

Environmental insurance system in Ukraine

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Abstract. This article examined methodological, theoretical and scientific principles of environmental insurance system. Nowadays, are growing a number of man-caused environmental accidents and disasters, objects and types of activities that are sources of danger for the environment, for people life and health, increases negative impacts of economic activities on the state of the ecosystem, exacerbated the problem of storing and disposal of hazardous waste. To solve these problems, we need effective economic tool in environmental protection, which provides emergency prevention of environmental pollution. This tool is environmental insurance.

Key words: insurance, environmental insurance, environmental risks insurance, signs of environmental insurance, environmental auditing, environmental and economic losses, environmental funds.

INTRODUCTION

Further socio-economic growths in Ukraine largely depends on achieving an acceptable level of technological-ecological safety and reproduce the natural environment in terms of enhanced anthropogenic impact on the elements of the environment, due to the constant growth of diverse human needs, the rapid development of science and technology. In recent years, according to official data, the proportion of relatively clean areas in Ukraine is only 7% of the total area, relatively clean acknowledged about 8% of the land, and have little pollution – 15%. The remaining 70% are areas with dangerous conditions for human life, while 1,7% of the total area of the country classified as

"ecological disaster area." This is especially true of the exclusion zone, which arose as a result of the Chernobyl accident, adjacent areas and certain regions of eastern and western Ukraine. Worsening problems of modern civilization is against the background of deteriorating environmental quality that needs further development of forms and methods to reduce the negative impact on the environment, as well as improvement and implementation of modern financial instruments of nature.

Through the unresolved mechanism of economic responsibility entities, especially companies with high risk – the perpetrators of accidents, the state assumes considerable budget allocations to overcome adverse environmental effects. In addressing these issues of particular relevance acquires the development and implementation of an effective system of environmental insurance. Lack of capacity use insurance as a powerful management tools and management of environmental risks, and lack of adequate insurance coverage of legal entities and citizens in environmental pollution determined the choice of the theme of scientific debate.

THE ANALYSIS OF RECENT RESEARCHES AND PUBLICATIONS

Analysis of scientific literature give reasons to believe that insurance nowadays is an independent economic category, which is characterized by specific functions and tasks. Common approaches to the interpretation of this term understand it as: a system of

economic relations [9]; closed set of special relations [14]; set of financial and economic relations [11].

OBJECTIVES

Due to intense environmental situation, which composed in the national economy in recent years, and necessity to minimize the risks associated with these processes, especially theoretical and methodological importance becomes interpretation essence of notion «ecological insurance». Enough thorough, in our opinion, is the understanding of environmental insurance as insurance companies responsibility – sources of increased environmental hazards for emergency (sudden, unintentional) contamination of the environment, which enables compensation of damages caused recipients pollution, creating additional sources of financing environmental measures [6, 281]. In a broad sense, environmental insurance is a mechanism of protection of property and social interests of businesses and individuals aimed at preventing, overcoming or reducing the negative impact of environmental risks [7].

THE MAIN RESULTS OF THE RESEARCH

As a form of economic relations environmental insurance include:

- mandatory and voluntary environmental insurance to cover unforeseen costs arising from accidents,
- system of disaster environmental insurance,
- environmental insurance funds and support to independent insurance companies [7].

Since insurance is a specific sector of the national economy, it is more reasonable interpretation environmental insurance as an institutional form of economic relations with the redistribution of national income from paid financial compensation system natural and legal persons in situations associated with ecological and economic losses that are both effective tool to implement social policy.

In general theoretical environmental insurance against internal instability associated with any manufacturing process, and the premiums paid by the insured, are a necessary part of current production costs, ultimately aimed at reducing its total costs. The apparent savings in insurance payments in practice revolves increase total costs. Technological accidents resulting in cost increases to the amount of damage caused as the very source of the accident and the other recipients. Insurance in such cases takes the form of reimbursement of market gross expenditures [5]. So, environmental insurance is essential way to ensure environmental sustainability of production processes in enterprises and reduce the risks of business.

Necessity of the introduction of environmental insurance companies in business practices lead to the following factors (Fig. 1).

