

Europe wants to be the first continent to become climate neutral by 2050<sup>1</sup> and the leader in ensuring that all of the world's ecosystems are restored, resilient and adequately protected by 2050<sup>2</sup>. The European Union has declared its ambition to halt, and as much as possible reverse, the pressure humans put on the planet's resources, ecosystems, climate and biodiversity. However, as the green agenda to reach these ambitions becomes more defined, it reveals that despite the long-term goal of reducing the demand for resources and fossil fuel consumption, Europe plans to continue its exploitative model of mining raw materials in the EU and around the world. The European Commission introduced the European Green Deal in December 2019 as a way to turn the urgent climate challenge into a unique opportunity for the transformation of the economic and societal system. The sourcing and production of raw materials were included in the Green Deal:

Access to resources is also a strategic security question for Europe's ambition to deliver the Green Deal. Ensuring the supply of sustainable raw materials, in particular of critical raw materials necessary for clean technologies, digital, space and defence applications, by diversifying supply from both primary and secondary sources, is therefore one of the prerequisites to make this transition happen.

Although this excerpt from the Commission's communication on the Green Deal emphasises sustainability, it also introduces a key tension between that sustainability and security. Which will be prioritised? Will Europe try to solve the climate crisis by exacerbating the biodiversity, resource and poverty crises, or will the new EU policies stemming from the Green Deal manage to propose a holistic approach to all of these? Who will make use of this transition opportunity, and will it benefit only European citizens, or will other societies also benefit?

EU decision makers have advanced the furthest on reaching their climate neutrality target, and swiftly-implemented changes to infrastructure such as smart grids, energy storage systems and e-mobility have already increased the demand for raw materials. The Commission has given itself until 2025 to make a plan to clean up the industry's supply chains. We welcome the increasing confidence in the feasibility of Europe's decarbonisation, but we are greatly concerned about the lack of safeguards which would make this decarbonisation truly sustainable. Very little has been done so far to ensure that, to paraphrase the narrative of the Commission, no one will be left behind.

CEE Bankwatch Network, along with its members and partners, has been monitoring investments in raw materials mining backed by public funds in the EU and around the world for years. This work has shown that despite the EU's stated ambitions when it comes to changing the energy paradigm or reversing biodiversity loss, there's still a lot to be done to

stop harmful practices in the mining sector, especially in cases where such practices are supported by the EU taxpayers.

The European Commission's agenda is sound, but to be effective it has to counterbalance the procurement of the raw materials indispensable for the green and digital revolution with safeguards for the people affected by raw materials mining and for the nature destroyed by the overwhelming pressure for cheap and fast exploitation. Therefore, the Commission must be even more ambitious and incorporate policies that ensure the use of less-exploitative and toxic-safe technologies; the restoration of the old mining sites; strict environmental, social and human rights due diligence for mining projects; and finally, the right for the communities affected by the mines and surrounding facilities to have a say. The EU cannot attempt to overcome the climate crisis at the expense of local communities, workers' rights and biodiversity, especially in the face of the COVID-19-induced economic and social crisis. It would be a raw deal, one experienced too often in the past, which should finally be left far behind.

### **The European Green Deal: impossible without raw materials**

Despite both the scientific consensus regarding the massive destruction to the planet caused by the current economic paradigm and the high-level attempts to address its effects, be it the SDGs agenda, the Paris Agreement or ambitions to reverse biodiversity loss, the global consumption of biomass, fossil fuels, metals and minerals is expected to double in the next 40 years<sup>4</sup> and annual waste generation is projected to increase 70% by 2050<sup>5</sup>. In 2019, the European Commission launched several strategic documents to align the European economy with the Paris climate agreement targets and the SDGs. One of them was the European Green Deal - the EU's growth strategy - which is aimed at positioning Europe to become the world's first climate-neutral continent by 2050 and to decouple economic growth from resource use. To ensure that the economy will actually give back to nature more than it takes away, the Green Deal requires a new policy framework.

The EU Industrial Strategy, presented in March 2020, identifies the main tool of the green agenda: digitalisation. Digital technologies such as artificial intelligence, 5G, cloud and edge computing and the Internet of things are indispensable for climate solutions - be it electric transport, smart houses or remote working. Digitalisation sounds like a clean, almost utopic, solution, but in reality, making the EU digital requires the rather dirty mining of gold, copper, lithium and other metals, as well as smelters for those metals and a complex, non-transparent information and communication technology (ICT) supply chain.

