

Formation of resource potential of agrarian enterprises on the principles of ecological and economic security

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Abstract:

In this article the authors have substantiated the formation of the resource potential of agrarian enterprises on the basis of compliance with the requirements of ecological and economic security. The authors define the concept of "resource potential of an agrarian enterprise" and considered the constituent structure of resource potential. The definition of "ecological and economic security of activity of agrarian enterprises" was given. It is determined that the establishment of ecological and economic security in the activities of agrarian enterprises will promote the production of organic products, will create conditions for increasing the competitiveness of enterprises. The study of the connection and interaction of elements of the resource potential of agrarian enterprises with the constituent elements of ecological and economic security was carried out. As a result of the study, the scheme of formation of resource potential of agrarian enterprises based on the requirements of ecological and economic security was proposed and grounded. The main problems, which hinder the formation of ecologically safe economic development of agrarian enterprises, and, accordingly, have a negative influence on the formation of their resource potential. The methodological basis of the study was the dialectic method of cognition and the systematic approach to the study of the problem of the formation of resource potential. In carrying out the research were applied general scientific methods: abstract-logical, monographic, generalization.

Keywords: agrarian enterprise, resource potential, ecological and economic security, ecologization, agrarian production, food safety.

JEL Classification: O13; Q18; Q57.

Introduction

The necessity and possibilities of the steady development of economic systems, including the economic system of Ukraine, are determined, first of all, from the position of national security, the key elements of which are environmental and economic security. The current reality confirms the necessity and significance of the

establishment of ecological and economic security, especially in the agrarian sphere, whose effectiveness is dependent on food sufficiency and food safety.

The purpose of this article is to justify the formation of the resource potential of agrarian enterprises on the basis of adherence to ecological and economic security requirements, which will facilitate an expanded reproduction of agricultural production, formation of conditions for increasing its competitiveness, further development of organic production, promotion of the ideology of the "green economy" in agrarian production. As N. Kondratiev correctly pointed out in the past century (Kondratiev 1989), economy can not be developed more than it allows agriculture. Resource potential of agrarian enterprises determines the possibilities for their development. In the current world trend, the development of agrarian enterprises and the future depends from organic agricultural production, functioning of which is possible only on the basis of compliance with the requirements of ecological and economic security.

1. Literature review

The research of the problem of formation of the resource potential of enterprises in the agrarian sector is carried out by the leading scientific institutions, and a considerable number of scientists were devoted to this problem their scientific works, which covered the theoretical, methodological and applied aspects of the formation and use of the resource potential of agrarian enterprises. Among them: Ulianchenko O.V., Vishnevskaya O.M., Zhybak M.M., Sobkevych O.V., Rusan V.M., Ilin S.Yu., Kyrylov Yu.Ye. and other. Problems of formation and observance of ecological and economic security in various spheres of economy were studied both by domestic and foreign scientists, in particular: Melnyk L.H, Khens L., Rohozhyn O.H., Khlobystov Ye.V., Egorova M.S., Furdychko O.I., Shkuratov O.I. Taking into account the modern scientific research of the researchers, the question of the formation of the resource potential of agrarian enterprises, taking into account the current requirements regarding the safety of technologies and products, requires further elaboration, since the agrarian business, while fulfilling its business purpose, should be responsible for the preservation and reproduction of natural agro-systems, promote socio-economic development of rural areas, i.e., to carry out their activities on the principles of ecological and economic security.

2. The main results of the research

In modern scientific research there are a variety of criteria for determining the nature of resource potential. In our opinion, they all deserve attention and have their own special approaches to understanding this concept. Traditionally, the potential is considered as a generalized, aggregate characteristic of resources presented in a particular place and at a certain point in time. According to etymological significance, "potential" means "hidden possibilities", which under certain conditions of their practical realization can be transformed into "real possibilities".

Resource potential is often viewed as a collection of all resources (material, intangible, labor, financial, natural, informational, etc.), which are used in social reproduction at one or another stage of development of productive forces. It should be emphasized that resource potential is not just a set of resources, it is a system and a complex concept, because these resources are closely interrelated and interactive.

Resource potential is also characterized by the ability of economic entities to use a certain extent and in the proper quality of available resources, with appropriate restrictions of the internal and external environment (Ilin 2012). The key constraints on the internal and external environment for agrarian enterprises are, from our point of view, the requirements of ecological and economic security, the necessity of which formation in agrarian production is indisputable in order to ensure expanded reproduction, production of competitive products, ensuring food security and adequacy, and positioning the country in the system of world agrarian farms.

