives for crop insurance: The absence of incentives, such as preferential loans from commercial banks, results in low uptake of crop insurance among farmers.

12. Lack of competition in the agricultural insurance sector: A limited number of providers in the agricultural insurance market diminishes competition, which can lead to higher prices and fewer options for farmers.

According to Presidential Decree No. 387, dated February 7, 2022, "On Additional Measures for Financial Support of Agricultural Production," agricultural enterprises cultivating fruits, grapes, potatoes, vegetables, melons, greens, medicinal plants, legumes, and oilseeds are eligible for budget loans. These loans can be secured using insurance policies that cover credit default risk or crop failure risk.

The State Support Fund for Agriculture covers 50% of agricultural producers' expenses related to crop insurance. The Ministry of Economy and Finance of Uzbekistan (formerly the Ministry of Finance) has been tasked with ensuring the allocation of necessary funds from the State Budget of Uzbekistan to the State Support Fund for Agriculture. This measure aims to subsidize 50% of crop insurance costs for agricultural producers in 2023 and subsequent years.

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APPENDIX 1. SEGMENTS OF AGRICULTURAL INSURANCE AT O'ZAGROSUG'URTA JSC

O'zagrosug'urta JSC offers the following types of insurance for orchards and vineyards:

- insurance of financial losses of agricultural producers as a result of low yields of orchards;
- Insurance against financial losses of agricultural producers due to low yields in vineyards caused by hail;
- Insurance against damage or loss of trees, vineyards, and their seedlings resulting from natural disasters;

Terms and Conditions for Orchard and Vineyard Crop Insurance:

- The insurance agreement begins when the winter season starts in the orchards and is valid for one agricultural year.

Required Documents for Concluding the Insurance Agreement:

- Application form.
- Area of the orchards.
- Projected yield for the current year.
- Average yield over the last three years.
- Contract with the buyer for the sale of the harvested crop.

An insured event is defined as a material loss suffered by the policyholder due to a reduction or total loss of the orchard or vineyard crop caused by insured perils (storm, hail, torrential rain, mudslide, frost, fire).

Prior to the conclusion of the insurance contract and during its duration, the condition of the orchards will be regularly monitored.

The insured value is determined on the basis of the average 3-year or planned yield of the orchards and the purchase prices agreed in the contract.

The sum insured, specified in the insurance contract, is set within 50% of the insured value.

The insurance premium is calculated based on the sum insured and the applicable insurance tariffs.

The insurance sum for seeds and fruit trees is calculated separately.

The deadlines for payment of the insurance premium are March 1 for seed and stone orchards, and April 1 for vineyards.

The insurance contract will not be concluded in the following cases:

- If the policyholder does not have a contract with the buyer for the sale of the crop;
- if the policyholder has not harvested in any of his orchards during the last 3 (three) years;
- if the result of the inspection is negative;
- if a depreciation of 50% or more has occurred;
- if the vines have not been buried during the winter period.
- If the possibility of harvesting is reduced or lost as a result of damage to or destruction of the insured orchards, the Insured must notify the Insurer of the event within 3 (three) days.

The notification shall be written in a free form, it shall specify the month, date, period of the accident, name of the accident, its duration, speed or intensity, name of the damaged garden, how the damage occurred (briefly), area of the garden, if there are guilty persons, shall provide a certificate about them.

The difference between the insured value of the crop and the value of the crop obtained from one hectare of garden area in the current year is the loss incurred by the gardens.

Example Calculation:

- A farm has an apple orchard spanning 10 hectares.
- Based on statistical data, the average productivity of the farm for 3 (three) years is as follows:
 - 2016: 56 quintals per hectare
 - 2018: 64 quintals per hectare
 - 2020: 60 quintals per hectare.

According to current rules, for seed fruit insurance, the three-year yield is determined from the most recent even years if the insurance contract is signed in an even year, or from the most recent odd years if in an odd year. For instance, if the insurance contract is signed in 2022, the three-year yield is based on 2016, 2018, and 2020.

