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REGULATION OF RESTORATION OF PROTECTIVE FUNCTIONS OF THE FOREST OF THE CHECHEN REPUBLIC

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Abstract

The forest resources of the Chechen Republic are his wealth. Most of the forests of the Chechen Republic grow on mountain slopes, the Chechen plain and in the floodplain zone of the Terek River. Traditionally, forests in the Chechen Republic suffer the most from anthropogenic impact, especially uncontrolled and unauthorized cuttings, as well as excessive grazing of livestock. The article considers recommendations on regulating the restoration of the protective functions of the forest resources of the Chechen Republic.

Keywords: operation, restoration, regulation, ecological situation, systematic cutting, protective forests, natural features.

In particular, the forests located in the vicinity of Grozny and other settlements on the plain have been used in recent years to graze several tens of thousands of small cattle heads, which led to the destruction of young trees, the drying out and death of many trees. The distribution of forests depends on the natural-zonal features. Spatial changes in the vegetation cover of the Chechen Republic are manifested in the form of high-altitude zonality (azonality), due to which the plant world in a small area is so rich and diverse. In the forest-steppe zone there are small forest tracts, on the northern slopes of the Tersko-Sunzha Upland, as well as on the Aldyn, Novogroznensky, Gudermes and partially cover the Chechen sloping plain. Mountain forests cover the Black Mountains and the lower parts of the northern slopes of the Pasture, Rocky and Lateral ranges. Their upper limit runs at an altitude of 1,800 meters above sea level, but in some places it rises to 2,000-2,200 meters.

In recent years, the forest resources of Chechnya have been subjected to systemic industrial logging, which was carried out very intensively. The most valuable hardwood and coniferous species were subjected to cutting without the accompaniment of reforestation measures. Naturally, this increased the treeless

space and increased the area of mountain meadows, beyond the lag vegetation. Deforestation of forest tracts led to a change in the soil and ground vegetation cover. Anthropogenic impact has led to the formation and wide spread of sharply grass weeds. Piedmont forests have been extensively exterminated by man and have survived to this time only on not high ridges and in the lower valleys of the Sunja River and its tributaries and are represented by inefficient forests. In the past, oak forests with an admixture of hornbeam were more widely distributed here. Existing forest plantations should, first of all, protect from further felling, having cattle and fires. As a result of military actions, cuttings, grazing in the forest zone, a negative picture emerged that requires intervention, with the aim of sustainable regulation of the state and normalization of forest resources. The area of forest plantations that require selective sanitary felling is 18,454 hectares; the area of forest plantations requiring total sanitary felling is 1632 hectares; the area of forest plantations that require clearing from clutter is 18,339 hectares; in the event of carrying out these measures, the harvesting of destroyed and damaged trees in the amount of 149.4 thousand cubic meters. meters; on forest areas with an area of 50,000 hectares, reconstruction is required: artificial forest regeneration (planting) - 12864 hectares, combined reforestation - 8120 ha and assistance to natural renewal - 29016 ha. For the preliminary preparation of areas for reforestation, it is necessary to conduct a continuous mowing and clearing of forest fund areas on an area of 9660 hectares. [1,4].

The forest-protective role of plantations is entirely determined by their condition. On the one hand, they must pass through the flood, regulate the direction of its discharge, avoiding the erosion and destruction of the banks; on the other hand, riverine and channel (island) plantations must hold up solid runoff, preparing conditions for the formation of other, more productive types forests. In both cases, the goal is most likely achieved by keeping the plantings and maintaining a good sanitary condition. From reclamation measures, we can recommend the regrouping of sewage, the regulation of microstocks and the fight against mudflows and landslides. In the types of the upper boundary of the forest, one should conduct constant phenological, climatic and hydrological observations; to note any changes in the life and condition of the plantations, since without this, purposeful measures to strengthen and advance the upper forest, the border to treeless areas, are impossible. These activities are recommended for holding in mountain forest landscapes. To improve the mountain protection properties of forest plantations, the following measures are necessary: a) protection and protection of plantings from unauthorized felling, cattle, požarov, diseases and pests; b) organized livestock runs, especially on slopes with easily destroying sod and humus-carbonate soils; c) the formation of the shrub layer and its regular rejuvenation; d) the organized structure of the dies with the subsequent isolation of them as a way of concentrated flow; e)

regulation and spraying of microstock on the slopes by means of simple perforated and brushwood obstacles, which simultaneously promotes the retention of seeds, their rooting and germination; e) the organization of flow along roads and trails on the slopes and along the bottoms of beams [2,3].

On stony, non-forested areas, it is necessary to apply planting and sowing in cracks of rocks, filled with destruction, under rocks and large blocks on the shaded side, thus creating foci; overgrowing and seeding. In large treeless areas where it is not possible to expect seed plaque, but seed renewal of the forest is possible, it is also advisable to create foci of seeding in favorable places, planting groups of seedlings or seedlings. Depending on the conditions of the group, one must create one per hectare or several hectares. Separate young trees and their groups, which can play a role in seeding, must be protected using improvised means, not only from damage, but also from mechanical damage by hoofs.

