

Report on the Socio-Economic and Environmental Impacts of Lithium Extraction in Zimbabwe

Research Report
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tions Campaign



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Impressum

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Executive Summary

Lithium mining in Zimbabwe presents significant economic opportunities but also poses considerable social and environmental challenges due to the attitudes of Chinese-led companies in the country. To address the multifaceted challenges arising from mining operations, a comprehensive and collaborative approach is essential. The government must enforce stringent regulations to protect cultural heritage, ensure fair compensation, and safeguard community infrastructure impacted by mining activities. Implementing robust labour laws and monitoring systems will help ensure fair working conditions and human rights protections. Additionally, the government should prioritise local beneficiation by investing in infrastructure and fostering partnerships that create sustainable economic opportunities. Regular inspections, audits, and the establishment of dedicated funds for infrastructure repair and environmental management will further ensure that mining companies fulfill their commitments and contribute positively to affected communities.

Mining companies need to adhere to high standards of environmental and social responsibility, including the implementation of effective safety measures, transparent relocation plans, and cultural sensitivity training. They should invest in infrastructure improvements, support small-scale miners, and engage in practices that minimize environmental and social impacts. Civil society organizations and affected communities should be unanimous in sustaining global voices condemning the behaviour of Chinese companies that abuse human rights as they conduct lithium mining in Zimbabwe. Advocacy work should also hold government accountable for failure to enforce labour, mining and environmental laws. The ultimate goal is to promote local beneficiation through supporting small-scale miners, community beneficiation and addressing social issues to ensure collaborative work towards responsible and sustainable mining operations that benefit all.

1. Introduction

In recent years, the global supply chain of lithium for batteries has been dominated by sources in South America, Australia, and China, with the processing and manufacturing of battery compounds and components concentrated in China, Japan, and South Korea. However, the growing discovery of lithium in parts of Africa highlights opportunities and potential risks to the security of supply and to communities living near newly-discovered lithium ore deposits. This research seeks to contribute insights into the socio-economic and environmental ramifications of lithium mining in Zimbabwe as demand for the mineral continues due to global shifts towards decarbonisation.



Lithium ore. Lithium is also called “white gold.”

Photo: KEESA ADR

The study employed a Social Life Cycle Assessment (S-LCA) framework to illuminate the social impacts of lithium-mining in Zimbabwe «along their life cycle» (Toniolo, Tosato, & Ren, 2020)¹. In this research, social impacts are defined as the consequences on human populations of any public or private actions. Using qualitative research methods such as in-depth interviews, focus group discussions, and observations within mining communities, this study examines the socio-economic, environmental and cultural impacts of lithium mining in Zimbabwe. Thematic analysis of the qualitative data gathered from 57 participants through various methods offers a nuanced understanding of

complex social dynamics along the lithium value chains in the country. This approach captures the subjective dimensions of social change, providing critical insights that can inform more equitable and effective policymaking and interventions.

1.1 Background of Lithium Mining in Zimbabwe

Zimbabwe has several large lithium deposits, including Africa’s first active lithium mine at Bikita and in the Kamativi pegmatite, historically known for tin mining. Active exploration has taken place at several other localities in recent years. In 2019, the Government of Zimbabwe issued a roadmap for the country’s mining industry, responding to the need for systematic mining and beneficiation of lithium. However, due to a challenging investment climate, new developments have not progressed as rapidly as hoped. To date, Zimbabwe has no significant engagement in the battery supply chain beyond the mining and, in some cases, production of the petalite concentrate.

Bikita Minerals - Sinomine

The Bikita pegmatite in Southeast Zimbabwe has been operating since tin was discovered in 1910, and the mining of petalite (for lithium) started in the 1940s. The main product currently exported by Bikita Minerals is a graded petalite concentrate that is produced on-site at the mine and chiefly sold for glass and ceramics. Tantalite concentrates have also been produced at the mine. In 2021, Bikita Minerals, a company in which a Chinese company called Sinomine Resource Group Co, Ltd (SRGCL) owns a 74 percent share, was the only mine in Africa producing lithium, which is currently not used in battery supply chains. However, the Bikita mine contains spodumene pegmatites which may contribute to the battery supply chain in the future. Sinomine has expansion plans that include raising 3 billion yuan (\$450 million) in a private placement to fund its lithium plans, including the Zimbabwe project. The company has also set up a joint venture with the Chengxin Lithium Group’s Zimbabwe unit to drive lithium projects in the country, but no clear timelines are available. To this extent, Chengxin paid \$76.5 million in November 2021 for 51% of a company which owns lithium and rare earth mineral blocks in Zimbabwe².

The company promised to contribute towards the construction of Zimbabwe Electricity Supply Authority's (ZESA) Tokwe-Bikita 132/33 KVA Power Station, extending assistance in the construction of the long-awaited Birchenough Bridge, and implementing philanthropic social responsibility programs that benefit schools, clinics, hospitals, government units, and the local communities in Bikita. These promises by Bikita Minerals (Pvt) Ltd and Sinomine (Hong Kong) Rare Metals Resources Co. Limited raised hopes among community members regarding infrastructural, power, and social development programs that have stalled over the years. However, the company had done nothing towards these big promises, with key respondents complaining about the company introducing restrictions to community access to local resources available to them for decades³.

Sandawana Mine - Kuvimba Mining House

Similarly, the Sandawana mine located in Southern Zimbabwe started operations in the 1950s as an emerald, tantalite, and gold mine. Open-pit lithium mining began in January 2023. The mine was acquired by Kuvimba Mining House (KMH) is involved in special minerals, base metals, energy minerals and metal assets and owned by Zimbabwean business mogul, Kuda Tagwirei and operated under the Mutapa Investment Fund (formerly Sovereign Wealth Fund) in which Zimbabwe's current president, Emmerson Mnangagwa owns significant stakes. Open-pit lithium mining began in 2023. Sandawana mine stretches over 21 km and covers 3,882 hectares of land. KMH plans to invest over USD\$ 56 million towards mining tantalite, mica, emerald, and gold ore reserves in the area⁴. It also intends to invest towards the production of battery-grade lithium sulphate or carbonates by 2030⁵. They expect to have a fully operational plant in 2025 and a lithium sulphate and carbonate plant by 2030. The company is also negotiating with various partners, including British businessman Algy Cluff's to invest in a \$270 million lithium plant at its Sandawana Mine and become Zimbabwe's largest lithium producer with production targets of 500,000 metric tons of spodumene concentrates during its first phase. In 2023, the company promised to create a 35 km road, surface over 115 km of road with asphalt, construct a 60 MW solar plant at the cost of USD 300 Million. It

also promised to build and refurbish schools, clinics and hospitals and avail specialists to assist local communities⁶.

To date, these promises are not yet fulfilled.

Sabi Star - Buhera

The Sabi Star Mine Lithium Project is located 40 km east of the Murambinda business centre in Buhera, on the mineral-rich Odzi belt. Max Mind Private Limited, a Chinese company owned by Chengxin Lithium Group and linked to Build Your Dreams Company Ltd (BYD), a prominent electric vehicle (EV) producer, acquired the major shares of the project from Mezzotin Minerals in September 2021⁷. The Sabi Star lithium tantalum project has 40 mining rights covering a hectare of 2,637, and 5 minerals including lithium and tantalite have been extracted⁸. The company plans to explore the remaining 35 mining rights simultaneously, producing 900,000 tons of raw ore per year, mostly for export to China.

In 2022, the company promised to upgrade the 28,5 km gravel road and repair all bridges and culverts from Gaza Business Centre to Sabi Star Mine. They also promised to put new signage along the entire stretch of the road and improve safety features where the road passes through schools and communities⁹.

As part of community projects, Chengxin Lithium promised to continually repair the roads using Zimbabwean companies to promote indigenous firms. However, the road remains narrow with no evidence of bridge and culvert constructions also some road signs, speedhumps, communal boreholes and refurbishment of schools and other local structures could be observed at the time of researching. Overall, key informants complained that the community feels short-changed by the mining company considering the variance between the promises and what has been delivered to date.

Arcadia Lithium Mine

Arcadia project, east of Harare, has been explored by Australia-based Prospect Resources since 2016. It has Southern Africa's largest Joint Ore Reserves Committee (JORC)-compliant Li reserve (Prospect,

2019)¹⁰ and started producing petalite concentrate in June 2021. It has recently began to produce spodumene concentrates at its site.

Arcadia plans to become a long-life, large scale, hard-rock open pit lithium mine and intends to construct a 2.4-million-tonne-a-year name plate capacity plant in a single stage and increase the production of spodumene, technical and chemical petalite. Although its life span has decreased from 20 years to 18.3 years, Arcadia's deposits have the advantage that they are using conventional truck-and-shovel open pit operation and contract mining, are located close to the highway and waste dumps are as close as possible to pit exit points, reducing costs and operational disruptions.

Kamativi

The Kamativi pegmatite, in north-western Zimbabwe, was mined for tin from 1936 to 1994, but lithium minerals were never extracted. The tailings piles at Kamativi have been explored for lithium by Zimbabwe Lithium and the Zimbabwe Mining Development Corporation. There is also potential for further exploration in the hard-rock extent of the pegmatite beyond what has already been mined. Transamine, a Swiss company headquartered in Geneva, provided a capital injection of \$9.5 million, an offtake facility for the construction of the Phase 1 processing plant and working capital for Kamativi. As part of the agreement's terms, Kamativi produces and sells +6% lithium oxide spodumene concentrate to Transamine, which have the right to 150,000 tonnes of concentrate produced from the Phase 1 processing plant¹¹. Through this investment, the Kamativi first phase produces an annual total of 300,000 tonnes of raw spodumene ore and 50,000 tonnes of spodumene concentrate¹². However, beyond the 2019 capital injection, not much information is currently available about Transamine's activities on Lithium in Zimbabwe. The second phase involves a Nigerian company Bravura which aims to produce 30,000 tonnes of spodumene concentrate in 2025 by reprocessing waste material left behind by Kamativi Tin Mine which stopped operations three decades ago¹³.

