



Human rights and conflict in mineral supply chains: An Investor Guide

August 2026

First Sentier MUFG
Sustainable Investment Institute

About the Institute

The First Sentier MUFG Sustainable Investment Institute (the Institute) provides research on topics that can advance sustainable investing. As investors, both First Sentier Group and MUFG recognise our collective responsibility to society and that investment decisions should be made with consideration to our communities both now and in the future.

The Institute commissions research on Environmental, Societal and Governance (ESG) issues, looking in detail at a specific topic from different viewpoints. The Institute recognises that investors are now looking in far greater depth, and with far greater focus, at issues relating to sustainability and sustainable investing. These issues are often complex and require deep analysis to break down the contributing factors. If as investors we can better understand these factors, we will be better placed to consider our investment decisions and use our influence to drive positive change for the benefit of the environment and society.

The Institute is jointly supported by First Sentier Group (FSG) and Mitsubishi UFJ Trust and Banking Corporation, a consolidated subsidiary of MUFG. Representatives of both organisations will provide input to the activities of the Institute.

An Academic Advisory Board advises the Institute on sustainability and sustainable investment research initiatives. The Academic Advisory Board comprises prominent leaders from academia, industry and nongovernmental organisations in the fields of Responsible Investment, climate science and related ESG endeavours. The Board provides independent oversight to ensure that research output meets the highest standards of academic rigour.

Contact

institute@firstsentier.com
www.firstsentier-mufg-sustainability.com
www.mufg-firstsentier-sustainability.jp

Acknowledgements

The authors of this publication are Sudip Hazra and Elena Zharikova (SII). The Institute is grateful to the following individuals for their contribution to this research:

Dr Emi Sugawara (Osaka University of Economics and Law)
 Louis Marechal (OECD)
 Josie Lianna Kaye (TrustWorks Global)
 Stephen Barrie (Church of England Pensions Board)
 Assheton Stewart Carter (TDi Sustainability)
 Sebastien Akbik (Chronos Sustainability)
 Gemma James (Chronos Sustainability)
 James Megoran (Global Centre for Peacebuilding and Business)
 Ken Mitsutani (MUTB)
 Benjamin Briceno (MUAM UK)
 Hiroshi Ishida (Caux Round Table Japan)

The Institute's sponsors and partners

About First Sentier Group



First Sentier Group (formerly First State Investments) is a global asset management group focused on providing high quality, long-term investment capabilities to clients. We bring together independent teams of active, specialist investors who share a common commitment to responsible investment and stewardship principles. These principles are integral to our overall business management and the culture of the firm.

All our investment teams – whether in-house or individually branded – operate with discrete investment autonomy, according to their investment philosophies.

www.firstsentierinvestors.com

About MUFG

Mitsubishi UFJ Financial Group, Inc. (MUFG) is one of the world's leading financial groups. Headquartered in Tokyo and with over 360 years of history, MUFG has a global network with approximately 2,000 locations in more than 40 countries. The Group has about 150,000 employees and offers services including commercial banking, trust banking, securities, credit cards, consumer finance, asset management, and leasing. The Group aims to "be the world's most trusted financial group" through close collaboration among our operating companies and flexibly respond to all of the financial needs of our clients, serving society, and fostering shared and sustainable growth for a better world. MUFG's shares trade on the Tokyo, Nagoya, and New York stock exchanges.

www.mufg.jp/english

About the Trust Bank

Mitsubishi UFJ Trust and Banking Corporation, as a core member of MUFG, provides its customers with a wide range of comprehensive financial solutions leveraging unique and highly professional functions as a leading trust bank. Such financial solutions include real estate, stock transfer agency, asset management and investor services, and inheritance related services, in addition to banking operations. The Trust Bank aims to realize its vision to be the trust bank that can create a safe and enriching society and future alongside customers through trust; as such, its key concept is "Create a Better Tomorrow".

<https://www.tr.mufg.jp/english>

Contents

Executive summary	04
Chapter 1: Surge of demand for critical minerals underscores the importance of responsible sourcing	11
Growing mineral demand due to digitalisation, energy transition and AI	11
Conflict and human rights violations in electric vehicle (EV) supply chains	13
Chapter 2: ASM mining, conflict and human rights violations	14
What is ASM?	14
Large-scale mining	14
ASM and human rights impacts	15
<i>Environmental and human rights risks: a short overview</i>	15
<i>Relationship to corruption and armed conflict (the DRC)</i>	16
<i>ASM, conflict and human rights violations in other jurisdictions</i>	18
<i>ASM, conflict and human rights violations – gender dimension</i>	18
Chapter 3: Regulatory focus on ASM formalisation and responsible mineral sourcing: successes and challenges so far	21
ASM formalisation drive	21
ASM regulation in the DRC	21
OECD Due Diligence Guidance	21
<i>Heightened human rights due diligence</i>	22
Global regulatory approaches to responsible mineral sourcing and conflict risks in mineral supply chains	25
Industry due diligence and certification schemes	27
Limited success of the global responsible mineral sourcing initiatives in the ASM context of eastern DRC	27
Challenges undermining the effectiveness of responsible mining frameworks	28
Effects of formalisation and the responsible sourcing initiatives in the DRC – gender dimension	30
Chapter 4. Company risks, challenges and good practice: Why should companies prioritise responsible mineral sourcing and address conflict and human rights-related risks in their mineral supply chains?	31
How can mineral sourcing practices affect corporate value? Legal, reputational and regulatory risks	31
Challenges facing companies in implementing responsible mineral sourcing and due diligence	33
Industry due diligence, certification and audit schemes	35
Human rights & conflict-related due diligence	37
Responsible mineral sourcing: current corporate performance and best practice	39
Case studies: Best practice in due diligence and CAHRA-related risks in mineral sourcing	41
Chapter 5: The role of investors in addressing mineral sourcing risks and facilitating responsible sourcing practices	43
Why are responsible mineral sourcing practices, conflict risks, and human rights issues in mineral supply chains relevant for investors? ..	43
What can investors do?	44
Key investor engagement initiatives to date	47
Stakeholder engagement guide for investors – promoting responsible mineral sourcing practices	49
References	53

Executive summary

Background

Energy transition, the continuing digitalisation of the global economy, rise of AI and geopolitical tensions elevate the importance of mineral value chains, placing the extractive sector and sourcing of raw materials at the centre of stakeholder attention. One part of a complex set of considerations facing stakeholders is the sustainability impact of mineral extraction, which can include deforestation, biodiversity loss, water and soil pollution, human and labour rights violations, conflict and corruption, infringement of Indigenous rights and others¹. This report aims to cover current sustainability-related challenges linked to a specific subset of mining activities – artisanal and small-scale mining (ASM), primarily focusing on human rights.

ASM describes activities usually performed by individual or small groups of miners engaged in informal labour (or small-scale commercial mining), without the equipment and legal protections offered by formalised mining. ASM employs over 225 million people globally, according to World Bank², and supplies a substantial proportion of critical minerals, including tin, tantalum, tungsten and gold (3TG), cobalt, copper and others; and has potential to play an even greater role in meeting increased demand for critical minerals. 3TG minerals are commonly used in technologies such as semiconductors, EVs, renewables, medical appliances, defence and aerospace. ASM mining of these minerals is concentrated in the Great Lakes Region of Africa (especially the DRC, Rwanda, Tanzania), Indonesia and China.

The problem

Stakeholder concerns over the human rights impact of artisanal 3TG mining are not new. The links between 3TG mining and armed conflicts in the DRC have been subject to broad scrutiny in recent decades, manifesting in the widespread term ‘conflict minerals’. This most commonly references 3TG and is used in landmark regulations and international frameworks, including Section 1502 of the Dodd-Frank Act, the EU Conflict Minerals Regulation, OECD Due Diligence Guidance, as well as numerous industry and multi-stakeholder initiatives³. These ongoing efforts aim to prevent armed groups from exploiting mineral mining and promote sustainable development, by cultivating transparency, traceability and responsible sourcing practices in mineral supply chains. Although they have brought some positive change, we believe considerable challenges persist and extend to a much wider scope of materials than just 3TG.

ASM can represent an important livelihood and poverty reduction opportunity for many (provided appropriate safeguards, formalisation pathways and market access are available). However, it is also often linked to conflict, human rights violations and environmental harm.

While ASM provides a livelihood for millions globally and has significant positive socioeconomic potential, in several geographies (including the African Great Lakes Region, Nigeria, Zimbabwe, South America), the interference of armed groups (especially in relation to the recent escalation of conflict in eastern DRC), conflict, forced labour, unsafe working conditions and gender-based violence are pervasive. ASM-related human rights risks are also prominent in many other jurisdictions, including Tanzania, Indonesia, India, Colombia and Papua New Guinea.

International stakeholders’ efforts to facilitate formalisation of ASM activities, prevent conflict funding and instil responsible mineral sourcing practices throughout value chains have had limited effect on the ground. While the evidence regarding their effect on armed interference and violence in the DRC is inconclusive, there are indications that artisanal miners can be placed in worse socioeconomic situations as a result of conflict minerals-related regulation and due diligence schemes.

