Business & Human Rights Resource Centre

Accelerated demand: Human rights in Eastern Europe and Central Asia's transition mineral boom

2025 ANALYSIS

Contents

Executive summary

Eastern Europe and Central Asia (EECA) is in the midst of a mineral boom. As demand grows for the wide range of minerals needed to power the urgent transition to clean energy – from EV batteries to renewable technology – the region's vast mineral deposits are increasingly a focal point for the EU and US markets, particularly as buyers seek to build diversified, resilient supply chains in a global context of geopolitical disruption and instability. In the absence of appropriate regulation and without the requisite respect for human rights, this increase in demand will inevitably exacerbate conflicts and fuel protests by workers and communities, as well as attacks against human rights defenders (HRDs) opposing mining projects deemed harmful to people and the environment.

Our 2025 analysis of the impacts of transition minerals in Eastern Europe and Central Asia reveals an alarming rise in human rights and environmental abuses associated with the exploration, extraction and processing of these minerals. Compared to the annual average over the previous five years (2019–2023), documented abuses in 2024 have increased by more than threefold.

We identified **270 allegations** of abuse associated with the mining project development, extraction and processing (smelting and refining) of **19 minerals*** in **13 countries**: Albania, Armenia, Bosnia and Herzegovina, Georgia, Kazakhstan, Kosovo, Kyrgyzstan, Montenegro, Russia, Serbia, Tajikistan, Ukraine and Uzbekistan.

The 2024 data shows that the three core principles of a just energy transition – shared prosperity, respect for human rights and social protection, and fair negotiations – remain absent in EECA's transition mineral industry. A just energy transition is only possible when mining projects respect and uphold human rights. To make this a reality, states should adopt robust legislation and avoid entering into partnerships lacking adequate corporate accountability mechanisms. Companies must uphold human rights throughout their operations and supply chains. In doing so, they must engage with workers, local communities and grassroots organisations to ensure their voices are heard and their rights respected.

* Aluminium/Bauxite, Antimony, Chromium, Cobalt, Copper, Graphite, Iron, Lead, Lithium, Manganese, Molybdenum, Nickel, Platinum, Rare earth, Silver, Tin, Titanium, Uranium, Zinc

Key findings

Ukraine, **Kazakhstan** and **Serbia**
recorded more allegations of abuse in 2024
than during the previous five years combined.

77 (29%)

Copper was associated with the highest number of allegations, accounting for 29% of all recorded cases. Alleged abuses linked to copper were recorded in eight countries.

135 (50%)

Half of allegations involved impacts on **workers**.

114 (42%)

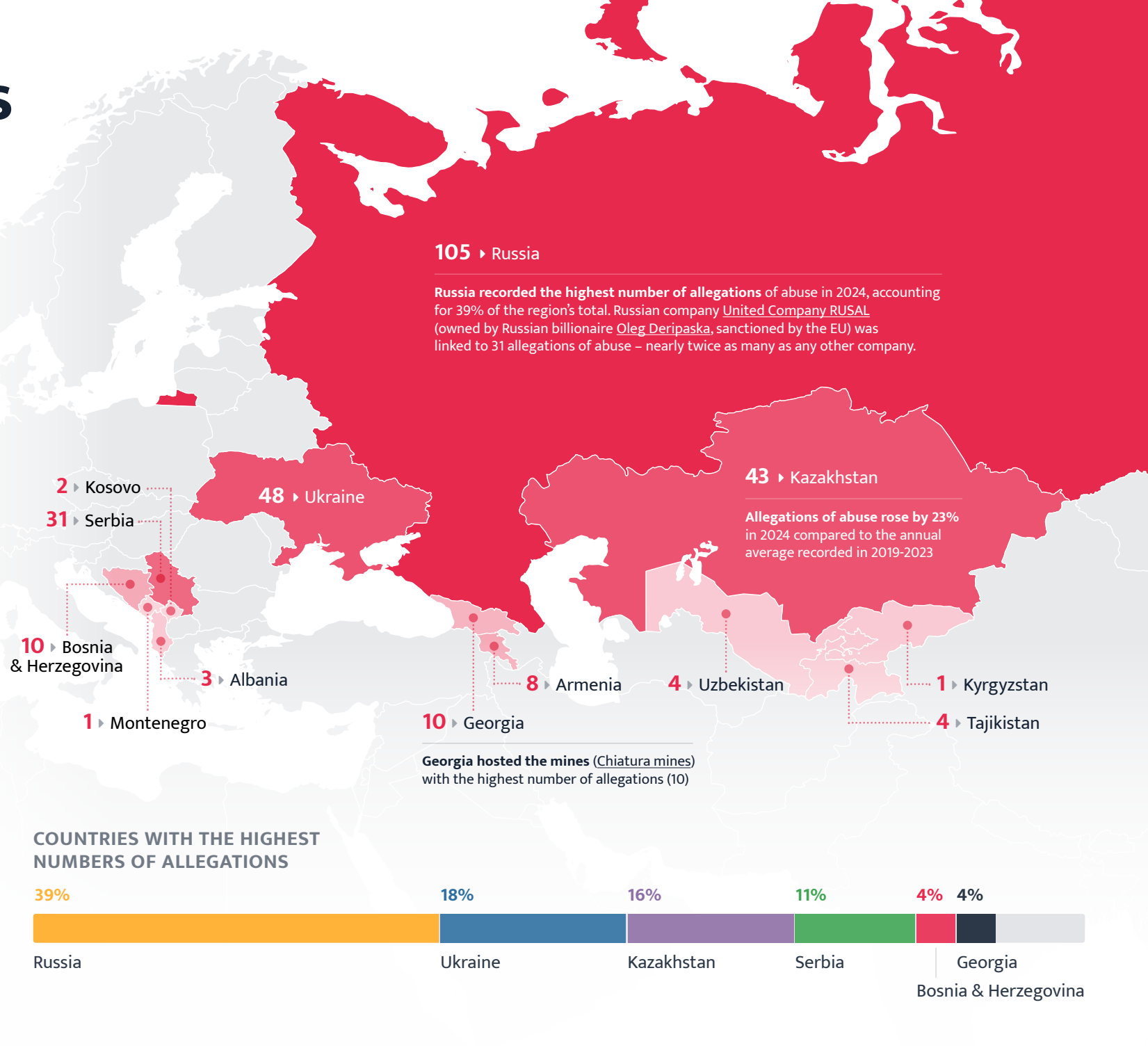
42% of allegations related to **impacts on local communities**.

