

New Source of Financing and Assessment of Efficiency of Nature Protection Activity



Olimov Islomkhuj Ahmadovich^{1*} and Mukash Israilovich Israilov²

¹Department of Accounting, auditing and analysis, Tajik-Russian Slavonic University, Tajikistan

²Department of Accounting, Analysis and Audit, Kyrgyz -Russian Slavic University, Republic of Kyrgyzstan

Submission: November 18, 2019; **Published:** December 05, 2019

***Corresponding author:** Olimov Islomkhuj Ahmadovich, Department of Accounting, auditing and analysis, Tajik-Russian Slavonic University, Tajikistan

Keywords: Environmental management system; Institutional framework for development; Financial sources; payments for ecosystem services; Environmental activities; Management, registration; Use of PES funds

Short Communication

Environmental activities are characterized by high risk, capital intensity, non-commercial nature and longer payback period, which require improvement of information and analytical management tools. Environmental activity is a set of specialized engineering, technological, control, analytical, production, economic and management operations that form an independent process of creating the ecological utility of a commercial product. There are non-traditional for modern practice factors which have simultaneously stimulating and retarding influence: territory, assimilation potential, market of best technologies, urbanization, global natural processes, business and investment climate, social and economic globalization, public administration and internal corporate resources [1].

The main fundamental principles of environmental management are the principle of legality and civil responsibility, the principle of universal significance of created values, the principle of balancing environmental and economic interests, constant measurement and analysis, delegation of authority and responsibility, regulation and adaptive management [2]. Analysis of environmental activities of enterprises is a thematic, scientifically based economic research, which is crucial for solution of sustainable development challenges, preservation of existing potential of natural resources, balance of the economy development and introduction of innovations. The system of state economic regulation of environmental management contributes to the achievement of such level when the end results of enterprises are closely linked to the effectiveness of environmental measures and their interest in complying of environmental requirements [3]. By transition to the principles of sustainable development, the

role of economic analysis in solving of issues related to the effectiveness of environmental activities in all management cycles becomes supremely important. Without detailed analysis of environmental measures, required expenses and results of their implementation, it is impossible to make appropriate management decisions.

Nowadays, the imperfect environmental protection system of the Republic of Tajikistan operates on the principle of "identification and correction" instead of "averting and prevention". By analyzing of environmental issues, it is very important to carry out a thorough assessment of how harmonized legislative and regulatory acts are, how interconnected and mutually conditioned are the adopted strategic and program documents, and how much planned measures are provided with resources. Understanding of these issues is necessary as for minimization of irrational use of natural resources, so for reduction of negative anthropogenic impact on the environment and its preservation for future generations. Environmental issues presented in socio-economic strategies and programs are not always priorities and, as a result, are funded insufficiently (Table 1). The Committee on Environment Protection within the Government of the Republic of Tajikistan (CEP RT) is the main environmental state body, which activities are funded by both public funds and special funds. Special funds of the CEP RT are formed mainly from inputs of enterprises, institutions, residents and non-residents, physical and juridical persons, in the form of mandatory ecological payments for environmental pollution, waste disposal, use of natural resources (animals and plants, included to the Red Book and other environmental documents) and for excessive use of

Trends in Technical & Scientific Research

nature resources. As the Figure 1 shows, despite improvement of environmental activities, the facts of violation of environmental

legislation by citizens are still taking place, leading to increase of ecological penalties and fines.

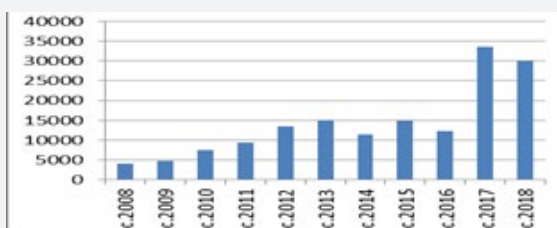


Figure 1: Receipts from Obligatory Environmental Payments (one thousand somoni).

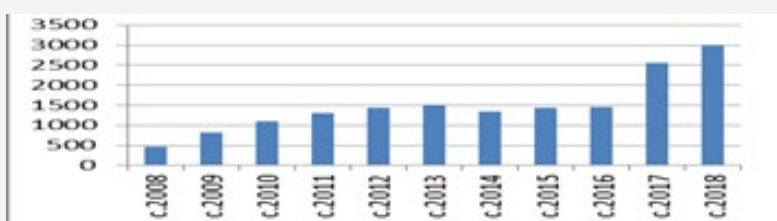


Figure 2: Biotechnical Measures, Cleaning action and other (thousand somoni).

