

The governance of strategic minerals and their role in the energy transition: challenges and opportunities

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حوكمة المعادن الإستراتيجية ودورها في تحول الطاقة : التحديات والفرص

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Summary: 1. Introduction – 2. The governance of strategic minerals and their role in the energy transition: Challenges and risks – 3. The governance of strategic minerals and their role in the energy transition: opportunities– 4. Recommendations: Towards a prudent energy transition.

Abstract:

Background: Recent geopolitical events have had deep consequences for energy markets, highlighting the crucial need to find new trails to expand energy security, increase energy access and fast-track the transition to renewable energy sources.

“Transition minerals” refer to minerals that serve an essential function in the transition from fossil fuels to low-carbon energy sources and transportation. These are sometimes also called “green minerals”, “energy transition minerals” (ETMs), “strategic minerals” or “critical minerals”. Mineral resources are vital components of the energy transition, and demand for transition minerals such as lithium, graphite, cobalt and nickel are already growing. Commodity markets, however, are hardly foreseeable, and producers and consumers of transition minerals alike will be confronted with uncertain and unpredictable market conditions as renewable energy technologies develop. The boom-and-bust nature of demand generates the urge to enhance governance of mineral value chains in order to create lasting benefits for societies.

Methods: The study draws on two sources of information and diverse perspectives on resource governance and the energy transition. First, a review of

literature, including academic writing and specialist mining industry news sources, informed all sections of the paper. Second, the mapping of global trends in relation to transition mineral value chains draws on data extracted from publicly available databases of mineral reserves, production, trade statistics and governance indices.

Research and Conclusions: This paper will bring answers to the following questions:

- 1- What are the challenges facing energy transition?
- 2- What are the opportunities to address these challenges to improve governance frameworks and transparency and attract investment in the extraction and beneficiation of transition minerals?
- 3- What are the measures that need to be taken by the relevant stakeholders to ensure a smooth energy transition?

This paper aims to:

- 1- Provide an overview of global value chains for transition minerals from production to end use, and build an understanding of the relationship between global energy transition objectives and growing minerals demand.
- 2- Identify key challenges and opportunities in mineral value chains, and explain how demand related to the energy transition could reshape these dynamics.
- 3- Develop recommendations for how stakeholders in government, business and civil society could strengthen the governance of transition mineral value chains and contribute towards a just energy transition.

Keywords: Governance – Mineral value chains – Energy Transition

1. Introduction

The world is currently undergoing a massive transition in the way it produces and uses energy. Fossil fuels, which have been the backbone of global energy supply for over a century, are gradually being replaced by cleaner, more sustainable alternatives. This transition is being driven by a combination of factors, including concerns over climate change, the declining cost of renewable energy technologies, and the increasing availability of critical minerals needed for these technologies. The energy transition is a global effort to shift from fossil fuels to renewable energy sources in order to reduce greenhouse gas emissions

and mitigate climate change. Renewable energy sources include solar, wind, hydro, geothermal, and bioenergy, among others. These sources of energy have one thing in common: they rely heavily on critical minerals. Critical minerals, also known as strategic minerals or rare earth elements, are a group of minerals that are essential for a range of modern technologies, including renewable energy systems, electric vehicles, and advanced electronics. These minerals are not only crucial for the transition to a low-carbon economy, but they are also becoming increasingly scarce and difficult to obtain, due to geopolitical tensions, supply chain vulnerabilities, and environmental concerns. The demand for critical minerals is expected to increase dramatically in the coming decades, as the world transitions to a low-carbon economy. According to the International Energy Agency (IEA), the demand for minerals such as lithium, cobalt, nickel, and rare earth elements could increase by up to 6 times by 2040, compared to current levels. This increased demand highlights the importance of securing a stable and sustainable supply of these minerals. The governance of critical minerals, therefore, is of utmost importance. It is essential to ensure that these minerals are extracted, traded, and utilized in a sustainable and responsible manner, so as to avoid negative social, environmental, and economic impacts. This paper will examine the governance of critical minerals and their role in the energy transition, with a focus on the challenges and opportunities presented by this rapidly evolving field since the identification of challenges and opportunities is crucial to determine the measures that need to be taken by the relevant stakeholders to ensure a smooth energy transition.

