

UDC 351.862.4(477.41)

[https://doi.org/10.31891/2307-5740-2022-304-2\(1\)-8](https://doi.org/10.31891/2307-5740-2022-304-2(1)-8)

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ECONOMIC SECURITY OF AGRICULTURAL ENTERPRISES OF CHERNIHIV REGION, WAYS AND PROSPECTS OF DEVELOPMENT

The concepts and essences of economic security are presented, the general characteristics, analysis and assessment of the natural resource and socio-economic potential of the Chernihiv region are presented, the proportions, structure and pace of development of its economic complex are investigated, as well as an analysis of the organization and development of the social sphere and foreign economic activity of the region is made.

The purpose of the work is to develop theoretical and methodological principles and scientific and practical approaches to the problem of economic security of Chernihiv region. In accordance with the goal, the author of the article sets the following tasks: to reveal the concept and determine the essence of economic security of management in the Chernihiv region.

Keywords: national security, economic security, economy of the region, economic growth, regional economic policy of the state, national economy.

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Відокремлений підрозділ Національного університету біоресурсів і природокористування України
«Ніжинський агротехнічний інститут»

ЕКОНОМІЧНА БЕЗПЕКА СІЛЬСЬКОГОСПОДАРСЬКИХ ПІДПРИЄМСТВ ЧЕРНІГІВСЬКОЇ ОБЛАСТІ, ШЛЯХИ ТА ПЕРСПЕКТИВИ РОЗВИТКУ

Забезпечення сталого соціально-економічного розвитку та управління ним передбачає реалізацію принципу розумної достатності в моделі організації суспільства та включає регулювання в системі відносин між власністю, виробництвом і споживанням. У сучасних умовах основною ланкою цього процесу є створення системи економічної безпеки, яка б забезпечувала регулювання різних видів людської діяльності на рівнях їх негативного впливу на природне середовище.

У статті викладено поняття та сутність економічної безпеки, представлено загальну характеристику, аналіз та оцінку природно-ресурсного та соціально-економічного потенціалу Чернігівської області, досліджено пропорції, структуру та темпи розвитку її господарського комплексу, а також проведено аналіз організації та розвитку соціальної сфери та зовнішньоекономічної діяльності регіону.

Метою роботи є розробка теоретико-методологічних засад та науково-практичних підходів до проблеми економічної безпеки Чернігівщини. Відповідно до поставленої мети завданням є розкрити поняття та визначити сутність економічної безпеки господарювання в Чернігівській області.

Дослідивши сутність процесу забезпечення економічної безпеки Чернігівської області, визначили, що це процес сталого та збалансованого розвитку економіки області, її диверсифікації на структурній та інноваційній основі, що дозволяє проводити самостійну економічну політику та досягати глобальних стратегічних цілей з метою динамічного та постійного підвищення якості життя суспільства.

Ключові слова: національна безпека, економічна безпека, економіка регіону, економічне зростання, регіональна економічна політика держави, національна економіка.

Problem statement in general form and its connection with important scientific or practical tasks

At the present stage of formation and development of a new type of economic relations, the question of such a model of development of enterprises that would ensure economic growth and take into account the need for environmental protection is important. It should be noted that ensuring sustainable socio-economic development and managing it implies the implementation of the principle of reasonable sufficiency in the model of organization of society and includes regulation in the system of relations between property, production and consumption. In modern conditions, the main link in this process is the creation of an economic security system that would ensure the regulation of various types of human activity at the levels of their negative impact on the natural environment [4].

To date, the issue of studying the level of economic security of agricultural enterprises is becoming extremely relevant. Thus, objectively there is a need to develop and further improve the methodological base for assessing the effectiveness of the economic security system at agricultural enterprises in order to increase the ir financial stability and further development.

Analysis of recent researches and publications

A number of studies revealed a number of issues devoted to this issue, in particular, this problem was touched upon: G. A. Pasternak-Taranushenko [1], O. M. Lyashenko [5], V. V. Shlykov [10], V. I. Muntian [6],

L. I. Donets [3] and others. It should be noted that this problem is the subject of study by a number of scientists, but at the same time there are significant differences in the interpretation of aspects of economic security problems, the regional direction of this issue is not considered enough.

Highlighting previously unresolved parts of the common problem that the article is dedicated to

This is the relevance of the work, which outlines the theoretical foundations and methodological proposals on the structure of the formation and implementation of economic security under the conditions of deepening transformational processes in the regional economy of Ukraine on the example of the Chernihiv region. The relevance of the chosen issues, its insufficient theoretical study and practical significance predestined the main purpose and objectives of the study.

The theoretical basis of this information and research is leading scientist's labor, materials, periodic als, Internet resources and legislative and regulatory acts of Ukraine. The study used methods of analysis and synthesis of abstraction, generalization and so logical.

