Innovative Approaches to Forest Management in the Context of Forestry and Civil Legislation

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Abstract. The article analyzes the principal issues of forest management. First, we analyze the statutory framework which requires improvement. We also focus on the management targets and principles applicable to the use of forest resources, which also require modification. The author describes the key innovative approaches to forest management based on the improvement of economic, technical, legal, organizational, managerial and other activities required for their implementation. The article quotes the opinions of various scientists engaged in the development projects in forest management and reforestation, and analyzes the problems arising in the process of implementing the right for forest management within the framework of the current civil and forestry legislation of the Russian Federation.

With the development of the state and society today, the forest industry remains an important source of economic resources. In Russia, woods are an irreplaceable natural resource with unique ecosystems which should be used wisely. Forest resources are a direct source of income for federal, regional and local budgets. Russia ranks world’s second in forest exploitation, and the distribution of forest resources within the country varies from region to region. Siberia and the Far East have the largest volume of forest resources in the country.

1. Introduction

Forest management and the key dynamic indicators of the development of this industry in the Russian Federation undoubtedly depend on innovative approaches to forest policy. The concept of innovative approaches can be defined as a complex of techniques and methods which management entities can apply to influence the economic, environmental, social and legal concepts of forest management, and which includes the issues of forest resource management and ownership. Another pressing issue is the need for efficient innovations in the forest industry, which should optimize conditions for the innovations development in the technical, social, environmental and legal areas.

Today, the legislation governing the use of forest resources is quite broad-ranging. There are over 4,000 regulatory legal instruments of various legal force and degree of importance.

Such standard and legal documents include, among other, the Forestry Code of the Russian Federation [1], the Federal Law "On Environmental Protection" [2], the Decree of the Russian Government dated September 20, 2017 No. 1989-p "Approving the Development Strategy for the Forest Complex of the Russian Federation until 2030"[3], Resolution of the Russian Government No. 318 dated 15.04.2014 "On approval of the Russian state program "Development of forestry"”[4].

The primary task is to achieve a positive result in terms of a high-quality regulatory and legal framework. In our opinion, the focus should be on amending the forest legislation, which some experts
see as voluminous and incoherent [1]. This problem has been pointed out by those who actually perform law enforcement in forest resources management and restoration, who, in the course of their activities, are to adhere to various forest management standards. The imperfection of the provisions of the forest legislation, as well as of other standards and regulation in this area, materializes in frequent conflicts with the provisions on land and water management, civil and environmental legislation.

Pursuant to the Forestry Code of the Russian Federation, forest resources are owned by the state, and their management should be primarily focused on the following:
- ensuring the conservation and effective use of the timber fund;
- creation of a rational forest management cluster through the redistribution of forest areas by zoning;
- implementation of rational methods of economically viable forest management.

2. Materials and methods
The study is based on the comparative historical method, a normative approach, analysis methods and a logical method for identifying the principal problems in forest management and innovative approaches to their solution. Today, to achieve these goals, the primary task is to revise the basic principles underlying the forest management and to outline the innovative approaches to the development of forest management, as the current development trends are characterized by negative indicators: focus on the biomass harvesting, a growing statistics of crimes related to illegal logging, the inability to attract investments and the problems of civil legal relations in the area of forest management, insufficient funding for the organization of reproduction activities for forest resources, annual and vast fires, depletion of the biological forest resource, incorrect economic policies, imperfection of the legislation.

All these negative trends have resulted a crisis in the area of forest management, with a rather negative effect on the industry development, as well as the economy and the socio-economic aspects of life.

Another key issue is the funding of forest management and forest reproduction activities; it is allocated on a residual basis, and any private investments become unprofitable due to the influence of the above trends, in addition to the political and economic risks. Not all investments made in the past five years proved to be real, since 40-50% could be considered imitational, where the investor was not really interested in investing money in the implementation of projects in the area of forest management and reforestation, but in fact, having received a plot of forest plantations, the business entity simply cut down the timber without any heed to complete processing of forest resources specified in the investment project.

As we have indicated earlier, the legal regulation in Russia today includes over four thousand instruments of various legal force. However, despite such a huge framework of regulations, it is far from being perfect and should be improved concurrently with the development of science and technology, by means of introduction of innovative technologies and the development of the society as a whole.

Having analyzed the current civil legislation, we discovered that the main form of forest management today is leasehold legal relationship. The total area of leased forests amounts to 237.7 million hectares, the share of leased areas in the total forest area (excluding reserve forests) is 20.7% [5].

According to N.D. Vershilo, the process of providing forest plots for lease includes complex sequentially developing elements including the procedure for obtaining such rights through tender bids, with the land survey and boundary settlement to be performed of the forest plot, preparing a project for its development and environmental assessment, etc. [6].