The limited effectiveness of global stakeholder efforts means that companies and investors continue to face risks linked to mineral sourcing (including conflict minerals), while the rightsholders⁴ in the countries of origin continue to be exposed to negative human rights impacts linked to conflict and mineral extraction.

For companies and investors, particularly those with material exposure to mineral-intensive sectors, CAHRA sourcing or complex global supply chains, conflict minerals and broader mineral sourcing issues may present significant legal, regulatory, operational, reputational and financial risks. In the context of growing global tensions and conflicts, these concerns are becoming even more prominent.

Furthermore, international standards, such as the UNGPs and OECD guidance, and in some jurisdictions domestic legislation, establish expectations or requirements for businesses to identify and address human rights and conflict-related risks. A proactive, risk-based due diligence approach may help companies meet applicable obligations and stakeholder expectations (as well as addressing the above risks).

Key relevant international norms and regulatory frameworks

International norms	United Nations Guiding Principles on Business & Human Rights
	OECD Due Diligence Guidance for Responsible Business Conduct
	OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas
Regulatory frameworks and legislation	US Dodd-Frank Act 1502
	EU Conflict Minerals Regulation
	EU Battery Regulation
	EU Corporate Sustainability Reporting Directive
	EU Corporate Sustainability Due Diligence Directive
	French Duty of Vigilance law

Source: SII

Importantly, many key frameworks, including the OECD Due Diligence Guidance,* **do not aim to prevent companies from sourcing minerals from CAHRAs (or ASM) as their involvement has the potential to foster local development. Instead, they seek to ensure appropriate due diligence and risk mitigation measures are taken.**

* OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, 2016

Businesses throughout the mineral supply chain continue to encounter challenges in their efforts to mitigate these risks in line with their regulatory responsibilities and stakeholder expectations.

Upstream:

- *Ongoing conflicts and weak state governance in the DRC* continue to undermine the effectiveness of local implementation of domestic and international frameworks.
- *Traceability and due diligence mechanisms* can also be compromised due to local challenges (e.g. conflict preventing traceability schemes from operating; state or non-state actors responsible for implementing the traceability schemes engaging in corruption or lacking technical training; breakdown of trust between government actors and local communities).
- *Unintended consequences and misaligned incentives* that responsible sourcing programmes impose on artisanal miners, such as unduly high fees, administrative burdens and negative socioeconomic effects (with women particularly disadvantaged), undermining the formalisation drive.
- *International responsible sourcing efforts have been primarily focused on addressing consumer concerns* down the supply chain (minimising the risk of being linked to conflict or human right harms) rather than improving mining practices upstream. International stakeholders increasingly recognise the need for better alignment between market objectives and the needs of domestic actors and rightsholders (such as formalisation and sustainable development)⁵.

Downstream:

- *The opacity of supply chains is a significant challenge*; most 3TGs are processed in countries lacking strong transparency frameworks and enter other markets as semi-finished products or alloys, making mapping out the supply chain difficult for consumers.
- *Companies tend to rely on industry due diligence and certification schemes* while lacking robust internal due diligence processes; while these schemes play a critical role, reliance on them can be detrimental, as evidenced by the prominent controversies involving some of these schemes⁶.
- *Many downstream companies continue to demonstrate a narrow compliance-focused approach to responsible mineral sourcing*: an example of this includes solely following Dodd-Frank requirements and overlooking minerals other than 3TG, while many other critical minerals (such as lithium, copper, cobalt, mica and others) are also associated with human rights harms and other sustainability impacts⁷.
- **Overall, implementation of the heightened due diligence requirements needed in conflict-affected and high-risk area (CAHRA) contexts appears limited, despite some companies stating they have a policy to assess those risks in relation to mineral sourcing. This can be partly attributed to many market actors having a low level of understanding of conflict-related due diligence requirements and their differences with broader human rights due diligence expectations⁸.**
- *The cost and complexity of due diligence requirements* can discourage companies from continuing to engage with suppliers in CAHRA areas and/or ASM. At the same time, shifting mineral supply chains presents considerable challenges. For many large companies with complex mineral-dependent supply chains, ASM and conflict-related risks may remain difficult to eliminate entirely. In such cases, a proactive, risk-based approach may provide stronger risk mitigation than relying on reactive measures.

Some companies are making progress in establishing robust responsible mineral sourcing frameworks. The table below illustrates a range of advanced and emerging measures that are being integrated by companies across key aspects of the OECD due diligence process.

Strong company management systems

Good practice:

Responsible mineral sourcing policy aligned with the OECD and UNGP guidelines, incorporating conflict-related risks/heightened human rights due diligence (hHRDD) concerns.

Best practice:

- Responsible mineral sourcing policy aligned with the OECD and UNGP guidelines that cover 3TGs and other relevant materials
- Specific policy addressing hHRDD/conflict-related risks
- Board level oversight of responsible mineral sourcing process, including CAHRA risks
- Collaborative approach to implementing conflict risk management across several departments (e.g. legal, compliance, finance, human capital, sustainability, procurement)

Identification and assessment of supply chain risks

Good practice:

Identifying smelters or refiners in the supply chain and assessing their sourcing and due diligence practices, usually by relying on the Responsible Minerals Initiative (RMI) process.

Best practice:

- Conducting a risk assessment to prioritise high-risk materials in the supply chain
- Supplementing information obtained through the RMI processes by conducting independent research into not covered/non-conforming suppliers
- Escalation process for non-responsive/non-compliant suppliers
- Traceability beyond first-tier suppliers by tracing parts or components
- Conducting additional audits/due diligence on suppliers in high-risk (CAHRA) areas, including through partnerships with organisations/non-profits operating in these locations

Risk mitigation

Good practice:

Conducting country of origin inquiries, identifying the number of Responsible Minerals Assurance Process (RMAP) validated smelters or refiners in the supply chain and setting targets to increase this number.

Best practice:

- Reporting identified risks to senior management
- Responsible engagement with ASM/CAHRA suppliers supported by enhanced due diligence and risk mitigation (depending on relevant legal and sanction contexts, as well as risk levels)
- Developing CAHRA-specific sourcing policies and processes that address conflict risks
- Providing technical support and training to ASM miners (e.g. through multi-stakeholder initiatives)
- Strengthening supply chain due diligence and traceability beyond industry initiatives (e.g. through online research, NGO reports, audits, direct supplier communication, onsite visits)
- Monitoring and tracking risk mitigation measures through specific metrics (e.g. supplier audits, audit outcomes, corrective measures)
- Facilitating stronger responsible sourcing practices throughout the supply chain by integrating policy requirements into supplier contracts, assisting suppliers with capacity building, developing and following up on measurable improvement plans, encouraging participation in industry and multi-stakeholder initiatives addressing systemic issues in mineral supply chains

Independent third-party audit of supply chain due diligence

Good practice:

Use of third-party audits and certification systems, such as RMI RMAP, Initiative for Responsible Mining Assurance (IRMA), Copper Mark and others.

Best practice:

- Building awareness of the risks assessed by third-party frameworks used by the company (to minimise potential gaps)
- Supplementing information obtained/verified through these frameworks with additional due diligence (e.g. risk-based supplier audits, including onsite audits involving local stakeholders, company research and verification, direct communication with suppliers, civil society organisations or NGOs).

Supply chain due diligence reporting

Good practice:

While companies tend to report on the process of identification of conflict mineral risks, risk management measures are relatively underreported.

Best practice:

- Annual disclosure aligned with UNGP and OECD requirements, including information on governance, supply chain risk assessment, risk management processes and audits.
- Disclosures including measurable indicators, such as proportion of suppliers covered by third-party audit schemes, response rates, audits, incident rates and others.
- Disclosures covering a broad scope of materials beyond the 3TGs (e.g. mica, cobalt, nickel, lithium, copper, aluminium and others as relevant); and disclosing suppliers beyond the first tier.

