

# Observation and Protection of Citizens' Environmental Rights in a Coal Mining Region

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**Abstract.** Kemerovo region is one of the territories richest in coal deposits. Kuznetsky coal basin is one of the largest coal basins in the world. Constant increase in mining of that natural treasure has an impact on the ecological well-being of the region. For that reason, current conditions of Russian economy make the issues concerning social responsibility of industrial enterprises for sustainable social and economic development of the territory in the mining region especially important. Besides, at present moment ideological paradigms of the technology aimed at dealing with ecological issues are gaining more and more influence on problem solving in the process of production upgrade, where important role is given to protection and preservation of environment as well as observation and protection of citizens' environmental rights.

## 1 Introduction

Kemerovo region is located in Southern part of Western Siberia. The territory of the region occupies sufficient part of Kuzbass coal basin. For that reason terms "Kemerovo region" and "Kuzbass" were often used as synonyms. The given fact was officially fixed on the regulatory constitutional level in the Russian Federation President's Decree No 130 "On Introduction of a New Title of the Russian Federation Region in Article 65 of the Constitution of the Russian Federation" issued on March 27th, 2019.

The presence of various abundant mineral deposits in subsurface resources, as well as their intense commercial development, lead to many ecological issues. For this reason, unfortunately, Kuzbass has been occupying "leading" position in relation to environmental pollution for quite a long time which causes worries. This issue deserves constant attention and considerable attempts which must be made by the state, business and community to observe and protect citizens' environmental rights.

## 2 Materials and Methods

As for industrial output, Kemerovo region is one of the leading regions in Russia. But as a result of open pit coal mining, a great number of pollutants are released into the atmosphere. Moreover, coal mining industrial complex has significant influence on the

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hydrosphere causing pollution of ground and waste water. And finally, the third component is soil pollution and erosion. Consequently, subsequent soil reclamation becomes a necessity. As a result, a new issue has appeared. It is connected with effective and rational land use for ecologically clean excavation of mineral resources [1].

Consequently, the widest spread method for evaluation of ecological and economic trends in mining region development has to be the assessment of total amount of pollutants entering different objects for the whole environment: water, air, and soil [2].

### **3 Results and Discussion**

The main treasure of Kemerovo region is hard coal. The volume of its extraction is annually increasing.

In 2016, for example, 227,4 million tons of coal were extracted in Kuzbass, which is 12,4 million tons more than in 2015. In 2017 coal production amounted for 241,5 million tons (6,2 % increase from 2016). In 2018 the region mined 255,3 million tons, it was 13,8 million tons more than in 2017. It is necessary to point out that 65 % of coal was mined in open pit mines, whereas 35 % was mined in underground mines.

According to Gosbalans, there were 54 050,9 million tons of hard coal on January 1st, 2017.

On the territory of the region there is a big number of both underground mines and open pit mines which are operating or are being constructed. The largest enterprises which extract hard coal are JSC “Kuzbassrazrezugol”, JSC “SUEK-KUZBASS”, Public JSC “Juzhny Kuzbass”, Public JSC “Kuzbasskaya Toplivnaya Company”, JSC “Chernigovets”, etc.

Apart from coal, iron ore is also mined on the territory of Kemerovo region. Total geological reserves of iron ore are 1376,365 million tons.

Manganese ores play important role in increasing the quality of the produced ferrous metals. Total reserves of manganese ore in Kuzbass are 128,2 million tons.

Subsurface resources of Kemerovo region also include non-ferrous and light-weight metals. Thus, beauxites play an important role in aluminum production. Copper deposits were found in Salair Ridge.

All these natural riches and work performed for their excavation has an impact on ecological well-being of the region. That is why modern conditions of Russian economy make issues connected with social responsibility of industrial enterprises for sustainable social and economic development of the territory in mining region especially important [3]. Moreover, at present moment ideological paradigms of the technology aimed at dealing with ecological issues are gaining more and more influence on problem solving in the process of production upgrade, where important role is given to protection and preservation of environment as well as observation and protection of citizens’ environmental rights [4].

One of the most important factors which characterize ecological situation in Kemerovo region is the condition of air and level of its pollution.