2. The governance of strategic minerals and their role in the energy transition: Challenges and risks

Governance challenges are recognized at a local, national, and global level which are intensified by current trends in the demand for critical minerals. Yet, turning these challenges into opportunities – to attract investment, increase local procurement, improve employment and livelihoods, and address the needs of local communities.

2.1. Governance Challenges

2.1.1. *Local perspective*¹

Many of these risks, such as possible negligence of consultation processes, infringement into conservation areas and the exhaustion of water resources, will be mostly felt by the most susceptible communities in regions rich in these minerals.

More exploration and mining for transition minerals may trespass conservation areas and indigenous and land-connected peoples' territories. If not managed properly, acid mine drainage (AMD) and tailings disposal could result in catastrophic repercussions on ecosystems. Many of the companies operating transition mineral projects face allegations of human rights abuse, impacting Indigenous and local communities². Under existing United Nations (UN) declarations, Indigenous and land-connected peoples have consultation and consent rights. In many jurisdictions, projects on or near Indigenous peoples' land require multifaceted negotiation to ensure free, prior and informed consent is obtained before any activities are commenced.

Furthermore, in their race to be granted mineral exploration and production licenses, companies and governments may try to accelerate consultation processes and impact assessment. The repercussions of these risks will be mainly replicated at the subnational level with the risk of licenses being awarded without considering the needs of communities and the impact on the environment.

Moreover, the small deprived communities are at risk of being submerged by consultation demands from various proponents. Mining advocates can destabilize community consultation when they abuse from weak legal frameworks by disregarding their consultation obligations, deliberately provide ambiguous information in a way that community members cannot understand (inflated information, extensive use of complicated technical terminology), promise or give money, gifts, food support or other rewards to community leaders to obtain approval for a project, do not consult in good faith (tricky consultation, late notification about meetings, holding meetings in places that are difficult for community members to reach)³. In addition, in the bid leading to the approval of transition mineral projects, regulators across jurisdictions have shown a willingness to quicken mining projects. Peru, for example, has reorganized community consultation processes for its mining projects⁴. Brazil

has introduced a new policy to rush the approvals process for mining projects of strategic importance⁵, and Australia has applied incentives for mining investment and eased regulations⁶.

Mining methods are characterized by a high consumption of water resulting in water scarcity and they could have aggressive effects on communities. Large quantities of water are required throughout the mining lifecycle of most transition minerals, from exploration drilling through extraction, processing, dust control and the restoration of mined land in preparation for decommissioning and relinquishment.

Rising commodity prices may provoke more illegal artisanal and small-scale mining (ASM). At least nine of the minerals identified as critical to the energy transition are recognized to be mined by ASM. These are bauxite, chromium, cobalt, copper, manganese, nickel, tantalum, tin and zinc⁷. Where deposits of these minerals are located in areas of weak governance and conditions of poverty, increasing commodity prices may set forth a haste in ASM. For example, ASM of copper in Peru arises only when prices are high. A quick growth in ASM activity can rapidly pollute the environment; jeopardize the health and safety of the people involved – including women and children; and drive conflict.

2.1.2. National perspective⁸

This subsection identifies governance risks at the national level, which affect the governments and citizens of countries with substantial reserves of transition minerals.

The risks are categorized according to four broad decisions found in the Natural Resource Governance Institute (resource governance decision chain⁹): deciding to extract; getting a good deal; managing revenues; and investing for sustainable development.

In the absence of robust, public geological data, competition in the development of transition minerals will be hindered. Broad, publicly available geological data is an essential component that reflects the ability of countries to attract responsible investors and negotiate deals that will serve the best interests of the country and its citizens. Exploration and mapping of mineral deposits is limited in many EITI implementing countries, especially in Africa, but also in Central Asia, Latin America and Southeast Asia¹⁰. Governance risks arise from

speculation and competition to control geoscience data. Corrupt mining officials and politically exposed persons (PEPs) may seek to take advantage of privileged access to geological data to receive bribes and beneficial ownership in mining deals.

