



LEVIN SOURCES

GENERAL FINDINGS REPORT

Building Secure And Resilient Transition Minerals Supply in Australia, Brazil, Canada, Chile, China, India, Indonesia, Kenya, Mexico, South Africa, Zambia And Beyond



This report highlights **strategic opportunities for philanthropic organizations to advance the sustainability and resilience of global supply chains for critical minerals** essential to the energy transition:

Economic Levers:

1. **Enhance Recycling Rates:** Address barriers to recycling in key centers for scrap processing like India, Kenya and Mexico, improving recovery rates and reducing reliance on primary extraction.
2. **Support Regenerative Mining:** Convene stakeholders in regenerative remining and phytomining to catalyze action that will overcome barriers and foster innovative, sustainable and commercially viable mining practices.
3. **Locational Clustering and Joint Action:** Promote the co-location of critical minerals development to increase commercial viability, the manageability of ESG risks, and enhance economic outcomes. Support cooperation between stakeholders in these clusters to tackle joint issues.

Environmental Levers:

1. **Integrate Process Circularity along Mineral Value Chains:** Encourage and support mining and metallurgy to adopt circular economy principles while actively seeking equity and co-benefits in implementation (e.g. strengthen energy & water security for affected communities, generate economic opportunity for circular solutions, etc.)
2. **Strengthen Environmental Governance:** Advocate to governments for stronger Environmental and Social Impact Assessments (ESIA), mandatory nature-related disclosures to protect ecosystems (e.g. TNFD), and the adoption of laws that outlaw ecocide and afford rights to nature.
3. **Combat Pollution and Decarbonize:** Tackle pollution in affected regions and support the decarbonization of energy sectors in key countries.

Social Levers:

1. **Expand Civic Space:** Protect human rights and environmental defenders, promote Free, Prior, and Informed Consent (FPIC) and equip Indigenous Peoples and local communities with the skills and resources necessary to achieve equitable distribution of benefits and harms.
2. **Empower Women and Workers:** Invest in women's economic empowerment and safeguarding in mining companies and communities and strengthen unions to improve workers' rights.
3. **Support Artisanal and Small-scale Mining (ASM):** Build a global understanding of ASM in critical minerals to bridge information gaps and provide meaningful support.

Governance Levers:

1. **Promote Transparency and Anti-Corruption:** Focus anti-corruption efforts on the critical minerals sector and improve structures for monitoring and reporting associated benefits and harms
2. **Support Access to Remedy:** Strengthen pathways for rights-holders to seek remedy for unremedied harms, ensuring accountability and justice.
3. **Foster Cooperation:** Invest in consensus-building processes to overcome barriers to sustainably scaling critical mineral value chains.

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PURPOSE AND GUIDING RESEARCH QUESTIONS

Support CWF to build a strategy for philanthropic investment that will address the issues that act as bottlenecks to scaling transition minerals supply sustainably

1. Which are the **top 3-5 mineral producer** countries where:
 - There is an **opening for philanthropy to best leverage existing momentum, infrastructure, or ambition** to secure resilient and flexible global supply chains for raw materials needed for the energy transition,
 - **Success is most likely**, and
 - Action will generate **global benefit**, cascading impacts with spillover to other countries.
2. What are the **key levers** (openings) that philanthropists can activate to drive impact on transition minerals across multiple countries?
3. What are the **global platforms** that can be engaged to have impact in multiple countries?

WHAT'S INSIDE THIS ASSESSMENT

- The report assesses major opportunities and levers for philanthropists to address bottlenecks and raise standards to scaling transition minerals supply sustainability.
- Priority issues for action globally – where more attention and action will scale transition minerals supply faster and sustainably
- Priority countries for action - where success is most likely and where action can generate spillover effects globally
- Countries not prioritized for action - Justification for not selection, and key features to keep an eye on
- This landscape is intended to help philanthropic organizations make effective investment decisions and inform strategic development.

RESEARCH LIMITATIONS

- **Data Gaps and Regional Variability:** Inconsistent and incomplete data on mineral production and ESG impacts across countries may generate bias in recommendations due to blindspots. Preparation of this report did not allow for deeper research to fill gaps when they were identified.
- **Recommendations could be deepened** with some brief additional research, including consultation with organisations that lead on the priority issues in order to refine entry points for philanthropy.
- **Salience:** Review of recommendations and conclusions of each profile did not consider the feasibility of implementing any recommended activities, and any prioritization did not include a saliency assessment to determine the significance of issues in detail

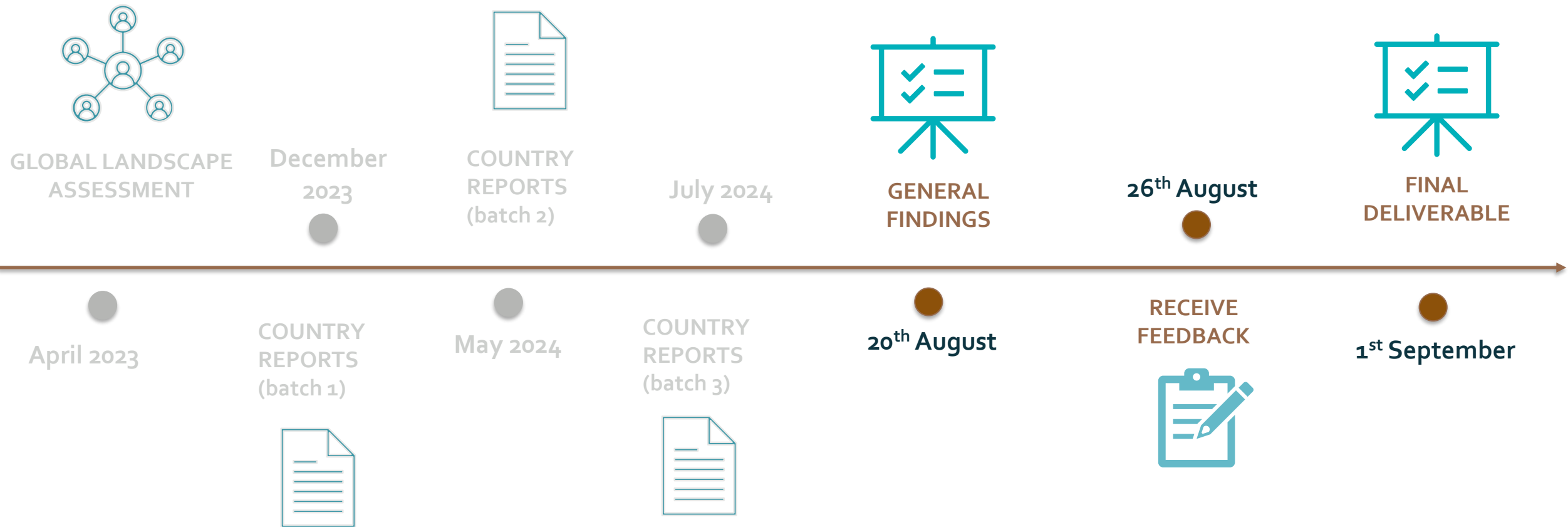
1. Created **matrix** to organize research findings and recommendations by grouped common themes
2. Populated matrix by **extracting content from the analytical sections of the reports** (civic space, sustainability, hotspots & philanthropic levers, recommendations)
3. **Quantified frequency with which an issue appeared across all 11 countries** (1 mark); adjusted for countries where an issue is known to exist but hadn't been prioritised in the report (0.5 marks)
4. Analysed content for each issue to **generate recommendations and identify related issues** (and activities per country)

1 Issues	Mexico	South Africa	Zambia	Column
3 Biodiversity loss, deforestation		1	0.5	1.5
4 Pollution of air, water and soil		1	1	2
5 Water availability		1	1	2
6 Overarching (cross-cutting of all environmental sub-issues)		1	0	1
7 B) Rights to Life, Health and Inclusion				
8 Company-community-ASM conflicts		1	1	2
9 Remedy		1	0	1
Gender-based violence, Women's rights		1	1	2
10 Violence perpetrated by public or private security forces / protection of		1	0	1
11 Environmental and human rights defenders				
12 Overarching (cross-cutting of all rights to life sub-issues)		0	0	0
13 C) Labour Rights				
14 Forced labour, including child labour		0	0	0
15 Occupational health and safety impacts			1	1
16 Precarious work				
17 Overarching (cross-cutting of all labour rights)		1		1
18 D) Indigenous Peoples and Local Communities Rights				
19 Value addition		1	1	2
20 Fair share, benefit sharing agreements			1	1
21 FPIC		0.5		0.5
22 Land acquisition, forced displacement or resettlement		1	0.5	1.5
23 Overarching (cross-cutting of all IPLC rights)		1	1	2
24 E) Governance	x	x	x	3
25 Building accountability for actions overseas				
26 Corruption & Transparency		1	1	2
Ecocide and rights of nature				
27 Permitting				
28 Standards consolidation or leverage		1	1	2
29 Overarching (cross-cutting all governance sub-issues)	1		1	2
30 F) Circularity				
32 Decarbonisation of energy sectors		1	1	2
33 Mainstreaming circularity along MVCs		1		1
34 Remining			1	1
Tackling ESG deficit in exploration				
35				

MINERAL HOTSPOTS DEFINITION: A geographic territory where there is or has been a concentration of mining and/or mineral processing activity. In such places:

- a) adverse impacts are more likely to be more severe due to their cumulative nature,
- b) economies of scale for risk mitigation can be achieved due to the concentration of workers and commercial activities, and
- c) economies of scale for commercial problem-solving can be achieved, e.g. in supporting access to decarbonized energy, sustainable water solutions, collective waste management solutions, etc.

WORKPLAN MILESTONES



SECTION 1: PRIORITY ISSUES



SECTION 2: PRIORITY COUNTRIES



SECTION 3: COUNTRIES NOT PRIORITIZED



Top Priority Issues

Based on frequency of it being an issue across countries

Category	Highest Priority Issues*	Lower Priority Issues
Economic	<ul style="list-style-type: none"> • Sustainable Investment in exploration and mining • Value Addition 	<ul style="list-style-type: none"> • Manganese • BRICS+ • Cooperation
Circularity	<ul style="list-style-type: none"> • Decarbonize and secure energy sectors • Mainstream circularity along mineral value chains 	<ul style="list-style-type: none"> • Remining
Governance	<ul style="list-style-type: none"> • Organized Crime, Corruption and Transparency 	<ul style="list-style-type: none"> • Standards consolidation or leverage • Environmental and Human Rights Due Diligence • Access to Remedy
Indigenous peoples and local communities' rights	<ul style="list-style-type: none"> • Land acquisition, forced resettlement and displacement 	<ul style="list-style-type: none"> • Free, prior, and informed consent • Fair share & benefit sharing agreements • ASM, including Company-Community-ASM Conflicts
Right to life, health and inclusion	<ul style="list-style-type: none"> • Women's rights, including gender-based violence 	<ul style="list-style-type: none"> • Protections for Environmental and Human Rights Defenders, incl. violence perpetrated by public or private security forces • Occupational health and safety
Right to clean healthy and sustainable environment	<ul style="list-style-type: none"> • Biodiversity • Pollution of Air, Water and Soil, incl. water quality & availability 	<p><i>* Higher priority issues have a frequency of at least 8/11 countries; Lower priority issues have a frequency of between 5 to 7.5 / 11</i></p>

ECONOMIC

Risks

- Attract more sustainable investment into exploration and mining
- Value addition
- Manganese
- BRICS+ countries
- Cooperation

Adjacent issues (*addressing the following influences the likelihood and severity of the above risks*):

- Women's rights
- ASM





SUSTAINABLE INVESTMENT IN EXPLORATION AND MINING

Evidence of Risk

There is an overdependence on Chinese capital with low ESG expectations for development of mining, metallurgy and energy sectors in several priority countries. Exploration companies are not incentivised or rewarded for prioritizing sustainability performance yet this is when many ESG outcomes get locked in). There is a huge financing gap to get minerals produced at the rate the Just Energy Transition needs: mistrust of mining/metallurgy means sustainable financiers are reluctant to invest in the sector and the mismanagement of ESG harms increases the costs of mine development and production, so increasing liabilities and reducing the potential return on investment and attractiveness for conventional investors.

Global Levers of Opportunity

- Tackle the ESG deficit in exploration by **growing investor pressure for higher sustainability performance**.
 - Campaign for investors to place greater value and requirements relating to the ESG performance of juniors.
 - Help Prospector Portal to deepen the ESG data and analysis available to its users (investors seeking prospects in exploration).
 - Fund Inspire Resources' concept for an **FPIC Asset Class of exploration company ('MissionCorp™')**.
- **Tackle the finance gap for more sustainable mining and metallurgy**. Investigate how to get
 - more sustainable finance channeled towards this sector,
 - more conventional finance oriented towards socially and environmentally progressive mining solutions (e.g. such as technologies, business models, and ownerships structures that expedite more circular, decarbonized, water-smart, nature regenerative, diverse, and equitable mining companies)
 - conventional finance to use their leverage to drive higher sustainability performance in their investees
 - Public funders to invest in the infrastructure that will lower costs of production of JET minerals.
- **Campaign for investors to a) adopt stringent human rights and environmental requirements**, such as those of IRMA and b.) **support their investees** to gradually implement these.
- **Publicise leading practices** including, in particular, meaningful but realistic and evolving policy commitments, robust risk assessment and prioritisation, collaborative and impactful prevention and mitigation, targeted tracking of effectiveness, credible assurance, comprehensive reporting / disclosure, and effective access to remedy.
- **Finance academics or NGOs to scrutinise and provide input into draft JET partnership agreements** between market/investment nations and producer nations in order to ensure ESG standards and EHRDD are central to unlocking and maintaining investment and trade.

