



WHAT DOES THE ENERGY TRANSITION MEAN FOR THE MINING SECTOR?

Five trends to understand corruption risks in the extraction
of transition minerals

Transparency International's Accountable Mining Programme is working across TI's global network to look at where and how corruption can get a foothold in the mining sector. Using the Mining Awards Corruption Risk Assessment (MACRA) Tool, TI national chapters across six continents have identified and assessed corruption risks in mining approvals. By working collaboratively with governments, companies, civil society organisations and communities, we want to build a fairer, clearer and cleaner process for obtaining a mining permit. By building a better system and a fairer process we can prevent corruption before ground is even broken.

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Every effort has been made to verify the accuracy of the information contained in this report. All information was believed to be correct as of October 2022. Nevertheless, Transparency International Australia cannot accept responsibility for the consequences of its use for other purposes or in other contexts.

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EXECUTIVE SUMMARY

As the world moves towards cleaner sources of energy, demand for minerals is growing exponentially. The mining sector has a critical role to ensure that the energy transition is sustainable and just. Low-carbon technologies in power generation and in transport require a higher level of mineral inputs than their fossil-fuel based versions. Estimates by a recent International Energy Agency (IEA) report indicated that up to six times the amount of mineral input is required for an electric car in comparison to a conventional one.¹ Similarly, building onshore wind plants requires nine times the amount of mineral resources compared to building a gas-fired plant of the same capacity.



... six times the amount of mineral input is required for an electric car in comparison to a conventional one."

Clean energy technologies require a variety of minerals, often referred to as 'energy transition minerals' or 'critical minerals' for their role in enabling an energy transition. This includes notable minerals like cobalt, copper, lithium, nickel and rare earths among others.^{2(p283)} Demand for these minerals will grow dramatically if the world is to meet its climate commitments, and limit global temperature rise to below 2°C, and even more so to meet the goal to stay below 1.5°C. The IEA warns that overall demand for minerals will grow at least fourfold by 2040.¹

Despite this overall increase, demand will be uneven across minerals and is difficult to predict.¹ Lithium demand, for example, is expected to grow by over forty times, whereas graphite, cobalt and nickel are expected to grow around twenty times. Others, like rare earths or copper will likely see less dramatic expansion. This will still involve a projected demand that would at least double in the case of copper and multiply up to seven times in the case of rare earths.^{1,3} While demand is subject to potential changes in technology, closed-loop manufacturing or recycling rates, analysts are talking of a new 'commodities supercycle' or a 'mining boom'.⁴⁻⁷

To meet the growing demand, the world will need new mines, and this new and rapidly changing context brings additional challenges and opportunities for the mining industry, for governments and communities.⁸ We are already seeing most of these occurring across the globe. Improving governance of the mining sector and ensuring that business integrity is maintained throughout the value chain is crucial for a sustainable and just energy transition, and it is essential to act now.

This policy brief highlights a selection of key trends to understand corruption risks for the mining industry associated with the energy transition, organised around five key areas:

1. High demand will lead to more mining licenses in jurisdictions with weak governance.
2. The rapid growth of demand for these minerals could increase speculative behaviour.
3. Fast-tracking of projects and strategic initiatives for the sector can increase government pressure and put new projects at risk.
4. Increase of state participation in the extraction and processing value chain can heighten corruption risks.
5. Investments in sensitive locations can exacerbate environmental, social and political tensions.



Photo: Electric car charger – Possessed Photography – Unsplash



Photo: Installing solar panels – Eloï Omella – iStock

Each of these trends is discussed with suggestions as on how to assess corruption risks using Transparency International's Accountable Mining Programme's tools and providing references to best practices and specific guidance to strengthen anti-corruption initiatives. By sharing these insights, we hope to help business, government and communities assess the risks and understand the opportunities and challenges that this changing context brings. The brief concludes with a series of policy recommendations to address these risks:

- Prevent a new 'resource curse' from afflicting producing countries, by implementing strong anti-corruption measures at every stage of the value chain. Assess risks of corruption and devise mitigation plans in the consideration of new mining projects.
- Ensure community consultation processes are robust and inclusive. Protect the rights of communities to provide free, prior and informed consent, in particular guaranteeing gender inclusive settings and considerations for indigenous peoples.
- Improve transparency and accountability requirements for the mining sector. This includes promoting contract transparency, project level payments-to-government disclosure, joining international initiatives like the Extractive Industries Transparency Initiative (EITI) and enabling a beneficial ownership registry.

- Take steps to strengthen anti-corruption measures in state owned enterprises, or where state capture of the mining sector is possible. This includes strengthening regulations relating to the monitoring of politically exposed persons (PEPs), to prevent 'revolving doors' across industry and government and regulations on lobbying and political financing.
- Ensure the energy transition does not come at the cost of the earth or the local communities in producing countries by enforcing and monitoring environmental impact assessments, enabling community consultation and implementing anti-corruption measures throughout the process.

These policies will contribute to higher anti-corruption standards and responsible business practices in the mining sector – supporting a sustainable and just energy transition that is environmentally and socially responsible, and does not compromise the earth or the communities where these minerals are located.

INTRODUCTION

As the world moves towards cleaner sources of energy, demand for minerals is growing. The shift to clean energy technologies to generate and store power is already underway in many parts of the world, and as our solar power plants, wind farms and electric vehicles multiply, so do the mineral resources required to produce them.

Renewable sources of electricity are expected to grow by 60% between 2020–2026, representing 95% of new sources by the end of this period.⁹ In 2021, the number of electric cars sold doubled that of the previous year, bringing the global fleet of electric cars to over 16 million, which more than tripled the total amount in 2018.¹⁰ Demand for electric cars has steadily grown in the last decade, and current estimates indicate there will be over 100 million electric vehicles by 2030.^{10,11}

“... policy analysts are talking of a new ‘commodities supercycle’ or a new ‘mining boom’.”

LOW CARBON TECHNOLOGIES WILL INCREASE MINERAL DEMAND

Like most low-carbon technologies, electric cars require a higher level of mineral inputs than their fossil-fuel based versions. Estimates by a recent International Energy Agency (IEA) report indicated that up to six times the amount of mineral input is required for an electric car in comparison to a conventional one¹. Similarly, the report noted that up to 70% of the world’s electricity generation could come from wind and solar plants by 2050 to achieve net-zero emissions. Building onshore wind plants requires nine times the amount of mineral resources compared to building a gas-fired plant of the same capacity.¹ Clean energy technologies require a variety of minerals, often referred to as ‘energy transition minerals’ or ‘critical minerals’ for their role in enabling an energy transition. This includes notable minerals like cobalt, copper, lithium, nickel and rare earths among others. However, the list of minerals actually required is lengthier, as we can see in Figure 1. Some of these minerals had little previous demand with established markets will still require a sharp increase in production.

