

White Paper

Mining Sustainability, Compliance and Supply Chain Resilience

Contents

Section One

Introduction

Section Two

Introducing GRI 14:
Mining Sector

Section Three

GRI 14 - Addressing Core
Material Issues

Section Four

GRI 14 - Who does the
standard apply to?

Section Five

GRI 14 – Role in Sustainability,
Energy Transition and
Attracting Investments

Section Six

Implementing Materiality
Assessments for Reporting
and Improved Stakeholder
Engagement

Section Seven

The Shift Toward Site-Level
Reporting and Stakeholder
Engagement

Section Eight

Integration of the Mining Value
Chain and
Multi-Sector Reporting

Section Nine

Key Reporting
Recommendations for
GRI 14 Compliance

Section Ten

About Achilles

Section Eleven

How Achilles Elevates Your
Supply Chain Due Diligence

Introduction



The [Global Reporting Initiative \(GRI\)](#), established in 1997, launched its inaugural guidelines and reporting standards in 2000. These standards form an interconnected, modular framework designed to assist organisations in identifying material topics essential for achieving sustainable development. Today, more than 14,000 companies across over 100 countries adhere to GRI standards, with compliance mandated by the [International Council on Mining and Metals \(ICMM\)](#) for its members.

This whitepaper outlines insights and discussions from a recent Achilles roundtable in Sydney Australia with Hall & Wilcox and guest speakers Brendan Tapley, Managing Director and ESG Expert at Decarbonate, **who is one of four people in Australia selected to be part of the Global Reporting Initiative (GRI) Working Group**, Dr Jonathan Kolieb, Co-Director, Business and Human Rights Centre at RMIT University and Luis Garro, Southern Peaks Mining.

This whitepaper offers a comprehensive overview of the Standard, its implications for mining companies of all sizes, and practical solutions for navigating the complexities of ESG reporting.

Introducing GRI 14: Mining Sector

In February 2024, the GRI unveiled its sector-specific standard for mining, [GRI 14: Mining Sector 2024](#), which will take effect on January 1, 2026. This new standard provides mining companies with a valuable opportunity to adopt sector-specific guidance in preparation for reporting. While GRI 14 predominantly addresses large-scale mining operations and their value chains, it also offers artisanal and small-scale mining (ASM) operators the tools to assess and communicate their impact effectively. ASM is highlighted as a significant material topic within this standard, recognising the potential

effects arising from the co-location of industrial mining organisations and ASM stakeholders.

As demand surges for materials like lithium, cobalt, nickel, and rare earth elements, substantial investment is required to scale up mining operations, search for new viable deposits and develop new extraction technologies. Implementation of the GRI standards will support mining companies to demonstrate proactive approach to environmental and social concerns - increasing investment attractiveness as well as supporting operational resilience.





GRI 14 - Addressing Core Material Issues

Pillars of the GRI 14 Mining Standard

The GRI 14 Mining Standard is structured around critical environmental and social pillars to guide responsible mining practices. These include:

- **Tailings Management:** Emphasises safe storage and disposal of mine waste to prevent potential environmental disasters.
- **Biodiversity Conservation:** Mandates strategies to protect local ecosystems, mitigating mining operations' impacts on flora and fauna.
- **Human Rights and Indigenous Relations:** Requires companies to ensure respect for workers, local communities, and Indigenous populations impacted by mining operations.

The **GRI 14 Mining Standard** places a strong emphasis on Conflict-Affected High-Risk Areas (**CAHRA**), prioritising transparent practices in these regions and strict adherence to international laws and guidelines such as International Humanitarian Law, the Geneva Conventions, and **OECD guidelines**. This focus helps mining companies adopt a risk-averse approach, enhancing their risk mitigation strategies in sensitive areas.

GRI outlines specific expectations for the sector because of the innate social and environmental risks associated with mining. The Standard also include sector-agnostic disclosure topics, e.g., greenhouse gas (GHG) emissions, water and effluents, and economic impacts – with additional mining sector recommendations, including land use change, Scope 1 emissions and disaggregating community investments by mine site.