Opportunities in Priority Countries

- Commission a study on how to
 - Improve the investment climate for sustainable capital
 - diversify the financing available to priority countries' transition minerals sectors.
 - use that investment to make sector development more sustainable.



VALUE ADDITION

Evidence of Risk

Value addition is the #1 priority across the priority countries. Value addition is realized by developing backwards and forwards linkages along the minerals value chain (e.g. transportation, energy, water infrastructure, local content development, metallurgy and component manufacturing, ESG risk mitigation investments etc.). Many mining nations fail to capture the majority of the mineral value: they do not have the facilities, energy or water to process ore into concentrate or metal products; they have not been able to catalyze sustainable economic diversification in local mineral economies; they have entered into trade deals that lock them in to inequitable allocation of benefits and harms; companies haven't been adequately ambitious or creative in seeking co-benefits from the mineral opportunity. Ultimately minerals derive from an *extractive* industry; but can we challenge that definition?

Global Levers of Opportunity

- Fund research and development for the realization of **green premiums** (mineral pricing) for transition minerals and carbon/nature/sustainable credits/finance for entities that deliver measurably high environmental and/or social performance.
- Campaign for adoption of affordable mineral **traceability solutions** that facilitate transparency on ESG performance to consumers, extended producer responsibility, growth in recycling rates, and materials- and products-as-a-service use models.
- *See also Fair Share and Benefit Sharing Agreements, Decarbonise Energy Sectors, Mainstream circularity along MVCs, Remining*

Opportunities in Priority Countries

- Engage in **value addition strategic planning** across relevant countries in order to identify concrete entry points for philanthropy to facilitate domestic retention and creation of value
- Fund and facilitate initiatives seeking to attract investment into projects that will a.) enhance local processing and refining capabilities, b.) build the infrastructure for critical minerals processing to become more sustainable.
 - Research entry points for philanthropists to **expedite technological upgrading of smelters and refiners** to become less polluting, less carbon and water intensive and more productive. Support technology and knowledge transfer from low polluting producers to high polluting producers to expedite this transition. Convene private investors and development finance institutions to build a strategy to expedite this transition.
 - Support efforts to study and develop **circular value addition centers** fully powered by renewable energy in low carbon energy nations like Kenya and Zambia.
- Fund and facilitate initiatives that **seek to diversify local mining economies**. Collaborate with mining companies to empower local entrepreneurs to advance their businesses beyond the mining sector (using contracts with miners as launchpads for economic diversification)
- **Maximize the social, ecological and economic co-benefits** that can be captured from investments in value addition.
 - Identify opportunities for enhancing co-benefits from existing investments by miners or others and what the barriers / opportunities are for maximizing benefits. Prioritize supporting opportunities which are led by marginalized groups and/or those that link companies and local communities with independent research institutions. (e.g. Brazil).
 - Set up multistakeholder collaborations which, facilitate the pooling of blended finance from multiple investors, as well as joint governance and implementation.

OTHER AREAS OF OPPORTUNITY

UNDERSTUDIED MINERAL FOCUS

Manganese is understudied but has serious health impacts on local communities. There is no programme targeting Mn. Consider shining a light on this mineral (esp. in Zambia, RSA, Indonesia) and exploring opportunities for cross-supply chain action to improve the situation for affected communities.

Explore the attractiveness of establishing a sustainable manganese initiative in one of the priority countries (e.g. Brazil, China, Indonesia, South Africa, Zambia) to address the key risks associated with manganese mining. Impact avenues include a.) encouraging miners to adopt responsible practices and demonstrate tangible progress, including by carrying out IRMA self-assessments and b.) supporting civil society and local communities to address the ESG challenges associated with manganese mining. Carry out a feasibility study that includes

- Scoping existing initiatives to reduce ESG harms and improve benefit capture from Mn value chains.
- Characterisation of the Mn value chain (structures of production, political economy, demography, etc.) and a comprehensive ESG and commercial risk assessment.
- Education and training needs assessment for informal miners and surrounding communities to equip artisanal and small-scale miners with the essential expertise and knowledge to exploit manganese in a more sustainable manner,
- Level of community and other stakeholder interest and readiness to take an active role in decision-making processes related to manganese mining, including addressing any community and state concerns.

GEOPOLITICAL COUNTRY BLOCK

The **BRICS+** partnership has a significant command of global transition mineral resources, and the coalition is growing including with important emerging critical minerals countries (e.g. Argentina, Iran). Together, BRICS+ will now hold a significant proportion of global transition minerals production and potential. BRICS membership leads to an increase in investment and exchange of technology and expertise, e.g. per South Africa. One may therefore expect that a.) investors who would usually not engage because of the higher risks traditionally associated with these geographies would be more encouraged and b.) there will be greater cooperation for sharing infrastructure, development initiatives, and research programmes.

Seek to grow philanthropists' presence and influence in these nations and the BRICS+ framework, if they wish to influence the transition minerals agenda.

Is there scope for cooperation with Chinese philanthropists?

- Map Chinese philanthropic organisations / development and assess the extent to which they have a focus on supporting greater sustainability in transition minerals, most likely in relation to environmental protection ("green mining", "green supply chains", etc.).

PLATFORMS FOR COOPERATION

We need to get better at cooperation. There is low consensus on how to tackle priority issues in scaling JET value chains sustainably. Where consensus has been reached, cooperation is often ineffective. The Global Battery Alliance recently published a communique setting out the major opportunities for bridging the cooperation gap in order to scale critical battery mineral value chains more sustainably.

Review the GBA Cooperation Gap report. Identify key actions that philanthropy can support to bridge the supply gap of battery critical minerals sustainably, building upon what is in this study.

MINING COMPANY CAMPAIGNS

Certain companies are repeatedly violating rights and/or more frequently have allegations of human rights and environmental violations against them. Based on monitor, the Business and Human Rights Resource Centre, those with more than 15 allegations against their transition minerals projects include: Codelco (Chile), China Minmetals (inc. MMG), China Railway Construction, First Quantum, Glencore (inc. Xstrata), Grupo Mexico (incl. Southern Copper), Norilsk Nickel, Eurasian Resources Group, Zijin Mining. Several of these operate in the priority countries.

Build campaigns to push for change in leadership, policy and practice amongst these mining companies.



CIRCULARITY

Risks

- Decarbonize Energy Sectors
- Mainstream circularity along minerals value chains
- Remining

Adjacent issues *(addressing the following influences the likelihood and severity of the above risks):*

- Value addition





DECARBONIZE AND SECURE ENERGY SECTORS

Evidence of Risk

In order for the energy transition to be just, growth in minerals value chains should be as low-carbon as possible. Decarbonisation of energy sectors offers an opportunity across all the countries studied, including those that are already primarily decarbonised (e.g. Kenya, Zambia) due to predicted sector growth.

Global Levers of Opportunity

Opportunities in Priority Countries

- **Assess barriers and opportunities** for a.) increasing clean energy development for JET sectors, especially those with high dependency on fossil fuels, e.g. (China, India), Indonesia, Mexico, South Africa, and b.) not compromising energy security to accommodate growth. Explore
 - the potential of **geothermal energy**. Strategically assess the viability of geothermal energy production in the priority countries, especially for energising mineral clusters and 'hotspot' areas. Draw on experience in Zambia.
 - the economic and ESG advantages and disadvantages of **clustering transition minerals development**, which can enable greener energy production and consumption, better waste management, greater monitoring and manageability of ESG risks, and so on, but can also generate extremely severe cumulative impacts. Draw on experiences in Canada & Mexico.
 - how decentralised or **site-specific renewable energy generation** can be used to benefit economic development and social justice whilst strengthening the social licence to operate
 - **what miners, smelters and foundries are doing** to make their production more climate-smart (and why), what the barriers / opportunities are in doing so. Together, look at ways to move forward to support their initiatives. Partner continental or national organisations like the AfDB, African Climate Mobility Initiative, International Geothermal Association, etc..
- **Convene a workshop** with mineral players in each priority country to consider findings and explore options to sustainably scale green energy and build energy security.
- **Promote EHRDD of clean energy development** in priority JET countries, noting high incidences of conflict and risk of corruption in relation to renewable energy development, e.g. Mexico, due to lack of FPIC and use of violence.



MAINSTREAMING CIRCULARITY ALONG MINERAL VALUE CHAINS

Evidence of Risk

Circularity offers a tremendous opportunity to minimise harms, build value and grow yields of transition minerals by unlocking project viability. Whilst many companies enact some aspects of circularity in order to save money and secure the social licence to operate, it is uncommon for a mining company to apply circularity to corporate strategy; there is much more that can be achieved. There is a suite of research institutes globally with programmes on growing circularity in minerals value chains who can support this endeavour.

Global Levers of Opportunity

- Push **sufficiency** measures for product consumption, esp. through supporting the scaling of products-as-a-service and minerals-as-a-service models.
- Support global or continental efforts to tackle **barriers to scaling recycling of transition minerals** and improving its sustainability.
- **Advocate for greater circularity in mining and mineral processing** across JET mining and metallurgy generally.
 - Launch a campaign to recognise and celebrate actions already taken by industry leaders in mining and metallurgy to become more circular.
 - Promote these through major mining conferences to inspire and enable others to take action.
 - Raise awareness on methods, ambitions, successes and suggestions for improvements in collaboration with partners.
 - Ensure only those efforts that are human rights aligned are showcased.
- *See recommendations for pollution of air, water and soil; and value addition.*

General findings: Building secure and resilient transition minerals supply

Opportunities in Priority Countries

- **Advocate for greater circularity in mining and mineral processing.** Promote and fund the avoidance of waste (e.g. water efficiency, pollution management, emissions controls, energy reconfiguration towards renewables, developing recycling capacity etc.), maximisation of value from resources (e.g. unlocking economic value from waste such as remining legacy tailings or building markets for by-products), and regeneration of nature (see biodiversity recommendations)
- **Explore barriers and opportunities to greater circularity in mining and metallurgy.** Work with interested global and national parties (e.g. EU, UNEP, IUCN, SMI, WRF, WRI) to address these. Facilitate pilot projects and provide technical expertise to accelerate adoption of circular design and operations, enhancing sustainability and operational efficiency.
- **Address skills shortages and build local capacity to address barriers to scaling solutions that can make mining and mineral processing more circular and efficient,** e.g. in the repair and maintenance of renewable energy solutions, small-scale minerals processing and remining.
- **Tackle barriers to LIB and scrap recycling efficiency and transition minerals recovery rates,** especially in key scrap markets in the studied countries, e.g. Brazil, Kenya, India, Indonesia, Mexico, South Africa. Assess the feasibility of developing these sectors, map key stakeholders and opportunities and identify strategic entry points for pushing this forward.

REMINING (and phytomining)

Evidence of Risk

Remining offers an opportunity to recover valuable minerals from waste in a far shorter timeframe than it takes to develop a new mine. It also addresses the hazards communities face from legacy tailings and facilitates the remediation and restoration of land which can then be used for other social, economic and/or ecological purposes. Remining can, however, lead to the release of contaminants and there are numerous technical challenges. A suite of specialist companies and research institutes are emerging to remine legacy tailings, including in the covered countries.

Global Levers of Opportunity

- Explore the **status of global knowledge** and assess **global readiness** for growing remining (and phytomining). Consider partnering with the Global Tailings Portal. Identify and assess:
 - where remining is presently a growing sector, and where it could be.
 - the associated ESG and commercial risks, opportunities and barriers to sector growth.
 - avenues for increasing the sustainability and commercial viability of remining.
 - industry leaders and solutions to major barriers to foster greater collaboration and stimulate expedition of sustainable reprocessing in priority countries.
- **Support research facilities**, academic institutions, government initiatives that are exploring new and advanced solutions to the technological and economic barriers to growing remining (and phytomining).
- Convene **first movers in regenerative remining and phytomining** to identify and address financial, technical, governance, and social barriers to scaling these sectors sustainably globally. Sponsor a 'remining day' at a major mining event.
- Explore the **creation of a sustainability standard for remining**. Partner Resolve/Regeneration Enterprises.
- Publish a **strategy** for advancing sustainable growth in remining internationally. Consider:
 - Growing investor awareness of opportunities in remining through a collaboration with **Prospector Portal**.
 - Engaging the **Global Tailings Portal** to explore how their platform could facilitate growth in sustainable remining.
 - Establishing a **global remining association** to unify, capacitate and empower remining leaders to overcome commercial barriers and drive more sustainable remining.

Opportunities in Priority Countries

- **Strategically assess and stimulate the potential for growing sustainable tailings reprocessing.**
 - Engage the Global Tailings Portal to see what mapping of tailings has already been done in the priority countries and the existing state of tailings risk monitoring
 - Identify and map all historic mine and smelter tailings piles and waste dumps, estimating their tonnages and mineral composition.
 - Fund geological mapping, tagging, sampling, and characterisation of tailings.
 - Assess the extent to which industry has already assessed the viability of intelligent reprocessing. For example, what is the state of information on sampling, assaying, and metallurgical testing and would that be adequate to attract investors?
 - Publicise national tailings and slag heaps' locations and characteristics.
- **organize a workshop with companies active in minerals reprocessing in each country as well as interested investors and minerals offtakers** to identify the barriers and pathways to increasing the pace of reprocessing, and ensuring any reprocessing is human rights respecting, climate-, nature- and water-smart, and thus ultimately sustainable.