Demand for energy transition minerals, essential for the deployment of clean technologies, will grow dramatically if the world is to meet its climate

Fig 1 Minerals required for green energy technologies

Green energy technology	Minerals required
Solar	Bauxite & Alumina, Cadmium, Copper, Gallium, Germanium, Indium, Iron, Lead, Nickel, Selenium, Silicon, Silver, Tellurium, Tin, Zinc
Wind	Bauxite & Alumina, Chromium, Cobalt, Copper, Iron, Lead, Manganese, Molybdenum, Rare Earths, Zinc
Electric vehicles and energy storage	Bauxite & Alumina, Cobalt, Copper, Graphite, Iron, Lead, Lithium, Manganese, Nickel, Rare Earths, Silicon, Titanium

Source: Church, C., & Crawford, A. (2020). Minerals and the Metals for the Energy Transition: Exploring the Conflict Implications for Mineral-Rich, Fragile States. In M. Hafner & S. Tagliapietra (Eds.), *The Geopolitics of the Global Energy Transition*, p. 283. 2(p283)



Photo: Albany Wind Farm, Australia – Mark Cunningham – Unsplash

commitments and limit global temperature increase to below 2°C, and even more so to meet the goal to stay below 1.5°C. The IEA warns that overall demand for minerals will grow at least fourfold by 2040.^{1(p9)}

MINERAL DEMAND WILL BE UNEVEN

Despite this overall increase in demand, the IEA report also shows the uneven pathways that some of these minerals are expected to have¹. Lithium demand, for example, is expected to grow by over forty times whereas graphite, cobalt and nickel are expected to grow around twenty times. Others, like rare earths or copper will likely see less dramatic expansion. This will still involve a projected demand that would at least double in the case of copper and multiply up to seven times in the case of rare earths.^{1,3}

The trajectories that different minerals will eventually follow are difficult to predict. Whether the material is needed across a range of clean technologies or concentrated in a single one, demand for specific minerals can be subject to a variety of factors such as technological choice or improvement, material substitution, closed loop manufacturing or recycling rates. This underscores the volatility that these markets will see in the future.³ Yet, while estimates vary and projections of actual demand differ

according to the scenarios considered, policy analysts are talking of a new 'commodities supercycle' or a new 'mining boom'.⁴⁻⁷

THE ENERGY TRANSITION BRINGS NEW CHALLENGES FOR THE MINING SECTOR

Across diverging forecasts and reports from international organisations, academics and policy analysts, one message is undisputed: the mineral sector has a key role to play in the energy transition. To meet the growing demand, the world will need new mines – and those mines will mean new license applications, contract negotiations, Environmental and Social Impact Assessments (ESIAs), community consultations, profit sharing arrangements, royalty regimes and land acquisition processes. Improving governance of the mining sector, and ensuring that business integrity is maintained throughout the value chain, is crucial to ensuring sustainable and just energy transition is achieved, and it is essential to act now.

This new and rapidly changing context brings additional challenges and opportunities for the mining industry, for governments and communities.⁸ We are already seeing most of these occurring across the globe. This policy brief highlights a selection of key

trends to understand corruption risks for the mining industry associated with the energy transition and is organised around five key areas:

1. High demand will lead to more mining licenses in jurisdictions with weak governance.
2. The rapid growth of demand for these minerals could increase speculative behaviour.
3. Fast-tracking of projects and strategic initiatives for the sector can increase government pressure and put new projects at risk.
4. Increase of state participation in the extraction and processing value-chain can heighten corruption risks.
5. Investments in sensitive locations can exacerbate environmental, social and political tensions.

Each of these trends will be discussed together with suggestions on how to assess these risks using our tools. In particular, indicators refer to our Mining Awards Corruption Risk Assessment Tool, our flagship research methodology helping users to identify and assess the underlying causes of corruption in mining sector awards. These are the risks that create opportunities for corruption, and undermine the lawful, compliant and ethical awarding of mining sector licences, permits and contracts. The analysis and insights shared in each key trend come from Transparency International's research, as well as from our engagement with small, medium and large mining companies. The research is also informed by our work with our global partners, the World Economic Forum, the International Council on Mining and Metals (ICMM) and the Extractive Industries Transparency Initiative (EITI), as well as the Anti-Corruption on Critical Minerals Expert Group, convened by EITI, the Natural Governance Resources Institute (NRGI) and the Organisation for Economic Co-operation and Development (OECD).

By sharing these insights, we hope to help business, government and communities assess the risks and understand the opportunities and challenges that this changing context brings. This will contribute to higher anti-corruption standards and responsible business practices in the mining sector – and contribute to a sustainable and just energy transition, that doesn't cost the earth or the communities where these minerals are located.



THE MACRA TOOL

The Mining Awards Corruption Risk Assessment Tool (MACRA Tool) is our flagship methodological tool for understanding and identifying the corruption risks in the process of approving mining permits. The tool helps its users identify and assess the underlying causes of corruption in mining sector awards – the risks that create opportunities for corruption, and undermine the lawful, compliant and ethical awarding of mining sector licences, permits and contracts.

The tool's focus on 'mining awards' spans from the award of rights for exploration, extraction and mine expansion, to community consultation and consent requirements, and environmental licences and related permits.

The tool has been used in 23 countries. It contains 83 common corruption risks and has been endorsed by the International Council on Mining and Metals (ICMM) and cited by different organisations such as the World Bank, the Extractive Industries Transparency Initiative (EITI) and the Organisation for Economic Cooperation and Development (OECD). The MACRA Tool has proved to be a highly effective framework for identifying and assessing the risk factors that create vulnerabilities to corruption at this critical stage.

Throughout this Briefing paper, guidelines will be given to use the MACRA tool to assess the corruption risk in each one of the trends discussed. Boxes will include references to specific relevant MACRA Indicators.

WHAT DOES THIS MEAN FOR THE MINING SECTOR? FIVE TRENDS TO LOOK OUT FOR:



Photo: Mining dump trucks transporting
Platinum ore for processing. iStock.

1. HIGH DEMAND WILL LEAD TO MORE MINING LICENSES IN JURISDICTIONS WITH WEAK GOVERNANCE

The increase in demand for transition minerals will lead to more mines. An increase in licensing of mining projects for these minerals is already occurring at an accelerated pace in many regions of the world.¹² A key trend to understand the impact of the energy transition on the mining sector is connected to the location in which these minerals are found.

