

Ecological Insurance as a Financial Instrument for Environmental Protection

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Abstract

The article deals with the formation of an environmental insurance system in the Russian Federation. The main aspects of its development as a financial instrument for environmental protection based on international experience are analyzed. The problems and ways to solve them are identified, concrete actions to improve the legislative framework in the field of environmental insurance are proposed. The system of environmental insurance is analyzed in terms of the economic assessment of damage to the environment caused by industrial and economic objects. Ecological insurance is considered as one of the ways to manage environmental risks. Recommendations are presented on the formation of special insurance reserve financial funds, the funds of which should be used to compensate for damage under insurance contracts. The obtained results serve the main purpose of the study - to identify problem areas in the system of environmental insurance and to develop concrete actions aimed at improving legislation in this area and modernizing the procedure.

Keywords: insurance funds, environmental risk, environmental insurance, damage, environmental management.

1 INTRODUCTION

Today, the most acute problem of environmental insurance, because it can be a deterrent to the destruction of the natural environment [1]. In the developed world, environmental insurance is given great importance, legislation in this area is constantly being improved, conditions for compensation for damage caused to environmental damage are tightened, and the level of responsibility increases. Ecological insurance is a means of protecting the natural environment from the destructive livelihoods of humans. The emergence of environmental insurance as a concept refers to the mid-20th century [2]. Currently, only begins to emerge the legislative framework of European countries in this field. At that time, lawmakers attributed only the safety of industrial accidents to the system of environmental insurance. Following the results of the international conference of 1972, in which representatives of 113 countries, specialized UN agencies, IAEA and other intergovernmental and non-governmental organizations took part, a Declaration on the human environment was adopted. It became the legal basis for the development of Russian legislation in the field of environmental insurance.

2 METHODOLOGY

The basis of the methodological base of the study was ecological, legal and economic publications related to environmental insurance. In conducting the study, an analytical method was applied, which consisted in the in-depth study of the world's theoretical and practical experience in this field [3]. The widespread use of advances in related sciences - jurisprudence and economics, led to the use of a synergistic method. The information and legal base were made up of the Constitution of the Russian Federation, Federal laws and regulatory acts that regulate issues in the field of environmental insurance. When studying the methodological foundations of environmental insurance, historical background has been identified that led to the emergence of a system of eco-insurance. The social retrospective method made it possible to demonstrate the reasons for the formation, development and modernization of the environmental insurance system in the world and in Russia. The object of the study is environmental liability insurance for damage caused to the natural environment. The subject of the study is the system of environmental insurance, which is used to assess the damage caused to the environment by enterprises engaged in economic activity. The information-empirical basis of the study was compiled by documents of the Ministry of Natural Resources and Ecology of the Russian Federation, which are freely available. In the course of the study, a task was set to analyze the current system of environmental insurance in Russia and study the experience of foreign countries: consider

the main practical issues of environmental insurance; identify the main aspects of development and identify ways to improve [4].

3 RESULTS

In Russia, the concept of environmental insurance was first formulated in 1991 in the Law of the Russian Federation "On Environmental Protection", which determined that "in the Russian Federation voluntary and obligatory state environmental insurance of enterprises, institutions, organizations, as well as citizens, objects their property and income in case of environmental and natural disasters, accidents and catastrophes." Based on this law, the Order of voluntary environmental insurance in the Russian Federation was adopted and approved. And in 1997, the Law of the Russian Federation No. 116 "On the Industrial Safety of Hazardous Production Facilities" was adopted, in which lawmakers prescribed a mechanism for compulsory environmental liability insurance of enterprises that are a source of increased danger. So thirteen years after January 1, 2012, Federal Law No. 225-FZ "On Compulsory Insurance of Civil Liability of a Dangerous Facility Owner for Harm as a Result of an Accident at a Dangerous Facility" entered into force, which was supposed to be more effective in relation to hazardous production facilities. This law did not repeal the effect of federal law No. 116-FZ, but should have supplemented it. However, the federal law No. 225-FZ did not apply to situations arising from damage to the environment, and this was its main difference from Law No. 116-ФЗ "On Industrial Safety of Hazardous Production Facilities" [5]. The differences between these two laws can be seen from Table 1, which reflects the main differences between the two federal laws.

