

DEVELOPMENT OF ORGANIZATIONAL MECHANISMS OF ENVIRONMENTAL MANAGEMENT OF THE ECONOMY

Shanazarova Gulyora Bakhtiyarovna

Senior lecture, PhD, Tashkent state university of economy,

Abstract

This article examines the development of organizational mechanisms of environmental management in the economy. It discusses the drivers behind this development, including the need for environmental risk mitigation, regulatory compliance, and meeting stakeholder expectations. Various initiatives are explored, such as environmental management systems, sustainable practices, goal setting, audits, and reporting. The benefits of integrating environmental management into operations are outlined, including resource efficiency, cost savings, reputation enhancement, and long-term sustainability. Overall, organizational mechanisms play a critical role in fostering an environmentally responsible economy and promoting sustainable economic development.

Keywords: organizational environmental management, economy, development, drivers, initiatives, benefits, sustainability

Introduction

In recent years, there has been a growing recognition of the urgent need to address environmental challenges and promote sustainable economic development. As the impact of human activities on the environment becomes more evident, organizations are increasingly expected to take responsibility for their environmental footprint and adopt measures to mitigate and manage their environmental impacts. This has led to the development of organizational mechanisms of environmental management within the economy.

Organizational mechanisms of environmental management refer to the strategies, policies, and practices that organizations implement to integrate environmental considerations into their operations, decision-making processes, and overall strategy. These mechanisms aim to achieve a balance between economic growth and environmental sustainability by fostering environmentally responsible practices and minimizing negative ecological footprints.

The development of these mechanisms has been driven by a combination of factors, including tighter environmental regulations, changing consumer preferences, increasing stakeholder demands for corporate social responsibility, and growing awareness of the finite nature of natural resources. Organizations across various sectors have realized that integrating environmental considerations into

their business models is not just a moral obligation but also a strategic imperative for long-term success.

The organizational mechanisms of environmental management encompass a wide range of initiatives. These may include implementing environmental management systems (EMS), setting and monitoring environmental performance goals, conducting environmental audits, adopting cleaner production techniques, promoting resource efficiency and waste reduction, and engaging in environmental reporting and disclosure.

By adopting these mechanisms, organizations can achieve several benefits. They can enhance their reputation and brand value by demonstrating their commitment to sustainability and responsible environmental stewardship. They can also reduce costs through improved resource efficiency, waste reduction, and energy conservation. Moreover, incorporating environmental considerations into their decision-making processes allows organizations to identify and seize new opportunities for innovation and develop products and services that appeal to environmentally conscious consumers.

However, implementing effective organizational mechanisms of environmental management is not without challenges. Organizations often face difficulties in balancing their economic objectives with environmental goals and may encounter resistance to change within their workforce. Furthermore, the complexity and global nature of environmental issues require organizations to collaborate with various stakeholders, including government agencies, non-governmental organizations (NGOs), and local communities, to achieve meaningful environmental outcomes.

Methods. In the process of preparing the article were used formal-logical, specific research methods econometric modeling, empirical research, and forecasting

Results. Funds can participate in the investment of enterprises and participate in the repayment of loans received by them.

The National Fund for Nature Protection also participates in international cooperation. Each year, the National Nature Conservancy publishes funding proposals in the media and distributes them among government agencies. Selections are conducted by the Scientific-Technical Council of the TMDQ and the Board of the TMDQ, which may refer to external consultation if necessary. Selected projects are then reviewed by the National Conservation Fund's board, which determines which projects are eligible for funding based on revenue prospects. Based on these factors, additional sources of financing will be sought, in particular through cooperation with local funds. A final program containing all feasible projects will be prepared for Cabinet review to ensure that the proposals are in line with environmental measures. The implementation of the projects is monitored through weekly reports, which are combined into quarterly reports and submitted to the Ministry of Finance and the Cabinet for consideration. The activities of local funds operating under the leadership of the National Fund for Nature Protection are also included in these reports. In terms of control over local funds, it is ensured that the cost of practical measures related to the environment is not less than 40% of the total cost.

The resources included in environmental funds are inextricably linked with the dynamics of contributions to pollution. National Conservation Fund The National Conservation Fund was expected to provide 4 to 6 percent of the required resources. In practice, due to insufficient funding from other sources, the actual share is 12-14 percent. The increased allocation indicates that the National Conservation Fund's finances have improved. Improving the financial status of environmental funds plays an important role in financing environmental expenditures. The National Fund for Nature Protection has the ability to closely monitor the activities of local funds. There are no clearly defined and publicly communicated criteria for decision-making by fund management

boards, especially regarding the selection of projects to be financed. Opportunities for stakeholders to influence the decision-making process are not clearly introduced.

