

ENVIRONMENTAL PROTECTION AS THE MOST IMPORTANT INSTITUTION FOR ENSURING SUSTAINABLE SOCIO-ECOLOGICAL AND ECONOMIC DEVELOPMENT OF THE REGION

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Abstract. The actualization and significance of the environmental factor in the daily routine activities of society increases the need for research and development associated with the need for detailed identification of environmental aspects of production. The ability to manage the environment in economically developed and environmentally sustainable countries has long been a factor of competitive advantage for a civilized and socially-oriented business. Moreover, the analysis of special literature shows that debatable aspects related to environmental protection, the need to bring them into line with the principles of sustainable development, the use of new management concepts in this area, with the analysis of the environmental situation, and identifying opportunities to improve the effectiveness of environmental protection are preserved.

Keywords: economy of nature management, sustainable development, environmental protection, environmental protection, environmental responsibility, territory assets, assimilation potential of the region.

1 Introduction

Over the past half century, scientists from all countries have been especially active in growing environmental issues; a new independent area has emerged, namely the “ecological economy” which formulated a set of theoretical and methodological approaches and studies in the field of environmental management and regulation.

Time has shown that the development of an ecological economy is impossible without invoking the sustainable development principles and developing its indicators, and without assessing the effectiveness of environmental management, etc. It is appropriate to note the role and achievements of the Club of Rome which presented mathematical models concerning the dynamics of development and mutual existence of socio-economic, technical and environmental systems in the global world, forecasts of economic development and the environmental situation in the territorial aspect, the justification of the need to limit economic growth, and the like.

Scientific works by the Club of Rome resonated in the scientific and social environment, and for the first time caused a large-scale international concern about environmental condition and prospects of the development of mankind.

Since then in many countries, global studies of anthropogenic environmental impacts have been carried out; fundamental principles have been formulated, on the basis of which it becomes possible to implement the principle of environmental development in the context of global, regional and local levels. The control object was rotated: the economic system was replaced by a socio-ecological and economic system; and moreover, the latter serves as the main form of organization for the future development of mankind. The commensurability of the natural and production potentials in the socio-ecological and

economic system allows us to move on to quantitative methods for measuring and comparing them, by means of which one can control the commensuration.... The idea of the concept under consideration is the need to ensure economic growth exclusively within the framework of a given environmental and economic balance. The point is that it is necessary to return to the limits of the ordinary ecological niche and advance within the framework of ecological capacity.

This approach allows us to create an organizational structure that can bear responsibility for the implementation of goals, to build a system of responsibility, and an information base, etc.

The limiting factor in modern realities is no longer production capital, but natural capital in accordance with the new concept.

2 Research Methodology

The theoretical and methodological basis of our study was made by scientific research and applied work of Russian and foreign scientists and practitioners in the field of environmental economics, environmental protection and sustainable development, materials from periodicals, and scientific and practical conferences.

In the course of the study, a complex of scientific methods was used, they were: abstract-logical and system analysis, functional-cost analysis, expert estimates, groupings, comparison, and generalization.

3 Research Results

In accordance with the chosen research topic, we have been able to clarify the concept of “environmental protection activity” by deeply studying its main interpretations and examining it in conjunction with the concept of “sustainable development”.

Analysis and generalization of special literature on the issues under consideration allows us to talk about the presence of many interpretations concerning the essence of sustainable social development and the place of this concept in the modern economy of environmental management. [Azatov F. A. 2001; Akamova T. A. 2012; Misakov V.S., Baiduev I.Z., Gendugov S.Z. 2015] Economic, environmental and social processes in accordance with the theory of environmental development should be balanced, with emphasis on the need for rational nature management, unconditional reproduction of irreplaceable natural resources and living conditions in the interests of future generations.

It is noteworthy that the environmental doctrine of the Russian Federation and Russian legislation define sustainable development as the strategic goal of socio-ecological and economic development. Moreover, the concept under consideration has an integrated socio-ecological and economic significance.

Sustainable development is achieved by achieving harmonization and balance of its components (economic, social and environmental) social production.

At the present stage of formation of the economic stability theory, the following conceptual propositions are put forward:

1. The instability of the economic system leads to a violation of the state of its temporary and territorial structure, as a result of which minor changes in the environment are rapidly gaining strength and form a new state of the whole system.
2. The stability of the economic system is not absolute; in reality, the system is selectively stable with respect to specific types and conditions of external and internal disturbances.