115 (85%)

Occupational health and safety violations accounted for 85% of all issues experienced by workers, followed by workplace deaths (47 or 35%) and personal health issues (30 or 22%). Half of workplace deaths recorded (23) took place in Russia and over a quarter (14) in Kazakhstan.

33 (12%)

Protests by communities, workers and HRDs against mining projects were recorded in 33 cases – more than double in the annual average recorded in 2019–2023. Protests were recorded in seven of 13 countries – Bosnia and Herzegovina, Georgia, Kazakhstan, Kosovo, Montenegro, Russia and Serbia.



COUNTRIES WITH THE HIGHEST NUMBERS OF ALLEGATIONS

Methodology

For this research, we applied the same methodology as in our previous analysis covering the years 2019–2023, available in Annex. All allegations of abuse can be explored here.

The 2024 findings reveal two key differences:

- **Geography of abuses** – Allegations were found in 13 countries, compared to 16 in the previous study.
- **Scope of minerals** – Allegations were linked to 19 minerals, whereas the previous study covered 20 minerals. No reported allegations were linked to beryllium in 2024.

The inclusion of companies in this report is not to be understood in all cases as meaning that a finding of guilt or liability has been made against them by an investigative or judicial authority. Companies referred to in this report were invited to comment on allegations of abuse. The replies received from companies which responded can be found here.

Context

Demand for transition minerals is rapidly growing in EECA. The European Union (EU) is strengthening its engagement with EECA countries through two distinct but complementary initiatives: the Global Gateway strategy and the Strategic Partnerships on Critical Raw Materials. The EU has so far signed strategic partnerships on critical raw materials with four EECA countries – Ukraine, Kazakhstan, Uzbekistan and Serbia – and is currently exploring opportunities to establish similar partnerships with other resource-rich nations in the region.

A lot of critical raw materials the EU needs for its energy transition are in Central Asia. According to the European Institute for Asian Studies, Kazakhstan is currently producing 19 of the EU's 34 critical raw materials and is planning to expand to 21. In March 2025, the EU signed a EUR 3 million contract with five Central Asian countries – Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan and Turkmenistan – under its Global Gateway strategy to boost cooperation between the EU and Central Asia in the critical raw materials area.

During his visit in March 2025, European Commissioner for International Partnerships Jozef Síkela toured the Almalyk Mining and Metallurgical Complex in Uzbekistan to assess opportunities for resource development and investment. The facility exemplifies the challenges which must be overcome for a just transition in the region: in the first six months of 2024 alone, inspections by Uzbek authorities uncovered 728 violations of safety regulations at Almalyk MMC plants. Our previous research also found that between 2019 and 2021, 32 workplace accidents occurred at the complex, resulting in five fatalities.

In April 2025, the first EU-Central Asia Summit took place, reaffirming the commitment to deepening ties and enhancing cooperation on key issues such as sustainable raw materials. At the Summit, the EU and five Central Asian countries, which are part of the EU's Global Gateway initiative, endorsed a Declaration of Intent confirming the commitment to deepen cooperation on critical raw materials.

The pursuit of transition minerals in the region is further driven by the US Administration. On 30 April 2025, the US and Ukraine signed a deal that will give Washington preferential access to 57 mineral resources, including transition minerals like aluminum, beryllium, cobalt, copper, lithium, manganese, nickel, uranium, zinc and rare earth elements, among others. The implementation of this agreement remains uncertain, however, due to Russia's ongoing massive air strikes that affect the entire territory of Ukraine and the fact that significant parts of Ukraine's mineral-rich regions are either under Russian occupation or located within active conflict zones. The US has also started talks with Russia on joint rare earth metals projects: Russian President Vladimir Putin said he is open to offering the US access to rare minerals, including from Russian-occupied Ukraine. These discussions blatantly violate international human rights standards and send the wrong message to the aggressor state, effectively legitimising its actions and encouraging further aggression and unlawful occupation of Ukrainian territory.

Our 2024 data shows that abuses linked to the exploration, mining and processing of transition minerals have more than tripled compared to the 2019–2023 period. With demand for these minerals continuing to grow, and without further attention to existing gaps in the corporate accountability frameworks in these countries and at the EU level, the rise in abuses across EECA is likely to accelerate further.

ALLEGATIONS TRACKER:

Our findings

We tracked public allegations of environmental and human rights abuses that were reported in 2024 and linked to mining project development, extraction and processing (smelting and refining) of transition minerals in EECA. We identified **270 allegations** linked to **19 transition minerals** in **13 countries** in 2024: Albania, Armenia, Bosnia and Herzegovina, Georgia, Kazakhstan, Kosovo, Kyrgyzstan, Montenegro, Russia, Serbia, Tajikistan, Ukraine and Uzbekistan.