The challenge of regulatory stillness is most severe in jurisdictions where there has been little mining in the past, or where mining regulation overlaps between various levels of government. There is a risk that “when regulatory frameworks are not clear, corruption risks are higher”. For example, in Argentina’s federal system, lithium projects have multiplied from just two operations in 2008 to more than 50 projects, in various stages of approval, by 2020.

Corruption risks may increase due to fast-tracking contracts and licenses. As the capacity of government departments is overextended by a burst of exploration and mining applications, the temptation to offer kickbacks to accelerate or influence approvals is likely to rise¹¹. There is also a risk of amplified incentives being offered to approve projects that do not have rights holder or landowner consent and to license projects that threaten the environment and the health and safety of people.

Nepotism and corruption may be accentuated by local content policies and state participation. Unclear tax structuring across transition mineral value chains may result in lost revenue for governments. In jurisdictions where governance is fragile and demand for transition minerals is high, there is a risk that local content policies may fail to realize the potential value of the sector. This is mainly the case in contexts where there is only a limited number of skilled local workers or qualified companies, paving the way for political and business elites to seize these opportunities.

Price fluctuation may lead to unforeseeable revenue flows and macroeconomic planning challenges. The high degree of unpredictability of demand and supply drives commodity price volatility for transition minerals. These dynamics can make it hard for governments to maximize revenues without discouraging investment; deliver on public spending commitments; and enhance opportunities for economic diversification.

The race to secure transition minerals for the industrial hubs of Asia, Europe and North America puts pressure on resource-rich countries to pursue export-

oriented policies. This may be at the expense of domestic use of these minerals; value addition in mineral processing and midstream transformation; or even downstream manufacturing of EV batteries and other clean energy technologies.

2.1.3. Global perspective¹²

There are three broad governance risks at the global level, which imperil the energy transition in different ways, by: impeding supply of transition minerals; extending inequality between citizens of high-income and low-income countries; and exhausting international cooperation required to handle climate change.

Governance shortcomings may disturb the supply of transition minerals needed for low-carbon energy technologies. If governance risks are ignored or misinterpreted by the public and private sectors, then environmental destruction, social conflict, corruption scandals and other detrimental consequences of badly regulated resource extraction are expected to disrupt the supply of transition minerals needed for the energy transition. This will result in the inertia of low-carbon technologies that may not be deployed at the scale and speed desired to address climate change issues.

Transition mineral strategies may lead to a “decarbonization divide” between mineral producer and consumer countries. The global energy transition highlights the matter of distributive justice: who benefits from the implementation of low-carbon energy infrastructure, and who bears the weight of speedy growth of transition minerals extraction? There is a risk that historical patterns of injustice and domination in international relations lead to “cleaner air and cleaner production in the Global North, [while] much of the environmental and social harm is simply made invisible and displaced, or spatially externalized, to the Global South”¹³.

Geopolitical antagonisms may fragilize cooperation on the energy transition. Russia’s invasion of Ukraine in February 2022 has revealed the vulnerability of an international security system based on veto rights for historically powerful states. Rising geopolitical tensions in Asia Pacific and Europe (between China and Australia, India, Indonesia, Japan, South Korea and other Asian and Pacific Island nations as well as the US and European countries), have witnessed an increasing strategic importance placed on control of transition minerals supply chains. The resulting uncertainty is distressing global markets at precisely the time when international cooperation and free, fair trade in mineral commodities is most needed to address the climate crisis. The

price volatility of transition minerals, including those needed for the energy transition, proved highly susceptible to geopolitical disruptions in the first half of 2022. This has heightened the sense of urgency to secure transition mineral supply chains, for example, in statements from the US Presidency¹⁴. The escalating energy crisis in Europe has seen the incoming EU Presidency in July 2022 announce that “the Czech Presidency will put emphasis on the EU’s energy security issues, which are currently more pressing than the energy transition”¹⁵. While this may signal only a temporary shift in priorities for the EU, it demonstrates how easily political consensus on the energy transition may be undermined by economic and security threats.

