

# ЕКОНОМІКА ТА УПРАВЛІННЯ НАЦІОНАЛЬНИМ ГОСПОДАРСТВОМ / ECONOMICS AND MANAGEMENT OF THE NATIONAL ECONOMY

УДК 332

HARNAHA O.M.<sup>1\*</sup>

<sup>1\*</sup> Candidate of Economic Sciences, Associate Professor, Department of Business Economics and International Business National University of Water Management and Environmental Engineering, e-mail: o.m.gharnaha@nuwm.edu.ua, ORCID ID: 0000-0002-5236-7299

## INSTITUTIONAL AND INNOVATIVE MODERNIZATION OF THE ECONOMY AGRICULTURAL SECTOR

**The purpose.** The purpose is to study the essence of institutional and innovative modernization of the economy agricultural sector and provide recommendations for its effective implementation. **Methods.** To solve this scientific problem, the structural method and the method of abstract-logical generalization are used. **Research Results.** It is emphasized that the comprehensive implementation of the proposed measures will formalize the tools of investment and innovation modernization of the agricultural sector of the economy, which will be further transformed into a segment of strengthening the state economic security. **Practical Significance of the Research.** Improving the institutional and innovative modernization of the agricultural sector of the economy is an effective tool not only to strengthen the competitive position of the agricultural sector of the economy, but also the economic security of the state as a whole.

*Keywords:* land relations, agriculture sector, modernization, economic security, organic farming.

### Research Problem Identification

The relentless development of scientific and technological progress, constant efforts in agricultural practice to implement its results and growing competition in the global agricultural market require the introduction in Ukraine of mechanisms for the agricultural sector based on institutional and innovative principles.

It is important to solve the outlined problems, especially when the country's agriculture is characterized by total neglect and complete moral deterioration of its material and technical base. Special emphasis should be placed on the extremely low level of technical modernization, unsatisfactory level of innovation in land use, physical deterioration of production equipment and general decline in the quality of human capital in rural settlements (low level of education of rural population and negative migration processes resulting from lack of work in rural areas, reducing the number of rural settlements, etc.) [10]. All of the above in the aggregate creates significant obstacles to the formation of proper institutional and innovative

support for sustainable development of agricultural sector.

In our opinion, the insufficient level of innovation and investment in the development of agricultural sector in the country not only hinders the growth of its efficiency, but also creates many risks and threats of an industrial nature, which negatively affect the economic security of Ukraine as a whole [9].

### Literature Review

A significant contribution to the study of institutional and innovative modernization of the agricultural sector of the economy was made by: P. Haidutsky, G. Gutsulyak, A. Krysak, V. Pavlov, A. Martin, E. Zhurakivsky, A. Sokhnych, A. Tretyak, V. Tkachuk, S. Urba and others. However, while unequivocally acknowledging the significant achievements of practitioners and scholars in the study of the issue raised, it should be noted that a number of issues still need further elaboration and study.

## Research Design

The purpose is to study the essence of institutional and innovative modernization of the economy agricultural sector and provide recommendations for its effective implementation.

## Research Findings

The formation of an effective mechanism for institutional and innovative modernization of the agricultural sector initiates a number of prerequisites for ensuring the economic security of the country, such as:

1) providing resource support for the introduction of innovative processes in the land use system will help increase the competitiveness of agricultural products in domestic and foreign markets;

2) the implementation of technical and technological modernization in the land use system will improve the quality of products in accordance with current international standards;

3) structural changes in the system of infrastructural provision of domestic land use will unequivocally strengthen integration processes with the entire agricultural infrastructure network of strategic partner countries, first of all with the member states of the European Union;

4) increasing the effectiveness of the implementation of changes in the field of land use will definitely have an impact on improving trade and economic relations with partner countries;

5) the use of the latest innovative technologies in the country's agriculture will stimulate the balancing of territorial disparities in food security of the country (which is a consequence of unbalanced development of urban and rural areas);

6) increasing the efficiency of land use will contribute to the growth of income of the rural population [4];

7) the formation of added value in the agricultural sector of the economy will contribute to the creation of new jobs, increase the scale of agriculture and, as a consequence, increase tax revenues to the budgets of different levels.