Geography of abuses

We researched **23 EECA countries** and identified alleged abuses in **13 of them**. The highest numbers of allegations were recorded in **Russia** (105), followed by **Ukraine** (48), **Kazakhstan** (43), **Serbia** (31), **Bosnia and Herzegovina** (10), and **Georgia** (10).

- **Russia** accounted for 39% of all allegations. Half (53) of these allegations were linked to occupational health and safety, including 22 workplace deaths and 18 injuries. The second highest number of allegations recorded in **Russia** is related to violations of environmental safety standards (31), including air, water and soil pollution.
- In **Ukraine**, the percentage of allegations linked to occupational health and safety was even higher than in Russia and accounted for 56% (27) of all allegations in the country. Most of these cases were linked to occupational diseases developed due to harmful working conditions.
- In **Kazakhstan**, occupational health and safety was also the top issue associated with allegations. It accounted for 51% (22) of all allegations, including 14 cases of workplace deaths and seven cases of workplace injuries.
- In **Serbia**, protests against mining projects were the most frequently cited issue, accounting for 26% of all allegations (10 cases).
- In **Bosnia and Herzegovina**, the highest number of allegations (3) was associated with water pollution.
- Finally, the top issue in **Georgia** was freedom of assembly, with all ten allegations linked to it.

The growing demand for transition minerals in the region appeared to be contributing to a significant increase in human rights and environmental allegations in 2024, compared to the previous five years (2019-2023). In some countries – such as Ukraine, Kazakhstan, and Serbia – the number of allegations in 2024 alone exceeded the total recorded over the previous five years. The most alarming trend is observed in Kazakhstan, where allegations have increased by 23% in 2024 compared to the 2019-2023 period.

Types of abuse

Workers and **communities** were most frequently affected: half (135) of all allegations were associated with workers and 42% (114) related to issues impacting communities.

Occupational health and safety violations accounted for 85% of all issues experienced by workers. **Workplace deaths** were associated with 35% of allegations affecting workers and were followed by **personal health issues** (22%), which mostly included occupational diseases resulting from harmful working conditions, and **workplace injuries** (18%).

The previous report, covering 2019 to 2023, recorded 52 workplace deaths – an average of about 10 per year. This means the number of deaths increased nearly fivefold in 2024. Out of 47 cases of workplace deaths, half (23) took place in Russia and over a quarter (14) in Kazakhstan.

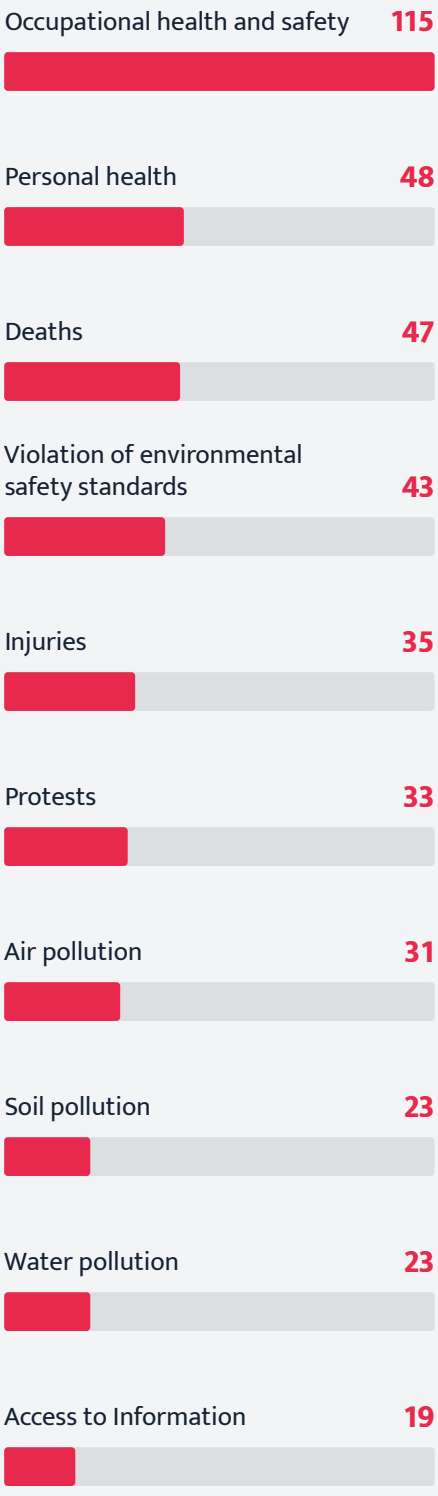
- In **Uzbekistan**, in the first six months of 2024, inspections conducted by authorities at state-owned Almalyk MMC plants found 728 violations of occupational safety and health requirements.

- In **Kazakhstan**, eight workers died in an accident caused by a sudden burst of flame from a furnace at Karaganda Ferroalloy Plant, owned by YDD Corporation.

- In **Russia**, JSC RUSAL Krasnoyarsk Aluminum Plant was ordered by court to pay 1.5 million rubles to a former worker diagnosed with lung cancer and bronchial asthma. According to Russia's Federal Service for the Oversight of Consumer Protection and Welfare, the illness resulted from the employer's violation of sanitary and epidemiological rules.

- In **Ukraine**, 41 former workers of Smolinska, Ingulska and Novokostiantynivska uranium mines owned by SE Eastern Mining & Processing Plant developed occupational diseases.

