

**REASONING THE WAYS TO IMPROVE THE INVESTMENT  
SUPPORT IN AGRICULTURAL LAND USE  
ECOLOGIZATION SYSTEM**

*Nazar Malevych,*

*Faculty of Agrarian Economics and Management,  
Ternopil National Economic University,*

*Borys Sydoruk,*

*National Research Centre “Institute of Agrarian Economics”,*

*Roman Hevko,*

*Faculty of Agrarian Economics and Management,  
Ternopil National Economic University*

**Annotation.** *The article analyzes the importance of the processes of investing in ecologization of agrarian production in the direction of ensuring the development of the agricultural sector. The directions of practical realization of investment of ecological safety in agrarian branch are offered. The main components in the system of regulation of investment processes of ecologization of agricultural activity at different levels of management are considered.*

**Key words:** *agrarian production, ecologization, ecological safety, ecological investment, land use, investment climate, investment project, level of management, stimulation.*

**Introduction.** The ecological component in the system of development of agricultural land use plays a decisive role in the formation of an eco-friendly environment of the society and in the improvement of the ecological and economic efficiency of land resources usage.

At the present stage of development of the agrarian sector in many countries of the world, the proper level of environmental safety is largely ensured through the use of alternative eco-friendly technologies in the production of agricultural products and is determined by the quality of natural resources within the agronomic sphere. However, in order to support the dynamic development of eco-friendly agricultural production, certain stimulus measures and their financial support are important, which will develop the potential of this industry and promote its effective functioning.

In this aspect, expansion of investment activity in the field of ecologization of agrarian production and formation of an attractive environment for inflow of investments is decisive.

The intensification of investments in the ecologization of the agrarian sector is a determining factor, which is being worked on by scientists and practitioners in many countries around the world. For Ukraine, this problem is especially urgent due to the significant deterioration of the quality of agricultural land, because of their pollution and intensive use. Negative phenomenon is also the tendency to “extinction of the village”, the reduction of the number of rural settlements and their labor resources as a result of the consolidation of agricultural producers, due to the use of large-scale equipment,

especially in the field of plant growing.

The issue of investing agricultural formations is considered in the research of many Ukrainian scientists, such as I.P. Boreiko, I.I. Vinichenko, N.I. Demchuk, M.Yu. Kozhemiakina, N.I. Kolyshkina, N.A. Mazur, L.V. Smolii, H.V. Spaskyi, M.H. Stupen, M.V. Shchuryk etc. (Boreiko 2009; Vinichenko 2008; Kozhemiakina 2009; Mazur 2009; Smolii 2009; Spaskyi 2008). As for the solving the problem of investing resources and financing the ecologization of the agricultural sector, it is worth allocating N.M. Andryeyeva, O.M. Vishnevskaya, O.I. Hutorov, O.V. Prokopenko, O.I. Shkuratov and others. (Andryeyeva 2005; Hutorov 2008; Prokopenko 2010; Shkuratov 2010).

The purpose of the study is reason the ways to improve the investment provision of ecologization in the field of agricultural land use and the production of eco-friendly agricultural products.

According to the goal, the following tasks were defined:

- to study the main factors influencing the state of investment attractiveness of eco-friendly agricultural production;
- to reason the directions of regulation of investment processes at different levels of management in the field of ecologization of agrarian production.

**Material and Methods.** The research was conducted using the dialectical method of knowledge of the effect of economic laws and the systematic approach to the study of economic phenomena and processes, which involves achieving the balance of economic benefits and ecological safety in land use; monographic method was used during the processing of scientific publications on the concepts of “environmental investment” and “environmentally-oriented investment”, as well as the classification of this kind of investment; abstract-logical method – for making theoretical generalizations and formulation of conclusions.

**Results and Discussion.** In the broad sense, the concept of “investment” is treated as an activity associated with the investment of capital in order to increase and develop the object of investment. In this case, the possibility of increasing investment capital and obtaining positive effects should be so significant as to offset an investor's refusal to use funds to meet his personal needs in the current period and reward him for the risk of loss and impairment in the future. Thus, investment is connected, first of all, with the processes of expanded reproduction and determines the pace of economical, environmental and social development.