Analysis of these factors gives rise to formulate the basic function of environmental insurance as accumulation of financial resources for granting «immediate environmental emergency aid to victims (owners or users of elements of the environment – public authorities, businesses and individuals)” as a result of accidental pollution in the form of damages and elimination of negative consequences. In addition to the functions of funds accumulation for environmental protection and compensation the damage, important functions of environmental insurance are environmental auditing and environmental risk compensation of gross expenses of the insured.

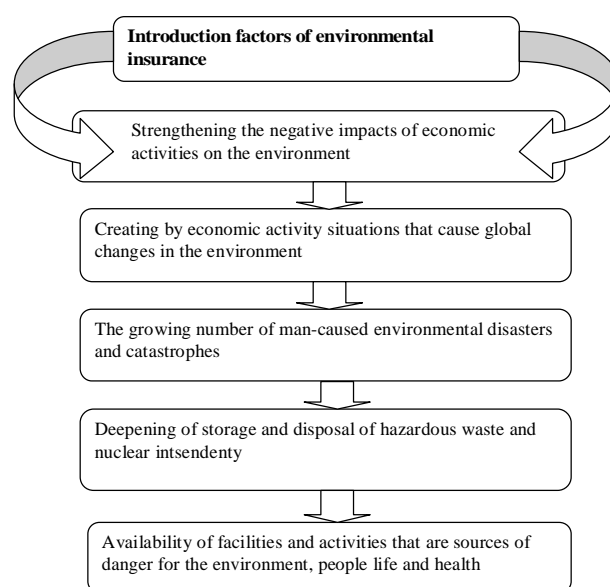


Fig. 1. Objective factors of implementation environmental insurance in business practice [13]

The study found that environmental insurance issues remain problematic for Ukraine, still unidentified mechanisms of risk insurance ecological character and there is no law about environmental insurance. Some difficulties in environmental insurance sphere associated with the timing of detection of ecological-economic damages. Characteristic features of ecological insurance in Ukraine displayed on (Fig. 2).

Analysis of foreign and domestic experience in the development and application of economic regulators reduce human pressure on the environment shows that environmental insurance among them has great importance. Actual question about the introduction of environmental insurance system is creation of institutional chain of command by the sphere of environmental usage. Existing system of environmental management and regulation has two levels. Higher levels (regulatory, control system) includes the structure of government – Ministry of Environment, public administration, local self-government. The lower level

consists of companies that pose a threat to the environment. The bases of the proposed insurance system are specialized institutions (companies) with mandatory and voluntary insurance. In total regional economic regulation system of environmental management similar functions rely on extra-budgetary environmental funds. They are organized in local government and are a multi-institutional structure. This is caused by the economic regulation mechanism of environmental management, which involves the creation of complex multi-level system of financial relations and related institutions (agencies, institutions, companies). Actually accumulations of funds, which are paid for pollution, are only a small part of what lies in these organs. This includes whole mechanism of redistribution of bank finance, partnership in the development and implementation of environmental programs, monitoring, storage and processing of information. Insurance company should also have a multifaceted focus in environmental insurance. Subordination of institutions, which engaged in insurance business, must correspond to the requirements, which imposed to them [3].

determine the degree of environmental hazard production. Working with objects allocation priority environmental insurance consist from the information collection about each object, which can be environmental hazard, identification of environmental hazards degree on each of them, grouping objects based on the probability of accidents and possible size of consequences and construction of series object priority by rank for consistent inclusion in the scope of environmental insurance. Information about the enterprise should be most objective, include environmental risk characteristics, as well as local regional characteristics of the environment.

Simultaneously during the implementation of environmental insurance should follow the general principle: for business that are the source of increased environmental hazard and risk are given the right of free choice of the reserve funds for the compensation of losses from environmental accidents. Herewith in compulsory insurance should be minimal financial guarantees for insurer loses compensation; scilicet not all responsibility should to pass on the insurer. According to experts, such action is necessary to do for enterprises partially located in directly dependent from their level of environmental hazard [10].

