

# Research on the Path of Agricultural Insurance to Help Rural Economic Development

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**Abstract:** China is a big agricultural country, the rural development problem has always been paid attention to. Agricultural insurance can help farmers scattered possible risks in agricultural production, the role of rural economic development is self-evident. But the development of agricultural insurance is facing many difficulties at present, which need to combine era development constantly improve, to make it in a more flexible security form and more comprehensive coverage to play the maximum benefit of the insurance function, powering rural revitalization. This paper clarifies the importance of agricultural insurance to agriculture, analyzes the problems existing in the current development of agricultural insurance, and explores the path of agricultural insurance development from the aspects of improving the service level, improving the operation mechanism, and standardizing the market, so as to provide support for the development of rural economy.

**Keywords:** Rural Revitalization; Agricultural Insurance; Rural Economy; Dilemma; Advice

## 1. Introduction

This paper expounds the importance of agricultural insurance to agriculture, analyzes the existing problems in the development of agricultural insurance, and explores the development path of agricultural insurance on this basis.

As a big agricultural country, China has always attached great importance to the development of agriculture. The process of agricultural production is vulnerable to natural disasters, and has great risk and instability. Therefore, risk control is particularly critical for rural economic development. As a tool to disperse risks, agricultural insurance is of great significance for solving the problems of rural

development, helping the development of rural agricultural economy and realizing rural revitalization. Therefore, it has attracted more and more attention from the government and market players.

At the normative level, the government issued the Regulations on Agricultural Insurance in 2016, and the Ministry of Finance of China, the Ministry of Agriculture and Rural Affairs, the China Banking Regulatory Commission, and the National Forestry and Grassland Administration issued the Guiding Opinions on Accelerating the High-quality Development of Agricultural Insurance in 2019. In 2022, the China Banking and Insurance Regulatory Commission also issued a series of normative documents such as the Measures for the Management of Agricultural Insurance Underwriting and Claims to plan, standardize and support the development of agricultural insurance so as to meet the multi-level and diversified risk protection needs of agricultural business entities [1].

However, it should be pointed out that China's agricultural insurance is in the development stage, and there are still many difficulties and blockage points to be solved in the process of helping the development of rural economy. This paper intends to sort out the significance of agricultural insurance to rural economic development, clarify the difficulties faced by agricultural insurance in the process of helping rural economic development, and put forward corresponding countermeasures to plan the feasible path of agricultural insurance to help rural economic development.

## 2. The Significance of Agricultural Insurance to Rural Economic Development

The implementation of the rural revitalization strategy has brought unprecedented opportunities for the development of agricultural and rural economy in China. But at the same time, agriculture is a fragile industry, facing all kinds of severe risks and challenges.

However, as a mechanism of risk dispersion, commercial agricultural insurance can be dispersed to the public through the law of risk sharing of insurance and make it invisible, which is of great significance for the development of rural economy. It is embodied in the following aspects:

First, agricultural insurance can effectively spread the risk of natural disasters and reduce agricultural economic losses. At present, extreme weather and climate are increasing in China, and severe drought and flood disasters occur frequently. In addition, animal diseases, diseases and insect pests are characterized by increased types, fast transmission speed and wide transmission range. The pressure on the risk of natural disasters facing agricultural production is also increasing. Agricultural insurance can play the function of "shock absorber" to assist farmers to resist natural disasters, and can help farmers to resume production, rebuild industries and guarantee life after encountering risks through insurance claims. This is of great significance to the sustainable and stable development of rural economy [2].

Second, agricultural insurance can effectively spread the market risks to ensure the balanced development of agricultural economy. With the deepening of market-oriented reform, the risks of the market itself are also increasing. Specifically, it includes the risk of price fluctuation, cost fluctuation risk, credit risk, the risk of imbalance between supply and demand of agricultural products, the risk of unsalable agricultural products and the risk of international grain trade caused by the influence of international environment. The causes and response of these risks are relatively complex, and will have adverse effects on agricultural production and operation and rural development. Agricultural insurance can play the function of "stabilizer", reduce the impact of market fluctuations on the rural business entities, so as to play the function of stabilizing the rural economy.