Zulu Lithium-African Premier Mine

The Zulu pegmatite mine, located 80 km from

Bulawayo, is under exploration by Premier African Minerals, which also owns a series of smaller lithium pegmatite prospects in eastern Zimbabwe. The Zulu Project began in 1955 and produced petalite in the early 1960s. Current operations show that Premier African Minerals, in which the government of Zimbabwe owns 51 percent, is an emerging spodumene producer¹⁴. Apart from lithium mining, the company has a diverse portfolio of projects, including tungsten, rare earth elements, and tantalum in Zimbabwe, as well as lithium and gold mining interests in Mozambique.

This research was conducted in three specific sites namely Bikita (Sinomine) in Masvingo Province, Sandawana in Mberengwa District of Midlands Province and Sabi Mine in Buhera, Manicaland Province.



Lithium Mines in Zimbabwe

Sabi Star Mine (case study)

Location: Murambinda, Buhera District

Owner:¹⁵ Max Mind Investments Ltd., owned by Shenzhen Chengxin Lithium Group (51%)

Potential buyers:¹⁶ BYD, CATL

Bikita Mine (case study)

Location: Glencova, Bikita District

Owner:¹⁶ Bikita Minerals, owned by Sinomine

Potential buyers:¹⁵ BYD, CATL, LG

Sandawana Mine (case study)

Location: Mbwerenga District

Owner:¹⁵ Kuvimba Mining House, owned by the Government of Zimbabwe (65%) and private investors (35%)

Potential buyers: unknown

2. Legal and Regulatory Framework for Lithium Mining in Zimbabwe

Several laws and regulations guide foreign investors involved in lithium mining in Zimbabwe, who must comply with a comprehensive legal and regulatory framework to promote sustainable development, local beneficiation, and economic empowerment. The Zimbabwe Investment and Development Agency Act [Chapter 14:37] mandates that foreign investors adhere to local laws, environmental standards, and product quality requirements. Additionally, key legislative acts influencing mining include the Mines and Minerals Act (Chapter 21:05), Environmental Management Act (Chapter 20:27), Labour Act (Chapter 28:01), Finance Act (Chapter 23:04), and the Base Minerals Export Control Order of 2023. The Mines and Minerals Act (Chapter 21:05) and policy frameworks such as the Zimbabwe Agenda for Sustainable Socio-Economic Transformation (Zim-Asset) and the National Policy on Beneficiation and Value Addition of Minerals provide the legal basis for mining and beneficiation activities, outlining the rights and obligations of mining companies, including provisions for environmental protection, community engagement, and mineral value addition for economic development. Statutory Instrument (SI) 213 of 2022 and SI 5 of 2023 further support these objectives by banning the export of unprocessed or raw lithium ore and base minerals without written permission from the Minister. These measures encourage investment in lithium processing and refining facilities within the country.

However, challenges remain in implementing mineral beneficiation strategies effectively. Issues such as inadequate infrastructure, limited access to financing, technology gaps, and regulatory inconsistencies hinder the full realization of beneficiation goals. Additionally, transparency, accountability, and equitable distribution of benefits within local communities impacted by lithium mining activities are critical concerns. While Zimbabwe's legal framework for mineral beneficiation is robust, continued efforts are needed to address these challenges, promote sustainable practices, and ensure that mining benefits contribute to broader socio-economic development and empowerment locally and nationally.

3. Demographic Information on Participants

The demographic profile of research participants includes a diverse range of individuals from various age groups, gender, and districts within Zimbabwe. Participants consisted of both men and women, ensuring a balanced gender representation. They were drawn from multiple districts known for their lithium mining activities, providing a comprehensive view of the community impacts across different regions. The age range of participants spanned from young adults to the elderly, capturing a wide spectrum of experiences and perspectives related to the socio-economic and cultural effects of lithium mining.

3.1 Geographic Distribution of Participants

The distribution of respondents who participated in the research was carefully organized to represent a diverse cross-section of affected regions. Participants were drawn from various districts, including Buhera (21 participants), Bikita (10), Mberengwa (19), Mutare (3), Harare (2), and two from the Beitbridge and Forbes border posts. This selection aimed to ensure comprehensive coverage of areas influenced by lithium mining activities, allowing for a well-rounded understanding their impacts. The specific number of participants from each district is detailed in the accompanying figure, illustrating the breadth of the study's reach and the inclusivity of the research process.



3.2 Profile of the participants

The profile of the participants research was diverse, encompassing various roles and perspectives within the community. The group included 11 mine employees who provided first-hand insights into the working conditions and economic implications of mining. Additionally, ten community leaders contributed their knowledge on communal impacts and local governance issues. Three faith leaders and three health workers offered perspectives on social, ethical and public health effects of lithium mining while four businesspeople discussed the economic ripple effects. The study also included two border staff who provided a unique angle on cross-border dynamics, two mining/business associates with industry-specific insights, and one teacher who highlighted the educational and youth-related impacts. This varied participant profile provided useful information which shapes our understanding of the multifaceted effects of lithium mining. 67% of the participants were over 35 while 37% were between 18 and 35 years old. The gender distribution of participants in the research was balanced, with 58% male and 42% female participants.

3.3 Research Limitations

The study faced several limitations, including the inability to interview senior mine staff and the challenges posed by seeking information on a sensitive subject like lithium mining within an intolerant governance system. Despite these obstacles, the research employed various snowball strategies to record the voices of community members and lithium mining employees directly affected by the mining operations. We also gathered views of senior government and mine officials in publicly available information.

Sign at the Sabi Star Mine in Buhera. Max Mind's slogan is "Zero Harm is our Belief."

Photo: KEESA ADR

4. Research Findings

This section presents the key research findings on the impact of lithium mining in Zimbabwe, bringing to the fore the stark contrast between the benefits accruing to the politically connected elites and the adverse effects on the broader community. Mining activities have led to «cultural contamination», environmental degradation, and increased harmful social practices, social disruptions and human rights abuses at community level and within work environments. Rising social mistrust and tensions, deterioration of local infrastructure like roads and bridges, and exposure to risks of traffic accidents and the nuisance of dust from increased road traffic volumes are some of the identified socio-environmental impacts of lithium mining. Community concerns are often superficially addressed, with poor dust suppression and excessive water usage. Displacement has caused hopelessness among affected families, cultural and spiritual trauma due to unresolved exhumations and reburial of loved ones. Reports of human rights violations, including sexual abuse and violence, are rampant, and environmental pollution is significant. Workers endure poor conditions, inadequate health and safety measures, and low wages, with limited local employment opportunities exacerbating economic disparities. These findings underscore the profound and multifaceted social impacts of lithium mining, contrasting the benefits for a select few with widespread community detriment.

4.1 Forced Displacements and Relocations of adjacent communities

The issue of forced displacements and forced relocations has been downplayed through opaque and insincere negotiations and outright threats to families and community leaders subjecting the affected families to accept badly conceptualised and drafted contract conditions.

4.1.1 Inadequate and Non-transparent Consultations on relocations

The research establishes that families that were displaced as a result of lithium mining activities in Buhera were not adequately consulted, setting off a troubling pattern of inadequate engagements and continuous disregard of the rights of affected families. The establishment of

Sabi Star Mine led to the relocation of approximately 40 families who were relocated to Murambinda Growth Point and 17 to ancestral lands in Tagarira and Mukwasi Villages near Sabi Star Mine while one family relocated to Mberengwa district in the Midlands Province. Fewer displacements or evictions were reported in Mberengwa and Buhera although the processes were characterised by poor consultation and lack of sufficient detail. Key informants accused the mines' management of hiding crucial information from the affected families with the complicit support of senior government officials, local traditional leaders and politicians. Affected families also allege that officials coerced them into consenting to sign binding legal agreements before they could sufficiently understand their implications. They, therefore, feel deprived of an opportunity to negotiate fair compensation for the displacements as they were denied legal representation. As a result, they received compensation averaging US\$1,900 per family, which fell far short of the US\$5,000 they had suggested as fair compensation for their losses;

«We even tried to get our own lawyer who is my young brother to assist us in the negotiation process, but the District Administrator (DA) was not happy. Whatever our chief and the DA says goes, so we were disempowered.» (An affected community member - Murambinda Buhera)¹⁷.

Sabi Star Mine officials such as the engineer, the Buhera district administrator (DA) and village head Tagarira and Chief Nyashanu were some of the prominent officials who attended the meetings that paved the way for the relocation of the villagers. Key informants at Murambinda growth point complained that the presence of these officials served more to coerce rather than consult the affected families. The relocated communities claimed that they have no minutes of the meetings that they held with the mine officials, mines ministry and local leadership but they confirmed being summarily consulted. They also acknowledged signing the agreements to relocate but confessed that they hardly understood the contents of the agreement and were not legally represented.

4.1.2 Human Rights Violations through Forced Relocations

The displaced 40 families relocated to Murambinda growth point, Tagarira and Mukwasi Villages near Sabi Star Mine expressed concerns that they feel vulnerable, hopeless and desperate as their rights are violated due to the complicit involvement of traditional leaders and government officials whom they accuse of hiding crucial information and procedures from them. These families accused the government and local gatekeepers like headman Tagarira and Chief Nyashanu of taking the side of mining authorities, a behaviour they associate with gifts they receive thereby conveniently ignoring the affected families' legitimate contractual and moral concerns. Community participants expressed apprehensions regarding a troubling pattern whereby the chief, village leaders, officials, and government representatives consistently take the side of lithium mining corporations during disputes. Consequently, there pervades a feeling of vulnerability and despair among the affected families, as the very system meant to safeguard them forsakes them, treating them as second-class citizens.

«Can you imagine losing your ancestral land and your traditional Chief and government officials taking the side and speaking on behalf of the mine's management, silencing every legitimate voice? You try to talk to the local authority leaders, and everyone tells you that our hands are tied up. The worst part is that we have been removed from the local village register where we came from, and here in Murambinda, we have not been received well. We are called people from the «Komboni» (compound), and no one represents us. We feel empty, and we are being treated worse than foreigners now.» (FGD participant-Buhera)

In rural areas, there is an expectation that traditional and governmental authorities should safeguard the rights of local Zimbabwean citizens. However, office-bearers who were expected to protect the community became perpetrators of human rights violations. The derogatory term «komboni», used in the quotation is a colonial reminder of the stigma associated with housing units for farm workers of Malawian and Mozambican descent during colonial times.



