Submission to the UN Special Rapporteur on Climate Change

Human Rights in the Life Cycle of Renewable Energy and Critical Minerals

April 2025

Rights and Accountability in Development (RAID) is a UK-based NGO of legal and policy researchers who expose corporate wrongdoing, environmental harm and human rights abuses. Through our partnerships with human rights law firms around the world, we work alongside frontline communities to hold companies to account.

African Resources Watch (AFREWATCH) is a human rights NGO based in the Democratic Republic of Congo (DRC) focused on exposing human rights and environmental issues linked with natural resource exploitation.

Centre d'Aide Juridico-Judiciaire (CAJJ), is a Congolese legal aid centre specialised in labour rights based in Kolwezi. They provide assistance to victims of violence and human rights abuse, including local communities affected by the exploitation of natural resources.

We welcome the opportunity to provide information to the Special Rapporteur on climate change to inform the upcoming report on human rights concerns in the life cycle of renewable energy and critical minerals. We draw from two in-depth research studies to highlight human rights and environmental concerns at the initial stage of the life cycle of renewable energy:

- A March 2024 publication from RAID and AFREWATCH titled *Beneath the Green: A Critical Look at the Environmental and Human Costs of Industrial Cobalt Mining in DRC*. Based on two years of fieldwork and a detailed analysis of corporate environmental impact assessments alongside the regulatory framework, this in-depth study examined the impacts of toxic water pollution from industrial mining operations on fenceline communities.
- A November 2021 publication from RAID and Congolese legal aid centre, CAJJ, entitled *The Road to Ruin? Electric vehicles and workers' rights abuses at Congo's industrial cobalt mines"*, and subsequent research updates, which revealed widespread labour rights abuses, dire work conditions, discrimination and extremely low pay at large-scale industrial cobalt mines.

Introduction

The global transition to renewable energy is widely regarded as essential to addressing the climate crisis. Yet too often this "green transition" is being tarnished by human rights and environmental harms. One stark example is in the DRC's copper and cobalt belt in the south of the country. DRC holds 70% of the world's cobalt reserves and is also a major global producer of copper – both classified as critical minerals for the energy transition. Multiple reports from civil society, investigative journalists, scientists and others have documented a troubling pattern of abuses linked to industrial and artisanal mining, including labour and human rights violations, environmental degradation, and negative impacts on livelihoods, ecosystems, and the health of local communities.

Our own research referenced above shows the devasting impacts on workers and local communities living in the shadow of five of the largest copper-cobalt mines in the region, whose lives have been blighted by labour rights abuses and toxic water pollution. The impacts we have documented are so troubling that the DRC's cobalt and copper mining region appears to be turning into a "sacrifice zone",[1] which UN experts describe as heavily contaminated areas where people suffer severe health issues and human rights abuses. As the demand for transition minerals for electric vehicles and artificial intelligence data centres surges, there is a serious risk that these negative impacts will intensify unless urgent action is taken.

Questions 1 and 2: Positive and negative human rights impacts of renewable energy and critical minerals, their causes, and disproportionate effects

Positive impacts: Mining for economic growth and better livelihood

Industrial cobalt and copper mining in the DRC has generated significant economic opportunities. Mineral extraction accounts for 90% of the country's exports and constitutes a core element of the Congolese economy.[2] It is also a major source of employment in the region and the wages earned in the formal industrial mining sector often far surpass those in artisanal mining sector. While precise figures on employment are difficult to ascertain, it is estimated that tens of thousands of jobs are associated with the DRC's mining industry. Mining companies have also invested in infrastructure projects, including roads, schools and hospitals, which have benefitted local communities and contribute to regional development.

Negative impacts: When growth comes at an environmental and human cost

The adverse human rights impacts associated with industrial mining are severe and multi-faceted, with fenceline communities bearing the brunt. These harms affect health, socio-economic rights, and the local environment. Our research draws on 19 months of fieldwork and 172 interviews conducted across 25 local communities near to the industrial mining operations. It documents a wide range of negative outcomes linked to the activities of the five largest industrial copper-cobalt mines in the region.

> *"We live in an environment that brings us more problems than solutions. We are becoming sick, our soil and water is polluted, and our lands are taken from us."* - Pierre, an inhabitant of the village of Noa, in the Congolese copper-cobalt belt[3]

Environmental degradation: Mining operations have led to extensive damage, particularly through the contamination of rivers, lakes and groundwater with heavy metals and acid-forming substances. Scientific studies annexed in our report confirm that water bodies such as the Luilu, Dilala and Katapula rivers are highly acidic, making them toxic to aquatic life and unsafe for human use. The situation is worsened by tailings storage facility breaches and the direct discharge of untreated wastewater, leading to widespread ecosystem degradation.

Health impacts: Contaminated water resulting from mining activities poses serious health risks to local communities. Local residents said there is not enough clean water to drink, let alone enough for washing and personal hygiene, forcing them to use contaminated water for their everyday needs. Fifty-six per cent of the individuals we interviewed reported that the pollution is affecting gynaecological and reproductive health of women and girls resulting in irregular

[1] UN Human Rights Council, '*The right to a clean, healthy and sustainable environment: non-toxic environment*' - Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, UN Doc A/HRC/49/53 (12 January 2022).
[2] Cobalt Institute, COBALT: POWERING THE GREEN ECONOMY (2023) https://www.cobaltinstitute.org/wp-content/uploads/2023/02/cobalt_institute_fact_sheet_2023.pdf?
[3] Interview in RAID and AFREWATCH. See *Beneath The Green* report.

menstruation, urogenital infections, more frequent miscarriages and, in some cases, birth defects (see below). Additionally, 72% observed recurring skin conditions – such as rashes and white patches – associated with direct contact with polluted water sources. Broader community health concerns include digestive problems and significant psychological distress linked to living in a degraded environment. Exposure to air and water pollution appears to correlate with symptoms of depression, generalised anxiety, psychosis, and disorders related to impulse control and conduct.[4]

> "*We are already living like the dead, so how can we envision a better future for tomorrow?"* - An inhabitant of the village of Tshabula, Lualaba [5]

Socioeconomic impacts: Nearly all respondents (99%) reported significant declines in agricultural yields and fish stocks due to toxic water pollution. The resulting loss of income has deepened poverty levels, with 59% of families reducing their food intake to one meal per day and 75% unable to afford healthcare. Education access has also been affected: approximately six in ten families have withdrawn their children from school due to the inability to pay school fees. For local workers – 60% of whom are subcontracted – wages remain insufficient to meet basic needs, undermining the promise of economic advancement through industrial mining.

Causes of negative impacts: Hidden pollution and weak accountability

One of the primary causes of harm is pollution emanating from industrial mining activity including contaminated wastewater and the emission of high levels of toxic dust. These practices contaminate water sources, soil and air. At least 14 major pollution incidents – including tailings dam failures and acid spills – have been recorded in recent years. Clean-up efforts by companies have often been inadequate, leaving long-term environmental and health risks unaddressed.

Scientific findings back up the accounts from local communities about the contamination, with at least 22 scientific studies demonstrating that the rivers, lakes, streams and wetlands in the area are severely polluted by mining activities.[6] The mining companies' own reports and assessments also clearly identify the environmental risks and potential impacts on human health resulting from industrial cobalt mining. In correspondence, companies highlight the steps they are taking to reduce the contamination, but no company provided evidence confirming that their mitigation practices were effective.

Mining companies have taken some steps to provide potable water by constructing boreholes and water pumping stations. While this partly alleviates the chronic shortage of clean water, our investigation found that none of the mining companies had provided the minimal number of water points required by DRC regulations or the minimum guidelines set out by the World Health Organisation (WHO).

The lack of transparency around environmental assessments and the effectives of mitigation practices contributes to the problem. Companies rarely publish their Environmental and Social Impact Assessments (ESIAs), as required by DRC law, nor do they disclose third-party audit findings.[7] Communication with local communities is often minimal or entirely absent – particularly following contamination events. As a result, local populations are frequently left in

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[4] Linda C Theron and others, '*A Systematic Review of the Mental Health Risks and Resilience among Pollution-Exposed Adolescents*' (2022) 146 Journal of Psychiatric Research 55.
[5] Interview in RAID and AFREWATCH. See *Beneath The Green* report.
[6] See a summary of the key scientific studies here.
[7] See RAID's April 2025 submission on issues with Environmental Impact Assessments in DRC provided to the UN Special Rapporteur on the right to a clean, healthy and sustainable environment.

the dark about environmental risks, incidents, and the potential impacts on their health and surrounding ecosystems.

Our research also found systemic regulatory weaknesses. State oversight remains limited due to resource constraints, insufficient technical expertise, and poor inter-agency coordination. Key bodies such as the Congolese Environmental Agency and the National Fund for Promotion and Social Service are critically underfunded and understaffed. This lack of regulatory capacity enables large multinational corporations to take advantage of legal gaps, often prioritising profit over environmental stewardship and human rights obligations.

Notably, Lualaba Province, which lies at the heart of the copper-cobalt belt, has been identified by both the DRC government and the United Nations as a region with "a concentration of mineral resources and underdeveloped value chains, alongside limited ecosystem protection and poor financial and environmental governance".[8]

Disproportionate effects: Unequal burdens for women, girls and children

The impacts of cobalt and copper mining in the DRC disproportionately affect women, girls and children – exacerbating existing inequalities and undermining their fundamental rights.

Women are particularly exposed due to their traditional roles in domestic activities such as collecting water, cooking and cleaning. These tasks increase their contact with contaminated rivers and groundwater polluted with heavy metals and acidified substances. Our fieldwork shows that over half of interviewees reported gynaecological and reproductive health issues among women, including chronic urogenital infections, pelvic pain, irregular menstruation, miscarriages, and congenital anomalies. These health conditions are compounded by poor access to healthcare services, putting women's right to health – protected under the International Covenant on Economic, Social and Cultural Rights – at significant risk.

Adolescent girls face similar health challenges, with 14% of respondents reporting reproductive health concerns among teenage girls. In many of the communities RAID and AFREWATCH visited, women explained that in addition to pimples and infections that most females, irrespective of their age, were developing on their genital area, the majority of teenage girls suffered from irregular and/ or haemorrhagic periods. These issues, combined with the disruption of education due to economic hardship, trap many girls in a cycle of marginalisation. Their rights to education and development, recognised in the Convention on the Rights of the Child, is undermined.

Children are especially vulnerable due to their physical sensitivity and behaviours like hand-to-mouth contact, which increase exposure to pollutants. This leads to serious health risks – particularly developmental and immune disorders – worsened by food insecurity. These conditions violate their right to adequate nutrition and a clean, healthy environment, while also contributing to mental distress and family hardship. This qualifies as a "systemic threat" to children's rights.[9]

Negative human rights impacts on workers

Workers at industrial mines are also impacted. Five of the largest copper-cobalt mines in DRC included in our 2021 study employed 26,455 workers. Our research found dire conditions for many of these workers, often characterised by widespread exploitation and labour rights abuses. Many workers do not earn a "living wage" – the minimum remuneration to afford a decent

[8] UN and the DRC, Cadre de Coopération pour le Développement Durable (CCDD) 2025-2029 (2024), page 51 [our translation].
[9] UN Committee on the Rights of the Child, General Comment No. 26 on children's rights and the environment with a special focus on climate change (2023).

standard of living – have little or no health provision, and far too often are subjected to excessive working hours, unsafe working conditions, degrading treatment, discrimination and racism. Some workers described being kicked, slapped, beaten with sticks, insulted, shouted at, or pulled around by their ears.

The labour rights abuses are closely tied to an outsourcing model in which workers are not hired directly by the mining companies, but instead through subcontracting firms. Official data shows that at least 57% of the workforce across the five mines we investigated are subcontracted, with some sites reporting significantly higher rates. These subcontracted workers, often employed on precarious and short-term contracts, experienced the worst abuses. Meanwhile, Congo's Labour Inspectorate – the government body tasked with enforcing labour laws – is critically underfunded and understaffed and has been largely ineffective in addressing these widespread violations.

Question 3: Relevant international law and barriers to human rights protection

International law provides a key framework for protecting human rights in the context of critical mineral extraction including (i) the UN Guiding Principles on Business and Human Rights (UNGPs) and related texts; (ii) the International Covenant on Economic, Social and Cultural Rights; (iii) the UN General Assembly Resolution 76/300, which the DRC co-redacted[10]; (iv) the African Charter on Human and Peoples' Rights Article 24; and (v) SDGs, Goals 6, 12, 13, and 14 which are undermined by mining pollution, as noted in the DRC 2023 report[11]

Despite these frameworks, major barriers persist. Firstly, most international standards lack a binding force and are weakly enforced. The DRC's regulatory capacity is limited. Companies are not direct subjects of international treaties and thus avoid legal accountability. Secondly, corporate due diligence often fails to address environmental and gender-specific risks or labour rights concerns. These reports are rarely published, and civil society participation is limited – further breaching business and human rights obligations.

Question 4: Good practices and lessons learned

Several emerging practices offer valuable lessons for supporting a just transition and advancing SDGs 13 (climate action) and 14 (life below water).

- In 2023, the DRC government suspended the mining licence of Boss Mining, operated by Luxembourg-based company Eurasian Resources Group (ERG), for environmental pollution. While rare, this was a noteworthy assertion of state authority and should be replicated to strengthen corporate accountability and deter environmental harm.
- The revised Mining Code and Environmental Protection Law[12] represents important progress. They provide for strong protections, including community compensation. However, enforcement remains inconsistent, limiting their effectiveness.
- Citizen pressure is proving vital. Communities have initiated legal proceedings, with at least three court cases in Kolwezi and Lubumbashi addressing water contamination – demonstrating growing awareness on rights and demand for accountability. Workers are also taking action and bringing labour abuses cases against companies before domestic

[10] UN General Assembly, Official records of the 76th session : 97th plenary meeting (28 July 2022).
[11] United Nations in the Democratic Republic of Congo, Rapport annuel des résultats 2023 (2024). Note that the DRC has evaluated that the level of realisation of these SDGs have stagnated since 2023.
[12] Law No. 11/009 of 9 July 2011 on Fundamental Principles of Environmental Protection (République Démocratique du Congo, Journal Officiel, 2011)

courts, with some success. This shows that legal challenges can have an important role to play in curbing violations.

Key lessons include the need to: a) strengthen enforcement of existing regulations, b) ensure transparency in ESIAs and other corporate disclosures, c) promote active community participation and support community legal challenges, and d) international support for institutional capacity-building and funding to scale these efforts and realise a human rights-based approach to the energy transition.

Question 7: International cooperation for human rights protection

International cooperation can significantly strengthen human rights protections across the life cycle of renewable energy and critical minerals. It can also help advance SDGs, while ensuring a just and equitable transition.

- Adopt binding norms: shift from voluntary guidelines to enforceable laws on human rights and environmental due diligence.
- Support national efforts: help countries like the DRC strengthen monitoring, enforcement, and ESIA publication.
- Improve supply chain accountability: promote transparency and community engagement.
- Promoting equity: Align cooperation with the *principle of common but differentiated responsibilities*, ensuring that the global North and corporations bear responsibility for mitigating harms in mineral-producing nations like the DRC.

Conclusion

The renewable energy transition, vital for tackling the climate crisis, must not sacrifice human rights or environmental integrity in mineral-producing countries like the DRC. To ensure a just transition, the Special Rapporteur can use the opportunity of country visits and the UN General Assembly report to: (a) urge for the adoption of a binding due diligence laws for supply chain accountability, (b) encourage DRC's environmental law enforcement and ESIA publication, (c) adopt norms for gender- and age-specific harms, (d) support national agencies to monitor pollution; and (e) call for community inclusion at all stages.