In comparison to the oil and gas market, the production of many of the energy transition minerals is comparatively more concentrated. In some key

cases, like lithium, cobalt and rare earths, the three top country producers are responsible for over 75% of the total production, while around half of the world's

Figure 2 – Top 3 producing countries of key transition minerals



Source: IEA, (2021). *The Role of Critical Minerals in Clean Energy Transitions*. Paris: International Energy Agency. p.13.

copper and nickel are concentrated in the top three producers (Fig 2). The supply chain continues to be even more concentrated than the extraction stage, with China playing a key role in the processing of lithium, cobalt and rare earths.^{1(p13)} A geographically concentrated mining value chain increases the risks of disruption and increases the pressure in governance systems across the world.³

While these minerals can be found in various parts of the world, in many cases, key reserves are located in jurisdictions with records of poor or weak governance.^{2,12,13} As we can see below (Fig.3), significant reserves are located in countries with high levels of corruption, as measured by Transparency International's Corruption Perception Index.²

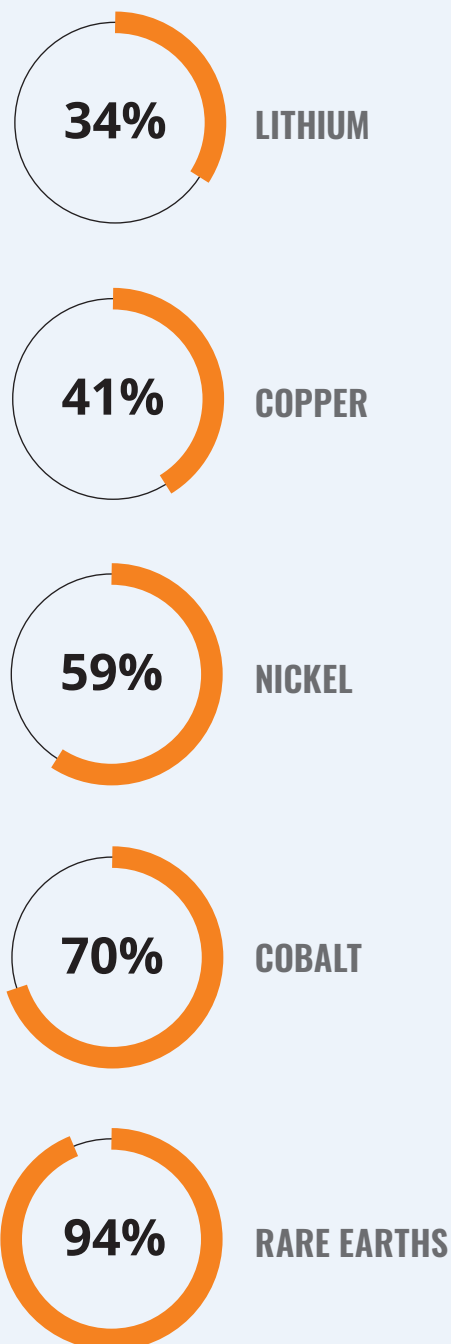
This worrying trend can be confirmed when looking at other governance indicators. A recent study, for example, found that to decarbonise the electricity generation sector, 32% of the minerals needed would have to be extracted from countries with weak, poor or failing quality of governance of the mining sector.^{13(p5)} To decarbonise the transport sector, 40% of minerals would need to come from countries with the same ratings. These cautionary tales are repeated across much of contemporary research and scenarios, and they pose some of the largest corruption risks associated with the energy transition.^{11,12,14}

While some of these trends may change as new mineral deposits are discovered, technology changes or through new circular economy initiatives, an increase of licensing in these jurisdictions could



Figure 3.

PERCENTAGE OF ENERGY TRANSITION MINERALS LOCATED IN COUNTRIES WITH HIGH LEVELS OF CORRUPTION



Source: Based on Church and Crawford (2020) Minerals and the Metals for the Energy Transition using the Transparency International 2017 Corruption Perceptions Index.

present a range of risks. These can be associated with poor institutional infrastructure to deal with the increase in demand for licensing, by agencies that lack the human and financial capacity to do so effectively, efficiently and transparently. This could lead to extended delays in approvals, or a lack of capacity to scrutinise and monitor compliance. Increasing government pressure to respond to high demand in these contexts will likely exacerbate existing corruption risks, so it is crucial to understand and assess each specific context.



USING THE MACRA TOOL: ASSESSING CORRUPTION RISKS IN LOW GOVERNANCE CONTEXTS

The increase in awards in **low governance contexts** is likely to lead to an **intensification of the corruption risks** that are already well documented in TI's MACRA tool and could shift them into new jurisdictions. This includes risks related to:

- Insufficient human, financial and technical capacity in the agencies managing awards (e.g., MACRA Indicators CF3, CF4, CF6)
- Bad administrative practices and poor recordkeeping (e.g., MACRA Indicators PD17, PP1, PP3, PP9, PP12, PP15, PP16, ESIA2, ESIA5)
- Insufficient legal clarity, including on the steps and criteria of awards processes and the requirements for ESIA's, land access, and community consultation (e.g., MACRA Indicators CF13, PD3, PD4, ESIA1, ESIA4, CC1, CC6, CC7)
- Lack of transparency, including around the choice of award methods, fees, the identity of applicants and license holders, the status and outcome of applications, ESIA processes and consultations, geological data, and the terms of bonuses or signature payments (e.g., MACRA Indicators PD2, PD5, PD6, PD13, PD15, PD16, PD18, PD19, PP11, ESIA3, ESIA6, CC5)
- Absence of safeguards against conflicts of interest and other due diligence checks (e.g., MACRA Indicators CF7, CF16, CF18, PD24, PP13, PP14)
- Lack of enforcement (e.g., MACRA Indicators PP17, PP19, PP20, PP21, CC8)

INDONESIA'S NICKEL PROBLEM

Contribution by Ferdian Yazid – TI Indonesia

As a resource-rich country, Indonesia's mining sector is one of the key pillars of the economy. For example, Indonesia has remained one of the largest coal exporters in the world – even in the midst of COVID-19 pandemic 2021.¹ However, the mining sector has also been regarded as one of the business sectors with the highest corruption risk,² the presence of Politically-Exposed Persons (PEPs) in coal mining companies has caused a serious conflict of interest.³

Despite the strategic importance of the coal sector in the country, the Indonesian government has identified the energy transition as a strategic priority. As a 2022 host of the annual G-20 meetings, Indonesia brought the topic of “Sustainable Energy Transition” as a priority issue.⁴ The energy transition

has brought attention to another one of the country's minerals.

