

Halushchak Valentyna

*Candidate of Economic Sciences, Associate Professor
Chortkiv Educational and Scientific Institute of Entrepreneurship and Business
West Ukrainian National University*

Галушчак Валентина Володимирівна

*кандидат економічних наук, доцент,
доцент кафедри фундаментальних та спеціальних дисциплін
Чортківський навчально-науковий інститут підприємництва і бізнесу
Західноукраїнський національний університет
ORCID: 0000-0001-9703-9988*

DOI: 10.25313/2520-2294-2024-12-10580

ENVIRONMENTAL INSURANCE AS A TOOL FOR SUSTAINABLE DEVELOPMENT OF THE COUNTRY

ЕКОЛОГІЧНЕ СТРАХУВАННЯ ЯК ІНСТРУМЕНТ СТАЛОГО РОЗВИТКУ КРАЇНИ

Summary. Introduction. Today, the use of the environmental insurance system is one of the most effective ways to minimize the magnitude of environmental risks. And it is in conditions of uncertainty that environmental insurance is one of the methods of economic regulation in the field of environmental protection, the use of which allows not only to protect the vital interests of citizens, but also to create conditions for rational use of nature. Therefore, the mechanism of environmental insurance is a tool for regulating and managing risk with the possibility of significantly reducing damage to the environment. Therefore, there is a need to define environmental insurance as an important tool for sustainable development of the country, which will help solve important problems – to provide partial compensation for losses from man-made environmental pollution and create additional sources of financing for environmental protection measures, attracting funds from commercial structures.

Purpose. The purpose of the study is to generalize domestic and foreign experience in organizing and developing environmental insurance in modern business conditions.

Materials and methods. The materials of the study are the works of domestic and foreign authors on the study of the need to ensure national environmental safety, as well as the growing need to increase the economic responsibility of business entities for causing harm to the environment.

In the process of conducting the study, the following scientific methods were used: theoretical generalization (to characterize the forms of insurance, sources of formation of the insurance fund and the organization of environmental insurance. After all, environmental insurance should be carried out in mandatory and voluntary forms. The choice of the form of insurance should depend on the objects of insurance and categories of policyholders); analysis and synthesis (to understand the need to create an environmental insurance fund, which will reduce the burden on the state budget for eliminating the consequences of environmental accidents and shift them to a significant extent to policyholders, to whom the state should provide certain additional benefits); logical generalization of results (formulation of conclusions).

Results. The article considers the problem of the formation of environmental insurance. It was determined that the priority direction in the development of environmental insurance should be mandatory liability insurance of owners of sources of increased environmental hazard in case of causing harm to third parties as a result of accidental environmental pollution. It was found that the growth of environmental risks in Ukraine objectively requires the development of a legislative framework for liability insurance for harm caused to the environment, life and health of people. It was established that many insurance events with severe environmental consequences can occur simultaneously, which, accordingly, significantly reduce the financial base of insurance companies, and in some cases lead to their complete bankruptcy. Accordingly, to solve this problem, it is necessary to organize a flexible reinsurance system that will help transfer part of the liability for risks (taking into account their financial capabilities) on agreed terms to other insurers in order to create a balanced portfolio of insurance contracts, ensure financial

stability and profitability of insurance operations. The directions of using insurance protection methods, in particular for environmental protection, are outlined.

Prospects. In further scientific research, it is proposed to focus attention on the priority direction in the development of environmental insurance – mandatory liability insurance of owners of sources of increased environmental hazard in case of causing harm to third parties as a result of accidental environmental pollution and to more actively implement state support for the environmental insurance market. This will allow improving the methodology and organization of environmental insurance, to improve the mechanism of using environmental audit, which serves as a powerful information resource during the implementation of environmental insurance.

Key words: environmental risk, environmental insurance, insurance fund, environmental risk insurance, compensation for losses.