GOVERNANCE

Risks

- **organized Crime, Corruption & Transparency**
- Standards consolidation or leverage
- (Environmental and) Human Rights Due Diligence
- Access to Remedy

Adjacent issues *(addressing the following influences the likelihood and severity of the above risks):*

- Protect environmental and human rights
- Women's rights
- ASM



ORGANIZED CRIME, CORRUPTION & TRANSPARENCY

Evidence of Risk

Critical minerals value chains are particularly vulnerable to corruption and, increasingly, organized crime. High concentrations of minerals are in countries with high levels of corruption and shadow economies and/or that are just opening up to mineral sector development. The immensity of the economic opportunity and the rush to grow supply heighten the risk: greater state participation, the imperative to rush permitting, administrations stretched by overdemand, pressure from investors to move quickly. Corruption in critical minerals affects developed nations too, e.g. Portugal. And whilst most attention is given to grand corruption, millions of artisanal miners are impacted by petty corruption on a daily basis. While corruption may facilitate the expedition of critical minerals development, it grossly undermines the development opportunity and creates severe harms, especially to vulnerable people.

Global Levers of Opportunity

- Collaborate with the **OECD, NRGi and EITI** to build a global campaign to tackle corruption in JET economies globally (including in the related energy, water and infrastructure sectors). Explore with them what role(s) philanthropy can play, and especially in the 4 priority countries.
- Investigate if **UNCAC** has a programme to tackle corruption in JET value chains and, if not, lobby them to develop this.
- **Work with the governments of Canada, Australia, UK, China, India, Saudi Arabia and UAE** to organize and support mining enterprises registered, owned and/or financed from their jurisdictions to address corruption risks abroad holistically, and pre-competitively.
- **Promote corruption monitoring and reporting** in relation to green infrastructure development and the deployment of climate finance oriented to support JET minerals sector development.
- Identify a.) the modalities through which **organized crime is connected to JET minerals** (whether those connections are to state, corporate or community interests), b.) **the impacts** of these connections on people and nature, and c.) the opportunities for raising awareness on this, addressing it, and supporting stakeholders to take the measures necessary to mitigate the risk of being subject to pressure from organized crime.
- *See recommendations for EHR defenders, EHRDD, access to remedy, and women's rights.*

Opportunities in Priority Countries

- Carry out gender-sensitive, mineral-specific, ASM-inclusive **organized crime, corruption and transparency assessments for mining and metallurgy of transition minerals**. Include
 - sector-specific audits of UNCAC implementation to guide the design of UNCAC implementation programs
 - in-depth investigations by local civil society of alleged harms or high-risk situations, ensuring robustness of methodologies.
 - research into the connections between organized crime, corruption and community displacement in hotspots.
- **Lobby for greater transparency:**
 - Motivate transition minerals governments a.) that are not yet **EITI members** to join the initiative (e.g. Kenya); b.) to have **an anti-corruption strategy for transition minerals** and c.) to **develop cadastres** that are up-to-date, accurate and represent not just mining permits but other land classifications, such as protected areas and urban areas.
 - Motivate transition minerals government agencies and industry actors a.) to **increase transparency** on permits, ESIA's, environmental reports, human rights reports, stakeholder engagement and community consultation, participation and consent reports, tailings management, post-mining closure plans, and reclamation and rehabilitation reports; and b.) to **ensure information is accessible, up-to-date and gender disaggregated**.
 - **Investigate the basis for delays to achieving working cadastres** (e.g. in RSA). Work with local and international partners to pressure the government to address issue.
- **Fund CSOs that are advocating for more transparent, sustainable and fair mining industries**, e.g. MIRA in India.
- **Locally:**
 - Support the protection of local EHR defenders
 - Improve local monitoring of ESG harms, community participation and beneficiation associated with state and local/tribal authorities and industry activity JET minerals sectors.
 - Educate and support local CSOs to access relevant data to support their advocacy work
 - Devise territory-specific strategies for addressing injustices arising as a result of corruption and organized crime.



STANDARDS CONSOLIDATION OR LEVERAGE

Evidence of Risk

Efforts are underway to consolidate the plethora of mining standards in order to simplify implementation and prevent ESG standards acting as a barrier to investment and sector development. Indigenous Peoples and Local Communities struggle to participate in standard-setting processes and so the impacts of a standard on them may not be adequately considered. Companies along transition minerals value chains that are either operating in or sourcing from high-risk areas are particularly susceptible to diverse and frequent requests from mineral offtakers and investors to report on their due diligence efforts; lack of standardization in this reporting creates a tremendous burden which detracts resources from being allocated to the actions that would actually mitigate risks. ESG standards vary tremendously between jurisdictions; a company registered in a high performing jurisdiction (e.g. Canada) may choose to achieve lower performance in its overseas operations.

Global Levers of Opportunity

- Support **NGO and IPLC participation** in the **Consolidated Mining Standard Initiative**
- Work with IRMA to **support peer-to-peer learning** amongst candidate auditees in order to advance their efforts to achieve IRMA 50, across the priority countries.
- Fund initiatives that seek to support pre-competitive cooperation across industry to **make standard implementation more efficient**, e.g. CSR Europe.
- Develop a **global standard for sustainable remining**. Collaborate with RESOLVE/Regeneration Enterprises.
- Develop a **global standard for sustainable recycling** of transition minerals.
- Participate in the development of **national taxonomies** for sustainable finance to ensure that these will incentivise the attraction of greater capital into transition minerals value chains.

Opportunities in Priority Countries

- **Level the playing field.** Investigate why multinational prospectors, developers and miners do not always apply the same standards overseas as they do domestically. Build a strategy for internationalising leading practice aligned to the highest legal ESG performance that is required in an MNE's operations. Focus on Canada first.
- **Motivate Chinese businesses to improve ESG performance.**
 - Leverage the expertise of CCCMC and its Chinese Guidelines for Outbound Mining Investment (Due Diligence Guidelines) to promote responsible business conduct by Chinese minerals companies operating overseas.
 - Work with CCCMC to identify if/how global philanthropy can support the adoption and implementation of the CCCMC guidelines by critical minerals miners and mineral processors, esp. in the priority countries.
- **Investigate why Indian miners are unmotivated to adopt international ESG standards.** Draw learning from and collaborate with the initiatives currently accepted in the country, such as Responsible Steel, Aluminium Stewardship Initiative or the Unilever/Solidaridad CORE Standard.
- Investigate the implications of Chambers of Mines in 11 countries adopting the Towards Sustainable Mining Standard and consider whether lobbying Chambers in the priority countries could motivate an improvement in ESG performance locally.



ENVIRONMENTAL AND HUMAN RIGHTS DUE DILIGENCE

Evidence of Risk

Numerous jurisdictions are making environmental and human rights due diligence (EHRDD) mandatory for investors and buyers, but many more could follow this trend.

Global Levers of Opportunity

- **Help the OECD find funding** to build a practice in environmental due diligence in order to unlock investor and market pressure for improving environmental risk management.
- Promote the adoption and strengthening of **mechanisms that allow multinational enterprises to be held accountable for violations occurring overseas**, e.g. national ombudsmen, adoption of ESG standards, legal action for overseas misdemeanors
- **Support public benchmarking of the quality of companies' EHRDD processes**, e.g. based on GBA's EHRDD index
- **Advocate for miners to publish and report on human rights commitments and due diligence activities** in accordance with the OECD Guidelines for MNEs and UNGPs.
- **Partner international and national mining/minerals associations to target hotspot areas / minerals for collective action**, e.g. bauxite in India, Nickel and cobalt in Indonesia, Manganese in South Africa, nickel and iron in Brazil, etc., exploring how to build and use leverage to improve EHR protections
- **Identify priority companies for targeting** (e.g., companies with high frequency of abuses per BHRCC, and state-owned enterprises & private miners that have few pressures for adopting EHRDD but are causing human rights violations). Lobby them to put in place human rights policies and due diligence systems. Invest in strengthening local civic space and supporting local communities where they operate, whether in the priority countries or elsewhere.

Opportunities in Priority Countries

- Explore a cooperation with CCCMC to support the adoption of their **Guidelines for Responsible Outbound Mining Investment** by Chinese enterprises operating in transition mineral economies, especially where communities are adversely affected by their activities. Leverage their Responsible Critical Minerals Initiative to achieve this.
- Support local organizations lobbying for the creation of **national EHRDD bills**, e.g. in Brazil.
- Explore how national governments can learn from **trends related to voluntary standard implementation** in their countries and so legislate accordingly (cf. GIZ research)
- **Build the capacity of medium- and small-scale mining and processing companies to take a human-rights based approach to their operations.** This includes motivating and assisting them to a.) engage communities meaningfully and in line with international stakeholder engagement standards, b.) develop local community development strategies in partnership with local communities and affected stakeholders, and c.) commit to robust environmental and human rights due diligence as part of their risk management systems. Focus on miners with low incentive or funding to do EHRDD, e.g. juniors, privately owned mines, state-owned enterprises.

Local Opportunities

- **Equip CSOs with enhanced skills** in data collection, analysis, and advocacy to more effectively push for compliance with environmental and social standards.
- Foster collaboration among CSOs, government, and mining companies through **supporting multistakeholder dialogues and civic engagement in risk monitoring and mitigation.**
- Establish **community education programs** that cover legal rights and human rights, access to grievance mechanisms, and training in environmental monitoring to ensure affected populations are well-informed and capable of advocating for their interests

Evidence of Risk

The Just Energy Transition cannot be just without improving access to remedy for affected stakeholders. Unresolved grievances are an injustice and increase the risk of disruption to sector development and productivity. It is impossible to avoid all harms in mining, so having access to effective remedy mechanisms for residual unavoidable harms is imperative.

Global Levers of Opportunity

- Incentivize standard setters and sustainable minerals initiatives to put in place their own **Operational Grievance Mechanisms**
- Lobby the OECD and standard setters to provide **greater guidance to minerals companies** on how to improve access to remedy for affected rightsholders
- Strengthen **international mechanisms** for access to remedy in transition minerals economies.
- Commission research on the role of **product traceability** in supporting access to remedy for victims

Opportunities in Priority Countries

- **Strengthen access to remedy for victims of human rights and environmental harms**
 - **Strategically assess access to remedy** for human rights and environmental abuses.
 - **Support national human rights commissions** to build pathways to remedy for victims of abuses in transition minerals value chains. (e.g. India)
 - **Strengthen state-based judicial and non-judicial mechanisms** for remedy in transition minerals economies. This could include:
 - promoting the use of alternative dispute resolution (ADR);
 - **Raising awareness amongst all stakeholders**: providing training and support to the **judicial, administrative and oversight organs** so they understand business obligations in respect of human rights; developing and disseminating guidance for **businesses** on the establishment of credible operational-level grievance mechanisms that are consistent with international standards; educating **at-risk and affected stakeholders** on the judicial and non-judicial mechanisms available to them and on business obligations in respect of human rights;
 - empowering at-risk and affected stakeholders them with the **resources to participate** in remedy mechanisms;
 - prioritising **access to legal aid** for victims of business-related human rights abuses;
 - Creating **partnerships** with NGOs and local government agencies to work with affected rights-holders to facilitate access to remedy, e.g. legal aid, mediation, health services, economic opportunities. Cf. suits by Leigh Day against Petra Diamonds, Vedanta and Gemfields;
 - ensuring mechanisms are human rights aligned and gender-sensitive.
- **Track the effectiveness of these interventions.** Build systems to monitor improvements or deterioration in access to remedy over time. E.g. Empower civil society to support affected rights-holders to monitor mining practices and access remedy by providing essential funding for capacity-building and technical support.

INDIGENOUS PEOPLES' AND LOCAL COMMUNITIES' RIGHTS

Risks

- Land acquisition, forced resettlement, displacement
- Free, prior and informed consent
- Fair share and benefit sharing agreements
- Artisanal and small-scale mining

Adjacent issues (*addressing the following influences the likelihood and severity of the above risks*):

- Empower environmental & human rights defenders
- organized crime, corruption & transparency
- Women's rights
- Access to remedy





LAND ACQUISITION, FORCED RESETTLEMENT AND DISPLACEMENT

Evidence of Risk

International guidance to protect the rights of communities who must relinquish their land and/or livelihoods and resettle to make way for mining infrastructure exists, but is not universally or effectively applied. Grievances abound. Unremedied, local poverty worsens and conflict foment, which may lead to severe human rights violations, disruption to mining operations and thus production, and deepen social fragility. In long-established mines, historic resettlements generate chronic and avoidable adverse social impacts on local communities and vulnerability to climate change due to inadequate housing quality, water and electricity provision, etc.

Global Levers of Opportunity

- Publish a searchable **database** of a.) mining-land conflicts in relation to JET and b.) exploration and development projects for JET minerals. Partner mapping tools like ejatlast.org, Prospector Portal, the Global Tailings Portal.
- **Map the mine operators, mine owners, and investors (Esp. private and statutory critical minerals funds) who are connected to these conflicts.** Assess the quality of the environmental and social safeguards / standards that are applied, including the quality of their consultation processes. Where these do not align to best practice (in commitment *and* application), lobby the JET funds to improve and support affected IPLC to demand best in class stakeholder engagement processes (e.g. aligned to FPIC, TNFD IPLC Guidance, [etc.](#))
- Work with GICM 2030 or another global partner to **develop a global facility through which affected rights-holders can better access conflict mediation and remedy services.**
- Work with public and private '**Critical Minerals (Innovation / Investment) Funds**' to Use their leverage to improve community relations by
 - ensuring their investees apply the IFC Performance Standards, UNGPs and VPSHR
 - motivating their investees to achieve assurance through IRMA or the ICMI.
 - Putting in place fit-for-purpose operational grievance mechanisms.
- *See recommendations for FPIC, Protections for Environmental and Human Rights Defenders, Women's Rights and Access to Remedy.*

Opportunities in Priority Countries

- In areas where company-community or government-community or ASM-community **conflict** is an issue.
 - Train IPLC and state agents in **human rights**, the UNGPs and avenues for remedy should their human rights be violated or should the environment be harmed.
 - Improve IPLC's **mediation** skills and access to mediation services.
 - Support IPLC to demand appropriate **participation** in decision-making, monitor and report impacts, and achieve access to remedy.
 - Support IPLC's capacity to **report** human rights abuses and environmental harm to the relevant authorities
- Support IPLC to monitor and protect their territories from illicit activities including **ASM incursions**. Explore utilization of geospatial monitoring and other systems that enable early warning and incursion management.
- Support the **repair and maintenance of dilapidated community housing** in historic mining communities, especially with a view to climate change adaptation and improving community health and welfare; support use of sustainable construction methods and materials that are locally available.