It should be noted that positive changes in the functioning of the economic component in the system of agricultural production, on the one hand, will improve the existing system of innovative development of the agricultural sector,

and on the other - the constant negative impact of threats and risks will provoke stagnation in the system. Over time, there is a need to develop mechanisms for the transformation of approaches to the modernization of agricultural complexes by attracting investment [2].

Investment resources are the foundation for supporting the processes of development and implementation of innovations in the system of agricultural production of the country [7].

It should be emphasized that attracting foreign investment capital on the one hand, along with the formation of a number of opportunities for the domestic sector (attracting additional reserves of economic growth, introducing innovative technologies and ensuring high rates of technical and technological modernization of the agricultural sector, facilitating access to foreign agricultural markets), can ensure the formation of a number of threats and risks of destabilization of not only economic but also national security of Ukraine, which will manifest itself in the following: deepening the raw material orientation of the agricultural sector, exacerbating the problems of irrational nature management, use of natural resources in the interests of the other states [1].

Therefore, we believe that in the process of attracting foreign investment in the innovation segment of the domestic agricultural sector it is advisable to adhere to the strategic focus on the following:

1) formation of motivational mechanisms and incentives for innovative modernization of the processing industry [3];

2) prevention of implementation of mechanisms of illegal acquisition of agricultural lands by foreign owners;

3) organization of an effective system for monitoring compliance with the principles of rational nature management and conservation of reproductive capacity of natural ecosystems;

4) construction of mechanisms for compensation of economic, infrastructural and ecological losses in the process of management;

5) implementation of tools to strengthen the social responsibility of foreign investors in the management process.

In our opinion, the main reason that restrains the growth of parameters that characterize the improvement of investment and innovation climate of the agricultural sector in the system of economic and food security may be the stagnant-depressive nature of rural development. This is

marked by the neglect of socio-economic infrastructure, the actual reduction of the number of villages and rural population, manifestations of so-called "deviant" behavior, exacerbation of economic imbalances, etc. [8].

The existing irrational approaches to the distribution of budget support for this sector of the economy also constrain the parameters of increasing the efficiency of investment and innovation support of the agricultural sector, which are as follows: priority in the allocation of budget funds, for the most part, is given to powerful producers who lobby for the possibility of obtaining it at the highest levels of government; too bureaucratic process of receiving budgetary financial support, accompanied by the preparation of an excessive number of documents and procedural points; budget funds are usually directed to replenish working capital or to meet the consumer needs of economic entities in the agricultural sector, which a priori makes it impossible to redistribute them in the segment of economic growth [6].

In this regard, there is an objective feasibility of restructuring existing approaches to provide budget support for institutional and innovative modernization of the agricultural sector, not only in terms of increasing funding, but also systematically changing the principles of allocation and distribution of financial resources by moving to practice allocation of funds on the basis of competitive selection of projects of innovative modernization of economic complexes of the agricultural sector, minimization of risks of corrupt influences on decision-making on state support, implementation of mechanisms of public control over distribution and use of budgetary and financial resources, elimination of bureaucratic obstacles to access to sources of state support, giving priority to financing the implementation of promising institutional and innovative startups in the agricultural sector of the economy.

At the same time, the existing approaches to strategizing the current programs of investment and innovation modernization of the agricultural sector and intensification of the processes of socio-economic development of rural areas need to be restructured. This involves defining specific program goals, identifying sources and mechanisms of funding, setting clear deadlines for their achievement, formalizing evaluation tools and promptly adjusting the effectiveness of

the implementation of the adopted programs at all stages.