The mechanism of environmental insurance should be based also on the principle of mutual relations between the insurer and the insured. Except economic interest in the transfer of responsibility for possible consequences of accidental contamination of the insurer, the insured is interested in improving its environmental safety. Direct dependence reflected in the fact of increase the amount of premiums along with increasing accidents probability. The interest of the insurer to reduce the environmental risks, intensify its activities regarding conduct preventive measures, such as environmental audit of the insured. According to the expert's thoughts, environmental audit is an important institutional form of reducing environmental risks and security of entrepreneurship and living conditions of the population. Part of the difference between the insurance premium and insurance compensation insurer profitably to spend on environmental auditing, improving the quality of environmental monitoring and other environmental measures. Financial basis of environmental insurance is a system of environmental insurance funds, which includes insurance funds of companies, mutual insurance fund of enterprises and insurance fund environmental risk. This fund system makes the enterprise independently analyze the effectiveness of its activity, choose the optimal ratio of funds that go into the reserve and consumption, and most importantly, that during this is carrying out the realization of the free choice principle of the reserve funds method in case of accident.

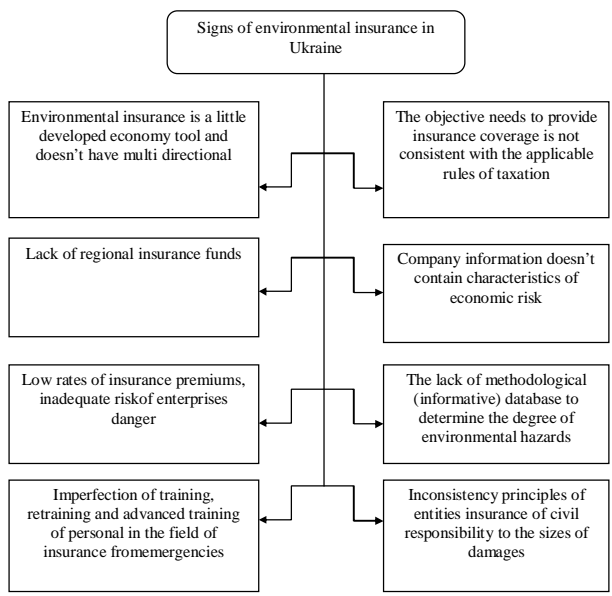


Fig. 2. Characteristic features of ecological insurance in Ukraine [9]

The responsibility of the situation in the field of environmental usage and impact on environmental in the region is carrying out by regional authorities. By this is justified legality of state institutions creation with compulsory environmental insurance [12]. However, along with the status of such institutions, in the current conditions should not be lost economic contract basis of relations between insured and insurer. Mandatory insurance will allow overcoming by primary care large and dangerous objects in environmental terms.

Accordingly, one of the key questions in establishing of environmental insurance system is to

The specified interactions between the suppliers and consumers show that in the modern global economy under certain conditions owners of natural resources and owners of financial resources began to shift places [18]. Functional institutional structure of insurer insured subject must include a set of specific elements (Fig. 3).

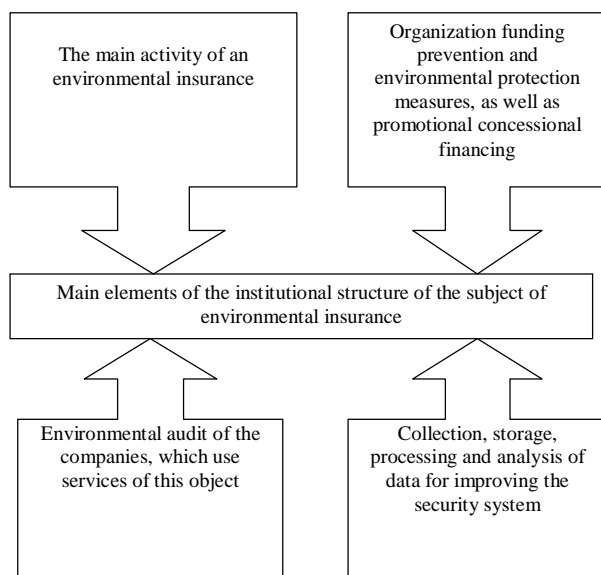


Fig. 3. Institutional structure of environmental insurance subject [3]

The main activity, which is based on the accumulation of insurance payments, paying of compensation due to the fact of accidental pollution and other work with insurers must fulfill special functional department of environmental insurance.