Thus, the resource potential of agrarian enterprises determines their possibilities of agricultural production, determines the competitiveness of agrarian products, creates conditions for employment of the rural population, and, importantly, affects the food supply of the population of the country.

The formation of a balanced resource potential of agrarian enterprises should be based on an integrated approach, taking into account the influence of regional natural and climatic features, natural assimilation, and also should contribute to the improvement of agro-systems. At the same time implementation of strategies for the formation and use of resource potential of agrarian enterprises should be based on the activation of measures for the ecologization of production in order to reduce the negative anthropogenic and technogenic impact on agro-systems (Vishnevskaya 2011).

The strategy of the development of the agrarian sector of Ukraine's economy based on increasing the efficiency of management of the resource potential implies that such management should take place in two directions: social and economic. Social development includes science and education, culture and spirituality, social

infrastructure, social protection of the population and the protection of the natural environment. In its turn, the economic direction involves structural restructuring of the economy, ensuring the competitiveness of products, investments and innovations, technological modernization, environmentalization of economic activity. And most importantly, the goal of this strategy is to provide food security and high-quality agrarian production (Ulianchenko 2008). In the context of this strategy of managing resource potential, the process of environmentalizing the economic activity of agrarian enterprises should be considered as reducing the needs of agrarian production in attracting natural resources, that is, environmental improvement.

The resource potential of agrarian enterprises can be represented in the form of three main aggregate resource groups, which include the relevant components, in particular:

1) natural and biological resources (land, water, climatic and raw materials, representatives of flora and fauna of a particular area, ecological state of agro-systems);

2) labor resources that represent the social component of the process of forming the potential of agrarian enterprises, as well as link the natural and biological resources with the economic component of the potential;

3) property status, financial resources (fixed assets and current assets, sources of their formation) (Zhybak and Kuzmovych 2009).

In our opinion, a more detailed composition will have the following elemental structure of the resource potential of agrarian enterprises:

1) natural and biological resources of the agrosystem within which the enterprise operates, as well as its quantitative and qualitative status;

2) labor resources, represented, as a rule, by the local rural population;

3) material resources, represented by fixed and working capital;

4) financial resources in terms of cash and cash equivalents, cash in accounts with banks, securities, etc.;

5) information resources that are represented by regulatory and information technology.

Taking into account the above mentioned elemental structure of the resource potential of agrarian enterprises, we have the opportunity to formulate the following definition: "The resource potential of an agrarian enterprise is a complex of resources that are at its disposal and use, as well as the level and possibilities for achieving the goal of agrarian entrepreneurship, namely, the provision of food sufficiency at the level a separate region and food security of the country as a whole".

The potential of the enterprise is traditionally considered as its property to provide the expected result in the existing system of external constraints, taking into account the ability of the enterprise itself to achieve the goal and development (Bachevskyi, Zablodska and Reshetniak 2009). From an economic point of view, the purpose of any business activity is to make a profit. From the position of the same state, the purpose of the agrarian enterprises is to provide food security, the formation of which, in turn, is based on ecological and economic security.

In public and scientific circles, the view is that the environmental state of the environment is determined by the level of economic development, environmental education and environmental management in the country. And you can agree with it. At the same time, it is now possible to confidently note that the dependence vector was changed its direction, that is, the purely consumer attitude to natural resources, the continued neglect of environmental imperatives in economic activity have led to the fact that it is the ecological state that will determine the possibilities of economic and social development. Validity confirms that the global economy became critically close to the dangerous limit of natural consumption and use; in many countries, the problem of clean water and air is relevant. Under such circumstances, the threat of struggle for natural vital resources becomes quite probable.

Ecologically safe is such a production activity of the enterprise, as a result of which the local ecosystem is damaged, the size of which does not exceed the assimilation potential of the territory (Furdychko and Shkuratov 2016). In addition, over the past two decades, economic science was formed a direction that defines the economy as a dependent component of the natural environment in which it exists and is part of it - the "green economy" (Porfiriev 2013). The main content of the ideologies of the "green economy" is that they became transitional aspects of the cost policy of protecting the natural environment and rational use of natural resources to the economically profitable policy of the application of "green technologies" and the restoration of natural resources (Egorova and Chang Tkhi 2015). The theory of "green economy" is based on the following axioms:

1) it is impossible to infinitely expand the sphere of influence in a limited space;

2) it is impossible to demand satisfaction of infinitely growing needs in the conditions of limited resources (Rohozhyn, Khlobystov and Trofymchuk 2015).

Moreover, a part of the "green economy", a new wave of modern environmental management in many countries of the European Union (to which Ukraine is gradually acceding), is a bioeconomy based on the use of innovative technologies and biotechnologies, and one of the areas of development of which is prevention of pollution of the natural environment (Brychko, Lukash, Maslak and Kovalova 2018).

