

ICEST 2021**II International Conference on Economic and Social Trends for Sustainability of Modern Society****INNOVATIVE ECONOMY AND ENVIRONMENTAL SAFETY
MANAGEMENT OF ENTERPRISES**

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Abstract

The problem of achieving a very high degree of environmental safety at the federal, regional, municipal and local (enterprise) levels seems to be more relevant than ever now and in the foreseeable future. The guarantees of ensuring environmental safety are given by the application of the "green" economy in all areas of economic activity. The innovative core of the domestic "green" economy is the general theory of ensuring environmental safety. In the domestic "green" economy, much attention is paid to the implementation of technical and economic measures for the protection and preservation of the environment. Minimization of environmental pollution seems to be the main task of every enterprise, which can ensure its economic efficiency, and is also the main prerequisite for sustainable development. This can be achieved through widespread adoption of the best available technologies. This methodological approach can be used to increase economic efficiency and modernize systems for ensuring environmental safety of industrial enterprises in Russia. It is also noted that at the moment there is an urgent need to create economic and mathematical models to increase the economic efficiency of the functioning of systems for ensuring the environmental safety of high-tech enterprises. The purpose of this work is to develop the applied economic aspects of the general theory of environmental safety.

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1. Introduction

The problem of achieving a very high degree of environmental safety at the federal, regional, municipal and local (enterprise) levels seems to be more relevant than ever now and in the foreseeable future (Dmitrieva et al., 2020a).

According to Ilyinova et al. (2016), the concept of "environmental management" is part of the term "environmental safety"; the environmental management system is included in the environmental safety system of an enterprise as a subsystem of management decisions.

The guarantees of ensuring environmental safety are provided by the application of the "green" economy (Tyaglov et al., 2017).

2. Problem Statement

The innovative core of the domestic "green" economy is the general theory of environmental safety (HSEB) (Mileshko, 2018).

The economic modernization of the HSEB was carried out by the authors of (Dmitrieva et al., 2020b), in which it is noted that further achievements in research in this scientific area can be expected when using the provisions of environmental safety in the economic sphere.

3. Research Questions

Implementation of economic security monitoring.

Methodological approach for increasing economic efficiency and modernization of systems for ensuring enterprises environmental safety.

4. Purpose of the Study

The purpose of this work is to develop the applied economic aspects of the general theory of environmental safety.

5. Research Methods

Like all types of human activity, business entities must strictly obey the first rule of HSEB, i.e. exclude harmful effects on the environment.

At the state level, in 2018, investments were made in fixed assets, which were directed to the protection of: water resources - 62,750 million rubles, atmospheric air - 65,475 million rubles, land - 10,011 million rubles (Russia in numbers, 2019, p. 67).

In the Russian Federation, in 2018, wastewater treatment plants were put into operation, 754 thousand m³ of water per day, water recycling systems, 13,332 thousand m³ of water per day and installations for capturing and neutralizing harmful substances from waste gases, 4802 thousand m³ of gas per hour (Russia in numbers, 2019, p. 68).

The "green" economy is an economy of sustainable growth with a predominance of environmentally friendly industries that use alternative energy, low-waste and resource-saving industries, while economic growth and increased environmental awareness of the population are supported by state policy (Vukovich, 2018).

When studying the problems of enterprise functioning, the central place is occupied by a triad (Sazhin, 2016): economic information, economic analysis, management decision.

An enterprise will not be able to provide and prove the competitiveness of its products until it confirms the required degree of the environmental safety. In addition, it is possible to achieve minimization of economic risk thanks to the fact that "costs for the implementation of measures to reduce the negative impact on the environment are deducted from the amount of payment for negative environmental impact" (Babina, 2017, p. 132).

For the implementation of economic security monitoring, it seems appropriate to use the threshold value tools. Moreover, they should be considered not from the standpoint of the obligatory onset of a catastrophe (from the term "threshold effect"), but in order to separate the normal level of economic security from the insufficient one. When developing measures to ensure the required level of economic security, it is necessary to take into account the degree of remoteness of the indicator from the threshold value and its dynamics (Mityakov & Mityakov, 2018).

In Mityakov and Mityakov (2018), seven characteristic "risk zones" were proposed for positioning the measure of deviation of the indicator value from the threshold level and a model was built that allows one to determine a one-to-one correspondence between the indicator value and the probability of the threat to economic safety.

Therefore, it was proposed to introduce subsystems (Mileshko & Mikhailova, 2018, 2019) for monitoring economic risks and monitoring the degree of ensuring environmental safety into the monitoring system of the environmental and economic safety of the enterprise.

Consequently, the monitoring of industrial enterprises should be essentially environmental and economic. This ensures coverage of all aspects of enterprise security.

Minimization of environmental pollution seems to be the main task of every enterprise, which can ensure its economic efficiency, and is also the main prerequisite for sustainable development. This can be achieved through widespread adoption of the best available technologies.

This methodological approach can be used to increase economic efficiency and modernize systems for ensuring environmental safety of industrial enterprises in Russia.

It should be noted that the use of innovative technologies causes an increase in the value of not only fixed assets, but also intangible assets of the enterprise. This leads to an increase in the enterprise total assets.

In this regard, it is necessary to take into account the growth of this type of assets when introducing environmental safety systems, and the elasticity of production for all resources and innovations can be clarified (Mileshko et al., 2020) as follows, supplementing the formula given in (Zanaev, 2013) taking into account the intangible assets of the enterprise:

$$III = \frac{\Delta BP}{\Delta C + \Delta O\Phi + \Delta HMA}$$

where:

PP - marginal productivity of resources;

ΔBP - percentage increase (growth rate) of proceeds from sales for two periods (years);

ΔC - percentage increase (growth rate) of total costs for two periods (years);

ΔOF - percentage increase (growth rate) in the value of fixed assets for two periods (years), which takes place thanks to the modernization of fixed assets;

ΔHMA - percentage increase (growth rate) in the value of intangible assets for two periods (years), which takes place thanks to the introduction of innovations.

In Sazhin (2016) study, the problem of constructing economic models capable of increasing the economic efficiency of the systems for ensuring the environmental safety of enterprises is also noted.

Rodionov (2016) proposed a methodological approach to “interface between risks management and management risks for a multidimensional multifactorial solution to the problem of sustainable development of an innovative economy in a turbulent business environment” (Rodionov, 2016, p. 99-101). Further research in this regard should be aimed at:

- development of management decisions that minimize the risk of assessing the value of economic objects at the levels of real estate in the public and private sectors, environmental objects, enterprises and corporations;
- proposal of management solutions allowing to maximize the capital of economic entities with a high degree of environmental safety at various economic levels (Mileshko, 2021).

6. Findings

In the domestic "green" economy, much attention is paid to the implementation of technical and economic measures for the protection and preservation of the environment.

Monitoring of industrial enterprises should be essentially ecological and economic, which ensures the coverage of all aspects of enterprise safety.

We also note that at the moment there is an urgent need to create economic and mathematical models to increase the economic efficiency of the functioning of systems for ensuring the environmental safety of high-tech enterprises.

7. Conclusion

Minimization of environmental pollution seems to be the main task of every enterprise, which can ensure its economic efficiency. It is also the main prerequisite for sustainable development. This can be achieved through widespread adoption of the best available technologies.

This methodological approach can be used to increase economic efficiency and modernize systems for ensuring environmental safety of industrial enterprises in Russia.

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