Expenditures in the field of environment consist of expenditures of state bodies, domestic economic entities, foreign companies and donor organizations. Although the dissemination of information is limited, the State Statistics Committee regularly collects information on expenditures. In the current reporting system, information is collected both on the basis of the requirement rule: information about the entity that spent, and on the basis of the financing rule: information on the entity that covered the expenditure. However, according to IHRT, this procedure is not fully compatible with the classification of environmental protection activities and costs. There is no information about the environmental costs of households. Total environmental spending is low both in absolute terms and in relative terms.

In addition to TMDQ, a number of state bodies show spending on the environment. As announced on the website of the Ministry of Finance, according to the budget, spending for environmental purposes is not considered a separate item of expenditure, because a complete classification of spending by government tasks has not been developed. With the introduction of the treasury system, the transparency of the overall budget process has increased and reporting has improved. However, environmental funds were excluded from this system. Medium-term budget targets were developed after 2015, which set the general framework for financial planning. However, it is difficult to see environmental priorities in this planning. In the prosperity strategy, results-based budgeting and performance-based indicators to determine the effectiveness of spending are prioritized. The effort has so far focused on the largest spending categories, such as health and education. Improved spending reporting to assess the effectiveness of spending in terms of trade-offs between goals and objectives has benefited from guiding environmental policies, and more specifically, integrating them into economic and sectoral policies. would be The Conservation Action Program includes de-radiation measures to be financed through the Public Investment Program, which have not been fully evaluated. The prosperity strategy envisages a number of reforms that can positively affect the quantity and quality of environmental spending. Among the long-term goals in relation to the management of public expenditures, it was emphasized that the strategic development programs and projects in the field of water supply, sanitation and the environment should be adequately funded.

The State Committee for Nature Protection (SSC) is the leading official body for coordination of state policy and actions of other ministries and agencies in environmental issues. TMDQ manages the environmental fund, which is important in directing resources for spending on environmental issues.

As mentioned above, the environmental management system of the economy includes about ten management agencies and organizations. The process of distribution of powers and tasks between them creates a number of problems. The most reasonable way to solve these problems is to create clusters in the fields of industry and agriculture.

According to M. Porter, a cluster is an interdependent organization (suppliers, manufacturers) engaged in related activities, geographically adjacent (suppliers, manufacturers) and interrelated in certain sectors of the economy (an organizational structure consisting of educational institutions, government agencies, infrastructure companies). There is no consensus on defining the relationships between the main cluster members, regions and countries.

At the present time, only in the scientific works of foreign authors, about twenty concepts of cluster identification can be found. In general, clustering is the process of co-locating firms and other

operating structures within a geographic region, cooperating around a specific functional niche, and creating relationships and working alliances to enhance their collective competitiveness.

Analyses.

Production volumes of the Republic of Uzbekistan's mining industry and open-pit mines, (billion soums at current prices) - X₅ (involuntarily bound).

Since the measurement units of the factors are different, the logarithms of the variables are obtained.

Table 1

Correlation matrix in the assessment of factors influencing the processes of ecological supply in Uzbekistan

	log_y1	log_y2	log_x1	log_x2	log_x3	log_x4	log_x5
log_y1	1.0000						
log_y2	0.9925 0.0000	1.0000					
log_x1	0.4021 0.1540	0.4289 0.1260	1.0000				
log_x2	0.8638 0.0001	0.8815 0.0000	0.7267 0.0032	1.0000			
log_x3	-0.9696 0.0000	-0.9750 0.0000	-0.3483 0.2223	-0.8513 0.0001	1.0000		
log_x4	-0.4864 0.0778	-0.5043 0.0660	-0.9121 0.0000	-0.7567 0.0017	0.3993 0.1572	1.0000	
log_x5	-0.9536 0.0000	-0.9598 0.0000	-0.3640 0.2007	-0.8434 0.0002	0.9777 0.0000	0.4324 0.1225	1.0000
log_x6	-0.8235 0.0003	-0.8490 0.0001	-0.4102 0.1452	-0.7702 0.0013	0.8345 0.0002	0.4756 0.0856	0.8963 0.0000
log_x6							1.0000

The increase of carbon dioxide (SO₂) released into the atmosphere in the territory of the republic is influenced by the total amount of water taken for industrial, communal and technical needs, the provision of sewerage in apartments (houses), the volume of production of mining and open-pit mines..

