



---

## **CURRENT ISSUES OF PRODUCTION RISK MANAGEMENT IN AGRICULTURE**

D. N. Baymirzaev

NamSU, Associate Professor of the Department of Management, PhD

### **Abstract**

This article examines the risks arising in the activities of the agricultural sector. The impact of risks on the production activities of the agricultural sector is described. The factors contributing to the emergence of agricultural risks are identified. The types of risks in the agricultural sector are identified. In the agricultural sector, the impact of the highest level of impact - production risk - on the productivity of agricultural products is described.

**Keywords:** risks, agriculture, risk management, yield risk, farms, production (or yield) risk, price or marketing risk, agricultural sector.

Despite the high level of development of science and technology on a global scale, risks in economic activity retain their level of impact. Today, problems associated with the aggravation of natural and economic risks are acquiring global significance, and their systemic management is the most important prerequisite for economic development. According to the Food and Agriculture Organization of the United Nations, "about 22 percent of economic damage caused by natural risks in developing countries falls on the agricultural sector. Agriculture is the only industry that accounts for an average of 84% of economic damage caused by drought," the statement notes. Therefore, in international practice, special attention is paid to the development of innovative methods and strategies for managing economic risks.

In Uzbekistan, the development of modern types of production, along with increasing production efficiency, is considered an urgent task for risk management and mitigation of their impact. One of the priority areas is defined as "... creation of a favorable agribusiness climate and value chain, development of modern management systems in agriculture, introduction of new types of risk insurance in agriculture". The implementation of scientific research on risk management in



## **International Conference on Economics, Finance, Banking and Management**

**Hosted online from Paris, France**

Website: [econfséries.com](http://econfséries.com)

24<sup>th</sup> December, 2024

agriculture and development of the agricultural sector by mitigating their impact, ensuring the well-being of the population and the export potential of the country, minimizing their impact based on risk management in the activities of farms is relevant.

Risks arise in any sphere of economic activity, and their effective management is a pressing task. Especially in the context of deepening market relations, when the scale and impact of economic risks increase even more, the use of innovative methods of managing them is becoming increasingly important.

In modern conditions, the concept of “risk” is widely used in various fields of science and practical activity. Today, various approaches have emerged that express its content and essence.

The definitions given to the concept of “risk” complement each other in meaning and content, reflecting that this scientific category has a broader meaning. Risk as an economic category is expressed in a complex of factors causing deviation from the intended goals, the impossibility of obtaining income in the planned amounts, the possibility of causing damage or achieving positive results.

When managing risks, it is necessary to consider not only their negative aspects, but also their positive aspects as a source of additional opportunities. It is also necessary not to limit oneself to developing measures aimed at mitigating the impact of risks in management, but to look for opportunities to achieve the best results in the conditions of existing risks.

It is almost impossible to completely eliminate or mitigate the consequences of risks as much as possible. This situation is clearly expressed in cases where we are talking about production and market risks in the activities of farms. In this case, farms have only one way, namely the task of achieving an optimal level of balance between risk and income. Because effective risk management ensures the continuity of the production process and stable profits in farms.

It is very important to achieve priority development of farms in agricultural production, to develop and implement in practice effective methods of risk management when introducing market mechanisms into their activities. Especially in the conditions of a market economy, the sustainable functioning of a farm will largely depend on the degree of flexibility of economic activity to risks. Since risks



## **International Conference on Economics, Finance, Banking and Management**

**Hosted online from Paris, France**

Website: [econfséries.com](http://econfséries.com)

24<sup>th</sup> December, 2024

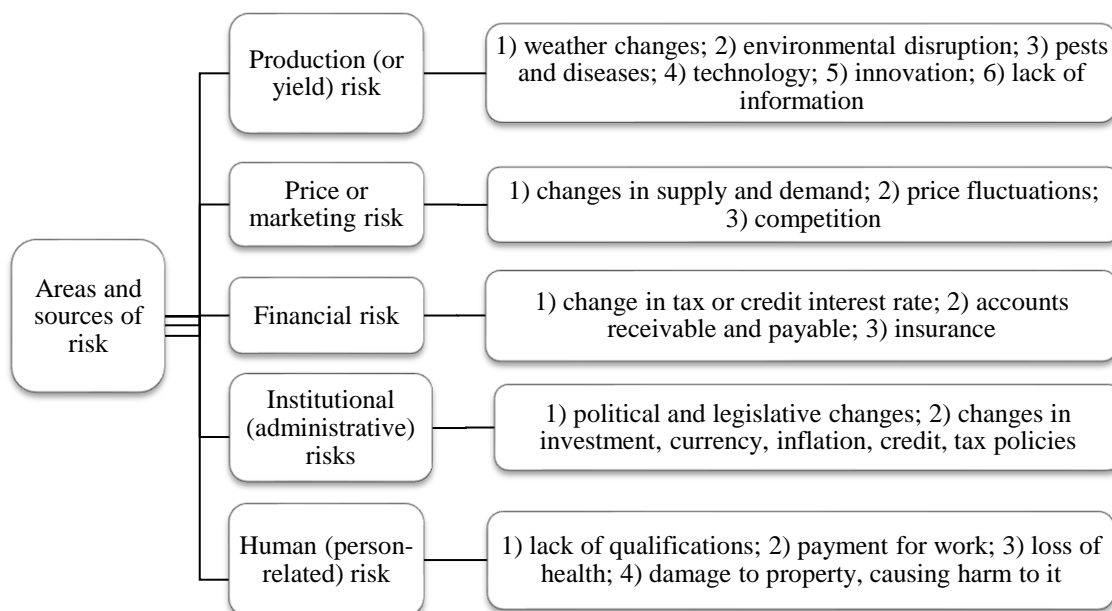
represent the risk of losses or damages that can be caused by uncertainty or unforeseen circumstances, in farms they arise in production, market and financial activities and cause damage to the property, products and income of farms in physical or financial form. Therefore, an important task is to study the nature of risks arising in the activities of farms, determine the degree of their impact, classify and take mitigation measures.