3. During evolution, the economic system tends to complicate its structure, because in bifurcation selection, hierarchical states turn out to be more preferable from the point of view of the stability criterion, however, the more complex the system, the more threats are to its stability from the external environment.
4. There is a limit of complexity; when it has been reached, the economic system begins the reverse process, but at the same time its disintegration into simpler elements is accompanied by their difference from the initial state. [Porter M. E. 2012;Cherednichenko O. A. 2013]

Note that the main quality that the socio-economic system seeks to preserve is its development. Moreover, the concept of "development" in this context can be defined as a progressive movement towards certain goals expressed as an increase in positively directed indicators of the state of the system as a whole and a decrease in negatively directed indicators.

At the same time, all attention is focused on a set of key tools for balancing the main objectives of social, ecological and economic development, namely, environmental management based on the innovative modernization of production, maintaining anthropogenic loads within the parameters of the assimilative capacity of the region, the harmonization of social and economic relations, management capital taking into account the interests of all participants in market relations. [Misakov V. S. 2007;Cherednichenko O. A. 2013]

A feature of the organization of the economy intended for environmental management in developed countries at the beginning of the XXI century is the formation of a new methodology, according to which economics, society and ecology do not act as equivalent, but interconnected subsystems of a single whole which interacts and develops according to the principle of a natural hierarchy. [Krisanova O. P. 2008;Misakov V. S. 1985]

At the same time, researchers note that the priority is given to the reproduction of the natural conditions of life instead of the reproduction of economic potential. Moreover, the ecological environment becomes primary, because it ensures the existence and development of social and economic subsystems, which are now considered as secondary subsystems.

This situation allows us to consider the system of social and economic indicators as the main criteria for optimizing economic growth and social development.

The above approaches to determining the essence of the concept concerning "sustainable development" indicate the diversity and capacity of the studied category, as well as the need for further scientific development to provide a generally accepted methodological solution to the problem under study regarding different levels of management.

In our study, we want to consider in more detail a "production cell" being an economic entity which, in our opinion, will allow us to specify its role and significance in ensuring sustainable socio-ecological and economic development by specifying the concept of "environmental activity".

The importance of this type of activity should be noted, because it plays an exceptional role in optimizing the correspondence of the development of production and the state of the environment. It must be admitted that society does not have the ability to change the natural conditions of life, but it can engage the appropriate global environmental program through the organization of a technological breakthrough and the transition to an ecologised post-industrial technological mode of production. [Misakov V. S. 2007;Misakov V.S., Baiduev I.Z., Gendugov S.Z. 2015;Cherednichenko O. A. 2013]

We consider environmental activities in the form of a set of targeted measures that ensure the preservation, reproduction and improvement of the quality of the environment, carried out within the boundaries of the enterprises.

The main provisions of environmental activities are regulated by the Declaration of the United Nations "Agenda for XXI Century" (UNCED - 22), in a European qualifier CEPA 2000, in the federal law FZ-7 "On Environmental Protection", and in international quality standards of series ISO 14000. [Declaration of the UN "Agenda 21". 1992]

In general, it can be noted that all these documents contain a set of measures to prevent and eliminate the negative impacts of economic activity on the environment, on maintaining biodiversity, and on the need for environmental education, etc.

It must be admitted that due to the lack of breakthrough technologies, the lack of budgetary resources, due to various organizational difficulties, the lack of competence of managerial personnel, etc., the conditions and nature of domestic production do not allow us to realize most of the directions indicated in the above documents. Almost the vast majority of Russian enterprises do not have their own environmental monitoring and control systems due to financial problems.

For a systematic solution to the problems of environmental economics, a set of basic environmental technologies are needed to minimize or completely neutralize the negative technological impacts on the environment, among which are recycling technologies that enable the reuse of waste material and energy flows, and also waste components, etc. [Boboshko V. I. 2009;Danilov-Danilyan V. I. 2005;Musaev M.M., Musaev H.M., Misakov V.S. 2018]

It is also appropriate to note the "green economy" being one of the modern areas of environmental economics, aimed at internalizing the costs associated with the need to overcome degradation processes in the natural environment through the use of environmentally friendly and highly efficient technologies.