The EU's new Circular Economy Action Plan aims at accelerating the transformational

change required by the European Green Deal. The Plan lists key products' supply chains, among them the supply chain for electronics and ICT. This industry is tackled in the Plan as waste-producing only; however, it has a very non-transparent and heavily impactful supply chain, starting with the raw material mines, and stretching to smelters and complicated manufacturing networks. With an expected annual growth of 9.6% by 2022, the ICT sector is one of the fastest-growing industries. Currently, the sourcing of the raw materials used in ICT is almost impossible to trace, and it is increasingly obvious that raw materials mining is associated with human rights abuses, socio-ecological conflicts and violations of labour rights and standards.

### **The untraceable ICT supply chain**

The official supply chain data published by global brands such as Apple, Dell, HP and Samsung shows the full lists of smelters and refineries used by these companies. But that's where the very limited transparency of the big brands' supply chains ends. They claim that they are not able to determine the sources of the raw materials refined in the smelters which are part of their supply chain. In its Conflict Minerals Report, Apple claims: Apple conducts robust due diligence on the source and chain of custody of 3TG in its global supply chain but does not directly purchase or procure raw minerals from mine sites... The challenges of tracking specific mineral quantities through the supply chain continue to impede the traceability of any specific mineral shipment through the entire product manufacturing process.

Similarly, Dell in its Responsible Minerals Sourcing Report says: Dell supports, respects and upholds the internationally-recognised human rights of all people, including all internal team members and those in our supply chain. Ensuring the responsible sourcing of minerals is also part of this global approach. Although we do not use minerals in their raw form or purchase them directly from mining companies or smelters, we engage our supply chain to perform due diligence.

Among the smelters mentioned in the official lists published by the world's leading ICT brands, there were four situated in Kazakhstan. CEE Bankwatch Network, in cooperation with a Kazakh journalist, attempted to trace the connections between the global brands and mines in Kazakhstan providing the raw materials for ICT. In the course of the investigation, connections between three mines and the smelters used by global ICT brands were uncovered and mapped, but it was ultimately not possible to provide proof of these connections. This exercise confirmed an open secret: this part of the supply chain is the blind spot of the whole industry. It is of utmost importance to make the ICT supply chain

fully transparent, in part to ensure that the electronic products, one of the foundations of the new EU green and digital approach, are not connected with conflicts, human rights abuses or environmental destruction.

Global brands underline their financial support for different kinds of initiatives aimed at better understanding the impact of the industry on the lives of people working and living in mining communities. They also support whistle-blower initiatives to empower independent, local voices to raise issues and report incidents at the mine-site level. But until the ICT supply chain is fully traceable, this support will only be a corporate social responsibility exercise without the companies taking real responsibility for the impact of their business.

### **The Critical Raw Materials Resilience of the EU: at odds with sustainability**

Raw materials mining is associated with risks concerning human rights abuses, socio-ecological conflicts and violations of labour conditions. Many rare metals are located in countries with risky political contexts: tin, tungsten, tantalum and gold are often referred to as conflict minerals, the extraction of which has been fuelling war in the Democratic Republic of the Congo for several years. In September 2020, the Commission launched a communication<sup>10</sup> regarding the Critical Raw Materials Resilience of the EU. It indicates that 'resilience' for the EU simply means securing raw materials' supply by negotiating trade agreements or seeking to eliminate trade distortions. EU demand for these minerals is projected to increase, but concrete measures to address the human rights and environmental concerns about mining and the mineral supply chain have not been addressed. A foresight Study on Critical Raw Materials for Strategic Technologies and Sectors in the EU published together with the communication gives the critical raw materials outlook for 2030 and 2050 for strategic technologies and sectors.

For electric vehicle batteries and energy storage, the EU would need up to 18 times more lithium and 5 times more cobalt in 2030, and almost 60 times more lithium and 15 times more cobalt in 2050, compared to the current supply to the whole EU economy. If not addressed, this increase in demand may lead to supply issues.

Mines that are currently under exploration or already operating show the wide range of impacts mining can have on the environment and people, which cannot be neglected in the race to secure the supply of minerals. In response to the strategic directions proposed by the Commission at the Raw Materials Initiative, namely to 'accelerate and facilitate procedures' for the approval of mining projects in the EU and its neighbours, such as Norway, Ukraine and the Western Balkans, as well as in partnerships with countries in Africa and Latin America, it is crucial to underline why rapid approval for such projects is a

dangerous idea.