As well as coal, Indonesia is the largest producer of nickel in the world.⁵ As an essential transition mineral, nickel demand is expected to grow by 19 times according to IEA estimates.⁶ Similar corruption risks to those occurring in the coal sector have been identified: many PEPs are acting as commissionaires or directors of the nickel mining companies.⁷ Corruption in the nickel mining licensing phase also has emerged.

In the midst of the global pressure to accelerate the energy transition agenda, the anti-corruption agenda should not be forgotten. The prevention of conflict of interests should be implemented and the policy development for the energy transition must be transparent, accountable, and accountable to public voices.

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2. THE RAPID GROWTH OF DEMAND FOR THESE MINERALS COULD INCREASE SPECULATIVE BEHAVIOUR

As market demands grow rapidly, an important trend to understand is the risk of increase in speculative behaviour. To meet this demand, it is estimated that \$1.7 trillion dollars in investment in the mining industry will be required by 2035. This is an eye-watering estimate, especially in comparison to the \$600 billion invested in five of the key transition minerals in the past 15 years.¹⁵ Forecasts of market growth put pressure on companies and governments to make the most of the context, and may lead to an increase in speculative behaviour.

When the stakes of the market are so high and particularly in a context where urgency and timing are seen as crucial, speculative behaviour can be prompted by a larger risk appetite. Seeing these mineral markets as critical may override established market norms, particularly as mining will increase in countries with weaker governance frameworks.¹² For example, reports have emerged of how some luxury hotels in some of these key emerging mineral markets have become sites for new investors to gather in the hopes of securing some of these coveted resources.¹⁶ The lithium mineral market, as another example, has become so heated that analysts refer to this context as a new 'White Gold Rush'.¹⁷ In 2021, for example, junior miners, most of which are yet to produce significant amounts of lithium, raised \$529 USD million dollars in investment in only three months, when it previously had taken over two years to reach that level. In total, over \$3 billion dollars were raised by investors in the same period, seven times the amount raised between 2018–2020.¹⁸

The risks associated with speculative behaviour in the context of the mining industry are well documented, but in the context of the energy transition these may be significantly intensified or shifted to new jurisdictions. Risks can include new players entering the market with insufficient anti-corruption capabilities or long-established players entering higher risk jurisdictions. While major companies are playing a central role in producing some of the key transition minerals (see Fig 4), they have exhibited a cautious approach to entering into new projects.^{1(p41),19} As junior companies enter the market to extract these key minerals, there is a risk that they may be lacking policies, processes and practical experience to manage corruption risks or familiarity with best practice frameworks and legal requirements to prevent corruption. These risks are compounded, as we saw above, when both junior or larger companies expand in newer markets, where governance frameworks are weaker.

“The lithium mineral market, ... has become so heated that analysts refer to this context as a new ‘White Gold Rush’.”



Photo: Caption: Nickel Sulfide Ore Rock – istockphoto

Figure 4.

MAJOR COMPANIES PRODUCING ENERGY TRANSITION MINERALS

The following companies account for the biggest proportion of global production of selected energy transition minerals:^{1(p36)}

COPPER:

- Codelco: 8%
- BHP: 6%
- Freeport McMoRan: 6%
- Glencore: 5%
- Southern Copper Corporation: 5%
- Others: 70%

NICKEL:

- Vale: 8%
- Norilsk Nickel: 7%
- Glencore: 4%
- Jinchuan Group: 3%
- BHP: 2%
- Others: 76%

LITHIUM:

- Albemarle: 24%
- SQM: 12%
- Tianqi Lithium: 11%
- Mineral Resources: 8%
- Galaxy Resources: 6%
- Others: 39%

COBALT:

- Glencore: 27%
- Shalina Resources: 10%
- China Molybdenum: 9%
- Gécamines: 6%
- Eurasian Group: 4%
- Others: 44%



Photo: Huelva Copper Mine – Shutterstock



USING THE MACRA TOOL: ASSESSING CORRUPTION RISKS ASSOCIATED WITH SPECULATIVE BEHAVIOUR

Corruption risks associated with speculative behaviour have been documented across the mining industry. The energy transition **may intensify these risks or shift them into new jurisdictions**. This includes risks related to:

- License, permit, or contract transfers (MACRA indicator PD25)
- Land speculation (MACRA indicator CF14 and CF15)
- Hidden beneficial ownership (MACRA indicator PP4)
- Bias and favouritism in the sharing of information about awards (MACRA indicator PP7)

3. FAST-TRACKING OF PROJECTS AND STRATEGIC INITIATIVES FOR THE SECTOR CAN INCREASE GOVERNMENT PRESSURE AND PUT NEW PROJECTS AT RISK

All over the world, governments are under pressure to respond to this unique context: facilitating a sustainable energy transition and fulfilling their climate commitments while responding to mineral markets demand. The COVID-19 pandemic and the emergence of global energy security concerns in the wake of the Ukraine conflict has focused attention in the mining sector. Particularly, the transition minerals sector has become a common strategic priority.²⁰ To do this, governments are introducing initiatives that seek to encourage, expedite or otherwise facilitate mining projects.

These activities can take the form of introducing tax incentives, implementing strategic initiatives for the sector, streamlining processes for licensing to reduce lead time or otherwise fast-tracking applications for projects in this sector. Examples at a national or subnational level abound in many regions of the world. In Indonesia, Brazil and Peru, initiatives have been put forward to streamline the approval process for new mining projects.²⁰⁻²³ In the last days of his administration, former US President Trump controversially expedited the approval of the Thacker Pass lithium mine citing its strategic value as part of the US government's critical minerals policies.²⁴ The Biden administration announced in 2022 that major investments to expand domestic critical minerals supply would continue.²⁵ In Australia, the federal and state governments have created strategic initiatives to

“ ... fast-tracking of processes of awarding licenses can come at the expense of upholding due diligence processes ... ”



Photo: Cobalt, copper and nickel, Paul Alain-Hunt – Unsplash

attract investment and incentivise the critical mineral sectors.²⁶⁻²⁸ Similarly the EU recently created the European Raw Materials Alliance, that amongst other initiatives will provide seed funding to encourage development of critical mineral projects.²⁹

In many cases, these initiatives are supported by industry associations and international organisations, seeking to remove barriers to enabling the energy transition. The Canadian and the US Chambers of



Photo: Lithium evaporation pools, Silver Peak Mine, Nevada, USA – Shutterstock

Commerce, for example, issued statements calling on their respective governments to strengthen their critical minerals strategy and introduce incentives to support their national mineral industries.^{12(p4)} The IEA's report on critical minerals suggested streamlining 'permitting procedures to shorten lead time' and support new projects development.^{1(p14)}