Table 1 - Differences № 116-FL and № 225-FL

	Comparison	№ 116-FL	№ 225-FL
1	The presence of the policy	Required when obtaining a license (commissioning of the facility). Weak control and minimum penalty for the absence of a policy.	Required when obtaining a license (commissioning of the facility). Tight control and a penalty for the absence of a policy from 300,000 to 500,000 rubles.
2	The average cost of the policy	6 000 rubles	60 000 rubles
3	Sum Insured Harm Compensation	100 000 - 7 000 000 rubles	10 000 000 - 6 500 000 000 rubles
4	Harm to the environment	Spreads	Does not apply

The main thing that has changed when making the new No. 222-FL is that the liability limit has increased, as can be seen from table 1 almost ten times. Now there is certainly enough money to cover the damage caused to the environment, but the legislator again bypassed the problems of nature and did not include in the law the responsibility for causing harm to the environment. For this purpose, the Federal Law "On Compulsory Ecological Insurance" is being developed, but it has not yet been adopted. The mechanism of voluntary environmental insurance today is governed by the Model Provision "On the procedure for voluntary environmental insurance in the Russian Federation". Currently in Russia, voluntary types of insurance are developing slowly, this is due not only to the lack of an enough legal base, but also the lack of free cash from enterprises for voluntary insurance of environmental risks [6]. Currently, there is no special law that would regulate only environmental insurance, so today we apply the rules of the Civil Code of the Russian Federation to environmental insurance. In addition to the Constitution and the Civil Code, there are several regulatory acts that also regulate relations in the field of environmental insurance, only in more detail. There are also special laws that relate to a specific field of human activity, such laws also introduce their own characteristics of environmental insurance in the area they are considering. Table 2 presents the main legislative acts that regulate activities in the field of environmental insurance in the Russian Federation.

Our country has ratified some international conventions in the field of environmental insurance that are mandatory for application, such as the Convention on Damage Caused by Foreign Aircraft to Third Parties on the Surface, adopted in Rome on October 7, 1952, the Vienna Convention on Civil Liability for Nuclear damage of May 21, 1963, the International Convention on Civil Liability for Oil Pollution Damage, adopted in Brussels on November 29, 1969, and several others.

Table 2 - List of regulations

	№/№	Name of the regulatory legal act	Date of adoption
1	№7-FL	"On Environmental Protection"	10.01.2002
2	№225-FL	"On compulsory insurance of civil liability of the owner of a hazardous facility for causing harm as a result of an accident at a hazardous facility"	01.01.2012
3	№219-FL	"On Amendments to the Federal Law "On Environmental Protection" and certain legislative acts of the Russian Federation"	21.07.2014
4	№104-FL	"On the organization of insurance business in the Russian Federation"	21.07.2005
5		"Model regulations on the procedure for voluntary environmental insurance in the Russian Federation"	03.12.1992 and 20.11.1992
	№116-FL	"On industrial safety of hazardous production facilities"	21.07.1997
6	№117-FL	" About the safety of hydraulic structures "	21.07.1997
7	№33-FL	" On the use of atomic energy "	28.03.2002
8	№147-FL	" About space activities "	29.11.1996

On April 21, 2004, the European Parliament and Council Directive 2004/35 / EC "On environmental liability in relation to the prevention and elimination of environmental damage" was adopted. Since in developed countries, environmental insurance began to develop much earlier than in our country and more attention is paid to it every year, a mechanism for assessing environmental damage has been developed in detail [7]. In European countries, there is a developed and legislatively established methodological base, based on which the damage is assessed, and financial obligations are made to eliminate this damage. If the company has not insured its risks, then it may not even expect to cooperate with it. Insurance companies constantly increase tariffs, the cost of an insurance contract is constantly becoming more expensive, and it is beneficial for the insured to increase the level of security of his enterprise than to pay for the damage in the future. According to accepted international practice, damage or harm caused to life and health, property, the natural environment, as well as lost profits or economic losses are compensated. A separate item reimburses expenses aimed at preventing damage [8]. Damage to property or life and health is determined by the court in a lawsuit. It is also necessary to consider the question of how the population is protected from unforeseen and emergency situations, including environmental risk in foreign countries. All over the world, the function of protecting the population from environmental disasters, except for Russia, belongs to insurance companies. For the best performance of the protection function, insurance companies required an increase in the budget, therefore, since 1979, special funds began to be created abroad, which allowed to increase the maximum insurance amounts for damages. Such insurance funds are called pools. Such pools exist in Japan, France, the Netherlands, Sweden and the UK. In parallel with the insurance for environmental pollution and insurance pools, there is also mutual insurance by enterprises of each other. That is, the two companies agree that they will insure each other against an unforeseen emergency event and create their own reserve fund, while the enterprises have the right to refuse the services of the insurance company. In this case, if at one of the enterprises accidental pollution occurs, then funds for compensation for damage and elimination of consequences are taken from this mutual fund.