Анотація. Вступ. На сьогоднішній день використання системи екологічного страхування є одним з найбільш ефективних шляхів мінімізації величини екологічних ризиків. І саме в умовах невизначеності екологічне страхування є одним із методів економічного регулювання в галузі охорони навколишнього середовища, використання якого дає змогу забезпечити не тільки захист життєво важливих інтересів громадян, а й створити умови для раціонального природокористування. Відтак, механізм екологічного страхування є інструментом регулювання та управління ризиком із можливістю значного зниження збитків навколишньому середовищу. Тому постає необхідність визначення екологічного страхування як важливого інструмента сталого розвитку країни, який допоможе вирішити вагомі проблеми – забезпечити часткову компенсацію збитків від техногенного забруднення навколишнього середовища та створити додаткові джерела фінансування природоохоронних заходів, залучаючи кошти комерційних структур.

Мета. Метою дослідження є узагальнення вітчизняного та зарубіжного досвіду щодо організації та розвитку екологічного страхування у сучасних умовах господарювання.

Матеріали і методи. Матеріалами дослідження є праці вітчизняних та зарубіжних авторів щодо дослідження необхідності забезпечення національної екологічної безпеки, а також зростаючої потреби підвищення економічної відповідальності суб'єктів господарювання за заподіяння шкоди довкіллю.

В процесі здійснення дослідження було використано наступні наукові методи: теоретичного узагальнення (для характеристики форм страхування, джерел формування страхового фонду та організації екологічного страхування. Адже екологічне страхування має здійснюватися в обов'язковій та добровільній формах. Вибір форми страхування повинен залежати від об'єктів страхування і категорій страхувальників); аналізу та синтезу (для розуміння необхідності створення страхового екологічного фонду, що зменшить тягар навантаження на державний бюджет щодо усунення наслідків екологічних аварій і перекладе їх значною мірою на страхувальників, котрим держава повинна надавати певні додаткові пільги); логічного узагальнення результатів (формулювання висновків).

Результати. У статті розглянуто проблему становлення екологічного страхування. Визначено, що пріоритетним напрямом у розвитку екологічного страхування має стати обов'язкове страхування відповідальності власників джерел підвищеної екологічної небезпеки в разі заподіяння шкоди третім особам внаслідок аварійного забруднення навколишнього середовища. З'ясовано, що зростання екологічних ризиків в Україні об'єктивно потребує розвитку законодавчого базису у страхуванні відповідальності за шкоду, заподіяну довкіллю, життю та здоров'ю людей. Встановлено, що одночасно може відбуватися багато страхових подій з важкими екологічними наслідками, які, відповідно, істотно знижують фінансову базу страхових компаній, а в деяких випадках призводять до їхнього повного банкрутства. Відповідно для вирішення цієї проблеми необхідна організація гнучкої системи перестраховання, яке допоможе передати частину відповідальності за ризиками (з урахуванням своїх фінансових можливостей) на узгоджених умовах іншим страховикам з метою створення збалансованого портфеля договорів страхування, забезпечення фінансової стійкості та рентабельності страхових операцій. Окреслені напрями використання методів страхового захисту, зокрема для охорони навколишнього природного середовища.

Перспективи. В подальших наукових дослідженнях пропонується зосередити увагу на пріоритетному напрямі у розвитку екологічного страхування – обов'язковому страхуванні відповідальності власників джерел підвищеної екологічної небезпеки в разі заподіяння шкоди третім особам внаслідок аварійного забруднення навколишнього середовища та активніше впроваджувати державну підтримку ринку екологічного страхування. Це надасть змогу покращити методику та організацію екологічного страхування, удосконалити механізм використання екологічного аудиту, який слугує потужним інформаційним ресурсом під час здійснення екологічного страхування.

Ключові слова: екологічний ризик, екологічне страхування, страховий фонд, страхування екологічних ризиків, відшкодування збитків.