Industry initiatives

Best practice:

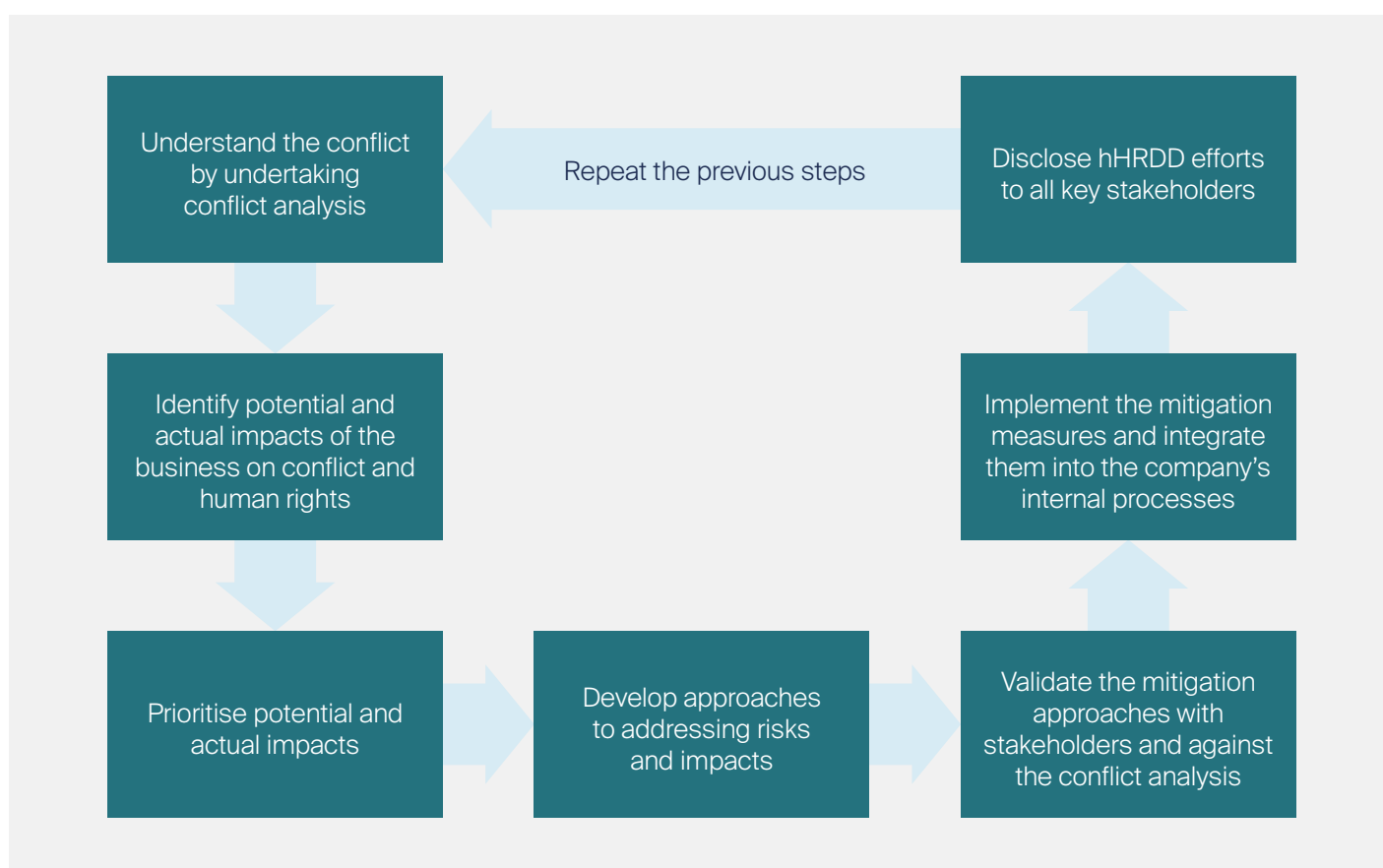
Participation in multi-stakeholder and/or industry initiatives addressing systemic human rights and conflict-related risks within mineral supply chains, such as RMI, IRMA, EPRM, ARM, Better Mining, Global Centre for Peacebuilding & Business (GCPB) and others.

Heightened human rights due diligence (hHRDD) for businesses in conflict-affected contexts

hHRDD requirements are currently not well understood by the market. Examples of emerging implementation practice include:

- Standalone policy addressing CAHRA mineral sourcing-related risks/integration into existing conflict minerals policy
- CAHRA risks being integrated into the governance structures with board and senior level oversight across company functions (legal, compliance, finance, HR) and collaborative approach between compliance, CSR, legal, sales and procurement to respond to risk at an operational level
- Inclusion of hHRDD elements into existing risk management processes, such as human rights impact assessments, supply chain due diligence, procurement and regulatory compliance
- Company disclosures, including CAHRA-related human rights risks and their potential impacts on key stakeholder groups

To comprehensively address conflict-related human rights risks in their operations and supply chains, companies would need to identify their value chain exposure to CAHRAs and follow the process below:



Source: SII, United Nations Development Programme, Training Facilitation Guide: Heightened Human Rights Due Diligence (2025)

What can investors do to help companies address human rights risks linked to mineral sourcing?

Investors and asset owners, particularly where they have material exposure, long-term investment horizons, relevant stewardship objectives and/or meaningful leverage, may be able to promote more responsible mineral sourcing practices through engagement, collaboration and portfolio monitoring. To that end, investors and asset owners can take the following actions:

Internal capacity building

Building internal expertise on international norms, regulations, guidelines and legislation related to responsible mineral supply chains and CAHRA sourcing and their practical application will enable investors to effectively evaluate and manage portfolio risk.

Portfolio human rights and conflict due diligence and monitoring

Understanding mineral sourcing-related human rights risks, including CAHRA-related risks in the value chains of portfolio companies, will help investors assess and manage potential negative impacts on their portfolios, financial returns and wider stakeholders and rightsholders.

Policy engagement

Where consistent with their investment objectives, fiduciary duties and stewardship policies, investors may consider policy engagement on responsible mineral sourcing, including by supporting regulatory clarity, local stakeholder participation in the regulatory/policymaking process, greater consideration of gender-specific implications and attention to potential unintended consequences.

External capacity building through corporate, industry, multi-stakeholder and local community engagement

Investors can seek to use their influence through engagement with portfolio companies to encourage implementation of responsible mineral sourcing principles and more robust conflict-related due diligence practices. Participating in collective investor initiatives is likely to increase the effectiveness of their engagement efforts.

Establishing dialogue and participating in multi-stakeholder industry initiatives (such as RMI and IRMA), as well as encouraging portfolio companies to participate, can also be a powerful opportunity to drive change.

Engagement via multi-stakeholder initiatives, NGOs and civil society bodies operating in countries of origin can help investors develop a deeper understanding of upstream risks and local context, particularly where investors have material exposure or are participating in collaborative initiatives. In particular, investors can take part in (and encourage portfolio company participation) initiatives directly, engaging with ASM communities and facilitating ASM formalisation through specific projects, including widening access to finance.

Source: SII

This report aims to support investors by providing engagement guidance, covering portfolio companies (including best practice examples), industry bodies, NGOs, policymakers and regulators.

Chapter 1: Surge of demand for critical minerals underscores the importance of responsible sourcing

Growing mineral demand due to digitalisation, energy transition and AI

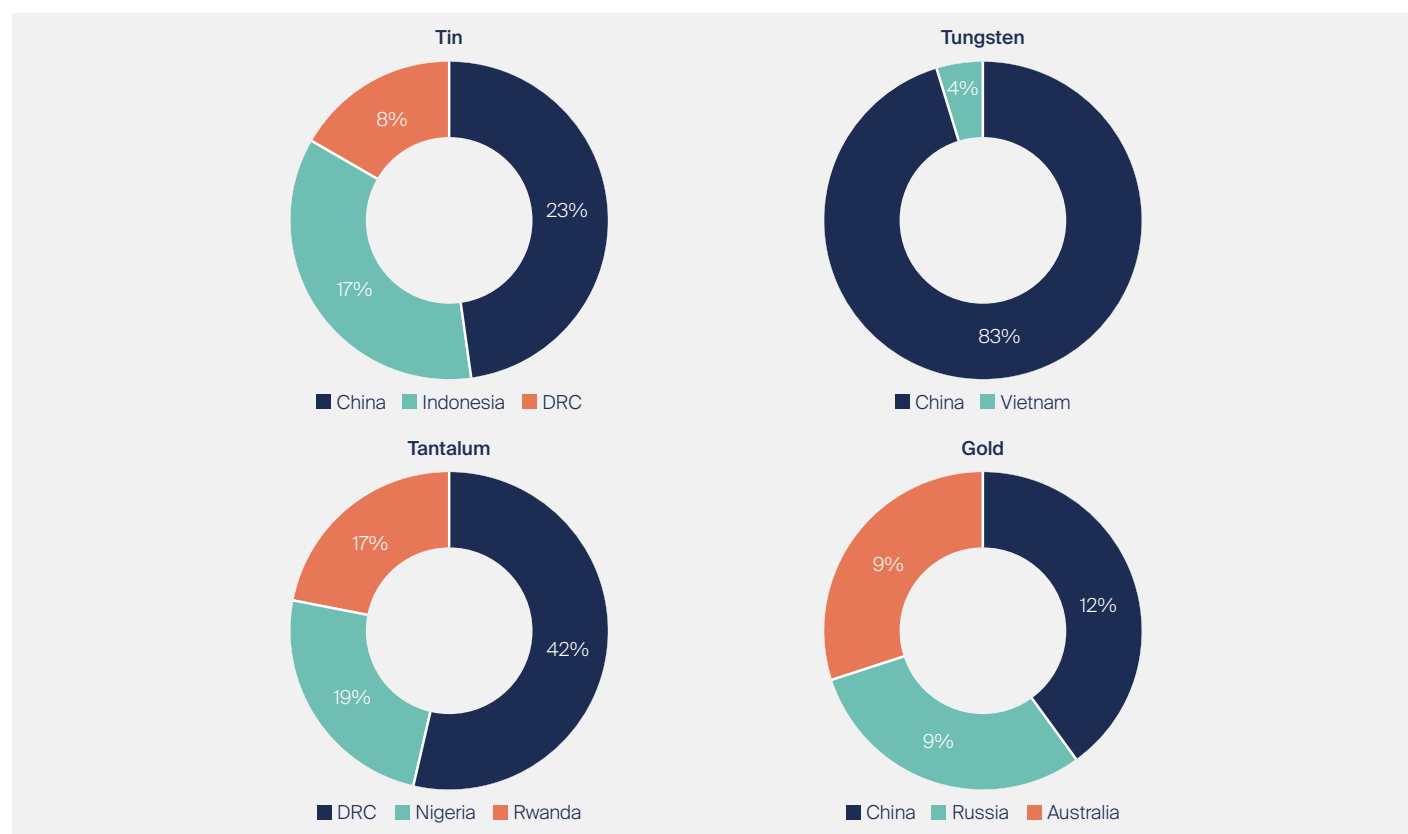
The beginning of the 21st century saw an explosion in demand for consumer electronics (such as computers and smartphones), and increasing digitalisation of the global economy (machine learning and AI, Internet of Things, big data, robotics)⁹. This dynamic underscored the importance of minerals key to the electronics sector, including 3TG minerals (tin, tantalum, tungsten and gold)¹⁰. 3TG minerals are sourced from countries including the DRC, Rwanda, Indonesia and China.