Section Four

GRI specifies that the sector standard applies to the following types of companies and that the standard can be used by any organisation in the mining sector, including those involved in:

- Exploration, extraction (including quarrying), and primary processing of all types of minerals, metallic and non-metallic, except for oil, gas, and coal.
- Support activities for mining, such as transport and storage, when integrated into the mining organisation's core operations.
- Supply of specialised products and services to mining organisations, such as those provided by contractors for Engineering, Procurement, and Construction (EPC) and operational activities mentioned above.

Figure 1: Scope of the GRI Mining Sector Standard



Exploration and extraction of minerals, including quarrying (excl. oil, gas and coal)



Primary processing of minerals



Supplying specialised goods and services to mining organisations



Support activities to mining, such as transport and storage



GRI 14 - Who does the standard apply to?

GRI 14 – Role in Sustainability, Energy Transition and Attracting Investments

The mining sector plays a pivotal role in the global energy transition by supplying critical minerals vital for green technologies. As the world shifts towards sustainable practices and the demand for these minerals escalates, the mining industry finds itself at a transformative crossroads.

For investors and capital providers, the integration of advanced technologies throughout the mining process—from exploration to recycling—represents substantial growth potential and attractive financial returns. However, navigating the challenging minerals market while securing investments can be difficult, especially amidst increasing pressure from investors

and the necessity to align with GRI standards.

Incorporating and implementing an ESG roadmap early on for mining organisations seeking to attract the right investments is suggested. As investors increasingly prioritise Environmental, Social, and Governance (ESG) factors, companies committed to sustainable mining practices are poised to draw more investment. This alignment not only enhances reputational value but also promotes long-term profitability. In an increasingly complex regulatory landscape, particularly for smaller resource companies, access to capital remains a pressing challenge.

While mid-sized and larger operators may have advantages, they too face high costs associated with sustainable practices and regulatory compliance.

The ability to secure capital is closely tied to a company's social license to operate—an issue gaining prominence as communities, customers and regulators call for elevated environmental and ethical standards. Companies failing to demonstrate responsible operations risk jeopardising this social license, which can lead to project delays, cost overruns, or even cancellations.

Mining critical minerals is essential for the

transition to net-zero emissions and the fight against climate change. However, due to the industry's inherent environmental challenges and associated risks, many general investors remain hesitant to engage. The emerging green taxonomy has the potential to stimulate much-needed investment.

To build the mines of tomorrow, the mining industry must focus on investing in exploration today.

Implementing Materiality Assessments for Reporting and Improved Stakeholder Engagement

The mining industry has seen the emergence of various collaborative organisations aimed at enhancing transparency and accountability. To tackle the challenges of fragmented reporting and to promote efficiency, sustainability, and better collaboration among these entities, several measures have been proposed. One such proposal is to consolidate reporting standards among organisations like the International Council on Mining and Metals (ICMM), the [World Gold Council](#), the [Copper Mark](#), and the [Mining Association of Canada](#). This consolidation could lead to comprehensive reporting frameworks that clearly define risk expectations and identify potential future risks for mining companies.

Typically, the average lifespan of a mine is around 8 to 10 years. To extend mine longevity, many mining companies operate multiple sites across various mining regions, both locally and globally. However, data collection for reporting across these multi-location sites often relies on spreadsheets, resulting in a lengthy and cumbersome process. This inefficiency is exacerbated by language barriers and human errors in manual processes. Furthermore, the lack of awareness among supplier networks and the absence of comprehensive human rights policies within the mining value chain further highlight and emphasise the urgent need for responsible practices.