Table 2

Regression equation of factors affecting ecological supply processes in Uzbekistan

Structural equation model Number of obs = 14
 Estimation method = ml
 Log likelihood = 57.598197

	Coef.	OIM Std. Err.	z	P> z	[95% Conf. Interval]	
Structural						
log_y1 <-						
log_x2	.9927039	.3231702	3.07	0.002	.3593019	1.626106
log_x6	-.1084939	.0512795	-2.12	0.034	-.2089998	-.007988
_cons	.99708	1.70199	0.59	0.558	-2.338759	4.332919
var(e.log_y1)	.0010548	.0003987			.0005029	.0022126

LR test of model vs. saturated: chi2(0) = 0.00, Prob > chi2 = .

The F-statistic is a measure of the significance of a regression model. In your case, if the determined regression equation has a statistically significant F-value ($r < 0.01$, $**p < 0.05$, $***p < 0.1$), it suggests that the overall model is meaningful and the independent variables are collectively contributing to explaining the dependent variable.

Regarding the SEM-model of the factors influencing the processes of ecological supply in Uzbekistan, Figures 1 and 2 depict the representation of these factors. These figures provide a visual illustration of the relationships and interactions among the variables included in the model. They serve as a useful tool for understanding and analyzing the complex dynamics of ecological supply processes in Uzbekistan.

Table 3

Regression equation of factors affecting ecological supply processes in Uzbekistan

```
Structural equation model          Number of obs    =          14
Estimation method = ml
Log likelihood      = 46.149172
```

	OIM				
	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
Structural					
log_y2 <-					
log_x2	2.508889	.7321363	3.43	0.001	1.073928 3.94385
log_x6	-.2975637	.1161727	-2.56	0.010	-.525258 -.0698694
_cons	-4.603436	3.855828	-1.19	0.233	-12.16072 2.953848
var(e.log_y2)	.0054137	.0020462			.0025809 .0113558

```
LR test of model vs. saturated: chi2(0) = 0.00, Prob > chi2 = .
```

Based on the econometric analysis of the work carried out on the development of ecological and economic systems in our country, a forecast of pollutants released into the atmosphere in the territory of the Republic of Uzbekistan until 2024 was developed.

The dynamics of the emission of pollutants released into the atmosphere in the territory of the Republic of Uzbekistan in 2010-2021 and forecast values until 2026 are depicted in this graph.

The following results were obtained based on the following regression functions for forecasting the volume of pollutants released into the atmosphere in the territory of the Republic of Uzbekistan.

In the graph of forecast indicators for the release of pollutants released into the atmosphere in the territory of the Republic of Uzbekistan for 2026, the indicators from 2022 are represented in red and blue colors (scenarios 1 and 2).

We will select the most appropriate of the various forecast models and calculate the forecast indicators based on that equation.

If we analyze the forecast indicators of the output volume of pollutants released into the atmosphere in the territory of the Republic of Uzbekistan for 2021-2024, the output volume of pollutants released into the atmosphere by 2024 will be 883.7 thousand tons, which is almost 8 more

than in 2020 percentage decreases. Therefore, it can be seen that it is effective to continue the measures for the transition to the "green economy".

Table 4

Forecast indicators of ecological supply processes until 2026 on the basis of economic-mathematical models by evaluating important natural resources in Uzbekistan using multifactorial functions

Years	Excluding carbon dioxide (SO ₂) released into the atmosphere in the territory of the Republic of Uzbekistan (million tons of SO ₂ -eq./year)		Methane (CH ₄) released into the atmosphere in the territory of the Republic of Uzbekistan. not taken into account (million t SO ₂ -eq./year)	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
2022	94,70	86,60	57,90	54,43
2023	98,50	84,80	62,30	50,97
2024	98,00	83,10	63,50	47,51
2025	101,20	81,30	66,40	44,06
2026	102,40	79,50	69,10	40,61

There are 221 solid waste disposal and processing facilities in Uzbekistan. Currently, 33.4 million tons of solid waste have been collected. There are fines for environmental pollution in Uzbekistan, but they are not effective.

Processing industry has not yet become the driving force of agricultural development. Progressive climate change will increase the difficulties of agricultural production in semi-desert and desert conditions and pose a threat to the population.