Key current trends impacting mineral demand include decarbonisation and energy transition, with some of the key technologies reliant on graphite, cobalt, nickel, lithium and rare earth elements. According to International Energy Agency (IEA) projections, demand for critical minerals linked to energy transition could increase up to four times by 2040.

Additionally, critical minerals, including copper, tantalum, rare earth, aluminium, gallium and germanium, are essential to semiconductors and data centres enabling the AI boom (for example, through lithium-ion batteries used for backup power and stabilisation of electricity supply, or minerals used in data centre power transmission, cooling, server racks or power converters). These dependencies present another strong tailwind for critical minerals.

<https://www.iea.org/reports/the-role-of-critical-minerals-in-clean-energy-transitions/mineral-requirements-for-clean-energy-transitions>
<https://fpanalytics.foreignpolicy.com/2025/07/18/artificial-intelligence-critical-minerals-supply-chains/>

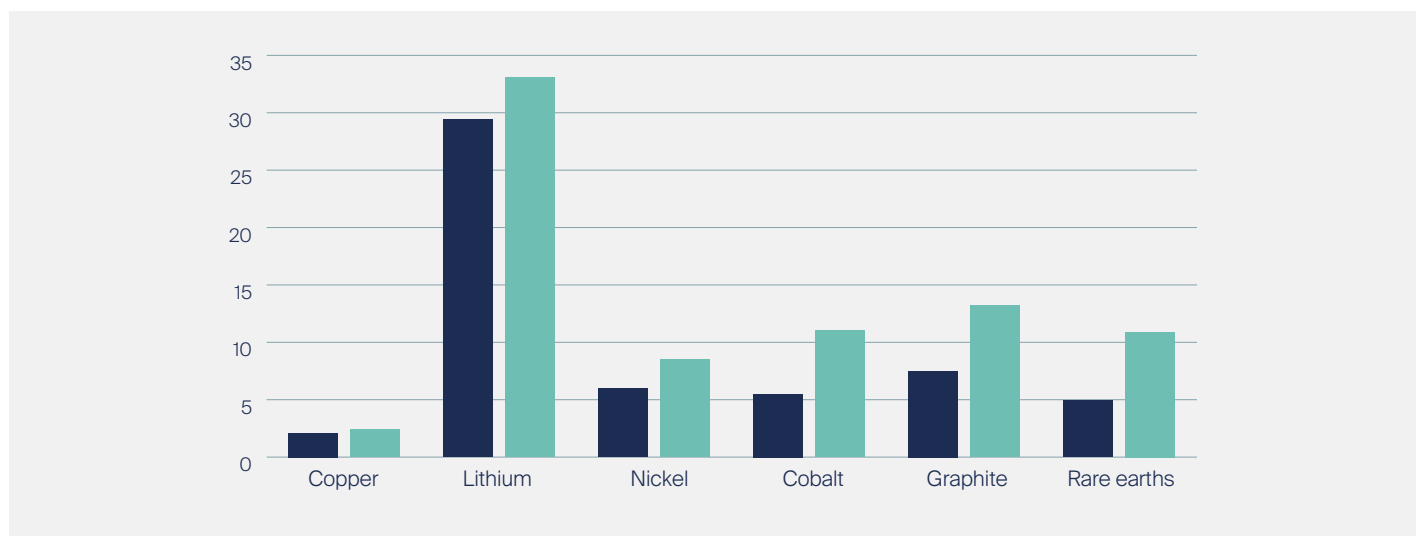
Figure 1: Main 3TG countries of origin (based on the US Geological Survey mine production figures)



Source: U.S. Geological Survey, Mineral Commodity Summaries, 2025

Extraction of minerals critical to energy transition is highly geographically concentrated, with key producing countries including the DRC (cobalt), Indonesia (nickel), Australia and Chile (lithium) and China (graphite)¹¹. However, China accounts for over 65% of the global processing for lithium, cobalt and graphite¹². This geographical concentration has a significant impact on the transparency of smelters and refiners located in China particularly significant: Chapter 4 elaborates on the challenges stakeholders encounter in conducting supplier due diligence in jurisdictions with limited transparency.

Figure 2: Annual average supply and demand growth for critical minerals, 2021-2024



Source: IEA, Global Critical Minerals Outlook 2025

Figure 3. Terminology frequently used to describe specific groups of minerals

	Conflict minerals	Critical minerals	Rare earths
Description	Conflict minerals describe materials extracted from areas affected by armed conflict and human rights abuses. This concept is frequently referenced with regards to tin, tantalum, tungsten and gold (3TG), a significant proportion of which are sourced from conflict-affected areas. Armed groups can exploit the mineral trade to fund their activities, perpetuating negative human rights impacts on local communities.	Critical minerals describe raw materials of strategic importance to a country's economy where there is a high risk of supply disruption. The exact scope varies, but the classification of materials as critical can be impacted by geopolitical instability within the source country, a lack of alternatives and a high concentration of production between few countries ¹³ . The EU critical material assessment focuses on economic importance and supply risk as key parameters ¹⁴ .	Rare earths are widely used in metallurgy, automotive, petrochemical and other industries. They are also a key element for technologies including smartphones, wind turbines and electric cars ¹⁵ .
Materials	Tin, tantalum, tungsten, gold	2023 EU Critical Raw Materials includes 34 items, such as arsenic, helium, lithium, manganese, phosphorus and others.	Scandium, yttrium, and the fifteen lanthanides, sourced from minerals including bastnasite, monazite, loparite and lateritic ion-adsorption clays ¹⁶ .
These groups of materials are frequently discussed in media, industry, government policy and academic literature due to their varied industrial applications, strategic and geopolitical significance and environmental and social impacts.			

Source: SII

Globally, ASM is a significant contributor to the production of several critical minerals, including cobalt and copper, as well as 3TG minerals, which we discuss in Chapter 2. ASM has the potential to play an even more prominent role in critical mineral supply chains globally if the ongoing formalisation challenges are addressed¹⁷.

This report will focus on artisanal and small-scale mining of 3TG minerals and linked human rights impacts, as well as human rights considerations connected to responsible mineral sourcing more broadly. Key applications, producing countries and market dynamics of 3TG minerals are shown in the table below.

Figure 4. 3TG minerals: key applications, producing countries, market dynamics

Minerals	Key applications	Key producing countries	Market dynamics
Tin	Commonly used as a protective coating or as an alloy with other metals; it is crucial to semiconductors and many emergent technologies, including AI, electric vehicles and renewables.	China, Myanmar, Indonesia, Peru and Congo ¹⁸ .	Demand for tin is expected to increase by 2-3% annually through 2030 due to growing investments in renewables, EVs and semiconductor sales. This is coinciding with supply constraints in two major producing countries – Myanmar and Indonesia ¹⁹ .
Tantalum	Due to its durability and corrosion resistance qualities, tantalum is used in sectors including electronics, energy, aerospace, chemicals and medical technology ²⁰ .	Congo, Rwanda, Brazil, Nigeria and China ²¹ .	The global tantalum market is predicted to reach approximately USD 798.65 million by 2030, with a 5.88% compound annual growth rate (CAGR) between 2023 ²² and 2030 due to growing demand from the electronics sector.
Tungsten	Key industrial applications include mining and construction, automotive, chemicals, electronics, energy, medical appliances and defence ²³ . Tungsten is also widely used to create alloys with other metals to improve their density and durability ²⁴ .	China, Vietnam and Russia ²⁵ .	Over the coming years, tungsten supply dynamics are likely to be impacted by a range of economic and geopolitical factors, including increasing demand in China, Chinese export restrictions, the US tariff regime, and the drive for supply chain diversification stemming from geopolitical and trade tensions ²⁶ . The re-opening of the Sangdong tungsten mine in South Korea in 2024 is expected to significantly reduce global dependence on China.
Gold	Industrial applications include electronics, automotive, healthcare and aerospace, in addition to its uses in jewellery and as an investable asset class ²⁷ .	China, Russia, Australia and Canada ²⁸ .	Geopolitical instability, economic uncertainty and central bank buying are expected to continue driving strong demand for gold in the near term.