Third, agricultural insurance can effectively disperse policy-based risks and prevent the development obstacles caused by improper policies and implementation errors. At present, agriculture and rural areas are in a critical period of structural adjustment, transformation and upgrading, and new policies are being introduced [3]. However, policies often have

two sides. While protecting the interests of a part of the subjects, it will often affect the interests of the other subjects. In addition, in the process of introducing a large number of new policies, it is inevitable that the government will appear improper policies and implementation errors, which are easy to have a negative impact on agricultural production and agricultural economy. Agricultural insurance can play the function of "pressure reducer", effectively disperse the adverse effects caused by the policy, reduce the pressure of agricultural business subjects, and ensure the steady and long-term development of rural economy.

### **3. The Dilemma Facing Agricultural Insurance**

Commercial agricultural insurance can help the development of rural economy, but in the process of helping the development of rural economy, it still faces various difficulties, such as the insufficient service level, the operation mechanism to be optimized, and the insufficient standardization of the market.

#### **3.1 Insufficient Service Level of Agricultural Insurance**

First of all, the current coverage of agricultural insurance in our country is not comprehensive enough. At present, China's agricultural insurance is mainly policy-based agricultural insurance, but policy-based agricultural insurance is limited by its nature and characteristics, and the guarantee scope is very limited, most of them still stay in the scope of traditional insurance types, and many characteristic insurance types still lack agricultural subsidies [4]. However, the development of commercial agricultural insurance is insufficient. At present, the insurance varieties of agricultural insurance are not complete, which cannot meet the needs of personalized agricultural insurance. And many underwriting agency service level is limited, not very good to adapt to the high quality development of modern agricultural insurance, agricultural insurance and other commercial insurance, in the process of agricultural insurance, ignoring the policy attribute of agricultural insurance, reduce the ability of agricultural insurance service rural development and effect.

Next, the concerned unit of our country

agricultural insurance and underwriting organization to farmer education propaganda is not deep enough. Due to the lack of publicity and science popularization of agricultural insurance at present, many farmers lack the basic concepts of agricultural insurance, which is easy to confuse policy-based agricultural insurance with commercial agricultural insurance, thinking that they do not need to consider additional commercial agricultural insurance after purchasing policy-based agricultural insurance. This will also affect farmers' willingness to buy agricultural insurance to a certain extent, so as to reduce the protection of agricultural insurance for farmers [5].

Thirdly, China's agricultural insurance field is still short of professional talents. The field of agricultural insurance needs not only professional insurance knowledge, but also needs to understand a lot of agricultural knowledge. However, most agricultural insurance companies in China lack compound talents, especially those who understand both science and technology and the agricultural insurance industry, which has also become a major obstacle to the development of commercial agricultural insurance. The synergy between policy insurance and commercial insurance is still insufficient.

Finally, the agricultural insurance market lacks real performance competition. At present, China lacks the division of labor and cooperation between policy-based agricultural insurance and commercial agricultural insurance. Policy-based agricultural insurance's crowding out effect on commercial and commercial agricultural insurance is relatively large, and the agricultural insurance market is rigid and single [6]. Agricultural insurance products and services are relatively homogeneous, and the effective innovation is insufficient, and the differentiated needs of different types of agricultural business entities for agricultural insurance guarantee level have not been effectively met. For example, on the basis of purchasing policy-based agricultural insurance, some large grain growers may still have a demand for commercial agricultural insurance with a higher security level, so as to ensure that they can get more compensation in case of serious disasters. But in reality, this need is not adequately met.

### **3.2 Insufficient Service Level of Agricultural Insurance**

In addition to the problem of insufficient service level, the operation mechanism of agricultural insurance in China also needs to be optimized.

First of all, in the practice of agricultural insurance, the application depth and strength of science and technology are insufficient. For example, the existing agricultural remote sensing, UAV and sensor technology, on the one hand, the scientific and technological equipment applied in the agricultural insurance field has a high cost, but the use scenarios are limited, it is difficult to achieve large-scale application; on the other hand, the scientific and technological means in the agricultural field in China are not mature enough, the technology still needs to be further improved, such as the accuracy and timeliness of data acquisition, the accuracy of species identification need to be improved.