Proceeding from the extremely important ecological significance of the republic's forests, the tasks of optimizing forest landscapes are: increasing the area covered by forest vegetation; increase in the percentage of forest stands of valuable tree species; Reduction of the area of forests that died from forest fires, damage by pests and from anthropogenic impact (including as a result of military operations), as well as other negative factors; intensification of felling of forest management on the basis of modern regulatory and technical base and improvement of their quality; organization of the system of elite seed production; implementation of forest pathological monitoring; maximum use of natural regeneration of forests and creation of conditions for the restoration of forests by economically valuable tree species; Use of drugs harmless to flora and fauna in protecting forests from pests and forest diseases; ensuring favorable conditions for recreational forest use without prejudice to the forest environment; ensuring proper protection and maintenance of specially protected natural sites and territories located within the forest fund of forest ranches;

When organizing forest management activities and sanitary felling in the mountainous zone, it is necessary to abandon the practice of conducting them in the forestries and proceed to the planning of these works in the context of the catchment areas. On sites of cutting areas, it is necessary to exclude cases of burning wood residues. In the feeding zone of mountain rivers, where the main purpose of forest landscapes is climate-water regulation, the forest cover must be restored to a level of 50-60%.

The restoration of the optimal number and structure of wild animals in the forests of Chechnya is possible only with the formation of a protected network of wildlife. Maintaining the viability of populations of such species requires the formation of an ecological framework as a network of specially protected natural areas, in which nodes it is necessary to provide large base reserves (arrays of uneven-aged and heterogeneous stands) located in

inaccessible and extensive protected habitats. A small base reserve can not provide year-round livelihood to animals that physiologically rely on extensive feeding spaces. Therefore, forest reserves should be connected by corridors, which will provide an opportunity for safe seasonal migration of animals. The linear elements of the framework in the conditions of mountainous Chechnya should vary up to several kilometers in width and tens of kilometers in length. Ecological corridors will promote the integration of individual populations into a megapopulation, a condition necessary for the restoration and survival of most species of fauna for the long term.

The development of forestry in a significant measure depends on the compliance of forest users with silvicultural requirements when carrying out final felling, preparing non-timber forest resources, using forests for recreational purposes. Economic values of the forest are a market need, a factor of business development, growth of the national economy. Forests are divided into operational and environmental. Operational forests are intended for use of commercial forest resources, especially wood. Commercial resources are the economically efficient resources claimed by the market. Forest use develops if it brings income to the lessee, that is, provides entrepreneurial profit when paying normal wages to hired workers. Felling should be profitable. In a market economy, the use of forest resources, like all natural resources, can bring a super-income - land rent. In forest use, land rent can rightfully be called forest rent, since in view of the long reproduction cycle, ripe stands, rather than land, are the real use value [6,8].

Timber harvesting is a priority type of forest management, including cutting in mature and overmature plantations, cuttings in order of forest care, cuttings in damaged and dead plantations, and other types of fellings. If the harvesting of wood in mature and overmature plantations is permitted only in this category of protective forests, such as forests located in desert, semi-desert, forest-steppe, forest-tundra zones, steppes, mountains, felling in forest management is permitted in all categories of protective forests, with the exception of green areas. In the green zones only felling of damaged and dead plantations is allowed. At the moment, the existing volumes of timber processing production are provided by the volumes of logging, mainly from cutting of forest management. Harvesting food and medicinal plants is also a priority kind of forest management, since the forests of the republic have significant reserves of such types of herbs as rose hips, sea buckthorn, hawthorn. These types are in demand in the pharmaceutical and food industries. Individual forest areas in [1,4].

The role of forests in ensuring the ecological well-being of cities and settlements of the republic is important. Forests perform water protection, protective and sanitary-hygienic functions. Among them there is a special category, which has a purely recreational purpose. Unfortunately, at the

moment the green fund of settlements, including urban forests, is much less than the normative requirement. Protective forests are to be developed in order to preserve the environment-forming functions, water-protective, protective, sanitary-hygienic, health and other useful functions with simultaneous use of forests provided that this use is compatible with the purpose of the protective forests and their useful functions.

References:

- [1] Gakayev R.A. Formation of geographic and historical knowledge of students by combined use of cartographic material / RA Gakaev, T. Sh. Khadaev // Pedagogical skill: materials VI Intern. sci. Conf. - Moscow: Buki-Vedi, 2015. - P. 5-8.
- [2] Gakayev R.A. Activation of the manifestation of landslide processes in the mountain forest landscapes of the Chechen Republic. In the collection: Actual problems of ecology and nature management Collection of scientific works. 2014. P. 234-237.
- [3] Gakayev R.A. Bagasheva M.I. Forest landscapes of Chechnya: formation and structure. In the collection: Global scientific potential. Materials of the 4th International Scientific and Practical Conference. 2008. P. 90-92.
- [4] Gakayev R.A., Bayrakov IA, Bagasheva MI Ecological foundations of the optimal structure of forest landscapes of the Chechen Republic. In the collection: Environmental problems. A look into the future The collection of works of the III-rd scientific-practical conference. Responsible editor Yu.A. Fedorov. 2006. P. 50-52.
- [5] Musaeva M.L., Elmurzaev R.S. Anthropogenic impact on forest ecosystems of the Chechen Republic. In the collection: Russia in the 21st century: factors and mechanisms of sustainable development, a collection of articles of the International Scientific and Practical Conference. 2016. P. 141-143.
- [6] Rashidov M.U., Gakaev R.A. To the issue of the relationship between society and nature in the Chechen Republic. Issues of modern science and practice. University of. IN AND. Vernadsky. 2007. T. 2. № 3 (9). Pp. 146-149.
- [7] Elmurzaev R.S. Anti-erosion functions of forest plantations of the Chechen Republic. In the collection: The role of innovation in the transformation of modern science. The collection of articles of the international scientific-practical conference: in 4 parts. 2016. P. 268-271.
- [8] Elmurzaev R.S. The mediating role of forests in the biosphere and its protection In the collection: Modern technologies: current issues, achievements and innovations. Collection of articles of the winners of

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the III International Scientific and Practical Conference. 2016. S. 195-197.