

# Monitoring and protection method as elements of a mechanism for ensuring environmental safety in the context of sustainable development

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**Abstract.** The article discusses the monitoring method and the protection method as elements of a mechanism for ensuring environmental safety in conditions of sustainable development. The purpose of the study is to substantiate the need to form a mechanism that ensures environmental safety in conditions of sustainability, combining a diagnostic method and a protection method, which is universal in nature and capable of promptly responding to environmental violations in the context of changing social relations. The effectiveness of the methods used is associated with diagnostics of the state of the environment, carried out through monitoring. The method of protection includes restoration of broken environmental relations in cases of real damage to natural benefits, by filing claims for compensation for environmental damage and imposing sanctions. The justification for the socio-legal significance of the methods is carried out from the position of developing environmental consciousness, which ensures that subjects are deterred from unlawful environmental behavior in the future.

## 1 Introduction

The intensive development of social relations, new products of technological progress, including the intensive process of digitalization in all spheres of human life, causes an increase in the negative impact on the environment. In recent years, processes related to environmental conservation, improvement of technological operating modes of enterprises and other trends that will ensure the preservation of the natural environment unchanged have intensified [1]. Modern mechanisms for the protection of natural resources must include a whole set of components and be universal in nature in order to ensure the environmental safety of society in conditions of sustainable development. If, in order to increase the economic efficiency of enterprises, it is necessary to introduce resource-saving technologies into production [2], then while ensuring the protection of natural resources, it is necessary to combine monitoring methods and sanctions within the framework of one

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mechanism aimed at reducing the harmful effects and creating a caring attitude towards the environment and human existence .

"In order to provide optimal protection for the environment, preventive and repressive measures are continuously carried out. Preventive measures in controlling environmental impacts need to be carried out by making maximum use of monitoring and licensing instruments. If environmental pollution and damage have occurred, it is necessary to undertake repressive measures in practical, consistent, and consistent law enforcement against pollution and environmental damage" [3].

It is difficult to overestimate the practical importance of these methods: control over respect for the environment, carried out through monitoring, which allows diagnosing the situation in the field of environmental management, and a method of protection in the event of real harm to natural resources or the threat of it.

Environmental monitoring is one of the popular ways to prevent risks of threats to environmental protection and allows for the assessment and forecasting of environmental risks, identifying facts of violations in the implementation of relevant relations, and identifying persons violating the requirements for ensuring environmental safety [4].

"Introduction In recent years, issues related to the need to ensure constant monitoring of large industrial facilities, urban agglomerations, individual objects of nature, etc" [5]. "Moreover, environmental conditions can easily change in an unpredictable way and, therefore, the employment of an environmental monitoring system is mandatory in almost all locations..." [6], for example, providing external transport links that form independent structures have an active impact on environment [7]. "This method hopes that besides having a deterrent effect, it will also increase all stakeholders' awareness about the importance of environmental protection and management." [8].

Environmental monitoring is associated with a comprehensive system of monitoring the state of the environment, including assessment and forecasting of environmental changes under the influence of natural and anthropogenic factors [9]. In this connection, the content of this mechanism is the relationship that ensures environmental safety and environmental protection through the use of a set of established methods, methods, rules and techniques for using planning tools for monitoring activities, obtaining the necessary information, recording it, summarizing, analyzing and evaluating, forecasting, registration and publication, as well as implementation of its results [4].

Thus, the main goal of environmental monitoring is to prevent critical situations that are harmful or dangerous to human health, the well-being of other living beings, their communities, natural and man-made objects [10].

However, these preventive measures are not in all cases capable of fully preventing environmental pollution and preventing harm. The danger of acts is determined by the scale of damage caused by unlawful actions, such as soil pollution as a result of illegal mining and deserves assessment within the framework of criminal law censure [11].

