Improvement of nature conservation management system

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Abstract. Management activities in the field of environmental protection are analyzed in the article taking into account the legislative framework of the Russian Federation. The way of further improvement of nature conservation management system is shown.

1. Introduction
In the era of global technological progress, an irreversible change in nature began; in connection with the general pollution of the environment, the problem of its protection from local and minor ones has grown into an international one, and now the most developed countries have put environmental protection in the priority aspects of development [1].

2017 in Russia was declared the Year of Ecology. However, today in our country there are a number of problems that obstruct the promotion of environmental technologies, develop effective approaches to nature conservation, combat pollution, etc.

The most pressing problem today is the lack of a single legislative framework for the development of nature management and efficient use of territories.

Nature conservation management today is a set of measures aimed at the rational use of natural resources and environmental protection. Today, it is increasingly said that nature conservation management is an integrated system, which is why legislation in this area has its own specifics.

First of all, this concerns a broad regulatory and legal framework that should cover all possible issues.

2. Result and discussion
Speaking about the functions in the field of nature conservation management, the following areas can be distinguished:

- Organization. Financing projects, planning their implementation, creating a licensing base.
- Monitoring. Supervision in the field of environment and maintenance of environmental legislation in the course of activities.
- Lawmaking. Development of the regulatory framework for nature conservation management purposes. It is law-making activity that plays a decisive role in the organization of effective nature conservation management for today, because it sets the norms and standards by which it is implemented.

The first law, which included the key provisions of the issues of ecology, environmental protection and nature conservation management, was the Russian Soviet Federated Socialistic Republic Law No. 2060-1 dated 19.12.1991 (as amended on 10.01.2002) "On the Protection of the Environment". In the
following years, other legal acts were added to this law many times, which regulated the issues of nature management in different directions. Among the key of these laws are: "The Constitution of the Russian Federation" (taking into account the amendments introduced by the Laws of the Russian Federation on Amendments to the Constitution of the Russian Federation No.6-FKZ dated December 30, 2008, No.7-FKZ dated December 30, 2008, No.2-FKZ dated February 5, 2014, No.11-FKZ dated July 21, 2014).

One of the most important items that are prescribed in the Constitution of the Russian Federation regarding environmental management is Article 72, which states that "environmental management, environmental protection, environmental security, specially protected natural areas, protection of historical and cultural monuments are jointly managed by the Russian Federation and its subjects - republics, territories, regions, autonomous entities, Moscow and St. Petersburg ". This approach allows us to create a more comprehensive regulatory and legal basis for environmental legislation in our country.

The next was Federal Law No.7-FZ dated 10.01.2002 (as amended on 03.07.2016) "On Environmental Protection" (with amendments and additions, effective from 01.03.2017). This law is the basis of environmental legislation and is the starting point for all subsequent regulations and operations in the field of ecology, land use, etc.

Federal Law No.174-FZ dated 23.11.1995 (amended on December 29, 2015) "On Environmental Expertise" guarantees the exercise of citizens' right to a favorable environment by preventing the emergence of conditions that could violate it.

The Federal Law "On Specially Protected Natural Territories" No.33-FZ dated 03.03.1995 (amended and supplemented on 01.03.2017) is aimed at solving the problems of maintaining and preserving unique natural complexes for the functioning of which special protected natural areas are created.

A separate group of normative legal acts in the field of effective solution of environmental management issues, as an integrated management system, are industry codes. In particular, they include:

- The Land Code of the Russian Federation, which regulates the protection of lands and protection of the natural environment from possible harmful effects when using land.
- The Water Code of the Russian Federation, which regulates legal relations in the field of use and protection of water bodies and is aimed at protecting water from pollution, debris and depletion.
- The Forest Code of the Russian Federation, which establishes the legal basis for the rational use, protection and reproduction of forests, increasing their ecological and resource potential.

One of the most important tools of the modern environmental management mechanism is environmental regulation, which creates a stable base of requirements for nature users. This method is one of the integrated monitoring and control formats, because it is used simultaneously in various fields of activity [2].