FREE, PRIOR, AND INFORMED CONSENT

Evidence of Risk

Although the UN Declaration on the Rights of Indigenous Peoples was passed in 2007, free, prior and informed consent (FPIC) remains an elusive ambition. The practical implementation of UNDRIP is generally “unsatisfactory” around the world. Even in one of the world’s nations with some of the most progressive policies towards Indigenous Peoples, Canada, of ~500 benefit sharing agreements that are active, First Nations judge that only one achieves FPIC. Yet >50% of the critical minerals needed for the JET are on indigenous territories. Without getting better at FPIC, we not only risk violations of IPLC rights, but increase the likelihood of delaying mine development and underdelivering on the mineral asset’s economic potential.

Global Levers of Opportunity

- Commission further research on the impacts of transition minerals development on Indigenous peoples and **pathways to support their autonomy and protection**
- **Work with multistakeholder initiatives and standard setters** that are seeking to support Indigenous communities through targeted initiatives in the priority countries (e.g. ASI in India; IRMA). For instance, through its engagement platform Indigenous People Advisory Forum ASI has been supporting Adivasi members and recently funded a project in India to develop methodology for Indigenous-led cumulative impact assessment that intends to strengthen community capacity for FPIC processes.
- **Lobby investors and downstream industries** to do due diligence for FPIC
- Fund Inspire Resources and Levin Sources’ concept for an **FPIC Asset Class of exploration company** (‘MissionCorp™’).
- **Showcase leading practices** in FPIC at international mining / energy transition conferences, in order to educate and inspire miners to raise their ambition and comfort with FPIC aligned corporate governance and stakeholder engagement models.

Opportunities in Priority Countries

- Strengthen advocacy for the implementation of UNDRIP in the priority countries.
- **Consult IPLC leaders** to identify key pathways for advancing indigenous rights in each country. Key actions could include supporting / financing:
 - Civil society’s existing work to ensure the application of FPIC
 - Innovation in benefit sharing and project governance with Indigenous communities
 - Participation by IPLC in corporate engagement processes, e.g. to implement the TNFD Guidance for engagement with indigenous peoples and local communities.
 - The expansion of the Australian [Indigenous Guardian](#) programs or organizations providing support to these programs, such as the Indigenous Leadership Initiative, British Columbia First Nations Energy and Mining Council, Manitoba eco-network, Manitoba First Nations, etc. Provide core funding to organizations implementing or providing support to these programs.
 - Strengthening the institutions (e.g., cooperatives, associations) through which Indigenous communities and rural communities organize and seek to hold their stakeholders accountable
- **Build national campaigns** to motivate policymakers, miners and processors to pursue the effective implementation of FPIC according to the priorities of IPLC, especially in mineral hotspot regions.
 - Building the awareness of each stakeholder group (communities and their representative CSOs, miners and processors, local and national government agencies) on the benefits, seriousness, and urgency of the implementation of FPIC and its relevance to obtaining a social license to operate



ASM, INCLUDING COMPANY-COMMUNITY-ASM CONFLICTS

Evidence of Risk

A growing number of people are beginning to mine transition minerals artisanally, especially copper, cobalt, manganese and lithium. Policy attention to ASM has been growing in the past two decades, but successes in formalizing the sector are few and far between. The capture of ASM economies by organized crime also presents a challenge. The World Bank is about to release its new position paper on ASM, and will be emphasizing supporting the professionalization and legitimization of ASM producers. A lack of data on ASM of critical minerals, and an absence of technical support to this category of ASM specifically (because most goes to conflict minerals (Sn, Ta, W, Au), some to Co (especially in DRC), “development minerals” and gemstones.

Global Levers of Opportunity

- Develop a **tool (e.g. digital global map) for monitoring changes in the ASM of transition minerals. Quantify, classify and map the distribution of ASM of transition minerals**, noting in particular the economic contribution, minerals produced (including waste), and conditions of production in order to support supply chain due diligence and donor strategizing. Allow users to overlay other land uses (e.g. KBAs, IP territories, industrial concessions) to facilitate risk assessment, monitor changes, and support coordinated multistakeholder interventions. Disaggregate data by gender and other demographic characteristics. Consider partnering the World Bank’s Delve platform to do this.
- Seek **potential collaboration with the World Bank**. Lobby them to develop a Trust Fund focused on supporting the sustainable development of ASM of CBM or transition minerals more broadly. Lobby them to use the Delve platform to a.) strengthen the data on demographics, impacts and progress at the national and mineral levels; b.) centralise the plethora of assessment, benchmarking, training, etc. tools that exist to make sense of ASM, and c.) forge greater cooperation and knowledge exchange between miners and mining communities.

Opportunities in Priority Countries

- **Offer greater respect** to artisanal miners as a legitimate and unique stakeholder category whether as producers or affected communities.
- **Ensure their adequate inclusion in processes to determine equitable beneficiation and to engineer solutions for sustainable CBM**. Pay particular attention to vulnerable groups within their cohort or affected by their activities.
- Support informal transition minerals miners, who show ambition to improve their activities, by **investing in initiatives that aid their progressive legitimisation and professionalisation**.
 - Explore **blended finance** opportunities to support ASM’s responsible advancement, working with domestic banks, development finance institutions, and domestic and international investors with a focus on ‘last-mile’ opportunities.
 - Support widespread **adoption** of ASM standards, e.g. the RMI’s ASM Cobalt Normative Framework, the Alliance for Responsible Mining’s CRAFT standard.
 - Support initiatives that **improve safety standards** and sustainability outcomes for the miners and their communities and environments.
 - Provide **technical assistance and capacity building** to ASM communities, enabling them to operate more safely and efficiently within legal frameworks and to develop their other business interests.
- Commission an **assessment of the connections b/w ASM of transition minerals and transnational organized crime**. Include consideration of how this relates to salient human rights risks in ASM (e.g. child labor, forced labor, SGBV, etc.)

FAIR SHARE & BENEFIT SHARING AGREEMENTS

Evidence of Risk

Public trust in mining is at an all-time low. Among other impacts, this is affecting public commitment to the energy transition and the advancement of mining projects in producer nations and therefore our ability to grow mined supply. Low trust is a product of a long history of damaging practices, most of which remain unremedied. Maximising fair benefit capture can build public trust, improve risk management and so reduce resistance to mining. In its weakest form, benefit sharing focuses on how the mineral endowment can stimulate local economic development through, for example, local content; in its strongest form, it envisages inclusion of local people in the governance and ownership of the mineral asset.

Global Levers of Opportunity

- **Campaign for mining companies to grow their ambition** beyond achieving the “social license to operate” to actually delivering on the sustainable development potential that a mineral asset offers, with a focus on deepening *local* benefits. This will require getting good at cooperation and joint initiatives.
- **Support initiatives that are pioneering new ownership structures and economic models** to access funding and technical support, e.g. materials-as-a-service; ownership by marginalized groups, etc.
- **Advocate for greater IPLC participation in asset ownership** of mining, metallurgy and the solutions that support their sustainability.
- **Support peer learning** within and across nations on how communities can negotiate a fairer share and govern the benefits that can accrue from minerals robustly and fairly.
- **Campaign for benefit sharing agreements to be published** whilst still active.
- **Monitor and evaluate the sustainable development outcomes** associated with different types of benefit sharing agreements, building on existing efforts.
- *See recommendations for value addition.*

Opportunities in Priority Countries

- Analyze the **readiness of Indigenous peoples to benefit** from the boom in transition minerals development, and support them where requested.
 - Do a deep dive into the extent to which any regulatory reforms may adversely impact upon their and other local communities’ ability to claim their rights and protect their interests.
 - Fund existing initiatives that are supporting **the education, skills training, promotion and leadership of IPLC** in the transition minerals sector.
- **Build community capacity** to develop benefit-sharing agreements. Train IPLC in negotiation skills so they can negotiate for a fairer share
- Assist companies to develop **local development strategies** in partnership with local communities and affected stakeholders. This includes improving the effectiveness of the companies’ social responsibility as part of their policy on respecting Human Rights, the environment and workers.

RIGHT TO A LIFE, HEALTH AND INCLUSION

Risks

- **Women's rights, including gender-based violence**
- Protections for Environmental and Human Rights Defenders, incl. violence perpetrated by public or private security forces
- Occupational health and safety

Adjacent issues *(addressing the following influences the likelihood and severity of the above risks):*

- Value addition
- organized crime, corruption and transparency
- Access to Remedy





WOMEN'S RIGHTS, INCLUDING GENDER-BASED VIOLENCE

Evidence of Risk

The energy transition cannot be just if women are not equitably included and benefitting. With only 16% of the global mining workforce being female, a persistent gender pay gap, the distribution of employment being disproportionately in the lower skilled roles, major mining companies and regions reporting failures to protect women from gender-based violence in the workplace and communities, and global evidence of women working excessive hours carrying an inequitable share of invisible and unpaid domestic work, there is a long way to go to advance women's rights in mining. On the other hand, investing in women's progression and participation in leadership fast-tracks the commercial viability of enterprises and improves risk management. Investing in women also fast-tracks economic development in local communities, helping families to secure a fairer share and be better equipped to manage associated risks. Furthermore, scaling production of energy transition minerals may exacerbate existing vulnerabilities or introduce new drivers of social exclusion for marginalized social groups, including women; social exclusion is a driver of fragility.

Global Levers of Opportunity

- **Support women's economic empowerment within mining companies, institutions and their suppliers & grow women's participation in leadership.**
 - Provide **core funding to the international Women in Mining and Women on Boards associations** (e.g. iWIM, AWIMA, Women's Rights in Mining).
 - **Finance their thought leadership and participation** in international and national convenings on transition minerals.
 - Finance the design and delivery of **projects that support the advancement of women into leadership** in mining governance globally, esp. on the boards of mining and mineral processing companies, and in the institutions that govern the mining sector
 - **Partner UN Women** to motivate the **adoption of the UN's Women's Empowerment Principles** by international mining / minerals associations and standards, e.g. Cobalt Institute, ICA, iLiA, ICM, etc.. Work with mining finance and downstream market players (e.g. metal exchanges, refiner/smelter associations, etc.) to build pressure for adoption of the WEP by national miners and mineral processors in the priority countries, e.g. LME, LPPM.
- Consult the World Bank and UQ's Sustainable Minerals Institute to establish if there is a case for a **women-only peer to peer support system for ASM** on the Delve platform.

Opportunities in Priority Countries

- **Provide core funding to the national Women in Mining and Women on Boards associations** to support women's economic empowerment within mining companies, institutions and their suppliers .
- **Finance the design and delivery of projects that**
 - Support the advancement of women into **leadership**, esp. on the boards of mining and mineral processing companies, and in the institutions that govern the mining sector;
 - Support the participation on national WIM members in international mining **conferences**.
 - Tackle **misogyny** in the cultures of mining companies and mining communities.
- **Advance greater gender equality in mining institutions** (public, private).
 - Assess and advocate on the extent to which mining **policy, law, regulations and institutions** disadvantage women, and work with national partners to advocate for the necessary changes.
 - Motivate the adoption of the **UN's Women's Empowerment Principles** by National Mining Associations and by companies and minerals governance institutions
- **Advance greater gender equality and protection of women's rights in mining communities.**
 - Commission **research** into how women's rights are affected by structures and processes that govern the management of land, finance, and technology in local mining economies (whether LSM or ASM).
 - Run **dialogues and consensus-building** processes locally to derive action plans to then advance women rights working jointly with business and society.
 - Provide human rights, women's rights and SGBV avoidance **training** to public and private security forces in high-risk transition mineral nations, including the priority countries. Collaborate with the Voluntary Principles for Security and Human Rights..
 - Monitor the extent to which miners' local content strategies are gender-responsive.

PROTECTIONS FOR ENVIRONMENTAL AND HUMAN RIGHTS DEFENDERS

Evidence of Risk

Environmental and human rights defenders are the front-line resistance to injustice in mineral sector development. Civic space is weak in many jurisdictions studied; the state either does not protect people's rights to protest preventing affected communities from holding companies or the state to account, and at times are responsible for the abuses. At least 1910 EHR defenders have been killed between 2012-22; rates are particularly high in Latin America, incl. Brazil and Mexico. Indigenous peoples represent a significant proportion of affected peoples. Besides (threat of) murder, women defenders are subject to other impacts, such as ostracization and gender-based violence. Supporting EHR defenders can increase the pressure on companies and authorities to follow FPIC, ensure local communities achieve a fair share of benefits, and manage their ESG risks better.