In our understanding, environmental investment in the agrarian sector is a process of current investment in the resource-ecological sphere of agricultural activity, and environmentally-oriented investment in agrarian activities is investment which takes into account the achievement of environmental goals and priorities, namely the investment of various types of property and intellectual property in agrarian activities. Their aim is to reduce and eliminate the negative anthropogenic impact on the environment, to preserve, restore and rationally use the land resources potential in order to achieve the environmental safety of the system management (Andryeyeva 2005).

Proceeding from the peculiarities and directions of implementation, ecologically

oriented investments in the agrarian sector should be classified as follows: ecological investments on preservation and restoration of the land resources potential; investments directed to the sphere of achievement of resource and ecological safety of agrarian production; ecologically oriented innovative investments for improving the technical and technological component of agrarian production (Andryeyeva 2000).

If we analyze the statistical data on the volume of capital investment in the protection and rational use of natural resources in the field of agriculture, hunting and the provision of related services in Ukraine, there is a sharp fall of them from 187,660.2 thousand UAH in 2013 to UAH 18,424.3 in 2015, which is only 0.07% of the amount of capital investments in the development of this industry (State Statistics Service of Ukraine 2014; State Statistics Service of Ukraine 2016). This requires the development of a system for encouraging investment in environmental agriculture in the agricultural sector.

In the process of developing incentive mechanisms for investing in the production of eco-friendly agricultural products, one should proceed from the fact that, in market conditions, environmental activities should be economically feasible.

According to the world experience, it is investment-friendly to create environmentally friendly production within the framework of specific enterprises, which forms the principle of profitability (utility) (Reid 2008; McKinsey & Company 2011).

Consequently, investments aimed at ensuring the resource and ecological safety of the agrarian sector are considered as the investment of resources that ensure the preservation of vital components of the natural resource environment of the agricultural sector.

The formation of a favorable investment climate in the field of eco-friendly agricultural production should be based on a number of factors, namely:

- 1) political (support by the authorities of investment environmental projects, restrictive measures against “dirty” industries, legal terms of investment, level of legislative support);
- 2) social (social stability in society, level of social sphere development, consumer potential, social conditions of the population);
- 3) economic (trends of regional economic development, features of specialization, capacity of local and regional markets, level of investment activity, inflation rate, economic impact of foreign investors, placement of territory relative to consumers and suppliers);
- 4) ecological (level of environmental pollution, natural and climatic conditions, qualitative indicators of soils);
- 5) innovative (availability of new developments, intellectual level, information provision).

Mechanisms for stimulating the investment process for ecologization the agrarian sector should cover the effects of these factors and include different levels of management (country, region, specific entity). The practical implementation of the provision of investment in the environmental safety of agricultural activities must be carried out within the framework of two main areas oriented towards the implementation of the

latest scientific and technological progress and have the greatest potential: ecological reorganization of agrarian production (at the level of the region and state) and ecological modernization of technological processes (at the level of individual business entities).

Ecological reorganization is a process of environmental protection restructuring of the sectoral structure of the agrarian economy, either by reducing the demand for the products of “dirty” production or modernizing the industries consuming the products of these “dirty” productions (Dziadykevych et al. 2016). Environmental modernization touches on the changes that result from the major technical and technological upgrading of production.

In this case, the main efforts should be focused on attracting financial resources and funds on the local and regional levels. It is also worth paying attention to the attraction of foreign investment resources in order to stimulate the development of eco-friendly agricultural production. All this indicates the need to form and implement, first of all, a regional investment policy that will ensure the accumulation of internal ecological and economic potential and improve the investment attractiveness of the ecologization of the agricultural sector.

It is important to justify the following components for the development of effective economic and environmental investment projects:

- taking into account the ecological component in the system of economic efficiency achievement;
- organizational component for the implementation of the idea;
- resource support for project proposals;
- product markets for manufactured environmental products;
- competitive situation on the markets of this product;
- types of expected effects from project proposals;
- strategic component in the implementation of the principles of environmental safety.

In this case, in order to create the investment attractiveness of the idea of environmental safety in the agricultural sector at the regional and local levels it is important to consider factors such as ensuring and maintaining a high reputation of business entities and sales potential of new or improved quality products. After all, the combination of organic and intensive farming systems contributes to the overall improvement of the ecological state of the soil and the improvement of the quality of the products obtained (Broshchak et al. 2013).

The formation of a mechanism for regulating investment activity in the field of environmental security at the regional level should be directed to deep structural changes in the regional economy, to increasing the degree of justification of investment priorities in agro-production and to ensuring the readiness of business entities to implement eco-safe innovations.