According to Kemerovo region Federal State Statistics Service and Federal Service for Supervision over Natural Resource Management, the total volume of pollutants in the air was 1577,284 thousand tons in 2016. This number includes 1349,484 thousand tons from stationary sources (85,6 %) and 227,8 thousand tons from mobile pollution sources (motor vehicles and railway transport) (14,4 %). There are 21,6 thousand stationary and fugitive emission sources on the territory of Kemerovo region. They waste more than 250 pollutants of different hazard classes into the air.

The distribution of emissions into the atmosphere in different municipal districts of Kemerovo region is uneven. Such urban districts as Novokuznetsk, Belovo, Polysaev, etc.

Mysky, Leninsk-Kuznetsky, Kaltan, Kemerovo, and Mezhdurechensk release the most significant volume of pollutants into the atmosphere.

In general unfavorable ecological conditions have an impact on the quality of water resources in Kemerovo region.

Technogenic pollution of underground water is the result of operation and abandonment of mining companies. Mine abandonment by means of self-flooding leads to increase in the content of various components in underground water.

The main types of soil pollution in the region are soil physical degradation (topsoil withdrawal and destruction during quarry development, construction work, littering with industrial and household wastes, bog formation, and repacking), water denudation and destruction through water erosion, chemical degradation (loss of fertilizer elements, acidification).

Considering trends in changes of environmental situation taking place in Kemerovo region, it is necessary to point out that in the middle and end of the 90s the situation slightly improved due to decrease in production. But in the beginning of 2000s some increase in industrial activity resulted in a new wave of environmental pollution.

Analyzing this situation, in 2002 a regional commissioner for human rights prepared a special report "On the Ecological Situation in Kemerovo Region and Violation of Human Rights to Have Favorable Environment".

In the report the commissioner gave recommendations to restore citizens' rights in this sphere, adopt legal and regulatory documents which would enable to reinforce the government environmental monitoring system on the territory of Kuzbass, increase the role of the municipal, industrial, and public control in the sphere of compliance of natural resource users with environmental legislation. Sufficient attention was paid to the issues connected with statutory regulation of natural resources management in coal mining on III International Innovative Mining Symposium which took place in Kemerovo in October of 2018 [5-7].

According to the Decree of the President of the Russian Federation Vladimir Putin 2017 was announced the Year of Ecology. Following that Decree, the governor of Kemerovo region also announced that in 2017 the Year of Ecology starts in Kemerovo region. To reach the set goals, the Plan of Activities (No 257-r), which were to take place during the Year of Ecology in Kemerovo region, was prepared and approved by Kemerovo Region Administration Panel on June 29th, 2017.

As a result, thanks to legislation improvement and measures taken to improve ecological conditions in the region, the observation and protection of human rights to favorable environment has seen slight improvement.

In 2016-2019 in Kuzbass a number of very important laws and regulations were adopted to regulate social interactions in the sphere of environment protection and mineral resource management. They include Kemerovo region regulations, resolutions of the Governor, resolutions and orders of Kemerovo Region Administration Panel.

In 2017 Kuzbass ombudsman prepared and published a New Special Report due to the changes which have taken place in the ecological situation. Its theme was "On the Exercise of Citizens' Rights to Have Favorable Environment in Kuzbass".

To guarantee human rights to favorable environment and improve the quality of life of the population, Kemerovo region state programs such as "Ecology and Mineral Resources of Kuzbass" (to be implemented in 2014-2018) and "Ecology, Natural Resources Management and Water Rational Use" (to be implemented in 2017-2021) have been unfolding.

Under current conditions, improvement of citizens' environmental rights is more and more dependent on the social role of businesses, corporate social responsibility in the sphere of regional ecological and economic systems management [8,9].

During two last years Kemerovo region companies held a great number of activities aimed to reduce the volume of pollutants in the air. They include production processes improvement, new waste treatment facilities start-up, as well as increase of the operating waste treatment facilities performance.

The total volume of pollutants which get into the atmosphere from stationary sources of Kemerovo region companies is constantly reducing. It is necessary to point out that methane accounts for more than 50 % of emissions which pollute atmosphere. It is released into the atmosphere mainly as a result of coal mining. At present moment methane is used to benefit community in Kuzbass. It is used as a power source on heat production power plants and as an alternative type of fuel. A number of JSC “SUEK” mines use methane to get heat and electricity. Company “Gazprom Dobycha Kuznetsk” has been developing methane deposits since 2006.