Conflict and human rights violations in electric vehicle (EV) supply chains

3TG applications in EVs

Modern vehicles (including non-EVs) are highly digitalised and equipped with many electronic devices requiring the use of minerals, including 3TG²⁹. Examples of 3TG applications in consumer vehicles include tungsten in brakes, engines and wheels³⁰; tin in wiring, glass, sealants, bearings and automotive electronics³¹; tantalum in electronic capacitors³²; gold in automotive circuit boards, sensors and catalytic converters³³. Additionally, tin has been used in a recent innovative sodium-ion battery technology; should it become commercially successful, it could significantly increase demand³⁴.

Other minerals

Minerals critical for electric vehicle batteries include lithium, nickel, cobalt and graphite, which fall outside the common (3TG) definition of conflict minerals. However, there are growing concerns linked to violence within the battery supply chain – some African mines producing these minerals are controlled by armed groups, which fund their activities through their sales³⁵.

In this context, cobalt extraction is a key concern: it is highly geographically concentrated in the DRC, which holds over 70% of global reserves and several of the world's largest cobalt mines³⁶.

Between 10 and 30% of annual cobalt production in Congo comes from artisanal mines, which tend to lack formal oversight, leading to unsafe working conditions and labour and human rights abuses³⁷. A 2023 investigation uncovered instances of forced evictions and human rights abuses linked to the expansion of industrial cobalt and copper mines by multinational mining companies in Kolwezi and the province of Lualaba (DRC)³⁸.

Furthermore, research conducted by Global Witness showed that during the 2021-2023 period, there were 13 incidents of protest or violence linked to cobalt production in the DRC. These include conflicts between the military and police in Lualaba in 2021 and killings of community members protesting the local mine operations in the same province in 2023³⁹. Child labour is also prevalent in cobalt mining in the DRC, with children exposed to physically and psychologically unsafe environments, including dangerous equipment, physical abuse, toxic substances and long working hours⁴⁰.

Chapter 2: ASM mining, conflict and human rights violations

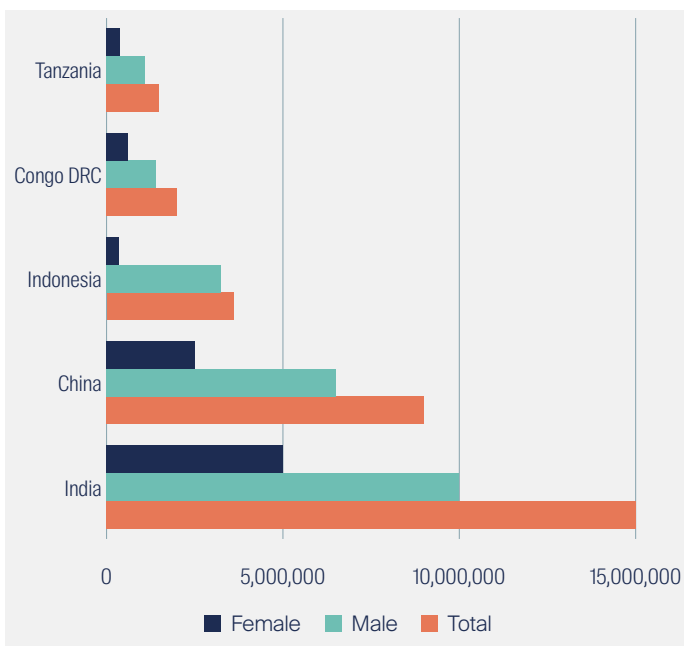
What is ASM?

ASM covers a range of activities typically performed by individual miners engaging in informal labour for subsistence and small teams or entities engaging in commercial mining. ASM activities include mineral extraction and processing, which are often manual labour-intensive and carried out with minimal technical equipment. Tools such as picks, hammers, shovels and buckets can be used by individual ASM workers; small teams of miners can also use smaller machines such as water pumps and jackhammers.

ASM miners often work without legal authorisation and do not belong to a formal entity. However, that is not always the case and some ASM workers hold official permits, pay taxes and comply with relevant regulations⁴¹.

Due to the informal nature of ASM, identifying the exact number of workers is challenging. However, according to 2024 World Bank estimates, over 225 million people are involved in the ASM value chain directly and indirectly across the Americas, Africa and Asia⁴². India, China, Indonesia, DRC and Tanzania have the largest ASM workforces⁴³.

Figure 5: Top five countries with the highest number of ASM miners



Source: artisanalmining.org, SII

A substantial proportion of the world's 3TG minerals is sourced through ASM: In terms of global supply, 20% of gold, 26% of tantalum and 25% of tin came from ASM in 2017⁴⁴. Other sources attribute 60% of global tantalum supply⁴⁵ and 40% of tin⁴⁶ supply to ASM. For tungsten, the estimation is lower, at 6% of global production⁴⁷. Key countries for ASM mining of 3TG minerals include the DRC, Rwanda, Indonesia and China.

ASM has the potential to play a much larger role in the global supply of critical minerals (in addition to 3TG) and facilitate economic development in local communities if conducted responsibly. However, the sector faces many long-standing challenges. In many regions, including Sub-Saharan Africa⁴⁸, Latin America⁴⁹ and Asia⁵⁰, ASM continues to be associated with human and labour rights abuses, environmental harm, links to corruption, conflict and money laundering. Global and national stakeholders in significant ASM locations such as the DRC are pursuing formalisation, including by encouraging artisanal miners to join mining cooperatives, which would bring them into the scope of legal economic activities (in practice, many artisanal mining cooperatives in the DRC have been found lacking in governance standards compliance and linked to labour exploitation)⁵¹.

Large-scale mining

While this report focuses on the impacts linked to ASM, it is important to note that large-scale mining (LSM) is also connected to environmental and human rights risks. LSM can be defined as capital-intensive and legally formalised mineral extraction conducted by companies with greater efficiency and production volumes compared to ASM⁵².

The 'Harmful Impacts of Mining' report from the Responsible Mining Foundation identified water and soil pollution, occupational diseases, worker fatalities, violations of indigenous people's rights and attacks on human rights defenders among the major impacts associated with mining companies (based on a sample of companies of the 2019-2020 assessment period)⁵³.

The significance of risks linked to community relations in mining is evidenced by research from the Institute of Development Studies in 2024, which highlighted widespread local resistance to mineral extraction activities. This can occur in countries regardless of income level; these tensions are commonly driven by issues related to economic (e.g. labour), governance (sector regulation, policies), social (health, violence, safety) and environmental factors⁵⁴.

One example of interconnected environmental and social pressures linked to mineral extraction activities is reduced access to water and water pollution experienced by local and indigenous communities in Chile and Argentina due to water-intensive lithium and copper extraction⁵⁵. Between 2021 and 2023, mining of lithium, nickel, cobalt and copper was linked to 334 instances of protest or violence across 19 countries⁵⁶.

Additionally, artisanal and large-scale mining are often closely intertwined. ASM frequently takes place in, and around, commercial mining sites owned by LSM companies, which can lead to confrontations and violence between artisanal miners and site security. LSM companies can also be linked to ASM through the value chain as minerals sourced by artisanal miners enter LSM processing facilities through local intermediaries⁵⁷. For LSM companies, a considered approach to engagement with ASM can be beneficial in terms of improved operational and reputational risk, maintaining positive community relationships and their social licence to operate, as well as making a positive contribution to sustainable development. However, relationships between LSM and artisanal miners are complex and often tense for many reasons, including issues around legitimacy and legality of agreements reached between the parties, community distrust and a lack of genuine interest in collaboration and revenue sharing⁵⁸. The 2026 Business and Human Rights Centre (BHRC) report on human rights abuses linked to transition miners alleged that large mining companies have been employing law enforcement and military personnel to strengthen their security in the DRC, leading to violence, human rights violations and other illegal activities⁵⁹.