Today, the established scientific position is that the foundation of balanced development must be organically interdependent, dialectically interconnected with the tandem of the natural environment and the socio-economic system, which we consider as a state of ecological and economic security. Scientists L.H. Melnyk and L. Khens (Melnyk and Khens 2008) ecological and economic security are characterized as the state of the economy and its basic natural resource potential, which has compatible characteristics of economic and environmental security.

At the level of an individual enterprise, the state of economic security is characterized by the effectiveness of a complex of organizational-legal, financial-economic, production-technical and social components in order to achieve a controlled dynamics of development, avoidance of manifestations of crisis phenomena and prevent bankruptcy. Economic security in this case will be determined by: growth of volumes of production; profitability; financial stability; provision of material and technical resources; personnel provision; modernization of production and innovative development; state support of environmental entrepreneurship, and so on (Khromushyna 2011).

The constituent elements of environmental safety in the activities of agrarian enterprises are:

1) environmentally friendly products: materials or products that are not harmful and hazardous to the environment, animals, plants and human health;

2) ecologically clean agro-systems (especially - soils as the basis of agrarian production): do not contain harmful elements that could threaten the condition of agrobionts and human health;

3) environmentally friendly production, based on compliance with environmental requirements (this is not only about the production process, but all stages of the product's life cycle: transportation, exchange, consumption, waste management).

The establishment of environmental safety in the activities of agrarian enterprises will promote:

- compliance with agro-ecological requirements in crop and livestock production;
- application of agrotechnologies aimed at preservation and reproduction of agroecosystems in the production process;

- production of environmentally friendly products that meets world quality standards;
- environmental activity at the expense of state and own funds of enterprises;
- prevention of chemical and radiation contamination of products, etc. (Khromushyna 2011).

Given that, more and more countries are transferring agrarian production from the use of chemicals and antibiotics to organic and biopreparations, we consider it appropriate in this context to pay attention to the global trend of organic production and organic products. In particular, in the US, Canada, the European Union decided to reduce the list of pesticides authorized for use in agricultural production by 600 items (out of 1000 existing ones). Denmark, Germany, the Netherlands and the United Kingdom plan to limit agro-chemistry to 50-70% by 2030. France, Germany and the United Kingdom have declared that they will use 20% or more agricultural land for organic farming by 2020 (Berehova and Matsiuta 2013).

Specifics of organic production of agricultural products are determined by economic, ecological and social effects. The economic effect is caused by the readiness of consumers to pay a higher price for organic produce. The ecological effect is conditioned by ecologization of agricultural production. The social effect is characterized by a considerable volume of manual labor, which enables organic production for small agricultural producers (Sobkevych, Rusan, Yurchenko and Kovalova 2013).

Organic production is not just a tribute to fashion, it is a matter of health, safe residence of present and future generations, preservation of the natural environment in a fit for life. In Ukraine, at the present time, the legislation regulates the production and circulation of organic products (On the production and circulation of organic agricultural products and raw materials, the Law of Ukraine dated 03.09.2013). Organic products are products obtained from certified organic production, which excludes the use of chemical fertilizers, pesticides, genetically modified organisms, preservatives, etc., and at all stages of production (cultivation, processing), legally established methods, principles and rules are defined for obtaining natural (environmentally friendly) products, as well as preserving and restoring natural resources. In addition, from August 2, 2019, the Law of Ukraine "On Basic Principles and Requirements for Organic Production, Turning and Marking of Organic Products" will come into force, which will determine the basic principles and requirements for organic production, circulation and labeling of organic products, the principles of legal regulation of organic production, circulation of organic products and functioning of the market of organic products, legal bases of activity of central executive authorities, subjects of the market of organic products and directions of state policy. (On Basic Principles and Requirements for Organic Production, Circulation and Marking of Organic Products, Law of Ukraine dated July 10, 2018). The adoption of this law will contribute to the further development of organic production in the country, the improvement of normative and methodological support, that is, providing clear and transparent rules for the functioning of organic production. As of the beginning of 2017, Ukraine ranks 11th among the countries of Europe and the 20th in the world for the total area of agricultural lands certified as organic. Over the past 5 years, they have increased by 54% and currently amount to 421500 hectares. 48.1% of the area is occupied by the cultivation of cereals, which provides the 7th place among the producers of

organic grains. Over 16% are oil companies (5th in the world); 4.6% occupy beans (7th place), vegetables occupy 2% of the land (10th place), and fruits - 0.6%. At the same time, Ukrainians consume much less organic food than residents of the European Union. Per capita, this indicator in Ukraine are 3 euros, and in the countries of the European Union - 53.7 euros. According to the volume of the internal market for organic products, Ukraine ranks 25th in Europe: from the hectare of organic land to the domestic market gets products at 50 euros, while in Europe - 2345 euros (Analysis of organic products market in Ukraine, 2018).