Last harvest: Several-meter-deep trench in Bikita, with the mine in the background. According to local sources, the two sections of the trench will be connected after the corn harvest.

Photo: KEESA ADR

The quotation reveals a deep sense of rejection of the affected families by the new community at Murambinda growth point. Relocated families were also removed from the village register, an indicator that they no longer belong to their former village. The village register is more than a record, it represents access to community donations from the government and non-government organisations. Thus, being struck off the register carries significant consequences, further alienating them and depriving them of essential support systems. This exclusion means they can no longer access vital government and NGO assistance for things like agricultural inputs support and food items during droughts, intensifying their sense of displacement and loss. There was use of coercion and lack of transparency in the negotiation processes for the relocation of households affected by lithium mining activities. Community members reported signing displacement agreements under threats from both mining and government officials with little opportunity for genuine consultation. Furthermore, the failure of mining companies to fulfil promised compensations, coupled with false reporting to authorities, highlights a pattern of disregard for the rights and well-being of affected communities.

4.1.3 Inadequate Relocation Compensation and Living Conditions

The forced relocations from the Sabi Star lithium mine also resulted in insincere compensation and living conditions which, according to concerned families, is grossly inadequate, violating their right to decent housing and fair compensation. The research revealed that each family was supposed to receive property measuring 450 square metres. However, relocated families were only awarded 327.62¹⁸ square metres of land, collectively short-changing the families by 2,692.36 square metres. This significant reduction in the promised land area directly violates the agreement and the families' rights to fair compensation. Moreover, the newly provided housing units are substandard, with villagers reporting structural issues such as cracking walls and rising floors just four months after moving in.

These inadequate living conditions compromise the health and safety of the relocated families, violating

their right to decent and safe housing. The families also revealed that they were provided with only US\$1,000 as a relocation fee and monthly payouts of US\$150 for six months. These amounts were deemed insufficient to cover their long-term needs and compensate for the emotional loss and their established ancestral homes and livelihoods.

4.1.4 Failure to Consider Extended Family Members in Housing Allocations

In Murambinda, married or adult family members who did not own their own accommodation were not provided with separate housing units during the relocations, constituting a severe violation of their housing rights. These adults were in the process of building their homes on considered part of their parents' relocation units. This oversight created significant challenges as some families are now forced to live in overcrowded conditions especially at Murambinda Growth Point. For instance, one family of 13, that includes two in-laws, lives together in the five roomed housing unit at Murambinda Growth Point, highlighting the dire consequences of this neglect. The exclusion of adult family members from the relocation agreements disregards their need for personal space and the establishment of their households and forced some families to live in cramped and uncomfortable conditions, which is not conducive to maintaining their dignity and quality of life. Focus group discussions highlighted secondary challenges such as family feuds which could be addressed when newly married family members move to their own allocated ancestral spaces in the village. The lack of consideration for the needs of these adult family members reflects a broader failure to address the complexities of family structures and the rights of all individuals affected during the relocation negotiations.

4.1.5 Loss of Livelihoods and Insufficient Support

Other human rights violations suffered are related to economic and social rights, although they are directly linked to issues already discussed in the previous section. The relocations resulted in the loss of traditional livelihoods for the affected families, violating their economic and social rights. The families were moved from areas where they had engaged in subsistence farming and other income-generating activities for generations. The situation is traumatic for the 22 families

which relocated to Murambinda Growth Point which does not support their agricultural activities, leaving the families without their primary means of sustenance. This abrupt change has forced them to seek alternative livelihood opportunities often without adequate support or resources. One key informant narrated how her old mother resorted to manual quarry stone processing for sale at Murambinda Growth Point.

Additionally, the relocation agreement did not adequately address the fate of livestock left in the custody of relatives and friends back in the village, a crucial component of the families' livelihoods. A focus group discussion with affected families at Murambinda revealed that many villagers had to leave their livestock behind, with some forced to sell their stock at lower prices or pay people who take care of their animals back in the village. These shortcomings placed an additional financial burden on the relocated families, further exacerbating their economic hardships²³. The families also confirmed receipt of monthly payouts of US\$150 for six months and a one-time relocation fee of US\$1,000, which they complained to be grossly inadequate in compensating for the long-term loss of income and livelihoods.

4.1.6 Exclusion of Women in Relocation Agreements

The research further highlights that traditionally married women were in most cases excluded in the signed relocation agreements constituting a clear violation of women's rights. Several women we spoke to accused mine authorities of side-lining them by choosing to acknowledge and deal with their husbands only. This exclusion not only undermines the affected women's legal standing and property rights but also exposes them to potential future displacement or loss of housing security.

Furthermore, the lack of representation and recognition in the agreements leaves women vulnerable to changes in family dynamics, such as a husband taking another wife, which jeopardises their housing security. For example, youth key informants confirmed that one young woman divorced after moving into the housing units at Murambinda Growth point but left the marriage with nothing. This systemic failure to recognise and protect women's rights violates both national laws and international human rights standards that emphasise gender equality and the protection of women's property and inheritance rights. Thus, the lack of inclusion and representation of women in the relocation agreements

The mine in Buhera begins just behind the house.
Photo: CNRG



underscores a significant human rights violation that must be addressed to ensure justice and equity for all affected individuals.

4.1.7 Contaminated Water and Health Risks

In Mukwasi and Tagarira villages near Sabi Star Mine, relocated villagers complained that the mine provided communal boreholes which they say produce muddy and yellowish water, which has been linked to sporadic cases of diarrhoea among the villagers. Moreover, the failure to provide clean water exacerbates the already difficult living conditions faced by the relocated families. Apart from the mining company failing to provide independent water sources as initially requested, the communal water sources provided fail to meet the community's expectations and needs, forcing some families to drill their own boreholes at an extra cost as they cannot rely on the contaminated borehole-water that was provided by the mine.

4.1.8 Threats of relocation of business centres, public facilities and more households

Apart from the actual relocations and evictions in Buhera,, Bikita, and Mberengwa, the expansion of lithium mining operations in all three researched sites threatens to relocate more families away from their ancestral lands in order to pave way for the mining activities. The research established that in addition to the trauma caused by actual relocations, communities in Buhera, Bikita, and Mberengwa face constant fears and threats of further relocations to new areas. In Buhera district, the traumatic experience is worse for families that were displaced to nearby ancestral lands in phase one of the relocation program.

A participant in a focus group discussion with youths from Mahlebadza near Sandawana Mine in Mberengwa expressed concern that their family has ceased agricultural activities and is failing to maintain deteriorating houses due to threats of relocation. The lack of clear timeframes and plans from the mining company regarding relocation adds to the uncertainty, making it challenging for families to plan their next move. For example, the Sandawana community, including its shopping areas, schools, and clinics, has been informed of a potential relocation although the affected stakeholders have not been informed of the

destination and timeframes of this traumatic process. As a result, residents are left in a state of continuous fear and uncertainty concerning their future.

An excerpt from a conversation below highlights these concerns.

«The past year has been filled with stress and uncertainty for our parents as we faced the looming threat of relocation to an unknown destination due to mining activities on our ancestral land. This situation has prevented us from planting anything in the current season, leaving us grappling with how to sustain ourselves amidst the constant presence of mine trucks and the uncertainty of our future. The fear of relocation has made it difficult to attend to our collapsed or cracked houses, as we are unsure if rebuilding efforts will be in vain if we are forced to move again. The lack of a concrete timetable for relocation adds to the mental torture, especially for our elderly parents, who have lived on this land for decades. As youths, we may cope, but it is an unbearable burden for our parents. A concrete plan for relocation would have allowed us to recover from the shock but, instead, we are left waiting indefinitely, which is more agonizing than the actual relocation itself.» (Youth FGD Participant Sandawana, Mberengwa)

The quote underscores the profound trauma and frustration resulting from the absence of clear plans and decisions regarding relocating families near mining sites. These operations encroach upon ancestral agricultural lands, leading to indirect social issues such as food insecurity due to disrupted farming seasons. Additionally, blasting activities compromise the structural integrity of houses, posing safety risks like cracks and collapse. At the time of data collection, researchers were informed that mine authorities at Sabi Mine in Buhera had sited new boundaries which run directly behind the relocated houses just two days before the team's arrival which raised suspicions of further displacements. The experiences narrated by families facing threats of relocation reveal that the trauma of the threats of relocation has far-reaching social and psychological effects potentially surpassing the disruptions caused by appropriately planned

relocations. These new developments reflect on the poor planning and extractivist behaviour of Chinese mining companies that pays little attention to long-term planning and environmental scanning. Considering that mining operations at Sabi Star are currently covering only 5 out of the 40 claims, more families are likely to be relocated. This lack of foresight in planning reveals a predatory exploitation of national resources which disregards local community rights.

4.2 Environmental Pollution and Degradation

Environmental pollution and degradation are some of the major challenges noted in this research as elaborated in the next sections.

4.2.1 Community Exposure to Environmental Pollution.

The issue of environmental pollution and degradation was recurrently mentioned in the three lithium mining communities of Mberengwa, Buhera, and Bikita. Local key informants raised serious concerns about noise, water, and land pollution which they say poses significant threats to flora and fauna. Respondents highlighted multiple challenges linked to mining activities such as rock blasting and the (mis)management of slurry spillovers, which have extensive adverse impacts on human, animal, and plant life. For example, some families in Mberengwa and Buhera reported the loss of cattle and sheep due to poisoning linked to mine slurry spillovers from the Sandawana and Sabi Star Mine. Likewise, in Bikita, a key respondent recounted how the Matezva Dam had a slurry spillover and contaminated adjacent communal lands and rivers, leading to the death of cattle.

