Today, more than 5 million Ukrainians have left the country, losing their homes, jobs and sources of income. Due to Russia's military invasion, 79 % of Ukrainian companies were forced to close down almost or almost completely. Even after the end of hostilities, Ukrainians will not be able to return home immediately due to landmines, destroyed infrastructure and other problems that take time to resolve.

The availability of vacancies is a key factor in the financial security of refugees. The European Commission has published recommendations for EU countries on the recognition of academic and professional qualifications of people fleeing Russia's invasion of Ukraine. These are rules that will help to employ qualified refugees from Ukraine on a par with EU citizens.

As stated in the recommendations of the European Commission of April 6, many Ukrainian refugees are forced to find work below their level of qualification. Therefore, the EU countries received recommendations for rapid confirmation of the level of qualifications of Ukrainians and their education. Many countries now offer a simplified system of empowerment for the poor in Ukraine.

***Key words**: labor migration, labor force, labor market*

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THE SYSTEM OF INDICATORS FOR EVALUATING INVESTMENT PROJECTS TAKING INTO ACCOUNT THE ENVIRONMENTAL IMPACT

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The article summarizes the system of efficiency indicators of investment projects and substantiates proposals for their improvement taking into account the manifestation of environmental factors. The directions of influence of agricultural enterprises economic activity on the state of the environment of the rural territory are argued and the issue of investing in environmental protection is revealed.

***Key words:** investment project, efficiency indicators, ecological factors, ecological-socio-economic effects.*

State of the problem. Agricultural production activities are based on the use of environmental components and, accordingly, the issue of developing measures to minimize their negative impact on the environment is relevant. In addition, agricultural enterprises locate production in rural areas, which are a place of employment for the rural population, as well as housing, and therefore the neutralization and minimization of environmental risks will increase their well-being. That is why when evaluating investment projects implemented by agricultural

enterprises and at the level of rural areas, it is necessary to take into account the environment as a production factor, which requires the development of a system of indicators of economic efficiency of investment projects. This is due to the fact that the implementation of investment projects is carried out over a long period of time, it is important not only to obtain economic results, certain benefits to its participants, but also to solve important environmental and social problems.

Today, the challenges in the development of agriculture and rural areas are increasing due to increased consumption and irrational use of natural objects, air and water pollution, reduced soil fertility, increased waste generation at low levels of utilization, insufficient implementation of environmentally friendly technologies, etc. These areas are a priority in strategic programs for the development of agriculture and rural areas of the country in the context of their sustainable development through the justification and implementation of environmentally friendly investment projects. In addition, investment projects designed with an impact on the environment are further more effective. Therefore, there is a need to develop a comprehensive system of indicators for evaluating the effectiveness of investment projects taking into account environmental factors, which will allow to make sound management decisions at the level of agricultural enterprises and rural areas to choose the most rational investment.

Analysis of recent research and publications. The generalization of the economic literature allowed us to establish that the issue of analysis of performance indicators of investment projects taking into account their impact on the ecological state of the environment. Thus, domestic scientists emphasize that it is important when evaluating the results of operating activities of the enterprise, it is advisable to calculate indicators of environmental and economic efficiency, not just economic [1, 2]. We share this view, which proves the need for project investment analysis processes to also calculate the environmental performance indicator, which is determined by the ratio of total economic benefits and losses, based on external environmental effects and related social and environmental impacts that affect interests of the population and future generations as a result of the project.

There is also an opinion that a possible approach to determine the efficiency of investment and economic feasibility of the project in terms of environmental protection may be the method of reduced costs [3]. Note that in foreign practice, its analogue is the cost-performance / efficiency approach. These approaches do not aim to determine the magnitude of the effects, benefits, environmental and economic losses from the implementation of measures in order to compare them with the costs incurred. Under this approach, an investment project is cost-effective, which ensures the achievement of strategic goals at minimal cost. Obviously, the reduced cost method is convenient when it is difficult to identify the economic benefits / effects of the project, but the investment objectives form the interests of all stakeholders. This applies primarily to environmental and social projects.