TOP 10 ENVIRONMENTAL AND HUMAN RIGHTS ISSUES



Each allegation can be associated with more than one issue. Figures represent the number of times an issue was recorded across 270 allegations.

Communities were mostly affected by **environmental abuses**. Violations of environmental safety standards accounted for 38% of all allegations affecting communities, followed by air pollution at 27%, and soil and water pollution at 20% each.

- In **Russia**, LLC Belaya Gora was fined 735,000 rubles for violating environmental safety standards, including the late submission of inaccurate information on discharge volumes to the regulatory authority.

- Residents of Achinsk, **Russia**, accused JSC Rusal Achinsk Alumina Refinery of causing air pollution after black snow covered the city. In the Russian town of Krasnoturyinsk, residents were forced to wash a thick white residue of unknown chemical composition off their cars, reportedly due to emissions from the Bogoslovsky Aluminium Smelter.

- In **Armenia**, local villagers have reported health problems they attribute to pollution from Nahatak tailings, owned by Akhtala Mining and Processing Plant. The pollution is said to affect 13 settlements with around 40,000 people.

- In **Serbia**, local farmers claimed that Zijin's mining operations diverted the flow of a major river, causing severe disruption to the irrigation of surrounding farmland.

Protests were linked to 12% (33 cases) of all allegations recorded in the region. In most cases, communities and HRDs were opposing mining operations over environmental and health concerns as well as adverse impacts on their livelihoods. Workers' protests were mostly related to underpaid/unpaid wages and poor working conditions. A more detailed overview of the protests can be found on page 16.

Allegations related to **access to information** mostly involved companies concealing details about the environmental impacts or pollution caused by their operations, with 53% of these allegations recorded in Russia.

- **Russia**'s environmental watchdog, Rosprirodnadzor, sanctioned several companies for providing inaccurate emissions data, including VSMPO-Avisma Corporation, JSC United Company RUSAL Ural Aluminum, JSC Gorevsky Mining and Processing Plant, OJSC Vysokogorsky GOK, and OJSC Nizhniy Tagil Metallurgical Plant.

- In **Kazakhstan**, an unscheduled inspection by authorities at Zarechnoye uranium mine revealed that the National Atomic Company Kazatomprom failed to report an accident that caused soil pollution.

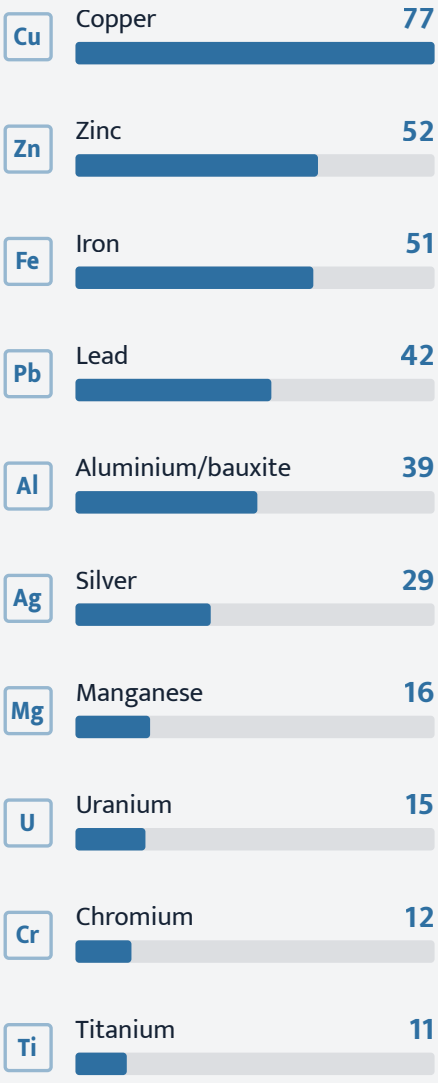
Allegations by mineral

As in the previous five years, **copper** was associated with the highest number of allegations (77), accounting for 29% of all recorded cases. It was followed by **zinc** (52), **iron** (51), **lead** (42), and **aluminium/bauxite** (39). Allegations linked to **copper** were recorded in **eight countries**: Armenia, Bosnia and Herzegovina, Kazakhstan, Kyrgyzstan, Russia, Serbia, Tajikistan and Uzbekistan. **Kazakhstan** had the highest number of allegations related to **copper** (21), representing 49% of all allegations in the country. In countries with fewer total allegations, such as **Tajikistan** and **Uzbekistan**, copper was linked to all reported cases (four each).

Russia recorded the highest number of allegations related to **zinc** (22), **lead** (16), **aluminium/bauxite** (38), and **silver** (11). Of the 39 allegations related to aluminium/bauxite in the EECA region, 38 occurred in Russia. These allegations made up 36% of all cases in Russia, making aluminium/ bauxite the most problematic mineral in the country. Nearly half (49%) of all allegations related to **iron** were reported in **Ukraine**, accounting for 52% of the country's total allegations.

The highest number of allegations related to **manganese** (ten) was recorded in **Georgia**, representing 100% of the cases there. **Kazakhstan** recorded the most cases related to **chromium** (nine). Allegations involving **uranium** were found in only two countries: **Ukraine** (11) and **Kazakhstan** (four). Similarly, allegations associated with **titanium** were reported in just two countries – **Russia** (six) and **Ukraine** (five).