Responsibility for premiums operational funds movement assigned on the finance department of the insurer. Environmental Audit Service as a separate entity of insurer performs all works related with the assessment of the insured ecological state. Collection, storage, processing and analysis of data provide a dedicated team, on which relies forming of information bank for the company success.

Thus, the implementing environmental insurance mechanism should be based on the usage of institutional structure appropriate elements that plays an essential role in the choice of long-term strategic orientation relationship between the insurer and the insured, as depend on them the solution of many organizational issues.

Environmental insurance mechanism is based on the principles of mutually beneficial relations between insurers and insured. Except economic interest of transferring insurer responsibility for possible consequences of accidental pollution, the insured is interested in improving its environmental safety, because insured ability in the implementation of

emergency measures in a company is limited due to lack of: resource potential for comprehensive study of its own security and environmental enough skilled specialists.

Depending on the insurance of certain environmental risks are setting sizes of the insurance rate [5].

Insurance rates are differentiated depending on:

- the degree of environmental risk,
- economic features of a particular insurer,
- technical condition of production assets,
- protection and water treatment companies,
- minimal and maximal amount of compensation.

Enterprises, that are a source of increased danger, become free from refund damages, caused to environment, only when they prove that the damage occurred due to natural calamities or willful misconduct victims. If the company does not belong to the owners of increased economic insecurity sources, they are exempt from coverage damage provided proof that the damage was not their fault. Persons, whom are damaged, are eligible for missed profits compensation during the time needed to restore health, environmental quality, and restoration of natural resources, suitable for usage due to the purpose.

Liability for damages, caused to the environment, carried on the following terms:

- compensation for the insured all sums, awarded by the law affected to the third parties in connection with the onset of insured event, including costs expenses,
- insurance is covered only accidental pollution,
- fines are not included in the coverage.

The insurance contract is concluded on year, followed by its sequel in the same insurer. Because of high insurance premiums, high administrative costs during the development of insurance terms and signing contracts or programs of preventive measures, providing control partnership is advantageous for insurer and insured during the period of at least 5-10 years. Territorial insurance boundaries are clearly stipulated, especially in the use of vehicles, such as during the transport of hazardous substances. Insurers limit the maximum amount of liability by the cash and time period, as well as environmental insurance is very complicated.

Insurers – entities, which have in its ownership increased risk objects, full economic management, operational control or who are using, owned by high risk objects, such as:

- chemical enterprises,
- enterprises producing, processing and storage of explosives and flammable substances,
- mining companies,
- woodworking enterprises,
- oil, gas and petrochemical enterprises,
- electricity Company (TPP, nuclear, hydro),
- other [7].

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Insured event is considered as causing direct damage to third parties as a result of fire and / or accidents at high risk objects during the compulsory insurance contract, as a result rise the insurer's obligation to pay insurance claims. Insured sum and the amount of the insurance rate are determined by each individual high risk objects according to the risk category, and equals:

– Category 1 of hazard – 200,000 citizen's income tax exemption at the time of calculation of the sum insured 1.5%,

– Category 2 of hazards – 70,000 citizen's income tax exemption at the time of calculation of the sum insured 0.6%,

– Category 3 of hazard – 45,000 citizen's income tax exemption at the time of calculation of the sum insured 0.4%.

Insurance reimbursement is subject the direct damage caused by fire and / or accidents at high risk objects to life, health and property of third parties, which at the time of the insured event were in their possession or usage, including natural resources, territory and objects of nature reserve funds. Insurance payments are made in the following amounts:

1. on damage compensation inflicted to life and health of others as a result of the insured event – 50% of the insured sum, including one person insurance payment:

– in the case of payment the insurance compensation to the third person heirs, who died (deceased) – 500 citizen's income tax exemption,

– in case of mounting to the third party I, II and III of disability – respectively 450, 375 and 250 citizen's income tax exemption,

– for each day of third person incapacity – one citizen's income tax exemption, but not more than 250 citizen's income tax exemption for all time of disability,

2. for compensation the damage caused to natural resources, territories and objects of natural reserve fund – 30% of the insured sum,

3. to compensation the damage, caused to property of third parties – 20% of the insured sum.