The State Committee for Nature Protection is at the top of the system of organizational mechanisms of ecological management of the economy in the Republic of Uzbekistan. This committee is a state management body in the field of ecology, environment protection, rational use of natural resources and their restoration. The system of the state nature protection committee includes:

Central office of the State Ecology Committee;

Committee of Ecology and Environmental Protection of the Republic of Karakalpakstan, Regional and Tashkent Departments of Ecology and Environmental Protection and their district (city) inspections;

Analytical control center specialized in the field of environmental protection;

State Environmental Expertise Center and State Environmental Expertise Centers of the Republic of Karakalpakstan, regions and Tashkent city;

State environmental certification and standardization centers and their branches;

Center for retraining and improving the skills of employees working in the field of environmental protection;

The National Fund for Nature Protection plays an important role in the financing of nature protection projects. Spending by this fund in the field of environment, including infrastructure equipment, environmental damage elimination and development of protected natural areas. In addition, it includes scientific research work and material and technical support for the activities of environmental bodies. Employees and other partners are paid a bonus (within 15% of the income)

from the resources of the funds, and environmental inspectors are provided with compulsory insurance.

Discussion. World practice has proven that the cluster approach can serve as a basis for constructive cooperation between business representatives and state authorities. It provides an opportunity to increase the scope of interaction between the private sector, the state, trade associations, research and educational institutions, and this is related to the innovative processes that are required today. The cluster, first of all, deals with the elimination of competitiveness problems, and after a certain period of time, it allows to increase efficiency. This, in turn, provides them with competitive advantages and helps the development of the national economy through the development of the region.

Certain conditions are necessary to form any cluster, namely:

- incorporation of enterprises of one or related sectors within the localized area to the necessary extent;
- stable cooperative relations between participating enterprises of the cluster, the possibility of establishing infrastructure enterprises as missing links in the added value chain;
- development of information and marketing relations between cluster elements;
- sufficient number of scientific and educational institutions in the region;
- long-term coordination of the interaction of cluster participants.

In addition, the development of schemes and procedures that ensure the coordination of the actions and interests of potential participants, who remain legally independent economic entities.

Currently, this algorithm is sufficiently developed and can be used to create an ecological and economic cluster.

Reference

- [1]. DJURABAEV O. Formation of model beekeeping facilities and modernized interindustrial communications in human bearing management //Архив научных исследований. – 2020. – №. 11.
- [2]. Djurabaev O. Methods of the process approach in management and determination of the criterion of technological efficiency of beekeeping farms: methods of the process approach in management and determination of the criterion of technological efficiency of beekeeping farms // Archive of scientific research. - 2021. - Т. 1. - No. 1.
- [3]. Saidov M. Increasing Management Efficiency in The Electricity Sector of Uzbekistan //The 5th International Conference on Future Networks & Distributed Systems. – 2021. – С. 343-347.
- [4]. Saidov M. S. Analysis of the economic activities of natural monopoly organizations //Инвестиции, градостроительство, недвижимость как драйверы социально-экономического развития территории и повышения качества жизни населения. – 2022. – С. 74-79.
- [4]. Munira A. Analysis methods of the factors influencing on consumer market //Бюллетень науки и практики. – 2018. – Т. 4. – №. 2. – С. 276-282.
- [5]. Shanazarova G. Features of innovative management strategy of the automotive industry of Uzbekistan //Архив научных исследований. – 2019.\
- [6]. Ҳаҳуаева I. Енгил саноат корхоналарида маҳсулот рақобатбардошлигини ошириш йўналишлари //Архив научных исследований. – 2019.

- [7]. Саидов Машъал Самадович (2023) Электр энергетика тармоғини тартибга солиш ва бошқаришнинг иқтисодий хусусиятлари. *Iqtisodiyotva ta'lim* / 2023-yil 1-son. <https://cedr.tsue.uz/index.php/journal/article/view/950/863>
- [8]. Saidov Mash'al Samadovich, Hasanov Abdumukhtar Azizalievich (2023) Institutional Characteristics of the Regulation of Natural Monopoly Fields. *International Journal of Business Diplomacy and Econom.* ISSN: 2833-7468 Volume 2| No 3| March-2023. <http://inter-publishing.com/index.php/ijbde/article/view/1333/1141>
- [9]. Саидов Машъал Самадович (2023) Электр энергетика тармоғини бошқаришдаги муаммолар ва уларни бартараф этиш йўллари. “*Iqtisodiyot va innovatsion texnologiyalar*” (Economics and Innovative Technologies) ilmiy elektron jurnali. 1/2023, yanvar-fevral (No 00063). <https://iqtisodiyot.tsue.uz/journal/index.php/iit/article/view/195/228>



research
parks publishing