The Global Reporting Initiative (GRI) Mining Standard provides a framework for companies to navigate these complexities, emphasising transparency and accountability in reporting both the positive

and negative impacts of mining activities. GRI 14 outlines two types of sector reporting expectations. The **'Additional Sector Recommendations'** build upon the management disclosure and the **'Topic Standard disclosure requirements'**, that may include, for instance, reporting the Topic Standard at a mine-site level or focusing on specific sector impacts. As a voluntary framework, the GRI Standard encourages mining companies to identify and prioritise the impacts most relevant to their operations. Companies are required to assess both positive and negative impacts based on their severity, frequency, and likelihood, while considering both local and global effects.

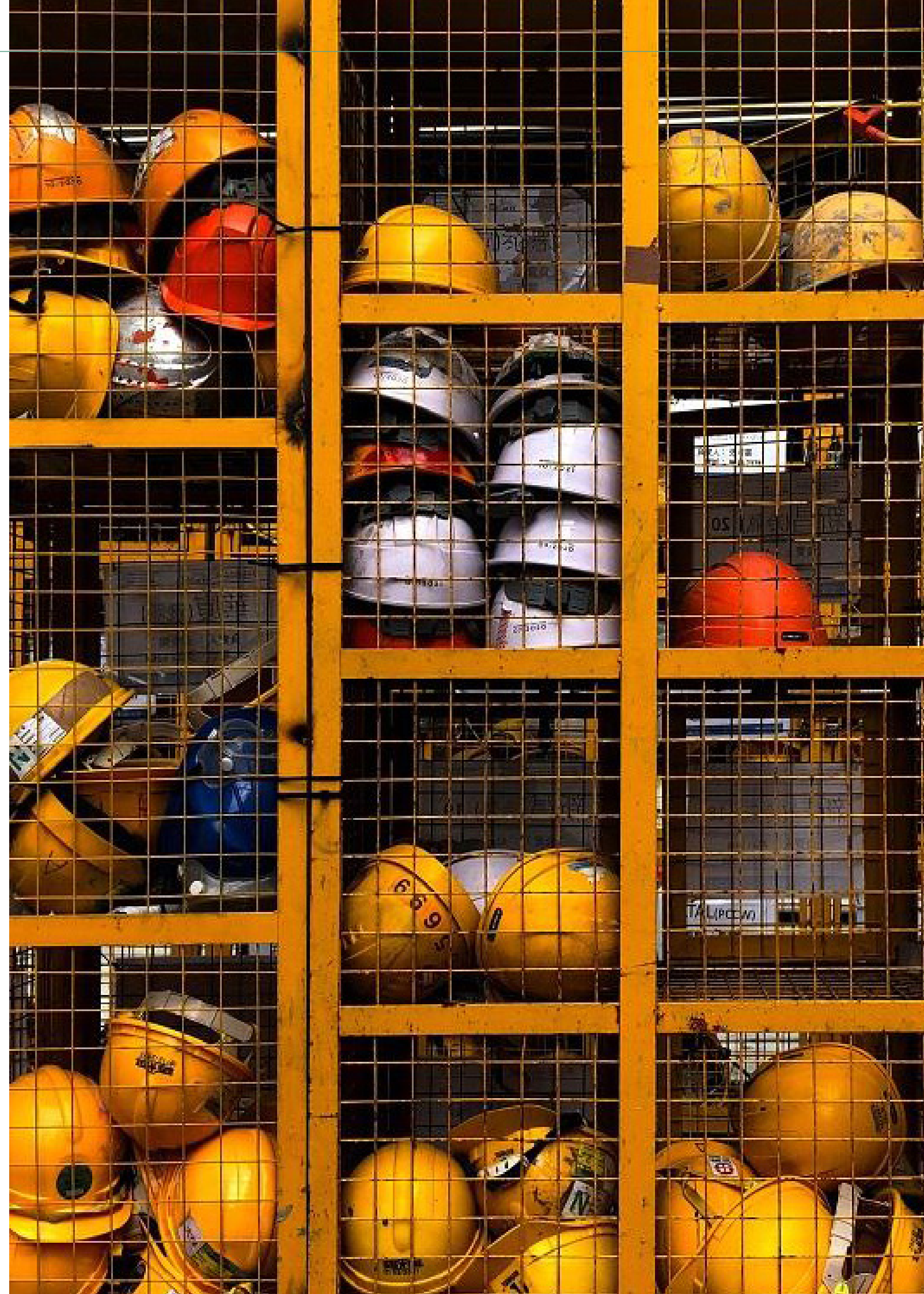
For example, mining operations in water-stressed regions may prioritise reporting on water use and effluents (Topic 14.7) due to heightened environmental sensitivity.