Formulation of the objectives of the article

The purpose of the work is to develop theoretical and methodological principles and scientific and practical approaches to the problem of economic security of Chernihiv region. In accordance with the goal, the author of the article sets the following tasks: to reveal the concept and determine the essence of economic security of management in the Chernihiv region.

Presentation of the main materia

In modern economic conditions, the problem of national security from the point of view of taking into account regional interests is of paramount importance, determines the economic policy of the state, is the basis of political decisions and requires appropriate scientific research. The economic security of each region and all regions in general is designed to guarantee the national security of the state as a whole [9].

Regarding the interpretation of the concept of economic security, there are different approaches. Thus, researchers O.M. Lyashenko, B.V. Pleskach, V.K. Bantush assure that economic security is a state of the national economy that allows to remain resistant to internal and external threats and is able to meet the needs of the individual, family, society and the state [2]. In turn, V.I. Muntian by economic security understands how to restore the ability of the national economy to self-reproduction and master the modern innovative model of economic growth in the context of globalization of socio-economic processes and new forms of superpower level of relations [2].

Interpreting the Law of Ukraine «On Stimulating the Development of Regions» of September 8, 2015, the region is the territory of the Autonomous Republic of Crimea, the region, the city of Kyiv and Sevastopol. This law defines the legal, economic and organizational principles for the implementation of the state regional policy to stimulate the development of regions and overcome the repressiveness of the territories [7]. On this basis, the economic security of the region is a concept that by its nature provides for the sufficient provision of territories with the necessary resources in order to form favorable development and growth of the economy on the basis of a balanced regional economic and social policy [9].

Since the subject of our research is the economic security of the Chernihiv region, that is why we will focus our attention on it.

Chernihiv region was founded October 17, 1932 Located in the south-eastern part of Ukraine. It borders in the west with the Kiev region, in the north - with the Gomel region of the Republic of Belarus and with the Bryansk region of the Russian Federation, in the east - with Sumy, in the south - with the Poltava regions of Ukraine. The number of the existing population of the region as of December 1, 2019 amounted to 912.6 thousand. 2.8% of the total population of Ukraine [8].

There are 22 districts in the region. The number of settlements, total - 1534, including cities - 15, urban-type settlements - 30, villages - 1429, settlements - 60. Chernihiv region is located in the north of Ukraine, on the left bank of the Dnieper, within the Polissya lowland and forest-steppe zone of the Dnieper lowland. Its soil and agroclimatic conditions are favorable for the development of agriculture.

The place of the region in the national territorial division of labor is determined by its leading sectors of the economy – mechanical engineering, electricity, light industry, chemical and petrochemical, food industry and agro-industrial complex. In addition, some branches of the forest, woodworking and pulp and paper industries, the construction materials industry, flour and cereals and feed industry have been developed in the region.

Of the minerals, the most important are the reserves of building materials, namely deposits of granites, gneiss, marble, construction and quartz sands. In general, the region is not sufficiently provided with deposits of major minerals.

The climate of Chernihiv region is temperate continental, mild with sufficient humidity, warm wet summers and relatively mild winters. The average temperature of January is 3.5 °C, July + 22.2 °C. The amount of precipitation on average does not exceed 550-600 mm per year.

Chernihiv region is sufficiently provided with water resources. The rivers of Chernihiv region belong to the Dnieper basin, which flows along the western boundary of the region, from north-east to west the territory of the region crosses the Desna. It flows into the Kiev reservoir. The average runoff of the Desna is 50-100 cubic meters. m/s (perennial).

In the north, sod-podzolic, arched and marsh soils are common. In the central part – black soils are ashed with typical, dark gray ashed forest soils; in the south – black soil deep little humus; on the left bank – black soils are typical of small humus, meadow-black earth, meadow brackish, salt marsh soils.

In 2020, the main direction of innovation development was the renewal of mechanical engineering, chemical and petrochemical industries, processing of agricultural products, which made it possible to maintain the competitive advantages of the region's enterprises in the relevant commodity markets. By the end of 2020, 40 enterprises were innovative and active, introducing 25 new technological processes, more than half of which were aimed at energy saving. The total volume of innovative products sold in 2020 amounted to 1084.7 million tons. uah. The share of innovative products sold in the total volume of products sold was 9.4%.

The economy of Chernihiv region is characterized by a rather powerful production potential. In the total value of fixed assets of Ukraine in 2020, the region accounts for 2.6%. In the structure of the main production funds, the most important place belongs to industry - 25%, agriculture - 15.1%, transport - 13.4%, construction - 2.7%, trade and catering - 1.9%. The main problem of the production potential of the region is the physical and moral deterioration of the main production funds, which require attracting significant investment capital to update them in accordance with existing world achievements.