Table 1: Financing of Environment Protection Sector.

	2008	2010	2012	2014	2016	2018
Receipt due to obligatory environmental payments	4042.1	7533.2	13580.2	11413.1	12289.7	29928.7
Biotechnical measures, cleaning action and other	459.1	1093.8	1432.6	1342.1	1451.3	2990.7
Construction and facilities on account of budget of the republic	899	700	1003.8	1500	1276	1396.2
Construction and facilities on account of special facilities	90	66.8	497.4	981.3	3466.3	5524.1
Total	1448.1	1860.6	2933.8	3823.4	6193.6	9911

Source: Committee on environmental protection.

Special Committee's funds are used for rehabilitation of natural resources, implementation of environmental protection measures and improvement of ecological situation accordingly to the requirements of current legislation. The major portion of budget financing and alternative sources is spent for implementation of biotechnical measures. Accordingly, to the data of Figure 2, the total amount of funding for biotechnical measures over the past 10 years has increased sevenfold, indicating an improvement in the work on environmental protection and stabilization of ecological condition. Also, the funds are allocated for the construction and restoration of environmental entities. For these purposes, in 2018, 1396,2 thousand Tajik somoni were allocated from the budget, that is 1.6 times more than in 2008. In 2018, the total amount of 5524,1 thousand Tajik somoni was

allocated from special funds for construction and restoration of environmental entities, that is 64.1 times higher in comparison with 2008 (Figure 3). The central state executive body responsible for environmental policy implementation is the CEP RT. Its competence includes such important functions as environment protection, forestry development, hydrometeorology, coordination of implementation of environmental measures by ministries, departments, enterprises and institutions, observation of ecological safety standards, protection and reproduction of natural resources and coordination of activities in fulfillment of international agreements by the Republic of Tajikistan as well as establishment of collaboration with international partners in the field of environment protection (Figure 4).

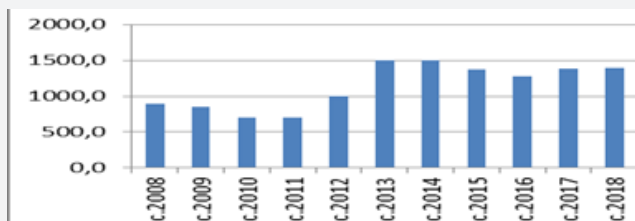


Figure 3: Construction and Facilities on account of Budget of the Republic (one thousand somoni).

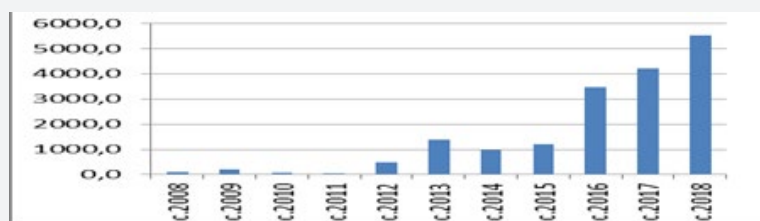


Figure 4: Construction and facilities on account of Special facilities (one thousand somoni).

Over the past 7 years, the CEP RT has undergone reorganization four times: Ministry of Nature Protection (2003), State Committee on Environment Protection and Forestry (2004), Ministry of Agriculture and Nature Protection (2006), Committee on Environment Protection (2008), which indicates the instability of its activities and undermines the executive capacity of its subdivisions leading to high turnover of highly qualified personnel. In this regard, to date, the existing structure of CEP RT remains functionally unsustainable and the potential of state environmental management cannot fully implement its assigned objectives, identified in numerous legislative, strategic and program documents. First, this is stipulated by absence of special body in the structure of the CEP RT on strategic planning, which would deal with self-assessment and assessment of existing and required capacity for both implementation of environmental activities and development of measures to strengthen this capacity. Secondly, the activities of the CEP RT structural subdivisions are focused mainly on control of implementation environmental legislation and normative acts by enterprises, which use natural resources, and to a lesser extent on organization of regular work on management and interdepartmental coordination of environmental protection, improvement and harmonization of environmental legislation, monitoring of environment condition, realization of adopted decisions, advocacy of rational nature resources use, training/retraining and certification of personnel and all involved partners, whose activities are connected to both environmental management and human impact on the environment at all levels of central and local authorities.

