APPROVED

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**POLICY**

**for land protection and remediation**

2023

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**INTRODUCTION**

The natural environment consists of interconnected and interdependent objects of nature with the land being the most important of them. The term “land” has many meanings: a surface, soil, ground, place, territory, object of property, object of use or lease, or a component of the environment. In addition, this term can refer to the earth, a planet as a space object and a part of the global universe.

Being a critical prerequisite for the existence of human civilization, the land is a habitat for people, plants and animals. The economic function of land involves the use, consumption and transformation of the nature by people. The land is considered as means of production in agriculture and forest management, a spatial operating basis for the construction of buildings and structures. Being a component of the environment and a natural resource, the land is a source of economic consumption of the nature by people, a source of satisfaction of the material needs and interests of people who extract useful substances from it and utilize its useful properties.

Being an object of nature, the land is a component of the environment. The environmental function of the land involves the relationship between inorganic and organic matters, absorption of carbon acid, processing of organic matter into inorganic matter. This function of the land, like any other object of nature, is the key and critical function of objects of nature that allows an object of nature to remain naturally connected with the nature. The disintegration of this connection results in the land degradation.

The intensification of agriculture, development of the industrial cluster, urbanization, man-made disasters and climate changes increase the percentage of degraded lands as compared to natural lands every year.

The land is a limited and indispensable resource and, therefore, it must be protected. First of all, the land is limited spatially, and all needs in land can only be satisfied within the available territory. It is only possible to increase the area or create a new land plot by decreasing the area of or eliminating another plot. To increase the area of any kind of land use (e.g. any category of the land fund), the area of another one needs to be reduced. The area of the lands that are most suitable for certain types of use (agriculture, industrial facilities, social facilities etc.) is also limited. One type of use runs into conflict with the others. Competition between nonagricultural types of use and agricultural use is especially undesirable for the society. Redistribution of lands between industries is a critical and complicated challenge that cannot always be addressed in a justified way.

Understanding the scale of the global environmental disaster as concerns the loss of natural lands, developed countries establish a legal and regulatory framework for the use and protection of the land. The United Nations’ 2030 Agenda for Sustainable Development also encourages the fight against desertification, recovery of degraded lands and soils, including the lands affected by desertification, draughts, floods, and no further degradation of the condition of land across the world.

In Russia, the legal framework is defined by the Land Code, the Forest Code and the Federal Law “On the Protection of the Environment” which on an aggregate basis describe the requirements for the protection and recovery of soil fertility, the protection of land from adverse (harmful) effects, and sustainable category-specific use.

Understanding that the protection of natural lands as a component of the global ecosystem is a critical prerequisite for the sustainable development of humankind, PJSC ALROSA (hereinafter “ALROSA” and/or “the Company”) acknowledges its commitment to the principles of land protection and remediation in this Policy based on the requirements of Russian law and the philosophy of the global community.

1. General provisions

The protection of land as an important component of the environment and a means of production is the priority for ALROSA. ALROSA owns, uses and manages the land based on its legitimate right and intended purpose.

The compulsory conditions of the use of land plots include, but are not limited to:

* Using the land plots according to their intended use and methods that mustn’t do any harm to the environment, including the land as an object of nature;
* Complying with the requirements of the city-planning regulations, construction, environmental, sanitary and hygiene, fire protection and other rules, standards during the use of the land plots;
* Avoiding the land or soil pollution, depletion, spoiling, destruction or any other adverse impacts;
* Implementing measures for the protection of land, forests, water bodies or other natural resources, including fire safety measures;
* Performing land remediation and other compulsory actions to bring it into a state suitable for its intended use.

The land remediation includes activities aimed to prevent land degradation and/or recover fertility by bringing the land into a state suitable for its use according to its intended and allowed use, including the elimination of land pollution consequences, resoiling of land, creating protective forest plantations.

Remediation is required for the land damaged as a result of:

* Development of mineral deposits;
* Installation of pipelines, construction, land reclamation, logging, geological prospecting, testing, operating, surveying and other activities related to the disturbance of the topsoil;
* Construction, operation and closedown of underground facilities and utilities (mine pits, storages, sewage structures etc.);
* Elimination of the consequences of land pollution, if the conditions of recovery involve depositing (removing) the topsoil;
* Finishing of construction, repair or reconstruction of linear facilities (except the cases where the land is intended for installation of such linear facilities) and as a result of their demolition;
* Demolition of buildings and structures existing on the land plots, if the permitted use of the land plot does not allow construction on the land plot, as well as demolition of forest infrastructure;
* Use of agricultural lands or territories within such lands provided for the period of construction of roads, power lines, communication lines (including cable line infrastructure), oil pipelines, gas pipelines or other types of pipelines;
* Withdrawal from service of the facilities used for the disposal of waste of I-V hazard classes, damaging of lands where waste of I-V hazard classes are deposited, or the lands used but not intended for the disposal of waste of I-V hazard classes;
* Elimination of the consequences of commercial and/or other activities which resulted in land damage due to non-compliance with environmental regulations, including those based on the orders to eliminate the committed violations revealed by state land inspections;
* Elimination of the consequences of natural or man-made accidents and emergencies resulting in damage to the lands.