TOP 10 MINERALS LINKED TO THE HIGHEST NUMBERS OF ALLEGATIONS



Allegations by project

Development and extraction (mines)

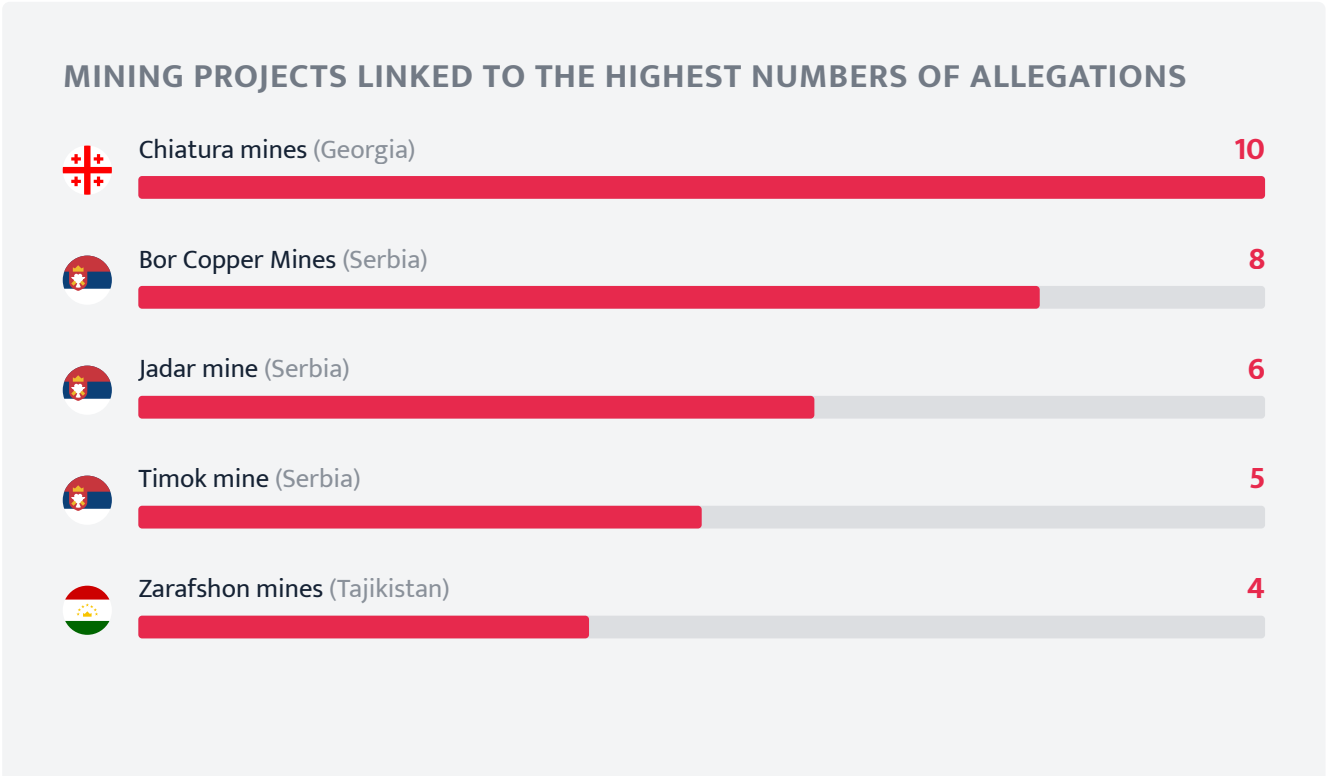
The highest number of allegations (ten) was linked to **Chiatura manganese mines** in Georgia, owned by **Georgian Manganese LLC**. Chiatura mining site is among the mines linked to most allegations of abuse worldwide in the Resource Centre's data on the extraction of seven key transition minerals – second only to Peru's Las Bambas mine. Key issues at Chiatura included village protests over alleged damage from the company's mining operations, lawsuits filed by the company against protesting residents, and dismissal of workers who demanded compensation for damaged or destroyed homes.

The second-highest number of allegations (eight) was associated with **Bor copper mines** in Serbia, owned by **Serbia Zijin Copper Doo**, a subsidiary of **Zijin Mining Group**. Reported issues included violations of environmental safety standards, precarious working conditions, inadequate living standards, environmental pollution, forced relocations, adverse impacts on livelihoods, lack of access to information, and protests.

This was followed by **Jadar lithium mine** (six allegations), also in Serbia, owned by **Rio Tinto**. All reported cases involved protests against company operations due to environmental concerns, often accompanied by the persecution of activists. Despite these concerns and protests from local communities, the EU signed a strategic partnership on raw materials with Serbia, allowing the development of the controversial Jadar lithium mine.

One more mine located in Serbia – **Timok mine**, owned by **Dundee Precious Metals** – was linked to five allegations. These included adverse environmental impacts such as soil and water pollution, as well as limited access to water.

Zarafshon mines in Tajikistan, operated by the **Tajik-Chinese joint venture Zarafshon** was linked to four allegations related to environmental pollution and land rights violations.



Processing (smelting and refining)

Vysokogorsky mining and processing plant in Russia, owned by NPRO Ural, was linked to the highest number of allegations (seven). Most cases involved violations of environmental safety standards, including air, water and soil pollution, for which the company was fined by authorities.

It was followed by **Sayanogorsk aluminium smelter** in Russia and **Aktyubinsk chromium compounds plant** in Kazakhstan, each with six allegations. The key issue linked to Sayanogorsk aluminium smelter was alleged violation of occupational health and safety, resulting in workplace deaths, injuries and occupational diseases. **Aktyubinsk chromium compounds plant** faced six allegations of environmental pollution and poor working conditions.