From the information above can be made following conclusions regarding to the development of environmental insurance market in Ukraine:

– real and effective mechanism of resources entanglement in the conservation activity of population ecological safety and territories could become catastrophic and environmental risks insurance,

– development of insurance of course will require the development of principally new types of insurance, covering the environmental and catastrophic risks,

– environmental and catastrophic risks insurance, because of their devastating impact and significant insurance claims, can be only with the adoption of

national Concept and development of the insurance system as a whole, first of all adoption a package of laws of Ukraine "About Compulsory Environmental Insurance" (persons liability insurance – owners of sources of increased environmental hazards), "About mandatory flood insurance" (property insurance), "About compulsory insurance against meteorological hazards" (property insurance), etc.,

– development of insurance system requires improvement of methodological approaches for risk assessment probability, for evaluation of economic and insured losses, for calculation of tariff rates and amounts, that should be performed on each type of natural and anthropogenic catastrophic events, considered as insurance,

– necessity to develop and approve the Concept of ecological insurance in Ukraine,

– priority direction in the development of environmental insurance should be mandatory liability insurance for owners of increased environmental hazards sources in damage to third parties as a result of accidental pollution,

– necessity to establish a National Environmental Fund and the National Insurance Pool of environmental insurance,

– importance to develop and implement methodologies of risk assessment conduction due to the exploitation of hazardous objects, methods of insurance rates calculating in accordance with a certain level of risk,

– necessity to promote international cooperation in the field of environmental insurance, finance fund targeted programs and projects of such cooperation.

This analysis and experience make it possible to develop the corresponding anti-crisis strategies under conditions of competitive environment and European integration processes [17].

CONCLUSIONS

The current state of environmental insurance market in Ukraine is characterized by its specific fragmentation. Ukrainian insurance companies are not ready to engage fully in environmental insurance, as these policies in domestic realities of doing business can be unprofitable.

Learning experience of domestic insurers allows revealing several shortcomings of the system of environmental insurance that prevailing today in Ukraine.

First, there are virtually no insurance protection facilities environments. Such protection is implemented declaratively under the contract of property insurance protection, life and health. Said declarative insurance of environmental coverage objects predetermined competition claims, that when became occurrence of the insured event occurs between claims for compensation

for damage, caused to the environment, and claims for damages, caused to property, life and health of third parties. Considering the methodological complexity and ambiguity of determining the amount of damage inflicted to the environment, and the relatively small size of insurance sums, that are typically for contracts concluded by domestic insurers environmental insurance, all insurance amount is usually spent on insurance claims to third parties for damage, caused on their life, health and property.

Secondly, the list of risks covered by compulsory insurance types that can be considered as environmental, rather limited, and voluntary environmental insurance in Ukraine is not developed. It does not allow repairing the damage, caused to the environment in many cases.

Thirdly, there is a limited range of entities involved in the formation of insurance funds to cover the damage to the environment. To the insurance involved almost exclusively those businesses that operate with the increased risk objects.

Fourth, the usages of the legal forms of determine the amount of environment damage that is subject to compensation within the insurance relationships. This complicates the process damages the environment and leads to significant additional material costs and time-consuming.

Fifthly, there is no possibility of creating a system of funds targeted use for environmental protection provisions of precautionary measures, generated by insurance companies from insurance premiums, received within environmental insurance, because the premiums are paid by policyholders within the to date existing system environmental insurance, without distinguished from the total value of premiums, paid by policyholders for all contracts of compulsory insurance of their responsibility.

Nowadays segment of the global market for ecological technologies is around 1,000 billion euros a year, being already as an important development factor in the global economy [19].

One of the most effective mechanisms to encourage the development of environmental business and financing various environmental activities in Ukraine should be a system of environmental insurance funds. The main sources of their formation may include premiums of businesses associated with the risk of hazardous environmental situations and accidents; deductions from profits, other income not subject to tax[20].

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