

Tendencies for the Development of Innovative Infrastructure in Agriculture

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Abstract- At present, a number of measures are being taken in our country to ensure the wider integration of science, education and industry, the creation and application of new knowledge, the introduction of innovative technologies and best practices. In particular, attention is paid to the rapid development of agriculture through the introduction of innovative technologies and the development of innovative infrastructure in the agricultural sector. Ensuring the legal regulation of the development of innovative infrastructure in agriculture, setting priorities in the field of innovation, creating the necessary conditions for the implementation of innovative infrastructure, attracting investment in the development of innovative infrastructure, training and retraining of innovative infrastructure and innovation. It is necessary to develop international cooperation in the field of infrastructure. The article focuses on the development of innovative infrastructure in agriculture and the scientific substantiation of its specific features, the use of innovative technologies in agriculture, the study of factors influencing the development of innovative infrastructure in agriculture.

Keywords: Agrarian sector, innovative infrastructure, innovative technologies, science integration, scientific achievements, high technology, diversification, import, export.

I. INTRODUCTION

At the current stage of development of a market economy, the introduction of innovative infrastructure in the agricultural sector is one of the key factors that serve to increase the competitiveness of agricultural enterprises.

Today, the countries that grow crops using innovative models of agricultural development and "smart" technologies are considered sustainable in world agriculture. The sustainable development of such countries is based not only on the export of their products but also on innovative ideas and developments. Therefore, in the future, "... one of the main directions of agricultural development is the creation of effective mechanisms for the dissemination of knowledge integrated with the production of research, education and consulting services, the development of science, education, information and consulting services." [1].

In the context of global climate change, in the coming decades, the agro-food industry will have to adapt to change and mitigate the process of such changes, facing a sharp increase in global demand and intensifying competition for limited natural resources. The development of innovative infrastructure in agriculture will serve to meet the growing demand of the population and ensure food sustainability.

Scientists predict that by 2050, the world's population will reach 9.6 billion, and it will be necessary to increase food production by 60% compared to today to provide them with food. If we pay attention to foreign trends, 1 mln. the number of innovations created per capita (recognized by foreign patent offices): in the US - 261.7, in Japan - 213.0; In Germany - 206.3; In France - 171.9; In Russia - 1.3 percent [2].

At present, in determining the priorities of technology transfer in agriculture, it is necessary to organize the production of products based on new developments and technologies, the introduction of energy and resource-saving technologies [3].

The development of innovative infrastructure in the agricultural sector leads to the cultivation of new or improved products, the application of research and development in the production process. The development of innovative infrastructure serves to improve the technology of processing or production of cultivated products.

II. LITERATURE REVIEW

Issue of statistics of competition of small business and private entrepreneurs assessment methods were studied by Odilov R.[5], the empirical research on causal relationship between export and foreign investments in the economy of Uzbekistan based on granger test were made by Mustafakulov S. I.[6], econometric model of production capacity usage of textile enterprises in Uzbekistan were researched by Tursunov B.O. [7,10], Modernization and intensification of agriculture in the republic of Uzbekistan were investigated by Yuldashev N. K., Nabokov V. I., Nekrasov K. V. [8,11], Regional features of industrial production dynamics in the research of textile enterprises financial security in Uzbekistan were studied by Zarova E.V.[9] and et.al.

III. ANALYSIS AND RESULTS

With the rapid development of scientific and technological potential in the world, the intellectualization of key factors of production is growing. The introduction of innovations has become an important factor in ensuring economic growth and market competitiveness. This, in turn, requires the effective use of advanced scientific developments and technical advances in the field of innovation in all areas, as well as strengthening the competitiveness of the current economic potential. Therefore, today many countries are investing heavily in the development of research and innovation.

The key factor in determining the sustainable development of the innovative economy today is the formation and development of the country's innovative environment, the creation and use of new production technologies and their subsequent introduction and sale in the market.

In the development of innovative infrastructure in agriculture, it is necessary to pay attention to the following (Figure 1).

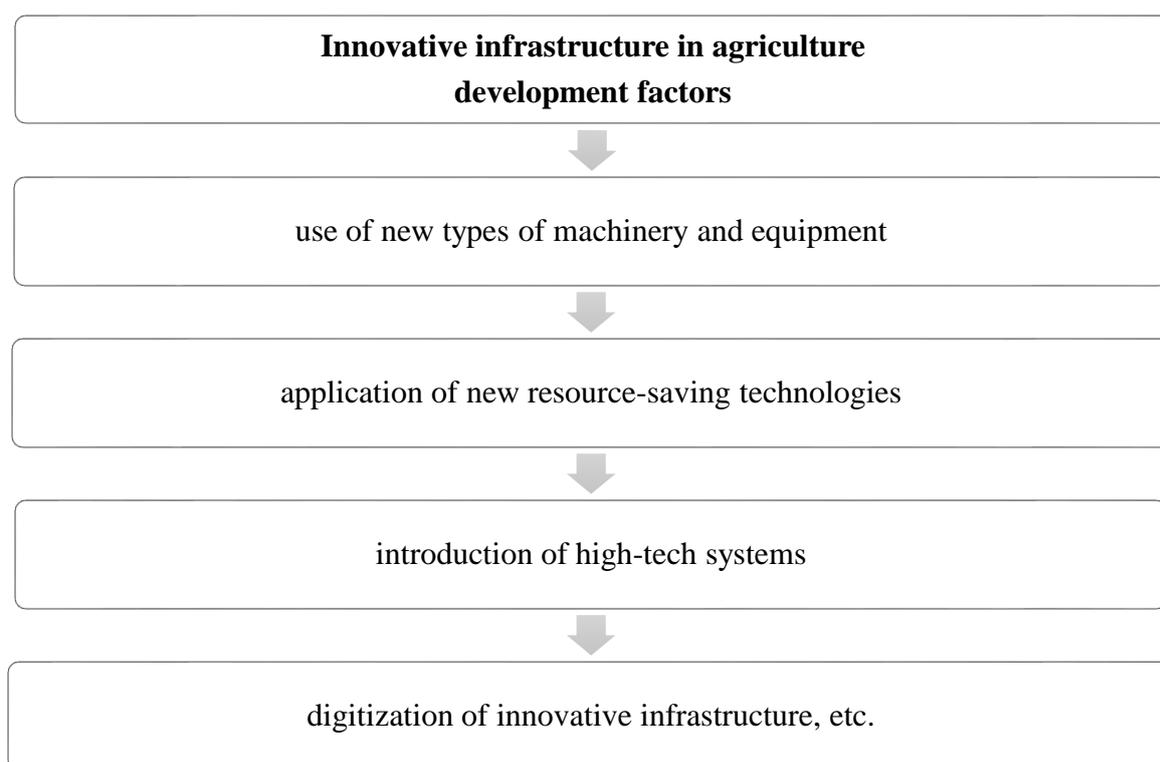


Figure 1. Factors for the development of innovative infrastructure in agriculture [4].

Nowadays, the main goal of any modern agricultural enterprise is to focus on innovation, thereby forming a group of innovators who come up with creative proposals for technological tasks.

Who can we call rationalizers? First and foremost, they are representatives of various fields who are resentful of innovation, indifferent to problems, meticulous, diligent, deficient and willing to solve problems. These include finding the most optimal solutions for the organization of labor, the creation of more efficient methods of production, the simplification of technological processes.

In market conditions, the introduction of new innovative developments into production or the transformation of new ideas into innovations is carried out mainly in order to achieve the commercial interests of business entities [12].

Research aimed at creating innovative developments requires targeted funding and full government support, as

the cost-effectiveness of innovation and the attractiveness of the producer require its widespread introduction. The subjects of innovative infrastructure in agriculture include (Figure 2).

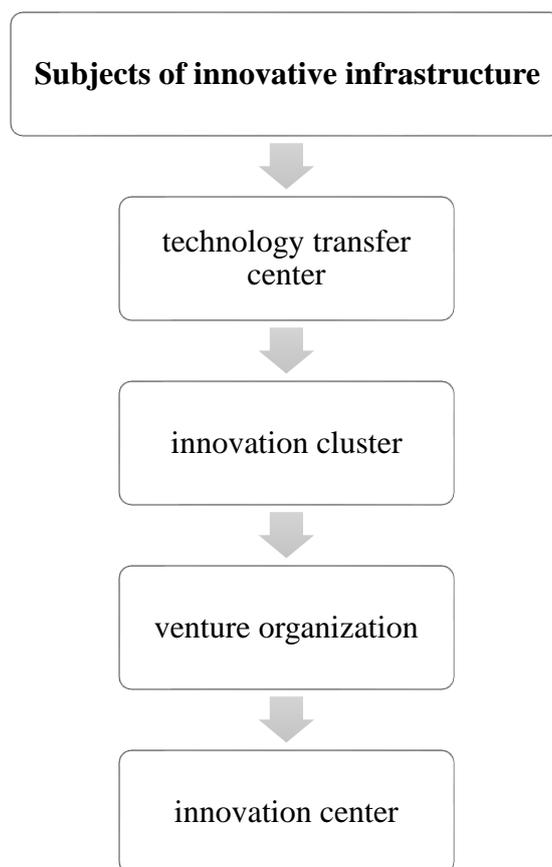


Figure 2. Factors for the development of innovative infrastructure in agriculture [6].

Measures such as import of agricultural machinery, seeds of plant varieties and plant protection products, financial support of domestic innovative activities, encourage the introduction of modern techniques and technologies. Financial support for innovation is also needed at other stages of the innovation process, as stimulating implementation creates a demand for scientific advances in agriculture.

The main directions of implementation of the state innovation policy in the agro-industrial complex are:

- formation of an innovative system of the agro-industrial complex on the basis of a single scientific and technical policy of the state;
- intensification of work on fundamental and applied research in agricultural science;
- regulatory support for the development of innovation processes;
- accelerate the acquisition of scientific and technical achievements and best practices in production;
- development of the infrastructure of the innovation process, the certification system and the promotion of scientific and technological developments, training and retraining;
- increase the level of information and consulting activities;
- government support to restore the solvency of agricultural producers and create opportunities for innovative activities;
- improving the system of examination and selection of research topics, methodological development, innovative projects and programs for the implementation of agricultural policy;
- improving management and economic mechanisms to stimulate innovation processes in the agro-industrial complex at all levels;
- development of entrepreneurship in the field of innovation;
- training of highly qualified personnel for the subjects of innovative activity;
- development of international cooperation in the innovative development of the agro-industrial complex [7].

IV. CONCLUSION

In summary, in the development of innovative infrastructure in agriculture, attention should be paid to:

- import substitution and export orientation by improving the quality of agricultural products;
- reduce the cost of agricultural products and technologies;
- expansion of development of new national products and technologies in the field;
- preparation of samples or prototypes of products based on scientific achievements, high technology;
- creation of new jobs and formation of modern local staff, etc.

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