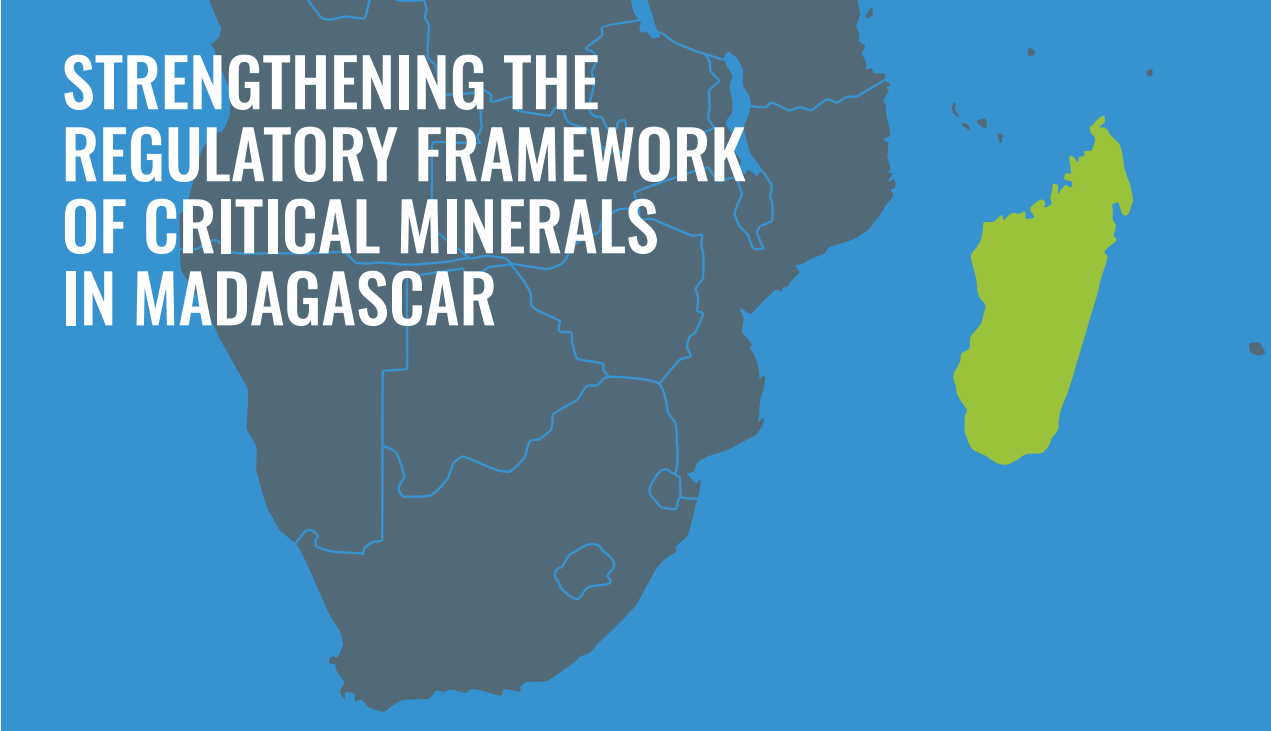
These initiatives may be an encouraging sign that governments are prioritising action in an effort to accelerate a sustainable transition, and are likely to continue. However, fast-tracking of processes of awarding licenses can come at the expense of upholding due diligence processes, particularly those associated with environmental and social impact assessment, and put existing frameworks at risk.^{12(p4)} 'Relaxing' or 'simplifying' the procedures for approval can make legal frameworks vulnerable to decision-makers' discretion, or remove necessary safeguards. An increased demand to assess new projects coupled with an urgency to shorten timelines puts pressure on governments to respond and can exacerbate known corruption risks or leave communities without adequate time and information to provide consent. Mitigating these increased corruption risks while responding to the market growth is a crucial challenge to overcome to ensure a sustainable and just energy transition.



USING THE MACRA TOOL: ASSESSING THE RISKS IN FAST- TRACKING MINING PROJECTS

Without safeguards, **adapted awards processes** can be open to abuse. These risks are documented in the MACRA tool. They include risks related to:

- Awards processes being structured to favour mining interests above the public interest (MACRA indicator CF1)
- Decision-makers having excessive discretion, including in selecting allocation methods and the duration and timing of the awards process, as well as potentially denying the holders of exploration licenses the right of first refusal (MACRA indicators PD1, PD12)
- Insufficient safeguards in competitive bidding, including a lack of independence of the officials reviewing bids, and collusion or bid-rigging (MACRA indicators PD7, PP5, PP6)
- Insufficient safeguards in direct negotiations, including a lack of clarity around the roles of government negotiators and negotiation terms (MACRA indicators PD8, PD9)



STRENGTHENING THE REGULATORY FRAMEWORK OF CRITICAL MINERALS IN MADAGASCAR

Contribution by Valéry Ramaherison – TI Madagascar

Madagascar's latest official mining policy was promulgated in 1998 and stipulated as part of its primary objectives "to increase the results of the mining sector by promoting the activities of large mines"¹. During Madagascar's 2009–2013 political transition, a new regulation was released, prohibiting any new mining exploration or issuing new mining licenses². The decision to freeze mining licensing has weakened the governance of the mining sector and led to its latency phase for over a decade.

As a result, during the past 12 years, Madagascar has not registered new exploration projects from either local funding initiatives or private investments. Multiple attempts to improve its legal framework, especially to update its Mining Code. A new proposal is intended to go through validation process in the 4th quarter of 2022. In here, a special effort has been made to include progressive and differentiated taxations according to minerals

available for extraction in Madagascar.

The new Mining Code can offer an opportunity to revitalize Madagascar's mining sector and put the country in a position to negotiate better contracts, especially on critical minerals. Madagascar has one of the largest lateritic nickel and cobalt mining sites run by Ambatovy, which is ranking amongst the largest in the world.⁴ It is also one of the biggest foreign investments destinations in sub-Saharan Africa with receiving a total amount of \$7.2 billion in 2013.⁴ The country has also other mining sites of strategic minerals such as chromium and graphite.⁵ Increasing demand for transition minerals and a lack of a definitive strategy from the government will enhance vulnerabilities and corruption risks associated with mineral extraction. Strengthening the regulatory framework for critical minerals is crucial to ensure a just and sustainable energy transition for Madagascar.