«We have a case of one community member who told me that two of his cattle died after drinking contaminated water from the mine slurry. The poisoning of animals in our community poses a severe social-economic impact as the family relies on these cattle for everything. For some families, these animals represent their 'gods'. The dominant Gono Moyo Chirandu Clan in Bikita worship and revere cattle as their totem.» (Local teacher informant, Bikita)

According to a local teacher, the loss of animals due to contamination extends beyond economic repercussions; it holds spiritual significance for certain communities.

Animals are revered as spiritual providers and sometimes named after ancestors, symbolising a connection to ancestral worship and cultural heritage. For example, people of the Gono Moyo Chirandu totem of Bikita, adore and append spiritual value to cattle. Therefore, losing cattle is both material and deeply spiritual, profoundly impacting families and communities.

The totem mentioned in the quotation is a cultural symbolism represented by different revered animals to identify relations and ancestral worship. Families worship ancestors through these animals, and families that revere similar animals should not inter-marry.

Thus, the accidental deaths of animals through mining poisoning incidents not only represents an economic loss but also invite anxiety, especially for bulls named after revered ancestors. Families living around the lithium mine in Bikita belong to the Gono totem symbolised by a Mashona bull, hence the specific mention in the above quotation. Thus, the poisoning of cattle is a big issue in Bikita and Buhera, where this ethnic group is dominant.

4.2.2 Noise pollution

The noise which results from mining activities has been identified as an issue of concern among the communities. A local businesswoman recounts the noise around the mine:

«We have a combination of dust pollution from trucks, noise from the rock blasting, trucks moving in and out, mine engines running twenty-four hours, and sleeping at night is a challenge. During the first days, I could not sleep. These days, it is better not because there is no noise but because we are normalizing it. We also have a lot of litter everywhere in this community, which is directly linked to the mining activities despite their effort to pick it.» (Local businesswoman key informant-Mberengwa)

The quotation highlights how the effects of noise pollution extend beyond annoyance as it also leads to loss of concentration, poses health risks particularly to vulnerable groups like children and older adults, and disturbs the overall peace of the community. Additionally, community environmental activists raised concerns about the disturbance this noise could cause on wildlife, which include potentially impacting their reproductive behaviours. One environmental activist in Mutare, for example, mentioned the effects of noise on delaying the reproduction of wild animals.

4.2.3 Heavy Exposure to Dust Particles

In Mberengwa and Buhera, the research team observed thick and heavy dust particles on buildings, road signs and trees along the gravel roads linking the lithium mines and main tarmac roads. The dust generated as 30-tonne

trucks enter and leave mining communities particularly in Buhera and Mberengwa districts exposes families, businesses, schools, clinics and other service centres adjacent to the roads, causing significant health risks from excessive dust exposures.

In Buhera, resettled households close to Sabi Star Mine complained about potentially toxic dust from rock blasting which women informants claimed it settles on their kitchen utensils. In Mberengwa, the research team observed that major mining operations like extraction, loading, and weighing of lithium ore occur right close to public facilities putting residents, school children, clinic patients, business owners, and customers at risk of inhaling dust particles and potentially harmful blasting fumes.



In Buhera, countless trucks drive on unpaved roads every day, causing significant dust emissions.

Photo: CNRG

This accumulation of thick dust particles poses challenges in maintaining cleanliness and quality standards, potentially impacting customer satisfaction and reputation of food and clothing retail businesses.

A key respondent at the Sandawana Shopping Centre reflects on the challenges:

«Due to the dust issue, I have stopped ordering new clothes at my shop in Sandawana. Our stock is always dust-covered, making it challenging to sell clothes and food items. We also have cases of Asthmatic people facing attacks due to the dust. Our biggest fear is that we don't know what is contained in the lithium dust and whether it has other health effects on us.» (Shop owner at Sandawana Mine)

Business owners face challenges such as dust accumulation on their goods, leading to cleanliness issues and potential losses in customer satisfaction and revenue. These inconveniences underscore the secondary challenges associated with lithium mining activities in adjacent communities and local businesses.

Although Sabi Star and Sandawana Mines in Buhera and Mberengwa conduct dust suppression exercises to mitigate the excessive exposure of communities to dust, current mitigatory measures that rely on water appear insufficient to deal with the problems. Another adverse

effect of dust suppression interventions is the excessive water drawing from local rivers, such as the Mutsime, Matezva and Save rivers in Mberengwa, Bikita and Buhera. This has an unintended effect on women who are largely involved in fetching water for household use in areas such as Mberengwa and Buhera which are characterised by poor rainfalls and affected by climate change. Excessive water drawing leads to other environmental effects such as the death of aquatic life. Remarks from a nurse below elaborate a potential link between the excessive dust exposure and an increase in cough-related ailments in the Tagarira and Mukwasi villages:

«Since this mine started operating in this area, we have an increased number of people complaining about cough-related problems in Mukwasi and Tagarira Villages in Ward 12 of Buhera North.» (Local Nurse)

These observations highlight the challenges that lithium mining has introduced in nearby communities due to the dusty roads and the mining operations. Although more data may be needed to establish the relationship between excessive exposure to dust due to mining activities and an increase in cough-related ailments in this area, the comment provides insights into the community's perceptions regarding dust from lithium mining.



A truck on the access road to the Sabi Star Mine, Buhera.
Photo: KEESA ADR

4.3 Effects of Lithium Mining Activities on Local Infrastructures and Access to natural Resources.

The next section discusses the effects of lithium mining activities on local infrastructure like roads and bridges which the mining companies are neglecting despite documented promises to develop them as a pre-condition to conduct mining activities in these communities.

4.3.1 Destruction of colonial-era roads and cracking bridges

The research notes that Sandawana and Sabi Star mines in Mberengwa and Buhera promised to rehabilitate, widen, and tarmac roads leading to the lithium mine sites. These promises made during the official opening of the mines raised hopes among communities whose narrow gravel roads constructed during the colonial era were long overdue for upgrades since Zimbabwe got political independence from British colonial rule in 1980. However, this research confirms that these promises have not been fully met. Instead, the existing roads and small bridges have been badly damaged due to the heavy 30-tonne trucks carrying lithium ore from the two mines. Initially designed for low-volume

colonial-era traffic, these roads are now strained due to increased volume of heavy vehicles carrying lithium ore from the mines. Consequently, these roads and bridges, which are ill-suited for such weights and volumes, are rapidly deteriorating, posing risks to road users and nearby residents. One respondent remarked that:

«Our roads have come under pressure since they were not designed for heavy 30-tonne trucks. We have bridges that were built during the colonial era and have never been serviced since then. Now, the vehicles contracted to carry lithium use the same narrow roads and bridges designed to service rural areas during the colonial era. Most are narrow and cracked, posing the danger of collapsing anytime soon. We fear that our communities will be cut off from towns like Zvishavane if interventions delay.»
(Community leader-Mberengwa)

The research team observed a small bridge along the Sandawana gravel road that had collapsed, evidence of the damage caused to these roads which the community complained that it has taken longer to fix despite the low costs involved in fixing it.



Water Bowser Truck conducting unsuccessful dust suppression exercise as shown the dust behind it.
PHOTO CNRG

This research evidence further reveals the mining companies' lack of investment into infrastructure that benefits the community and supports its mining operations. The failure to honour promises to upgrade these roads suggests an extractivist approach and a naked disregard for environmental considerations by the largely Chinese controlled mining companies.

4.3.2 Community Exposure to Traffic Security and Safety Dangers

Further investigations reveal that lithium mining communities are exposed to new challenges that include increased exposure to traffic accidents due to the frequency and volume of the 30-tonne trucks carrying lithium ore. In Buhera and Mberengwa, the Sandawana and Sabi Star mining companies promised to install visible road signs and speed humps along the roads passing through schools and shopping centres. Key respondents revealed that during peak times, between 50 and 150 trucks carrying lithium ore leave the mines.

As a result, the traffic volumes have resulted in heightened risks for lithium mining communities due to increased exposure to traffic accidents exacerbated by the size and frequency of heavy vehicles on poorly maintained roads. Similarly, key respondents in Bikita raised related issues over the dangers posed by regular passage of heavy vehicles during peak hours. Respondents in Buhera recounted an accident in Buhera in which a preschool child who was attempting to cross the road in the dense dust clouds generated by the trucks lost her life. These incidents have prompted safety concerns which have forced parents and guardians to resort to inconvenient measures such as escorting children across roads when they go to school. As one grandmother remarked:

«We thought accompanying kids to school was for people in Harare. As a grandmother, I find myself accompanying my grandchild to cross the road to and back from school. I used to see my children accompanying their kids to school in Harare but never imagined myself doing it here in the rural areas.» (Displaced Grandmother and community leader in Buhera)

The quotation above highlights the emerging inconveniences and risks both grandparents and children face in areas like Buhera due to increased traffic volume and frequency due to lithium mining. The situation exposes the community to heightened fatal accidents.

4.3.4 Lack of access to local resources

Communities lost access to natural resources previously accessible to them before the onset of lithium mining in Buhera, Bikita and Mberengwa. For example, community members we interviewed cited lack of access to local mountains that formed a critical part of pasturelands in the three surveyed mining areas, leading to a crisis for grazing spaces for their cattle herds. Community respondents from all three mining sites reported that local mountains traditionally used for grazing have become inaccessible due to mining operations which have resulted in companies fencing-off land for mining purposes, posing significant challenges and risks for livestock and their owners.

«We used to send our cattle to the mountains [now the lithium mine area], but now it's a no-go area. If your cattle trespass onto this area, it's an offense. Besides exposing our cattle to potential poisoning from blasting chemicals, the mine does not want to see people and domestic animals like cattle in the area. This has left us with minimal land for pasture in this area.» (Youth respondent in Mberengwa)

In Sandawana, Mberengwa, locals have lost access to the Mweza Mountain Range, which is traditionally used for cattle grazing, due to the presence of mine pits and hazardous chemicals,.

Similarly, in Bikita, the Sino Mine took over land allocated to the community under the land reform program in 1999 without warning, rendering it inaccessible to local families. Additionally, the mine cleared a local mountain area to pave way for the construction of the mine's new offices despite protests from the Chief, who was instructed to allow the Chinese mine to take the land.