It was followed by **Bogoslovky Aluminium Smelter** with five allegations and **Gorevsky Mining and Processing Plant** with four allegations – both located in Russia.

SMELTING AND REFINING PROJECTS LINKED TO THE HIGHEST NUMBERS OF ALLEGATIONS


Vysokogorsky mining and processing plant (Russia) 7


Sayanogorsk aluminium smelter (Russia) 6


Aktyubinsk chromium compounds plant (Kazakhstan) 6


Bogoslovky Aluminium Smelter (Russia) 5

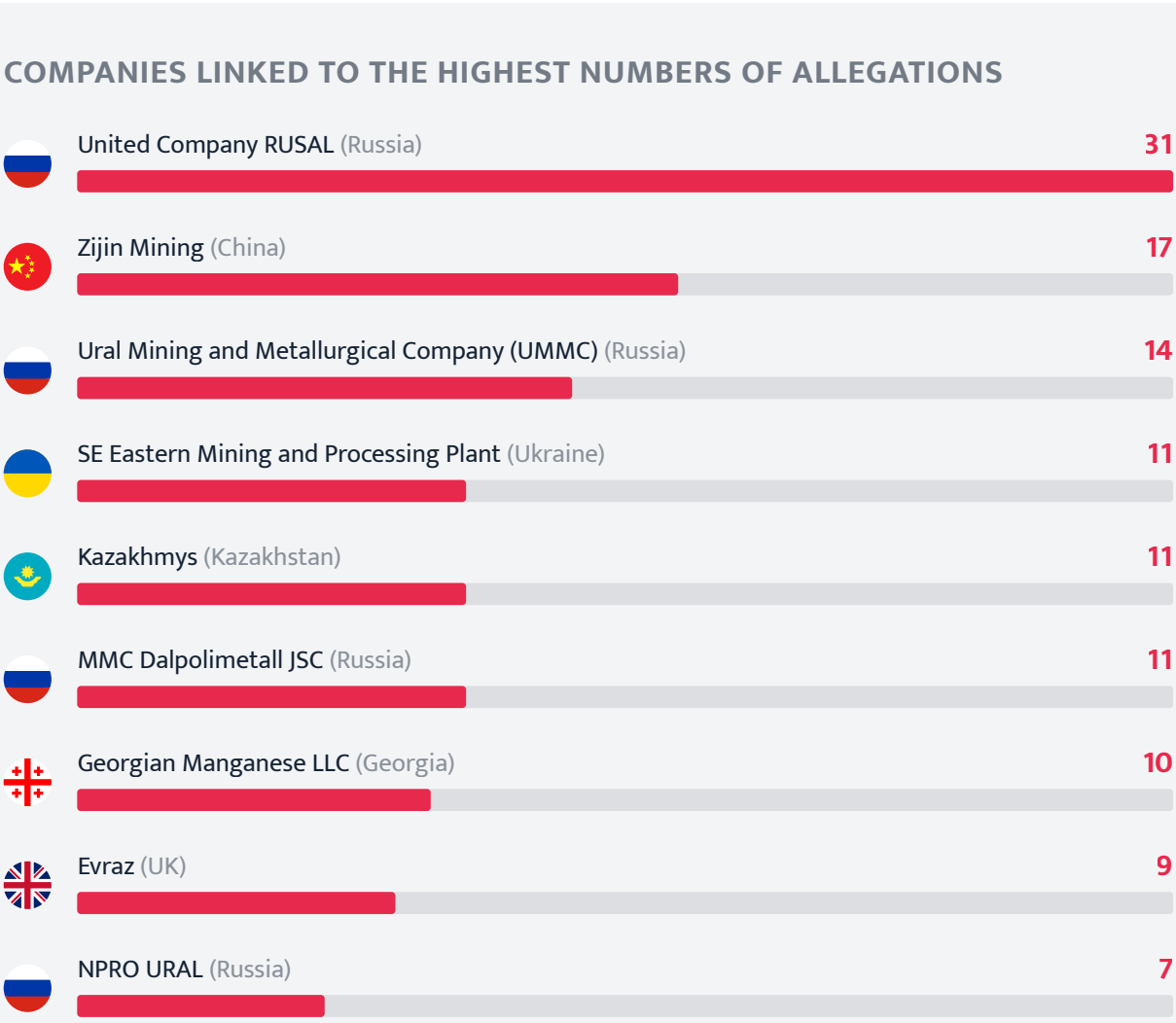

Gorevsky Mining and Processing Plant (Russia) 4

Allegations by company

The highest number of allegations (31) was associated with Russian company **United Company RUSAL**, the world's second largest aluminium producer by primary output. RUSAL is owned by En+ Group, which belongs to Russian billionaire Oleg Deripaska sanctioned by the EU. The company owns two of the top five plants with the highest numbers of allegations – Sayanogorsk and Bogoslovky aluminium smelters. RUSAL also recorded the highest number of workplace deaths and injuries last year, with 12 incidents reported across its mines and plants.

It is followed by Chinese state-owned **Zijin Mining** with 17 allegations. The company is one of the largest producers of gold, copper and zinc in China, with operations across the globe, including Serbia and Tajikistan in the EECA region. It owns two of the top five mines with the highest numbers of allegations – Bor copper mines (Serbia) and Zarafshon mines (Tajikistan).

Ural Mining and Metallurgical Company (UMMC), one of Russia's largest mining and metallurgical enterprises, faced 14 allegations. The company is owned by Uzbek billionaire Iskander Makhmudov.