Some studies substantiate proposals for adjusting the economic performance of agricultural enterprises taking into account environmental requirements, determine the effectiveness of environmental investments based on the ratio of the effect to the

amount of costs or the amount of investment [4, 5]. In addition, some researchers propose to use methods of comprehensive assessment of the environment based on indicators of environmental status and environmental safety at the regional level [6]. Summarizing the above, we can conclude that scientists: to date have developed a system of indicators of effectiveness of environmental measures; distinguish economic, environmental and social components in terms of effect and efficiency; offer calculations of indicators of efficiency of investment projects taking into account branch specificity; calculate environmental safety indicators by region. However, to date, no comprehensive system of performance indicators for investment projects has been developed, taking into account environmental factors, which would provide an in-depth analysis of their impact and increase the effectiveness of management decisions on the choice of investment directions.

The aim of the study is to generalize methodological approaches to the calculation of indicators for assessing the economic efficiency of investment projects implemented at the level of agricultural enterprises and rural areas, taking into account environmental factors.

Research results. Obviously, in the presence of strategic priorities for the implementation of the sustainable development principles, it is important to develop a system of relevant indicators of their achievement. Thus, the investment project in this regard should be considered as a unity of three systems: economic, environmental and social, within which the relevant tasks are solved. Thus, the following are distinguished as economic tasks: reduction of production costs; improving product quality, increasing revenue, increasing production efficiency and others.

The list of environmental objectives should include reducing the level of environmental pollution, resource conservation, environmental friendliness, environmental risk reduction and others. Indicators that characterize social objectives include reducing morbidity and mortality, improving quality of life, increasing income, and so on. Obviously, these systems are closely interconnected and affect each other. Thus, the task of improving the quality of life as a macroeconomic indicator that reflects a set of social, cultural and moral values. At the same time, in terms of economic growth, "quality of life" also includes the state of the environment, the level of development of social infrastructure, working and living conditions, access to cultural values; level and development of health care, education, social security, level of legal protection of the individual.

Obviously, the relationship between economic growth and quality of life can be traced on both positive and negative sides. Thus, the positive vector implies an increase in living standards, and the negative – increasing pollution, increasing the intensity of economic processes. Thus, achieving the principles of sustainability in the economic, environmental and social spheres are necessary conditions for ensuring quality economic growth at the level of the country, industry, regions, rural areas. Depending on the object of evaluation, there are different efficiencies: economic (compliance of costs and effects of the project with the goals and interests of its

participants, in value terms); social (compliance of costs and social results of the project); environmental (compliance of costs and environmental results, etc.).

Note that some researchers, in addition to the above, also highlight the budget and financial efficiency [7, 8]. We believe that budget efficiency should be taken into account when implementing investment projects of national and regional importance, which partially involve public investment. It is important in to give assessing the selection of innovation and investment projects impact on the environment. It is obvious that in the initial stages of project development it is advisable to consider aspects related to the protection of the environment and natural resources, and alternative solutions should be chosen.

To this end, when developing projects in the group of developers it is advisable to include specialists in various fields, which will take full account of the impact of economic, social and environmental factors. However, the choice of a particular method of determining the amount of damage depends on the object of assessment. First, it is necessary to determine any impact on the environment, then establish the presence of changes in the value of key indicators of environmental, socio-economic efficiency. The impacts that lead to changes in socio-economic indicators can be determined on the basis of the existing database of statistical information at different levels of government, but it is difficult to assess the quality of the environment.

When developing innovation and investment projects, taking into account their environmental impact on the environment, it is advisable to adhere to the following principles: identification of types of problems in the field of environmental protection related to the project; calculation of material resources, determination of the amount of funding and deadlines for project stages; development of a system of socio-ecological and economic indicators; use of a system of incentives and penalties; organization of management and control over the project implementation; coordination of the project structure with all executors in terms and resources. It is obvious that projects designed with their environmental impact in mind are more effective than those that focus on economic benefits and do not take into account the environmental aspect, are ineffective.

It is especially important to take into account the environmental aspect when evaluating innovation and investment projects implemented by the agricultural sector of the economy and rural areas. The concept of economic damage, which is determined by environmental losses, is used in the analysis of environmentally oriented measures. Note that there are industry methods for determining environmental damage. Any production is justified if the income from it exceeds the amount of damage and losses. Only a minimum level of damage is allowed when a combination of social and economic factors.