CEP RT established its administrative offices in regions, cities and districts all over the country to control observation of environmental legislation and regulatory requirements to assure prevention of environmental pollution. In general, the organizational structure of regional departments on environment protection is like its parent organization, the CEP RT. In accordance with the Laws of the Republic of Tajikistan “On Local Government Authorities”, “On Self-Government Bodies”, “On Nature Protection”, “On Ecological Expertise”, “On Natural Protected Areas” and etc., the key role in coordination of environmental activities and decision-making is given to the local authorities. Local authorities are empowered to coordinate environmental issues on their administrative areas, such as environment protection, use of natural resources, including allocation and withdraw of land plots, monitoring of their purposive use, water use, etc. [4].

However, in the structure of local territorial administration there is no special body responsible for the coordination of environmental measures. This is probably stipulated by the fact that environmental issues are functionally related to the activities of municipal, industrial and agricultural sectors, water and land administrations, etc. In addition, the local departments of environmental protection of the CEP, which in turn do not have the authority to coordinate the environmental activities of Khukumats’ economic sectors, are accountable to the Khukumats. This institutional structure was established in the Soviet period and did not undergo any changes, despite of market transformations and national development processes in the country. The existing duplication of functions, dual subordination between the state authorities at all levels and between specially empowered state and local authorities requires thorough analysis and streamlining of functions in environmental protection activities, and primarily at the legislative level.

Local governments, in accordance with their powers, carry out the regulation of some issues connected to land and water use by farms and population [5]. Nowadays, legislative regulation of environmental activities of local governments is not legally fixed and is limited to certain issues concerning disposal of solid waste, landscaping and gardening. The general norms of the Constitution of the Republic of Tajikistan concerning powers of local authorities are reflected in the Law of the Republic of Tajikistan “On the self-government bodies of settlements and villages”. The place and role of the local authorities in addressing environmental issues are not clearly formulated in the existing legislation. These legislative acts do not contain clear differentiations of competence between central and local governments, as well as between specially authorized bodies, although formally some issues are specified. The concept of powers/functions of local self-government is completely absent in environmental legislation and, consequently, the competence and place of local authorities in solving of environmental issues are not defined. Thus, the interaction of local and central authorities is the most important condition for ensuring the effectiveness of environmental management in general [5]. Today, one of the most important tasks in the reform of local self-government is to develop the effective interaction mechanism.

The system of environmental management and regulation in Tajikistan operated based on laws and regulations developed in

the former Soviet Union. To date, a relatively well-developed national environmental legislation has been created. However, the current legislation has certain weaknesses, and namely:

- a) it is somewhat declarative, due to the lack of mechanisms and resources for the implementation of the citizens' rights on favorable environmental conditions
- b) its clauses are not sufficiently interconnected; and mechanisms of monitoring the effectiveness of its implementation are not developed
- c) the mechanisms of its clauses interrelation with other regulatory documents of economic sectors are not worked out, and the functions and responsibilities of ministries and departments to solve environmental problems and issues of nature resources use are not clearly defined.

The existing regulatory framework requires a review as well as inclusion of executable requirements; it should clearly reflect the mechanisms of implementation of main clauses of adopted legislation. In the current legislation of the Republic of Tajikistan, the environmental protection activity is defined as "the activity of state authorities represented by the Government and specially empowered state bodies, local authorities, public and other non-profit associations, juridical and physical persons intended on conservation and rehabilitation of environment, rational use and reproduction of natural resources, prevention of negative impact on the environment caused by economic or other activities".

The national environmental legislation is based on the principle of two-level system of legal regulation of relations in environmental sphere, including state legislation and corresponding regulatory acts, along with the acts adopted at the local level. At the same time, the legislative acts do not quite clearly define the powers of the bodies responsible for environmental policy implementation; also, these acts are not sufficiently coordinated with each other and often are duplicated. Insufficiency and often the lack of financial resources as well as low level of qualification of personnel does not allow carrying out the assigned functions at all levels of state and local regulation of environmental issues. Tajikistan is a party of 9 International Environmental Conventions and two related Protocols; currently, 5 National Action Plans are developed and implemented in order to fulfill the correspondent commitments of the country. This was stipulated by active integration of the country into international politics, the need to preserve unique ecosystems and resources, stability of species habitats, conservation of biodiversity etc. Success in achieving of adequate results depends undoubtedly on development of mechanisms for international and interdepartmental interaction, attracting significant financial and economic material resources, as well as the availability and stable growth of highly qualified personnel.