In the Russian Federation, the Institute for Environmental Insurance is a new institution, the history of which has only about 25 years. The legislation lacks a clearly defined concept of environmental insurance. In the process of studying the issue of environmental insurance can be defined to protect the environment from hazardous human activities, as a tool that determines the size and procedure for payment of compensation for harm to the environment. The goal of environmental insurance is to indemnify legal entities and individuals for damages resulting from harm. In our country, environmental insurance is a function of the state, despite the fact that insurance itself, that is, the conclusion of an insurance contract lies with insurance companies, usually partly with state capital, the responsibility for eliminating the consequences of harm caused lies entirely with the state, namely at the Ministry of Emergency Situations of the Russian Federation [9].

Under Russian law, enterprises whose activities are dangerous in themselves, as well as enterprises that have dangerous objects, must insure the risks of harm. Also, their risks of pollution should ensure objects that themselves are not dangerous, but due to a natural disaster, such as fire, explosion, flood, earthquake, landslides, and so on, can cause serious harm to the environment. Also, the possibility of

environmental insurance is also provided for individuals if the objects of their property and income can harm the environment [10]. The subjects of environmental insurance are the insurer and the insured. The insurer is, as a rule, the insurance company with which the insurance contract is concluded. In the case of compulsory environmental insurance, the state acts as an insurer. An enterprise that falls under the dangerous principle of Act No. 116 – FZ "On Industrial Safety of Hazardous Production Facilities" dated July 21, 1997, is obliged to make compulsory insurance contributions in the form of contributions to the state budget [11]. Insurers can be both physical and legal persons, the main condition for entering an insurance contract is the ownership of a source of increased danger that can harm the environment. Environmental insurance is divided into voluntary and compulsory [12]. The rules of voluntary insurance are stipulated by the "Standard Regulation on the Procedure for Voluntary Environmental Insurance in the Russian Federation". The main difference between voluntary insurance and compulsory insurance is that the state does not enforce, does not define any criteria for insurance, that is, the insured himself applies to the insurance company with a desire to insure the risk of environmental harm to third parties. And already the insurance company, based on the Model Regulations, develops its rules on voluntary insurance specifically for each policyholder, namely the list of pollutants, as well as the causes of insurance events and damages that are recoverable. The insurance rules specified in the "Model Provision on Voluntary Environmental Insurance in the Russian Federation" allow insurance companies to independently determine: types of environmental insurance; list of objects to be insured; insurance coverage; level of insurance coverage; policyholders Rights and obligations of parties involved in insurance; tariff rates of insurance payments [13]. Another difference from voluntary insurance from compulsory insurance is that only legal entities can be insured. They can be of both Russian and foreign origin. The main condition is that the insurance object must be in Russia. The presence of a policy of voluntary environmental insurance of environmental damage significantly enhances the status and prestige of any enterprise. This indicates that the owners of the company take care of the protection of the environment not only in words but in deeds and have free money for this. Mandatory environmental insurance applies only to businesses that pose a heightened environmental risk. Federal Law No. 116-ФЗ "On Industrial Safety of Hazardous Production Facilities" determines the list of hazardous facilities to which compulsory environmental insurance is mandatory applied [14]. The types of environmental insurance include: liability insurance for owners of sources of increased environmental risk in the event of pollution of the environment, harm to life and health of individuals; insurance of natural objects and complexes in case of occurrence of environmental emergencies caused by natural disasters; life and health insurance of individuals in the event of environmental emergencies caused by natural disasters and man-made accidents; insurance of contractual liability of users of natural resources, namely: water users, subsoil users, land users, users of forests; insurance of financial risks in terms of insuring the costs of restoring natural objects or the natural environment (for example, the costs of reforestation, firefighting costs, the cost of cleaning reservoirs from oil spills, etc.) [15].