Problem statement. One of the means of achieving the country's environmental security, both now and in the future, is environmental insurance. Accordingly, environmental risk insurance is an effective economic mechanism that favorably combines the possibility of carrying out preventive measures

aimed at preventing environmental accidents, while simultaneously creating stable insurance funds of funds that serve as a financial guarantor of covering losses in the event of accidental environmental pollution. The perpetrators of the economic damage caused, as a rule, do not bear any responsibility for it, despite

the fact that the requirements for compensation for damage are formulated in the legislation. This happens not only due to the emergence of an entrepreneurial dominant in production activities, but also because the conditions have not been created and the means of economic interest in reducing the damage caused to the environment have not been proposed. That is why the need to create an institution of environmental insurance is due to: the need to find new sources of financing for environmental protection measures; the requirement of identification, delimitation of liability for economic losses between the entities that caused the damage and, accordingly, the personification of compensation for losses to the victims; the possibility of methodological and methodical support for the creation of instruments of economic motivation to reduce the negative impact on the environment.

Analysis of recent research and publications.

The issues of development and establishment of environmental insurance are increasingly covered in scientific literature every year. In particular, in the works of O. Vilenchuk [1], L. Granovskaia [2], Yu. Kalenichenko [3], O. Kryvoruchkina [4], V. Pashneva [5], S. Rogach [6], L. Reshetnyk [7], V. Stetsenko [8] and others. Such interest is due to the need to ensure national ecological security, as well as the growing need to increase the economic responsibility of business entities for causing damage to the environment. Therefore, many issues related to the practice of environmental insurance are still insufficiently covered in the scientific literature and require further research.

The formulation of the objectives of the article: generalization of domestic experience in the organization and development of environmental insurance in modern economic conditions.

Presentation of the main material. It is worth noting that environmental insurance is civil liability insurance for enterprises whose activities are a source of environmental risk. In turn, environmental risk is a quantitative characteristic of environmental danger, which takes into account the consequences of the damage caused. Therefore, environmental insurance, like any type of insurance, applies only to random events, the risk of which characterizes their danger. That is why the classic characteristic of insurance is the use of the well-known effect of risk dispersion in time and space. Thus, the insured, by paying insurance premiums, transfers the guarantee of compensation for losses to third parties to the insurer. In this case, the losses that are compensated are much greater than the contributions of the insured. And the interest of the insurer lies in the fact that its income is associated with insured events that are probabilistic in nature and, as a rule, do not occur simultaneously and in the same place.

Accordingly, environmental insurance is a form of collective protection of economic and social interests of producers and the population, which is introduced

to unite financial resources, organizations and institutions regardless of forms of ownership and subordination, citizens to create collective insurance funds by paying insurance premiums, to compensate for losses caused to the environment, legal entities and individuals, as well as to finance preventive measures aimed at both preventing an accident and eliminating its harmful consequences [2, p. 78]. It should be noted that insurance as an economic category is a system of economic relations that include a set of forms and methods of forming target monetary funds and their use to compensate for losses caused by various unforeseen adverse events. Therefore, the environmental insurance system is entrusted with the following tasks:

- ensuring guaranteed coverage of costs and losses of nature users, other legal entities and individuals (including the state) arising from the registration of environmental risks within the framework of insured activities;
- providing enterprises that are sources of environmental hazards with financial reserves to cover environmental losses caused by them to third parties (including the state as the owner of environmental objects);
- ensuring the necessary reserves of financial and material resources to eliminate environmental emergencies;
- financing by the insured of preventive measures to reduce environmental risk from the funds of the reserve of preventive measures and temporary use of the funds of the insurance fund;
- ecological (ecological and economic) audit of the insured activity and insured environmental risks;
- providing participants in the system of compulsory and voluntary insurance with state and non-state benefits and privileges in conducting economic activities, as entities that have invested their own funds in the regional insurance system [1, p. 106].