- In the contract of a farm with a processing enterprise, the price per one centner of production is set at 270 thousand soums.
- The contract of sale of the farm's production provides for the production of 700 ct (70 ct/ha) from a total area of 10 hectares.
- The cost of yield from 1 ha is $60 \times 270,0 = 16,200,0$ thousand soums.
- Total insured value $10 \times 16200,0 = 162\,000,0$ thousand soums.
- Insurance liability $162,000 \times 50\% = 81,000.0$ thousand soums
- Insurance premium $81,000 \times 9\% = 7,290.0$ thousand soums.
- During the period of insurance contract validity 10 ha of garden crop was damaged as a result of frostbite.
- According to the results of the conducted approbation it is planned to get a yield of 35 c/ha.
- According to the statistical report of the farm, 300 c/ha were obtained from 30 c/ha.
- In this case the information on approval is used as a basis for determining the insurance indemnity.
- The cost of grown crop per 1 ha is $35 \times 270,0 = 9\,450,0$ thousand soums.
- Insurance indemnity is $10 \times (16200,0 - 9450,0) \times 50\% = 33\,750,0$ thousand soums.

Segments of agricultural insurance at JV JSC "Semurg Insurance"

Semurg Insurance provides policies that cover a range of risks, including:

- Adverse natural events, including frost.
- Water scarcity and low water levels in irrigation sources.
- Diseases and pests.
- Fire and lightning strikes.

- Criminal acts by third parties and other risks.

From the outset, the company engages closely with clients by involving its experts and agronomists. This includes conducting soil studies, laboratory tests, and offering recommendations on agro-technological practices. In the event of a claim, Semurg Insurance compensates for losses, assisting clients in settling existing loans and preparing for the upcoming planting season.

Insurance Application Process

Before finalizing the insurance contract, clients must complete a questionnaire-application form that captures essential data regarding their sowing history, sowing area, and anticipated crop. The required information includes:

- The specific risks for which insurance coverage is sought.
- Loss history, detailing the amount and extent of previous crop losses.
- Experience in cultivating the insured crop.
- Crop cultivation history.
- Information on agricultural technologies used.
- Details about the predecessor crop.
- Irrigation system information.
- A detailed yield history presented in a separate table.
- The geographical territory for insurance coverage.

Once the questionnaire is submitted, experts visit the planting site to collect soil samples for analysis. Based on the results, a decision is made regarding the acceptance of the insurance application.

Upon acceptance of the application, clients receive ongoing agro-technological support. Monitoring continues from the start of the contract until the harvest is completed.

The insurance premium is calculated:

Yield per hectare and market price are based on 5 years of data; if 5-year data is unavailable, then 3 years. For new land, regional data for 5 years is used.

Example Calculation:

Consider a farm with an apple orchard spanning 10 hectares. The average productivity over the past five years is as follows:

- 2017: 56 quintals per hectare
- 2018: 64 quintals per hectare
- 2019: 62 quintals per hectare
- 2020: 60 quintals per hectare
- 2021: 66 quintals per hectare

The average yield for the 5 years is 61.6 c/ha.

Soil analysis was also carried out, which revealed a locality yield level of 60 c/ha.

According to the current rules for seed fruit insurance, if the soil analysis shows a yield level less than the average for the last 5 years, the yield level is taken as determined by the soil analysis.

- The price per centner of harvest at the exchange is determined at 270 thousand soums.
- The cost of yield from 1 ha is $60 \times 270,0 = 16\,200,0$ thousand soums.
- Total insured value per 10 ha is $10 \times 16\,200,0 = 162\,000,0$ thousand soums.
- Insurance liability 162 000 thousand soums
- Insurance premium $162\,000,0 \times 15\% = 24\,300,0$ thousand soums.

During the validity of the insurance contract, if 10 hectares of the orchard are damaged due to frost, the expected yield is projected at 35 quintals per hectare. However, the statistical report indicates an actual yield of 30 quintals per hectare.

To determine the amount of the insured event:

- $30 \text{ c/ha} \times 10 \text{ ha} = 300 \text{ cts.}$
- $300 \text{ c} \times 270\,000 = 81\,000\,000\,000$ soums
- sum insured = 162 000 000 soums
- Loss $\rightarrow 162,000,000 - 81,000,000 = 81,000,000$ sums
- Deductible - 15%
- Insurance indemnity amount $\rightarrow 81\,000\,000 \times 85\% = 68\,850\,000\,000$ soums.