### **Case 1: Strategic copper mine in Serbia violates property rights and environmental standards**

Zijin Mining Group's takeover of the Bor Mining Complex shows the dangers that pursuing mining projects in countries with weak rule of law poses for individuals' right to property and a clean, safe and healthy environment.

Located in eastern Serbia, Bor is home to one of the largest copper reserves in the country and in the world. The Chinese company Zijin Mining Group, as a strategic partner of the Serbian government, planned to produce 55,000 tonnes of copper concentrate and 90,000 of copper cathode in 2020. One of the most contentious mines is Veliki Krivelj, an existing open cast mine located in a village of the same name, about 10 kilometres from Bor.

In the last decade, Serbian mining and spatial planning legislation has increasingly enabled the Government of Serbia to issue some of the necessary permits for 'preparatory works for opening of exploitation of mines' without requiring an environmental impact assessment (EIA) or the consent of local communities, both of which are required before issuing exploitation permits. This has led to the direct and systemic violation of the rights of the population to say no to any mining operation. As such, a temporary permit allows for serious exploitation works, and it has become very hard to stop the commissioning of the mine.

At the Cerovo mine, near Veliki Krivelj, a Chinese company forcibly took the property of five inhabitants and opened the mine without a permit, a developed spatial plan or an EIA for that plan. The expansion of Veliki Krivelj, even with its enormous future potential, is one of the most problematic mine expansions in Serbia. One of the most important questions is how to protect the Timok River, where inflows from the Kriveljska and Borska Rivers carry pollution from the mines, smelters, flotations and other polluting sources in the mining complex. Kriveljska and Borska are among the most polluted rivers in Europe. Serbian legislation requires that a special spatial plan for specific aims is developed prior to the expansion of any mine. Development of this plan for the mining complex in Bor and Majdanpek started in 2020. But in 2019 and 2020, Zijin had already started attempts to obtain the properties necessary for the extension of Veliki Krivelj. It has thus far only proposed buying those properties that are a few meters from the mine. However, if the mine is expanded as proposed, more than 300 households will be located in the heart of the mining operations - surrounded by constant explosions, vibrations from mine equipment, large trucks and dust from mining and transport. Houses and other structures in the village have already been damaged by mining operations in 2018 and 2019.

In 2020, villagers from Veliki Krivelj, Ostrelj and Slatina held several meetings with the representatives of Zijin, the Government of Serbia and the Serbian President's office. They repeatedly asked the same questions: who will protect them from the negative effects of mining, who will protect their properties, and why doesn't Zijin pay the regular market price for the properties?

Residents of the village of Krivelj also held a protest where they demanded the relocation of all 400 households of their village. Speakers stated that it is already impossible to live in villages around the mines, and they cannot imagine what it will be like when new mines will open. A representative of the communal council of Krivelj, Mr Dalibor Stanković, stated: 'Many houses have cracks on the walls and foundations, and some roofs collapsed, dust covers the village on three sides, while the river is polluted with acidic mine waters.'

In 2020, citizens of Bor also protested against excessive pollution, which they claim has intensified since Zijin became the mine's owner. In fall 2020, Bor's municipal administration filed a criminal complaint against the managers of the Zijin for causing excessive sulfur dioxide pollution that is harmful to the health of the population. The Environmental Protection Agency's (SEPA) measuring stations had recorded excessive sulfur dioxide pollution in Bor for three consecutive days, and there have been similar levels of pollution almost every day for nearly two years since Serbia sold Bor Smelting Company to Zijin. The level of sulphur dioxide in the air allowed by law is 350 micrograms per cubic metre, but on some days, average values in Bor reached 1,969 micrograms several times during the day. The conclusion was that the air is 'very polluted' and residents were advised against leaving their homes. The air is also 'heavily polluted' by PM10 particles.

In September 2020, Zijin's smelter temporarily halted operations due to the excessive air pollution. The results of a pilot study conducted by the SEPA about the impact of industrial pollution on the health of the population in Bor, published by the Institute of Public Health of Serbia Dr Milan Jovanović Batut, show that the city's residents are at a significantly greater risk of disease and death from cancer, and there is a higher risk of premature death from other diseases. Arsenic pollution in Bor increased by 323 times in August 2020. In October 2020, the Commercial Court in Zaječar ruled that the company Zijin Bor and one of its managers are responsible for the pollution in Bor in November 2019 and January 2020. The verdict is not final, because both parties have filed appeals - the last word will be given by the Commercial Court of Appeals in Belgrade.