That is why we characterize environmental insurance as a tool for the sustainable development of the country, because it insures the liability of enterprises, which are sources of increased environmental danger, for damages caused to individuals and legal entities (third parties) as a result of accidental environmental pollution [3, p. 201]. Based on this, environmental insurance allows us to solve such important problems as: ensuring partial compensation for damages from accidental environmental pollution and creating additional sources of financing for environmental protection measures, attracting funds from commercial structures.

For a long time in our country, when compensating for damage caused by natural disasters, man-made accidents and catastrophes, state reserve funds for various purposes dominated. However, in today's conditions of uncertainty, the state can no longer provide full compensation for possible damages caused as a result of accidental environmental pollution. In this

regard, other sources of damage coverage are being found, one of which is environmental insurance, which allows distributing possible losses among a group of legal entities exposed to the same type of risk. Accordingly, the draft Law of Ukraine “On Environmental Insurance” aims to create new effective financial mechanisms for compensating for damage caused to the environment, life, health, and property of citizens, and will also contribute to the modernization of polluting enterprises [4]. Environmental insurance is fully consistent with market relations, being a type of entrepreneurial activity in the field of ecology [6, p. 19]. At the same time, it attracts funds from commercial structures to finance preventive environmental protection measures.

Studies show that with the introduction of an environmental insurance system, up to 40% of the losses caused can be compensated to affected legal entities and individuals while maintaining a sufficiently high financial stability of insurance companies. Accordingly, environmental insurance performs the following functions [2, p. 80]:

- reducing the costs of enterprises to pay compensation to victims of accidental environmental pollution and providing legal protection to policyholders by participating in the consideration of claims in courts;
- providing guarantees to injured third parties in receiving the amounts of compensation due to them for the losses caused, regardless of the financial situation of the entity that caused the damage;
- exercising control by insurance companies over the implementation of measures by enterprises to ensure environmental safety. Such control is carried out at different stages of the insurance contract. When concluding an insurance contract, the insurance company analyzes the activities of the enterprise, participates in the environmental audit of the facility. Then, based on the results of the inspection, a decision is made on the expediency of concluding an insurance contract. During the term of the contract, the insurer evaluates the current activities of the enterprise from the point of view of ensuring environmental safety, and controls the implementation of preventive environmental protection measures. When an insured event occurs, the causes of the environmental accident, the degree of fault of the enterprise are considered, and the issue of filing a counterclaim against the insured is resolved;
- financing of measures to ensure environmental safety. Such financing can be carried out both by deducting part of the collected insurance premiums by insurance companies for preventive measures, and at the expense of the insurers’ profits. In addition, the funds of the created insurance reserves can be used to finance environmental protection measures.

The object of environmental insurance is the risk of civil liability, which is expressed in the presentation of property claims to the insured by individuals and

legal entities in accordance with the norms of civil legislation on compensation for damage. The basis for the application of environmental insurance is the presence of the risk of accidental, that is, accidental pollution of the environment. The interpretation of the concept of risk in foreign and domestic literary sources is diverse, but two main directions can be distinguished: the first is associated with the concept of risk as the probability of a certain event, the second with its definition in the form of possible losses [7, p. 89]. In our opinion, the risk of accidental pollution of the environment can be defined as a two-dimensional value that includes both the probability of an environmental accident and the losses associated with it.

It should be noted that when conducting environmental insurance, policyholders and insurers are interested in reducing the risk of accidental pollution of the environment. The interest of policyholders is explained by the fact that the size of tariff rates is differentiated depending on the degree of environmental hazard of the enterprise and its implementation of environmental protection measures. As for insurers, the size of their profit directly depends on the number of accidents and the severity of their consequences. That is why insurance companies provide unhindered financing of preventive environmental protection measures.

The reserve for preventive environmental protection measures is formed by deducting from the gross insurance premium received under insurance contracts in the reporting period. The following areas can be financed from the funds of the reserve for preventive measures [1, p. 110] (Fig. 1).