ASM and human rights impacts

Environmental and human rights risks: a short overview

The informal nature of ASM activities means they lack legal structures and oversight frameworks. This can lead to dangerous working conditions, increased likelihood of accidents, exposure to toxic chemicals, use of old/obsolete tools as well as forced labour (including child labour – according to ILO estimates, over a million children are affected by child labour in mining⁶⁰) and physical and sexual abuse⁶¹. Depending on location, ASM workers can be exposed to conflicts, corruption and money laundering. In some geographies, ASM can also infringe on indigenous rights: an example is the negative impact on indigenous territories caused by the expansion of ASM gold mining in the Amazon⁶².

Mining activities, including ASM, are linked to negative environmental impacts such as water and soil pollution, deforestation, land use change and biodiversity loss⁶³. These impacts not only harm local ecosystems but can intensify competition for local resources and therefore create or exacerbate conflict. In the Congo Basin, deforestation and biodiversity loss linked to mining activities contributed to land-use conflicts; another example from eastern DRC showed that river pollution and restricted access to clean water increased tensions between locals and mining cooperatives⁶⁴.

A recent example of the potential environmental harm caused by ASM operations is the collapse of the tailings dam at a Kasulo cobalt mine in DRC, which caused flooding to the nearby urban area and endangered local underground water sources. The Kasulo mine has been operated mostly by artisanal miners, with several NGOs highlighting ongoing issues including child labour, lack of safety training and unstable structures⁶⁵.

Figure 6: Key environmental and human rights impact of ASM

Artisanal and small-scale mining

Environmental

- Pollution (water and soil)
- Biodiversity loss
- Deforestation
- Land degradation

Social and human rights

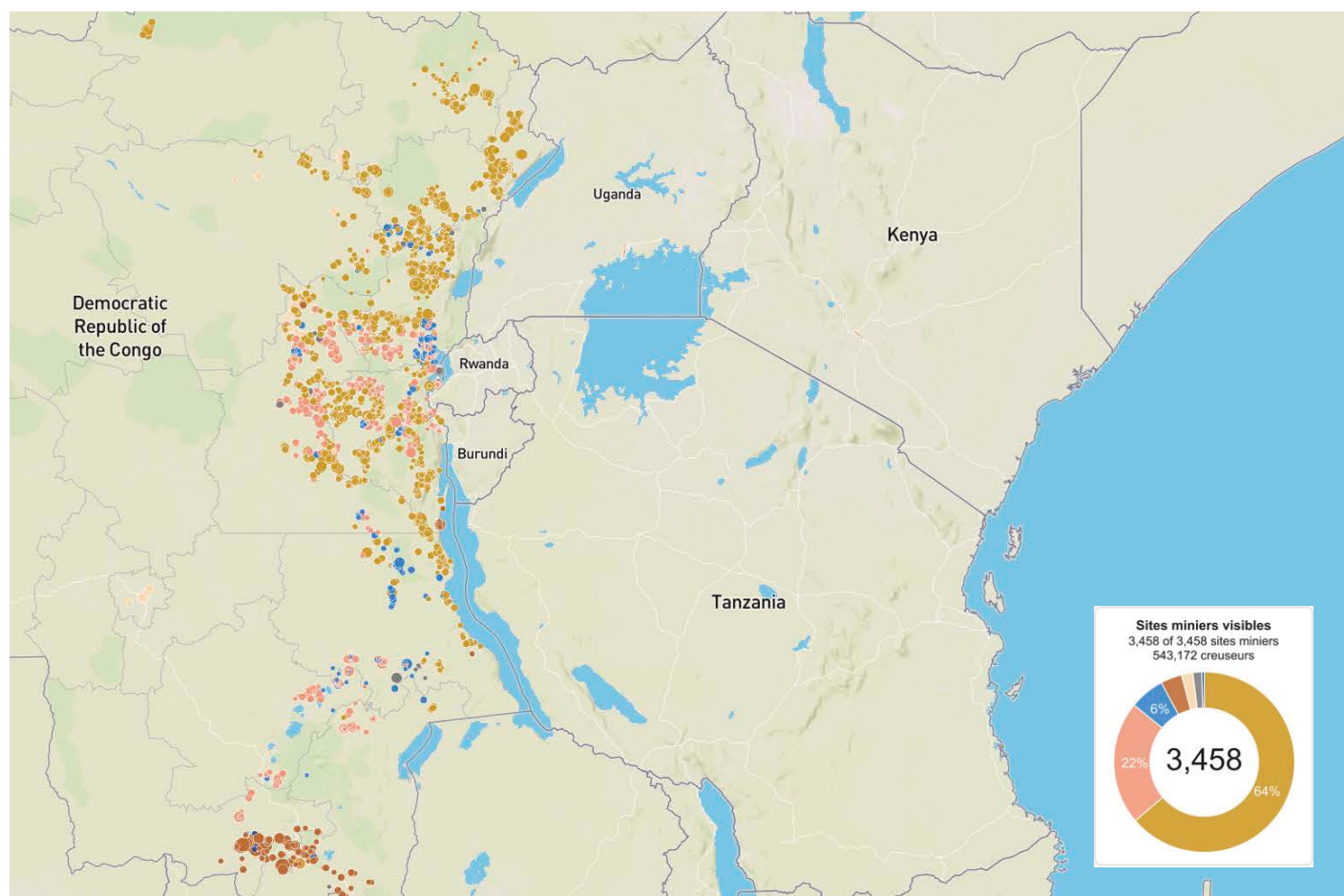
- Worker health and safety
- Conflict
- Forced labour, child labour
- Indigenous rights
- Access to food and water
- Corruption
- Sexual violence

Source: SII

ASM is a major source of employment in many geographies: within Africa's Great Lakes region, estimates show between 200,000 and two million individuals engaged in artisanal mining in the DRC, 35,000 in Rwanda and 600,000 in Tanzania. Despite the negative human rights and environmental impacts of ASM mining, this sector often presents one of the few opportunities for employment and poverty reduction, allowing miners to support themselves and their families.

In Africa's Great Lakes region, ASM is increasingly recognised as a driver of local development, providing revenues that can support other local businesses⁶⁶. Due to the high socioeconomic importance of ASM, many regulatory and industry initiatives focus on encouraging formalisation of the sector. This would allow workers to continue taking advantage of opportunities in mining while introducing labour and environmental protections.

Figure 7: ASM in eastern DRC



Source: [IPLS](#)

Relationship to corruption and armed conflict (the DRC)

The Great Lakes region (including the DRC, Rwanda, Burundi and Uganda) has seen significant instability, violent conflict and displacement since the 1990s⁶⁷. Prominent large-scale conflicts in the DRC include the first Congo War (1996-1997), which involved several neighbouring countries (including Rwanda and Uganda) and was driven by political and security tensions, and the second Congo War (1998-2003), where access and control of mining areas played a significant role⁶⁸.

These conflicts have had a devastating impact on the country, resulting in approximately six million deaths and the displacement of over five million people. The aftermath has left the country with weak governance structures that undermine its ability to effectively address long-term conflicts and tensions within and outside its borders⁶⁹.

The DRC's abundance of natural resources cemented the country's importance to global supply chains as the early 21st century boom in consumer electronics drove demand for 3TG minerals. The global shift towards renewable energy and low-carbon technologies further increased the DRC's role as a key mineral supplier, while the minerals coming from ASM mines continue to be linked to unsafe working conditions, forced labour, violence and interference from armed groups⁷⁰. By taking control over an area rich in natural resources, armed groups can benefit from mining and trade – illegally mined minerals are often smuggled into neighbouring countries to disguise their source.

In 2024, an armed coalition⁷¹ comprising Alliance Fleuve Congo (AFC) and Mouvement du 23 mars (M23) conquered mining territories around Rubaya containing coltan, tin and manganese reserves, reportedly gaining control of trading centres in the area as well as transport routes to Rwanda, financially benefiting from illegal extraction, trade and exports.

Estimates suggest that AFC/M23 collected at least US\$800,000 monthly from taxation and trade of coltan production in Rubaya. In Ituri, ASM gold mining continues to be exploited outside state authority, generating approximately US\$140 million a year for armed groups and criminal networks. The 2024 UN Group of Experts report described the ongoing situation as the most significant 3TG supply chain contamination recorded in the Great Lakes region over the past decade⁷².