Global Levers of Opportunity

- **Engage** Front Line Defenders, Amnesty International, Leigh Day, Global Witness, Global Initiative Against Transnational organized Crime and other judiciary and non-judiciary activists that are working to support EHR defenders. Explore:
 - the extent to which they are already focusing programmes on transition minerals value chains and communities.
 - the concrete actions for philanthropists that they would advise to grow their effectiveness in transition minerals societies.
- See recommendations in *organized Crime, Transparency & Anti-Corruption, and Access to Remedy*

Opportunities in Priority Countries

- Explore how to resource, scale and orient the activities of international support from activists like Front Line Defenders, Amnesty, Global Witness to **target communities affected by transition minerals development** in the priority countries.
- **Engage environmental and human rights defenders** to understand what support they need, especially in mineral hotspots. Possible actions include:
 - Identify how to enhance legal protections (Brazil, China, India, Indonesia, Mexico, Zambia)
 - Establish local and national monitoring and reporting systems for violence perpetrated by public or private security forces related to mineral sector development to support mitigation and access to remedy.
- **Build a strategy to grow adoption of the Voluntary Principles for Security and Human Rights (VPSHR).** Audit which minerals mines have adopted the Principles and which have not. Work with national and private security associations to provide training in VPSHR.
- Target hotspot communities (e.g. in Brazil, India (e.g. Odisha, Jharkand), Indonesia (e.g. Maluku Island), Mexico, Zambia) for **training and resourcing env and HuR defenders**. Key themes could be
 - a) human rights and how to claim them,
 - b) organization, communication and information gathering / analysis skills as the basis for monitoring legal compliance and ESG risks,
 - c) national and international avenues for holding miners, mineral processors and governments to account,
 - d) grievance management including pathways for resistance and remedy that are lower risk.

Evidence of Risk

Mining accounts for 8% of fatal accidents at work; minerals processing, seafaring and recycling also pose significant hazards to workers (and local communities). Unionisation typically improves occupational safety and health (OSH) outcomes but the right to collective bargaining is under attack in numerous jurisdictions, including in the covered countries. Measures to improve workplace safety frequently do not accommodate the different needs and experiences of women, leading to poorer safety outcomes for women. Improving OSH outcomes in workplaces improves community prosperity and reduces social vulnerability. Artisanal and small-scale miners and workers of mines owned or led by actors with less motivation or experience to manage risk are particularly prone to accidents and injury.

Global Levers of Opportunity

- Expand the attention given to OSH and safety culture in transition minerals value chains beyond mining to include transition minerals **processing, seafaring and recycling** (inc. but not limited to waste picking; product assessment, sorting and disassembly; and reprocessing (including pyro- and hydro-metallurgy)).
- **Engage** with the ILO, industry associations, mining chambers, and labor rights organizations to identify global actions that could be taken.
- **Support advocacy for implementation of the ILO Fundamental Rights at Work**, including the right to collective bargaining, especially in countries with low rates of unionization, education, and where there is a low presence of international companies that are members of standards and industry associations that prioritize this issue. Strong unions typically advocate for strong OSH protections.
- **Ensure gender-sensitivity in OSH risk management**, monitoring and reporting. Audit the extent to which:
 - Measures adopted to minimize OSH risks are gender-sensitive and fully inclusive of women's particular needs.
 - data for monitoring OSH incidents internationally disaggregates by gender.

Opportunities in Priority Countries

- **Work with IndustriALL** to strengthen unions.
- Scale existing efforts to improve health and safety standards in mining and minerals processing, e.g. in Zambia. Provide training, equipment and infrastructure.
- **Scale existing efforts to improve OSH in automotive and e-waste sectors** in India, Kenya, Mexico and South Africa.
- Explore collaboration with **CCCMC** to deliver training to Chinese miners on good practice in occupational health and safety, at a minimum in line with the CCCMC Guidelines.
- Prioritize OSH in critical minerals **ASM** communities.
- Take a **gender-sensitive approach to any OSH interventions**, noting gender-specific variations in exposure to and prognosis with mining-related diseases.

RIGHT TO CLEAN HEALTHY AND SUSTAINABLE ENVIRONMENT

Key Risks

- **Pollution of Air, Water and Soil**, including water quality and availability
- **Biodiversity Loss**

Adjacent issues *(addressing the following influences the likelihood and severity of the above risks)*

- Environmental & human rights defenders
- Protect women's rights
- organized crime, transparency & anti-corruption
- EHRDD and disclosures
- Circular mining.
- Access to remedy
- Remining



POLLUTION OF AIR, WATER AND SOIL inc. water quality and availability

Evidence of Risk

Pollution of air, water and soil threatens human and ecological health and frequently occurs in jurisdictions where affected rights-holders struggle to access adequate health care or remedy. 581 of 4,960 sites in the Toxic Site Identification Program are mine sites; 12 are battery recycling.

Global Levers of Opportunity

- **Improve access to healthcare** by affected communities. Specific opportunity to potentially join [the Global Fund and AngloAmerican in Southern Africa](#) in this regard.
- **Decontaminate land.** Pursue reining (including phytomining) and remediation in some of the most polluted places on Earth (e.g. Ventanas, Chile). Cf. [Database of World's Polluted Sites Is Now Online - Pure Earth](#) and [Metal-mining pollution impacts 23 million people worldwide - BBC News](#) and / or in the [priority countries](#).
- *See biodiversity, circularity, reining and remedy recommendations.*

Opportunities in Priority Countries

- Support adoption of the **Global Tailings Standard**.
- Support **improvements in emergency preparedness and response** to environmental incidents in higher risk jurisdictions, e.g. Indonesia, India, Zambia.
- Support **programs for citizen-led monitoring and reporting** of emissions, pollution, and water security and quality.
- Support local activists, think tanks and communities to find **avenues for improving water management** in water-stressed or at-risk areas
- Support water charities that are operational in the priority countries to **extend their services into water- stressed mining regions**



BIODIVERSITY LOSS

Evidence of Risk

(9/11) Mining impacts upon 37% of Earth's land area, excluding Antarctica, of which 8% overlaps with protected areas. Over 60 per cent of nickel mines are in forests, the majority of active lithium mines are in areas of high water-stress, graphite mines in China create extensive dust pollution, and phosphate mines have propensity for destruction of aquatic ecosystems. Deep-sea mining is highly contested on the basis of unknown impacts on marine biodiversity and planetary systems.

Environmental damage is more likely where there is corruption, poor governance and/or limited civic space; it is more likely when miners that are subject to weak accountability mechanisms, like state- or privately owned mines. 'Do-no-harm' has been the historical ambition, thought not universally achieved. In a context of persistent degradation of nature, recent commitments to 'nature-positive' mining, e.g. by ICMM, are welcomed.

Global Levers of Opportunity

- Advocate for the **assignation of rights of Nature and enactment of Ecocide law**. Support lawsuits in countries where the ecocide law has been passed.
- Advocate for mining and processing companies to follow the **mitigation hierarchy** as part of environmental policy and to set **environmental expectations for their suppliers** in line with the OECD Handbook for Environmental Due Diligence of Minerals Value Chains.
- **Monitor** and publish the growth of mining in key biodiversity areas and related land use changes. Use gender-sensitive mixed methods (Earth observation, database monitoring (e.g. cadastres), media tracking, and ground-based citizen science methodologies) in collaboration with existing monitors (e.g. [WB Delve platform](#), [Prospector Portal](#), [World Database of KBAs](#), [UNEP tools](#), etc.). Identify 'hotspot geographies' where mine & metallurgy development is intensifying. Promote greater vigilance in hotspots. Direct resource allocation to the protection of env and human rights in these territories.
- Consider scaling [Cool Earth's Basic Income pilot](#) with Amazon communities in Peru into Brazilian IPLC impacted by mining.
- **Fund efforts to control deep-sea mining**

Opportunities in Priority Countries

- Run a series of dialogues as **consensus-building processes to explore avenues to improve forest, water, climate and biodiversity outcomes** for nature and affected rightsholders, focusing on the permitting process. Consider how the ESIA and remedy processes delivers adequate safeguards for biodiversity, ecosystem services and IPLC rights, and how these could be evolved.
- Invest in greater community involvement in environmental stewardship, e.g. participating in local consultations for TNFD implementation by miners, monitoring water use and availability, etc.
- [3 of the 11 countries afford rights to nature in some form or other \(Brazil, Canada, India\). Advocate for ecocide to be legislated on in the priority countries.](#)

SECTION 1: PRIORITY ISSUES



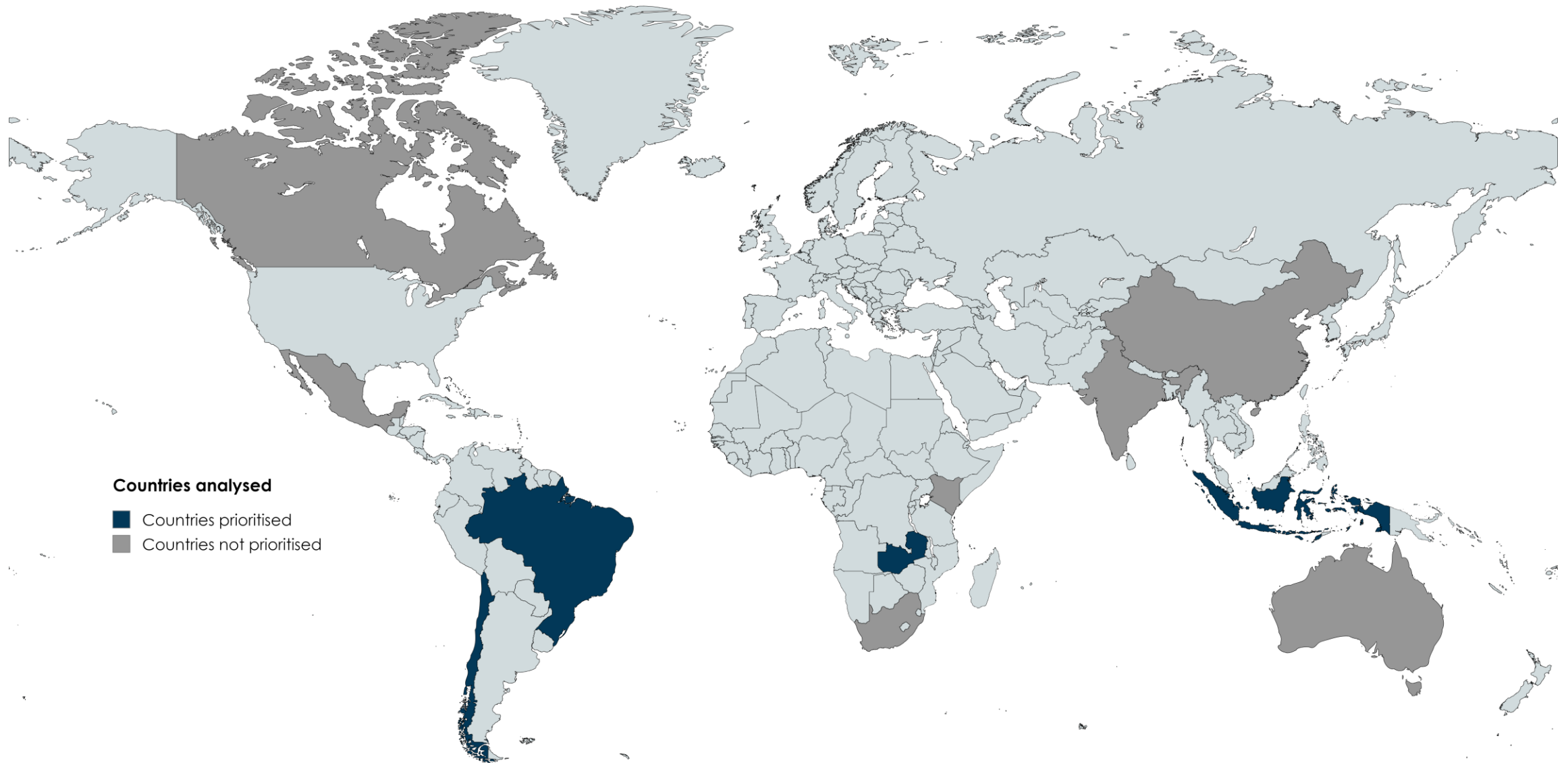
SECTION 2: PRIORITY COUNTRIES



SECTION 3: COUNTRIES NOT PRIORITIZED



OVERVIEW OF COUNTRIES ANALYSED



HIGH PRIORITY COUNTRIES

1. **Brazil:** Offers opportunities to build trust among stakeholders, enhance environmental and human rights due diligence, address corruption, and support the inclusion of women and Indigenous communities in decision-making processes
2. **Chile:** Presents opportunities to support conflict mediation, strengthen environmental and social governance, promote sustainable water management, and advocate for enhanced protections for environmental and human rights defenders, while advancing technological innovations and responsible mining practices.
3. **Indonesia:** Offers significant opportunities to promote circular mining practices, advance low-carbon energy solutions, enhance community engagement and access to remedy, and combat corruption within the mining sector, with a focus on sustainable and inclusive development in regions like North Maluku.
4. **Zambia:** Presents opportunities to advance renewable energy and water security, promote circular mining practices, support economic diversification and women's rights, and combat corruption, with a focus on enhancing environmental governance and empowering civil society and local communities, particularly in the Northwest Province.

MEDIUM PRIORITY COUNTRIES

1. **Canada:** Already considered high performing in for responsible mining practices, however activities are listed for operations abroad and their impact on environment and Indigenous peoples
2. **China:** China's dominance in critical minerals is acknowledged, but it is not prioritized due to complex governance challenges and existing geopolitical dynamics.
3. **Kenya:** Not prioritized except for opportunities to develop scrap markets and improve metals recovery, which could be an area for targeted philanthropic intervention.
4. **Mexico:** Limited mineral relevance however could become a significant player in the recycling sector
5. **South Africa:** On track to become Africa's first battery manufacturer; EHRDD could be an important lever for impact. Significant recycling sector too.