The effectiveness of implementation Conventions by the Re-

public of Tajikistan depends largely on creation of appropriate conditions, development of institutional capacity and interagency cooperation. Coordination functions on implementation of these Conventions are assigned to the leading persons of CEP RT, who are responsible for supervision of relevant activities and corresponding sectoral subdivisions. The formerly established centers for direct cooperation with Secretariats of Conventions on realization of National Action Plans (programs, strategies etc.) and fulfillment of country obligations accordingly to Conventions' requirements, are now abrogated. At the same time, the development of international environmental policy and implementation of corresponding strategies require improvement of management structure of CEP RT. The basic strategic document on national development is "National Development Strategy of the Republic of Tajikistan for the period until 2030" where the following clauses are specified: (Goal 7): "Achievement of environmental sustainability" and (Task 9): "Inclusion of sustainable development principles to the national strategies and programs for prevention of natural resources loss." Tajikistan is one of Central Asian countries having relatively small area of arable land. Provision of irrigated land per capita is only 0.116 ha and 0.006 ha of irrigated arable land, including 0.09 ha of ploughlands. Lands, which are suitable for cultivation of agricultural crops, occupy only 8% of the territory. Low natural soils fertility causes significant costs for agrotechnical and reclamation works. At the same time, the current tendency of agricultural sector development and financial incentives from government sector and international organizations have helped to ensure food provision in the country through a consistent and steady growth of agricultural production, increase of income and employment of population.

In Tajikistan, the economic mechanisms for integration of environmental protection and rational nature management are based on general methods of payment for natural resources use. These include taxes on land and subsoil use, payment for services for collection, removal and disposal of waste, use of sewage system, water supply, penalty for violation of water legislation, air pollution, damages caused to forestry due to illegal felling, damage by plucking of plant resources, destruction and illegal collection of plants and hunting of animals listed in the Red Book.

The main sources of environmental activities funding are:

- a) Budget financing, which includes financing of the managerial office and staff, monitoring and research activities, partial funding of targeted programs on protected areas maintenance, reforestation, programs for sanitary cleaning of cities and other settlements.
- b) Internal funds of enterprises, which are deducted directly from the company's profits for the construction and rehabilitation of environmental facilities, for modernization of technological processes, as well as payment for depreciation in order to restore the fixed assets of environmental entities.

c) Ecological funds, which are formed out of payments for environmental pollution and other fines, collected both in cities and districts, are distributed as the following: 60% remain in disposal of these cities/districts, 30% are transferred to the regional fund and 10% - to the state environmental fund.

Out of all in payments to the environmental fund, which were collected in cities and districts of the republican subordination, which then should be transferred to the state environmental funds, 30% are reserved for ecological activities in the region from where these in payments are. All in payments are imposed the 10% tax, which in transferred to the state budget. In recent years, the in payments to the funds are gradually increased, which is essential factor for implementation of planned environmental activities. The main expenses from the funds include financing of costs for forest planting, land improvement, development of local action plans, ecological education etc. Inadequate transparency in allocation of these funds makes it impossible for enterprises and public to understand which activities are chosen for financing [6]. Thus, the results of deep analysis of effectiveness of environmental protection system and its financial sources, showed the necessity of revision of the entire environmental-economic policy of taxation and payments as well as finding of new sources of financing for solution of such essential issues as continuing degradation of the environment due to absence of effective economic incentives for implementation of preventive measures, compensation for environmental damage due to irrational natural resources use, and prevention of environmental pollution.

Introduction of best practices on rational nature resources use and corresponding payment for it can ensure the finding of additional financing sources for improvement of environmental measures [7]. One of such efficient technologies is payment for ecosystem services (PES). Payment for ecosystem services is the compensation paid to the "supplier" of ecosystem services by their "consumer". Suppliers of ecosystem services are economic entities (factually, it may be any physical or juridical persons), in whose activities certain ecosystem services are "produced" or maintained at the existing level. Ecosystem services are not "produced" by man in the literal sense of the word. However, certain actions of individual people or organizations (in particular, protected areas) are aimed at preserving the ecosystems and their properties, which are necessary for production of ecosystem services. For example, taking into consideration of the country specifics, an important type of ecosystem services is to maintain high quality of fresh water in the rivers. The service providers will be land and water users whose plots are located in the upper reaches of the river; the methods they use for farming (including the extent of their consumption of fertilizers and pesticides, deforestation or, conversely, reforestation, normalized consumption and pollution of water resources, etc.) impact directly on quality and quantity of water downstream. If this quality is kept on fixed level because of certain actions of upstream land users,

it is considered as provision of ecosystem services by the service providers.