The trauma of losing access to vital local resources such as pasturelands, dams, rivers, and materials like

sand, quarry stones, and firewood leaves lasting scars, especially for the older generation who depended on these resources for decades. For instance, the community's loss of access to the quarry stones in Bikita, a commodity once freely available for construction purposes, highlights the profound impact of the Chinese Lithium mine operations on community livelihoods and way of life.

Similarly, local women had free access to quarry dust, known locally as 'vim', which is used for scouring dishes but this has since stopped with the coming of the new Chinese investors who are processing the dust for further lithium extraction. The vim product used for scouring dishes has social and economic value for the women. They use it to wash plates and sell the excess to non-residents of Bikita along the Mutare - Masvingo

Highway. In Buhera and Bikita, respondents complained that the mining companies have fenced-off community dams, creating water challenges for animal and human consumption. Likewise, school children's direct access to short routes to school has been affected by the fenced lithium mining perimeters forcing them to take longer routes.

4.4 Effects of Lithium Mining on Human Rights and Work-related Violations

The research findings establish that several human rights violations against mining employees have been experienced at all the three researched lithium mining sites. In old mining sites such as Bikita and Sandawana mines, key respondents took exception at the abusive disposition of the new Chinese management at the mines which they compared to the British and German

Polluted river in Buhera

Photo: CNRG



nationals who previously owned the mines. Respondents in Bikita indicated that the Chinese managerial style is generally rude, arrogant, and forceful resulting in explosive working environments. The study further reveals similar challenges regarding weak workers' committees, poor, overcrowded housing, poor salaries, ill-treatment of staff, limited adherence to health and safety standards and poor medical help schemes, among other challenges. The following sections provide detailed accounts of the research findings on these issues.

4.4.1 Work related Sexual Abuse and Violence

The research establishes that there are accusations of sexual abuse and violence, particularly targeting local girls and married women in employment related matters in Bikita and Buhera, which represents a grave violation of human rights. For example key informants in Bikita and Buhera specifically complained about the exploitation of local women by the mines' management, citing examples of single Chinese managers who leverage subtle promises of job opportunities or promotions to coerce women into sexual relationships. The exploitation, which is exacerbated by high unemployment rates in Zimbabwe, does not exonerate Zimbabwean managers who are also accused of the same practices leaving women vulnerable and compromising their autonomy. The situation at Bikita Mine and Sabi Star Mines, is particularly concerning. For example, in Bikita, three key informants confirmed that Bikita Minerals management and Chinese nationals use the promise of work opportunities or promotions to entice women, including those who are married, into sexual relations. An excerpt from one of the conversations below elaborate the issues:

«The Chinese love our local women a lot, and some of them are involved in sexual relations with married women who are either offered a job or promoted, provided they go between the sheets with the bosses. But this has caused community mistrust as it led to the breaking of some families. It also causes mistrust because any woman who gets a job or gets promoted, even on merit, is suspected of involvement in sexual activities at work.»

The above statement confirms that women are exploited to get employment or promotion, which is a human rights violation at work. However, the involvement of foreign nationals in such practices represents another dimension; the heightened mistrust and hatred which has the potential of causing racial conflicts within the communities. The complaint levelled against the Chinese is that that they are compromising local women and destroying local families. These complaints reveal that women are exposed to secondary human rights abuses due to the desperation caused particularly by limited employment opportunities for women.

4.4.2 Weakened Workers Committees

The research establishes cosmetic representation of workers' issues by weak and compromised committees at the three mining companies. For example, a respondent in Buhera remarked:

«Our workers' committees are just there to appear like we are represented. They have no power. They have never represented any case despite the ill-treatment we suffer daily. We have raised the issue of salaries and wages, which keep changing occasionally without explanation.» (Mine employee, Buhera)

Another respondent in Bikita had this to say:

«The workers' committee is in place but ineffective because it has been compromised by the management. Our worker's committee has been compromised. They are given gifts to avoid tackling workers' issues. We only trust one workers' leader to stand for us. The rest are puppets for the management's bidding.»

The two quotations summarize the compromised nature of workers' committees, which explains the poor working conditions to be discussed in the sections to follow. Compromising legal structures like workers' committees has long-term implications for the social well-being of mining communities. Regarding compliance with workers' committee legislative instruments, a ZELA report (2023) reveals that employers of Sabi Star Mine's contractors such as SinoHydro Corporation were violating labour rights

and occupational and safety regulations by undermining activities of workers' committee representatives. A key informant employed by Max Mind also raised concern regarding late payment of salaries and the victimisation of employees who had wanted to form a workers' committee. These same sentiments were raised for Max Mind and its contracted companies like SinoHydro.

4.4.3 Overcrowded Staff quarters

The issue of overcrowded and poorly ventilated staff quarters was highlighted as a common challenge in all three researched sites. For example, in Mberengwa, the Sandawana Lithium mine adopted old mining houses built in the 1970s. Some of these houses were designed for a few staff members, making accommodating the current high staff numbers difficult. Apart from the size of some of the structures, respondents cited some specific housing structures called «Zvinzou», as poorly designed houses shaped like an elephant's back with inferior ventilation and low roofs made of concrete. Zvinzou in vernacular means shaped like an elephant. Other mine workers are forced to use camping tents as accommodation.

Likewise, respondents from Bikita painted a gloomy picture of the accommodation situation at the mine.

They observed that the mine constructed tiny, shared-staff dormitory houses with shared public ablution facilities. The respondents expressed concern about the dormitory arrangement, which they said exposes staff members to airborne diseases like tuberculosis and remind staff of old high school boarding days with no privacy. They claimed that the low roof levels of these structures make them very hot during summer. Similar employee accommodation challenges were highlighted at all three mines which do not accommodate families of mine staff members and have poor accommodation compared to other mines such as Mimosa and Unki which provide their workers with modern and comfortable housing.

4.4.4 Low Levels of Employment of Local People

Employing residents is a common pledge made at all three mining sites, with assurances that over 50% of the workforce, particularly in non-technical roles would be sourced from nearby communities. In Mberengwa, the Chronicle Newspaper Online, a national newspaper, reports that over 1,000 people were employed at Sandawana at the beginning of lithium mining in 2023. At Sabi Star in Buhera District, contrary to reported statistics about hiring more than 80% of staff amongst locals, this research establishes that lithium mining



Access road to Bikita Minerals
Photo: CNRG

companies still prefer to hire people from outside the mining communities even for casual jobs. Respondents highlighted that the mining companies employ individuals from outside the local mining areas even for basic tasks that community members could perform. Corruption in the staff recruitment process was reported as a significant factor contributing to the exclusion of locals. In Buhera and Mberengwa, respondents complained that the involvement of traditional chiefs in hiring locals as workers has inadvertently led to unintended effects of abetting corruption as the local gatekeepers are accused of demanding bribes to facilitate employment opportunities. Similarly, in Bikita, a prominent respondent opposed the engagement of local gatekeepers in the hiring process, advocating for clear company recruitment procedures instead. This sentiment is echoed by another respondent who claims that involving local gatekeepers has not improved employment prospects but has fostered resentment and mistrust within the community.

One respondent, a businessman who has three children with qualifications in mechanical engineering, motor mechanics, and public administration, lamented that despite seeking employment through the chief's office, his children were overlooked, with insinuations that bribes were required. Moreover, the mining company's management stands accused of favouring their relatives from distant areas for positions, further marginalising local applicants. The research team were barred by a security guard who hails from another province to access part of the Mweza Mountain, perhaps confirming the claim that people from faraway places are hired even for positions such as security guards. While security is a crucial mining function, lower-level security functions like manning facilities does not require people with high qualification in Zimbabwe. The overarching observation is that residents are not prioritised in employment due to endemic corruption involving management and local gatekeepers. Consequently, local people are generally not satisfied with current employment representations.

4.4.5 Human Rights Abuses Due to Short-Term Fixed Contracts in Zimbabwe's Lithium Mining Sector

The widespread use of short-term fixed contracts in

Zimbabwe's lithium mining sector by Chinese-owned mining companies has led to numerous human rights abuses. The Zimbabwe Diamond and Allied Minerals Workers Union (ZDAMWU) has raised concerns that these contracts undermine job security and violate labour rights. By offering short-term contracts, these companies are accused of casualising jobs and avoiding provision of long-term employment benefits and protections such as job security, health insurance, and pensions. This precarious employment situation leaves workers vulnerable to exploitation and harsh working conditions which deny them stability and benefits associated with permanent employment. Furthermore, some workers of companies that are sub-contracted to Max Mind complained of casualisation of labour such as being awarded monthly or two weeks contracts (ZELA, 2023). The ZELA Report reveals that these companies sometimes issue out contracts for 1 month. These labour related violations were also levelled against Max Mind Investments during key informant interviews in Buhera. Max Mind as a contractor also has an obligation to monitor compliance of contractors in terms of the Chinese Due Diligence Guidelines for Responsible Mineral Supply Chains²⁴. Furthermore, Chinese mining companies have been accused of terminating sub-contract agreements with black indigenous companies, favouring Sino firms linked to their parent companies for even basic services instead. The practice marginalises local businesses, perpetuates economic inequities and reinforces systemic discrimination.

Zimbabwe Diamond and Allied Mine Workers Union (ZDAMWU) took exception of the jobs provided by Chinese investments in Zimbabwe accusing them of failing to adhere to national or international labour standards, effectively creating a system of cheap and sometimes unpaid labour. This situation is exacerbated by a lack of governmental oversight and enforcement, which allows these abuses to continue unchecked¹⁹. As a result, ZDAMWU emphasises the need for routine inspections and stricter enforcement of labour laws at these mining sites.

The historical context of labour violations by Chinese-owned enterprises in Zimbabwe further underscores the

importance of such oversight. Despite the significant economic contributions of these investments, the disregard for labour rights and the exploitative nature of employment practices reveals a troubling aspect of the mining sector's impact on local communities and workers. This situation not only violates labour rights but also undermines the broader human rights of workers, including their rights to fair working conditions, equitable economic opportunities and social security.