We agree with scientists who determine the economic losses from environmental pollution on the basis of a monetary assessment of the deterioration of its quality, or by calculating the reduction in society's income due to the deterioration of the natural environment. Deterioration of the environment negatively affects the efficiency of the investment project. In particular, it affects the health of the population due to air and water pollution (social damage); reduction of crop yields

due to land pollution by industrial emissions; due to reduced service life of equipment due to corrosion of metals and others. The consequences of the damage are measured in kind, and then in value terms, to characterize them use the terms "losses". "damage", "loss". Most often, researchers use "damage", the cost of recovery, material losses, lost profits.

It should be noted that the term "loss" in the implementation of the investment project and environmental damage may be manifested through the deterioration of agricultural land, resulting in the transfer of land from one category to another. It is believed that the transfer of agricultural land to another category should be compensated for losses in the shortfall of agricultural products. That is why there is a need to develop universal approaches to assessing the environmental damage and losses that occur in the economic activities of economic entities.

In agriculture, economic damage can be determined by the amount of losses due to reduced quality and productivity of agricultural land and livestock due to environmental degradation. When calculating the level of damage, it is necessary to determine in advance the purchase (wholesale, exchange) and retail prices, depending on the method of sale. In case of elimination of the caused damage by carrying out special actions to its size it is necessary to include their cost.

The impact of damage from environmental degradation on the population and the individual is manifested in increasing its morbidity, reducing life expectancy. These negative effects are expressed in value terms through additional costs and losses: treatment and medical care, lower wages and income. Compensation for damages is provided mainly by the authorities by filing lawsuits against polluting companies, but no mechanism has been worked out to compensate the company.

The use of environmental insurance instruments is a more effective form of compensation for damage. It is obvious that insurance of environmental risks reduces risks, prevents accidents at enterprises, as well as reduces the cost of emergency work through insurance payments.

In order to control the impact of domestic enterprises on the environment, the following groups of environmental indicators and standards are used: indicators that characterize the safety of the environment based on the norms of maximum concentration of harmful substances and chemicals in air, water and soil; indicators that contain standardized requirements for sources of environmental pollution. These include relative maximum permissible emissions into water basins, maximum permissible emissions into the atmosphere, maximum permissible levels of physical impact in the form of radiation, electromagnetic radiation, vibration, noise, lighting, norms of permitted removal and disposal of solid waste, etc .; indicators that contain permitted norms for land, water, subsoil, forest use, quotas for hunting and fishing, licenses for environmental activities, standardized use of natural resources, standards of sanitary protection zones, urban and building regulations, maximum permissible load on the environment, etc. [9].

The practice of economic entities, including agricultural evidence that it independently develops internal indicators in the field of planning and environmental management. Thus, researchers propose to use the following indicators: scientifically

sound norms of mineral fertilizers, pesticides, herbicides, norms of constituent feeding rations, norms of poultry and animals per unit area, rational distances of manure storage, share of consumption of hazardous and hazardous substances, waste and their accumulation on the territory, etc. [2, 3].

At the same time, today it is important to develop tools for evaluating the effectiveness of innovation and investment projects taking into account environmental factors.

Traditionally, the calculation of net discounted income (NPV) is carried out according to the formula:

$$NPV = \sum_{n=1}^{k} \frac{CF_k - IC_k}{(1+i)^k}, \text{ where} \quad (1)$$

NPV – net discounted income in the incremental implementation of investment costs;

CFk – cash flow generated by the project, step k of the overall step of the period of its implementation;

ICk – the amount of capital invested (investment) in the project;

i – discount rate, expressed as a decimal fraction;

n –the number of periods (steps) in the total period (k = 1, 2, 3… n).

Net discounted income, taking into account the damage NPVMd can be calculated by the following formula:

$$NPV_{Md} = \sum_{n=1}^{k} \frac{CF_k - IC_k - Md}{(1+i)^k}, \text{ where} \quad (2)$$

Md – the magnitude of the damage to the environment.