United company RUSAL, Ural Mining and Metallurgical Company (UMMC) and Georgian Manganese LLC also ranked among the top ten companies with the highest number of allegations during the preceding reporting period (2019–2023).

Ukrainian State Enterprise **Eastern Mining and Processing Plant**, one of the ten largest uranium hubs in the world, was associated with 11 allegations. Most of them were related to occupational diseases that workers developed after working at uranium mines owned by the company – Novokonstyantynivska, Smolinska and Ingulskaya.

Kazakhmys, the largest copper producer in Kazakhstan, led by Kazakhstani billionaire Vladimir Kim, and Russian state-owned MMC Dalpolimetall JSC (Russia) were also linked to 11 allegations each.

They were followed by **Georgian Manganese LLC with 10 allegations**, owned by Georgian American Alloys, whose majority share belongs to Ukrainian billionaire Igor Kolomoisky. Since 2017, Georgian Manganese has been under a state-appointed special management regime due to environmental concerns and regulatory violations.

Evraz was associated with nine allegations. The company was previously owned by Russian billionaires Roman Abramovich and Alexander Abramov. The entire board of the company's directors resigned following the imposition of sanctions against Roman Abramovich. Evraz's shares were suspended from trading on the London Stock Exchange. The company faced scrutiny over its operations, particularly concerning allegations (which Evraz denied) that its steel products were used in Russian military equipment.

NPRO URAL, owned by Russian businessman Vladislav Shatsillo, was linked to seven allegations. It is followed by five companies with six allegations each – Ferrexpo plc (Switzerland), JSC Aktyubinsk chromium compounds plant (Kazakhstan), Metinvest (Ukraine), Rio Tinto (UK) and Eurasian Resources Group (Luxembourg).

Strikes, protests and community resistance

Our 2024 findings reveal a significant increase in the number of protests by workers, local communities and HRDs against mining projects, making it the sixth most frequently reported issue in the region. Of the **13 countries** covered in the report, protests were recorded in **seven** – Bosnia and Herzegovina, Georgia, Kazakhstan, Kosovo, Montenegro, Russia and Serbia – totalling 33 cases. In comparison, the previous report covering the period from 2019 to 2023 recorded 66 allegations linked to protests across 13 countries, averaging roughly 13 protests per year. This means the number of protests **more than doubled in 2024**.

In most cases, workers' protests were related to either unpaid or underpaid salaries and poor working conditions. In **Kazakhstan**, workers went on strike at several **Kazakhmys** mines. Third shift workers at the South Jezkazgan and Zhylandinsky mines as well as 250 workers of Yuzhno-Kazakhstansky mine refused to go underground calling for higher wages and better working conditions. Another protest in Kazakhstan took place at Aktyubinsk chromium compounds plant where about a hundred workers protested against pay system and poor working conditions. In Kosovo, workers of Trepca mining complex protested over wages unpaid for two months.

The two main reasons for protests by locals and activists were environmental and health concerns, along with negative impacts on their livelihoods. For example, in **Russia**, locals opposed construction of Leningrad Alumina plant over danger that red mud, a byproduct of alumina production, could pollute soil and devastate coniferous forests. In **Serbia**, residents of Krivelj, a village situated in the vicinity of **Bor mining complex**, blocked access to roads leading to mines in protest against polluted drinking water and other environmental violations. The blockade forced the company to suspend operations due to the inability to deliver essential supplies to the mines.

In **Georgia**, miners supported Shukruti residents protesting against **Georgian Manganese LLC** due to the company's harmful impact on local livelihoods. In March 2024, protesters blocked the entrance to Chiatura mines demanding adequate compensation for damages caused to their village. Shukruti residents later moved to Tbilisi to continue their demonstrations. Three protesters, including former Georgian Manganese workers, sewed their lips shut as part of their efforts to raise awareness about the mine's alleged impacts.

In three cases, the public supported local communities in opposing mining projects. In **Serbia**, residents of Šabac protested against the development of **Rio Tinto's Jadar lithium project** citing environmental and health concerns due to the site's proximity to their homes. Their protest was later joined by residents of Belgrade, where tens of thousands took to the streets in August and September to oppose the project.

Some of the cases recorded in 2024 are continuations of long-standing struggles by workers, communities, and human rights defenders to address corporate abuse and rights violations. For example, in **Georgia**, locals have been protesting since 2021 against the negative impact of Georgian Manganese's operations on their livelihoods. Similarly, in **Serbia**, rallies against **Rio Tinto's Jadar lithium project** in Belgrade began in 2022.

However, retaliation by both governments and companies has also intensified. In **Georgia**, courts banned protests against **Georgian Manganese LLC** in front of the Chiatura mines, while company's sub-contractor filed 30 lawsuits against Shukruti residents in an attempt to halt the demonstrations. Additionally, the company dismissed workers who had participated in the protests. In **Serbia**, three activists who protested **Zijin Mining**'s blasting operations near Majdanpek were later charged with damaging company property, inciting intolerance, and committing violence against Chinese workers. Meanwhile, an environmental activist who co-authored an open letter opposing **Rio Tinto's lithium project** received anonymous death threats.

Conclusion and recommendations

Our 2025 analysis reveals a sharp increase in human rights and environmental abuses linked to transition minerals in Eastern Europe and Central Asia, with workers, communities, and human rights defenders facing growing risks. Without urgent action from companies and governments to engage affected groups and uphold human rights, these abuses are likely to intensify, undermining the prospects of a just energy transition in the region. To ensure this does not happen, companies and governments should implement concrete measures that protect people and the environment.