The agricultural insurance market offers the following types of coverage for vegetable crops:³⁰:

- Insurance of financial losses of farmers-producers of agricultural products due to crop failure of vegetable crops in the open ground;
- insurance of financial losses of farmers-producers of agricultural products as a result of crop failure due to frost damage of open ground vegetable crops;
- insurance of financial losses of agricultural producers as a result of crop failure.

Terms of the Insurance Agreement for Vegetable Crops:

Vegetable crops planted in the open ground: cabbage, beetroot, carrots, onions, garlic, tomatoes, cucumbers, pepper, sweet pepper, eggplants, radish, turnip, radish, courgettes, patisson and other vegetables.

Gourds: melon, watermelon, pumpkin and other gourds.

The Insurance Contract is concluded for 1 (one) agricultural year for crops sown not later than the calendar dates (*approved by the Ministry of Agriculture and the Ministry of Water Resources*) and within **20 (twenty)** days after germination, based on the favourable opinion of the Insurer after inspecting the area and condition of the sown areas.

Insured risks - wind, storm, hail, heavy rain (*mudflow*), avalanche, fire, explosion, lightning, drought and hormsil, sudden drop in air temperature, frost, heavy snowfall, low water (*deficit*), high water level (*flood*).

The insured event shall be the financial loss of the Policyholder as a result of shortage and losses of the harvest of vegetables and melon crops due to insured risks.

The insured value shall be the value of the crop determined on the basis of the average yield for the last **3 (three) years** and the selling price of 1 centner of production or on the basis of the contractual price of 1 centner of production.

The sum insured is an amount not exceeding **50 (fifty) percent** of the insured value.

³⁰ [https://www.agro.uz/ru/11-0453572/\)WWW](https://www.agro.uz/ru/11-0453572/)WWW) (<https://www.agro.uz/>) • (<https://t.me/uzagroministry>)

Insurance premium shall be determined based on the insurance tariff (*rate*) approved by the Insurer in respect of the Sum Insured.

If the possibility of harvesting is reduced or lost as a result of damage or loss of the insured crop, the Policyholder shall notify the Insurer of the accident within **3 (three) days**. The notification shall be written in free form and shall include month, day, period of the occurrence, name of the occurrence, its duration, speed or intensity, name of the damaged orchard, how it was damaged (*briefly*), crop area, if there are guilty persons - information about them.

The difference between the insured value of the crop and the value of the crop obtained from one hectare of the sown area in the current year is the loss incurred by the insured.

The amount of the financial loss is calculated separately taking into account all the products received.

In case of the main vegetables grown in the open ground (*cabbage, cucumber, tomato, beetroot, carrot, potato, onion and garlic*), the insurance indemnity is determined for each of them separately, and for other vegetables – by groups.

4 | RESULTS FROM THE SURVEY AND EVALUATION OF INSURANCE FOR AGRICULTURAL PRODUCERS IN THE PILOT DISTRICTS: IDENTIFICATION OF SYSTEM DEFICIENCIES

As part of the study aimed at identifying regional characteristics of insurance and factors influencing motivation in agricultural insurance, a questionnaire was developed. Surveys were conducted among farming enterprises in three pilot districts of the Republic of Karakalpakstan: Kanlikul, Kegeyli and Karauzyak.

A random sampling method was used to gather the opinions of 34 farms, with 10 respondents (29.4% of all respondents) from Kanlikul District, 11 (32.4%) from Kegeyli District, and 13 (38.2%) from Karauzyak District. The farms' production focus is diversified, with wheat and raw cotton occupying the majority of cultivated areas, along with vegetables, potatoes, and fodder crops.

Overall, 43-50% of the irrigated land in the surveyed farms is dedicated to strategic crops such as raw cotton and wheat. All the surveyed farms received preferential loans (4% per annum) for the production of raw cotton and wheat, and naturally, they signed insurance contracts.

During discussions with representatives of JSC "O'zagrosug'urta" in the Republic of Karakalpakstan, it was revealed that the company did not participate in the insurance process in the republic during 2020-2021. During these years, the insurance of farming enterprises was handled by the insurance company "MY-INSURANCE," as mentioned earlier.

Interestingly, when asked, "Did you familiarize yourself with the contractual obligations between the farm and the insurance company?" 83% of respondents answered "Yes," while only 17% answered "No." In other words, every fifth respondent signed insurance contracts without being familiar with their content and terms.