To date, environmental regulation in the nature conservation management as an integrated system is divided into the following areas:

- environmental quality standards;
- environmental impact standards;
- product quality standards;
- standards of technological processes;
- organizational and management standards.

Speaking about the developed systems for increasing the efficiency of nature management, we cannot fail to mention the experience of Western countries in this direction.

One of the most advanced in this regard is the experience of the United States, in which the system for the development of environmental management is much differentiated. In solving problems of environment, land management, environment protection and environmental management, more than 40
departments, services and units are involved, each of which performs its tasks in a specific, narrow direction. As, for example, the service of protection of fish and wild animals, the service of national parks, the federal service of the Geological Survey of the USA, etc.

For our country, the ability to delegate authority to resolve environmental issues from ministries to services and agencies could greatly simplify the transition to the green economy format.

A good example is also the Council on the Quality of the Environment of the Presidential Administration of the United States, which was created as a subsidiary and advisory body and which is part of the President's Executive Office. The structural and functional independence of the Council from economic bodies helps to overcome a purely economic, departmental approach to the use of natural resources and contributes to greater objectivity in making decisions.

The diversity of approaches and the interaction of executive, judicial and legislative bodies, based on the developments of our western neighbors, will help to create a breakthrough in achieving many goals. European experience in environmental management is centered around the policy of the European Union (EU) on this issue. The ability to resolve many issues through collegial bodies of the legislature makes their implementation more effective.

Touching upon the issue of the legislative framework for the implementation of the EU's "green" policy, the following areas can be singled out:

- Regulations describing the administrative structure (mechanisms for the establishment of committees and structures, for the conduction of uniform procedures).
- Regulations transforming the provisions of international conventions on environmental protection in the EU acts. Their goal is to promote international trade; therefore, there are no separate regulations for the protection of water, air, soil.
- Directives - their goal is to ensure environmental protection and environmental management in the EU.
- Decisions are documents of environmental policy. Usually they are taken in connection with the establishment of committees or organizations.
- The recommendations of the Commission are used in the work of international organizations (UN, OECD, Council of Europe), but they do not have binding force.
- Environmental action programs of the EU. Their main effect, first of all, is political, therefore they include legal provisions containing objectives, tasks, measures for their solution and the period of time during which the measures developed should be implemented. From 1973 to the present, five environmental action programs have been approved in the EU.

It should also be noted that the protection of the natural environment is formed not only from the legal side of this issue, but also an obligatory financial component. The need to materially stimulate the environmental activities of any user of the resources of the country and a particular region is explained in stimulating an interest in meeting all these requirements and making the solution of this task economically profitable for any constituent entity of the Russian Federation; here, the scientific and technical side is also important.

The need for continuous implementation of engineering developments on this issue, which will create the basis for environmental and resource-saving technologies using the latest achievements in the world of scientific research, also requires financial investments. And here, obviously, there is a direct correlation in the regulation of the rational use of the state's natural resources and the huge environmental protection system.

Normal and sufficient financing of this sphere is the most important condition for solving all real environmental problems. The protection of the environment of the state as a whole is the most costly and financially dependent direction of human activity. For example, the cost of compulsory treatment facilities in the design of a new enterprise can reach up to 45% of the total cost of the enterprise itself. Therefore, it is obvious that financing of any environmental protection measures, according to the so-
called residual principle in our country, is one of the important reasons why nature in our state is in the most critical condition.

The most important elements of the economic mechanism of nature management and environmental protection now include: a clear planning of the system of nature management and environmental protection, sufficient stage-based funding for environmental protection, the introduction and attraction of payments for any use of natural resources, environmental insurance and the development of state economic incentives for solving environmental problems [3,4].