At present, Ukraine has an unrealized agricultural potential on the world market. According to the geographical, natural and climatic conditions, the country has the potential to become one of the leading suppliers of agricultural products to world markets. Given the urgency of the food shortage in the world, it will be advisable to form and promote the brand "European Bread" or "Feeder of the World", which in the long run will contribute to transforming Ukraine into a leading European agroindustrial state and consolidating in the consciousness of the world community the brand of a country that delivers quality agricultural products (Kyrylov 2016).

In order to further development of organic production in Ukraine, in addition to improving the regulatory framework in accordance with the requirements of the European Union, it is necessary to create an effective business environment, provide professional training on demand of the market, create information space for potential consumers and producers about the benefits of organic products (Maslak 2017).

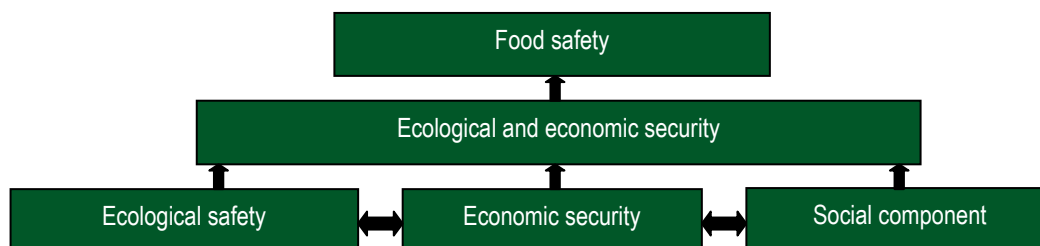
Over the past ten years, the area of organic land in Ukraine has almost doubled: from 242 thousand hectares to 421 thousand hectares. Cereals are the largest among organic products, the growing of berries is gaining popularity. It is expected that the production of organic products in Ukraine will continue to grow, as European capacities are not able to meet local demand for it. (Analysis of organic products market in Ukraine, 2018).

In view of the above, let us note that agricultural land, agricultural products can be certified as organic in accordance with the soil and other components of agro systems with certain quality criteria. Of course, it is impossible to ensure compliance of agrarian production with "organic" standards without complying with environmental safety requirements. In our opinion, in implementing the strategy of economic development, environmental safety should be ensured first and foremost. Subsequently, any form of economic activity that directly or indirectly affects the environment should be regulated by the state in order to comply with environmental safety requirements. Most of all, it concerns the agrarian sector of the economy, the functioning of which is based on the use of natural and biological resources.

Summing up the given characteristics of economic and ecological safety, we consider ecological and economic safety of activity of agrarian enterprises to be considered as their economic development taking into account the requirements of ecological safety (ecologically clean products, ecologically clean agro-systems, environmentally friendly production) in order to achieve food security. In turn, food security is characterized by the guaranteed assurance of all members of society of high quality, environmentally friendly and clean food products to meet the physiological needs, support physical and mental health of the population on the principles of ecologically balanced use, preservation and reproduction of the natural environment.

Note that the economic development of the agrarian enterprise will be determined by the social component, because it is, first of all, labor resources and personnel support of the enterprise. A clear reflection of the above definition of ecological and economic security is Figure 1.

Figure 1. Scheme of ecological and economic security of agrarian enterprises



Source: (compiled by the authors).