The most difficult type of compulsory insurance is the contractual liability of nature users. In this case, it is initially quite difficult to assess the risks. Risks are assessed for each specific object separately for certain parameters, namely: for the materials used at the enterprise, for its location, for the production process, and for the safety standards adopted at that time. When assessing risk, special attention is paid to the possibility of water, air and soil pollution. Voluntary use is extremely rare. For an explanation of why enterprises are not in a hurry to conclude voluntary environmental insurance contracts, there are several valid economic reasons. One of the reasons is that enterprises are simply not interested in voluntary liability insurance, the reason is simple and simple - funds for drawing up a voluntary insurance contract should be separated from the company's profits, which is extremely difficult for the enterprise and sometimes unprofitable, especially in a crisis situation. when not enough money to pay wages. Another reason is that the state does not provide any programs that encourage voluntary insurance, for example, tax breaks for conscious enterprises that are willing to voluntarily insure themselves. The solution to the problem of unwillingness to insure could be the introduction of compulsory insurance for all economic entities, according to the principle of CTP, however, so far this is also problematic. The first of these reasons is the same - the allocation of funds from profits is a great luxury for many enterprises today in a crisis [16]. The second reason is that the money spent on registration of insurance will have to somehow justify, respectively, increases the cost of the company's products, and as a result, payment of such insurance will fall on the shoulders of the consumer who will purchase the final product. The third reason, and today the most important one is the absence of a special law on compulsory insurance of harm to the environment. According to the experience of foreign countries, the culprit of causing environmental damage, in addition to applying the principle "Polluter pays", is also obligated to eliminate pollution on its own [17]. State services are connected only if the pollution is of a large scale and the culprit is simply unable to cope on his own,

without forgetting that the culprit pays for all activities related to the elimination of dangerous consequences. In our country, no matter who is to blame, whatever the scale of harm to the environment, all the responsibility for eliminating pollution lies with the Russian Emergencies Ministry - the state structure, respectively, and state funding. With a voluntary insurance contract, the situation practically does not change. In this case, the damage caused to nature is partially reimbursed by the insurance company within the maximum insurance amount specified in the contract. But often these funds are not enough to fully cover the damage, and the consequences of the damage caused are eliminated by the state structure [18]. An analysis of the situation in the field of environmental insurance allows us to conclude that the facts that inhibit the development of the environmental insurance system in Russia are: the lack of a sufficient legislative base, namely the absence of a special law or laws that would regulate the relations of subjects with compulsory and voluntary environmental insurance ; the absence of mechanisms for assessing the damage caused to the environment, human life and health at the stage of concluding insurance contracts; lack of statistical data on damage to the environment, human life and health; lack of insurance pools; the absence of insurance companies that could take responsibility for compulsory and voluntary environmental insurance; lack of qualified and sufficient personnel in environmental insurance; depreciation of equipment of most enterprises belonging to hazardous production facilities; unwillingness of enterprises to insure liability for environmental damage through voluntary environmental insurance; lack of economic incentives for enterprises that have entered into voluntary insurance contracts.

4 DISCUSSION

On November 15, 2003, by its Resolution No. 22–19, the Inter-Parliamentary Assembly of the CIS Member States adopted the Model Law "On Environmental Insurance". The law spelled out the concept of environmental insurance, that it is mandatory and voluntary, the rights and obligations of the parties, and most importantly, the law is aimed at protecting the environment, that is, it is supposed to pay damages for damage caused to natural objects. CIS member countries have committed themselves to bring their domestic legislation in the field of environmental insurance in accordance with this Model Law in the next 5 years from the date of adoption of this law. For example, in Kazakhstan, a similar law has been successfully operating for several years, while in Russia, a similar law has not yet been adopted, and the current legislation is far from perfect. Many experts agree that this law quite fully and clearly reflects everything necessary for regulating environmental insurance and could well become a prototype of a similar law in Russia.

For a clear operation of environmental insurance, Model Law proposes the creation of:

The mutual insurance society, which must include at least 30 legal entities, with its charter and insurance supervision body, as well as joint subsidiary liability for all insurance contracts;

National Association of Insurers in the form of a self-regulating enterprise. The responsibility of the organization will be the development and implementation of common methods and approaches to environmental insurance. The national association will have to ensure the financial sustainability of all activities in environmental insurance.

The Model Law also provides solutions to the issues of financing environmental insurance. To ensure the financial sustainability of environmental insurance, it is proposed to create a multi-level guarantee system, which should include special requirements for insurers and control over their activities. One of the requirements is the obligation of insurers to form special insurance reserve financial funds, the funds of which should be used to compensate for damage under insurance contracts, as well as to preventive measures. The law also provides for the possibility of reinsurance of an environmental insurance contract, including in foreign insurance companies. Contingency funds will have to be made up of contributions from policyholders, and the state will exercise control over the expenditure of these funds through a special state authority that deals with environmental issues. The procedure for spending the reserve fund will be carried out by the governing body of the national association of insurers by adopting a budget for the relevant period [19].