Recommendations to companies

- Implement robust human rights and environmental due diligence with meaningful community and worker engagement to identify risks across operations and supply chains. Prioritize heightened human rights due diligence in high-risk contexts, especially in areas affected by civil or international conflict.
- Ensure affected rights-holders receive early and timely access to information, enabling meaningful engagement throughout the entire project cycle – from co-design to installation, operation, and closure.
- Ensure adequate labour protections and safe working conditions for all workers. Uphold international standards safeguarding workers' rights to organise, safety, and a living wage, particularly where national laws are insufficient.
- Adopt and implement policies that recognize the vital role of HRDs, address their specific risks, ensure meaningful engagement during due diligence process, and commit to zero tolerance for reprisals across all operations and supply chains.
- Establish grievance mechanisms developed with worker and community input. Ensure these mechanisms are accessible, predictable, equitable, and transparent for rights holders impacted by business operations.

Recommendations to governments in EECA

- Commit to just transition principles that promote shared prosperity, human rights due diligence, and fair negotiations – ensuring the inclusion of workers' organizations, as well as local and Indigenous communities, throughout the entire project life cycle.
- Guarantee transparency and access to information for all stakeholders regarding the licensing process for mineral development – particularly when permissions are granted through accelerated procedures – as well as throughout extraction and processing.
- Monitor corporate compliance with safety and environmental standards to prevent rights abuses and pollution and ensure accountability for violations.
- Enact and implement legislation that recognizes the right to defend human rights and the vital role of HRDs in promoting human rights, sustainable development, and a healthy environment, while committing to zero tolerance for attacks against them.
- Ensure accessible judicial and non-judicial mechanisms to deliver effective remedy for business-related abuses.
- Identify corruption risks and ensure effective investigation, prosecution, and remediation – especially in cases involving political elites – to prevent abuse of the green transition for personal gain or institutional interference.

Recommendations to governments of purchasing countries and those signing strategic partnerships with EECA Countries

- Ensure transparency and effective consultation with local communities and NGOs during partnership negotiations, backed by robust human rights protection safeguards and responsible business conduct requirements.

Annex: Methodology

The EECA transition minerals tracker captures publicly reported allegations of environmental and human rights abuses related to companies extracting and processing (smelting and refining) transition minerals in the EECA region.

The term '**allegation**' refers to publicly reported allegations of specific incidents of alleged abuse by a company, including publicly reported attacks against human rights defenders working on corporate issues.

One allegation can be associated with multiple impacts. For example, an incident of soil pollution may have other impacts, including protests, impacts on health or livelihoods of local communities.

All allegations are linked to companies. Most allegations include names of projects (mines, smelters, refineries) where the alleged abuses took place. Allegations not linked to a particular place do not mention projects.

The allegations are primarily collected from articles and NGO reports. The tracker is predominantly based on materials available in English and Russian. The inclusion of companies in this report is not to be understood in all cases as meaning that a finding of guilt or liability has been made against them by an investigative or judicial authority. Companies referred to in this report were invited to comment. The replies received from companies that responded can be found here.

The EECA region covered in this research covers 23 countries: Albania, Armenia, Azerbaijan, Belarus, Bosnia & Herzegovina, Bulgaria, Croatia, Estonia, Georgia, Kazakhstan, Kosovo, Kyrgyzstan, Latvia, Lithuania, Macedonia, Moldova, Montenegro, Russia, Serbia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan.

We did not find any publicly available allegations linked to transition minerals in the following seven EECA countries: Belarus, Croatia, Estonia, Latvia, Lithuania, Moldova and Turkmenistan.

The following **20 minerals** are included in this research: aluminium/bauxite, antimony, beryllium, chromium, cobalt, copper, graphite, iron, lead, lithium, manganese, molybdenum, nickel, platinum, rare earth, silver, tin, titanium, uranium and zinc. These minerals play an important role in the energy transition and will be referenced in this report as 'transition minerals'. This is an expanded list from the key transition minerals our Global Tracker covers.

Our methodology is built on the foundation of the Resource Centre's Transition Minerals Tracker methodology. The following table illustrates the main differences between the two methodologies.

EECA Transition minerals tracker	Global Transition Minerals Tracker
Scope of minerals:	
Aluminium/Bauxite, Antimony, Beryllium, Chromium, Cobalt, Copper, Graphite, Iron, Lead, Lithium, Manganese, Molybdenum, Nickel, Platinum, REEs, Silver, Tin, Titanium, Uranium, Zinc	Bauxite (from 2024), Cobalt, Copper, Lithium, Manganese, Nickel, Zinc
Phases in mineral supply chain:	
Development, Mining, Processing	Mining
Scope of companies/business actors:	
All relevant business actors operating in Eastern Europe and Central Asia	Larger, named mining companies regardless of location of headquarters, owning and operating top-producing mines

Limitations

- **Repressive environments.** In many countries in EECA, various forms of repression are used to silence independent journalists and human rights defenders, inhibiting their ability to investigate human rights abuse and environmental destruction and seek accountability. This consequently hinders public availability of information.
- **Language limitations.** Publicly reported allegations were identified in 16 EECA countries, each with its own language. The researchers working on this report are fluent in only two of these languages: Russian and Ukrainian. Therefore, research on the remaining 14 countries was primarily conducted in English, which may have limited the number of allegations identified in these countries.

Business & Human Rights Resource Centre

JULY 2025

Business & Human Rights Resource Centre is an international NGO which tracks the human rights impacts of over 10,000 companies in over 180 countries, making information available on our 10-language website.

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