

## Is Serbian lithium necessary for the green transition and is there a possibility for it to stay in the ground?

Jadarite – is a lithium-sodium borosilicate in its composition. When it was first discovered at the end of 2004, in Serbia near Loznica, it was not completely known how important it would become for humanity in the near future. The plot begins at the moment when a large company interferes in the lives of the inhabitants of the Loznica area. Attracted by the newly discovered treasure in the form of abundant jadarite ore, which is rich in lithium and boron, the company “Rio Tinto” starts planning the exploitation of this strategically important ore. In the green transition, lithium will become as important as oil at the moment, because it is necessary for the production of batteries, which are the basis for a complete transition to renewable energy sources. Batteries are necessary because they have proven to be the best means of storing energy so far, because it will happen that there is no sun and the wind does not blow, and yet people still need energy. In addition, the transition to more sustainable transport and hybrid cars is based on increasing the production of lithium batteries.

Serbia had the good fortune and misfortune that close to ten percent of the lithium reserves explored so far lie along the right bank of the Drina, following the course of the river Jadar, after which the mineral itself got its name. Happiness is reflected in the fact that if used properly, this resource can contribute to the rapid development of this area, and the whole country. While the misfortune is that this development and growth of standards – if any – will be paid for by the permanent destruction of the environment.

The company “Rio Tinto”, which claims the right to exploit Jadarite ore during 2020, has completed geological research of Jadarite deposits and is now in the phase of preparing a Feasibility Study, which it expects to be completed by 2021. After that, the construction of an underground mine is planned, from which the final products in the form of boric acid, lithium carbonate and sodium sulfate would be obtained after processing. The entire narrative of the company “Rio Tinto” is accompanied by alleged concern for the environment as well as local communities, with announcements that the best and least harmful methods will be used, and that local residents do not have to worry about any pollution.

Local activists who oppose this project believe that not everything is as fabulous as the company “Rio Tinto” represents and that the extraction of jadarite can exhaust the strength of the fertile land in Podrinje. So far, several protests have been held to draw attention to the non-transparency of the entire process. Activists warn that, despite Rio Tinto boasting of involving the local community, this is not happening. A major concern of both local activists and environmental organizations is the potential extent of pollution. With all the worries about environmental degradation, there was also doubt about the economic benefits of the

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project.

Serbia currently has one of the lowest ore rents in Europe, and according to the budget of the Podrinje anti-corruption team, “Rio Tinto” would take out about four billion euros from the country for the first ten years of exploitation, and Serbia could conditionally have three hundred million euros. Prime Minister Ana Brnabić stated that lithium will not be exported as a raw material, and that Serbia will produce semi-finished or final lithium products. However, apart from these words of the Prime Minister, there are no plans to build plants in which raw lithium and boron ores would be converted into finished products and thus added value.

As neither the local population nor the company “Rio Tinto” in this fight over whether to sail to be exploited or to stay in the country do not give up their demands, it seems that we still have an epic fight over the fate of this valuable mineral. Of course, no one wants to open a mine next to his house or in the area where he lives.

But if we are guided by a development paradigm that predicts a green transition to low-carbon development, this ore must be extracted somewhere. If mines are not mined in Serbia, mines will be mined in Bolivia, Argentina or Chile, where local communities will also be affected.

It is predicted that the needs for lithium will grow very quickly, and that in 2030 it will be more than five times higher than during 2020. The growing demand for lithium will be accompanied by additional pressure to open new mines and increase production in existing ones. How then to deal with such predictions. If it is already known that lithium is a strategic resource of the future, the state of Serbia should take on the role of a superhero and should not leave this resource to a private company that will have a monopoly over its production. Serbia could emulate Bolivia, which has placed the production of lithium under its authority, and thus secured control and profit from the mining of this mineral.

The state should establish a public company under the direct control of the citizens, which would take care of this resource. In the case of mining, the state should be responsible to its citizens to provide the best available technologies and to remediate pollution, which in such nature-extensive processes cannot be avoided no matter what technologies are used. This would keep the profit from the production of this ore in public ownership, and not just a small part of the ore rent, as is the current practice.

In addition to the mines, the state should also ensure the opening of a lithium processing plant in which finished products in the form of lithium batteries would be obtained. And why not think further, so that a factory of hybrid cars can be opened in Serbia in the foreseeable future. This would ensure the long-term development of not only the Loznica region but also

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the much wider region. Unfortunately, the precondition for this type of development is that there is a state ready to work in the interest of its citizens, and not to finance someone else's energy transition and its own environmental degradation.

In addition, such development requires a change in the development paradigm and the abandonment of foreign direct investment as the "engine" of development and the assumption of a much greater role of the state. For now, these things are not happening, but it is important to emphasize that different models exist, only the political will is needed to implement them. Yet just as kryptonite is harmless to ordinary people in the short term and deadly in the long run, this type of development would bring ecological degradation in the long run, but it could increase equality in society.

### **An alternative vision of development - to keep lithium in the ground**

Exploitation of lithium is possible not only in the vicinity of Loznica but also in the vicinity of Valjevo. Perhaps it would be best for him to stay in the ground, which would prevent the problems that his exploitation leads to. Such an endeavor requires a paradigm shift at all levels from local, national to global. In order for lithium to remain in the country, it is necessary to stop the constant race for the growth of material and energy consumption, even if it is supposedly green. The greenest products and energy are those that do not have to be produced. For something like this to happen, a socio-ecological transformation is needed towards a society that will spend less, but fairer and more efficiently. We need to ask ourselves whether the constant increase in production and consumption brings us happiness, or whether it is hidden in other things. The pandemic has shown us that we can live with less use of resources and energy, and that we need to invest in some other things that are less materially intensive and contribute to the quality of life of more people, such as public health, education and care.

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