The magnitude of the damage should be analyzed for its components of formation:

$$Md = Ma + Mw + Ms, \text{ where} \quad (3)$$

Ma – the magnitude of the damage to the atmosphere;

Mw – the amount of damage to water resources;

Ms – the magnitude of soil damage.

If the investment project provides for investment in environmental activities, then the implementation of environmental measures (ICe),at the regional or rural level can take into account the amount of avoided damage and damage (Ad).

Net discounted income, taking into account the environmental damage that has been avoided as a result of the project NPVad, for investment projects at the regional, local level can be calculated by the formula:

$$NPV_{nd} = \sum_{n=1}^{k} \frac{(CF_k + A_d) - (IC_k + IC_e)}{(1+i)^k}, \text{ where} \quad (4)$$

Ad – the magnitude of environmental damage (damage) avoided in value terms;

ICe, – investments in environmental protection.

Note that the environmental damage avoided as a result of the investment project can be calculated as the difference between the amount of damage to the environment before the environmental measures in value terms and the amount of losses (losses) of the environment after the measures also in value terms. At the same time, the amount of avoided damage can be represented in the form of its components, ie by types of losses and damages.

As a result of the environmental measures reduction in investment projects at the local level, a separate rural area, at the enterprise level achieves a reduction in environmental payments (EP). Then the discounted income, taking into account the reduction of environmental payments for local investment projects can be determined by the formula:

$$NPV_{cd} = \sum_{n=1}^{k} \frac{(CF_k + EP) - (IC_k + IC_e)}{(1+i)^k}, \text{ where} \qquad (5)$$

EP – the amount of reduction of environmental payments as a result of the implementation of environmental measures;

ICe – investments in environmental activities.

We believe that the amount of environmental payments reduction can be calculated as the difference between the amount of environmental payments before the implementation of environmental measures and the amount of environmental payments after the activities after these measures. In addition, the reduction in the amount of environmental payments can be analyzed by the composition of payments as the amount of payments for the use of resources, reduction of payments for emissions (discharges) of harmful substances and reducing the amount of environmental fines.

It is known that the calculation of the discounted profitability index DPI is carried out by the formula:

$$DPI = \frac{\sum_{n=1}^{k} \frac{CF_k}{(1+i)^k}}{\frac{IC_k}{(1+i)^k}}, \text{ where} \qquad (6)$$

DPI – discounted profitability index for step-by-step investment in an investment project;

CF_k – cash flow generated by the project, step k of the general step of the period of its implementation;

IC_k – the amount of capital invested (investment) in the project;

i – discount rate, expressed as a decimal fraction;

n – the number of periods (steps) in the total period (k = 1, 2, 3… n).

Then the discounted profitability index, taking into account the amount of damage (loss) can be calculated by the formula:

$$DPI_d = \frac{\sum_{n=1}^{k} \frac{CF_k - M_d}{(1+i)^k}}{\frac{IC_k}{(1+i)^k}}, \text{ where} \quad (7)$$

Md – the amount of environmental damage avoided in value terms.

Accordingly, the discounted profitability index, taking into account the avoided environmental losses (losses) due to investments in environmental measures, for investment projects of regional and local importance can be calculated by the formula:

$$DPI_{Ad} = \frac{\sum_{n=1}^{k} \frac{CF_k + A_d}{(1+i)^k}}{\frac{IC_k + IC_e}{(1+i)^k}}, \text{ where} \quad (8)$$

Ad – the magnitude of environmental damage (damage) avoided in value terms;

IC_e – обсяги інвестицій в природоохоронну діяльність.

Accordingly, the formula for calculating the discounted profitability index taking into account the reduction of environmental payments for local projects can be submitted as follows:

$$DPI = \frac{\sum_{n=1}^{k} \frac{CF_k + EP}{(1+i)^k}}{\frac{IC_k + IC_e}{(1+i)^k}}, \text{ where} \quad (9)$$

EP – the amount of reduction of environmental payments as a result of the implementation of environmental measures;

ICe – investments in environmental activities.