Secondly, there is a lack of a perfect and transparent agricultural insurance information sharing platform. At present, there is still a gap and room for improvement between the degree of information sharing and application of agricultural insurance industry and the requirements of high-quality development of agricultural insurance. Agricultural insurance is a complex management system, which requires scientific and technological means to integrate agricultural data and information of finance, agriculture and rural areas, forestry, grassland, insurance supervision and other departments to form a complete data sharing platform to better serve the high-quality development of agricultural insurance. At present, China has not yet established an authoritative and perfect information data platform and information database, which cannot obtain and share basic data, leading to moral hazard problems such as repeated insurance. The poor circulation of basic data also makes the underwriting institutions invest huge human, material and financial resources in the surveying and mapping of the planting insurance underwriting target, and also makes the underwriting companies face the risk of illegal operation.

Finally, the current risk dispersion mechanism of agricultural insurance in China is not perfect. At present, China has not fully established the market mechanism of agricultural catastrophe

insurance, and only the catastrophe risk reserve has been established at the level of insurance companies according to the requirements of the Ministry of Finance, lacking the agricultural insurance disaster risk fund and other emergency financing mechanisms. China's agricultural insurance ability to resist the risk of agricultural catastrophe is very limited. In addition, China's catastrophe risk securitization is only in the stage of scholars, which is far from developed countries. Without a perfect disaster risk dispersion mechanism, the risk of agricultural disaster insurance is too concentrated in the underwriting institutions, which will affect the long-term development of agricultural insurance in China.

### **3.3 Insufficient Service Level of Agricultural Insurance**

In addition to the various problems caused by the imperfect operation mechanism, the irregular market is also a long-term problem of commercial agricultural insurance in China.

First of all, there are problems in China's agricultural insurance that the insurance amount setting is not scientific and the rate determination is not accurate. The unscientific setting of insurance amount is mainly reflected in the widespread use of the same insurance amount standard in different regions, without reflecting regional differences; the problem of inaccurate insurance rate is mainly manifested in the mismatch between risk and liability, which affects the stable operation of underwriting institutions and causes adverse selection. The generation of these problems on the one hand is the agricultural insurance operation mechanism in the government and market boundary is not clear, should be carried out by the government of agricultural production risk assessment and rate partition the basic work serious lag, should be borne by the insurance agency "product development, actuarial pricing, underwriting claims" management autonomy is often by local government intervention. On the other hand, the reason is that China's agricultural insurance lacks a special management system for product development, and there is no institutional standard and guarantee for the approval authority and process of agricultural insurance product development.

Secondly, there is also a phenomenon of unreasonable compensation payment in

agricultural insurance. After the occurrence of the disaster, the insurance institution cannot complete the precise loss in a short time, so the subject that is not easy to determine the precise loss can only choose to pay in advance first, then collect the claim data to settle the final claim, or simply take the agreement claim. At this time, it is easy to appear that "the compensation should not be in place, and the compensation should not be lost", which makes the insured farmers have poor claim settlement experience, lack of sense of gain, and reduces the farmers' willingness to buy agricultural insurance [7].

Thirdly, there is adverse selection and moral hazard in agricultural insurance in China. Influenced by the attributes of agricultural operators, smallholders' consciousness and cultural quality, agricultural insurance faces a higher adverse selection degree than other types of insurance. According to statistics, the loss caused by moral hazard to insurance companies account for 20% of crop insurance compensation. The reverse selectivity caused by the difference of region and personality makes the loss ratio of agricultural insurance operators remain high. In addition, agricultural insurance need to rely on rural marketing or other intermediary channels, individual business units through fictional large agriculture, professional cooperatives or inflated underwriting quantity to high commercial agricultural insurance premium income to complete the annual premium task plan, again through the way of false claims or expenses offset inflated premium of nonstandard management behavior, cause agricultural insurance interest leakage and management data distortion, increase the risk of insurance rate calculation and determine deviation from the real situation.

The above problems have hindered the development of agricultural insurance in China and affected the economic development of rural areas.

## **4. Agricultural Insurance to Help the Development of Agricultural Economic Optimization Suggestions**

### **4.1 Improve the Service Level of Agricultural Insurance in China**

First of all, the relevant units and underwriting institutions of agricultural insurance should

strengthen the concept of agricultural development, think about the operation and development of agricultural insurance with new models and new thinking modes, build a diversified agricultural insurance product system, and expand the coverage of agricultural insurance. We should pay close attention to the changes in rural areas and the market, adapt measures to local conditions, update agricultural insurance products in real time, and develop some new types of insurance that can meet local characteristics, so that agricultural insurance can better meet the needs of the majority of farmers.