Another notable aspect is that when asked, "What is the percentage and amount of the initial farmer's payment under the insurance contract?" all respondents indicated the percentage, but only 20.6% could specify the payment amount (with 27.3% in Kegeyli District, 31% in Karauzyak District, and none in Kanlikul District).

In the future, during the organization of seminar-trainings, it is essential to emphasize the importance of understanding this element of the insurance contract.

The study shows that issues related to the financial viability of farms in any form of insurance are of primary importance, and the interest rate in insurance contracts acts as a "barometer" for the overall insurance system.

When asked, "Is the initial payment percentage indicated in the insurance contract too high?" 47% of respondents answered that "the percentage is satisfactory" (30% in Kanlikul, 45.4% in Kegeyli, 61% in Karauzyak), while only 35.3% of the farms participating in the survey believe that "the percentage should be reduced" (40% in Kanlikul, 45.5% in Kegeyli, 23% in Karauzyak).

When asked, "When did you receive the insurance policy?" only 14.7% of respondents indicated that they received it in January, while the remaining 85.3% could not specify the exact date.

Comparative analysis shows that farms in Kanlikul District are more attentive in this matter compared to those in Kegeyli and Karauzyak Districts, where more than 95% of respondents could not specify the exact date they received their insurance policy.

Agricultural insurance is a complex and intricate system within Uzbekistan's insurance market. The inherent connection between agricultural production and natural and biological processes makes it a risky activity, while the diversity and variety of crops require a specific approach to crop insurance.

When asked, "Are you satisfied with the existing agricultural insurance system?" 79.4% of respondents stated they were not satisfied, with 80% in Kanlikul, 63.6% in Kegeyli, and over 92.0% in Karauzyak holding this view.

When asked, "If 'No,' what aspects of the insurance are you dissatisfied with?" the following responses were obtained (see Table 5).

TABLE 5

№	Answers	By project area	By project area including		
			Kanlikul	Kegeyli	Karauzyak
1.	Crop insurance mechanism	58,8	70,0	45,5	61,5
2.	Low insurance premium	47,1	40,0	54,5	46,1
3.	Low level of subsidisation in the insurance system	64,7	60,0	63,6	69,2
4.	A lot of hassle and paperwork to get insurance premiums	56,0	70,0	45,4	53,8

On the other hand, not a single respondent indicated any positive aspects of crop insurance. This indicates the importance of taking necessary measures to improve the strategy and tactics of crop insurance system promotion in general.

In this context, farmers' opinions on real practical actions in case of an insured event were studied. Farmers were asked the question: "Has an insured event, in the presence of a contract with the insurance company on insurance, been observed in your practical activity?"

TABLE 6

№	Answers	By project area	including districts:		
			Kanlikul	Kegeyli	Karauzyak
1.	"Has an insured event, with a contract with an insurance company for insurance, been observed in your practice?"				
	«Yes»	53%	40,0%	36,4%	77,0%
2.	If "Yes", whether the appropriate funds have been paid in full and on time by the insurance company				
	«No»	70,6%	70,0%	45,4%	92,3%

As the results of the questionnaire survey show, in general, 53% of the farms participating in the study had insurance claims in the project areas. However, according to 70.6% of respondents, the relevant financial means were not paid in time and in full by the insurance company.

The reasons for this situation are related to organizational and managerial issues, as well as financial and regulatory-legal aspects, most of which should be addressed at the national level.

Based on the analysis of the questionnaire data, the results of interactive meetings, and observations, the problems and barriers preventing farmers from obtaining financial resources in case of insurance claims were ranked.

TABLE 7

№	Problems and barriers	Ranking by importance
1.	Paperwork, bureaucracy, necessity to collect a lot of supporting documents from different organisations to substantiate an insured event.	2
2.	Lack of response from insurance companies to farmers' appeals.	1
3.	Insufficiency of documents confirming the insured event.	3
4.	Lack of sufficient knowledge and understanding of the properties and essence of agricultural insurance.	4
5.	Services are not provided despite the fact that farmers have paid insurance premiums.	8
6.	Difficulty in calculating the insurance premium and lost income.	7
7.	Lack of necessary funds.	6
8.	Constant assertion from the insurance company to “carefully review the terms of the insurance contract”.	5

According to the farmers' opinions obtained from the survey, the “Lack of response from insurance companies to farmers' requests” is highly relevant and requires practical measures when implementing any type of insurance, particularly crop insurance.