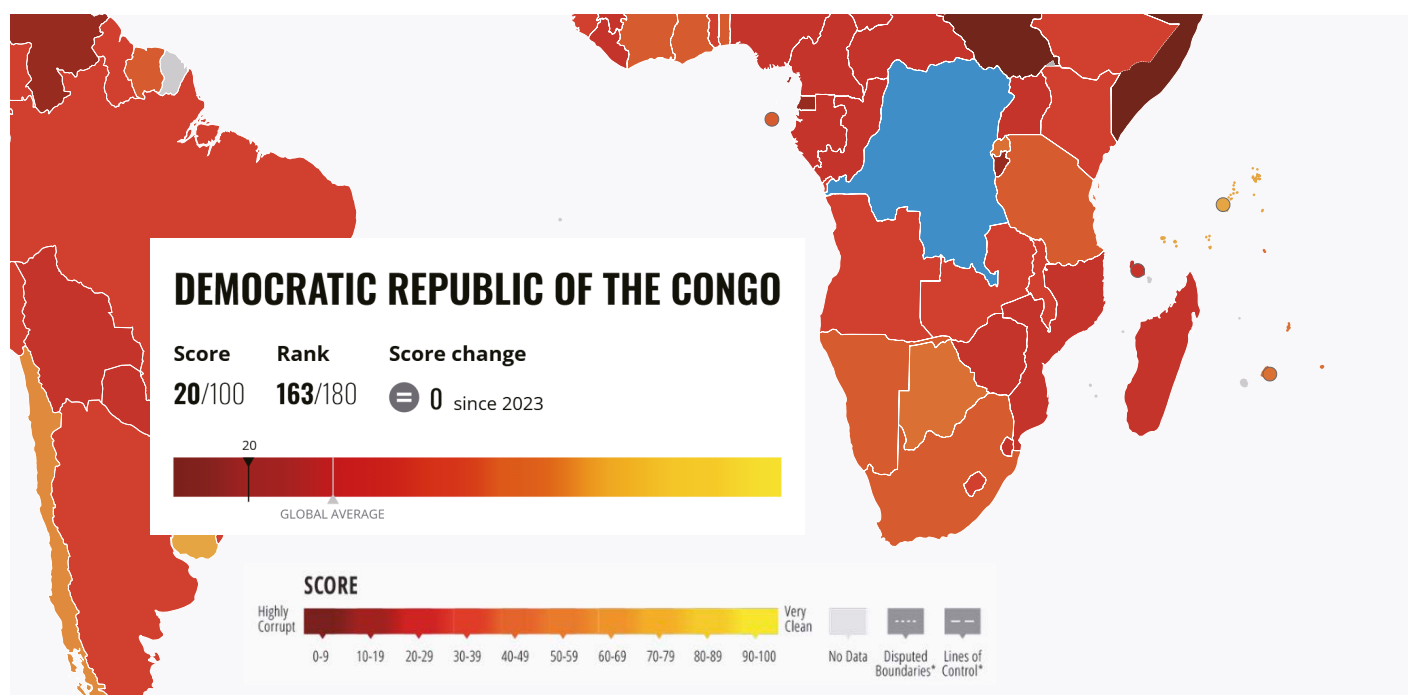
The beginning of 2026 was marked by significant loss of life (over 400 people), caused by landslides in artisanal coltan mines in territories controlled by armed groups. This highlights the continued threat to life and human rights inherent in unregulated mining and a lack of enforceable labour safety standards⁷³.

Despite the unquestionable harm brought by armed interference in mining in the DRC, and the justifiable importance global stakeholders have placed on addressing it (through regulation, international frameworks and industry initiatives), mining revenue

is not the only source of funds for armed groups (however, the recent M23 insurgency is considered to be funded by illegal mineral trade to a significant extent⁷⁴). Other funding sources include roadblocks, taxation of natural resources other than minerals (such as agriculture), taxation of economic activities (other than mineral trade) and acts of ransom. Recognising this avoids oversimplifying the relationship between minerals and conflict that could result in the disengagement of the global private sector from ASM in eastern DRC, damaging the socioeconomic wellbeing of local communities dependent on ASM for subsistence.

Apart from natural resources, conflicts in the DRC are influenced by access to land, historical tensions between communities, flawed disarmament and reintegration programmes, state corruption and other governance issues⁷⁵. State fragility⁷⁶ and the presence of foreign armed groups in eastern DRC led to the formation of self-defence groups. This resulted in approximately 120 armed groups operating in the area; these groups seek to generate income through mineral trade as well as other sources⁷⁷.

Figure 8: DRC Corruption Perception Index



Source: [Transparency International Corruption Perception Index 2024](#)

Foreign mining companies operating in eastern DRC can also contribute to local tensions due to limited access to resources and socio-economic insecurity, which can potentially result in conflict. In 2021, Chinese mining companies accessing ASM permits through local mining cooperatives in South Kivu and Ituri (foreign companies do not have direct access to local ASM), caused complaints regarding their negative environmental

impact, lack of regulatory oversight and use of local security forces as private security. This situation resulted in violence and targeted attacks⁷⁸. Another example is a large multinational that has been involved in DRC mining since 2007 and has faced allegations of exploiting artisanal miners, violent conflicts between private security and artisanal miners and corruption⁷⁹.

ASM, conflict and human rights violations in other jurisdictions

The DRC is far from the only jurisdiction with a high concentration of ASM-linked human rights risks. In Tanzania, ASM gold mining is a significant source of employment, with over a million people engaged in the sector. While the Tanzanian government is making considerable policy efforts to formalise the sector and empower artisanal miners⁸⁰, ASM continues to be linked to child labour⁸¹, violent conflicts between artisanal miners and private security forces⁸², human trafficking and sexual violence⁸³. Other countries with substantial ASM sectors such as Indonesia⁸⁴, India⁸⁵ and Colombia⁸⁶ face similar risks.

Porgera gold mine in Papua New Guinea

The Porgera mine, located in the Enga province of Papua New Guinea, has been subject to tensions and violence related to access to mining, as well as broader tensions in the province related to access to resources and government services since its opening in 1990. Porgera plays an important role in Papua New Guinea's economy, contributing approximately 1.8% of the country's GDP just before its closure in 2020⁸⁷.

Since the mine's opening, informal mining activities have been conducted by migrants from other parts of the province; mining became a key source of income for migrants in the absence of alternative employment⁸⁸. As soil fertility deteriorated due to mining, local landowners also began to rely on informal gold mining for subsistence.

Disagreements between informal miners, landowners and mine operators included land ownership disputes, compensation paid by the mine operator and the government for land use and environmental damage, and reports of human rights abuses. Violent incidents included alleged killings of local villagers, torture and beatings by police and mine security; there have also been allegations of sexual assault towards female informal miners⁸⁹.

Following continuous engagement from civil society organisations including Human Rights Watch, the mine operating company conducted an internal investigation that resulted in the termination of several employees⁹⁰ and payment of financial compensation to the women affected⁹¹.

The closure of the mine in 2020 led to an increase in informal mining due to the absence of formal employment and oversight. The Porgera mine reopened in 2023 through a joint venture under which the government and landowners hold a 51% share⁹². In 2024, tribal tensions in Enga escalated, resulting in the deaths of at least 30 people and temporary suspension of the mine⁹³. According to local police, the conflict began due to a violent altercation between an informal miner and local landowner.

A peace agreement between the tribes at the centre of the conflict was signed in January 2025, with the tribes agreeing to cease informal mining activities near Porgera⁹⁴.

ASM, conflict and human rights violations – gender dimension

According to the World Bank, women comprise 30% of the total workforce engaged in ASM globally, although the figure is likely to be higher due to the patchy availability of gender-disaggregated data. Additionally, some activities that are often done by women (for example, retrieving material from rivers, processing gold at home, preparing food for miners) are conducted away from mines, which means women performing them are not counted or documented in mine surveys⁹⁵.

Women in ASM are predominantly engaged in the processing of minerals, including crushing, milling, sorting rocks and concentrating ore – sometimes involving toxic materials. Some are also involved in the extraction and sale processes. Studies show that women are often placed in roles with lower economic value, often have to carry out mining activities in parallel with their domestic responsibilities, have limited bargaining power and remain outside governance systems⁹⁶. **Economic disadvantages, limited access to resources and lack of decision-making power expose women to poverty and human rights harms, including exploitation and abuse, further entrenching systemic discrimination in ASM.**

Women are also disproportionately affected by the environmental harm linked to mining. As their primary activities often involve water collection, agriculture and caregiving, mining-related water and soil pollution and worsening community health exacerbate gender inequality⁹⁷.

For women, involvement in ASM offers a valuable opportunity to improve their socioeconomic situation, while also bringing significant risks, including labour exploitation and sexual violence. Studies have shown that women in ASM often perform hazardous manual labour tasks and usually receive lower pay compared to men; at the same time, ASM can offer women increased income and agency⁹⁸. Despite the dangers, many women in eastern DRC engage in ASM activities by choice, with motivations ranging from greater security, family responsibilities, economic opportunities and a better quality of life⁹⁹.

