Improvement of environmental sustainability control of economic entities of the transport industry in Ukraine

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Abstract. The paper proposes and substantiates the concept of integrating external and internal control of the environmental sustainability of economic entities in coordination with state supervision of natural resource users, which will increase the complexity, efficiency and effectiveness of monitoring the environmental impact of enterprises-users of natural resources and reduce the risk of hazardous situations. Theoretical and methodological provisions and a unified methodological toolkit for internal control and audit of the environmental sustainability of economic entities based on public non-financial reporting using special methods and specific techniques have been developed, the essence, subject and objects of internal control and audit of environmental sustainability of economic entities, fundamental principles and control procedures have been determined to assess the environmental efficiency of economic activities of enterprises, as well as the forms of documents for these procedures and a standard set of documentation for practical use; substantiated the need for environmental risk management and implementation of a risk-oriented internal control system in the corporate risk management system.

1. Introduction
The significance of environmental problems in Ukraine is aggravated by the raw material nature of the domestic economy, in which the problems of rational environmental management are of particular importance. There is an increase in the number of environmentally related diseases among the population. The level of threats to environmental safety remains high in almost all types of economic activities. One of the effective measures in these conditions should be the organization of effective and efficient environmental control, designed to ensure environmental safety and sustainability of the development of transport enterprises. Until now, there are no agreed approaches to the conceptual issues of theory, methodology and organization of the control system for the environmental sustainability of enterprises. Until the end, such problems as the procedure for organizing and conducting external and internal control of the environmental sustainability of economic entities and stimulating the sustainable development of Ukrainian economies that require special scientific research. There is no systematic understanding of the methodology for monitoring environmental accounting and reporting of economic entities, including on the basis of integrated reporting. In this regard, scientific substantiation and development of a unified concept of external control carried out by audit organizations and internal control of the environmental sustainability of the economic entities
themselves are required in coordination with the system of environmental state supervision of natural resources users, not duplicating, but mutually complementing each other.

2. Materials and Methods
During the development of the main directions for the improvement of the control of the environmental sustainability of economic entities, the positions of such international organizations as the United Nations Environmental Program (UNEP), the United Nations Conference on Trade and Development (UNCTAD), and the United Nations Commission on Sustainable Development (CSD) were taken into account. During the research process, the dialectical method of cognition and systems analysis, general scientific and private scientific methods and techniques (analysis, synthesis, induction and deduction, comparison, an integrated approach to assessing economic phenomena) were used.

3. The aim of the study is to form an integrated concept of external and internal control of the environmental sustainability of economic entities of the aviation industry at different levels of management to meet the needs and expectations of stakeholders.

4. Results
Environmental sustainability of an enterprise is understood as the ability of an enterprise to maintain consistently high indicators of environmental development while increasing the volume of production and sales of products (works, services), increasing the efficiency of the use of natural resources and ensuring the environmental safety of its activities under the influence of external and internal factors, making the fullest use of its production potential and resources. Environmentally sustainable and safe development of enterprises of the transport system of Ukraine is impossible without an effective and efficient system for monitoring the environmental sustainability of economic entities, the types of which are external and internal control [1].

The integrated concept of external and internal control of the environmental sustainability of economic entities formed in the study, carried out by audit organizations in cooperation with the internal control (audit) service, state environmental control bodies of natural resources, is shown in Figure 1.

![AN INTEGRATED CONCEPT OF EXTERNAL AND INTERNAL CONTROL OF THE ENVIRONMENTAL SUSTAINABILITY OF ECONOMIC ENTITIES](image)

**Figure 1.** Integrated concept of external and internal control of the environmental sustainability of the enterprise *Source: compiled by the authors*

State environmental supervision is a legal form of environmental activity and a guarantee of the work of economic, organizational and legal mechanisms for environmental protection, rational nature management and ensuring environmental safety. It is carried out by state bodies authorized in the field of environmental protection and their officials. The organization of an external independent audit and internal control of the environmental sustainability of economic entities is based on fundamental principles, information and analytical support, legislative and regulatory framework, as well as on the legally established responsibility of the subjects of control for environmental offenses.
Extern
al independent audit and internal control of the environmental sustainability of economic entities should not be limited to verifying the reliability of the submitted reports, but are intended to assess the environmental sustainability and economic efficiency of the economic entity's economic activity [4]. With the help of audit procedures, it is possible to predict, evaluate and analyze the objects of economic activity under construction, as well as assess environmental risks during the planned expansion of production at large enterprises.