2.2. Significant challenges in terms of sustainable development and technology

The debates on the criticality of minerals concern more particularly the rare earth metals, which play a key role both in the extraction and refining and they are regularly associated with the quote attributed to Deng Xiaoping (but whose authenticity remains uncertain): “the Middle East has the oil, China has the rare earth metals”. If the idea that China could instrumentalize the domination it exercises on the global market, the technological, social and environmental challenges related to critical metals cannot be neglected.

2.2.1. Geopolitical and geo-economic challenges related to critical minerals

In 2010, following a dispute involving a Chinese fishing boat intercepted by the Japanese navy in an area claimed by Beijing (Senkaku Islands), China suspended its exports to Japan. The instrumentalization of rare earths also appeared flagrant in 2019, when in the context of a dispute between the United States and China, the Chinese President visited a treatment company of rare earths¹⁶. The 2010 crisis raised awareness on a global scale even if a closer examination invites us to interpret it cautiously, an excess of zeal on the part of local officials should not be ruled out. On the other hand, it seems established that China intends to structure the sector in order to supply its industry and acquire technological superiority on the world market while reducing environmental pollution. The damage caused to the environment by the extraction of rare earths is indeed considerable. Releases in quantity of toxic products in water, air and soil, in addition to the radioactivity of certain ores extracted simultaneously (thorium, uranium, radium in particular).

The authorities have therefore undertaken to fight against clandestine mines¹⁷, to better control exports and to refine the purchasing and storage strategy through a first five-year plan for the rare earths industry.

This takeover resulted in a sharp reduction in production, leading some Chinese players to import, particularly from Myanmar and the United States¹⁸. China, in turn, is becoming dependent on external supplies, leading to increased investment in mines located abroad. Through industrial partnerships, minority stakes and supply contracts, Chinese players are thus present in Madagascar, Congo, Mali¹⁹ and even in the main American mine of Mountain Pass. Shenghe Resources Holding Co, which owns 10% of the capital, does not have voting rights but almost all of the production is intended for it.

Having a reliable supply thus enables Chinese players to go up the value chain to control the various stages ranging from the extraction of metals to the manufacture of finished products, including the phases of separation and processing of rare earths. In this sense, the geography of patents is at least as important as that of deposits. Between 1950 and 2018, China filed 25,911 rare earth patents (a 250% increase in the period from 2011 to 2018 alone) compared to 9,810 for the United States, 13,920 for Japan and 7,280 for the EU. This emphasis on innovation contributes, with a competitive cost policy and environmental legislation that is less restrictive and less well applied than elsewhere, to staying one step ahead for future technologies.

For the European Union, the challenge is political and technological since that a heavy reliance on Chinese supplies could inhibit EU efforts to influence China on various issues. The challenge is also social and environmental as the conditions for extracting metals are likely to limit the interest of renewable energies and electric vehicles for the decarbonization of economies.

2.2.2. Supply diversification strategies

In Australia, the initiatives of the State are relayed by certain mining companies. The main non-Chinese rare earths supplier in the world, Lynas relies on two major sites, one in Western Australia (Mount Weld), the other on the eastern Malaysian coast. In difficulty, Lynas was offered a majority stake in 2009 by a Chinese state-owned company (China Non-Ferrous Metal Mining (Group) Co). The Australian authorities casted their veto²⁰ but authorized the entry into the capital in 2016 of the Japanese public company (JOGMEC) which has since been developing part of the extracted rare earths²¹.

The United States, the 3rd major importer after Japan and China, has also rethought its approach to the sector. Between 1994 and 1998, the country ceded almost all of its rare earth stocks. However, the needs of the American economy have increased. In 2019, 35 metals were identified as critical. For 29 of them, the country depends more than 50% on imports and for 14 of them, there is no production on the national territory. By opening new sites for mining, improving the recycling policy and mobilizing its diplomatic network, the country now intends to reduce its dependence on China.

With Australia, the United States signed an agreement in 2019 to promote “responsible” mining practices for 15 metals necessary for the energy transition²². The government agency dedicated to financing the private sector in emerging countries (US Development Finance Corporation) has been called upon to take stakes in various projects around the world. The DLA is responsible for the storage policy for materials deemed critical. In March 2021, the new Biden administration's Department of Energy announced a \$30 million initiative to research and secure the U.S. domestic supply chain of rare earths and other minerals important to manufacture of batteries, such as cobalt and lithium²³.