The payback period of investments is traditionally calculated by the formula:

$$PP = \min m, \text{ where } \sum_{n=1}^{k} CF_k \geq IC, \text{ where} \quad (10)$$

PP – payback period of the project, years;

IC – the amount of investment in the project;

CF_k – the amount of income from the project in terms of years;

m <n, n (10) project implementation period.

The payback period, taking into account the damage caused (DC), we propose to determine by the formula:

$$D_c = \min m, \text{ at which } \sum_{n=1}^{k} CF_k - Md \geq IC, \text{ where} \quad (11)$$

Md – the amount of damage to the environment.

In order to evaluate innovation and investment projects that are carried out within a particular region or rural area, and involve investment in environmental activities to avoid environmental damage (losses), the formula for calculating the payback period can be presented as follows:

$$PP_c = \min m, \text{ at which } \sum_{n=1}^{k} CF_k + A_d \geq IC + IC_e, \text{ where} \quad (12)$$

A_d – the amount of environmental damage (loss) avoided in value terms;
IC – the amount of investment in the project;
CF_k – the amount of income from the project in terms of years;
IC_e – volumes of investments in environmental protection activities.

Obviously, for investment projects implemented in rural areas, taking into account the reduction of environmental payments must be calculated by the formula:

$$PP_{ra} = \min m, \text{ at which } \sum_{n=1}^{k} CF_k + EP \geq IC + IC_e, \text{ where} \quad (13)$$

EP – the amount of reduction of environmental payments as a result of the implementation of environmental measures;
ICe – investments in environmental activities.

The discounted payback period is calculated as follows:

$$DPP = \min m, \text{ at which } \sum_{n=1}^{k} \frac{CF_k}{(1+i)^k} \geq IC, \text{ where} \quad (14)$$

DPP – discounted payback period of the project, years;
IC – the amount of investment in the project;
CF_k – the amount of income from the project in terms of years;
m <n, n – project implementation period.
i – discount rate, expressed as a decimal fraction.

The discounted payback period, taking into account damage (loss) can be determined as follows:

$$DPP_d = \min m, \text{ at which } \sum_{n=1}^{k} \frac{CF_k - M_d}{(1+i)^k} \geq IC, \text{ where} \quad (15)$$

M_d – the amount of damage to the environment.

In order to evaluate innovation and investment projects that are carried out within a particular region or rural area, and involve investment in environmental

activities to avoid environmental damage (losses), the formula for calculating the payback period can be presented as follows:

$$DPP_d = \min m, \text{ at which } \sum_{n=1}^{k} \frac{CF_k + A_d}{(1+i)^k} \geq IC + IC_e, \text{ where} \quad (16)$$

A_d – the amount of environmental damage (loss) avoided in value terms;
IC – the amount of investment in the project;
CF_k – the amount of income from the project in terms of years;
IC_e – volumes of investments in environmental protection activities

Then for investment projects implemented at the level of agricultural enterprises or rural areas, the discounted payback period of investments should be calculated taking into account the reduction of environmental payments:

$$DPP_d = \min m, \text{ at which } \sum_{n=1}^{k} \frac{CF_k + EP}{(1+i)^k} \geq IC + IC_e, \text{ where} \quad (17)$$

EP – the amount of reduction of environmental payments as a result of the implementation of environmental measures;
CF_k – the amount of income from the project in terms of years;
IC_e – investments in environmental activities.

The internal rate of return (IRR) is calculated based on the following mathematical equation:

$$NPV = f(r) = 0, \text{ or } \sum_{n=1}^{k} \frac{CF_k - IC_k}{(1 + IRR)^k} = 0, \text{ where} \quad (18)$$

IC_k – the amount of capital invested (investment) in the project;
IRR – internal rate of return on the project, expressed as a decimal fraction;
n – is the number of intervals in the total calculation period.

Calculation of the internal rate of return taking into account the amount of damage to the environment as a result of the investment project:

$$NPV_d = f(r) = 0, \text{ or } \sum_{n=1}^{k} \frac{CF_k - A_d - IC_k}{(1+IRR)^k} = 0, \text{ where} \quad (19)$$

A_d – the amount of environmental damage (loss) avoided in value terms;
IC_k – the amount of capital invested (investment) in the project;
CF_k –the amount of income from the project in terms of years;
IC_e – volumes of investments in environmental protection activities;
IRR – the value of the internal rate of return,%.