The analysis of the economic situation of Chernihiv region makes it possible to assert a fall in the pace of economic development. Thus, the index of industrial products of the region in December 2020 amounted to 95.1%, but in 2021 this figure increased slightly.

At the enterprises for the production of food, beverages and tobacco products by the end of 2020. there was a 3.2% increase in output. The increase in production in the production of oil and animal fats (23.2%), beverages (by 17%), dairy products and ice cream (by 20.6%), products of the flour and cereal industry (5%), in the production of bread and bakery products (by 0.7%) was obtained. At the same time, in the production of other food and meat and meat products, production rates amounted to 75.2% and 82.9% respectively [8].

In the passenger industry, the growth rate of products in December 2020 is 82.4%. Enterprises for the processing of wood and the production of products from it (except furniture) in 2020 compared to the previous year, production was reduced by 30%. In pulp and paper production, the growth of industrial products is 89.9%, at enterprises producing paper mass, paper, cardboard and products from them - 100.1%.

In the chemical and petrochemical industry, there is a decrease in production by 19%.

At electricity production and distribution enterprises, the production rate for 2020 was 88.3%. According to the results of 2020, 5,433 mln. kW hours of electricity, which is 167 mln. kW hours (4.3%) less than in the same period last year.

The agro-industrial complex of Chernihiv region is an intersectoral territorial and production formation, covering such areas of production as agriculture, food and processing industry and the sphere of production services of its main industries.

The territory of Chernihiv region has a fairly high level of development. Of the total area of the region falls on agricultural land (65.2%), in the structure of which a fairly high share of arable land is 82.3%. Per capita in the region there are 0.91 hectares of agricultural land with 0.81 in Ukraine and 0.73 hectares of arable land against 0.62 hectares. According to the yield of such grain crops as wheat, barley, corn region occupies a leading position.

Sugar beets (210.6 kg / ha) have a high yield. In the structure of acreage of the region, the largest part is grain (48.2%) and fodder (33.5%), potatoes and vegetable-melon and technical crops - 10.3 and 7.9%, respectively. Among the branches of animal husbandry, cattle breeding of the dairy and meat direction, pig breeding and poultry farming are important.

The functional role of production resources in agriculture is not the same. Material and spiritual values are created only in the process of purposeful activity of a person, that is, labor. And the totality of people who directly participate in agricultural production is labor resources.

Labor resources of agriculture is an able-bodied population, which is endowed with opportunities, an appropriate level of knowledge and practical experience for working in agricultural production.

Labor resources are the decisive factor, the rational use of which ensures an increase in the economic efficiency of agricultural production.

In table. 1 shows the dynamics of the average number of employees of agricultural enterprises of Chernihiv region, who are directly engaged in agricultural production. As the analysis shows, over five years, the average number of workers employed in agricultural production decreased by 15.2 thousand. persons, and amounted to 24.7 thousand people in 2020. Persons. Of these, 14.2 thousand people were employed in the field of crop production. and livestock – 10.5 thousand people. Persons.

It is worth noting the gradual reduction of workers, both generally employed in agricultural production and by industry. In particular, in the field of animal husbandry, the average number of employees for the period 2015-2020 decreased by 10.2 thousand. Persons. This is a negative trend.

It should be noted that in the labor resources of agricultural enterprises, not their quantity is important, but their quality, that is, the ability of employees to increase the number of products produced at the lowest cost of labor.

Of course, only with the help of qualitative characteristics of labor resources it will be difficult to achieve this, but in combination with the introduction of complex mechanization of labor, the use of progressive technologies and techniques in crop production and animal husbandry, the material interest of workers, rational specialization and the concept of production based on inter-economic cooperation and agro-industrial integration, this is possible.

But, no matter how significant the role of human labor, labor resources in agriculture without land resources, it remains unrealized, since it is impossible to replace the forces of nature with human labor.

Table 1

Dynamics of the average number of employees of agricultural enterprises of Chernihiv region engaged in agricultural production, thousand rubles. Persons

	Years						Deviation (+/-) 2020 until 2015
	2015	2016	2017	2018	2019	2020	
Number of employees in total:	39,9	34,8	30,1	28,7	25,9	24,7	-15,2
including crop production	19,2	17,2	15,2	15,8	14,3	14,2	-5
in animal husbandry	20,7	17,6	14,9	12,9	11,5	10,5	-10,2

Source: compiled by the author according to the Main Department of Statistics in Chernihiv region

Table 2

Provision of land resources of agricultural enterprises Chernihiv region, thous. Hectare

Year	Total land area	Agricultural grounds	Fatigue number	
			arable land	hayfields and pastures
2015	982,0	952,0	791,4	160,6
2016	928,1	898,5	779,8	118,7
2017	923,7	894,0	787,0	107,0
2018	934,6	709,0	804,5	102,5
2019	906,6	879,0	781,7	96,9
2020	904,4	877,7	784,7	91,9
Deviation (+/-) 2020 to 2015	-77,6	-74,3	-6,7	-68,7