1 Decree No. 98-394, May 28th, 1998.

2 Note 34/2011/PM/SGG/SC of 6 April 2011; Transparency International Madagascar (2020) Mining Awards Corruption Risk Assessment in Madagascar, accessible at https://transparency.org.au/wp-content/uploads/2021/11/Madagascar_Report_EN.pdf

3 Ambatovy, <https://ambatovy.com/en/>

4 World Bank (2015). Economic Contributions from Industrial Mining in Madagascar. World Bank, Washington, DC accessible at: <https://openknowledge.worldbank.org/handle/10986/23021>

5 Chambre des Mines Madagascar (2014) Monographie du Secteur Minier Malgache, accessible at <http://www.mineschamber.mg/images/Monographie-du-secteur-minier-malgache.pdf>

4. INCREASE OF STATE PARTICIPATION IN THE EXTRACTION AND PROCESSING VALUE-CHAIN CAN HEIGHTEN CORRUPTION RISKS

State Owned Enterprises (SOEs) play a fundamental role in the global economy, accounting for over 22% of the largest companies worldwide in 2018.³⁰ They are a key mechanism for countries to conduct their economic policies, and to enact strategic natural resources governance. They also play a central role in the energy transition. From their involvement in the fossil fuel industries (SOEs produce 55% of the world oil and gas and control 90% of reserves) to their key role in electricity production (SOEs funded 38% of global energy investments in 2019), SOEs are key actors in the transition minerals value chain.³¹

Perceptions of the strategic importance of energy transition minerals are driving calls for increased state participation and local processing across the world. This has resulted in states using SOEs as a common response. In some cases, SOEs have been consolidated in the market for several decades, like the case of copper mining SOEs in Chile, Zambia and DRC³² or the case of iron ore in Sweden or aluminium in Indonesia.

While maintaining their space in these mineral markets, some of these SOEs have also been a key part of important initiatives and strategies to respond to the context of the energy transition.³¹ For example, Inalum, Indonesia's aluminium mining company, has taken steps to increase its aluminium production but also taken stakes within Vale's nickel mine operations in the country.^{33,34} Gécamines, DRC's copper mining company, is leading a subsidiary to formalise the artisanal mining sector of cobalt, while LKAB, Sweden's iron ore company, has embarked on an initiative to produce CO2 free iron ore.^{31(p32),35} YPF, Argentina's national oil company, has announced it is initiating its first lithium mining project in the country, while in Mexico, the government has recently created a state-run company to extract lithium after nationalising its reserves.^{36,37}

Increased state participation in the energy transition mineral markets may be a good sign of states taking action to ensure a sustainable and just energy transition is achieved and to secure the interests of their citizens and lands. This can be a very positive step, especially in the context of what has been described as an 'Audacity deficit in Natural Resources Governance': a lack of decisive and timely action to address some of the most overwhelming climate challenges of our

times.³⁸ Yet, a larger involvement of the state, particularly in the creation or expansion of SOEs, may heighten risks of corruption. This can lead, for example, to SOEs being 'players and referees' in mining awards processes, benefitting from insider information or result in arbitrary treatment of private investors.

When the state is in charge of both regulation and extraction of a mineral commodity, conflicts of interest can make regulatory or monitoring frameworks more vulnerable. Indeed, an OECD survey of SOEs employees stated that over 50% of mining employees reported being aware of acts of corruption within their companies in the past three years.^{30(p27)}



USING THE MACRA TOOL: ASSESSING THE RISKS IN STATE OWNED ENTERPRISES

The energy transition could **intensify many of the risks** already documented in the MACRA tool, including:

- Favouritism and conflicts of interest related to the role of domestic SOEs in awards processes (e.g., MACRA indicators CF8, PD10)
- Lack of clarity or transparency around SOE activities or partnerships between foreign investors and local companies (e.g., MACRA indicators CF9, PD11 and PD22)
- Arbitrary treatment of private investors, including the expropriation of mining rights (MACRA indicator CF12)

In 2017, the Natural Resources Governance Institute reviewed 74 SOEs in the oil, gas and mining sector.³⁹ Of these, 48 SOEs received governance scores that were considered 'weak' or lower.

These statistics and previous assessments of the risks of state involvement in mineral extraction should serve as a cautionary tale, to understand how pervasive and

insidious corruption risks can be, but should not deter further action. Rather, they should underscore the importance of understanding these corruption risks and ensuring that institutional mechanisms exist to enable a transparent and accountable mining sector, capable of rising to the challenges to enact a sustainable and just energy transition.

ENERGY TRANSITION MINERALS IN ZAMBIA



Contribution by Tamika Halwindii – TI Zambia

For a long time, Copper has been a major export commodity accounting over 60% of Zambia's exports¹. Mining continues to be a significant sector for Zambia's economy, comprising 17.5% of Gross Domestic Product and over 70% of foreign exchange earnings in 2021.² The government endeavours to stimulate economic growth in Zambia and the mining sector will have a huge role to play.

In the context of the energy transition, and with interest in the country's mineral reserves growing, the government has recently announced plans to increase mineral production to 3 million metric tonnes in the next five years.² This is a significant increase, of over 250%, from the current annual average of 797,000 metric tonnes. Copper and cobalt, key transition minerals, will be a crucial part of achieving this ambitious goal.

To achieve this target, the government plans to expand mineral exploration. The government has announced and anticipates new mining projects mostly copper mines.² This includes mining investment worth US\$1.35 billion for the

expansion of a copper mining project as well as the development of a new nickel project in the North Western province of the country. To ensure increased production and investment in mining, the government plans to maintain a consistent policy environment including tax policies for the sector.

"... This will set the country into a powerful mining expansion drive in pursuit of the 3 million metric tonnes of copper production in the next nine years."

– Minister of Finance during his recent national budget address in September 2022

Government plans also include restructuring the mineral royalty regime particularly applicable to copper and projects to bolster the transition mineral sector in the country. For example, in April 2022 Zambia signed a cooperation agreement with the Democratic Republic of Congo for electric car manufacturing. The agreement includes plans for a car manufacturing plant to be located in Zambia with mineral inputs of cobalt to be mainly sourced from the Democratic Republic of Congo.³

1 Zambia Extractive Industries Transparency Initiative (EITI) 13th Zambia EITI Report 2020. Accessible at <https://zambiaeiti.org/wp-content/uploads/2022/01/2020-ZEITI-Report.pdf>

2 Zambia 2023 National Budget Address delivered by the Minister of Finance and National Planning to the National Assembly on Friday, 30th September 2022.