Increasing the efficiency of implementation of programs to improve investment and innovation support of the studied sector of the economy requires the implementation of public-private partnership mechanisms for socio-economic infrastructure of rural areas, improving logistical support for business development and communication between agricultural entities, overcoming the negative migration trends in rural areas, the implementation of motivational mechanisms for directing part of the funds of migrant workers among the rural population to direct them to the segment of starting a private business in the agricultural sector and financing the implementation of investment and innovation projects.

The priority direction of intensification of institutional and innovative modernization of the agricultural sector is the formation and development of a network of specialized regional agro-industrial clusters on the basis of supporting the formation of technology parks, innovative business incubators, venture funds; stimulating the development of cooperative relations in the innovation sphere between representatives of public authorities, agrarian business of the scientific and technical sphere; intensification of involvement of capacities of the network of scientific institutions and institutions of higher education of agrarian direction in the segment of designing of innovative developments; support for the transfer of advanced world innovative technologies into the practice of managing domestic agricultural entities; implementation of the practice of establishing international cooperation in the field of innovation, by organizing conferences, symposia, seminars, round tables etc.

A significant untapped reserve for improving the institutional and innovative modernization of the agricultural sector is the use of leasing to support the processes of technical and technological modernization of the agricultural sector, which provides for the implementation of leasing programs on the basis of state co-financing of equipment (primarily interest compensation). focus on building indirect material incentives for the purchase of agricultural machinery in the domestic engineering industry, creating opportunities for resource and financial cooperation of joint acquisition of agricultural machinery by

agricultural entities, implementation of targeted programs for financing innovation and technological modernization through sources of public-private partnership.

Insufficient level of intellectual and personnel support restrains the growth of the efficiency of the system of institutional and innovative modernization of the agricultural sector, overcoming the destructive processes of formation of which requires the introduction of long-term mechanisms and tools to improve the training and retraining of intellectual personnel.

Today, institutional and innovative modernization of the agricultural sector of the economy requires the introduction of information technology in the direction of optimization of production and economic business processes, which provides automation of management decisions; increasing the efficiency of collecting, processing and systematizing information data; automation of mechanisms for monitoring and control over the use of land resources; introduction of modern logistics flow management software; use of innovative precision farming technologies (drip irrigation, use of GPS and GIS technologies and drones for crop care, cloud technologies, etc.) and monitoring of the health status of farm animals [5].

An important aspect is the strategic reorientation of the agricultural sector in the

segment of innovative greening of production processes, by stimulating the development of organic farming, the use of alternative energy sources (solar, wind, water), the formation of closed cycles of waste-free production and processing of by-products, introduction of resource-saving technologies, implementation of international safety and environmental standards of agricultural production, implementation of mechanisms to prevent maximum permissible exceedances of natural ecosystems pollution indicators, balancing environmental and economic components of efficiency in the management process.

In our opinion, the comprehensive implementation of the proposed measures will formalize the tools of investment and innovation modernization of the agricultural sector of the economy, which will be transformed into a segment of strengthening the economic security of the state.

### Conclusions

Thus, institutional and innovative modernization of the agricultural sector is an effective tool not only to strengthen the competitive position of the agricultural sector, but also the formation of powerful resource reserves to strengthen economic security of the state at both sectoral and spatial levels.

ГАРНАГА О.М.<sup>1\*</sup>

<sup>1\*</sup> к.е.н., доцент, доцент кафедри економіки підприємства та міжнародного бізнесу Національного університету водного господарства та природокористування, e-mail: o.m.gharnagha@nuwm.edu.ua, ORCID ID: 0000-0002-5236-7299