Before starting the remediation of damaged lands, the condition of such damaged lands or land plots must be inspected.

The land remediation is performed according to an approved land remediation plan and involves technical and/or biological activities.

The technical measures can include planning, battering, removing and depositing the topsoil, installing hydrotechnical and reclamation structures, fencing as well as other activities creating the necessary conditions to prevent land degradation, adverse impact of degraded lands on the environment, permit further use of lands according to their intended and allowed use, and biological activities.

The biological measures include a range of agrotechnical and phytomelioration activities intended to improve agrophysical, agrochemical, biochemical and other properties of the soil.

The land remediation must take into account types of commercial activities; each of them can have specific requirements ensuring the high quality of recovery activities.

Projects of the remediation of lands which were used for the disposal of production and consumption waste, including those which were not intended for the disposal of production and consumption waste, shall undergo state environmental expert reviews.

The planning of activities for land protection and recovery of degraded lands must be guided by the criteria of resource prioritization based on the number of residents living in the vicinity of the potential adverse impact, the assessed risks of potential pollution distribution in time and space, and cumulative effect.

The provisions of this Policy shall be followed by all structural divisions of the Company and are recommended for implementation in the subsidiaries (collectively referred to as the ALROSA Group) as a basis for developing their own Policies.

2. Referenced codes and standards

1. The Code of the Russian Federation 200-FZ “The Forest Code of the Russian Federation” dated 12.04.2006.
2. Code of the Russian Federation 136-FZ “The Land Code of Russia” dated 10.25.2001,
3. Federal law 7-FZ “On the Protection of the Environment” dated 02.10.2002.
4. Federal Law 174-FZ “On Ecological Expertise” dated 11.23.1995.
5. Decree of the Russian Government 800 “On remediation and conservation of land” dated 07.10.2018
6. GOST 17.4.3.02-85. Nature protection (System of Environment Protection Standards). Soils. Requirement for fertile layer conservation in performing earth-moving
7. GOST R 59057-2020. National standard of the Russian Federation. Environmental protection. Land. General requirements for reclamation of disturbed land
8. GOST R 59060-2020. National standard of the Russian Federation. Environmental protection. Land. Classification of disturbed lands for the purpose of reclamation.

3. Terms and definitions

This Policy uses the following terms:

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| **Land degradation** | Deterioration of the land quality as a result of adverse impact from commercial and/or other activity, natural and/or man-made factors |
| **Topsoil damage** | Removal or destruction of topsoil |
| **Disturbed land** | Land that becomes unsuitable for intended or allowed use because of degradation |
| **Land protection**  | Activities aimed to protect land as a critical component of the environment and natural resource |
| **Topsoil** | The upper humous part of soil which has the highest fertility as compared to deeper layers |
| **Land remediation plan** | A document used to perform land remediation |
| **Land remediation** | Activities aimed to prevent land degradation and/or recover fertility by bringing the land into a state suitable for its use according to its intended and allowed use, including the elimination of land pollution consequences, resoiling of land, creating protective forest plantations. |

4. Goals and objectives of the policy

4.1. This Policy sets the following goals:

* Take proactive and preventive measures aimed to protect land during its commercial use using the methods and techniques of preventing adverse effects;
* Restore and improve lands which already suffered adverse effects during commercial activities;
* Implement science-based land use standards ensuring the best possible structure of the land use.

4.2. These goals determine the following key objectives:

* Develop a range of measures aimed at the protection and sustainable use of lands to preserve their natural characteristics;
* Implement environmentally safe production technologies and infrastructure process flows to ensure reduced use of land area;
* Use the best available technologies and practices for developing remediation plans with regard to disturbed land.

5. Policy implementation principles

The land protection and remediation management is based on the following principles:

5.1. Consider the land as the basis of the human life and activity therefore the land use and protection processes are managed based on the concept that the land is an object of nature protected as a critical component of the nature, a natural resource used as the basis for commercial and other activities.

5.2. Prioritized protection of human life and health therefore the decisions and activities taken and performed to use and protect the land must sustain the human life or prevent adverse (harmful) impact on the human health, even if it requires high costs.

5.3. Conserve the most valuable lands and the lands in specially protected areas.

5.4. Prevent land damage with irreversible consequences during the use of the lands.

6. Policy implementation mechanisms

6.1. During mining operations, the external waste dumps, tailing dumps and other industrial storages must be predominantly located at waste lands (already developed industrial areas, depleted pits etc.).