Materiality assessments also necessitate stakeholder consultation, involving both internal and external experts to ascertain significance. The inclusion of issues related to CAHRA reflects GRI's commitment to transparency and ethical operations, particularly in sensitive regions. For topics deemed non-material, companies must provide justifications within their GRI content index, outlining why specific matters, such as indigenous rights or tailings management, may not be applicable to their operations.

The Shift Toward Site-Level Reporting and Stakeholder Engagement

Intergovernmental organisations and responsible mining initiatives are increasingly promoting site-level impact reporting. This transparency equips mining companies to build trust within their communities, showcase effective risk management, and drive performance improvements across their operations. Additionally, site-level reporting enables organisations to accurately assess local impacts and support informed decision-making and fostering accountability.

To aid in site-level reporting, GRI 14 offers structured questions that guide materiality assessments and ensure consistency across multi-site operations. Initial qualitative assessments can gradually evolve into quantifiable metrics, providing greater visibility to board members and aligning with industry-wide expectations. Early engagement of the board and senior leadership, along with the adoption of a structured risk framework, is important to successfully support these initiatives.



Integration of the Mining Value Chain and Multi-Sector Reporting

For vertically integrated mining organisations, GRI 14 requires reporting across the mining value chain, ensuring accountability from exploration to post-mining rehabilitation. When activities fall outside the scope of GRI 14, organisations must integrate other applicable standards. This multi-sector approach enables comprehensive sustainability reporting across diverse operations.

If organisations have limited operations, such as exploration-only entities working in uninhabited areas, GRI 14 allows these companies to exclude certain topics, provided they justify non-material designations. This approach offers flexibility while maintaining transparency, with all omitted topics documented and explained in the GRI content index.

For example, a mining organisation whose substantial activities include mining of metallic minerals and coal would need to additionally use GRI 12: Coal Sector 2022 in determining its material topics and relevant disclosures. Should the organisation's operations include activities not yet covered by an existing Sector Standard, such as metal recycling or commodity trading, it would still use GRI 14 to report on its impacts. However, the organisation should report additional information on its most significant impacts associated with its activities in these other sectors to ensure sufficient disclosure.

For example, an organisation solely active in exploration of minerals in remote areas would likely not produce tailings, nor affect the rights of Indigenous Peoples, if activities are undertaken in uninhabited areas. In such cases, the organisation is not required to report information on these topics, even though they are listed in GRI 14. The organisation can simply explain in the GRI content index that its operations do not produce tailings and are taking place in areas where no Indigenous Peoples are present.