The practical effectiveness of insurance activities largely depends on the objectives, goals, essence, and focus of the insurance companies, as well as the insurance service programs they offer.

Interestingly, most farmers mentioned during interviews that due to the lack of competition in the crop insurance sector, they have no choice of insurance company. The decision on which insurance company the farmer should contract with is mainly made by the bank (ATB “Agrobank”), based on the conditions offered by the insurance company. As a result, farmers have no opportunity to choose an insurance company or impose their own terms.

This system undermines farmers' trust in the crop insurance system. This is confirmed by the fact that most farmers, when asked, “What justified your choice of this insurance company?” could not provide a clear explanation and simply responded, “on the bank's recommendation.”

When asked, “Which obligations of the insurance company you chose satisfy you?” the majority of respondents, with skepticism, left the question unanswered.

It was noted that farmers need financial resources in the form of working capital or state financial support in the form of concessional loans or subsidies to enter into crop insurance contracts.

When asked, “Do you always have the financial resources for insurance?” about one-third of respondents believed that “the financial resources are sufficient for this purpose.” In Kanlikul district, 30% of respondents held this opinion, while in Kegeyli district, two-thirds of respondents agreed, and in Karauzyak district, all respondents stated that they lacked financial resources.

In reality, the insurance premium is deducted from the amount of the concessional loan provided. Farmers are primarily interested in material resources (mineral fertilizers, fuel, etc.) purchased with these loans.

According to about one-third of farmers, the main motivating factors for signing insurance contracts are:

- The high risk of not achieving high yields.
- The insurance contract and premium can cover part of the costs.
- Maintaining relative competitiveness in the agricultural market.
- The ability to start or continue the production process, among others.

It should be noted that during conversations with farmers, it was found that under certain conditions, they are willing to insure their agricultural crop yields. Specifically, 85.3% of respondents expressed that, if financially possible, they would like to enter into crop insurance contracts. However, 40% of the farmers who expressed the desire to insure their crops cannot afford to do so due to a lack of financial resources.

The survey results indicate that about 90% of respondents do not believe they will receive the financial resources owed to them in the event of an insured agricultural crop loss (see Table 8).

TABLE 8

№	Answers	By project area	including		
			Kanlikul	Kegeyli	Karauzyak
1.	"Do you believe that you will receive appropriate financial resources from the insurance company if an insured event occurs on your farm?"				
	«No»	90,0	90,0	81,8	84,6
2.	"Going forward, for the development of the farming operation, do you have a need for insurance protection?"				
	«Yes»	67,6	90,0	82,0	38,5

As shown in Table 8, more than two-thirds of respondents from the project districts are optimistic about the prospects for the development of their farms and crop insurance in the future.

Therefore, it is necessary to implement a series of measures aimed at increasing the awareness of farms. It is proposed to improve both the regulatory framework through the adoption of a new law “On Insurance Relations in Agriculture” and the mechanism for providing insurance premiums, contributions, and insurance support.

Research shows that not all agricultural producers are familiar with the legal acts and regulations governing insurance procedures in the agricultural sector.

The level of awareness among agricultural producers about the legal documents on “insurance activities” and the criteria for crop insurance is presented in Table 9 below.

TABLE 9

№	Answers	By project area	including		
			Kanlikul	Kegeyli	Karauzyak
	Are you familiar with the regulations on "insurance activities" and the criteria for crop insurance?				
1.	Yes, always	12,0	«0»	20,0	15,4
2.	As needed	44,1	80,0	36,4	23,1
3.	In some cases	40,9	20,0	43,6	23,0

It is noteworthy that only 12% of farms in the project districts monitor changes in the regulatory acts of insurance systems in general, and crop insurance in particular.

This is a very concerning figure, and targeted educational and methodological programs should be used to raise the level of awareness among agricultural sector participants.

As shown in Table 6, for a significant portion of farms in the pilot districts, the sources of information on insurance services and crop insurance services are the district branches of the Council of Farmers, Dekhkan Farms, and Owners of Household Lands (58.8%) and neighbors, friends, and acquaintances (50.0%).