In this case, the mechanisms designed to ensure the restoration of broken environmental relations differ significantly in the nature of their impact, and are formed within the framework of administrative, civil, criminal and some other types of liability, while "... criminal and administrative responsibility for the violation of environmental legislation is mutually exclusive" [12].

Civil (or property) liability for violation of environmental safety requirements consists of the obligation to compensate for damage to the environment. [12] "The settlement of environmental disputes in court includes class action suits, environmental organizations' lawsuit rights, or the government's right to sue" [13].

The possibility of filing a claim for compensation for environmental damage remains in the event of environmental crimes. In this case, compensation for harm caused by a crime is considered as an additional measure aimed at developing legal consciousness [14].

However, "... criminal law can only be used when other means (such as civil suits, administrative settlements, non-criminal sanctions, etc.) are unsuccessful" [3].

The formation of environmental consciousness, which ensures the further retention of persons guilty of causing harm to environmental benefits, is determined by the impact of the measures taken depending on the degree of danger of the act committed. Submitting claims for compensation for damage caused is a legislatively provided element of the mechanisms for the formation of environmental consciousness, formed within the framework of various types of responsibility. The higher the social danger of the crime committed, the more severe in type and scope the punishment is assigned to the criminal to deter him from committing a new act [15].

Since the public danger to the environment is caused by human social activity (the development of scientific and technological progress, the use of natural resources to meet one's needs, as well as careless or criminal environmental behavior), the main object of preventive influence within the framework of emerging law enforcement mechanisms is the consciousness and will of the physical person who violated the environmental ban. The possibility of filing claims for compensation for harm caused both in the case of an offense and a crime indicates the universal nature of this measure within the framework of law enforcement mechanisms formed at the individual level. The obligation to compensate for the damage caused, brought to the consciousness of the subject who committed unlawful environmental behavior, at the level of official censure issued in the form of individual acts of instruction, forms a mechanism that corrects defects in environmental consciousness. The corresponding obligations and rights of subjects - the state, arising from official acts of individual influence, represented by law enforcement agencies, obligated to respond to the established fact of violation and, the person who violated the environmental ban, obligated to fulfill the will of the state, expressed at the official level and compensate for damage, form the content of the method of protection environment.

The use of imperative measures to respond to damage caused in the form of individual instructions addressed to the consciousness and will of a person who has neglected environmental prohibitions is intended to ensure his deterrence from socially dangerous behavior in the field of environmental safety [16].

But "... because the main goal of the environmental provisions is environmental restoration, therefore, the criminal sanctions can be used as the last resort to tackle the cases" [3].

## **2 Materials and methods**

The object of the study is prevention carried out by environmental monitoring tools and impact protection measures as the main elements of the mechanism for ensuring environmental safety in conditions of sustainable development. The main goal of the study is to substantiate the need to form a mechanism that ensures environmental safety in conditions of sustainability, combining a diagnostic method and a protection method, which is universal in nature and capable of promptly responding to environmental violations in the context of changing social relations. To achieve this goal, the following tasks were formulated:

- Justify environmental monitoring as the main element that carries out preventive impact within the framework of the mechanism for ensuring environmental safety in the conditions of sustainable development.
- Justify the protection method as the main element ensuring environmental safety within the framework of a mechanism implemented in the context of sustainable development.
- Identify problems that impede the effective implementation of the specified elements of the mechanism.

The main methods that made it possible to obtain the results presented in this work were the methods of dialectics. The combination of methods of analysis and synthesis, induction and deduction, analogy, generalization and systematization contributed to the achievement of the research goal and the implementation of the stated objectives.

### **3 Results**

The considered applied methods within the framework of the formation of mechanisms, monitoring and methods of protection, different in content, have a socially preventive nature and only in their totality form a single universal mechanism that ensures environmental safety.

The universality of this mechanism is determined by the different content of the methods being implemented, the result of the interaction of which is to ensure environmental safety.

The analysis showed that ensuring environmental safety in conditions of sustainable development is carried out by the following main methods of influence: the monitoring method and the protection method.