The term of use of a forest plot is stipulated in the forestry regulations. Based on this regulation and the period specified therein, the lease term is established in the contract.

Forest management can focus on one or several targets which are exhaustively listed in the forest legislation (logging, sap collection, etc.). However, a separate lease agreement is required for each type of forest management. According to the Civil Code of the Russian Federation, it is not allowed to
execute several lease agreements for the same forest plot, which in itself results in certain difficulties. There are other difficulties associated with forest management and exercising the rights for forest resources:

1) very long distances between the place of logging and to the place of timber processing;
2) depreciated fixed assets;
3) costly power resources;
4) seasonality of logging and forestry work;

In our opinion, it would be expedient to consider the practice of forest lease agreements with a term of 100 years and the full-scale practice of developing and implementing forest management projects for forest management entities, and for the management authorities to update the forest management regulations. In accordance with the current Forestry Code of the Russian Federation, the current permitted term of rental for forest management is 49 years.

According to Professor A.E. Kleinhoff, “a means to overcome the huge technological gap between the world's leading forest countries and the Russian Federation can only be the creation of an integrated system of institutional, economic and technological instruments. It should be noted that the measures taken so far to modernize the forest management sector have been practically out of touch with the methods of improving the institutional infrastructure required for achieving this goal”[7]. Another key problem is the lack of a uniform factor which could be applied to the calculation of the definition of activities ensuring the safety, protection and restoration of forests, and which would be specified in the agreements for sale of forest plantations. These factors can be calculated by including the actual costs which are not publicly available. Such actual costs, theoretically, would include the activities carried out to restore the forest areas, their description, schedules, etc.

In our opinion, we do require the development and legal consolidation of the above factors which would reflect the actual costs aimed at restoring the forest funds and the real activities stipulated by the parties in the contracts for the purchase of forest plantations. It should also provide for the possibility of the regulatory consolidation of such terms for the agreements on various types of forest management, such as mandatory planting of trees, the number of which would correspond to the planned wood areas for logging programs, in accordance with the requirement for the production and consumption of wood products. To achieve this, it is crucial to develop federal and regional programs with a feasibility study and a development outlook. The regional programs should be coordinated at the federal level and take into account the interests of the local communities in forest management.

3. Results
The study of the mechanisms of environmental legal policy in terms of innovative approaches to forest management and conservation in the forest sector allows to identify some positively developing areas. First, the forest legislation of the Russian Federation and the accessory package of environmental and economic instruments and administrative resources aimed at sustainable forest management, protection and preservation of forest resources, predominantly, should be brought in line with today's requirements.

In order to expand investment in waste-free processing of forest resources, we should introduce such economic instruments as minimization of profit taxation, VAT refund on some goods produced using wood waste; loans and funding for products obtained through the application of the comprehensive method of using the forest resources.

In order to expand the export of forest products which meet environmental standards, the policy of FSC certificates for the supply chain of such products should be implemented. In order to sustain positive dynamics in the area of forest restoration, the legislation governing the uncontrolled intensive logging, which lead to a drastic reduction in forest area, should be revised. Logging in natural forests should be banned.

In addition, we should intensify forest planting, creation of fast-growing plantations and fruit trees through the allocation of state and regional sponsorship.
4. Conclusion

In view of the above, we have identified several innovative approaches to improving forest management:
- legal innovation approach to forest management: to improve the legal framework, to create new scientific tools for the development of regulatory legislation for both the general provisions of civil legislation in this area and forestry legislation in particular;
- technological (technical) innovative approach: to use the latest technical innovations in forest resources management, including new forest management activities aimed at developing new technology, integrated methods and technological methods; technology contributing to the improvement of such processes. Here, imply innovations contributing to the end result of forest management, that is, the products and innovations in the area of improving the forest management process or the production output, the perfection of production methods;
- economic innovation approach: to create new economic mechanisms for efficient and rational forest exploitation and forest management;
- organizational and managerial innovation approach: to search for new management mechanisms in forestry and forest management; to improve the reproduction and exploitation of forests based on the principles of consistency and sustainability; to reform the existing methods and to create new activities, methods and economic instruments for their use in forest management.

However, it is possible that problems will arise with the introduction of innovative approaches to the use of forest resources, one of which would be the extended period of introducing such methods. First we should consider the long time it takes to recover forest resources; the second factor is temporal and material investments to obtain complete and reliable information on the condition of forest areas. Then we can talk about the insufficiency of high-end technology in forest management and qualified personnel. Finally, we should mention the various legal status of forest lands, forests etc. from the perspective of their potential use.

It will take many years to create innovative practices for forest management. They are essential for various research in this area, wide-scale experiments, applying scientific findings in practice. At the same time, the financial cost of such innovative methods can increase several times over.

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