Directly affected by the interruption of Chinese supplies in 2010, Japan also initiated a policy of diversifying its supplies aimed at depending for at least half on supplies from countries other than China (JOGMEC, 2012).

In the case of the EU, the regularly updated list of critical metals is used in the negotiation of trade agreements and in the definition of research and innovation programs. In particular, the EU urges its partners to renounce any provision aimed at restricting metal exports. It is in this context that it filed several complaints with the WTO against China (in 2012, in 2014 and in 2016), accusing this country of imposing export taxes on certain metals or to be assured of a long-term supply from third countries, in particular for cobalt²⁴, for the benefit of its refining industry.

The EU has also invested in improving security of supply. Describing access to resources as a "strategic security issue" for the implementation of the Green Deal, the Commission initiated an action plan encouraging a revival of mining activity in Europe, increased use of recycling, research into alternative solutions and diversification of import countries. The EU is also pursuing a dialogue with

Japan and the United States, while strategic partnerships could see the light of day with neighboring countries, particularly the Western Balkans (in Serbia for borates and in Albania for platinum).

3. The governance of strategic minerals and their role in the energy transition: opportunities²⁵

3.1. Opportunities for enhancing the governance of transition minerals

This section identifies voluntary sustainability standards and initiatives relevant to the governance of minerals needed for the energy transition. This high-level overview provides a starting point for further engagement between the stakeholders of these various initiatives on how to address the issues of resource governance more effectively in transition mineral value chains.

While there has been a proliferation of responsible mining principles, standards and certification schemes in recent years, a few stand out as defining best practices for responsible business conduct in mining and mineral value chains. Some are applicable to all types of mining, while others pertain to specific commodities. Performance standards generally apply to upstream mining and mineral processing, while chain of custody and due diligence standards apply across the value chain:

- The Aluminium Stewardship Initiative (ASI) Performance Standard and Chain of Custody Standard²⁶ set requirements for the responsible production, sourcing and stewardship of aluminium. These two standards form the basis of the ASI Certification program. ASI's robust standards are the result of multi-stakeholder consensus-building within the **ASI Standards Committee** and input from technical Working Groups and open public consultation processes. This initiative includes principles of business integrity and transparency, contains guidance to support disclosure in accordance with the EITI Principles and highlights Multi-stakeholder governance, such as ASI's Indigenous Peoples Advisory Forum (IPAF) that gives a platform to Indigenous community groups affected by bauxite mining.
- The Cobalt Industry Responsible Assessment Framework (CIRAF)²⁷ provides a management framework to participants on how to respond to and manage four risk categories and nine risk areas relating to responsible

production and sourcing. “Conflict and financial crime” is one of the nine risk areas. It strengthens the ability of cobalt producers and buyers to assess, mitigate, and report on responsible production and sourcing risks in their operations and supply chain. It enables a more coherent and consistent approach to cobalt due diligence and reporting by the cobalt industry. It allows participants to demonstrate that they are aligned with global good practice on responsible production and sourcing with annual public reporting being a mandatory requirement.

- The Code of Risk-mitigation for ASM engaging in Formal Trade (CRAFT)²⁸ helps to bridge the gap between legitimate artisanal producers and refiners, jewelers, electronics companies, banks, and other supply chain actors. The code helps both buyers and miners to assess critical social and environmental risks – such as child labor, illicit trade, and uncontrolled use of chemicals, among others – in artisanal supply chains. The code is progressive, defining clear criteria for critical risks while assessing opportunities for – and making commitments to – mitigate risks and improve on other social, environmental and safety practices. It contains Requirement 2.2.1 related to the Payment of Taxes and EITI advises ASM mineral producers to disclose – if requested – payments of taxes, fees and royalties in accordance with the EITI Principles and Requirement 5 about Company Governance that prohibits bribery and facilitation payments, and urges ASM mineral producers to resist bribery to conceal or disguise the origin of minerals, and to eliminate money-laundering and disclose ultimate ownership.
- Global Battery Alliance Principles for a Sustainable Battery Value Chain²⁹ brings together leading international organizations, NGOs, industry actors, academics and multiple governments to align collectively in a pre-competitive approach, to drive systemic change along the entire value chain. Incubated by the World Economic Forum in 2017 until its independence in 2021, members of the Alliance collaborate to achieve the goals set out in the GBA 2030 Vision and agree to the Ten GBA Guiding Principles. The GBA’s multi-stakeholder governance structure aims to ensure inclusivity in decision-making and strategic focus. Action Partnerships provide a collaborative platform for members to pool their