4.4.6 Poor Salaries and Wages

The issue of salaries also came out as contentious, with respondents agreeing that current salaries and wages at all three sites do not compare favourably with other established mines or construction companies. As noted in the previous section, the short-term fixed term contracts create a conducive environment for poor salaries, and lack of access to long-term employment benefits. One respondent in Buhera recounted how her son, a former tipper driver, complained about his poor salary and resigned to join another company involved in road construction. These comments confirm earlier reflections by a senior ZDAMWU member who remarked that:

«The current situation in the lithium sector is so sad, if not addressed urgently we are going to face another wave of colonisation, slavery and cheap and free labour. As labour and as a trade union, we advocate systems that balance the power between capital and labour through approaches that guarantee the improvement, promotion and protection of workers' rights and interests characterised by economic equality, good governance and justice for all in society» (News Day 2024 Online)

The above comment specifically refers to the lithium sector and provides insights into the human rights violations employees in this sector face. The union alleges that the government is aware of the challenges but chooses to ignore the issues purportedly to safeguard continued Chinese investments into the country. A 2023 report by EnviroPress Online (2023) shows that despite rising inflation and amid intense lobbying by the Bikita Minerals workers' committee, employees still got paid using old industry minimum

rates as the National Employment Council (NEC) for the mining industry has not gazetted new rates since late 2022. The guidelines set the minimum wage for the lowest paid employee at ZW217,299.84, equivalent to just over US\$200 at the official rate. The figure further lowers to US\$145 on the more realistic parallel market. The highest paid employees received ZW503,994.78 or US\$337 on the parallel market²⁰. Additionally, there are accusations of late payment of wages, which sometimes creates mistrust, fights, and anxiety as families fail to meet financial commitments on time.

Moreover, the issue of salaries denominated in the local currency and United States Dollars was cited as another challenge. Due to the instability of the Zimbabwean currency, late payment of salaries and wages means loss of value for portion of salary which is paid to workers in the local currency. Recent changes from the Zimbabwe dollar to the Zimbabwe Gold currency affected employees in all three research sites. Respondents, for instance, complained that their money loses value due to exchange variations as the USD gains in value, which advantages mining companies. As a result, lithium mineworkers complained that this delay is deliberate, characterising the situation as exploitative as the arrangements benefit mine owners. Thus, the salary issue in lithium mining communities has (in)direct social impacts that include exploitation of staff, mistrust in families, and other challenges associated with inadequate compensation. The effects are at individual worker, family, and community levels.

4.4.7 Poor Health and Safety Measures

Interviews with mine workers in Mberengwa, Bikita, and Buhera uncovered several concerns. There is a lack of regular screening for diseases such as TB and respiratory infections, with screening typically only occurring at the start of employment, as reported by a respondent in Buhera. Sections 22 and 23 of the Pneumoconiosis Act [Chapter 15:08] require that workers suffering from pneumoconiosis or those lacking proper certification should not be employed in dusty occupations. The Ministry of Mines and mining companies are expected to ensure that mining operators conduct regular medical examinations for their employees. The purpose of these initial and periodic medical examinations is

to prevent workers with pneumoconiosis from being exposed to dusty environments. A 2019 Auditor's Report presented to Parliament of Zimbabwe²¹ shows that bigger mines owned by Anglo-American like Mimoso and Unki generally comply with this regulation yet Chinese-owned lithium mines are failing to follow these established rules. Although medical aid and NSSA deductions are made, respondents indicated that they have not been re-screened after two years as required by laws. The failure to adhere to safety procedures such as screening of employees creates challenges from two perspectives. It creates conditions for employees to import communicable diseases like TB into the workplace environment due to interactions in social areas. Likewise, the conditions in the mines themselves create conducive environments for lung diseases like silicosis and TB as well due to the poor ventilation of living accommodation.

According to a ZELA report (2023), although some of Max Mind's service providers are registered with NSSA in terms of the National Social Security Authority [Chapter 17:04] for the provision of social security benefits to employees, a February 2023 payslip of one Sino Hydro Corporations employee revealed deductions of 4.5% from the salaries of general workers towards NSSA contributions, while 1.75% and 5% are deducted towards National Employment Council (NEC) General Fund and NEC Pension Fund respectively. Employers are also expected to contribute towards the NSSA Accident Prevention and Workers Compensation Scheme (APWCS) which specifically ensures that workers have access to necessary medical care and financial support in the event of occupational injuries or illnesses. Respondents across all locations also mentioned receiving subpar personal protective clothing, especially work suits and overalls. NSSA also mandates the promotion of occupational health and safety, ensuring that employers adhere to safety standards to prevent workplace accidents and illnesses. An informant employed by Max Mind also confirmed that the company deducts money towards workers' social security but they do not get the services. Thus, mine employees at lithium mines have rights to health and insurance contributions which mining companies are not remitting to the statutory organ (NSSA) as

required by law.

4.5 Effects of Lithium Mining on African Culture and Community

This section demonstrates how lithium mining activities have vandalised and contaminated local cultural norms and brought divisions among families and local leaders.

4.5.1 Erosion of Traditional Cultural Norms and Family Unity

The lithium mines surveyed are in rural areas with conservative African cultures regarding issues such as sexual relations and family unity. Lithium mining attracted workers and prospective job seekers from all over Zimbabwe and employees of Chinese, South African and Mozambican origin who are accused of importing practices and behaviours inconsistent with local cultural expectations. These include heightened extra-marital sexual relations and marriages of convenience with local young girls and married women, a practice not tolerated in rural Shona set-ups. They complained that such affairs lead to family disunity, spread of diseases, and influence young people to disregard local courtship and marriage customs. For instance, in a focus group discussion held in Buhera a participant blamed a driver from Gokwe district in the Midlands province for co-habiting with her daughter-in-law, resulting in HIV infection and the collapse of her son's marriage. Similarly, two cases of Chinese mine employees were cited, blaming them of enticing local parents to marry their teenage girls for as little as USD\$100. Chinese nationals are accused of contaminating Shona cultures by enticing women to meddle in marriage matters that should be handled by men through identified mediators.

These examples highlight the influence of lithium mining on Shona culture and the potential exploitation and violation of young women and their rights as they have limited decision-making power in such negotiations.

4.5.2 Cultural Confusion and Stigma from Inter-Racial Marriages

Inter-racial marriages and relations in lithium mining areas is a cause for concern as it introduces cultural confusion and stigma in the handling of marriage and

related customs. Excerpts from the conversations held with respondents, in the quotations below, illustrate the concerns of the communities:

«We are worried about inter-cultural marriages, especially involving the Chinese. Now that our daughter has been offered to marry a Chinese, how do we deal with cultural marriage rituals that involve a Chinese foreigner? What is the totem of this new son-in-law? This is a perversion of our culture. Children born from this sham ,marriage' will be totem-less!» (Woman in a focus group discussion Buhera)

«I call all my son-in-law by their clan names and totems. Baba Tinashe is a Shumba, and Baba Tino is a Mhofu. So, what do I call this Chinese in-law? Tell me, what do I call him? If there is a problem with the child, how do I communicate the problem with the ancestors? If the child dies, in which cemetery will he be buried?» (Community Elder in a group discussion-Buhera)

Marriages in Shona culture follow strict centuries-old practices where families related through totems cannot inter-marry. In the Shona and the greater Bantu tribes and clans, a totem, symbolised by a natural object, plant, or animal that members of a clan or family inherit as their spiritual emblem is regarded as a form of identity and even dignity to the clan from which the family comes. Clan groups have caretaking responsibilities over their totems. Traditionally, totems defined peoples' roles and responsibilities and their relationships with each other and creation. Its reference in the above quotation reveals the spiritual and cultural value, particularly in the marriage setup. Celebrated marriages involve a man and woman from two different totems joining together, and unions involving foreigners are believed to cause problems in the family, hence the concern with Chinese marriages. Similar concerns were raised in Mberengwa concerning a child who was fathered by a Chinese man. A key informant highlighted that the woman involved is reluctant to disclose the father's identity to community elders, a situation that confirms the stigma associated with interracial

marriages deemed 'cultural contamination' in Shona and other Bantu cultures. The situation exacerbates and fuels community gossip and social discord among families. These scenarios highlight the cultural and spiritual complexities and discord due to interracial marriages and the stigma associated with and directed at community members involved. These findings also shed light on issues rarely discussed or documented but critical for understanding the profound impact of mining activities on local cultures and belief systems.

4.5.3 Increased Social Rivalry and Tensions

Key informants complained that the convergence and congregation of employees and jobseekers of foreign origin and from all over Zimbabwe have brought other social challenges such as increased sexual work, drug abuse and criminal activities in the community. While these vices are not new to these communities, respondents complained about their scale and frequency which has disturbed the previously peaceful communities. For instance, local women accuse sex workers of enticing local men and migrants from «importing» sexually transmitted diseases into the lithium mining communities. The excerpts below illustrate the point:

«We had an outbreak of «blue sick» disease here. It is a rare sexually transmitted disease brought by the Chinese mine workers who use the money to lure our girls for sexual favours in the Sandawana mining compound.» (Youth Key informant Mine Employee-Mberengwa)

«I am angry because in my whole life, I have not been worried about sexual immorality involving my husband in this area because we are all related in one way or the other. But now, in my late forties, I am worried that these foreign women may entice my husband or my young son into sexual relations. They are chasing our husbands to get a few dollars from their mine salaries. Because there are many, some of them lure our young boys into pre-mature sex and expose them to sexually transmitted diseases. Worrying about your husband and son possibly competing for the same woman is difficult.» (Women Focus group participant-Buhera)



Mweza mountain range in Mberengwa, where the sacred site of Ibwerengwe was blasted for lithium mining.

Photo: CNRG

While perceptions that outsiders are responsible for the spread of diseases may not be accurate, it breeds community rivalry and tensions which also run along ethnic and racial lines.