TABLE 10. SOURCE OF INFORMATION ON INSURANCE AND AGRICULTURAL INSURANCE SERVICES

№	Answers	By project area	including		
			Kanlikul	Kegeyli	Karauzyak
1.	From the insurance company's specialists	38,2	30,0	36,4	46,1
2.	From the district agriculture department	23,5	30,0	18,1	15,4
3.	From the district unit of the Council of Farmers and Dekhkan Farms and owners of homestead plots	58,8	70,0	72,7	38,5
4.	From neighbours, friends and acquaintances of entrepreneurs	50,0	90,0	54,5	15,4

Thus, more than 70.5% of respondents in the pilot districts expressed a desire to participate in seminar-trainings on crop insurance, with a focus on topics such as:

- Mechanisms for calculating income loss;
- Defining insurance criteria;
- Standardization and universalization of documents confirming an insurance event, among others.
- Based on the analysis of survey results, the main directions for improving crop insurance have been identified:
- Improving the agricultural crop market;
- Creating conditions for competition among insurance companies;
- Free choice of insurance company;

- Timely and full payment of insurance premiums;
- Removing barriers and artificial obstacles in the process of registering insurance claims;
- Subsidizing insurance;
- Differentiated subsidization based on the characteristics of territories and crops;
- Ending the interference of banking structures in the process of crop insurance;
- Diversification of insurance service programs;
- Activating the activities of insurance companies in promoting and developing insurance service programs;
- Government support for insurance companies and policyholders;
- Introduction of public-private partnerships in the crop insurance system, among others;
- Developing an educational program to improve insurance literacy and including it in the curriculum for training personnel in higher and specialized secondary educational institutions;
- Assessing the need for actuaries;
- Developing an action plan for actuaries;
- Enhancing the capacity of individuals engaged in actuarial work at the regional level.

5 | FINDINGS FROM THE ANALYSIS AND RECOMMENDATIONS FOR ENHANCING CROP INSURANCE IN KARAKALPAKSTAN

Research and analysis indicate that due to climate change, factors affecting crop yields in agricultural enterprises are increasing, leading to reduced crop yields or decreased chances of achieving expected yields.

Climate change also increases the impact of various pests and insects on crop yields. In these circumstances, the insurance of existing property and crops grown by agricultural producers becomes particularly important, providing a guarantee of compensation for financial losses incurred due to unforeseen natural disasters and events.

Based on the final results of the research and analysis, considering the natural and climatic conditions of the Republic of Karakalpakstan, as well as systemic problems related to water resources, severe salinization of agricultural lands, and unforeseen risks in crop cultivation in the region, it is advisable to fundamentally address specific issues in organizing insurance in the agricultural sector, drawing on advanced international practices and experience.

To improve the infrastructure and mechanisms for insurance protection of agricultural sector entities, the following tasks need to be addressed:

1. Develop and adopt a special law that would regulate relations arising in the field of agricultural risk insurance, including defining the types and objectives of insurance in agriculture, the objects and subjects of insurance, issues related to insurance rates, the payment of insurance premiums, compensation payments, the rights, duties, and responsibilities of those involved in agricultural risk insurance, reinsurance issues, taxation, forms and instruments of state participation in the agricultural insurance market, and so on.
2. Increase the economic and legal literacy of insurance company specialists and, necessarily, of the insured parties in the field of crop insurance.
3. Thoroughly and comprehensively study and analyze the existing risks/adverse factors in the region related to crop cultivation.
4. Systematically monitor and take concrete measures to improve the organizational and methodological aspects of insurance in the agricultural sector of the Republic of Karakalpakstan, taking into account climate change conditions and ongoing agricultural technological measures.
5. Include/indicate full information on plant diseases and methods of combating them in insurance contracts.
6. In insurance agreements related to crop yields, clearly define the rights and obligations of the parties.
7. It is known that JSC "O'zagrosug'urta" collaborates with "O'ZGIDROMET," the agency "O'zbekkosmos," and the Ministry of Agriculture of the Republic of Uzbekistan, establishing information exchange about the state of key agricultural sectors, including strategic ones. In the future, it is advisable to organize ongoing courses for agro-insurance specialists (GIS digital technologies, agronomists, veterinarians, etc.) for organizing monitoring work to assess crop yields, risk assessment, and damage to crops.
8. According to the resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated June 17, 2019, No. 505 "On Improving the System of Insurance of Future Cotton and Grain Yields," it is provided to allocate preferential loans at an annual interest rate of 4% to JSC

"O'zagrosug'urta." Insurance compensation, as well as up to 80% of the total insurance premium, will be covered by JSC "O'zagrosug'urta," with the remaining part of the insurance compensation being transferred by the Ministry of Finance of the Republic of Uzbekistan from budget subsidies. However, this mechanism does not currently allow for full insurance coverage of agricultural producers. According to experts, it is necessary to increase the share of budget subsidies to 50 percent in the crop and livestock insurance process. If the participation of budget funds is increased to 50 percent, insurance for agricultural sectors will become attractive to all insurance companies.