The calculation of the internal rate of return for investment projects that provide for the avoidance of environmental losses (damage) is carried out from the following equation:

$$NPV_d = f(r) = 0, \text{ or } \sum_{n=1}^{k} \frac{(CF_k + A_d) - (IC_k + IC_e)}{(1+IRR)^k} = 0, \text{ where} \quad (20)$$

A_d – the amount of environmental damage (loss) avoided in value terms;
IC_k – the amount of capital invested (investment) in the project;

CF_k – the amount of income from the project in terms of years;
IC_e – volumes of investments in environmental protection activities.

Obviously, the calculation of the internal rate of return for investment projects that provide for the reduction of environmental payments through investment in environmental activities, can be done by the formula:

$$NPV_d = f(r) = 0, \text{ or } \sum_{n=1}^{k} \frac{(CF_k + EP) - (IC_k + IC_e)}{(1+IRR)^k} = 0, \text{ where} \quad (21)$$

EP – the amount of reduction of environmental payments as a result of the implementation of environmental measures;
IC_k – the amount of capital invested (investment) in the project;
CF_k – the amount of income from the project in terms of years;
IC_e – volumes of investments in environmental protection activities.

It is known that the most common indicator in the evaluation of an investment project is the calculation of the coefficient of investment efficiency:

$$ARR = \frac{PN}{0,5 \times (IC + RN)}, \text{ where} \quad (22)$$

ARR – investment efficiency ratio,%;
PN – average annual profit;
RV – residual value of fixed capital;
IC – the amount of investment in the project.

The calculation of the coefficient of investment efficiency can also be done taking into account the amount of damage by the formula:

$$ARR = \frac{PN - M_d}{0,5 \times (IC + RN)}, \text{where} \quad (23)$$

M_d – the amount of environmental damage (loss) avoided in value terms.
In addition, the investment efficiency ratio for investment projects can also be calculated taking into account the avoided losses based on investments in environmental measures:

$$ARR = \frac{PN + M_d}{0,5 \times (IC + RN + IC_e)} \text{ where} \quad (24)$$

M_d – the amount of environmental damage (loss) avoided in value terms;
IC_e – volumes of investments in environmental protection activities.
PN – average annual profit;

In order to evaluate investment projects carried out by individual economic entities or rural areas, taking into account the reduction of environmental payments, it is advisable to use the following formula:

$$ARR = \frac{PN + EP}{0{,}5 \times (IC + RN + IC_e)}, \text{ where} \quad (25)$$

PN – average annual profit;

EP – the amount of reduction of environmental payments as a result of the implementation of environmental measures.

It is known that losses of production due to non-compliance with environmental requirements can be calculated by correlating the amount of damage to the amount of output. The amount of damage caused by production activities of agricultural enterprises can be calculated by taking into account different types of emissions, non-compliance with the requirements for conservation and use of fertilizers, pesticides, herbicides, livestock farms, manure storage, waste disposal, dead animals and others environmental payments.

When evaluating investment projects, it is advisable to calculate the effect that results from the implementation of environmental measures. The effect is determined by the sum of the losses (losses) that have been avoided and the reduction in the amount of payments (fines) for environmental pollution. Note that the amount of reduction in payments is more generalized and can be determined approximately. It is logical that the indicator of economic efficiency of environmental costs by dividing the results, which are characterized by losses (losses) that have been avoided, or reduced payments for pollution) by the given costs. These costs are calculated by summing the operating costs and capital investment multiplied by the regulatory factor, or expected by the investment project capital investment efficiency.

Note that when evaluating the effectiveness of an investment project, social indicators should be calculated, which can be determined on the basis of the cost of medical services or damage to the health of the rural population. If in the process of implementing an investment project, investments in environmental measures are envisaged, it is advisable to determine not only economic, environmental, but also social effects. To this end, it is necessary to determine the total value of the effect based on the summation of the effect of improving soil quality; the effect of reducing production losses with high content of harmful substances; the effect of reducing sick leave payments; the effect of reducing the cost of treatment of workers and the rural population, etc. The amount of environmental payments is calculated by comparing payments (fines) for environmental pollution, which include regulatory and over-regulatory payments, it is advisable to separate payments for air, water and soil pollution.