Source: compiled by the author according to the Main Department of Statistics in Chernihiv region

Consequently, land in agriculture is the main means of production, which functions simultaneously, both as a subject of labor and a means of labor. In general, for the period 2015-2020 (Table 2) in agricultural enterprises of Chernihiv region there was a reduction in the total land area by 77.6 thousand square meters. hectare. Agricultural land, respectively, decreased by 74.3 thousand tons. ha and in 2020 amounted to 877.7 thousand hectares. hectare. Of these, arable land amounted to 784.7 thousand tons. ha, which is 6.7 thousand hectares. ha less compared to 2015 For animal husbandry of the region is a rather negative trend is a significant reduction in pastures and hayfields. If in 2015 there were 45 goals per 100 hectares of pastures and hayfields. cows, then in 2020 there are 18 more cows – 63 goals. per 100 hectares.

The most effective describes the trend of changing the economic security of agricultural enterprises in Chernihiv region is the quadratic function (Table 3). The obtained conclusions show that in the studied farms for the period 2015-2020. the level of economic security annually decreased by an average of 0.06067 with an annual acceleration of 0.0168.

With the help of fisher's criterion, we evaluate the reliability of the regression model under study. The actual value of the criterion is , and its tabular – . From the analysis it follows that, and this indicates that this model is 93% reliable.

The result of the trend analysis showed that for APRC «Xena», PJSC «Losinivske», LLC Agrofirma «Nikolaevka» the dynamics of the level of the integral indicator is described by a linear function; for Farm «Agroyar», APRC «Weisbach-Agro», LLC «Agro-Kim» – logarithmic function; for ALLC «Niva 2008», SPC «Demeter», LLC «Resource-Agro» – exponential function; for LLC «Bogdanivske», Farm «Magnate-Agro», LLC «Rozhnyvka-Agro» and Farm «Kolos» – a quadratic function;

SE RF «Pryluky Research Station NAAS» and Farm «Ruban» are an indicator function.

The analysis of deviations from the trend indicates the additivity of the constructed equation of the trend from the bottom of which its value is closer to zero. A rather significant change in external and internal factors influencing the level of economic security of agricultural enterprises in the Chernihiv region is variable, and the latter cannot be determined quite clearly for the long term.

Table 3

Analytical expressions of the general trend of changing the integral indicator of economic security of agricultural enterprises Chernihiv region

Name of the enterprise	Type of function	Determination coefficient	Analytical expression
1. APRC «Xena», 2. PJSC «Losinivsyke», 3. LLC Agrofirma «Nikolaevka»	Line	0,44	$y = 0,4131 + 0,0187x$
1. Farm «Agroyar», 2. APRC Weisbach-Agro, 3. LLC Agro-Kim	Logarithmic	0,18	$y = 0,3921 + 0,05 \ln(x)$
1. ALLC «Niva 2008», 2. SPC «Demetra», 3. LLC «Resource-Agro»	Exp	0,41	$y = 0,4304e^{0,0342x}$
1. LLC «Bogdanivske», 2. Farm «Magnate-Agro», 3. LLC «Rozhnivka-Agro», 4. Farm «Kolos»	Quadratic	0,79	$y = 0,496 - 0,0799x + 0,0063x^2$
1. SE RF «Pryluky Research Station NAAS», 2. Farm «Ruban»	Pozdnikova	0,20	$y = 0,4398x^{0,0087}$

Note. Calculated by the author on the basis of a literary source

So, in general, agricultural enterprises of Chernihiv region are sufficiently provided with land resources, the problem is to use them productively and efficiently. The main directions of socio-economic development of the region in the context of national development should be the following: stabilization of the work of both industrial and agricultural enterprises, increasing the volume of production of competitive products, expanding its range and improving quality by updating the material and technical base in accordance with the latest achievements of science, technologies and world standards, complex mechanization and automation of labor-intensive processes; reforming the agro-industrial complex and creating conditions for the receipt of investments in order to ensure technological re-equipment of the agricultural sector and transform it into an efficient, competitive and domestic and foreign markets sector of the economy; Creation of favorable conditions for admission to the region of domestic and foreign investments, increasing the investment image of Chernihiv region, creating special regimes for attracting investments; creating conditions for the development of entrepreneurial activity and improving the business climate of the region by attracting financial and investment resources to the field of small business, expanding and supporting the activities of a network of business centers, innovation centers, etc.

Conclusions from this study and prospects for further exploration in this area

Having examined the essence of the process of ensuring the economic security of the Chernihiv region, they determined that this is a process of sustainable and balanced development of the region's economy, its diversification on a structural and innovative basis, which allows conducting an independent economic policy and achieving global strategic goals in order to dynamically and constantly improve the quality of life of society.

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