Secondly, in view of the limited understanding of farmers on agricultural insurance, on the one hand, the relevant units and underwriting institutions should increase the publicity efforts. Through new media channels, spread agricultural insurance knowledge to farmers in easy and vivid way; on the other hand, to go deep into rural areas, enhance the service awareness and level of agricultural insurance staff, so that they can answer questions with specialized knowledge, and provide quality insurance service [8].

Thirdly, in the face of the talent bottleneck in the development of agricultural insurance, we should vigorously cultivate compound talents, establish a talent team familiar with agricultural knowledge and proficient in agricultural insurance, and solve the problem of lack of professional talents in the field of agricultural insurance.

Finally, village governments, cooperatives and other agriculture-related units should cooperate with underwriters to actively release various policies and trends of agricultural insurance, increase farmers' trust in agricultural insurance, and enhance their purchase intention. The state should promote the reasonable positioning and division of labor and cooperation of policy-based insurance and commercial insurance in the field of agricultural insurance, promote the diversified development of agricultural insurance institutions, and promote the orderly and healthy competition in the agricultural insurance market.

#### **4.2 Improve the Operation Mechanism of China's Agricultural Insurance**

First of all, efforts should be made to improve the support of agricultural insurance technology, encourage and support commercial

insurance companies to use UAV, satellite remote sensing, artificial intelligence and other scientific and technological means to carry out accurate underwriting and accurate claims settlement, and prevent false underwriting and agreement claims settlement. We should use the opportunity of the great development of new technology to stimulate the technological innovation and popularization in the field of agricultural insurance. Encourage agricultural insurance institutions to actively adopt big data, Internet of things and other technical means to carry out innovation, build "online + offline" integration of rural insurance network service system, so as to improve the rate determination accuracy, reduce in insurance, renewal, survey fee, claims and a series of costs, optimization of agricultural insurance underwriting, fee, claims regulatory operation, improve service quality and efficiency, improve the ginseng protect farmers experience [9].

Secondly, it is necessary to further establish and improve the national big data platform of agricultural insurance. Coordinate and manage all relevant information related to agricultural insurance, carry out the docking and sharing of insurance data and agricultural disaster data, and carry out basic work such as agricultural production risk assessment and regular update of insurance zoning based on massive data, so as to provide guarantee for the improvement of the digital capacity of the agricultural insurance industry. The government should actively lead the construction of the big data platform of agricultural insurance, so that it can serve both policy-based agricultural insurance and commercial agricultural insurance at the same time, so that agricultural insurance can truly benefit the majority of farmers and eliminate their worries in agricultural development to the greatest extent. Finally, we should improve the construction pace of agricultural insurance disaster risk fund in China. The disaster risk fund of agricultural insurance is an important link in the risk diversification system of agricultural insurance and an important guarantee for the stable and sustainable development of agricultural insurance. The state should give full play to the role of China Agricultural Reinsurance Co., Ltd. and accelerate the construction of agricultural disaster risk fund and dispersion system.

### 4.3 Standardize the Market of Agricultural Insurance in China

First of all, at the government level, corresponding policies should be issued and relevant legal norms should be established to solve the problems of non-standard underwriting and claims in the development process of agricultural insurance. At present, in view of the agricultural insurance, China insurance industry association formally issued by the agricultural insurance product development guidelines, is the first time from the industry self-discipline level product development guidance document in the field of agricultural insurance, the agricultural insurance product development special management system to establish and improve, standardize the agricultural insurance product development, accelerate the development of agricultural insurance quality has positive significance. In addition, efforts should strive to speed up the construction of a system that helps to maintain the competition order of agricultural insurance market. The newly formulated Measures for the Management of Agricultural Insurance Underwriting Claims by Agricultural Insurance CBRC fully absorbs the achievements of agricultural insurance reform and development and supervision practice in recent years, and provides a strong institutional guarantee for further standardizing the management of agricultural insurance underwriting claims and strengthening the supervision of agricultural insurance. On this basis, the government should formulate relevant policies and regulations in more depth and detail according to market changes, and constantly improve the industry norms in the field of agricultural insurance.