Despite this ruling, the fine that Zijin will need to pay (about EUR 4 000) will be so small that it is expected that the company will continue to pollute. Thus, in Serbia, private and public mining companies are able to open mines without resolutions on property rights

disputes, EIAs for mines or exploitation permits. Such cases have occurred and are ongoing not only at Bor's copper mines, but also at the Kolubara and Kostolac coal mines and Vojvodina's oil extraction fields.

### **Case 2 Labour rights abuses in Bulgaria's mining and metallurgy sector**

Workers identified several serious violations of labour rights guarantees, demonstrating a lack of implementation and oversight of labour laws in the EU's own mining sector. Bulgaria is the third largest copper and fourth largest gold producer in Europe. According to the official data, about 25,000 workers are employed in the mining sector (which includes coal, oil and gas; non-ferrous metals; and construction materials), representing some 5% of Bulgaria's GDP.

However, the testimonies of people employed in the mining and metallurgy companies in the Bulgarian Panagyurishte region reveal the problems with labour conditions in the gold and copper supply chains. A survey conducted in November 2019 included 61 interviews conducted with both workers and local residents. The interviewed workers were employed by Asarel Medet AD, which operates an open-pit copper mine and a gold mine; Aurubis Bulgaria AD, which operates smelters that produce copper, gold, other rare metals and sulphuric acid; and Chelopech Mining EAD, which operates an underground copper mine and a gold mine. Chelopech received support from the European Bank for Reconstruction and Development in 2005 and 2008. Core issues identified by the research include the lack of equal treatment of workers employed directly and indirectly, lack of independent trade unions, precarious and low-pay working conditions, intimidation and silencing of critics, and the negative health impact on workers and the local communities.

### **Case 3 Transfer of toxic mining waste materials from Bulgaria to Namibia**

The disposal plan for arsenic waste from the Chelopech mine violates the international convention on waste disposal, showing how the procurement of raw materials at the expense of human health and environmental protection can have severe consequences. Canadian company Dundee Precious Metals has used continuous loans from the European Bank for Reconstruction and Development (EBRD) to improve the profitability and performance of its copper and gold mining operations in Bulgaria. Arsenic content in the precious metal concentrates is one of the main environmental and health issues connected to the operations. The company failed to ensure the extraction, stabilisation and safe deposit of the arsenic in Bulgaria and instead the concentrate with arsenic is exported to Namibia. The primary saleable product of Chelopech is a gold-copper concentrate containing, on

average, 5.5% arsenic.

After the tailing dam of the nearby smelter collapsed in 1988 and because of the relatively high arsenic content of the concentrates, in 1990 the Bulgarian government issued a decree that Chelopech concentrate could no longer be treated in Bulgaria, unless arsenic capturing and treatment facilities were installed at the smelter. For this reason, the arsenic is transported by sea to the Tsumeb smelter in Namibia. The annual processed ore in the Chelopech gold mine has increased from around 0.5 million tons in 2004 to above 2 million tons in 2019.

By the final year of the mine, which is projected to be 2025, around 100,000 tons of arsenic will be extracted, processed, stored and/or released in some form elsewhere around the world. Dundee applied for the approval of cyanide leaching technology, claiming that this would also ensure the capture and stabilisation of the arsenic residue, but with no success. In addition, the project's EIA and permit, which were respectively approved and issued by the relevant ministry, were ultimately rejected by the Bulgarian Administrative Court in 2010 due to significant deficiencies. Under the threat of not being able to process the concentrate, Dundee acquired the Tsumeb smelter in 2010.

The Tsumeb smelter in Namibia was constructed in the early 1960's and is one of the few smelters in the world equipped to treat complex concentrates as its primary feed. Behind the neutral term 'complex concentrate' lies the fact that complex concentrates have high levels of one or more deleterious elements, such as arsenic, uranium, cadmium or mercury. Smelters that will currently accept complex concentrates include Tsumeb in Namibia, Altonorte in Chile, Guixi in China and Horne in Canada. For complex concentrates that contain more than one per cent arsenic, the DPM smelter in Namibia at Tsumeb is now the only smelting option.

Source: [bankwatch.org](http://bankwatch.org)