The necessity of state stimulation of investment processes in the field of environmental safety of land use is determined primarily by the need to protect national interests in connection with the significant development of environmental agroproducts

in developed countries of the world. This indicates a significant investment attractiveness of this sphere of activity in Ukraine.

So we can state the fact that the investment attractiveness of the environmental component is closely related to the level of economic development of the country. Investing in the ecologization of the agrarian sector creates the basis for further economic development and stimulates new economic interests and needs, formation of a qualitatively new level of consumption and growth of the country.

State incentives should include incentives related to the creation of a new Ukrainian investment and innovation law that should be aimed at ensuring environmental safety in the agrarian sector, as well as stimulating the implementation of eco-friendly investment projects, as well as incentives for negative motivation (the normalization of harmful emissions, fines for non-compliance with norms, fees for pollution of the environment, etc.).

To activate investment activity in the direction of ecologization of agricultural production, first of all, it is necessary that the problems that exist in the field of achieving environmental safety of this industry, and developing measures for their solution should be taken into account. Therefore, it can be argued that one of the most important factors for ensuring investment attractiveness is an effective investment program, on the basis of which the investor can receive answers to questions concerning the return on investment and provision of guarantees. In this case, it is a question of long-term investment projects, which will result in the implementation of a comprehensive ecological and economic effect.

Thus, solving the problem of stimulation of environmental safety measures in the field of land use in the agricultural sector should be ensured by the following tasks:

- development of methods for assessing the ecological and economic efficiency of land use;
- development and implementation of effective economic mechanisms for ensuring responsibility for pollution and promoting the improvement of environmental safety in the agricultural sector;
- creation of the complex of normative documents in order to guarantee environmental safety in the field of agrarian land use.

It is worth paying attention to the fact that investing in ecologically oriented agricultural activity provides for the growth of the competitiveness of manufactured products.

When calculating the efficiency indicators of the implementation of investment decisions in the field of environmental security at the level of the national economy, the following indicators are important (in value terms):

- final production results (revenue from sales in the markets of all manufactured goods). This also applies to proceeds from the sale of property and intellectual property rights created during the execution of an investment project;
- social and environmental results, calculated on the basis of the impact of the results of the implementation of investment decisions on the health of local residents,

social and environmental situation in the regions;

- direct financial results (economic efficiency);
- customs duties on import of technologies and equipment for ensuring environmental safety.

Investment measures aimed at the protection and restoration of land are of particular importance, since they are the main means of agricultural production (Buttel 1992).

Foreign sources of investment resources play an important role in the process of investing in environmental security in the field of agricultural production. This is due to a number of reasons:

- limited internal investment resources as a result of economic crises;
- the formation of new productions will contribute to the intensification of Ukraine's participation in world integration processes;
- creation of new segments in the market of goods and services will promote the development of competition and improve the competitiveness of the represented types of environmental products;
- formation of a market environment with regulatory mechanisms in accordance with requirements operating in developed countries of the world;
- quality assurance of manufactured agrarian products in accordance with world standards.

Thus, the representation of the regions in the intergovernmental commissions on economic cooperation needs to be strengthened in order to represent their interests at the international level and to identify prospects for further investment.

An important prerequisite for creating the investment attractiveness of ecologization, which provides for the receipt of resources for the needs of reproduction and protection of land in the agrarian sector, is to conduct a general inventory of the land fund of the agrarian sector to identify problems that exist in this field. This procedure will help to assess the quality of land for the purpose of determining the possibility of their use in environmentally hazardous agricultural production.

**Conclusions.** The agrarian sector of Ukraine should play a key role in solving global environmental and economic problems, and for this there is a significant potential for economic and environmental development. The investment support of the environmental safety of the Ukrainian agrarian sector will contribute to the formation of such an economic and ecological potential that will provide a comprehensive solution to environmental problems in the field of agricultural activity and expand the opportunities for economic development of the agrarian sector.

Investing in environmental processes in the agrarian sector will contribute to the formation of prerequisites for the economic development of rural areas and the sustainable development of the agrarian sector in Ukraine.

### References:

1. Andryeyeva N. (2005): Teoretychni osnovy ekolohizatsii investytsiinoi diialnosti

v Ukraini (Theoretical basis of investment activity ecologization in Ukraine). Scientific Bulletin of UNFU, 15.6: 314-320.