Risk analysis in economic activity shows that the efficiency of farm production directly depends on the impact of factors that lead to risks. These factors include: natural disasters (drought, hail, adverse weather conditions); decreased soil fertility; depreciation of the material and technical base of agriculture; an increase in the number of unprofitable farms; a constant shortage of working capital in farms; low quality of fuels and lubricants and mineral fertilizers used; high prices for industrial resources necessary for agricultural production; disparity between prices for agricultural products and industrial products; relatively low wages in the agricultural sector; low purchasing power of the population in rural areas; global climate change, man-made accidents, pandemic conditions, etc.

In scientific literature on risk management, 5 main sources of risk in farms are identified. These are: production, marketing (price or market), institutional, personal (related to the human factor) and financial risks.

Hardaker J.B. et al. identify two main types of risks in agriculture: 1) entrepreneurial risk, which includes production, market, institutional and personal risks; 2) financial risks arising from various methods of financing farms are distinguished.

Consequently, the areas of risk occurrence in farms and their sources can be conditionally classified into five main areas (Fig. 1).



**Fig. 1. Areas and sources of risks in farms**

In foreign countries, special attention is paid to the issues of risk management arising in economic activity. In particular, programs for guaranteed protection of farms from natural and economic risks, their financial support on an ongoing basis are one of the most important areas of state policy in the agricultural sector. Such serious attention to the issue of risk management in farms in global agricultural production is explained, first of all, by the need to ensure food security of the country and the well-being of the population, while the high dependence of agricultural production on natural, climatic and soil conditions make them unable to function with the same high efficiency as economic entities in other sectors of the economy.

Today, in world practice, there are 5 types of this model. These are: 1) the USA; 2) Canada, Israel; 3) Spain, Turkey; 4) Austria, Switzerland and 5) Germany. In these models (except for the German model), the state is the leader and assumes obligations arising from initiative, organization and these relations. A study of existing foreign practice has shown the uniqueness of the risk management mechanism in the economic activity of farms in each state, its formation and development in accordance with the culture of agricultural production.

Based on the results of the study, the following conclusions were made:



## **International Conference on Economics, Finance, Banking and Management**

Hosted online from Paris, France

Website: econfseries.com

24<sup>th</sup> December, 2024

1. In economic activity, profit is closely related to risks that have varying degrees of impact. Therefore, management decisions should be aimed not only at planning, organizing, coordinating, motivating and controlling production, but also be taken with the aim of effective risk management.

2. The main sources of risks in farms are natural, climatic and weather conditions, biological processes, seasonality, agricultural production in different geographic zones, end consumers, as well as frequently occurring natural disasters, fluctuations in crop yields and prices for agricultural products, imperfections of the agricultural market and financial services, including credit and insurance, rapid growth in prices for industrial resources necessary for agriculture, as well as changes in legislation.

3. The high dependence of the production process in farms on natural, climatic and soil conditions necessitate the widespread use of insurance opportunities in risk management. The development of public-private partnership models will allow for effective risk management in the “farm – insurance company – state” system.

### **References**

1. Hardaker J. B., Huirne R. B. M., Anderson J. R. (1997): Coping with Risk in Agriculture. Wallingford, CAB International; Boehlje M. D., Trede, L. D. (1977): Risk Management Agriculture, Journal of American Society of Farm Management, Rural Appraisers, Vol. 41, pp. 20-27; Fleischer B. (1990): Agricultural Risk Management, Boulder & London, Lynne Rienner Publishers.
2. Hardaker J.B., Lien G., Anderson J.R., Huirne R. Coping with Risk in Agriculture. 3rd edition: Applied Decision Analysis. Wallingford, UK: CABI Publishing. - ISBN 9781780645742. pp. 5-6.
3. Nematovich, Baymirzayev D. "Foreign Experience in Economic Risk Management and Opportunities for Their Use." International Journal on Integrated Education, vol. 2, no. 5, 2019, pp. 54-60, doi:[10.31149/ijie.v2i5.142](https://doi.org/10.31149/ijie.v2i5.142).
4. Nematovich, Baymirzaev Dilmurod. "Methods of quantitative assessment of production risks in farms." Turkish Journal of Physiotherapy and Rehabilitation 32: 3.