The state, in turn, acts as a guarantor of compensation to third parties for losses to the natural environment, which occurred as a result of a dangerous incident at an uninsured or unidentified object. For these purposes, a state guarantee fund for environmental insurance should be created, which will be formed from insurance contributions under compulsory environmental insurance agreements, in this case, the state will determine the tariff rates, and the companies that have their insurance funds will pay the national association of insurers, as well as through donations of individuals and legal

entities. The activities of the state environmental insurance fund are supposed to be directed both to the development of voluntary environmental insurance and to preventive measures. The guarantee state fund will receive the right to demand from the owners of enterprises compensation of expenses for damages caused to the environment in the absence of any type of insurance contract from this enterprise. The law also imposes an obligation on the state to take a list of measures to stimulate insurance, for example, the introduction of certain benefits in the taxation of enterprises that have entered into contracts of liability insurance for causing damage.

After studying the Model Law, a natural question arises: "Why hasn't our legislative assembly passed such a law so far? After all, more than 10 years have passed since the adoption of the Model Law by the CIS countries?" One of the reasons for such a delay in the adoption of a special law is the inability of one individual insurance company to draw the risk of liability under insurance contracts. Therefore, in our country it is necessary to create insurance pools, that is, associations of insurers with a total capital following the example of foreign countries. This made it possible to increase financial capital and finally it would be possible to pass a law "About environmental insurance". It has been established that the main problem of environmental insurance today is the absence of a special federal law that would regulate relations in the field of environmental insurance. It was revealed that this law could become a universal instrument in the sphere of regulation of relations between the subjects of environmental insurance, both with compulsory and voluntary environmental insurance, would eliminate the gaps in the current legal framework in environmental insurance and help direct environmental insurance to environmental protection. It is proved that the law on environmental insurance should reflect the main principle of environmental insurance "the polluter pays", it will remove the obligation to eliminate environmental damage to the state, and oblige the owner of the enterprise that caused environmental damage to pay for the damage [20].

Another problem of the effectiveness of the environmental insurance system was the lack of an insurance reserve fund in our country. This insurance fund would help solve the problem of financing environmental risk insurance, since such a fund can accumulate funds from insurers, which can then be directed not only at eliminating the consequences of an environmental disaster, but also at preventive measures aimed at preserving the natural environment. It was revealed that it is necessary to adopt a special law on compulsory environmental insurance, which would help consolidate the obligation of enterprises engaged in hazardous activities that may cause accidents and, as a consequence, cause harm to the natural environment, and necessarily enter into environmental insurance agreements on the principle of OSAGO.

5 CONCLUSIONS

To eliminate the existing gaps in the system of environmental insurance in Russia, it is recommended:

- to bring the legislation in line with the Model Law adopted by the Inter-Parliamentary Assembly of the States Parties to the Commonwealth of Independent States, and to adopt the law "On Environmental Insurance";
- adopt the Federal Law "On Compulsory Insurance of Liability for Harm Caused by the Environment Caused by a Business Entity and Other Activities", which is developed by a working group under the Federation Council Committee on Science, Culture, Education, Healthcare and the Environment;
- to create in our country an insurance reserve fund, according to the experience of foreign countries, this will be able to attract quite a lot of capital in the sphere of environmental insurance, which will remove some of the financial burden from the federal and regional budgets;
- create a system of incentives for voluntary insurance for enterprises, for example, to introduce substantial tax breaks for enterprises that have entered into voluntary environmental insurance contracts, and for enterprises that invest in the modernization of cleaning equipment, and for enterprises that regularly carry out hazardous consequences prevention measures;
- create independent centers throughout the country to collect hazardous accident statistics that cause damage to the natural environment.

Regular data collection will help form the mechanisms for assessing the damage caused at the stage of signing environmental insurance contracts. After the adoption of relevant laws and the introduction of incentive methods for environmental insurance, toughening of the system of state environmental control and prosecution of environmental offenses is possible. With the mandatory implementation of

all the recommendations, our environmental insurance system promises to be a serious tool in the struggle to preserve the environment for future generations.

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