

PROSPECTS FOR THE DEVELOPMENT OF INNOVATION IN UZBEKISTAN AGRICULTURE

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Abstract: With an increase in the population, the demand for agricultural products is increasing. The introduction of innovative technologies in the sustainable development of this sector and the increase in the volume of agricultural products with the rational use of resources is gaining importance. In this article, an analysis of the current state of development of the agricultural sector of Uzbekistan, indicators of prospects and the main directions of innovative development were developed.

Keywords: Uzbekistan agriculture, crop production, innovation, innovative activities, innovative processes, forecast.

INTRODUCTION

Today, in the Republic of Uzbekistan, consistent measures are being taken to ensure a wider integration of science, education and production, to create and apply new knowledge, to introduce innovative technologies and best practices. . However, the results of the research on the introduction of innovative technologies and the development of the agricultural sector do not reach the lowest levels of the sector, and the problems that have not been solved for years prevent the agricultural sector from developing more rapidly. Therefore, in the future, "... as one of the main directions of agricultural development, the creation of effective mechanisms for the dissemination of knowledge integrated with the production of research, education and consulting services, science, education, information and consulting development of the services system" is defined as a priority task. This situation requires the development of scientific and methodological bases for increasing the efficiency of innovative processes in increasing the economic potential of agricultural entities, conducting systematic research on the scientific-theoretical and methodological aspects of these processes. Based on the theoretical views and analyzes presented above, in our opinion, innovation is the use of scientific achievements and best practices, improvement and development processes of social production, products with new consumer characteristics (goods, products, techniques, technology, other organizational forms and tools). is the materialized final result of investment and creative activity based on formation, implementation, helps to satisfy market and social needs, saves costs and ensures that people have different results in different areas of life and activity.

Analysis of literature on the topic

In the conditions of socio-economic changes taking place in the world and international integration, it is necessary to move the agricultural industry to a new innovative development path in a short period of time. In this way, there will be an opportunity to increase the position of

the village on a modern technical and technological basis [9]. In many economic literature, the Australian economist-scientist Joseph Schumpeter is highlighted as one of the first scientists who made an important contribution to the definition and types of innovative processes and the theory of innovative activity in general. At that time, there was no thought about innovation, but concepts such as "effective method", "innovation", "effect", "application" were used in the development of the economy.

In his research, Y. Schumpeter considered the issues of new combinations in development, gave a complete definition of the innovation process and singled out five exemplary changes:

- new techniques in production, new technological processes or a new market use of its supply (buying and selling);
- introduction of new quality products;
- use of new raw materials;
- organization of production and its material and technical support changes;
- emergence of new sales markets.

The first and most complete description of innovations was given by the Austrian economist Y. A.

Introduced by Schumpeter in his "Theory of Economic Development". This study initiates the classical theory of innovation. According to Y. Schumpeter, innovation is not only news, but also a factor of production. According to Schumpeter, the mass emergence of "new combinations" indicates the beginning of economic recovery. After Y. Schumpeter, G. Mensch, M. Kaleski, B. Twiss and others, "neoclassical" theories of innovation appeared. Well-known representatives of this trend consider innovations as the "main impetus" of development arising from new consumer goods, new methods of production and transportation, new markets, new organizational forms in industry, and at the same time, they evaluate the cyclical development of the economy. We can also find such terms as "innovation", "innovation", "scientific and technical innovation" in the research works of scientists such as M. Porter, B. Twiss. At the same time, many economists expressed their opinions on the innovation. For example, B. Santo defined innovation as follows: "Innovation is a socio-technical process that leads to the creation of products and technologies that are better according to their characteristics through the practical use of ideas and discoveries. if it is aimed at obtaining economic benefits, its appearance on the market will create an opportunity for additional income. In his research, B. Santo based the concept of the innovation chain as a linear sequence of certain stages in the process of innovation, different models of innovation processes and innovation modeling. According to L. Vodachek, O. Vodachkova, innovation is a purposeful change in the quality of the system in the work of the enterprise, which can be manifested in quantitative and qualitative changes in one or another field of the enterprise. V. N. Lapin understood innovation as a set of processes for creating new practical tools (innovations) in order to fully satisfy certain needs of people. In our opinion, there is no guarantee that innovation will be beneficial to the community, that it will still be economically efficient and profitable. According to I.T. Balabanov, innovation is investment in new techniques, technologies, new forms of organization of production, labor, service and management, including control, accounting, planning methods, analysis and other new forms. is the materialized result taken into account. Many foreign scientists defended their opinions on the topic of innovation in farms in scientific articles and dissertations. In particular, V. Moysiadis, Panagiotis Sarigiannidis, Vasileios Vitsas, Adel Khelifi in their scientific article "Smart Farming in Europe" describe a number of advanced developments in European farms. Accordingly, the main technological evolutions related to smart farming (such as unmanned aerial vehicles, unmanned ground vehicles, and wireless sensor networks) are introduced, analyzed and discussed, and their features are analyzed and discussed, along with providing the main potential advantages of their use in the agricultural department and the latest research trends in their field.