LOW PRIORITY COUNTRIES

1. **Australia:** While a significant player in critical minerals, Australia is not prioritized due to its already robust infrastructure and regulatory frameworks.
2. **India:** India is at an early stage of its critical minerals journey and hardly any producers operate in accordance with international standards.

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BRAZIL: Relevance for Critical Minerals

Minerals: At present, Brazil plays a generally small role in the provision of transition minerals to the global economy, save perhaps for graphite. The extraction of graphite constitutes around 7% of global share, and lithium, manganese and phosphate rock extraction constitute between 2-3 % global share. There is great potential to grown production of graphite, Mn and Ni.

Geopolitical: The Brazilian government is in the process of updating its long-term national mining plan (PNM 2050) and has signaled that transition minerals will be a focus of that strategy with a view to making the Brazilian mining sector more sustainable, diversified and competitive. The present regime has pledged to restore Indigenous rights and environmental protections, in reaction to the deregulation pushed through under Bolsonaro, however the implementation gap between law and reality is big. Mandatory climate disclosures and sustainability reporting comes into force in 2026. The biggest actors in the Brazilian transition minerals sector are the EU, China, and the USA. Although Brazil is not a partner of the Belt and Road Initiative, it has deep commercial ties with Beijing. 63.8% (\$10.3 billion USD) of total mineral exports go to China.

Social issues:

- Due to human rights and environmental abuses connected to illegal ASM in the Amazon and the Mariana and Brumadinho tailings disasters, the general public perception of mining is negative.
- Companies, CSOs, communities and the government are often at odds with each other. Several CSOs are dedicated to putting a halt to new projects and closing existing operations, while companies often lobby for lax mining regulations and in some cases engage in corruption with top-level government agencies. In this environment, there are few avenues to engage in fruitful multi-stakeholder dialogue and underscore the need for sustainable mining. Consensus-building across political divides is hugely needed.
- Despite constitutional prohibition to mining in Indigenous areas without consent from the affected people, companies continue to request licenses for projects within or near the vicinity of these areas.

Governance issues:

- Brazil has a legal framework for protecting vulnerable groups and the environment, yet there is a big gap between the law and its implementation.
- Persecution and violence against environmental activists, human rights defenders and Indigenous peoples are a particular concern, especially in the Amazon.
- There are widespread reports of corruption, bribery and lobbying to deregulate mineral extraction, grant licenses to producers that do not offer adequate levels of due diligence and to avoid oversight from government agencies.
- Connections to organized crime mean that money laundering and local-level bribery are a challenge.

Environmental issues:

- The mining industry has had severe impacts on the Brazilian environment and social fabric, particularly after several gold rushes in the Amazon rainforest and the Vale-BHP tailings dams ruptures in Mariana and Brumadinho.
- Between 2000 and 2019, Brazil suffered 327km² of direct tropical forest loss due to industrial mining. Open-pit mining projects around the Carajás region in Southern Pará, including nickel, copper and manganese mining, are linked to an increase in deforestation of the Amazon rainforest.
- Ni mining creates water and soil contamination with heavy metals and toxic substances, and dust dissemination from mining and transport. Air pollution can be especially severe in some manganese and lithium operations. Noise pollution from drilling, truck traffic and heavy machinery may disturb the migratory paths of native species.



BRAZIL: Hotspots, partners, and primary bottlenecks and opportunities for scaling minerals supply

Hotspots

1. Amazon: the **National Reserve for Copper and Associated Metals (RENCA)** Cu
2. Southeast Pará: the **Carajás region** Cu, Mn, Ni
3. Northeast Minas Gerais and South Bahia: the **Jequitinhonha Valley** Li, graphite
4. in the Minas Triangle: the regions around the **Paranaíba and Grande rivers** P

Due to its proximity to rainforest protected areas, Indigenous communities, and long history of illegal ASM and land conflicts, Carajás and RENCA concentrate most concerns by CSOs.

Projects on the Jequitinhonha Valley have been met with some resistance, but there is still a view that they present an economic opportunity for the development of the national transition minerals market and the local community if mining benefits are properly shared with communities. The Jequitinhonha valley presents the lowest socio-development indicators in the country, high ecosystem diversity and water scarcity.

Primary bottlenecks and opportunities to scaling transition minerals supply sustainably in Brazil

Bottlenecks	Existing Progress
Laws to safeguard people and nature are not adequately implemented . Corruption and organized crime are impediments. Corporate lobbying for deregulation is strong.	Mandatory climate & sustainability report comes into force in 2026. EHRDD is not yet mandated by law.
Strong commercial ties with China creates a degree of economic dependency.	Critical minerals trade deals with the US and EU offer openings for EHRDD.
Low public consensus on how to develop the country's transition minerals sector. Public perception of mining is negative as a result of unremedied harms. Generates strong resistance to sector development .	
Companies and illegal miners are seemingly blind to Indigenous rights and adequate consent-building processes. Persecution and violence against environmental activists, human rights defenders and Indigenous peoples is common.	
Deforestation & pollution caused by mining, mineral processing and environmental disasters create significant environmental and social harms.	Lula administration has vocalized commitments to support indigenous rights and protection of nature.
Tunnel vision attention to the Amazon impedes scaling in investments to protect people and planet in other biodiverse and globally significant areas, e.g. Paramo.	
Illegal ASM of gold has severe impacts on Indigenous peoples and local communities, biodiversity, and ecosystem services. Ties to organized crime. Generates large volumes of copper that is laundered into international supply chains.	

Priority partners

Type	Examples
Companies	Vale (Cu, Ni); Sigma Lithium (Li), The Brazilian Mining Association (IBRAM) .
Civil Society	Protected Forest Association "AFP", Rede Brasileira de Justiça Ambiental , Comitê Nacional em Defesa dos Territórios Frente à Mineração , WIM Brasil , Articulação dos Povos Indígenas do Brasil (Apibí)



BRAZIL: Opportunity Maximization & Risk Mgmt

The 3-5 priority actions to be taken to scale critical minerals supply sustainably.

Avenues for Maximizing Opportunity Capture

- 1. Trust-building:** Identify and support initiatives focused on creating an environment of trust in order to lay the groundwork for effective consultation and cost-benefit analysis by affected stakeholders.
 - Build negotiation and mediation skills amongst affected rights-holders in territories where conflict risk is high. Work with the National Commission for Land Solutions.
 - Strengthen activities that will mitigate ESG impacts in the country
 - EHRDD activism (see risk management), incl. training affected rights holders in UNGPs, VPSHR and OECD Guidelines.
 - Improve protections for EHR defenders.
 - Empower affected rights-holders to monitor, report on and protect territories, to participate in decision-making processes and governance, and to negotiate for a fair share of benefits.
 - Create positive incentives for business to operate mines and mineral processors more sustainably and to build business partnerships with investors, mineral offtakers, research institutes and technical partners that privilege responsible business conduct and the realisation of sustainable development through minerals.
 - Support the Brazilian Women in Mining association to drive greater inclusion of women in a.) leadership in mining and the governance of mineral resources, b.) in processes that are pursuing consent of impacted rights-holders and c.) in processes that seek to mitigate risks.
- 2. Leverage the Brazilian government's commitment to protecting Nature:**
 - Support activists, Indigenous communities and local organisations advocate for granting key biodiversity areas rights for protection
 - Widen attention to protecting nature and indigenous rights beyond the Amazon
 - Lobby for transition minerals trade agreements and investments by Canadian and Australian miners to include requirements for environmental due diligence and to support Brazilian operators to improve performance.
 - Lobby the government to improve transparency on the actions of the inter-ministerial committee for implementation of the "pro-strategic minerals policy", and to improve participation by environmental agencies in its activities.
 - Promote forest-smart, climate-smart and circular mining to the Brazilian government for consideration as part of their new National Mining Plan 2050, and to Brazilian operators.

Avenues for Improving Risk Management:

- 1. EHRDD:** Normalise responsible business conduct in TM value chains
 - Assess the maturity and capacity of transition minerals miners to manage ESG risks
 - Support local civil society to lobby a.) companies to make human rights and environmental commitments to and implement environmental and human rights due diligence and b.) the state to introduce mandatory EHRDD (e.g. Conectas and Justiça Global). Work with international partners such as the OECD and collaboratives of mineral offtakers, like Drive Sustainability, the Global Battery Alliance, etc.
 - Pay particular attention to graphite and to regions outside of the Amazon as these are understudied and under the radar.
- 2. Corruption:**
 - Carry out a strategic assessment of corruption risks and impacts in Brazil's transition minerals sector as the basis for convening stakeholders to design a strategic response.
 - Address the role of corruption in facilitating mineral licensing in Indigenous territories without consent.
 - Strengthen processes to pursue FPIC with Indigenous Peoples and Local Communities and to protect EHRD.
- 3. Illegal ASM of Cu:**
 - Support global responsible sourcing of copper from Brazil by tackling the laundering of illegally mined copper into responsible supply chains.
 - Convene stakeholders to design a strategy to undermine the 'protection economies' that have developed, especially in the Amazon, and lay the groundwork for professionalizing and legitimizing the sector. Consider: the actors in the illegal gold mining sector, ICA, the Amazon Gold Coalition, the Brazilian State, foreign state interests, e.g. US Department of State, downstream companies.



CHILE: Relevance for Critical Minerals

Minerals: Chile is the top copper producer in the world (28 percent of global production and 5.73 million tons in 2020), though its global share has been falling consistently since 2001. It is the world's second-largest producer of lithium (23 percent of global production; and 70 thousand tons of Lithium Carbonate Equivalent (LCE) in 2019) and currently holds over 50 percent of the world's lithium reserves.

Geopolitical: Chile has put in place a suite of strategies to position itself at the forefront of the Just Energy Transition. Chile recently released its 2050 National Mining Policy (PNM) as the result of a widely participatory process. As a result, the Chilean mining sector is investing in new technologies to become more sustainable and support the country's ESG goals. Chile is one of the "world-class" destinations for solar and wind energy developers and is interested in promoting 'climate-smart mining'. Mining companies have invested in renewable energy to reduce their carbon footprints. 33% (41) of Chile's copper mines are state-owned and 40 of these are operated by CODELCO. The current government also plans to create a state-run lithium company whose main purpose would be to form public-private joint ventures. This company will have a significant role in determining the renegotiation of contracts and how Lithium exploitation will continue and is facing pushback from interest groups that back Chinese-Chilean lithium projects. Declining grades of world-class deposits pose a challenge.

Social issues:

- Chile's mining industry is seen by many as a sector of great social value due to the wealth generated at national and regional levels. The mining sector is traditionally the main generator of jobs and wealth to all regions in the central and northern regions of Chile, and the main contributor to GDP.
- However, the volume of community conflicts with mining projects is alarming (~80% of total investments seeking permits). The impacts of most concern include encroachment, changes to indigenous territories, air and water pollution, competition over water, reduced water quality and tailings-associated risks.
- CODELCO has 20 human rights allegations against it for 6 projects, including for OSH. Albemarle has allegedly caused permanent, serious and irreparable damage to the aquifer, Tilopozo plains, flora and fauna and the livelihood activities of the Peine Indigenous community, and the communities of Toconao, Camar, Socaire and Talabre.

Governance issues:

- There is a paucity of international donor funds addressing sustainability challenges in Chile's mining sector. Chile's graduation from the World Bank's Official Development Assistance (ODA) in 2018 resulted in the cessation of support to ESG initiatives in the mining industry from the main international donors and the closure of many NGOs. Although there is still some bilateral interest, such as that which has been given by the GIZ and USAID for Chile to join the EITI, support has otherwise slowed down significantly.
- There are challenges to the full implementation of international standards on environment, transparency, and human rights, such as the Escazú agreement, the EITI and IRMA.
- Protections for environmental and human rights defenders are weak and violations by the state are unremedied.
- The slow pace in obtaining permits is one of the main bottlenecks for mining investors.

Environmental issues:

- The growing concentration of mining projects in fragile and highly biodiverse ecosystems like the high-altitude salt-plains and Andean alpine mountains is escalating tensions that are impeding project development and threatening glaciers and biodiversity.
- Water consumption is a major source of concern for hard rock mines and lithium brine extraction, which mostly operate in water scarce regions where climate change can further reduce water supply.
- Desalination has cumulative environmental and social impacts in coastal regions that are not yet properly addressed, leading to socio-environmental conflicts. The related impacts on fisheries stocks and ecosystem integrity have led to conflict with coastal traditional and aboriginal fisheries communities.
- Ventanas, an industrial complex of Cu smelters run by CODELCO, is called the "Chilean Chernobyl" due to the impacts of its pollution on local morbidity and mortality.
- Chile does not have laws to protect glaciers.



CHILE: Hotspots, partners, and primary bottlenecks and opportunities for scaling minerals supply

Hotspots

- 1. Antofagasta complex has 30% of mining investment (16 projects, of which >90% is Cu), including the Ventanas complex of copper smelters, the “Chilean Chernobyl”, where a legacy of pollution requires extensive remediation. This is also where most desalination investments are being made, which carry their own ecological and social risks.
- 2. Atacama complex has 26.5t of mining investment, of which 80% is Cu.
- 3. Andina Cu Mine, Acongagua Valley, where water scarcity and glacier retreat are serious issues.

Northern Chile’s high altitude salt plains and Andean alpine mountains are at greatest risk due to the pace and intensity of development, the fragility of local ecosystems and extreme water scarcity are having serious impacts on community health, food security and biodiversity. Particular attention should be paid to the coastal, altiplano and desert communities and ecosystems in these regions and to managing both water depletion and contamination.