2. Andryeyeva N., Kharichkov S. (2000): Ekologoorientirovannyye investitsii v sisteme obespecheniya resursno-ekologicheskoy bezopasnosti (Ecologically-oriented investments in the system of ensuring the resource and ecological safety). Odessa: Institut problem ryinka i ekonomiko-ekologicheskikh issledovaniy NAN Ukrainyi.

3. Boreiko I. (2009): Otsinka investytsiinoi diialnosti pidpriemstv ahrarnoho sektoru ekonomiky (Rating the investment activity of agrarian sector of economy enterprises). Ekonomika APK, 12: 74–79.

4. Broshchak I. et al. (2013): Monitorynh gruntiv, shliakhy pokrashchennia rodiuchosti ta ekolohichnoi bezpeky zemel Ternopilskoi oblasti (Soil monitoring, ways to improve fertility and ecological safety of Ternopil region lands). Ternopil: Ekonomichna dumka.

5. Buttel F.H. (1992): Environmentalization: Origins, Processes, and Implications for Rural Social Change. Rural Sociology, 57: 1–27. doi:10.1111/j.1549-0831.1992.tb00454.x

6. Dziadykevych Yu.V. et al. (2016): Ekonomika dovkillia i pryrodnykh resursiv (Environment and natural resources economics). Ternopil: Aston.

7. Hutorov O., Rud L., Kramarenko K. (2008): Teoretychni aspekty investytsiinoho proektuvannia ta yoho osoblyvosti u silskomu hospodarstvi (Theoretical aspects of investment designing and its peculiarities in agriculture). Innovatsiina ekonomika, 2: 77–82.

8. Kozhemiakina M. (2009): Investytsiine zabezpechennia yak osnova rozvytku ahrarnoi ekonomiky Ukrainy (Investment support as a basis for the development of the agrarian economy of Ukraine). Ekonomika APK, 12: 68–73.

9. Mazur N. (2009): Problemy i perspektyvy investytsii v APK Ukrainy (Problems and prospects of investments in the agroindustrial complex of Ukraine). Ekonomika APK, 4: 73–78.

10. McKinsey & Company (2011): The business of sustainability: McKinsey Global Survey results. Available at: <http://www.mckinsey.com/business-functions/sustainability-and-resource-productivity/our-insights/the-business-of-sustainability-mckinsey-global-survey-results>.

11. Prokopenko O. (2010): Sotsialno-ekonomichna motyvatsiia ekolohizatsii innovatsiinoi diialnosti (Socio-economic motivation of innovation activity ecologization). Sumy: Vydavnytstvo SumDU.

12. Reid A., Miedzinski M. (2008): Eco-Innovation. Final report for sectoral innovation watch. Technopolis Group. Available at: [http://www.technopolis-group.com/resources/downloads/661\\_report\\_final.pdf](http://www.technopolis-group.com/resources/downloads/661_report_final.pdf).

13. Shkuratov O. (2010): Derzhavna polityka investytsiinoho zabezpechennia stiikoho rozvytku ahrarnoho vyrobnytstva (State policy of investment support for the sustainable development of agrarian production). Produktivni syly Ukrainy, 2-4: 83-94.

14. Smolii L. (2009): Investytsiine zabezpechennia ahrarnykh pidpriemstv rehionu

(Investment provision of agrarian enterprises of the region). *Ekonomika APK*, 9: 65–67.

15. Spaskyi H. (2008): Spilni pidpriemstva rehionu yak forma zaluchennia inozemnykh investytsii v ahropromyslovyi kompleks (Joint enterprises of the region as a form of attracting the foreign investments into the agro-industrial complex). *Investytsiui: praktyka ta dosvid*, 11: 2–3.

16. State Statistics Service of Ukraine (2014): Statistical Yearbook. Environment of Ukraine. 2013. Available at: <http://www.ukrstat.gov.ua>.

17. State Statistics Service of Ukraine (2016): Statistical Yearbook. Environment of Ukraine. 2015. Available at: <http://www.ukrstat.gov.ua>.

18. Vinichenko I. (2008): Investytsiina pryvablyvist ahrarnoho vyrobnytstva rehionu (Investment attractiveness of agrarian production of the region). *Investytsiui: praktyka ta dosvid*, 10: 3–5.