Research methodology

In this scientific article, the scientific research works of foreign and domestic economists on

innovation, introduction of innovative activities in the sustainable development of economic sectors, including agriculture, and innovative development of the agricultural sector have been studied. Statistical data grouping, comparative analysis, monographic observation, and mathematical modeling methods were used based on the information of the Statistical Committee of the Republic of Uzbekistan, the Statistical Department of Kashkadarya Region.

Analysis and results

We believe that the tooth is suitable for the purpose. A lot of practical work was done on the development of agricultural science in our region, fundamental, practical and innovative projects were developed. In particular, we will get acquainted with one of the projects implemented in the innovative development of the agricultural network in Qamashi district. 11 projects were implemented in the district in 2019-2021 (Table 1), the value of this project is 140330 million soums.

Table 1

Qamashi tumani dehqonchilik tarmog`ini innovasion rivojlantirishda amalga oshirilgan loyihalar⁵

	O'lchov birligi	2019	2020	2021	Jami
Dehqonchilik tarmog`ida amalga oshirilgan loyihalar	dona	3	3	4	11
Jami yer maydoni	gektar	520	910	1170	2600
Loyiha qiymati	mln so`m	28066	49115,5	63148,5	140330
Yaratilgan ish o`rni	dona	93	365	415	873
Mahsulot ishlab chiqarish hajmi	mln so`m	11 650	39 050	43485	94185

These projects implemented in the district will not only increase the internal potential of the district and increase the gross regional product, but also create a basis for the creation of new jobs. It is no exaggeration to say that this, in turn, is one of the important factors in reducing the poor strata of the population and ensuring food insecurity.

Table 2

Qamashi tumani dehqonchilik tarmog`ini innovasion rivojlantirishda korxonalar tomonidan amalga oshirilgan loyihalar⁶

№	Loyiha tashabbuskori	Loyihaning qisqacha tavsifi	Loyiha quvvati		Loyiha qiymati, mln.so`m	Shu jumladan (mln.so`m)			Yaratilgan ish o`rinlar soni		Mahsulot ishlab chiqarish hajmi		
			tonna	gektar		o`z mablag`i	bank krediti	xorijiy investitsiyalar ming doll.	2019 y	2020 y	2019 y	2020 y	
1	«Asadqara balandchayla» MCHJ	15 gektar uzumzor va 85 gektar intensiv bog` tashkil etildi	tonna	1100	3 000	3000				15			
2	«Qamashi tomorqa xizmati» MCHJ	Zamonaviy issiqxona tashkil etildi	tonna	150	1 100	800	300			15		500	1 000
3	Qashqadaryo viloyati Davlat o`rmon xo`jaligi	2500 gektar pistazor barpo etildi	gektar	2 500	50 000	50 000			30	300			
4	«Komfortabl biznes servis» MCHJ	Issiqxona tashkil etildi	tonna	1 500	35 000	15 000	20 000				50		8000
5	«Qamashi pocheon green food» MCHJ	Issiqxona tashkil etildi	tonna	1 400	38 180			4 440	15				10000
Jami tuman bo`yicha					127280	68800	20300	4 440	60	365	500	18000	

Thanks to the projects implemented by these enterprises, 425 new jobs were created in 2019-2020, it can be observed that the volume of production in the gross regional product has increased several times. In the course of the research, trend models were developed to determine the indicators of the next three-year perspective based on the volume of products representing the weight of the agricultural sector. Among these trend models, the most suitable options were selected

Conclusions and suggestions

Currently, Uzbekistan has all the necessary socio-economic bases for deepening innovation processes and strengthening the innovation base. However, there are problems in moving the agrarian sector to the path of innovative development, or in other words, implementing innovative projects even at the scale of one or several farms, because farms and entities processing agricultural products are currently slowness of participation in the ordering of scientific research works and financing of research, the inability of the economic entity to carry out research in the development of advanced innovative technologies and the financing of scientific research, development of agricultural products for the use of new technology, new varieties producers and processors do not have enough knowledge, they need to use the services of scientists and specialists, and farmers face certain difficulties in processing and selling products. Problems such as the insufficient demand of producers for innovative developments prepared by scientists of higher education institutions and scientific research institutions, there is no organic connection between them, irresponsibility of some producers of agricultural products, affect innovative processes in agriculture. can be included among the hindering factors. The problems of innovative development are of particular importance for Uzbekistan, because only innovative development with wide and effective use of new resource-efficient, advanced technologies ensures rapid economic growth, taking into account the preservation of the environment. Without denying the importance of other directions in the innovative development of the agricultural sector in the current conditions, we consider technical and technological innovations to be the most important direction in the conditions of modernization of agriculture. The development and implementation of technical and technological innovations will be aimed at reducing the current and investment (capital) costs of production, maximum adaptation of the used techniques and technologies to the natural climate, soil and specific characteristics of each region.

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