4.5.4 Social Mistrust and Tensions between Mining Authorities and Communities

Zimbabwean rural societies fall under a structured traditional leadership that maintains and upholds community interests and ensures the peaceful co-existence of all members. Trust and mutual respect are key values that glue African communities together. However, lithium mining in Zimbabwe has led to tensions and mistrust within the communities as villagers constantly fight mining authorities over unsatisfactory relocations and insufficient consultations. An incident which ended in altercations between the mine's management and the community following accusations that the mine was operating too close to their homes

in Buhera in June 2023 exemplifies these tensions. Recounting this incident a woman in a focus group discussion vividly narrated this incident:

«We had an incident here where we nearly beat up a Sabi Mine manager for authorising mining operations right into our homes. They exposed our families to too much dust and our houses were cracking due to the vibrations from the machinery.» (Women Focus Group Representative, Buhera)

In Bikita, a key informant confirmed an incident that circulated widely on social media in which a Chinese manager was physically assaulted by disgruntled employees.²² The paradox is that Zimbabwean workers voice grievances over abusive management styles and substandard working conditions, while the Chinese managers criticize local employees for alleged laziness and unreliability.

4.5.5 Community Loss of Trust and Respect For Traditional Leadership

Traditional leaders in Zimbabwean communities earn respect for upholding local values and representing the community on local issues to government departments. However, this research highlights a new trend in lithium mining communities characterised by a lack of respect and trust for traditional leaders as they are believed to be betraying their communities by taking the side of mining companies and disregarding their legitimate grievances without consequences. For example, in Buhera, resettled families in Murambinda Growth Point accused Chief Nyashanu of corruption and profiting from ignoring their relocation hardships to the advantage of the mining authorities. They also allege that Sabi Star Mine built a significantly larger house for the Chief at the growth point, which they interpret as a bribe meant to make traditional leaders overlook their grievances. A respondent who was resettled confesses

during a focus group discussion held with Murambinda that;

«If I had not become a Christian, I would have burnt this house by now. Can you imagine that we are bundled here into these community houses that are already cracking? Yet the Chief has a whole house constructed on a very spacious ground away from us. Why did he receive that house? Was he relocated as well? He is using our suffering for his selfish ends.»

Similarly, key informants in Bikita and Mberengwa openly accused their headmen of corrupt tendencies in the recruitment of local people and colluding with mine authorities to hire their relatives and demand bribes from other jobseekers. These shifts signal a decline in the cultural principles of 'ubuntu' as shown by the lack of respect for traditional leaders.



Destroyed tap next to a cistern in Bikita.

Photo: KEESA ADR



«Keep out.»
Warning sign about blasting and heavy vehicles at the entrance to Mwenza Mountain in Mberengwa, where cattle used to graze and firewood was collected.
Photo: CNRG

4.5.6 Vandalism, and Disrespect for (In)tangible Heritage

The disruption of (in)tangible heritage emerged strongly as an area of concern due to the predatory way lithium mining operations are being conducted. For example, in Buhera, Mberengwa and Bikita elderly key informants lamented how lithium mining had desecrated their sacred sites, including ancestral worship mountains and rivers. In Mberengwa, respondents recounted how a revered sacred rock formation known as «lbwerengwe», (which means a place where leopards are seen) the community used for ancestral worship and religious ceremonies was blasted for mineral exploration. Similarly, respondents in Buhera mentioned the sacred status of a mountain around the Sabi Star Mine, where a deceased traditional healer used to practice ancestral worship and heal the sick. Informants spoke of the occurrence of supernatural events such as the mysterious appearance of a woman and a kudu that did not run away from people in Mberengwa and a man who fell into a trance in Tagarira village which they associate with ancestral anger caused by the Chinese miners' desecration of sacred sites. They also attributed the occurrence of a fatal mining accident to the angry spirits of deceased family members who were exhumed

for reburial in a different location.

4.5.7 Violations of Exhumation and Reburial Rituals

Key informants reported that a total of 8 graves were exhumed for reburial in order to pave way for lithium mining in Buhera. The graves belonged to three adults, including a traditional healer who was buried together with his spiritual artifacts and five children. Nearly 20 other graves were not exhumed but barricaded within the mining perimeter boundary. Affected informants from Tagarira village affirmed that their request to conduct rituals before the exhumations were not granted. They also requested USD3,000 for the exhumation of adult graves and USD1,500 for each child's grave but received USD\$1,500 for an adult grave and USD\$1,000 for children's graves. Informants stated that, in order to cut costs, the mine's officials excluded graves they considered as not very close to the mine and left some poorly-marked graves within its boundaries out of the exhumations.

The exhumations caused psychological and spiritual trauma to individuals who witnessed the processes in Buhera. Informants also expressed that local gatekeepers like the headman and the chief coerced

them to agree to the exhumations, suggesting their collusion and perhaps bribery by mine authorities to ignore their grievances. The excerpt below illustrates the sensitivity of the matter;

«The issue of burials remains a culturally and spiritually thorny issue for us. We find ourselves in a very spiritually concerning situation. Our beloved relatives were exhumed without following proper cultural rituals, and we have not recovered from that traumatic experience of witnessing the exhumation and re-burial of some of our long-forgotten relatives. We believe that their spirits are perhaps wandering around the mine area because we just carried their bones. As if that is not enough, we just discovered that here at Murambinda, we have been resettled on a piece of land that has graves belonging to strangers, and perhaps their spirits are also wondering who we are and what we are doing here on their ancestral land.» (Focus group discussant-Murambinda Growth Point, Buhera)

The deep concerns from affected families at Murambinda Growth Point and the company's failure to properly follow cultural exhumations and reburial rituals is causing spiritual anguish among community members. One cause for concern was that in the Shona culture, when exhumations occur, one is buried with all wearables and associated items they were initially buried with to keep the spirit of the dead from wandering about. Informants, therefore, complained that the sight of scattered old casket pieces left out by Doves Funeral Services during exhumations has repercussions for them. They also believe that if the rituals are not carried out, the spirits of their loved ones will always wander around the mine, which causes profound spiritual trauma. Our informants also complained that the mining company exhumed their loved ones without giving them a chance to consult their ancestors. The compensation offered by the mining companies, amounting to \$1000 for children's graves and \$1500 for adult graves was seen as insufficient and unfair since it did not factor the deeper spiritual significance of the burial process and was imposed without sufficient consultation.

4.6 Impact of Lithium Mining on Local Businesses and Small-Scale Miners

The establishment of lithium mining has had some positive impacts. It has resulted in increased cash flows which has created opportunities for local businesses. The increase in the number of people as a result of lithium mining has also seen some businesses booming and created opportunities for some entrepreneurs. A businesswoman from Mberengwa described how she expanded her guest house operations to accommodate more guests as a result of the influx of people associated with the lithium mine.

«We benefitted a lot from the mining activities. I built shops and bought a car because of the increased business linked to lithium mining here. I used to prepare a big pot of Sadza and slaughter 16 chickens daily to prepare lunch for lithium miners during the peak period. I used to accommodate ten people in one room, each prepared to pay \$10 due to the demand for accommodation.»

Our respondents noted similar improvements in business opportunities at shopping centres such as Gaza in Buhera. Mining and other associated companies have also employed significant numbers of employees locally and nationally. For example, the Sabi Star plant in Mberengwa employs 450 employees, with 85% of them being locals, and an additional 400 contractors and employment is expected to increase as production capacity increases.²⁵ Mining companies have also built new houses for affected families and drilled boreholes and painted homes in Bikita and in Mukwasi and Tagarira villages.

Lithium mining, however, negatively impacted the livelihoods of artisanal miners who operated in and around Sandawana and Sabi Star mines. In 2022, approximately 5,000 artisanal miners flooded Sandawana Mine during a «lithium rush», where they extracted and sold lithium to traders at \$100-\$150 per tonne for transportation to South Africa. A village headman we interviewed noted that local miners benefitted as they earned US dollars and could afford to care for their families²⁶. The involvement of the Zimbabwe Miner's Federation (ZMF), an organisation

led by Henrietta Rushwaya who is linked to senior government officials and has been embroiled in several corruption and mineral smuggling cases negatively affected the artisanal miners as lithium mining was restricted to members of the ZMF. KMH officials also confiscated lithium ore and tools belonging to the artisanal miners at Sandawana Mine. Sabi Star's

operations have significantly impacted local small-scale miners in Mukwasi and Tagarira villages in Buhera as they were forced out of the lands on which they carried out their small-scale gold and tantalite mining activities leading to loss of incomes. A respondent in Buhera reminisced how their economic situation was better before the company's arrival;



Small-scale Mining.
Photo: ZELA

«We used to mine where the Sabi Star Mine is operating, and our lives were much better because we had access to the minerals, and buyers would come and offer good prices for tantalite and gold. But since these companies came, we are worse off.» (focus group discussion participant, Murambinda relocated family representative)

Sabi Stars's operations evoked a feeling of displacement and economic disenfranchisement among former small-scale miners who previously relied on these resources for their livelihoods and locals who felt that lithium mining is only benefitting political elites and they are excluded from new employment opportunities despite their involvement in the discovery of the precious minerals. In Mberengwa, a key informant and artisanal miner credited for first identifying lithium at Sandawana expressed concern that KMH owners of Sandawana also keep expanding their prospecting activities which pushes local artisanal miners out of the areas in which they carry out their small-scale gold, tantalite, and emerald mining activities. These displacements have led to a perceived lack of recognition and fairness in the allocation of mining benefits and exacerbated poverty within the affected communities.

5. Conclusions and Recommendations

Lithium mining in Zimbabwe presents both immense economic potential and deeply concerning social and environmental challenges. It has generally led to an increase in flows of money and people in lithium mining areas which has benefited and created employment for thousands of people. However, the research has shown how lithium-mining companies, government officials and local traditional leaders have colluded in ways that have disrupted the socio-economic-cultural lives of people and negatively impacted the environment in surrounding lithium mining areas. The research further reveals that the promise to provide infrastructure, create employment and encourage economic growth in Zimbabwe have brought more pain than gain to the majority of people who live near these mines. The extractive expansion of lithium mining, lack of contractual transparency, inadequate consultations on key decisions and threats of new wave of relocations are sources of daily uncertainty, anguish and anxiety for the affected families in these three lithium mining sites. The current relocations violated the rights of married women and the younger, more productive age groups, uprooted families from their ancestral homes and disrupted people's sources of livelihoods. As a result, the concerned families are forced to reside in overcrowded conditions in new locations such as at Murambinda growth point, disconnecting them from their ancestral land, traditional ways of living and means of production.