Primary bottlenecks and opportunities to scaling transition minerals supply sustainably in Chile

Bottlenecks	Existing progress
There is a headwind to growing Chilean minerals production as a result of ‘ nationalisation ’ of Li projects, closure of the most polluting Cu smelting and refining facilities (shrinking production by 30% in the last decade), and strong public resistance to mining, especially from Indigenous peoples and local communities for whom environmental impacts are of particular concern.	The building blocks for resolving some of these issues are being put in place. Chile signed up to the Escazú agreement in Sept 2022, reinforcing the state’s obligation to guarantee human rights, such as access to information, public participation, and access to justice for Indigenous Peoples. CODELCO is looking to invest in improving tailings dams and Cu smelting’s environmental performance , and expand Cu smelting capacity . The state and local activists are pressuring miners and smelters to mitigate and remedy ESG harms caused by miners. A suite of mining companies are already compliant with international standards like CopperMark and IRMA (4 Li projects). Lastly, investment in Chilean Cu mining is strong: for the period b/w 2022 and 2031, 53 projects are planned, summing over USD\$ 73.6 billion in investments (70% for Cu, 3% for Li).
Chile lacks the technology and knowledge for processing and refining primary Li ores so has been deepening partnerships with Chinese businesses to deliver this (e.g. BYD & Tsinghan Holdings are separately investing to produce LFP. Although Chile exports more to Japan and S. Korea. In 2022, 89.5 % of lithium carbonate imported by China came from Chile.	Codelco ended long-term contracts to sell copper concentrate to Chinese companies from 2025, opening up the market to other importers.
Water scarcity is perhaps the biggest challenge to Chilean miners, smelters, refiners and local communities due to its relationship to agricultural resilience, food security and public health. Desalination solutions are geared towards industry benefit only, with little consideration for communities’ water needs nor a changing climate.	Desalination investments are an untapped opportunity to benefit local communities, with the right support. Chilean state’s commitment to growing renewable energy to reduce the minerals’ sector’s carbon footprint.

Priority partners

Type	Examples
Companies	CODELCO, ENAMI, SQM, Albermarle, Glencore, BHP, Lundin Mining, Tech Resources, IRMA, CopperMark, iLiA, Consejo Minero, Responsible Li Partnership, LiFT
Civil Society	Fundacion Tanti, Consejo de Pueblos Atacameños, Observatorio Plurinacional de Salares Andinos (OPSAL), Sustentarse.



CHILE: Opportunity Maximization & Risk Mgmt

The 3-5 priority actions to be taken to scale critical minerals supply sustainably.

Avenues for Maximizing Opportunity Capture

1. Trust-building and conflict mediation.

- *See recommendations for Brazil.*
- Fund research to identify priority areas for conservation where mining development would be restricted. Promote the incorporation of these spatial restrictions into legislation.
- Lobby for legislation to be strengthened to eliminate the gaps for proper implementation and investments in social management, community consultation and FPIC by mining companies.
- Focus on the northern coastal region.

2. Value addition, including circularity:

- **Maximise yields** from declining ore grades relative to ESG impacts.
 - Support research and development into technological and upskilling solutions
 - Support Chile's copper industry to develop a national strategy for circular mining and processing, including remining.
- Explore avenues for philanthropists to support the Ministry of Mining realise the objectives of the FURE strategy, which seeks to **modernise and expand copper smelting and refining** in country in accordance with global environmental standards. Promote research, technology transfer, and capacity building for more efficient, cleaner, and safer processing, and refining of the copper mining industry with benefits to the environment and the economy.
- **Campaign investors that are financing value addition** to ensure operations are aligned with international responsible business conduct frameworks, e.g. OECD Guidelines for MNEs

Avenues for Improving Risk Management

1. Advocate for increased **protections for environmental and human rights defenders**, for Free, Prior and Informed Consent to be legislated for, and for greater **access to remedy**.
2. **Mitigate water scarcity vulnerability and its impacts on people and nature.** Work with local partners to:
 - identify and promote policies and incentives for the mining industry to a.) share desalinated water with the communities, to b.) pursue processes that could generate a structure for shared governance of water to the mutual benefit of miners, local communities, investors and potentially government, and c.) carry out integrated impact assessments that can provide avenues for mitigating (through avoidance, minimisation etc.) the impacts of desalination plant construction concentrate disposal on fish spawning habitats and the osmotic balance of coastal aquatic ecosystems.
 - Lobby miners to
 - develop and implement robust and trusted Environmental Impact Assessments and Biodiversity Management Plans to prevent or mitigate negative impacts to the quality of natural habitats and the conservation status of biodiversity.
 - Ensure these processes for addressing environmental impacts are inclusive of and responsive to the perspectives and cosmologies of local communities.
3. **EHRDD and risk mitigation to address root causes to salient ESG risks**
 - Build international support to fill the investment gap in capacity building for social and environmental sustainability and good governance left by the country's graduation from ODA classification.
 - Convene investors and downstream buyers to design programmes to lobby and support ESG risk mitigation in hotspot areas, e.g. Ventanas.
 - Leverage work by GIZ to bring together German automakers and the Chilean copper sector. Collaborate with the ICA, RMI, OECD, etc.



INDONESIA: Relevance for Critical Minerals

Minerals: Indonesia is the largest producer of nickel, producing nearly half of global nickel supplies, the second and seventh largest producer of cobalt and copper (5% and 4% global share) respectively. Indonesia has a large portion of global nickel reserves and to a smaller extent of cobalt (7%), manganese (4%) and copper (3%). Manganese (and to a smaller extent, nickel) is mined by ASM. Indonesia processes 31% of its nickel to matte, but only processes 9% of the produced matte to ferronickel.

Geopolitical: The Indonesian Government has a clear ambition to be a major global player in the electric vehicle (EV) ecosystem, including EV and battery production. Indonesia is actively pursuing strategic partnerships, including discussions with the US on a Critical Minerals Agreement and collaborations with Australia, China, and ASEAN. A new law (May 2023) permits private entities to inspect mining areas, aiming to boost foreign investment. Additionally, 2020 regulatory reforms centralized mineral control under the central government to streamline business operations, though this move raises concerns about local governance and potential regional tensions.

Social issues:

- Indonesia has declining civic space and democracy, especially freedom of expression.
- The government has not mandated the application of FPIC to ensure a social license for all company activities. The community is rarely involved in monitoring mining and processing impacts. Displacement and resettlement occur without adequate consultation and compensation; women are particularly vulnerable. As a result, mining conflicts are on the rise (45 cases in 2020).
- Indigenous peoples are not recognized by the state, making them particularly vulnerable to abuse.
- Women are particularly impacted, esp. single heads of households, women landowners and women ASM.
- Laborers are often employed on temporary contracts with clauses that absolve the company of responsibility for potential damages. OSH standards are weak.
- All but one (S. Sulawesi) transition minerals provinces in E. Indonesia are among the 10 provinces with the most economically disadvantaged families.

Governance issues:

- Indonesia's policy and legal framework clearly privileges national economic performance metrics over avoidance of local harms. Communities around mining or processing areas must accept environmental & social harms as there is limited recourse for protest or resistance.
- Collusion, Corruption and Nepotism (CCN) practices have led to financial losses for the state. Army & police elites have leadership positions in nickel mining and processing, affecting quality of governance. The weakening of the Corruption Control Commission (KPK) has increased corruption risk.
- Indonesia's reliance on foreign capital and technology has left the country in a weakened position when it comes to controlling the mining and processing of transition minerals.

Environmental issues:

- Mining has destroyed 55 small islands permanently and irreversibly, with 29 of them being used for nickel mining, such as Gag Island in West Papua, and Gebe Island in North Maluku. Biodiversity impacts are severe with related carbon emissions impacts from deforestation.
- All phases of the mining life cycle have been reported as resulting in a decline in environmental quality, affecting the quality of water, air and soil around mining and processing sites, as observed in the Konawe nickel mining industrial area in Southeast Sulawesi. This has health impacts and livelihoods for local communities.
- Deep sea dumping of mine waste persists (Ni) as well as huge volumes of toxic wastewater (Cu), affecting marine biodiversity and protected areas.
- Environmental accidents are common, e.g. tailings dam collapses, silt leaks, oil spills.
- The transition minerals sector relies heavily on coal power.



INDONESIA: Hotspots, partners, and primary bottlenecks and opportunities for scaling minerals supply

Hotspots

- 1. **North Maluku Province**, Ni & Co. Approx. 30% of Indonesia’s Ni output comes from North Maluku, an archipelago comprising 805 islands, with a total land area of ~ 32,000 km² . There is a risk of submersion of several small islands, (e.g. Gee Island, Pakal Island, Gebe Island, Mabuli Island) and of pollution from Ni processing by the 18 Ni smelters in the province.
 - 2. **West Papua**, Ni, Co & Cu. The Siduarsi Nickel-Cobalt project will lead to a 10-fold increase in Co production by 2030. PT FI's copper mining cause 80 million tons/year of hazardous wastewater to be dumped into the Otomina and Ojikawa rivers, polluting the Arafura Sea and Lorentz National Park. Papua is the province with the highest percentage of impoverished families in Indonesia.
 - 3. Konawe Ni industrial area and Wawoni Island in **Southeast Sulawesi**, where >1000 endemic species are threatened by mining.
 - 4. Other **transition minerals mega projects**, e.g. Tanah Kuning Industrial Park (KIHI), Ketapang Industrial Park, Likupang Economic Zones, Morowali Industrial (IMIP); Weda Bay Park Industrial Area, Konawe Industrial Park.
 - 5. **E. Nusa Tenggara**, Mn, in particular in relation to risks associated with ASM and high rates of gender-based violence.
- In all cases, human rights violations and poor governance including corruption are of concern.*

Priority partners

Type	Examples
Companies	CATL, BYD, Indonesian mining association, KADIN, Nickel Institute, Cobalt Institute, International Copper Association, Drive Sustainability.
Civil Society	Ford Foundation, PWYP, GSCC, JATAM, Yayasan Indonesia CeraH, WALHI, AMAN, WIM Indonesia, Satya Bumi, Mighty Earth, IRMA.

Primary bottlenecks and opportunities to scaling transition minerals supply sustainably in Brazil

Bottlenecks	Existing Progress
High reliance on foreign capital and tech undermines Indonesia’s autonomy in how its sector is developed. Indonesia has growing debt , in particular as part of China’s Belt and Road Initiative (second only to Pakistan), and a portion of this debt fuels investments in Indonesia’s transition minerals sector, especially mega-projects.	Critical Minerals Agreement with the US is being explored.
Extensive deforestation and potentially even ecocide in the hotspots, with barely any remediation. Implementation of the mitigation hierarchy and precautionary principle is paramount.	Growing international attention and responsible sourcing joint initiatives are mounting pressure.
Dependency on coal-fired power for the development of the country’s Ni and Co sectors.	Local NGO Yayasan Indonesia CeraH is campaigning to end coal power.
High rates of misogyny leading to structural discrimination against women, high rates of gender-based violence and thus unequal experience of both benefits and harms associated with mining and smelting development.	Women in Mining Indonesia offers a network of women activists to drive local and institutional change.
Highly centralized governance over a geographically diverse nation, poor transparency and conflicts of interest between political and economic interests create a breeding ground for corruption and elite capture ; communities generally suffer disproportionately .	Indonesian stock exchange ESG obligations offer an opportunity for driving improved disclosures.
Omnibus Law has led to deregulation, including of labor rights . Use of temporary employment contracts is common. Workers who assert their rights may be prosecuted.	Highly skilled workforce and investor-friendly regulations.
Many smaller businesses operating in the transition minerals sector do not have ESG expertise or capacity.	Nascent interest by the state and industry in international ESG standards.



INDONESIA: Opportunity Maximization & Risk Mgmt

The 3-5 priority actions to be taken to scale critical minerals supply sustainably.

Avenues for Maximising Opportunities

1. **Clustered and circular value addition:**
 - **Advocate for greater circularity in mining and mineral processing.** Leverage government focus on value addition to promote the commercial benefits of building circularity into minerals value chains as an avenue to mitigate ESG harms whilst unlocking new economic opportunities and the regeneration of nature.
 - **Explore barriers and opportunities to greater circularity in mining and metallurgy.** Convene interested parties to address these and pilot solutions.
 - **Leverage clustering of transition minerals processing** in specific geographies to push for more efficient / effective management of ESG harms, pushing the commercial perspective.
 - **Tackle barriers to LIB and scrap recycling efficiency and transition minerals recovery rates.** Identify strategic entry points for advancing.
2. **Decarbonise energy**
 - Support low carbon minerals from other jurisdictions to access a **green premium** to provide commercial incentive to Indonesia to decarbonize power for transition minerals production.
 - **Design a strategy to increase clean energy development for JET sectors and communities.** Assess barriers and opportunities. Consider how corruption & elite vested interests impedes decarbonization of power. Convene a workshop with mineral players to consider findings and explore options to sustainably scale green energy and build energy security.
 - Explore the potential for Indonesian energy, transportation, mining, minerals processing, and foundry actors to participate in voluntary carbon schemes.
3. **EHRDD through collaboration: leverage existing state-led and international initiatives that are targeting Indonesian minerals for ESG improvements**
 - **Improve sustainability reporting:** Assess alignment of IDX listed companies' sustainability reporting GRI; advocate for greater performance where necessary. Advocate for private companies' legal sustainability reporting obligations to align to GRI.
 - **Push IRMA and international standards:** Build the capacity of Indonesian civil society to understand IRMA and its benefits. Find pathways through which IRMA requirements might integrate into Indonesian law.
 - **Campaign and support investors and downstream companies to** a) adopt stringent ESG requirements and b.) support their suppliers to gradually implement these.
 - Campaign for uptake of **mineral traceability and product passport solutions by Indonesian business**, so end users can trace materials' origin and use their leverage to mitigate ESG harms along the value chain.
 - Fund joint initiatives to enhance the co-benefits to local communities of supply chain and investment mitigation investments.