expertise to achieve the shared goals of circularity, environmental protection and sustainable development. It includes Principle 10 related to supporting responsible trade and anti-corruption practices, local value creation and economic diversification.

- Global Reporting Initiative (GRI)³⁰ : The GRI G4 Mining and Metals Sector Disclosures is currently under revision by the GRI Sector Standards Project for Mining. The GRI 11 Oil and Gas Sector and GRI 12 Coal Sector Standards make extensive references to the EITI. The GRI 205: Anti-corruption 2016 makes references to the EITI.
- ICM Performance Expectations³¹ Position Statement: Transparency of Mineral Revenues, 2021: Principle 1 states the following: Ethical Business advises implementing policies and practices to prevent bribery and corruption and publicly disclosing facilitation payments. Principle 10 states the following: Stakeholder Engagement advises publicly supporting the implementation of the EITI and compiling information on all material payments at the appropriate levels of government, by country and by project. The Position Statement was updated in 2021 with enhanced member commitments around contract disclosure.
- Initiative for Responsible Mining Assurance (IRMA)³²: Requirements for business integrity include transparency in revenue payments for companies to governments. Chapter 1.5 profiles the EITI and states, “the IRMA Standard is intended to support, without duplicating, the work of the EITI”.
- International Tin Supply Chain Initiative (ITSCI)^{33,34}: Support companies in the tin supply chain are advised to comply with the OECD Due Diligence Guidance, including the sections on bribery, money laundering and disclosure of payments in line with the EITI Principles.
- London Metal Exchange³⁵: Financial crime and corruption are addressed through the requirement to make disclosures under the EITI in EITI member countries. Brands sourcing from non-EITI member countries are also encouraged to make disclosures in line with the EITI Principles.

- OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas³⁶: it contains Annex II, 11 regarding bribery and fraudulent misrepresentation of the origin of minerals; 12 regarding money laundering; and 13 regarding payment of taxes, fees and royalties due to governments advise committing to disclosing such payments in accordance with the EITI Principles. It also includes Risk mitigation guidance for upstream companies includes supporting implementation of the EITI.
- Responsible Minerals Initiative (RMI) Cobalt Refiner Due Diligence Standard^{37, 38}: it covers bribery and fraudulent misrepresentation of the origin of minerals; corruption, money laundering, non-payment of taxes and royalties to governments.
- RMI Joint Due Diligence Standard for Copper, Lead, Nickel and Zinc^{39, 40}: Business integrity, transparency and disclosure are requirements. Companies should publicly support the implementation of the EITI and report where appropriate.
- The Copper Mark Criteria for Responsible Production Chain of Custody Standard⁴¹: The Criteria for Responsible Production include business integrity, to implement a management system that prohibits and effectively prevents bribery (including facilitation payments), corruption and anti-competitive behavior. As for transparency and disclosure: it is required to report annually on ESG performance in line with internationally recognized standards (e.g. GRI) and to publicly support the implementation of the EITI, and report where appropriate.
- Towards Sustainable Mining Responsible Sourcing Alignment Supplement⁴²: Responsible Sourcing Alignment Supplement, Section 1 Corporate governance and ethical conduct; 1.3 combatting bribery and corruption; 1.5 transparency of taxes, ownership and transfer pricing, including public support for the implementation of the EITI.

4. Recommendations: Towards a prudent energy transition

Recommendations are addressed to governments (3.1), companies (3.2) and civil society (3.3).

4.1. Recommendations to countries⁴³

Recommendations are addressed to countries producing transition minerals (4.1.1) and to countries importing transition minerals (4.1.2).