The content of these methods indicates that they form interacting elements of the mechanism for ensuring environmental safety in the context of sustainable development:

- The monitoring method provides control and diagnostics in the field of environmental protection and is aimed at preventing critical situations that could jeopardize human health, the well-being of the environment and other benefits. Its content consists of social relations that ensure environmental safety and environmental protection through the application of a set of established methods, methods, rules and techniques for using planning tools for monitoring activities, obtaining the necessary information, recording it, summarizing, analyzing and evaluating, forecasting, processing and publishing information.
- A method of protection aimed at restoring broken environmental legal relations is used if the implementation of preventive measures using the above means turned out to be insufficient and negative consequences could not be avoided. The content of this method is formed by social relations that ensure environmental safety and environmental protection, through the implementation of the corresponding duties and rights of subjects - the state, represented by law enforcement agencies, obligated to respond to the established fact of violation and, the person who violated the environmental ban - obligated to fulfill the will of the state, expressed at the official level and compensate for damages arising from official acts of individual orders.

Thus, the significance of each of these methods, established in the course of the study, in achieving a single socially positive result in the form of ensuring environmental safety - diagnostics of the environmental situation, deterring unscrupulous subjects of environmental management from unlawful environmental behavior in the future, through the formation of environmental consciousness, indicates that their operation (implementation) forms a dynamic mechanism that implements protection and prevention in the field of environmental safety, the universal nature of which is determined by the combination of these methods.

### **4 Discussion**

The preventive potential of a mechanism that combines alternative methods of influence in the context of protecting natural resources has a noticeable advantage. However, the effectiveness of the methods used depends on solving existing problems that accompany

both the scope of environmental monitoring and the use of more stringent methods of protecting public relations in the field of ensuring environmental safety.

Thus, the successful functioning of environmental monitoring mechanisms today is associated not only with the development of information technologies, since they allow for high-quality monitoring, but also with the training of appropriate specialists who can effectively use the information received [17]. In view of this, problems with the effectiveness of the operation of these mechanisms should also include problems with the digital educational environment: there is the problem of finding optimal approaches for adapting the potential of the digital educational environment to the tasks of environmental development of the individual [18].

The implementation of protection methods in practice causes certain difficulties. Thus, the widespread method of applying civil sanctions in the form of compensation still does not form optimal law enforcement technologies and environmental protection capable of reducing its pollution and degradation. The current situation in practice, in connection with this, forces scientists to state the ineffectiveness of the method used: “the use of administrative and civil sanctions is considered ineffective, however to implement criminal sanctions is still difficult” [19].

If a legal entity (enterprise) causes harm to the environment and thereby commits an environmental crime, then the culprit is not the enterprise itself, but the guilty person. This does not always correspond to the principle of justice, since the punishment of such a person will not correspond to the level of environmental damage caused by the enterprise [12].

In addition, we should not forget about problems of a criminal nature: “the damage that can be generated is not only environmental, but is also related to organized and common crime that occurs in remote places where the state does not arrive causing disturbances at the social level” [11].

## 5 Conclusion

Effective environmental protection requires a systematic approach to designing mechanisms to ensure environmental safety in the context of sustainable development. However, the identified difficulties that arise in the process of implementing the methods indicate the need to optimize the monitoring method, as well as the development of a system of effective legal liability measures that can form an environmental consciousness among subjects who have violated environmental prohibitions established by the norms and standards of environmental management. The problem of the effectiveness of the mechanism for ensuring environmental safety in the context of sustainable development should be resolved taking into account the preparation of appropriate human resources, as well as the search for optimal approaches to adapt the potential of the digital educational environment to the tasks of environmental personal development.

In addition, the public danger of harm caused by environmental crimes should not be limited to damage to natural benefits. It is also associated, among other things, with organized crime, which can develop in remote places, causing unrest at the social level, creating conditions for a criminal environment.

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