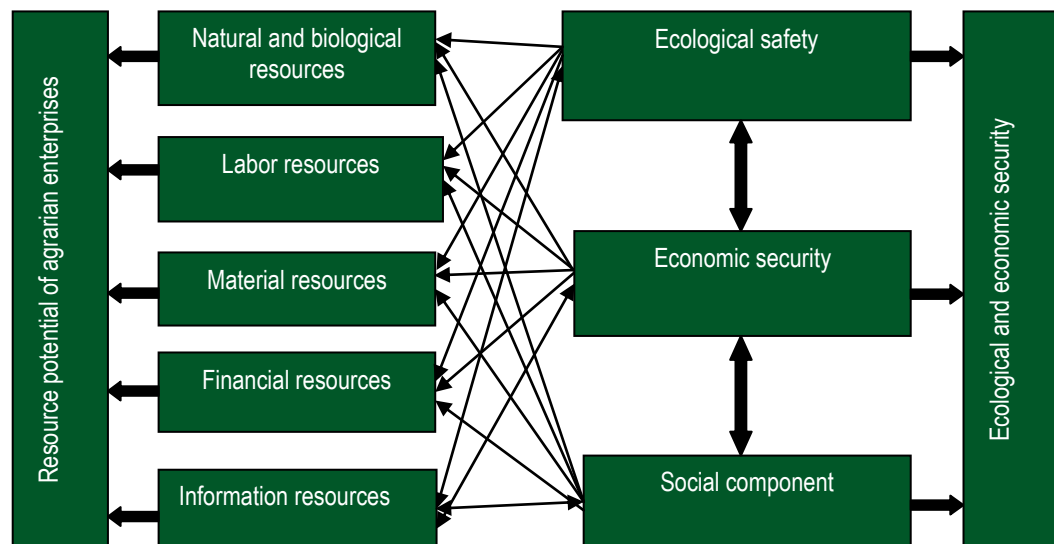
At the same time, the social component of ecological and economic security beyond the boundaries of a separate enterprise covers such elements as:

- availability of quality food for all segments of the population;
- balanced nutrition;
- provision of the energy level necessary for the human body;
- improvement of demographic and migration situation in the rural areas;

- social security for workers and their families.

Our research suggests that supporting economic development taking into account environmental safety requirements, on the one hand, depends on the availability and level of utilization of the resource potential. On the other hand, the establishment of ecologically safe economic development of agrarian enterprises will contribute to the provision of expanded reproduction, and hence to the formation of their resource potential. In fig. 2 schematically presents the connection of the resource potential of agrarian enterprises and the ecological and economic security of their activities.

Figure 2. Scheme of the formation of resource potential of agrarian enterprises on the principles of ecological and economic security



Source: (compiled by the authors).

As seen from shown in Fig. 2 schemes, ecological and economic security through its constituent elements directly or indirectly has a connection (or interconnection) and, accordingly, has some influence on the components of the resource potential of the agrarian enterprise. So, ecological safety determines the state (under this we consider qualitative and quantitative parameters) of the natural and biological resources as an element of resource potential.

Accordingly, ecological safety of agricultural systems will directly affect labor resources, as this determines the living conditions of local residents (unpolluted soils, sources of drinking water, clean air). Undoubtedly, the ecological state of agricultural systems will also affect the financial and economic indicators of the economic activity of the agrarian enterprise. Between ecological safety and information resources there is an interconnection, as in this context, information security and information technologies will contribute to the establishment of environmental safety, on the one hand, and on the other - thanks to information technologies, an agrarian enterprise can position itself in the information space as a producer who adheres to requirements of ecological safety, creates conditions for organic production.

Economic security implies the availability of own financial resources and the possibility of attracting additional environmental protection measures, financing costs associated with the certification of production, i.e. has a direct impact on natural and biological resources. The motivation of employees and their families, the level of logistics, and the need for financial resources are determined by the state of economic security. Between economic security and information resources interconnection is established, because again the information management technologies will promote the economic development of the agrarian enterprise and create its positive business image.

The social component of ecological and economic security has a link with all the constituent elements of the resource potential, as it is characterized by the demographic situation, the health of workers and their families, related to the quality of the environment, social infrastructure of the countryside, motivation to work, culture consumption, ecological culture and upbringing.

Conclusions

Thus, the formation of the resource potential of agrarian enterprises is a complex and dynamic process and should be based on economic development, while respecting the requirements of environmental safety and creating comfortable living conditions for workers and residents of rural areas, that is, the state of ecological and economic security. Accordingly, environmentally sound economic development of agrarian enterprises will contribute not only to the achievement of the business goal in agribusiness, but will have an undeniably positive impact on the quantitative and qualitative parameters of their resource potential. This, in turn, intensifies the process of orientation of producers of agrarian products to organic production, the demand for which products in the world is constantly increasing.

Under the existing complex conditions of domestic agrarian enterprises, there are a number of problems that hinder the formation of ecological and economic security in agrarian production, and, as a result, inhibit the development of organic production. These include:

- the desire of owners and managers of agrarian enterprises to obtain economic benefits, while neglecting the requirements of environmental safety;
- lack of interest in the latest organic technologies, since their implementation requires significant funding at the first stage of their development;
- certain psychological conservatism of the leaders;
- too loyal legal basis for those economic entities that cause environmental damage;
- insufficiently formed domestic market of organic products;
- problems with the storage and processing of agricultural products were not solved;
- low purchasing power of domestic consumers;
- insufficient qualifications of employees.

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