3 UNECA(2022) Zambia and DRC Sign Cooperation Agreement to manufacture electric batteries accessible at <https://www.uneca.org/stories/zambia-and-drc-sign-cooperation-agreement-to-manufacture-electric-batteries>

5. INVESTMENTS IN SENSITIVE LOCATIONS CAN EXACERBATE ENVIRONMENTAL, SOCIAL AND POLITICAL TENSIONS

A higher demand of transition minerals is likely to increase the number of mine projects in sensitive locations. We have already seen in trend 1 that a significant number of locations in which many of the new and expanded mineral extraction will take place are contexts of weak or low governance. The risk in these areas is compounded by the fact that many of these mine projects are located in sensitive or vulnerable ecosystems, where environmental impacts are heightened by biodiversity hotspots, or by critical levels of water stress.⁴⁰

Often, these projects are located in or near Indigenous peoples' lands, where land tenure formalisation is tenuous, where monitoring compliance is difficult, or both.¹² Even in areas that may not be usually categorised as sensitive the intensification of extraction, including for deeper or lower-grade deposits, may have dire consequences in terms of increased carbon emissions, land degradation, insufficient or inadequate waste or tailings managements.^{11,41-43}

Across different minerals and locations, the risks are different. About half of global copper and lithium production, for example, is concentrated in areas with high water stress.^{1(p130)} This includes the 'Lithium triangle', the region connecting Argentina, Bolivia and Chile and where 60% of the world reserves are located.^{44,45} Deep-sea mining contains the largest reserves of some of the key transition minerals.

“ Meaningful consultation involves taking the time to identify, involve and work collaboratively with all stakeholders early and throughout the process.”

For example, the Clarion-Clipperton seabed mining zone contains more cobalt than the entire terrestrial reserves globally.^{11(p3)} Mineral exploration of the deep sea is progressing and more valuable deposits have been identified than ever, yet governance structures remain concerningly underdeveloped.⁴⁶ This is particularly concerning as weak governance structures are unable to offer sufficient oversight or monitoring of environmental regulations one of the world's most valuable ecosystems.

Environmental issues are not the only worrying risks. Mining in sensitive areas can increase the risk for land grabs or land encroachment, increasing evictions or displacement of communities where land tenure is not sufficiently formalised or not providing sufficient conditions to obtain free, prior and informed consent. A recent study of over 5,000 current energy transition mineral projects found that over 69% of these were located in or near Indigenous peoples' lands or within remote rural communities.¹² The findings vary by mineral; over 80% of lithium projects and more than half of nickel, copper and zinc are located in Indigenous people's lands. Across these projects, almost two thirds are located in jurisdictions that have low or poor governance records, particularly in relation to consultation and consent regulations. To add to this, recent attempts to respond to Covid-19 restrictions have seen jurisdictions relaxing requirements for consultation and consent, moving them to virtual spaces, which are difficult for the communities to access, or removing fieldwork from environmental impact assessments.^{20(p7)} While some of these initiatives were conceived as temporary solutions to the pandemic context, they highlight

some of the pressing risks associated with the expansion of mining activities in sensitive locations.

Corruption risks related to environmental impact assessments or to conducting consultations with communities can have disastrous consequences for the environment, the economy and the communities surrounding the mines. Meaningful consultation involves taking the time to identify, involve and work collaboratively with all stakeholders early and throughout the process. When done properly, it offers an opportunity for people to have a say in how mining projects will impact their land and livelihoods. Understanding the corruption risks associated with increased extraction in sensitive areas can ensure that regulatory frameworks remain effective in monitoring compliance with environmental standards and offer appropriate spaces for communities to understand, consult and give their consent and social license to operate.



USING THE MACRA TOOL: ASSESSING THE RISKS IN ENVIRONMENTAL AND SOCIALLY SENSITIVE CONTEXT

Environmental and social sensitivities could **reshape corruption risks** related to ESIA's, land access and community consultation and consent. This includes risks related to:

- Permits or licenses being awarded without required authorisation, particularly from departments likely to more strictly scrutinise environmental and social aspects (adaptation of MACRA indicator PP18)
- Manipulation of negotiations for land access or community consent to overcome stakeholder opposition (adaptation of MACRA indicators CC2, CC3 and CC4)
- Misrepresentation of data on environmental and social impacts to bypass stricter awards requirements (adaptation of MACRA indicator ESIA2)

A 'WHITE GOLD RUSH' IN ARGENTINA



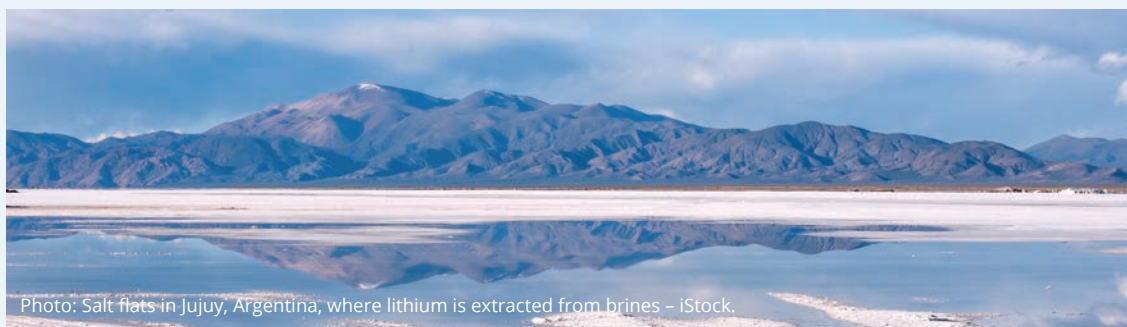


Photo: Salt flats in Jujuy, Argentina, where lithium is extracted from brines – iStock.

The 'Lithium Triangle' is located at the intersection of the borders of Argentina, Chile, and Bolivia, and holds the majority of worldwide lithium reserves.¹ Here, lithium is extracted from brines underneath vast salt flats, and has been at the centre of the global lithium mining boom, in what many have referred to as a 'White Gold Rush'.² In Argentina, this 'white gold rush' has resulted in a rapid expansion of new projects and concessions awarded, particularly in the northern provinces. Currently over 30 lithium mining projects are at various stages of development – up from only two projects in 2008.³

This booming industry means lithium is often presented within Argentina as a strategic resource that can provide significant opportunities for socioeconomic growth and technological advance. National and subnational governments have supported the expansion of the lithium mining market and encouraged downstream technological linkages.⁴ Recently the country's national energy company, YPF, launched its first lithium project.⁵ With JEMSE, a provincial state-run company that co-owns a lithium mine, Argentinian SOEs are demonstrating a keen interest to participate in the lithium mining sector.⁶

However, the booming lithium industry in the country also highlights some of the deep

challenges it brings to the local areas. Lithium mines in the country are located in areas with fragile ecosystems, where water is scarce and where many Indigenous Peoples live.⁶ As lithium mining in the country is based on water evaporation – rather than traditional rock mining – concerns over its water consumption are increasing. The industry's novel technological approach presents many challenges for Argentina's regulatory mining framework, crafted before any lithium mine exploitation in the country.⁴ This new situation also brings challenges to provide inclusive and robust mechanisms of engagement and consultation with the local communities. For example, a group of 33 Indigenous communities in the area crafted their own protocol for consultation and engagement with government and mining companies, after feeling unrepresented by existing processes.⁷ Transparency International Argentina highlighted the risks of corruption and weaknesses in consultation and citizen participation processes within the country's mining sector.⁸

With a growing lithium mining industry in Argentina, environmental impacts and social tensions are increasing, highlighting the key role that inclusive processes of consultation and engagement with the local communities play in ensuring a sustainable and just energy transition.

