

**How Rio Tinto emerged as a problem in the general pain for the environment is quite unclear, but let the professional public be interested. It is interesting that you cannot interest the same professional public in other current environmental problems at all**

According to the data of the Environmental Protection Agency, 39,000 tons of oil and lubricants were placed on the Serbian market in 2019, while according to the procedure for special waste streams, only 2,348 tons were ecologically processed, or about 6 percent. The rest, or 36,652 tons of waste oils and lubricants, ended up either in watercourses (legend has it that one liter of oil can pollute a million liters of water) or were used for heating, resulting in uncontrolled emissions of pollutants (including carcinogenic PAHs). among other things motor oils and belong to special waste streams.

Those 36,000 tons are about a million and a half cisterns, which every year someone in Serbia discharges into watercourses or fry in a private boiler room, creates pollution that is greater than any pollution from an industrial plant.

Can it be easily prevented? Can. Is there a procedure? Yes, there is, the same as in Europe.

So where is the problem? I don't know, ask the director of the above-mentioned ZZS Agency. Well, he is responsible, he may not give you the correct answer.

Why not talk about it? Well, I guess it's not flammable enough.

**How polluted are we?**

So much so that even Prof. Danica Grujicic in her monograph "Truth about the consequences of NATO bombing of Serbia in 1999", which aimed to prove that NATO committed environmental genocide in Serbia, wrote as a conclusion:

"We are witnessing the occurrence of excessive environmental pollution in some localities, not only as a result of NATO bombing but generally due to decades of negligence and disrespect for the law in the exploitation of natural resources, industrial production and waste disposal."

Before we deal with concrete examples of ideological activism, it is important to draw a cross-section of what our real situation is in the environment:

**Air**

Well, no one consumes filters here anymore, lignite of the worst quality is burned in private fireboxes, traffic, at least in cities, has probably become the biggest source of carcinogenic substances. Everything that is reached is thrown into the rivers, and there is no waiting for the night for that occasion.

The hierarchy of waste is not respected, the construction of sanitary landfills is taken care of, there is no separation and no recycling. We buried the dead cattle behind the processing

plant because it was cheaper. We allowed landfills to carry away our rivers.

### **Industrial pollution**

Pretty solid when the industry isn't working. They say that Smederevo has no problem with PM10. Maybe you didn't look at the right meter, the measuring point where the influence of the ironworks is measured is not in Smederevo but in Rajka, a village next to the ironworks, and yes, that measuring point is the champion in terms of the average annual value of PM10 particles.

### **Rio Tinto as the hope of eco-activism**

How Rio Tinto emerged as a problem in that general pain for the environment is quite unclear, but let the professional public be interested. It is interesting that the same professional public cannot be interested in other real environmental problems that are currently happening, but they are very interested in the problem that may arise in 2026, when the start of work of that mine is planned.

It is also quite interesting that the focus of the initiative is not on the mine or mining but on the process plant. In fact, almost no one was involved in the mine and mining activities - except the local population.

The rumor around Rio Tinto was based on a petition, which was based on the expert opinion of a doctor of science from the Institute of Chemistry, Technology and Metallurgy on emissions from a process plant, which is, to put it mildly, completely incorrect, unfounded and unprofessional.

### **Some of the key questions activists ask are simple:**

Will Serbia be left without water if that mine is opened? Will not.

Will sulfur rains fall and fry the skin and lungs? Will not.

Is 200 ha of forest significant in relation to 27,000 ha of forest that Serbia plans to plant annually? It's not.

Is it easy to verify? Yes.

And while the professional public is worried about whether 300,000 tons of sulfuric acid will be discharged directly into the river - and sulfuric acid is used to produce sulfate, so why would anyone release acid into the river - no one cares about that motor oil from the beginning.

Why? Well they are either not experts or they are populists. Choose for yourself.

### **Opening of the Čukaru Peka mine in the wake of eco-activism**

What definitely awaits us as an ecological spectacle is the opening of the Čukaru Peka mine near Bor, as well as the expansion of the mine near Krivelj, also near Bor, but on the other hand.

All technical and technological parameters show that the pollution will be much higher, and that measures to prevent it will be much less, even in accordance with the environmental agreements and norms to which we have committed ourselves and which have been implemented in our legislation. (Best Available Techniques (BAT) Reference Document for the Management of Waste from Extractive Industries in accordance with Directive 2006/21 / EC).