Ensuring sustainable development is one of the most important functions of the enterprise. The ecological conditions of sustainable functioning are understood as such conditions for the functioning of an enterprise, in which stable high indicators of its social, economic and environmental development are maintained over a long period of time, production potential and resources are most fully used, the volume of production and sales of products (works, services) increases, its capitalization and effective management. The ecological conditions for the sustainable functioning of a natural resource user are shown in Figure 2.

![Figure 2. Environmental conditions for the sustainable functioning of a natural resource user](systematized and developed by the authors [3, 5])

To achieve the goals of an external independent audit of the environmental sustainability of an enterprise in a short period of time, the work of external controllers and auditors must be carefully planned and well organized. The purpose of planning is to ensure that the audit is carried out on time, qualitatively, efficiently, and in compliance with the applicable audit rules and standards. Planning helps to give the necessary attention to identifying potential problems; performing work with optimal costs, efficiently and on time; effective distribution of work among the members of the group of
controllers and auditors involved in the external control and audit of environmental sustainability, as well as coordination of their work.

Increasing the environmental sustainability of an enterprise is associated with the environmental efficiency of its economic activities. Every transport company must become environmentally efficient if it aims to be competitive in the global market. The information base for the analysis of environmental performance is public non-financial reporting, including integrated reporting [6, 7].

The environmental management system is part of the general management system of the natural resource user and is used to develop and implement the environmental policy of the organization, which informs interested users about the environmental priorities of the enterprise and provides for the care of nature conservation, the quality of the natural environment around humans, and the rational use of existing resources [5]. First of all, we are talking about measures to reduce the negative impact of the enterprise on the environment, the introduction of the best available and environmentally friendly (waste-free) technologies, the prohibition of environmentally harmful activities, which can lead to the degradation of ecosystems, change and destruction of the genetic fund of plants, animals and other organisms, depletion of natural resources and other negative changes in the environment.

Economic entities must create conditions and take the necessary measures to protect the environment through unconditional compliance with the requirements of environmental legislation for conducting economic activities and other legal requirements; planning and carrying out activities to reduce the negative impact on the environment of pollutants generated as a result of activities; rational use of electricity, water and natural gas; rational involvement of production and consumption waste as secondary raw materials in the economic circulation in order to replace natural raw materials and reduce the risk of emergencies and their negative impact on the environment; systematic analysis of a functioning environmental management system for the purpose of its continuous improvement, etc.

The management of companies should be aware of the scale of the potential impact on the environment and the importance of environmental activities, fully realize that the declaration of the transition to cleaner production and new technologies is provided with sufficient resources, professional, financial and organizational capabilities [8]. A conscious emphasis should be placed on the efficient use of available local resources, on the gradual tightening of production discipline requirements, along with environmental awareness and training of personnel.

Internal control and audit of the environmental sustainability of an enterprise is a control activity carried out by the internal services of a natural resource user aimed at ensuring the efficiency and effectiveness of the mission of the enterprise, the reliability and timeliness of accounting (financial) and other reporting, compliance with legislation, as well as improving the efficiency of the environmental management system through the use of quality information.

The tasks of internal control and audit of the environmental sustainability of the enterprise are to ensure monitoring and verification of the functioning of the enterprise as a whole, its divisions and branches, other objects of internal control and audit for compliance with their activities with environmental legislation, standards, plans, norms, rules, orders, management decisions. ...

Internal control and audit of the environmental sustainability of economic entities ensures monitoring and verification of the functioning of the enterprise as a whole, its divisions and branches, other facilities for compliance with Ukrainian legislation, environmental standards and norms, rules and principles of corporate governance, orders and management decisions. It is important for the preservation of assets of enterprises and the timely elimination of non-productive costs and losses, the development of measures to effectively control and manage risks, prevent negative economic consequences and prevent bankruptcy. The internal controller and auditor needs to be mindful of principles such as ensuring that an external sustainability control program is implemented to effectively manage environmental quality; compliance of environmental management systems with legislative norms and regulatory requirements; search for reserves and unused opportunities in the environmental activities of the enterprise.
Internal regulations that formalize internal control and audit procedures should be the instruments of internal control and environmental sustainability audit; enterprise due diligence rules; job descriptions of financial employees and procedures for their interaction with other services (structural units) and management; automated accounting (financial and management) accounting programs, other software; legal databases and special (professional) literature, periodicals that allow you to track and evaluate changes in tax legislation; methodological explanations based on the analysis of the position of state supervision (control) bodies and law enforcement practice.