Every year Kuzbass plants and factories spend about 7 billion rubles from their budgets as operating costs to protect environment. This money is, first of all, directed to upgrade and reconstruct production facilities, introduce advanced technologies, which make it possible to reduce negative impact on environment.

## **4 Conclusion**

In spite of great number of activities taking place in the sphere of environmental protection in Kuzbass, citizens continue to bring complaints about environmental pollution to the government bodies and commissioner for human rights in Kemerovo region. First of all, citizens complain about the activity of big industrial enterprises, underground mines and open pit mines.

The examples of such petitions are complaints of the citizens living in houses, located on the mining lease, which are to be dismantled, but still have not been put down. In particular, there are complaints received from people living in settlement Maneikha of Prokopyevsk district. The claimants complain about constant noise emitted by the operating machines, dust, and broken roads.

There is also another group of complaints about the violation of citizens' rights to favorable environment. For example, Novokuznetsk inhabitants are worried about deep cracks in the earth surface which appeared not far from their houses. These cracks are dangerous, primarily because they present hazards for their children's health and lives. Pursuant to these complaints, the specialists of Kuybyshev district administration (Kuybyshev district safety department of the Population and territory protection administration in the city of Novokuznetsk) conducted a commission inspection of the territory located near the houses enumerated in the complaint. As a result, specialists identified landscape irregularities. Using this information, the specialists from the district administration directed a petition to the department monitoring abandoned mines claiming to make an application to the specialized bodies to investigate the aforementioned territory and take necessary measures.

In October 2018 regional commissioner for human rights received a collective complaint from Novokuznetsk district about the failure of Rostekhnadzor (Federal Service for Environmental, Technological and Nuclear Oversight of Russia) to perform actions in relation to JSC “Stepanovskiy Open Pit Mine”. According to the claim, the specialists of that regulatory body do not perform their functions and fail to execute their power in the sphere of control and monitoring of safe work connected with mineral resource extraction, observation of industrial safety requirements during operation of hazardous industrial facilities. During 2018 this open pit mine has been performing mining work (overburden removal, extraction, blasting operations) very actively in the Northern block without any prior approval of the state expertise and expert examination of industrial safety. According

to the conclusions of the state bodies, JSC “Stepanovskiy Open Pit Mine” does not have other necessary permissions, for example, resolutions to set a sanitary protection area, permissions for emission of pollutants into the atmosphere, water reservoirs, plans for disturbed soil reclamation, permissions to confirm regulatory standards of waste production and disposal.

To conduct check in respect of this complaint, the commissioner for human rights addressed the Federal Service for Ecological, Technological and Atomic Supervision.

On November 2nd, 2018 Siberian Bureau of Rostekhnadzor conducted an administrative investigation having visited the mining site. As a result of investigation, the specialists determined that JSC “Stepanovskiy Open Pit Mine” placed overburden rocks on the eastern side of the northern block in October and November of 2018. This is a gross violation of the subsoil protection requirements and technical project for the opening, preparation and processing of a subsoil block, as the company did not have necessary permissions from Rosnedra (Federal Agency for Mineral Resources Management) to erect buildings on the territory of mine field and to make project solutions which must be controlled by Rostekhnadzor. The company formed waste rock disposal area on the site to be used for mineral resources extraction.

On November, 6th 2018 Siberian Bureau of Rostekhnadzor used administrative measures in relation to JSC “Stepanovskiy Open Pit Mine”, having temporary banned mining activities connected with rock dumping in places which do not comply with project worked out for 2018. The documents relating to temporary ban of activities prepared by the Siberian Bureau of Rostekhnadzor were taken to Novokuznetsk district court. Designated persons from JSC “Stepanovskiy Open Pit Mine”, who bore direct responsibility for violations, were fined. According to Novokuznetsk court resolution, work connected with rock disposal on the eastern side of the northern block was stopped for 90 days.

Recently a discussion of environmental issues has become wide spread on social networking websites. For that reason it is vital to explore the possibilities of social networking, interacting parties and forms of communication, to start a straightforward dialog through the networking sites with the citizens [10].

Consequently, observation and protection of environmental rights, environmental activity must become one of the main criteria for assessment of environmental efficiency in the system of mining region government, key field of concern for the heads of the executive government agencies, local governing bodies, all companies and enterprises.

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