In practice in the conditions of Russian reality, the opportunities and the ability of an organization focused to the effective environmental management and protection of the environment (within the limits of its liability) are influenced by many countervailing factors. The contradictory nature of environmental conservation activities and the extremely important significance of the possible consequences of the refusal to effectively protect the environment for society and the economy determine and actualize the need to study their impact and identify the most significant of these sustainable development positions. The influence of each factor can be both stimulating (supporting) and destimulating (restraining). [Donichev O.A. 2013;Cherednichenko O. A. 2013]

Hence, it can be argued that the management structures of any business enterprise are fully responsible for the results of environmental activities through targeted impact on relevant factors. To do this, they need at least to establish hierarchy of factors and determine which of them have the highest effect on the process under study.

We are talking about the fact that knowledge of factors, their orientation and power of impact enable management to more fully and objectively identify environmental aspects of production, to quantify and economically substantiate effective measures in the field of environmental economics at the level of economic entities.

The practical implementation of the postulates of the sustainable development concept at the national and regional level or at the level of an economic entity is a starting point for the formation of a qualitatively different type of development. Moreover, despite the complex interconnections and interdependencies between the components of any socio-ecological-economic system, their sustainable development in the context of reducing the level of environmental load can be considered in terms of the following main aspects:

- biological - sustainability of ecosystems, which suggests their self-healing, biodiversity, high productivity, etc.;

- environmental protection - protection and restoration of biosphere elements, resource conservation;
- socio-environmental - satisfaction of the physiological needs of residents in clean air and water, in quality food, as well as in environmentally comfortable living conditions and in also psycho-emotional needs for communication with nature.

The totality of the above sustainable development goals determines the direction of the sustainable development strategy as a general direction of movement or the prospects for the future that are visible in time, which both government and the population adhere to, embodying in their intentions and specific actions.

An analysis of the specialized literature allows revealing the most important factors characterizing environmental management conditions, such as globalization, urbanization, and scientific and technological progress.

It seems to us more appropriate to concentrate attention in our study on a group of specific factors, in particular, on the market of resource-saving technologies, on the assimilation potential of the territory, on institutes and regulators, and global natural processes.

The use of resource-saving technologies is the basis of rational nature management, and it is impossible in modern conditions without them to satisfy the needs of society and improve the quality of life. Perhaps, in today's realities, updating funds in the economy of the Russian Federation is the most difficult problem, because more than 70% of industrial equipment has unacceptable wear and tear and obsolescence.

Speaking about the assimilation potential of the region, we proceed from the fact that in modern realities a territory must be considered through the prism of the economy which uses nature management and other sciences as a regional economic asset. It is about the whole area of the region: climatic conditions and natural resources, landscape, transport and engineering infrastructure, housing and production assets, population size and distribution; investment attractiveness of the territory, etc.

And this is natural, since all of them are associated with the most important aspect of life as environmental safety which has also dual nature: on the one hand, it is the primary need of man and society; on the other hand, it requires constant restriction of the dynamics of economic growth, based on the possibilities of recreation. [Danilov-Danilyan V. I. 2005; Declaration of the UN "Agenda 21". 1992]

These circumstances have led and to appear in the scientific circulation the concept of "assets of the territory", which proposed to understand the totality of the value of having a resource controlled territory, which can be involved in productive activities based on the principles of environmental economics.

However, it is true, and experts confirm this, that in actual practice it is still impossible to ensure economic growth while fully compensating for anthropogenic pollution of the environment. The realities are such that the measures taken to neutralize the impact definitely lead to a disproportionate increase in the cost of production, and, consequently, to a drop in competitiveness. [Krisanova O. P. 2008; Misakov V.S., Baiduev I.Z., Gendugov S.Z. 2015; Cherednichenko O. A. 2013]

Institutions and regulators in the form of state structures are designed to reduce uncertainty by establishing an effective system of interaction between people through laws, norms, customs, etc. This increases the importance of institutional factor as well, because it affects the institutional structure, information and communication technologies, investment climate, socio-economic and industrial policies.

The internal environment of any enterprise is created and regulated under the influence of the above factors and directly

forms the opportunities and conditions for the organization of rational nature management. In the course of our study, we found an interesting fact: even successful and financially prosperous enterprises experience great doubts and uncertainty in the distribution of cash flows between operating and environmental cycles due to the unpredictability of the market environment and the inevitable increase in current costs. This was especially acute and evident in the current global economic and medical crisis that arose as a result of a coronavirus spread.