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POLICY RECOMMENDATIONS

BUSINESS INTEGRITY AND HIGH ANTI-CORRUPTION PRACTICES ARE CRUCIAL TO ENSURE A JUST AND SUSTAINABLE ENERGY TRANSITION

As the world moves to deliver on climate promises, the mining industry has a key role to play. Delivering the minerals necessary to make the shift to cleaner energy sources will require a titanic effort by companies, governments and communities. As we pick up the pace in creating the material conditions for new wind and solar power farms, for electric vehicles and for energy storage solutions, our anti-corruption efforts need to remain higher than ever. Higher anti-corruption standards and responsible business practices hold the key to ensuring that the transition to renewable energy is just and sustainable, for all.

Transparency International's Accountable Mining programme will continue to work to ensure that mining sector governance is transparent, accountable and participatory, and safeguards the social and environmental interests of current and future generations. We will continue to work with companies, governments and communities to raise business integrity standards in the mining sector and contribute to a sustainable and just energy transition.

Policy Recommendations¹

- Prevent a new 'resource curse' from afflicting producing countries, by implementing strong anti-corruption measures at every stage of the value chain. Assess risks of corruption and devise mitigation plans in the consideration of new mining projects.

- Ensure community consultation processes are robust and inclusive. Protect the rights of communities to provide free, prior and informed consent, in particular ensuring gender inclusive settings and considerations for indigenous peoples.
- Improve transparency and accountability requirements for the mining sector. This includes promoting contract transparency, project level payments-to-government disclosure, joining international initiatives like the Extractive Industries Transparency Initiative (EITI) and enabling a Beneficial Ownership public registry.
- Take steps to strengthen anti-corruption measures in state owned enterprises, or where state capture of the mining sector is possible. This includes strengthening regulations relating to the monitoring of politically exposed persons (PEPs), to prevent 'revolving doors' across industry and government and regulations on lobbying and political financing.
- Ensure the energy transition does not come at the cost of the earth or the local communities in producing countries by enforcing and monitoring environmental impact assessments, enabling community consultation and implementing anti-corruption measures throughout the process.

¹ We are grateful for the insightful discussions and recommendations by the Anti-Corruption on Critical Minerals Expert Group, convened by the Extractive Industries Transparency Initiative (EITI), the Natural Governance Resources Institute (NRGI) and the Organisation for Economic Co-operation and Development (OECD), that have provided strong input to these recommendations. See the Anti-Corruption on Critical Minerals Expert Group, "Preventing Corruption in Energy Transition Mineral Supply Chains. A call for urgent action" (forthcoming).

READ MORE

- Transparency International Accountable Mining Programme, [Stronger Community Voices: Addressing Corruption Risks in Community Consultation in Mining](#) – sets out the links between community consultation and corruption during licensing for exploration, new mining projects or mine expansions.
- Transparency International Accountable Mining Programme, [Promoting Beneficial Ownership and Integrity Screening in the Mining Sector](#) – provides guidance to promote beneficial ownership screening.
- Transparency International Accountable Mining Programme, [Corruption risks and ESG screening of mining investments – investor briefing paper](#) – details three key areas that investors need to consider as part of due diligence on mining investments – country risks, licensing risks and company risks.
- Transparency International Accountable Mining Programme, [Anti-Corruption Guide for Junior Mining Companies](#) – explains the business case for company action against bribery and corruption, sets out the corruption risks and red flags in five high-risk areas in mining licensing, including third parties, and provides links to sample anti-corruption policies and training materials for smaller mining companies.
- Transparency International Accountable Mining Programme [Through the Looking Glass: Corruption Risk in Mining Licensing and Permitting in the Pandemic Era](#) – outlines the impact of the COVID-19 pandemic in the corruption risks of the sector and considers the broader implications for environmental, social and governance (ESG).
- Natural Resources Governance Institute, [Diagnosing Corruption in the Extractive Sector: A Tool for Research and Action](#), NRGi's corruption diagnostic tool aims to support anticorruption actors to address corruption challenges in the sector, prioritizing multi-stakeholder participation.
- Natural Resources Governance Institute, [Anticorruption Guidance for Partners of State-Owned Enterprises](#) proposes concrete measures that international oil, gas and mining companies should adopt to reduce corruption risks in their work with state-owned enterprises (SOEs) in the oil, gas and mining industries.
- EITI, [Strengthening governance of critical minerals](#) explains how transparency and multi-stakeholder dialogue can be used to shed light on governance challenges, help to identify solutions, and provide a platform for collective action in the critical minerals sector.
- Open Ownership, [Shining a light on company ownership: The role of beneficial ownership transparency in the energy transition](#) – provides guidance on beneficial ownership transparency in the context of the energy transition.
- OECD, [Ownership and Governance of State-Owned Enterprises: A Compendium of National Practices](#) – provides an easily accessible and up-to-date information on individual countries' institutional, legal and regulatory frameworks for state ownership of enterprises, assisting in the implementation of the [OECD Guidelines on Corporate Governance of State-Owned Enterprises](#).
- OECD, [Frequently Asked Questions on How to Address Bribery and Corruption Risks in Mineral Supply Chains](#) – provides practical guidance on how companies can identify, prevent, mitigate and report on risks of contributing to bribery and corruption through their mineral sourcing.
- OECD, [Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas](#) – provides practical guidance on how companies can identify, prevent, mitigate and report on risks of contributing to bribery and corruption through their mineral sourcing.
- United Nations Global Compact, [The Business Reference Guide to the UN Declaration on the Rights of Indigenous Peoples](#), Helps business understand, respect, and support the rights of Indigenous peoples by illustrating how these rights are relevant to business activities.

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