An insured event in environmental pollution risk insurance is an environmental accident. When conducting environmental insurance, the following events are not included in the insurance:

- related to the constant or systematic entry of harmful substances into the environment;
- occurred as a result of intentional actions (inaction) of the insured;
- directly or indirectly related to military operations, strikes and other force majeure circumstances [3, p. 202].

Of great importance in the implementation of environmental insurance is the problem of assessing losses caused by environmental pollution. As a result of environmental pollution, damage may be caused to the health of the population, housing and communal facilities, fixed assets of industry, agricultural lands, forestry and fishing, and recreational resources.

Insurance compensation is paid in the amounts stipulated by current legislation and may include:

- losses associated with harm to human health (costs for treatment, purchase of medicines, rehabilitation of patients, loss of wages due to the difference between the monthly systematic income and temporary disability benefits, lost wages due to loss of working capacity, lost benefits of family members, etc.);

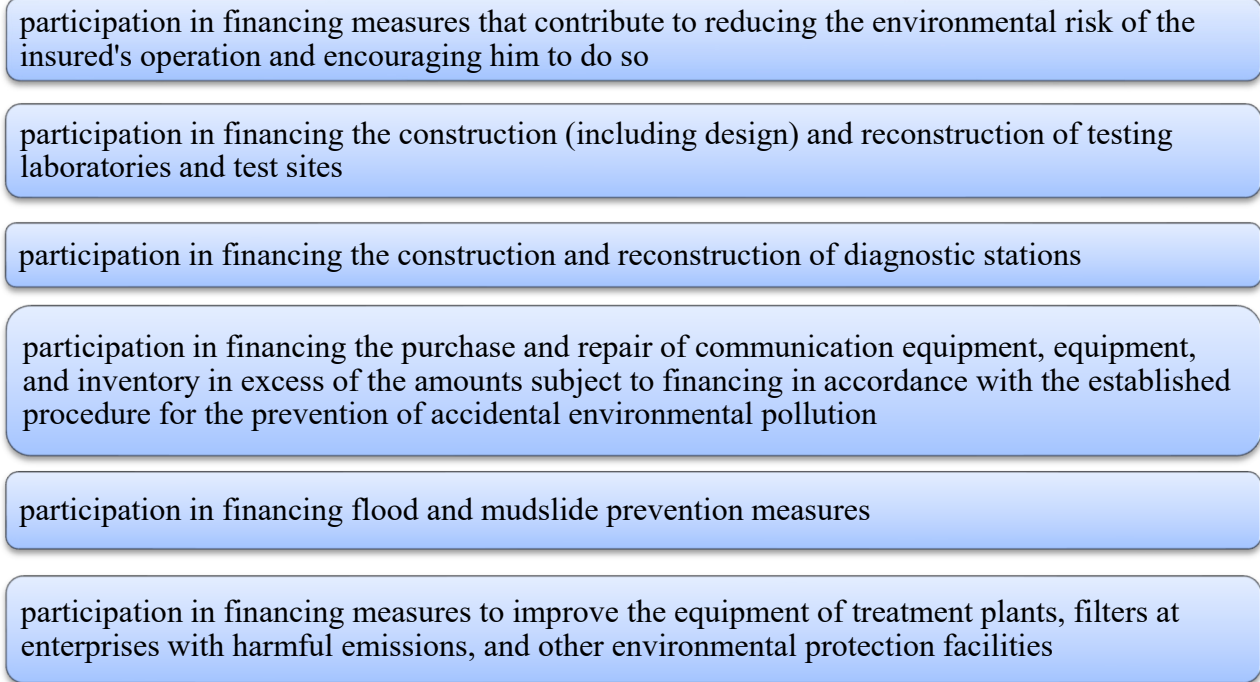


Fig. 1. Directions of preventive financing
Source: generated by the author

- compensation for damage caused by damage or loss of property;
- income not received due to the inability to carry out production or other activities in the contaminated area;
- the amount of losses due to deterioration of living conditions;
- costs of cleaning the contaminated area and bringing it into a state that meets the standards;
- expenses necessary to save the lives and property of persons who have suffered damage as a result of an insured event, or to reduce the damage caused by an insured event;
- expenses associated with preliminary investigation, litigation and settlement of claims brought against the insured [7, p. 91].