9. For horticultural clusters (cooperatives) and farms, it is advisable to provide reimbursement of 50 percent of the insurance premium paid when using crop risk insurance services, but not more than 1 percent of the insured sum. At the same time, the insured sum should not be less than 50 percent of the crop value insured against risk.

10. Amend taxation rules to create opportunities for insurers to return insurance premiums without paying income tax on this amount.

11. Introduce mechanisms for direct government subsidies to the agricultural insurance sector in the form of insurance premium subsidies for a particularly necessary list of insurance products, such as vegetables, grains, oilseeds, legumes, etc., in the form of providing guarantees to all insurance companies for compensating part of the losses incurred in the event of catastrophic natural events.

12. Implement government investment/support in agricultural insurance infrastructure, for example:

- Financing actuarial calculations;
- Supporting the development of new insurance products;
- Financing the training of agricultural producers and insurance company specialists;
- Developing a national weather monitoring system;
- Providing insurance companies with access to statistical data;
- Developing standard procedures for crop inspection and loss assessment, etc. It is also necessary to consider that the development of agricultural insurance is directly related to the financial condition of agricultural producers.
- Abandon the practice of mandatory land quotas for cotton and wheat in farms;
- Gradually phase out mandatory state orders for the aforementioned crops;
- Remove restrictions on inter-farm land redistribution and develop the market for agricultural land use rights;
- Improve the "O'zagrosug'urta" electronic portal and create an Electronic Agricultural Information System (EAIS). EAIS should be accessible, serve as a basis for providing subsidies, and be a program that covers all areas of agriculture while enhancing its integration with internal and external systems, establishing logical links with all agricultural processes, completing processes, analyzing, applying, and providing accurate information;
- Establish an Agricultural Insurance Fund under the Ministry of Agriculture of the Republic of Uzbekistan to ensure insurance coverage in the agricultural sector to prevent losses and protect the income of clusters, farmers, and dekhkan farms due to natural disasters or other causes;

- Provide all types of subsidies to clusters, farmers, and dekhkan farms through the EAIS electronic program to ensure transparency and accuracy (this mechanism has been implemented in Azerbaijan);
- Create an agricultural insurance system based on a public-private partnership, where the state acts as a guarantor to clusters, farmers, dekhkan farms, and investors;
- Government support for insurance systems through direct and indirect subsidies, such as subsidies for the sowing of main crops; subsidies for strategic crops included in the food security balance – grain, rice, corn, oats, vegetables, fruits, melons; oilseeds – sunflower, soy, safflower; legumes – mung bean, beans, as well as cotton;
- Subsidies for the production of certified first and second-generation seeds and seedlings;
- Introduce a differentiated system/mechanism for insuring all types of agricultural crops, based on zones and territories (e.g., the Republic of Karakalpakstan – northwest; southeast);
- Depending on the vulnerability of industries and territories to climate change (e.g., highly vulnerable; moderately vulnerable).
- Implement a subsidy payment system on special farmer/dekhkan cards. Two accounts are linked to the farmer/dekhkan cards: a cash account where only 25% of the total subsidy can be withdrawn; and a non-cash account where 75% of the subsidy is paid into a special account. This account can only be used for the purchase of fertilizers, seeds, pesticides, and seedlings via a special e-commerce platform; • The state assumes insurance risks, while insurance companies act as operators of the system and provide insurance services on behalf of the Fund. • Conduct all insurance activities on a unified electronic platform;
- Voluntarily unite all insurers and create a non-state structure with regional branches – the National Council of Agro-insurers of the Republic of Uzbekistan.

The implementation of the above proposals will provide new impetus to the development of the agricultural insurance sector, contributing to the financial stability of agricultural producers and the investment attractiveness of the entire industry.

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