Lately there have been huge changes in the mechanism for financing environmental protection activities in the Russian Federation. The inefficiency of the previous system has been proved practically. For a long time, only the state budget of the country remained the main source of cash infusion. In addition, the enterprises did not try to invest their own accumulated money, which was simply necessary mainly for the modernization of production and major repairs of nature conservation facilities. They simply carried small current costs associated with the continued operation of water treatment plants, air purification filters and other similar facilities, which at the same time tried to reduce. These factors - the limited possibilities of the state budget and the so-called depersonalization of cash infusions - could not solve the growing problems in the huge environmental protection system. The volume of these investments depended only on the situation in the economy of the state at the moment and was in no way linked with the specific needs of each nature user in the environment protection [5,6].

The purpose of the new, developed mechanism for financing human nature conservation activities is the development of direct and indirect methods of state and legal regulation for the necessary environmental goals, using not only funds from the federal budget, but with the involvement of the budgets of the constituent entities of the Russian Federation, as well as the local budget. However, this was not enough to solve such an important state problem, and therefore the problem of finding additional sources of funding arose. It should be noted that numerous international economic projects require thorough and costly environmental expertise, which has long acquired foreign policy significance, required not only complex technical approvals, but also serious international negotiations.

The introduction of such a concept as the payment of all the natural resources used is one of the main elements of this new mechanism of environment protection financing that will focus on possible market reforms.

Until a certain time in the Russian Federation, environmental funds that existed in the 90s of the 20th century were also involved. The formation of such modern funds with the support of the state was a completely new direction for Russian environmental law in the large-scale regulation of financing environmental protection measures. However, in the 90s which were difficult the Russian Federation the mechanism of spending money itself did not justify itself and the funds in the overwhelming majority ceased to exist. But in the new realities, it is possible that such funds could take place while improving nature conservation activities.

Environmental insurance as a new element of the economic development of the environmental protection system is a way to protect the financial and property interests of not only individuals and legal entities, but also the state as a whole, in the event of large-scale adverse environmental consequences arising from monetary funds created by policyholders. This is another source of replenishment of sources of funding for environmental programs.

3. Conclusion

As it is shown above, it is necessary to form a sustainable system for financing nature conservation sphere and creating a single working mechanism for general regulation of the use of natural resources of the country and environmental protection measures that will include the main links:

- financing of various vital environmental programs and nature conservation measures from the budgets of various levels;
development of a functional system of nature conservation funds in each territorial unit of the Russian Federation, with the involvement of innovative environmental funds of the entity and nature conservation funds of the enterprise (for example [7]);
- development of systems of new ecological banks;
- development of methods for attracting funds from environmental insurance funds;
- attraction of international funds from the World Bank and the European Bank for Reconstruction and Development, as well as any foreign funds, organizations and firms that are associated with the environmental financing program;
- adjustment of the mechanism of compulsory use of enterprises’ own funds for nature conservation activities.

References:
[1] Kiseleva T, Mikhailov V and Mikhailov G 2017 IOP Conf. Ser.: Earth Environ. Sci. 84 012044
[2] Galanina T, Baumgarten M, Mikhailov V, Koroleva T and Mikhailov G 2017 IOP Conf. Ser.: Earth Environ. Sci. 50 012030
[3] Mikhailov V, Golofastova N, Galanina T, Koroleva T and Mikhailova Ya 2017 IOP Conf. Ser.: Earth Environ. Sci. 50 012038
[4] Mikhailov V, Kiseleva T, Karasev V, Mikhailov G and Skukin V 2017 IOP Conf. Ser.: Earth Environ. Sci. 66 012008
[5] Mikhailov V, Koryakov A and Mikhailov G 2015 Ecological risk management in coal mining and processing Journal of Mining Science 51(5) 930-6
[6] Shinkevich A, Lubnina A, Koryakov A, Mikhailov V and Vodolazhskaya E 2016 Economic aspects of risk management of stakeholders activities International Review of Management and Marketing 6(2) 328-32
[7] Kiseleva T, Mikhailov V and Karasev V 2016 IOP Conf. Ser.: Earth Environ. Sci. 45 012013