Key Reporting Recommendations for GRI 14 Compliance

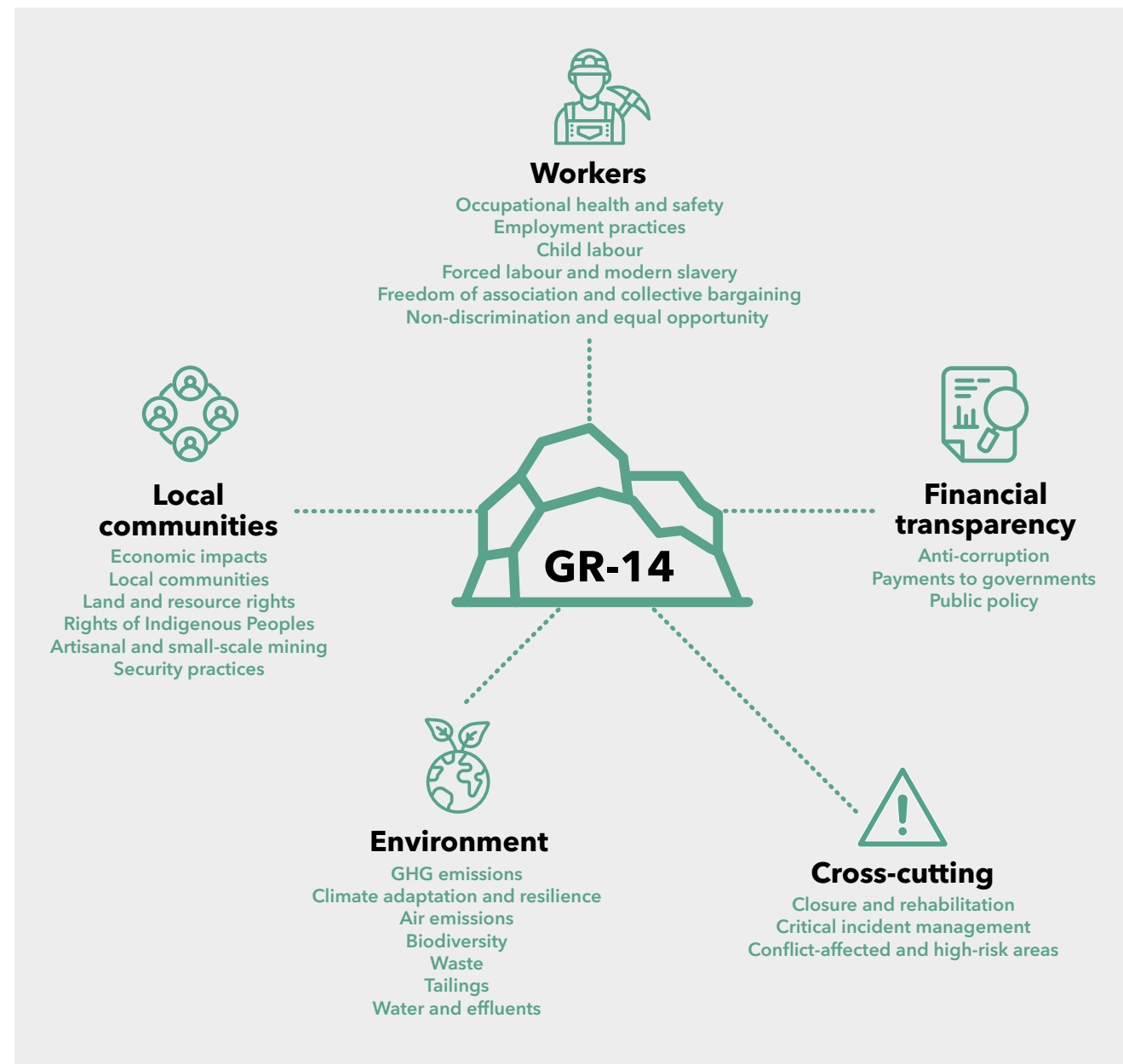


Figure 2: Likely material topics for the mining sector to report

In the GRI Standards, material topics refer to an organisation’s most significant impacts on the economy, environment, and people, including human rights. The Sector Standards identify topics that are likely to be material for most organisations within the Standard’s scope. This identification is based on credible research, statistics, authoritative intergovernmental instruments, and sector-relevant guidance for responsible business practices, such as the UN Guiding Principles for Business and Human Rights, ILO conventions, and OECD guidance documents. The content undergoes validation through a multi-stakeholder process that includes public consultation.

Furthermore, GRI 14 encourages companies to embrace the opportunities presented by the energy transition. This includes:

- **Investing in Innovation:** Adopting advanced technologies to improve efficiency, reduce environmental impact, and enhance safety.
- **Developing a Skilled Workforce:** Training and upskilling employees to meet the demands of a changing industry.
- **Collaborating with Stakeholders and Suppliers:** Engaging with communities, governments, supplier networks and civil society to build trust and foster shared value.