### **Differences between the Čukaru Peki and Jadar projects**

For the Čukaru Peki project:

There is no description of previous work on the project;

There is no description of the facility, planned production process or activities, their technological and other characteristics;

There is no presentation of the type and amount of energy and energy required, water, raw materials, materials needed for construction, etc .;

There is no presentation of the type and amount of emitted gases, water, and other liquid and gaseous waste materials, observed by technological units including air emissions, discharges into surface and groundwater recipients, landfilling, noise, vibration, heat, radiation (ionizing and non-ionizing), etc .;

There is no presentation of treatment technology (processing, recycling, disposal, etc.) of all types of waste materials;

There is no presentation of the environmental impact of the selected and other considered technological solutions.

In the case of the Jadar project, all these projects either exist or are in the development phase. And no, at Čukaru Peki in this phase of the project can not be in the development phase, they had to be completed by now)

### **What are the relationships of what can be compared to these two projects?**

Čukaru Peki opens in October this year and Zijin has been operating for some time without permits, Rio Tinto will open in 2026.

At Čukaru Peki, excavation of 3.3 million tons a year is planned, while at Rio Tinto half of that.

Rio Tinto is planning a railway track and widening of roads, the Chinese in Čukaru Peki are not planning, at least according to currently available data, nor the expansion of local rural roads that can only reach the mine, which will make life completely impossible for the local population.

The area now occupied by the Čukaru Peki mine is three times bigger than Rio Tinto, the zone of influence is about five times bigger, I can't even recount the part for biodiversity,

but it sounds much worse than in Jadro, although academician Stevanović did not find it appropriate to address it. There will be twice as many felled forests as in the Jadra valley, and prof. Ratko Ristic also did not announce.

Also, the main argument of Professor Ristic that new industries should not be built in areas where previous industries significantly polluted the environment (Viskoza Loznica), does not seem to apply to the Bor region, which is one of the most environmentally critical points on the planet.

As the old technology with flotation and flotation tailings is planned in Čukar Peka, it will significantly change the appearance of the landscape, regardless of the fact that there is no data on the characterization of mining waste and landfill class according to the Decree on conditions and procedure for issuing waste management permits. There are no data on the criteria, characterization, classification and reporting of mining waste. Also, a permit for mining waste management has not been obtained for the Čukaru Peka mine, who cares.

### **What is the impact on the environment**

What sets projects apart the most are emissions to air, water and land.

According to the project, Rio Tint envisages the best available techniques everywhere - without that, an integrated permit cannot be obtained - while with Zija, practically nothing is foreseen.

It is important to emphasize that the Chukaru Peki project, as well as some other projects owned by Chinese companies, have been declared projects of national importance, and since then they have practically behaved like a state within a state. It is impossible to obtain data of public importance, but from the existing data it is clear that the impact on the environment is not the most important item in the design.

Another important difference is the content of arsenic in the ore. Jadarit is 119 ppm, while in the case of copper ore in Čukar it is 1285 ppm.

Rio Tinto has predicted water purification before discharge in several stages with double reverse osmosis, ultrafiltration, nanofiltration, ion exchange and finally mineralization, while at Čukara Peka they envisage deposition and neutralization which in both cases do not remove arsenic.

Such a method, typical of flotation and flotation tailings, results in increased concentrations of heavy metals in tailings - virtually no wastewater treatment - and additionally characteristic of the ore composition in the Bor region is the pyrite content that leads to acidification of tailings that leach into aboveground and underground water, which is why there is no life in the rivers of Bor. We can see the danger of non-removal of arsenic from effluent - which is the most dangerous for a long time due to its cumulative and

carcinogenic effect - from the example of the Stolice mine tailings accident. The ore composition in Čukar Peka has a higher arsenic content than the Stolice mine, and this one has a higher arsenic content than the Rio Tinto mine. After the floods of 2014, the content of arsenic in the rivers downstream from the tailings of the Stolice mine was measured and the results can be seen in the tables.

I believe that it should be clear to eminent experts and activists that if this kind of technology passes in Čukar Peka, Rio Tinto will not even have to install water purification equipment under the threat of a lawsuit to international courts for double standards. Well they are either not experts or they are populists. Choose for yourself.

Source: ekologika.rs