At the same time, insurance companies, as a rule, do not compensate for losses related to: genetic consequences of environmental pollution and damage to the insured's property, unless otherwise provided for in the insurance contract; reasons that the insured was aware of before the commencement of the insurance contract or during the period of validity of the insurance contract; as well as fines and payments for environmental pollution. The calculation of the amount of losses from accidental environmental pollution is carried out taking into account existing regulatory methods.

Of great importance in conducting environmental insurance is the question of how long after the occurrence of the insured event the insurer's liability extends. Practice shows that in some cases the

consequences of environmental accidents may manifest themselves after a long period of time, or new circumstances may be discovered in the future that significantly increase the amounts initially calculated. Therefore, one should be guided by the general limitation period under civil law, which is three years.

There are also two forms of environmental insurance — voluntary and mandatory. Voluntary environmental insurance arises on the basis of a voluntary agreement concluded between the insurer and the insured enterprise [8, p. 157]. In this case, the procedure and conditions of insurance are determined by the insurance company independently. It should be noted that in the case of voluntary environmental insurance there are no restrictions on insurance amounts and insurance premium rates. Therefore, a single condition must be observed: the higher the risk of accidental pollution, the higher the insurance premium rates. Therefore, insurance premiums are paid at the expense of the profit remaining at the disposal of the insured enterprise. The system of mandatory environmental insurance is more stringent, because mandatory insurance is carried out by virtue of the law that determines the conditions and procedure for carrying out this type of insurance. A necessary condition is the presence of a list of environmentally hazardous enterprises approved at the regional level that are subject to environmental pollution risk insurance. With this form of insurance, the sizes of insurance amounts and insurance premium rates are standardized. In this case, it is assumed that insurance premiums will be included in the cost of products (works, services) of the

insured, which contributes to increasing the interest of enterprises in conducting environmental insurance [5, p. 229]. It should be noted that mandatory environmental insurance is more effective than voluntary, because in this case, insurance covers all potentially dangerous objects, which increases the chances of victims to receive the compensation they deserve for the damage caused as a result of environmental pollution.

It should be noted that many insurance events with severe environmental consequences can occur simultaneously, which, accordingly, significantly reduce the financial base of insurance companies, and in some cases lead to their complete bankruptcy. That is why, to solve this problem, it is necessary to organize a flexible reinsurance system [3, p. 205]. After all, reinsurance is a system of economic relations in which the insurer, accepting risks for insurance, transfers part of the responsibility for them (taking into account its financial capabilities) to other insurers on agreed terms in order to create a balanced portfolio of insurance contracts, ensure financial stability and profitability of insurance operations. But in addition to creating an effective domestic reinsurance system, there is an obvious need to organize relations with

large foreign reinsurers of environmental risks. This, in turn, will provide domestic insurance companies not only with access to the international insurance market with currency coverage, but also with objective statistics and tariffs.

Thus, environmental insurance is an important state instrument of environmental policy, which, when properly organized, allows managing environmental risks at the minimum necessary costs. The creation of a system of mandatory environmental risk insurance in Ukraine will contribute to the prevention of environmental damage, will lead to a reduction in budget expenditures for the elimination of environmental accidents, will increase the material liability of enterprises that pollute the environment, will provide insurance protection for the population from the consequences of environmental pollution, and will also expand the boundaries of environmental audit and the insurance services market. Therefore, further research is needed to develop and improve the methodological support and legislative framework of environmental insurance, which will produce a mutual economic interest of both policyholders and insurers in reducing the risk of accidental pollution of the environment.

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