4.1.1. Countries producing transition minerals

Openly highlight governance and corruption risks in transition mineral strategies. As minerals-producing governments gradually formulate strategies on how to prosper their mining sector and maximize growing demand, due attention should be given to governance and anti-corruption safeguards. Government strategies should include plans for detecting and attenuating risks in areas such as licensing and contracting, procurement, state participation and commodity trading through mechanisms like contract, payment and beneficial ownership transparency.

Impose more detailed public reporting of transition mineral reserves – both from exploration activities and existing mining projects. This could be done, for example, by using the EITI's reporting of exploration data and adopting the CRIRSCO standards for reporting mineral resources and reserves.

Justify the use of accelerated license awards processes. Where governments diverge from normal licensing procedures in order to speed up awards, they should commit to disclosing the rationale for doing so, as well as details on the procedures and criteria used and the results of the process.

Allocate sufficient time and resources to conducting due diligence checks in awards processes. Governments should keep a public register of beneficial ownership information and use this data to notify checks for conflicts of interest and corruption risks, mostly when accelerated procedures are used. Apart from licensing and contracting, firm due diligence checks should also be carried out in the awards of other business opportunities, for example in SOE procurement processes and commodity trading deals.

Understand the revenue potential of the transition minerals sector and implement policies to reinforce practical long-term economic

planning. Governments could design the revenue implications of different mineral price and energy transition situations and use this to inform the model of the mining sector's fiscal regime as well as decisions around how to spend the sector's revenues. For example, governments could consider using a sliding royalty, for which the rate changes with respect to a change in commodity price.

4.1.2. *Countries importing transition minerals*

Guarantee that trade agreements on transition minerals stabilize the interests of producers and importers. Such agreements should include mutual support for the low-carbon energy transition in countries supplying minerals. The agreements should also underline strong ESG expectations, mainly around governance.

Build strategic partnerships with producing countries that promote transparency and governance reforms in the mining sector.

Guarantee that responsible sourcing laws and regulations include robust governance precautions, alongside environmental and social requirements.

4.2. **Recommendations to companies**⁴⁴

Recommendations to companies are addressed to all companies in transition mineral value chains (4.2.1), mining companies (4.2.2) and downstream companies (4.2.3).

4.2.1. *All companies in transition mineral value chains*

Consolidate governance risk assessment and business integrity principles across all business units, including, but not limited to finance, social investment, procurement, community and government relations functions. This should cover measures to diminish the use of agents and intermediaries in safeguarding business opportunities. Companies should frequently reform corporate governance policies to reflect leading practices set out in responsible mining standards and minerals due diligence initiatives.

Comply with transparency standards on revenue flows and financial relationships between upstream and downstream companies along

the value chain. This should include public disclosures related to offtake agreements and/or vertically integrated value chains.

4.2.2. Mining companies

Participate regularly in community consultations to build trust in transition minerals projects, including before entering offtake agreements with downstream companies. Companies should commit to provide driven and complete disclosures related to their stakeholder engagement activities, as well as on their environmental and social impacts.

Collaborate with CSOs to assist in capacity building and financial management training for local governments and communities on the ways of spending revenues and corporate social investments efficiently.

4.2.3. Downstream companies

Guarantee anti-corruption and governance measures are appropriately considered in supply chain due diligence processes, alongside environmental and social requirements. This should include using beneficial ownership information and taking necessary actions when conflicts of interest or corruption risks arise.

Conclusion :⁴⁵

Diffuse EITI disclosures to local communities to enhance the understanding of governance risks and opportunities in the transition minerals sector. For example, EITI Requirement 5.2 on subnational transfers could be used to monitor revenue flows to local governments. Disclosures under Requirement 6.1 could be used to shed light on social payments being made by companies to communities.

Examine mining contracts to assess if any deals diverge from industry standards; give unjustifiable preferential treatment to companies; or have unsatisfactory ESG precautions. Contract disclosures could also be used to verify whether companies are complying with contractual obligations in practice.

Evaluate production and revenue disclosures to recognize corruption risks and potential revenue losses. For example, CSOs could conduct a benchmarking about production, export and revenue data to identify discrepancies. To decrease fraud risks, CSOs could follow payments to ensure they are received by the envisioned recipient.

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