This confirms once again the need for a state program to create incentives to increase the interest of business entities of all forms of ownership in organizing sustainable socio-ecological and economic development. Moreover, this program should justify and reflect the loss of profit due to the introduction of expensive resource-saving technologies in comparison with the economic and social benefits that are possible in the long term, provided by sustainable industrial and economic activities. For this, it is necessary to abandon the declarative nature of the organizational and economic mechanism of rational nature management. Moreover, world practice confirms that financial losses in this process are inherent in the short-term nature, and effective environmental protection manifests itself, as a rule, in the form of an inevitable strategic competitive advantage, which ensures an increase in the market value of the assets of an economic entity.

A sustainable development is associated with the need to simultaneously address the diverse and very often contradictory problems of ensuring economic growth with the obligatory focus on specific social and economic results and supporting the natural qualities of the environment. Such position requires the inclusion in the list of studied problems of environmental economics in addition to the identification, evaluation and control of the environmental aspects of production and business activities, and also the task of stimulating the interest of economic entities in enhancing management efficiency in this field.

In accordance with the approach by M. Porter, any company is interested in choosing precisely those types of activities in which it will achieve excellence and create sustainable competitive advantages in the market. [Musaev M.M., Musaev H.M., Misakov V.S. 2018] Indeed, the interest of a company grows if its final results correspond to the motives for achieving and supporting such profit growth rates that will allow for an equivalent increase in the production, social and environmental potential of the enterprise, and increase the market value of assets.

In [Porter M. E. 2012], where the orientation of the reproduction process in the economy considered as part of the socio-economic transformation, is substantiated on the basis of a mathematical-statistical technique, it is proposed to use the level of resource-saving innovative production and the efficiency of spending funds on the development of breakthrough technologies as the main criteria for the stability and resistance of regions including also advanced environmental technologies.

Indeed, the imperative of socio-ecology and economic balance of economic processes causes an entity to take investment projects in the environmental field as independent non-profit and socially relevant business processes. This situation requires the immediate development and increase of information and analytical tools for diagnosing causal relationships between costs and the end results of environmental activities.

It is obvious that the final results depend on the literacy of managers and analysts to predict the losses created by non-profit environmental assets and the validity of the developed preventive measures.

It is possible to implement through reasonable optimization of cash flows and financial liabilities the most attractive combinations of "environmental assets - operational assets", characterized by a high level of balance of cash inflows and outflows.

The presence of a non-commercial nature and at the same time a high social demand for environmental protection forces enterprises to use the marginal income mechanism in combination with the principle of economic value added EVA (EconomicValueAdded) in environmental management. [Cherednichenko O. A.2013]

Using the economic value added concept opens up the possibility of simultaneously diagnosing the effectiveness of activities taking into account the interests of all participants in market relations and determining the value of assets taking into account the intangible component.

Directly, the formula for calculating the economic value added has the following form:

$$EVA = NP - (WACRCxI) \quad (1)$$

Where NP - net profit; I - invested capital; WACRC - weighted average cost of raising capital.

It should be noted that most of the current Russian accounting standards and the practice of preparing financial statements does not allow us for taking into account a number of existing assets directly involved in determining accounting profit, in particular with regard to intellectual investments, investments in R&D, organizational innovations, etc.

The advantage of using the procedure for assessing economic value added is that its use eliminates the above contradictions. Of course, balanced development requires the support of a certain compromise between economic efficiency, socio-economic performance and financial stability.

4 Conclusions and Proposals

- In the context of globalization and the constant increase in man-made impacts on the environment, society orients the development of social production within the basic social and environmental standards and the need to create environmental balancing.
- Analysis and generalization of methodological aspects in the organization of an economic entity activity allowed highlighting the competitive advantages of the management by procedures in nature protection activities that makes it possible to provide identification and detail environmental costs, and to organize targeted subsystem of environmental cost accounting.
- The unacceptably low share of investments in environmental protection in the country has been established (less than 1% of GDP); the ignoring by the majority of companies of investment in the environment protection (less than 8%) was noted.
- The necessity of the development of modern regional environmental policy and municipal programs in nature protection activities and environmental safety oriented to provide stable development in the sphere of natural resource use is substantiated.

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