## ІНСТИТУЦІОНАЛЬНА ТА ІННОВАЦІЙНА МОДЕРНІЗАЦІЯ ЕКОНОМІКИ СІЛЬСЬКОГОСПОДАРСЬКОГО СЕКТОРУ

**Мета.** Метою є дослідження сутності інституційної та інноваційної модернізації економіки аграрного сектору та надання рекомендацій щодо її ефективного здійснення. **Методи.** Для вирішення цієї наукової проблеми використовуються структурний метод та метод абстрактно-логічного узагальнення. **Результати дослідження.** Наголошується, що комплексна реалізація запропонованих заходів дозволить формалізувати інструменти інвестиційно-інноваційної модернізації аграрного сектору економіки, який у подальшому трансформуватиметься у сегмент зміцнення економічної безпеки держави. **Практичне значення дослідження.** Удосконалення інституційної та інноваційної модернізації аграрного сектору економіки є дієвим інструментом не лише зміцнення конкурентоспроможних позицій аграрного сектору економіки, а й економічної безпеки держави в цілому.

*Ключові слова:* земельні відносини, сільське господарство, модернізація, економічна безпека, органічне землеробство.

## REFERENCES

1. Haidar S. I. (2016). Stratehichni zasady ta problem rozvytku inozemnoho investuvannia u ahropromyslovyi kompleks Ukrainy. Ekonomichni studii. Naukovo-praktychny i ekonomichni zhurnal. Lviv. v.5 (13). pp.20–25. [in Ukrainian].
2. Zhurakivskiy Ye. S. (2015). Kontseptualni zasady zabezpechennia ekonomichnoi bezpeky ahrarynoho haluzi v umovakh instytutsiinykh transformatsii // Ahrosvit. v. 12. pp. 63-70. [in Ukrainian].
3. Kushnir S. O. (2019). Instytutsiine zabezpechennia ekonomichnoi bezpeky ahrarynoho sektora v umovakh innovatsiinoho rozvytku. Investytsii: praktyka ta dosvid. Ekonomichni nauky. v. 15. pp.13–19. [in Ukrainian].
4. Krysak A. I. (2013). Zemelni resursy – konsoliduiuchy fundament hospodarskoisamodostatnosti // Innovatsiinaekonomika, 2013. v. 2 (40). pp. 129–135. [in Ukrainian].
5. Marchuk L. L., Kazarian O. H. (2018). Innovatsiini instrument zabezpechennia ekonomichnoi bezpeky v konteksti strimkoho rozvytku ekhnolohii - blockchain. Ahrosvit. v. 23. pp. 45–50. [in Ukrainian].
6. Muzyka P. M. (2019). Analizstanu ta efektyvnosti vykorystannia zemelnykh resursiv v Ukraini // Vcheni zapysky Tavriiskoho natsionalnoho universytetu imeni V. I. Vernadskoho. Seriiia :Ekonomika I upravlinnia. 2019. v. 30(69). v. 4(2). pp. 45–53. [in Ukrainian].
7. Rud L. M. (2017). Investytsiina pryvablyvist ahropromyslovoho kompleksu Ukrainy: suchasnyi stan ta perspektyvy. Problemy systemnoho pidkhodu v ekonomitsi. Zbirnyk naukovykh prats natsionalnoho aviatsiinoho universytetu. Kyiv. v. 1 (57). pp. 42-46. [in Ukrainian].
8. Slobodianyk I. L. (2015). Suchasnyi stan innovatsiinoi aktyvnosti ahrarynoho sektora ekonomiky. Sotsialno-ekonomichni rozvytok rehioniv v konteksti mizhnarodnoi intehtatsii. Kherson. v. 18 (7). No. 2. pp. 95–106. [in Ukrainian].
9. Tkachuk V.I. (2013). Ekonomichna bezpeka ta stiikist silskohospodarskykh pidpriemstv: monohrafiia. Zhytomyr: "Vydavnytstvo "Volyn", 276 p. [in Ukrainian].
10. Urba S. I. (2019). Instytutsionalne zabezpechennia staloho zvytku ahrarynoho sektora ekonomiky Ukrainy // Formuvannia rynkovoï ekonomiky. v. 41. pp. 412–421. [in Ukrainian].

Стаття надійшла до редакції: 07.10.2021

Received: 2021.10.07