Avenues for Improving Risk Management

1. **Support national and regional level stakeholders to overcome barriers to effective community engagement, inclusion and access to remedy.** Start in N. Maluku:
 - Incentivise and support policymakers, miners and processors to take a human rights-based approach to policy and operations. Work with DFIs, national NGOs, local communities, investors and downstream businesses.
 - **Raise awareness on the urgency and benefits of prioritizing environmental and human rights protection, alongside economic development.** Build the business and national development case (and thus ambition) for companies and policymakers on how and why business should seek to obtain a social license to operate and carry out social investments. Promote a.) the benefits, seriousness, and urgency of the implementation of FPIC and obtaining a social license to operate and b.) the issues and adverse impacts across different stakeholder groups of damaging practices such as corruption, use of force, etc.).
 - **Motivate and assist miners and processors to** a.) engage communities meaningfully and in line with international stakeholder engagement standards that support FPIC, e.g., IRMA, TNFD; b.) develop local community development strategies in partnership with local communities; c.) commit to robust EHRDD as part of their risk management systems, including implementation of the VPSHR; and d.) involve local communities in decision-making, privileging inclusion of women and Indigenous peoples.
 - **Strengthen access to remedy** for victims. Conduct a strategic review of pathways to remedy and work with local partners to effect improvements.
 - Empower EHRD, Indonesian communities and affected people to a.) recognise their rights to benefit from natural resources, partake in environmental monitoring and contribute to regional development; b.) access and understand relevant publicly available information; c.) get better at organisation, communication and negotiation skills; d.) identify avenues for holding miners, processors and authorities to account; and e.) ensure equal participation and adequate protections for vulnerable groups.
2. **Corruption**
 - Support the **protection of local EHR defenders.**
 - Lobby for an **anti-corruption strategy for transition minerals**, including a focus on democracy, civic space and accountability mechanisms. Inform this by carrying out a gender-sensitive, mineral-specific, ASM-inclusive **organized crime, corruption & transparency assessments of mining & mineral processing.**
 - **Promote transparency in mining and processing.** Seek to make permits, AMDAL docs, environmental reports, post-mining closure plans, and reclamation & rehabilitation plans publicly available & accessible and for information to be gender disaggregated.
 - **Fund CSOs** that are advocating for more transparent, sustainable and fair mining industries.



ZAMBIA: Relevance for Critical Minerals

Minerals: Zambia is Africa's second largest Cu producer and has ambitions to triple production by 2031. Cobalt is a by-product, and the country aims to grow its Ni, Li and Mn sectors as the basis for economic diversification, with an emphasis on value addition. Cu, Co, Mn are mined by industrial and artisanal and small-scale miners. The country's energy mix is predominantly renewable, but energy insecurity is a growing challenge due to climate change, incl. the ongoing drought and the country's ambitions for mineral sector growth.

Geopolitical: Zambia is strategically positioned to develop its transition minerals sector, with significant reserves of copper, cobalt, and emerging prospects in lithium and manganese. The present regime is assertively steering development of its minerals sector. Zambia is negotiating trade deals (incl. South Africa and the DRC) to become a regional economic hub for transition minerals trade. Zambia is making continuous efforts to attract foreign direct investment through tax incentives, streamlined licensing processes, and public-private partnerships. China is the largest investor. Recent trade agreements with the US and EU open the door for more diversified transition mineral production and infrastructure development. Investment into remining and value addition is occurring.

Social issues:

- Inadequate compensation for displaced communities, gender inequality in the workforce and gender-based violence are prevalent.
- Local communities and CSOs are not adequately consulted, do not get a fair share of mining's benefits and rarely adequately participate in the management of risk. They struggle with access to information or developing the skills they need to engage in processes productively.
- Weak unions face challenges such as corruption, politicization, and inefficiency. Hazardous working conditions and low use of protective measures leads to high rates of OSH incidents.

Governance issues:

- Corruption, esp. in land deals and permitting and at the local level, & weak regulatory enforcement erodes trust, drives community discontentment, creates an unstable business environment and demotivates investors.
- The legal and regulatory framework for mining and processing requires evolution to become adequately fair, stable and unified to ensure responsible business conduct and good governance.
- Access to remedy is frequently infeasible. Low community awareness of their fundamental right to remedy. There is no reference to remedy (e.g. resettlement compensation) in the Mines and Minerals Act.
- Weak civic space as the existing legal framework offers little protections to EHRDs and legal provisions are misused to target and harass EHRDs. Freedoms of expression, assembly and association are limited.

Environmental issues:

- Zambian mining hotspots often near protected areas, exacerbating the risk of habitat destruction, pollution and biodiversity loss. Protected areas are being ceded for mining purposes
- Inadequate environmental management practices by miners (e.g. poor ESIA's, inadequate community consultation, low transparency on project approvals) leads to destruction of biodiversity and pollution of air, water and soil as well as social resistance to mining projects.
- Legacy tailings and slag heaps and numerous incidents of poor waste management lead to contamination of air, water and soil, generating ongoing health hazards for local communities and affecting ecosystem viability.
- Drought and water scarcity impact food and energy security, and human welfare – which are likely to be impacted further due to the growing minerals sector



ZAMBIA: Hotspots, partners, and primary bottlenecks and opportunities for scaling minerals supply

Hotspots

1. **North-Western Province**, esp. around Solwezi, where most new Cu-Co and Ni development is occurring. Approx. 350,000 hectares of protected forests have been converted into mining concessions since mining began in 2005. Priority for forest-smart mining.
2. **Copperbelt Province**, where legacy Cu-Co mines have left a polluted landscape and aggrieved workers and geophysical mapping is likely to lead to renewed exploration and mine development. High rates of informal mining including links to transnational organized crime. Concentration of efforts to develop transportation and energy infrastructure, including for international mineral shipments. Efforts to rehabilitate contaminated land and remine legacy tailings exist.
3. **Southern Province**, where Li deposits have been discovered but have not yet been exploited.

Primary bottlenecks and opportunities to scaling transition minerals supply sustainably in Brazil

Bottlenecks	Existing Progress
Persistent issues of bad governance and corruption in Zambia's mining sector hinder investment and create an unstable business environment	Political stability and strong commitment on behalf of the present Zambian Administration to develop a sustainable and thriving transition minerals sector, including a prioritization of value addition and circularity. This is accompanied by growing donor interest (EU, US, UK) for taking action to support the sustainable development of Zambia's transition minerals sectors provides opportunities for public-private partnerships and blended finance solutions. Amongst African nations, Zambia attracts a large share of FDI in exploration and mine development and offers innovation in renewable energy and circular value chains.
Weak civic space and recurring challenges to freedom to assembly and of expression. Persecution of EHRD and high rates of gender-based violence .	Zambia and its partners (e.g. the World Bank) are intensifying efforts to promote gender equality and combat gender-based violence.
Deforestation & pollution caused by mining, mineral processing and environmental disasters create significant environmental and social harms.	Environmental campaigning works, noting the success of the 12 year campaign to prevent mining in the Lower Zambezi National Park. Private sector led efforts to remediate through remining (e.g. MPM, Jubilee Metals) and the Zambia Mining and Environmental Remediation and Improvement Project offer lessons and potential partners.
High rates of unemployment and unskilled labor hold back sector development.	Donor programs and infrastructure for supporting labour and community education exist, and could be leveraged.
Zambia is already feeling the impacts of a changing climate , having suffered from a significant drought in 2024. This is generating greater community vulnerability & poverty, with disproportionate impacts on women and girls, as well as stifling industrial development.	Zambia is leading Africa with the first non-tectonic geothermal project, offering an opportunity to showcase and scale geothermal energy development across the continent.
ASM is growing, including in transition minerals.	International development organisations have been investing in ASM development projects in Zambia's precious minerals (gold, gemstones), conflict minerals (tin, tantalum, tungsten) and development minerals (sand, construction) offering structures and processes that can be leveraged and diversified into transition minerals.

Priority partners

Type	Examples
Companies	FQM, PPDF, Chamber of Mines, Mopani Copper Mines, Jubilee Metals
Civil Society	ActionAid Zambia, Caritas Zambia, CTPD, EITA, GEARS initiative, WiM Zambia, ZHRDN
Government	EU SADC delegation, ECZ, UNIDO, US DoL, ILO, Zami, ZEMA



ZAMBIA: Opportunity Maximization & Risk Mgmt

The 3-5 priority actions to be taken to scale critical minerals supply sustainably.

Avenues for Maximising Opportunities

1. Energy & water security:

- Support efforts by the IFC and others to **diversify the energy mix through expansion of renewable power, including on site.**
- Explore how to **support scaling Kalahari Energy's geothermal project to grow geothermal energy production**, as a showcase for non-tectonic geothermal power potential in Africa.
- Explore opportunities for **decontamination of land** to support access to clean water for affected communities.

2. Value addition:

- Support initiatives seeking to **stimulate economic diversification through backwards linkages**, i.e. local content; e.g., leverage site-level investments into renewable energy to deliver greater energy security to local communities and economies.
- **Campaign investors that are financing value addition** to ensure operations are aligned with international responsible business conduct frameworks, e.g. OECD Guidelines
- fund vocational training programs tailored for the mining and minerals processing industry (and their communities) to cultivate a skilled workforce & catalyse economic diversification

3. Circularity:

- Drive policymaking and greater investment into making Zambia's mining and minerals value chains more circular.
- **Focus efforts to mitigate the environmental impacts of mining and minerals processing on Key Biodiversity Areas**, including but not limited to protected areas. Campaign for improving environmental governance to ensure the environment is not traded off in the haste to triple copper production. Focus on the Northwest Province. Advocate for the regeneration of nature.
- **Map and publicise Zambian tailings and slag heaps** with a view to incentivising their professional reprocessing. Develop a remining sector that delivers decontamination, releases remediated land for alternative economic and ecological use, generates employment and local economic development, and supports growth in mineral production.
- Explore the **viability of establishing a Regional Copper Scrap Collection & Reprocessing**

Avenues for Improving Risk Management

1. Women's rights and economic empowerment:

- Advance women's rights through policy, cultural and institutional reform.
- Leverage and extend the government's intensification of efforts to promote gender equality and combat GBV (e.g. enhancing women's participation in decision-making roles within government, improving gender parity in education, and addressing the socioeconomic drivers of inequality).
- Strengthen unions and women's participation in them.
- Increase **scrutiny of women's rights risks** in Zambian minerals sectors by downstream actors and investors (EHRDD).

2. Anti-corruption:

- Carry out a comprehensive corruption risk assessment of Zambia's minerals sector.
- Increase transparency and consultation in the conversion of customary to state land for mining & infrastructure purposes.
- Empower Zambian civil society to monitor corporate practices, support access to remedy, and to hold authorities and companies to account.
- Increase protections for environmental and human rights defenders.
- Increase **scrutiny of corruption risks** in Zambian minerals sectors by downstream actors and investors (EHRDD).

SECTION 1: PRIORITY ISSUES



SECTION 2: PRIORITY COUNTRIES



SECTION 3: COUNTRIES NOT PRIORITIZED





South Africa

- Energy security and decarbonisation: national climate-smart mining strategy?
- Sustainable manganese development
- On track to become Africa's first battery manufacturer; opportunity for advancing EHRDD.
- Decontaminate polluted legacy mining, processing, manufacturing and recycling sites, inc. investment in remining.



India

- Support emergence as a global transition minerals (& in time LIB?) recycling hub
- Decarbonize energy sector: national climate-smart mining strategy?
- Promote IRMA and other international standards for adoption by domestic producers in India
- Advocate for greater protections and access to remedy for EHRD, women, Indigenous peoples and workers.
- Decontaminate polluted legacy mining, processing, manufacturing and recycling sites.



China

- Identify and collaborate with Chinese philanthropic organizations that have a focus on supporting greater sustainability in transition minerals.
- Collaborate with CCCMC to support adoption and implementation of the Guidelines for Responsible Outbound Mining Investment by Chinese businesses operating overseas, including raising awareness of their Operational Grievance Mechanism amongst affected communities.



Mexico

- Leverage strong relations with Canadian mining sector
- Support emergence as a global transition minerals recycling hub
- Support decarbonization of the energy sector & water security: national climate-smart and water-smart mining strategies?
- Advocate for greater protections and access to remedy for EHRD, women, Indigenous peoples and workers
- Support efforts to address corruption and organized crime.



Canada

- Hub of excellence for responsible mining and responsible mining services and solutions: Export of leading practice in Indigenous rights and participation in mining, benefit sharing, business model & technological innovation, and sustainability advisory to mining.
- Opportunity to leading practice through Canadian presence in overseas exploration and production.
- Need for greater support to Canadian Indigenous communities affected by transition minerals development.

MEDIUM PRIORITY COUNTRIES



Australia

- Leverage Australian miners' partnerships with Chinese companies to raise their comfort operating to higher ESG standards
- Support the protection of women's rights and tackle misogyny in the workplace.
- Support decarbonisation of energy through national or provincial climate-smart mining strategy.
- Support discovery of a green premium for low-carbon nickel and lithium.
- Need for greater support to Australian Indigenous communities affected by transition minerals development.



Kenya

- Support Kenya to develop a transition minerals strategy, including consideration of its development as a global transition minerals recycling hub
- Advocate for greater protections and access to remedy for EHRD, women, Indigenous peoples and workers.
- Explore remining of legacy mine sites for transition minerals.
- Address energy poverty

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