Mining companies preparing for GRI 14 compliance should prioritise impacts based on significance and materiality. Topics like mine closure and rehabilitation (Topic 14.8) require attention due to their crosscutting implications for the environment, workforce, and affected communities. As companies assess these impacts, they should:

- Rank impacts from most to least significant, setting a threshold for reportable topics.
- Apply sector-specific recommendations for reporting, such as gender-specific safety gear or contract transparency.
- Document rationale for non-material topics and include them in the GRI content index.

Organisations operating in complex or high-risk regions should provide additional disclosures on anti-corruption, beneficial ownership, and management in conflict areas to enhance transparency. This aligns with GRI’s goal of comprehensive sustainability reporting.

For example, the topic 14.16 Occupational health and safety lists ‘Disclosure 403-2 Hazard identification, risk assessment, and incident investigation’ as relevant for mining organisations to report. As the mining sector frequently has distinct impacts on different genders, the topic also asks for information on the provision of gender appropriate personal protective equipment and sexual and gender-based violence. These aspects are listed as sector-specific recommendations for Disclosure 403-2, and should be reported where relevant and useful.

In other cases, where there is no direct link to an existing GRI disclosure, the reporting is listed as ‘additional sector disclosures’.

For example, the topic 14.22 Anti-corruption lists reporting expectations on contract transparency and beneficial ownership, which are not covered by the GRI 205: Anti-corruption 2016.

Additional sector disclosures have an individual reference number, and when the organisation reports these disclosures, it is required to list them in the GRI content index.

About Achilles

Achilles delivers the in-depth analysis and expert insights needed to meet ESG requirements, fulfill stakeholder expectations, and pursue ambitious ethical and sustainability objectives. We partner with leading financial, industrial, commercial, and governmental organisations, providing the precise, expert support necessary to achieve high standards of environmental, social, and governance (ESG) reporting confidence.

Working with prominent mining companies worldwide, Achilles addresses the unique impacts of mining supply chains. Our services support continuous supplier improvement, enhance due diligence, and ensure compliance with evolving ESG regulations. With operations spanning 18 global locations, Achilles is a key player in combating climate change, advocating for social justice and human rights, and leading in health, safety, and risk management.

How Achilles Elevates Your Supply Chain Due Diligence

Achilles acts as a strategic partner for organisations requiring comprehensive supply chain due diligence and data insights for international regulatory compliance. Our approach goes beyond compliance, with managed services designed to optimise supply chain performance.

Our services include:

- **Supply Chain Evaluation:** We gather extensive data, including supplier documentation, public records, historical data, and investigative reports from NGOs. Our Transparency questionnaire integrates insights from our global audit program and direct feedback from workers, giving you a thorough view of potential risks within your supply chain.
- **Risk Assessment:** Our evaluations employ a multidisciplinary approach to identify hidden risks across the supply chain. This thorough risk assessment supports effective due diligence, providing documentation to demonstrate risk mitigation to regulators and stakeholders.
- **Due Diligence:** Our global audit teams perform thousands of both desktop and

on-site audits each year. They rigorously review documentation, conduct on-site inspections, and confidentially interview workers to identify and address unethical practices or human rights concerns.

- **Remediation and Reporting:** Achilles is committed to continuous supply chain improvement. We track audit findings and corrective actions, with support from our data scientists, to provide comprehensive data for use in annual reports and ongoing improvements.
- **Carbon Emissions:** Achilles empowers businesses to measure, reduce, and report on carbon emissions with ease. Set science-based carbon targets, drive real progress, and improve sustainability goals. [The Achilles Carbon Management Module](#) help organisations achieve carbon reduction, manage Scope 3 emissions, decarbonise supply chains, and build a more sustainable future.

To discover how Achilles can assist you in meeting your supply chain due diligence requirements, [contact us](#).



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