Conclusions. The above indicators of evaluating the effectiveness of investment projects allow to take into account environmental factors on the basis of which it is possible to make sound management decisions to increase the profitability of investments in environmental measures. The proposed indicators should be used to assess the effectiveness of investment projects implemented by agricultural enterprises and at the level of rural areas, both at the stage of its completion and in the process of implementation. A sound system of indicators will provide feedback between the ideas set in the project and the level of their actual implementation.

If the investment projects provide for investment in environmental measures, it is advisable to add to the amount of income the amount of damage (losses) that have been avoided as a result of their implementation. At the same time, the costs associated with environmental measures must be added to the costs of the investment project.

We believe that the developed system of performance indicators provides more accurate characteristics of investment projects and helps to assess the impact of agricultural production activities on the environment, as well as allows sound management decisions in selecting alternative investments based on the interests of both investors and rural population.

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Anotation

Varchenko O. M., Tkachenko K. V., Varchenko O. O., Verniuk N. O.
The system of indicators for evaluating investment projects taking into account the environmental impact

The article summarizes the system of efficiency indicators of investment projects and substantiates proposals for their improvement taking into account the manifestation of environmental factors. The directions of influence of agricultural enterprises economic activity on the state of the environment of the rural territory are argued and the issue of investing in environmental protection is revealed.

The investment project is substantiated as the unity of economic, ecological and social systems, the ecological, socio-economic consequences of the project implementation are revealed, the economic, ecological and social efficiency of investment projects is highlighted. A methodical approach to the calculation of indicators for assessing the economic efficiency of investment projects, which takes into account the magnitude of avoided damage as the effect of environmental measures and the amount of reduced environmental payments.

A methodology for assessing the effectiveness of investment projects has been developed, which includes efficiency indicators in the criterion (NPV, PP, PI, IRR, ARR) the value of avoided damage and reduction of environmental payments. The concept of social efficiency of environmental protection costs is highlighted, the losses from the deterioration of the ecological state of the natural environment are highlighted and the types of effects that positively affect the indicators of the social status of rural areas are characterized.

The above indicators of evaluating the effectiveness of investment projects allow to take into account environmental factors on the basis of which it is possible to make sound management decisions to increase the profitability of investments in environmental measures. The proposed indicators should be used to assess the effectiveness of investment projects implemented by agricultural enterprises and at the level of rural areas, both at the stage of its completion and in the process of implementation. A sound system of indicators will provide feedback between the ideas set in the project and the level of their actual implementation.

***Key words**: investment project, efficiency indicators, ecological factors, ecological-socio-economic effects.*

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УПРАВЛІННЯ РЕКЛАМНОЮ ДІЯЛЬНІСТЮ СТРАХОВОЇ ОРГАНІЗАЦІЇ

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Стаття присвячена розгляду питань реклами в системі управління страховою діяльністю, з акцентуванням уваги на теоретичних засадах управління рекламною діяльністю в страховому бізнесі. З'ясовано сутність реклами у категоріальному розрізі та узагальнено наукові підходи щодо формування дефініції означеної категорії. Розглянуто модель управління рекламною діяльністю у страхових організаціях. З'ясовано специфічні ознаки реклами в страхуванні та відображено послідовність впровадження страхової реклами. Визначено, що ефективність управління рекламною діяльністю у страховому бізнесі суттєво залежить від інформаційного забезпечення прийняття управлінських рішень, що необхідно формувати на основі системно підходу з використанням інформаційних систем і технологій.

***Ключові слова:** страхування, страхова організація, страховий бізнес, маркетинг, реклама, інформаційні систем і технології.*

Постановка проблеми. Страховий ринок України щороку збільшує обсяги наданих послуг, що є закономірним процесом, адже страхування є одним з атрибутів економіки, окремою галуззю, призначеною для надання широкого спектру послуг як підприємствам, так і громадянам. Страхування є індикатором