Secondly, for the underwriting institutions themselves, they should also strive to solve the problem of non-standard underwriting claims. On the one hand, we should pay attention to the role of the intermediary agency. The agricultural insurance industry has a natural service demand for intermediaries, agents and assessors. Under the background of digital development, satellite remote sensing, big data industry technology companies and other kinds of professional institutions can in survey, fee, claims in various forms to provide intermediary services for insurance companies, this can reduce the cost of agricultural insurance institutions, and can introduce a third

party loss evaluation mechanism, so as to improve the service efficiency of agricultural insurance service and service quality. On the other hand, it should be necessary to improve the underwriting claim clauses of agricultural insurance, make post-disaster damage and claim plans, constantly optimize the compensation process, so as to compensate all the claims, improve the claim settlement experience of insured farmers, establish the reputation of the industry, and increase the farmers' willingness to buy commercial agricultural insurance.

Finally, the problem of adverse selection and moral hazard should be prevented from all stages of agricultural insurance, which must be solved by the continuous and high-quality development of agricultural insurance [10].

In accept insurance stage, ought to check whether policy-holder has true cast insurance willingness, for example the case that village committee staff helps farmer household to handle insurance, should make contact with policy-holder through policy-holder contact way, confirm its know and agree to village committee staff member to cast insurance for its.

In the verification stage, attention should be paid to the survey, because the insurance fraud is often accompanied by the fictitious subject matter of insurance, that is, applying for claims in the absence of actual planting, or exaggerating the affected area, so we should pay attention to the risk prevention in the survey link. Technological means can be used to improve the survey capability, such as using satellite positioning, remote sensing, animal face recognition and other scientific and technological means to survey and settle claims; use drones to conduct large-scale survey, and use the meteorological data of the local meteorological bureau as the auxiliary information to determine whether the crops are affected.

In the claim settlement stage, they should take the initiative to contact the farmers and inform them to receive the insurance money. The insurance company informs the farmers of the time and amount of the agricultural insurance compensation, reminds them to receive the insurance compensation, and avoids being intercepted or occupied by others.

In addition, the relevant units and the underwriting institutions should improve the

internal control, and effectively supervise and checks and balances the management personnel at all levels of operation management and risk control from the system, process, system and mechanism, so as to avoid the collusion between the relevant units and the employees of the insurance company to cheat insurance.

### 5. Epilogue

Agricultural insurance is of vital importance in solving the problems of rural development, but there are still many problems in the development. It is necessary to continue to improve the agricultural insurance market, accelerate the solution of the problems restricting its development, so that agricultural insurance can play the maximum benefits in the process of helping rural economic development and promote rural revitalization.

### References

- [1] Research group of Insurance Society of China. Research report on the development of agricultural insurance services "agriculture, rural areas and farmers". *Insurance Theory and Practice*, 2021, (01):1-27.
- [2] Yang Yong, Wang Li, Yao iru. The Development and Suggestions of Agricultural Insurance in China under the Background of Rural Revitalization. *Financial Horizontal*, 2021 (11): 90-94.
- [3] Gong Jiexiang. Research on the implementation of rural revitalization strategy and the construction of new agricultural Insurance. *Agriculture in Yunnan*, 2021 (03): 47-49.
- [4] Zhang Zinan, Liu Yan, Wang Zhiyu. Policy evolution and anti-poverty effect of agricultural insurance in China. *China Insurance*, 2021 (02): 18-22.
- [5] Zhang Zhipeng, Chen Shengwei. Analysis of the development status and application prospect of insurance technology in the field of agricultural insurance. *Foreign trade*, 2020 (05): 107-110.
- [6] Tuo Guozhu. The policy context of agricultural insurance development in China —— Based on the guidance of the "No.1 document" of the central government in the past 20 years. *Insurance Theory and Practice*, 2023, (03): 1-13.
- [7] Tuo Guozhu. Several frontier issues in agricultural insurance research. *Rural Finance Research*, 2022, No. 509 (08):31-39.
- [8] Tuo Guozhu. Several innovation problems of agricultural insurance products are worth discussing. *China Insurance*, 2021, No. 397(01):30-35.
- [9] LI Lu. On How Agricultural Space Insurance can Continuously Secure Agricultural Space. *Farmers Daily*, 2023-03-15(007).
- [10] Yu Yang, Wang Jiahui. Construction of multi-level agricultural insurance product system from the provincial perspective — Take Hubei Province as an example. *China Insurance*, 2021, No. 398(02):51-54.