Users of ecosystem services are the economic entities that benefit economically from using the service and ready to pay for it. In the legislation of the Republic of Tajikistan, an ecosystem is defined as a dynamically developing complex of plants, animals, microorganisms and their habitat, functioning as a single unit. There is no direct definition of ecosystem services in the legislation, but they are indirectly defined as the benefits that people receive from ecosystems. All ecosystem services are conditionally divided as: supplying (food, water, forest, raw materials), regulating (impact on climate, control over floods, natural disasters, quality of water resources, etc.), cultural (recreational resources, aesthetic and spiritual values of nature) and supporting services (soil formation, photosynthesis, nitrogen cycle, etc.).

Thus, payments for ecosystem services (PES) provide incentives for owners of natural resources, such as farmers and forestry owners, to manage resources in such a way as to provide ecosystem services. PES is the additional source of replenishment for ecosystem service providers, which can be used to perform their planned activities and achievement of their tasks that have a beneficial effect on improvement of both nature resources use and environmental condition. The mandatory audit is an appropriate prerequisite for use of PES funds purposively, including prevention of negligence and assurance of effectiveness of their spending. In these cases, it is advisable to conduct the audit of ecosystem providers not by audit firms or individual auditors with general competence but by the certified auditing companies, which are qualified in environmental issues. Only such auditing companies can make appropriate assessment of effectiveness and completeness of PES funds use for environmental activities and rationalization of nature resources use in frame of PES agreements. In Tajikistan, this type of audit is conducted by the CEP Environmental Audit Service within the Government of the Republic of Tajikistan. Audit of PES funds is relatively new sphere because the PES is recently introduced technology and, consequently, is not widely spread due to undeveloped normative-legal base, low awareness of the population in general and farmers about its essence etc.

In future, in the context of PES development and full-scale application, it is necessary to conduct researches intended to improvement of accounting methods and auditing of revenues from PES, to introduce the control over PES rational use, as well as elaboration and introduction of special reporting forms on PES funds use for ecosystem service providers. Annotation. This article reflects the issues of effective management of environmental protection system, condition of regulatory framework that allows development of environmental activities, analysis of funding sources, possibilities of finding new sources of environmental activities financing, which also include payments for ecosystem services. Also, the concept of environmental activities

is clarified; non-traditional approaches and modern practice, which simultaneously have a stimulating and disabling effect on environmental activities, are identified; and fundamental management principles are defined. Organizational structure of main environmental authority is analyzed in detail, and the forms of environmental management are reviewed. The institutional framework of environmental activities development as well as advantages and disadvantages of environmental legislation are described in detail.

References

1. Naberezhnye C (2016) Conflict of interest in state and municipal services. Prevention and Regulation: a practical guide for managers, government and municipal employees. State Pedagogical University, pp. 27.
2. Rumyantseva EE (2017) Economic analysis: a textbook and workshop for academic bachelor. M: Yurayt Publishing House pp. 381.
3. Reshetnikova KV (2013) Conflicts in the management system: a textbook for university students enrolled in the specialties of Organization Management, State and Municipal Administration, Personnel Management. M UNITY-DANA pp. 175.
4. Saunin AN (2015) Audit of the effectiveness of using public funds: study pp. 336.
5. Nikonov VA (2012) Public administration matters. Faculty of public administration of Moscow State University. M Moscow State University, pp. 88.
6. Kruglyak ZI (2016) Tax accounting: a tutorial. Rostov-on-Don: Phoenix pp. 378.
7. Drury K (1998) Introduction to management accounting: a textbook for universities. Translation from English. In: Eriashvili D, Bezrukikh PS (Ed.) 3rd edition, M Audit, UNITI, pp. 783.



This work is licensed under Creative Commons Attribution 4.0 License
DOI: [10.19080/TTSR.2019.03.555619](https://doi.org/10.19080/TTSR.2019.03.555619)

Your next submission with Juniper Publishers will reach you the below assets

- Quality Editorial service
 - Swift Peer Review
 - Reprints availability
 - E-prints Service
 - Manuscript Podcast for convenient understanding
 - Global attainment for your research
 - Manuscript accessibility in different formats
- (Pdf, E-pub, Full Text, Audio)**
- Unceasing customer service

Track the below URL for one-step submission

<https://juniperpublishers.com/online-submission.php>