6.2. When external and internal dumps are created above the ground level, fast-growing trees and plants must be planted along the borders and at slopes to prevent the adverse impact of rock deflation on the environment.

6.3. A comprehensive assessment of disturbed lands and adjacent areas must be carried out before the commencement of remediation (restoration) work, including:

* Inspection and data collection with regard to the adjacent (background) areas, including the characteristics of soils, landscape, vegetation, fauna, hydrogeological features of the areas;
* Data with regard to the commercial use of the lands and land plots (if there are any areas with special use conditions, sanitary and restricted zones within the land plot);
* Data with regard to the location, sources of pollution and type of disturbance of the lands and land plots;
* Data with regard to the terrain features and area of a disturbed land plot;
* Data with regard to the pollution of the lands and land plots (soil type, distribution and concentration of pollution in soil layers, depth of a polluted soil layer, oil properties, age of pollution);
* Preparation of sampling reports and laboratory test protocols;
* Justification of the optimal scope of remediation techniques considering the natural characteristics of the land to bring the ecosystem into the near-original ecotopic state;
* Justification of a comprehensive environmental monitoring system for every stage of the planned activities taking into account the characteristics of polluted and background areas;
* Justification of a post-project review system taking into account the predicted remediation results and the efficiency of planned process stages.

6.4. Dumps and borrow pits created as a result of open-cut mining must be reclaimed in accordance with the following requirements:

* Create dumps and borrow pits resistant to landslides and rockslides, protected against water and wind erosion by forestation, meadow formation and/or treatment with special biological materials; the dump erosion must be prevented based on zoning requirements for antierosion management of dump areas;
* Take measures to arrange the concentrated drain of storm and process water through the installation of special hydrotechnical structures;
* Ensure that water drained from the dumps and containing toxic substances is treated or discharged properly;
* Take measures to control water conditions in the remediated layer consisting of rock with poor water and physical properties;
* Create a screen made of capillary breaking or neutralizing materials (sand, stone, gravel, film etc.), if the bottom of the remediated layer contains toxic materials;
* Create dumps of combustible materials with the use of methods preventing their spontaneous combustion.
* The minimum surface elevations of internal dumps must be higher than the predicted ground water level. If they are lower than the predicted level of ground water, take measures to prevent bogging of the remediated surface.

6.5. The remediation of lands disturbed as a result of underground mineral resource extraction must be performed in accordance with the following requirements:

* Ensure the integrity of the land surface and minimize the deformation of land areas;
* Plan the arching surface, fill in pits with rock, level them and deposit a topsoil afterwards;
* Take measures to prevent drying, bogging, progressive erosion.

6.6. The technical stage of the remediation of lands disturbed by construction, reconstruction and operation of linear structures (main pipelines and branch connections, railroads and motor roads, channels) shall include the following activities:

* Remove the construction waste, remove any temporary equipment from the construction area;
* Backfill the pipeline trenches with earth creating a lip to ensure even surface after compaction;
* Distribute the remaining earth material throughout the remediated area with an even layer or transport it to the dedicated plots specified in the plan;
* Create slopes, banks, earth fills, pits, backfill or level pitfalls and holes;
* Take measures to prevent erosion processes;
* Deposit a topsoil on the remediated area.
* During the construction of main pipelines in forest lands, the remediation involves backfilling of trenches and pits, general leveling of the reserved areas, removal of construction waste, surface grassing by sowing grass; the restoration of tree and shrub vegetation in the areas reserved for the pipeline that hinder its normal operation is not allowed.

6.7. Lands disturbed by geological prospecting, exploration and drilling of operating wells require the following measures that must be performed after the completion of the main activities:

* Remove the well infrastructure, construction waste, oil products and materials used for drilling according to the established procedure;
* Backfill the containers and level the surface;
* Perform land-reclamation and anti-erosion work;
* Deposit a topsoil.

6.8. Perform forest restoration activities at the lands under use.

6.9. The productivity of restored lands is increased with the use of organic and mineral fertilizers, special agrochemical techniques.

7. Stakeholders

The stakeholders in the context of production and business activities of ALROSA include:

* Individuals, i.e. citizens of the Russian Federation who are the current or potential owners of the Company’s securities or live on the territories of the Company’s production assets, public and nonpublic organizations, associations, research institutes and expert organizations, social and charitable organizations;
* government authorities, including the authorities of the constituent entity of the Russian Federation, municipal entities, executive and legislative authorities, as well as supervisory authorities of federal and regional level;
* financial institutions, including credit and investment organizations which are the current or potential owners of the Company’s securities, as well as rating agencies;
* other companies that carry out their activities on adjacent territories