Specifically, the loss of land and access to livelihoods further compounded the vulnerability of these displaced families. They lost the only means of production tied to subsistence agriculture and local economic activities absent in relocated areas such as Murambinda growth Point. The compensation and financial support provided during relocation have proven insufficient for long-term recovery or economic stability. Similarly, the relocation agreements failed to address crucial aspects such as the relocation of livestock, resulting in economic losses. The situation is worse for women excluded through traditions that fail to accord rights to property for married women leaving most of the relocated women without legal and traditional recourse to claim property

in their names as the signed agreements involved men. These arrangements exposes the married women as they lack security or surety in case of divorce or other related unforeseen circumstances that involve access to the resettled home ownership. This means women are exposed to micro-displacements should a divorce or related challenge exist.

Cultural and social structures have also come under pressure. The influx of workers from different regions and countries has introduced behaviours and norms that often clash with local traditions, particularly around relationships and marriage. These shifts have contributed to the erosion of cultural values and family unity, sparking tensions and cultural confusion. Interpersonal relationships between locals and foreign nationals have challenged deeply rooted customs, such as totemic marriage rituals, leading to cultural uncertainty. Social problems such as increased sex work, drug abuse, and crime have become more visible, fuelling blame, mistrust, and division between communities and newcomers.

Tensions between mining companies and local communities have also escalated due to unresolved grievances, including unmet promises, poor working conditions, and lack of engagement. Trust in traditional leadership has diminished, as many leaders are perceived to have aligned with mining interests rather than advocating for their communities. This shift has contributed to growing resentment and a breakdown in the social contract that once held communities together. Similarly, the desecration of sacred sites and tangible heritage has caused further alienation, highlighting the cultural cost of extractive activities that ignore local spiritual and historical significance.

Mining companies have repeatedly failed to deliver on infrastructure commitments, and in some cases, their operations have further deteriorated already fragile public assets like roads and bridges. Heavy trucks transporting minerals have caused substantial damage to roads and bridges, leading to heightened safety risks and restricting community mobility. These disruptions have resulted in tragic accidents and imposed daily inconveniences on families, especially children

commuting to school. Promised safety interventions, such as road signage and speed control measures, often remain unimplemented.

Improper waste management, rock blasting, and contamination of water sources have jeopardised the health of people, livestock, and ecosystems. Access to clean water has been compromised in several affected areas, revealing a troubling pattern of environmental neglect by mining companies. The overall disregard for ecological balance raises serious questions about the long-term sustainability of mining operations and their alignment with environmental standards.

Furthermore, workplace conditions in many lithium mining operations are troubling. Reports of abusive management practices by Chinese operated lithium mines highlight systemic labour rights violations. This research reveals that workers face job insecurity, low pay, delayed wages, unsafe conditions, and weak representation. It further reveals that women are especially vulnerable, often subjected to sexual exploitation and coercion in exchange for job-related favours. Corruption in recruitment and the exclusion of locals from employment opportunities further entrench inequality and deepen community discontent.

Access to natural resources has also been curtailed. Communities have lost access to grazing lands, forests, and water sources due to mining-related boundary fencing and land appropriation. The loss of materials traditionally used for daily tasks and small-scale commerce has disproportionately impacted women and disrupted local economic practices. Children now face longer and more dangerous journeys to school as a result of restricted routes.

The displacement of artisanal and small-scale miners also brings socio-economic challenges and added layers of economic exclusion. These miners, who previously relied on the land for their livelihoods, have been pushed out of mining zones despite their potential contribution to a more inclusive and resilient mining economy. Their exclusion underscores a broader issue of marginalisation in the sector and missed opportunities for community participation in value creation.

Despite these challenges, lithium mining has generated some localised economic benefits, including increased business activity and employment in certain areas. These developments suggest that, with better governance and community engagement, mining could become a positive force for local development. Zimbabwe's strategic ambitions to become a major player in the global lithium market are grounded in its substantial mineral reserves and efforts to promote value addition and regional cooperation. These initiatives could catalyse industrialisation, enhance infrastructure, and integrate Zimbabwe into emerging battery and clean energy supply chains.

Yet the contrast between promise and practice is stark. For the benefits of lithium mining to be equitably shared and sustainable, urgent reforms are needed. The government must strengthen legal frameworks, enforce labour and environmental standards, and demand accountability from mining companies. Inclusive relocation processes, gender-sensitive property rights, and comprehensive compensation mechanisms must be implemented to safeguard the dignity and livelihoods of affected communities particularly women and children. Investment in infrastructure, local beneficiation, and social safeguards will be crucial in balancing economic aspirations with community well-being.

Mining companies, in turn, must adhere to the highest standards of environmental and social responsibility. Transparent relocation policies, fair labour practices, cultural sensitivity, and genuine community engagement are not optional but conditional requirements for mining companies. Civil society and communities must remain vigilant, advocating for justice, rights protection, and government accountability. International partners and watchdogs should support these efforts, particularly where foreign companies engage in exploitative practices that violate human rights.

In conclusion, lithium mining in Zimbabwe offers significant economic potential but comes with complex and pressing challenges. The sector's success will ultimately depend not only on mineral extraction but on how it aligns with principles of social justice, environmental stewardship, and inclusive development.

A coordinated, ethical, and people-centred approach is essential to ensure that the benefits of lithium mining contribute meaningfully to national progress while upholding the rights and dignity of all Zimbabweans.

Acronyms

FGD	Focus Group Discussion
ISO	International Organization for Standards
JORC	Joint Ore Reserves Committee
LCA	Life Cycle Assessment
LIBs	Lithium-Ion Batteries
S-LCA	Social Life Cycle Assessment
UNEG	United Nations Evaluation Group
UNEP/SETAC	United Nations Environment Programme/Society of Environmental Toxicology and Chemistry
CATL	Contemporary Amperex Technology Co Ltd
BYD	Build Your Dream
EV	Electric Vehicle
SADC	Southern African Development Community
LIB	Li-ion Battery
DRC	Democratic Republic of Congo
SEZ	Special Economic Zone
CSIR	Council for Scientific and Industrial Research
NEC	National Employment Council
ZDAMWU	Zimbabwe Diamond and Allied Mine Workers Union
ZELA	Zimbabwe Environmental Law Association
ZMF	Zimbabwe Mining Federation
ZiG	Zimbabwe Gold
ZW	Zimbabwe

Footnotes

¹ This approach is informed by the UNEP/SETAC 2009 Guidelines for Social Life Cycle Assessment

² Sinomine invests US \$200m in Zimbabwe lithium project (miningbusinessafrica.co.za)

³ zimorningpost.com

⁴ <https://www.chronicle.co.zw/sandawana-mine-africas-world-class-lithium-resource/>

⁵ <https://miningzimbabwe.com/kuvimba-plans-to-produce-battery-grade-lithium-by-2030/>

⁶ <https://www.chronicle.co.zw/sandawana-mine-africas-world-class-lithium-resource/>

⁷ Max Mind is part of the Shenzhen Chengxin Lithium Group that is listed on the Chinese Shenzhen Stock Exchange with a registered capital of 749.71 million yuan.

⁸ <https://en.cxlithium.com/news/115.html>

⁹ <https://dailynews.co.zw/sabi-star-mine-lines-up-us12-million-for-road-upgrade/>

¹⁰ <https://jorc.org/>

¹¹ <https://www.africaintelligence.com/>

¹² <https://www.newsday.co.zw/business/article/200026837/kamativi-lithium-processing-plant>

¹³ <https://www.mining.com/web/bravura-expects-to-begin-zimbabwe-lithium-production-in-2025/>

¹⁴ <https://premierafricanminerals.com/>

¹⁵ International Energy Agency (IEA) 2024. Global Critical Minerals Outlook 2024.

¹⁶ Zimbabwe Environmental Law Association (ZELA), Africa Institute of Environmental LAW (AIEL). Implications of the lithium mining rush in Zimbabwe: Analysis of legal development.

¹⁷ <https://newshubzim.co.zw/2023/07/10/displaced-villagers-bitter-with-lithium-miner/>

¹⁸ <https://newshubzim.co.zw/2023/07/10/displaced-villagers-bitter-with-lithium-miner/>

¹⁹ <https://newshubzim.co.zw/2023/07/10/displaced-villagers-bitter-with-lithium-miner/>

²⁰ The Chinese Due Diligence Guidelines for Responsible Mineral Supply Chains, apply to all Chinese companies which are extracting, trading, processing, transporting, and/or otherwise using mineral

resources and their related products and are engaged at any point in the supply chain of mineral resources and their related products. Chinese Due Diligence Guidelines for Responsible Mineral Supply Chains, (2015);

²¹ <https://enviropresszim.com/2023/04/24/chinese-takeover-of-bikita-minerals-brings-more-misery-to-workers/>

²² <https://enviropresszim.com/2023/04/24/chinese-takeover-of-bikita-minerals-brings-more-misery-to-workers/>

²³ https://www.verit*szimnet/sites/verit*s_d/files/Audit%r%General%Report%on%the%Management%of%Occupational%Health%and%Safety%in%Mining%Operations%by%the%Ministry%of%Mines%and%Mining%Development.pdf

²⁴ <https://iharare.com/video-bikita-mine-workers-beat-up-chinese-boss-over-salaries/>

²⁵ <https://miningzimbabwe.com/us45million-sabi-star-lithium-floatation-plant-commissioned/>

²⁶ https://www.google.com/search?client=safari&rls=en&q=REPORT_A_new_rush_for_Lithium_in_Africa_risks_fuelling_corruption_and_failing_citizens.pdf&ie=UTF-8&oe=UTF-8