

Serbia: The Chinese have changed the method of excavation at the Chukaru Peki mine, but there will be environmental consequences

China's Chukaru Peki copper and gold mine is planned to employ 1205 workers, but it will also have negative effects that will result in environmental pollution, according to a public debate and public opinion study on environmental impact on the Ministry of Environment's website.

The study states that Rakita Exploratation, the ultimate owner of which is the Chinese company Zijin Mining Group, plans to open a copper mine at Chukaru Peki, with all associated facilities for ore processing and transportation and disposal. Zijin also owns the nearby Bor Mining and Smelter Basin (RTB Bor).

The Chukaru Peki copper and gold deposit is located in eastern Serbia, five kilometers south of Bor. The estimated amount of ore in the Upper Zone of the deposit is 46.15 Mt, with an average copper content of 2.71% and an average gold content of 1.7 g / t.

The mine will cover an area of approximately 1,014.99 ha of land, and it is planned to purchase an additional 243 ha. Eight households, with 23 members, were or will be physically displaced.

The negative effects at all stages of mine exploitation that will occur to a greater or lesser extent are permanent destruction of land after the formation of tailings ponds, change of landscape and destruction of ecosystems on the surface above the reservoir, dust and gas emissions, impact of mining waste on soil and groundwater and surface water.

The study authors from the Institute of Metallurgy and Mining of Bor have calculated that the average flow of the Bor River will be reduced by about $8\,l$ /s, and the Brestovac Rivers by about $2\,l$ /s in the entire period of operation of the mine. The largest flow reductions are expected at the Kusak and Kalinik streams.

Debris will form in the upper part of the Grcava stream basin, while in the lower part of the stream there may be a decrease in flow. The construction of the tailings pond will result in the loss of 2 km of Grcava in whose upper part of the basin will be formed tailings ponds, 2.8 km of tributary habitats associated with Grcava and indirect loss of habitats downstream.

The loss of habitat downstream can be extended to another 1.5 km to the confluence with the Bor River. This will result in a total loss of 6.3 km of habitat. Direct habitat loss will be permanent.

It is estimated that surface flows will return to their initial (zero) state 30-40 years after the mine closure.

In order to prevent dust from spreading during the processing of ore, it is envisaged to install suitable dust removal devices in this plant.

Project implementation will change the use of land from predominantly agricultural to



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mining, which will have the effect of altering the habitat of about 300 hectares of habitat. What is important to the locals, the study points out, is that the owner of the bearing, the Chinese company Zijin, abandoned the previously planned method of excavating "underwater contamination" which is environmentally harmful.

It is alleged that the other two methods of excavation of the Upper Zone of the Chukaru Peki bearing were selected, namely the method of excavation in horizontal belts with filling of the excavated space and the combined method.

It is also stated that a year ago, a deputy from Bor and a former engineer at RTB Bor (cf. journalist) Branislav Mihajlovic sent a letter to the Ministry of Environmental Protection warning of environmental hazards to the local population if a Chinese company stays on the method of excavating "floor damage" ".

"The application of this excavation method causes the surface of the terrain above the excavation zone to be extensively damaged, both in the affected terrain and in depth. These changes are of a lasting nature and cannot be repaired, "Mihajlovic wrote to the ministry. He also said that discussions had been conducted with the locals during the planning of the project, who said he understood the importance of mining for the region's economy, but that greater emphasis was needed on environmental protection. The villagers of Ostrelj and Slatina pointed to poor air quality, soil pollution and health problems in the past as a consequence of the nearby RTB Bor.

The population fears similar environmental and health problems associated with proposed new mining projects such as Chukaru Peki. They also complained that they did not have enough information about the future mine, and because of that better informing the local population is recommended during all stages of mine development.

Source: novaekonomija.rs