It should be emphasized that the formation and updating of the regulatory framework and standards in the field of environmental risk management is of critical importance for the effective operation of the internal control and audit system for the environmental sustainability of economic entities. We are talking about the formation of a system of risk-oriented internal control and audit.

The environmental risk management system includes programs of special measures developed in the risk-oriented system of internal control and audit of the enterprise and provides for an analysis of environmental risks caused by the uncertainty of the action of environmental factors. In order for information to be necessary and sufficient during internal control and audit of environmental sustainability of economic entities, its formation should be based on the appropriate principles: timely receipt of reliable and complete information about environmental processes and the causal relationships that generate them; the priority of the content over the form, which proclaims the primacy of the economic content over the legal form when providing various kinds of information about the state of the environment, the use of natural resources and environmental protection measures at the enterprise-user of natural resources.

The scientific study developed proposals for improving audit and analytical procedures for assessing the reliability of environmental reporting of Ukrainian aviation enterprises, substantiated the need for environmental risk management and the introduction of a risk-based internal control system into the corporate risk management system to include procedures for assessing continuity in the methodology of independent audit and internal control and the ecological efficiency of economic activities of nature users, shown in Figure 3.

![Analytical procedures in internal control and audit of environmental sustainability of enterprises - users of natural resources](image)

**Figure 3.** Analytical procedures in internal control and audit of environmental sustainability of enterprises - users of natural resources Source: systematized and developed by the authors [7, 9]

Improving the control of environmental management and environmental policy of economic entities will allow, on the basis of a systematic approach, to obtain an objective assessment of its economic activities and its environmental policy when studying the sustainable development of economic entities in Ukraine.
The environmental policy of enterprises-users of natural resources should be supplemented and expanded in the following areas: clearly define the goal of environmental activities. Reflect in it the directions and principles of the enterprise's environmental activities, establish responsibility for non-compliance with the requirements of environmental legislation and ensuring environmental sustainability and economic efficiency of such activities. Develop additional standards, norms and regulations for the introduction of new technologies and environmental structures. To organize cooperation with stakeholders, exchange of best practices in the field of environmental protection in order to increase the company's social responsibility, to support research in the field of innovative technologies. Inform employees about the organization's environmental policy, familiarize with its main provisions, provide an opportunity to take part in its development, making comments and suggestions. Ensure continuous improvement of compliance control with applicable legal requirements or the establishment of stricter internal rules to meet the expectations of stakeholders.

Conclusions
Organization and implementation of external internal control of the environmental sustainability of economic entities in cooperation with the state environmental supervision of natural resource users are designed to ensure the reliability of information on how the transport industry company has used or intends to use natural capital, what are the value creation factors, opportunities and risks affecting them; how its strategy relates to the ability to create value through the rational use of natural resources and ensure environmental safety, what relationships have developed with all stakeholders, how and to what extent their legitimate interests are taken into account. The environmental policy of enterprises-users of natural resources of the aviation industry of Ukraine should be supplemented and expanded in the following areas: clearly and clearly define the goal of environmental activities. Reflect in it the directions and principles of the enterprise's environmental activities, establish responsibility for non-compliance with the requirements of environmental legislation and ensuring environmental sustainability and economic efficiency of such activities. Develop additional standards, norms and regulations for the introduction of new technologies and environmental structures. Reduce the resources consumed and the amount of industrial waste, reuse raw materials where possible. Organize cooperation with stakeholders, exchange best practices in the field of environmental protection in order to increase the company's social responsibility, support scientific research in the field of innovative technologies, products (works and services), carry out environmental education, education and awareness. Inform employees about the organization's environmental policy, familiarize with its main provisions, provide an opportunity to take part in its development, making comments and suggestions. Ensure continuous improvement of compliance control with applicable legal requirements or establishment of stricter internal rules to meet stakeholder expectations.

References:


