Are Congolese people paying the price for the green energy transition?

Key findings from 'Beneath the Green' - a critical study on the human rights and environmental impact of industrial cobalt mining in the DRC

"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

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1. Cobalt is a critical mineral for the green energy transition. It is used in the rechargeable batteries in electric vehicles and is primarily found in the Democratic Republic of Congo (DRC), which holds around 70% of the world's reserves. It is mined as a by-product of copper, another critical mineral. DRC is the primary producer of cobalt and the third largest producer of copper. 88% of DRC's cobalt is produced by industrial mines operated by some of the world's largest mining companies, the remaining 12% is from artisanal miners.
2. In one of the first in-depth studies on the environmental impacts of cobalt mining on Congolese communities who live near the mines, RAID and AFREWATCH visited 25 villages and towns, and collected detailed testimonies from 144 people living around five of the world's largest cobalt and copper mines. We interviewed medical experts and scientists, scrutinised scientific studies and examined hundreds of pages of company documents.
3. Mining companies routinely promote the cobalt from DRC's industrial mines as being "clean", "sustainable", and free from human rights and environmental harms. Yet our research reveals that water pollution and water depletion from mining operations is severely affecting the lives of hundreds of thousands of fenceline residents, infringing upon their right to clean water and their right to a clean, healthy and sustainable environment. The DRC's cobalt and copper mining region appears to be turning into a "sacrifice zone", which UN experts describe as areas where populations suffer devastating health consequences and human rights abuses from living in heavily contaminated areas.
4. Those we interviewed were unequivocal in that they believed water contamination from industrial mining activities is harming their health, the environment and is further limiting their income. The lack of access to clean water for drinking was a primary concern consistent across all interviews, as well as concerns about washing and hygiene. The health of women and girls appears to be acutely impacted by the contamination.
5. Scientific studies back up the accounts we received from

Main findings:

- 56% of those interviewed said women are increasingly experiencing gynaecological and reproductive issues such as irregular menstruation, urogenital infections, more frequent miscarriages and, in some cases, birth defects. More and more young girls and teenagers also appear to be affected.
- 72% reported recurring skin diseases including itching, spots, rashes, and white patches on the skin following contact with contaminated water.
- 56% expressed serious concerns about the health of their children, who they said seem to experience the effects of water pollution more intensely than the adults.
- Nearly everyone said contaminated water is negatively impacting their income and pushing them further into poverty. For instance, 99% of those who relied on fishing or agriculture said their yields have dramatically decreased. This included fewer and smaller fish, and crops rotting when irrigated with polluted water.
- Nearly 60% said the loss of income brought about by the water pollution has forced them remove their children from school as they could no longer afford school fees.
- 59% said they have been forced to reduce their food intake to one meal a day.
- 75% say they could no longer afford healthcare or medicine when sick.

local communities. At least 22 scientific studies and 20 civil society reports clearly demonstrate that the rivers, lakes, streams, groundwater and wetlands near the DRC's cobalt and copper mines are severely polluted by mining activities. These studies have found that copper, cobalt, lead, arsenic, cadmium, uranium, manganese, mercury and acidified pollutants (such as sulphuric acid, of which huge amounts are used by industrial mines) have been released into the air, soil and water in nearby towns and communities.

6. The mining companies in our study, which are all large European or Chinese multinationals, are aware of the possible contamination and its potential risks to people and the environment. These risks are clearly identified in their Environmental and Social Impact Assessments (ESIAs), which the mines are required to produce every five years, and which RAID and AFREWATCH have analysed.

7. In their ESIAs, as well as in correspondence and meetings with RAID and AFREWATCH, the companies highlight the steps they are taking to reduce the risks of contamination, and describe elaborate environmental policies they are implementing. Yet no company was willing to provide evidence, such as audits or third-party assessments, confirming that their practices were effective in curbing environmental contamination.

8. The companies say historic pollution, contamination from artisanal mining, and other economic activities are largely to blame, and that their mines operate "closed circuits" which prevent wastewater discharge and do not contribute to environmental harms. However, almost none of the multinational companies profiting from extracting the cobalt and copper, nor the DRC government, appear to be taking meaningful steps to resolve the legacy pollution.

9. Our research also shows that the pollution continues. Although the companies say that they take immediate steps to rectify the problem when an accident occurs, our research found that in at least 14 significant toxic incidents over the past few years, including tailings storage facility breaches and sulphuric acid spills, local communities viewed the clean-up as inadequate, with limited or no compensation for those impacted. In many of these incidents, local residents said the effects of the pollution continue.

10. Recognising the lack of access to clean drinking water, 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. Nor did they meet the World Health Organisation's (WHO) guideline of 20 litres per person per day, the bare minimum required for drinking and basic hygiene.
11. The DRC government is also failing. Congolese law provides for strong environmental protections, but government agencies tasked with upholding the laws appear unable to address the contamination concerns. Officials we interviewed said they had limited resources, lacked expertise, and often failed to coordinate effectively between agencies. Very few companies have been penalised for pollution.

12. Although communities expressed increasing despair about the contamination in their environment and its impact on their health when interviewed by RAID and AFREWATCH, the companies said they had received few or no grievances about these concerns.

None of the companies said they were aware of the specific impacts on women and girls. Most said they were aware of a scientific study on increased birth defects, but did not see this as relevant to their operations. It raises important questions as to why these concerns are not being captured by companies or whether they are being ignored.

13. Despite financial constraints and difficulty accessing the courts, local residents have sought to use the law to challenge companies. Legal analysis shows there have been at least 3 cases in local courts in Kolwezi and Lubumbashi related to water pollution, and at least 7 other formal complaints to companies or government agencies, indicating local communities are deeply concerned about this issue.

14. The findings in this study raise important questions about the effectiveness of mining companies' environmental mechanisms and the DRC government's enforcement of its environmental and water laws. It also raises crucial questions about how we can better achieve climate justice, ensuring a a just and fair transition to green energy, which does not exacerbate inequality or further violate people's rights and the environment.

15. The transition to 'net zero' is critical to address the climate emergency, but "going green" in the global North, should not come at the price of more harm to Congolese people. The world's electric vehicle and battery manufacturers who use cobalt from Congo's industrial mines should use their influence to press mining companies to supply cobalt that is truly 'clean' and 'sustainable'. The right to a clean, healthy and sustainable environment is universal to us all.

How we conducted our research

The findings described in this report are based on extensive investigations conducted over 19 months between July 2022 and February 2024 by RAID and AFREWATCH. It combines fieldwork in the DRC's copper and cobalt belt and desk-based research. RAID and AFREWATCH conducted 172 interviews, including with 144 members of fenceline communities living around five large industrial cobalt and copper mines, plus lawyers, engineers, scientists, Congolese authorities, medical staff and industry experts, among others. Our interviews were in-depth, lasting on average between 1 to 2 hours, and were conducted individually with interpreters if required. RAID and AFREWATCH also conducted comprehensive desk-based research including reviewing relevant materials, policies and reports published by the five mining companies presented in this report and further engaged in extensive correspondence with the mining companies.

Many of those interviewed by RAID and AFREWATCH wanted their testimony to be shared but feared reprisal. Consequently, we have taken great care to maintain confidentiality where necessary. For more information about our research methodology, please see the relevant chapter in the upcoming report.

Please note, in this report, the term "fenceline communities" refers to local communities living adjacent to or near industrial copper and cobalt mines and who are directly affected by the mining operations. While there is usually a physical fence sectioning off local communities from mining operations, this is not always the case.