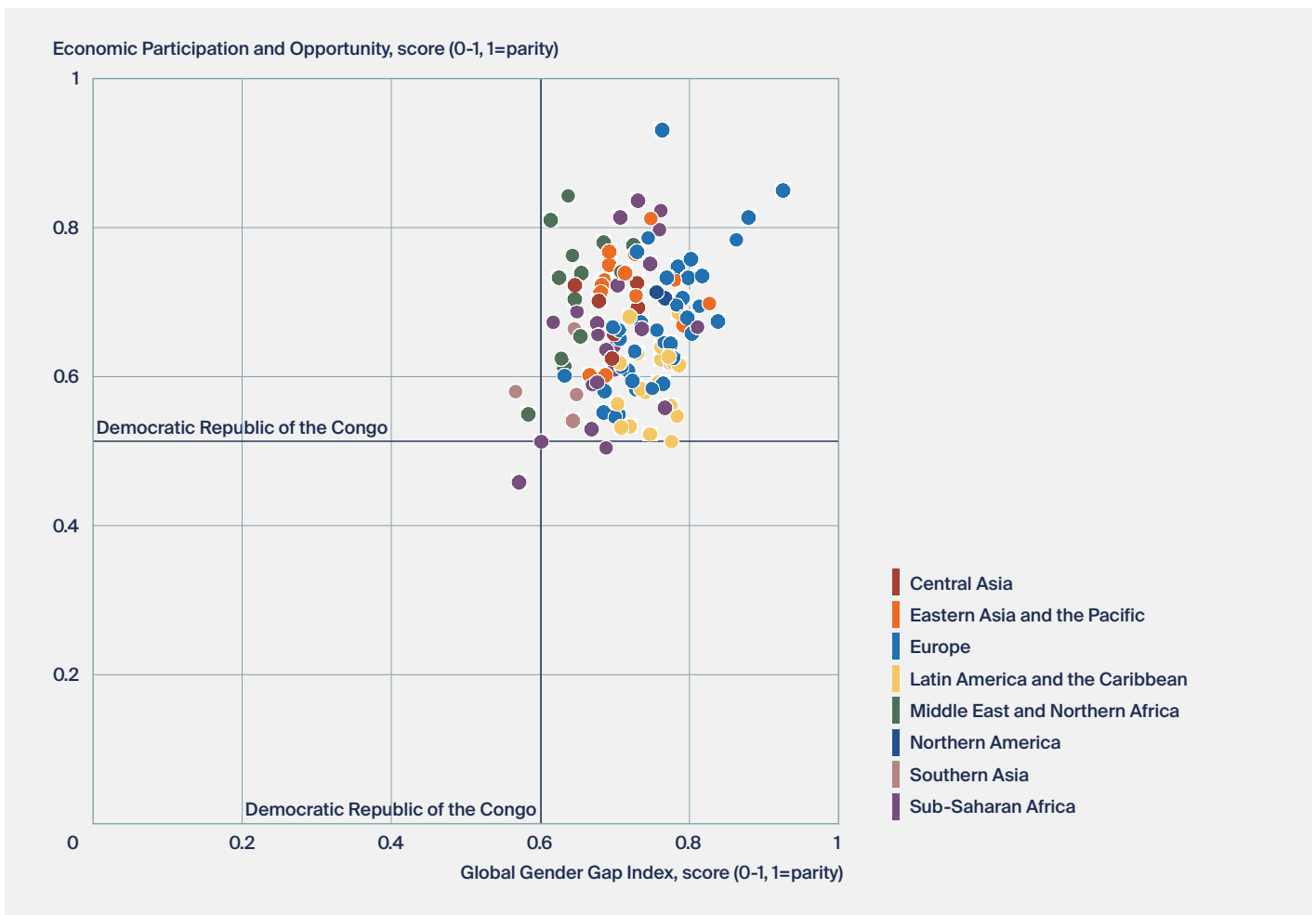
Gender-based violence is a significant risk to women in ASM. It is frequently used to uphold and reinforce authority; a study focused on Africa's Great Lakes region revealed that gender-based violence in ASM occurs in areas under the control of armed groups as well as in more secure areas¹⁰⁰. Another study focused on eastern DRC showed that women living in the vicinity of mines are at a higher risk of sexual violence¹⁰¹; a survey conducted in the same area indicated that 74% of women have been subjected to sexual violence¹⁰². There are numerous examples of gender-based violence in ASM in many other locations including South Africa, Tanzania and Uganda¹⁰³. However, sectors outside of ASM are not exempt from gender-based violence; field data from the DRC suggests some women have moved into mining from other industries such as agriculture due to violence¹⁰⁴.

Conflict impacts the availability and access to land, as well as accessibility of other resources including water, affecting women who are highly dependent on these resources. Female engagement in ASM has been noted to increase during and after violent conflicts as other economic opportunities decline (this dynamic has been observed in locations including Angola, Liberia, Sierra Leone and Cote d'Ivoire)¹⁰⁵. Women are also particularly exposed to instability brought about by conflict and the presence of armed groups in mining areas – gender-based violence, including sexual exploitation, is observed to be widespread in these regions¹⁰⁶.

While most regulatory and policy initiatives seeking to address the human rights harms in ASM are focused on formalisation, there are concerns whether these are being implemented to the benefit of men and women equally. Arguably, many key initiatives including the International Conference on the Great Lakes region (ICGLR) and others have overlooked gender considerations in ASM, as well as the different effects formalisation measures can have on men and women.

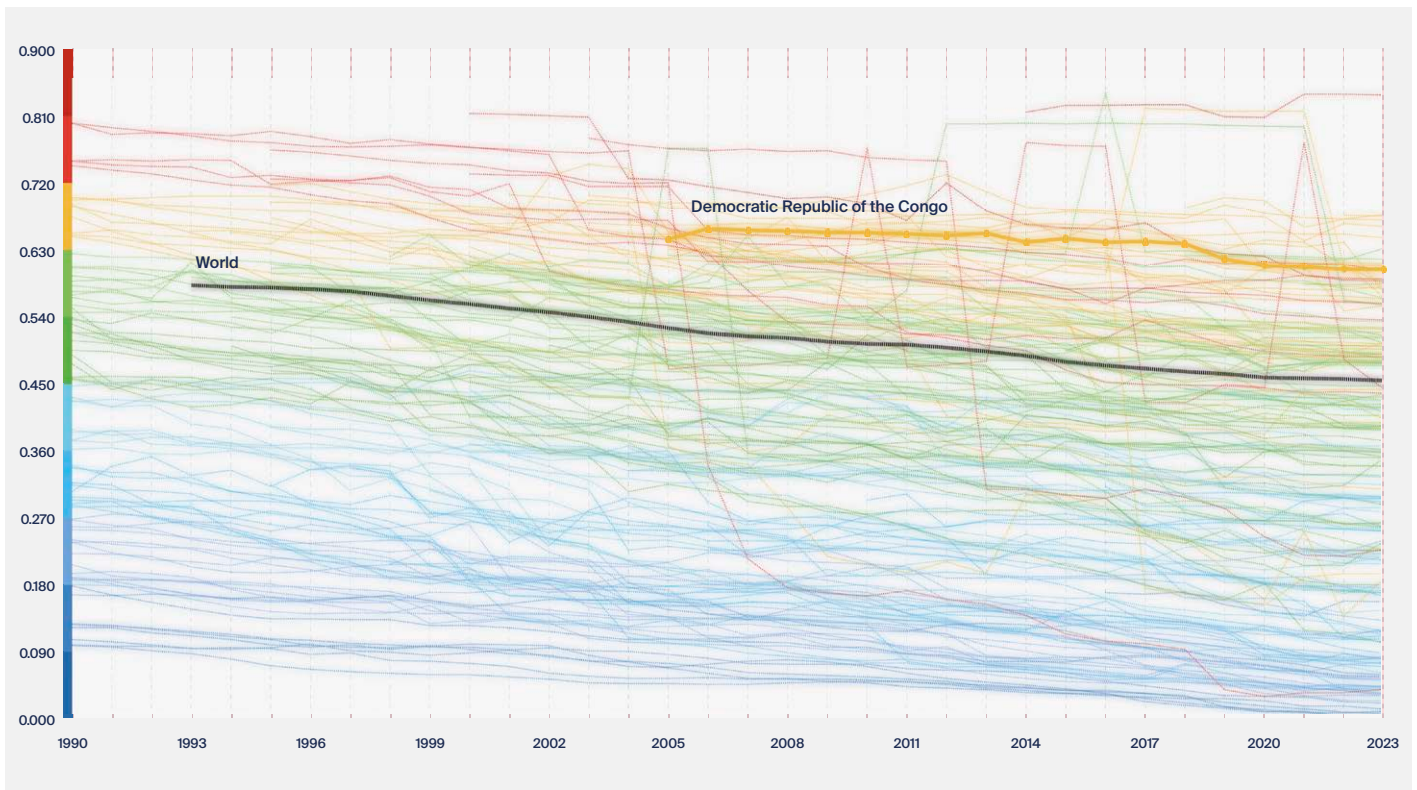
A 2016 report focused on the Great Lakes region observed that the formalisation of ASM and greater use of technical equipment result in lower participation of women as their labour becomes obsolete, while established authority structures benefit from this process¹⁰⁷. Another study in 2023 focused on the DRC showed that while responsible sourcing initiatives have had some positive impact in reducing violence, they also exacerbated socioeconomic challenges for women, making participation in the formal sector more difficult. As women often receive significantly lower income, they lack funds to purchase the necessary administrative documents required for participating in mining activities or to pay cooperative fees. As they are unable to secure these documents, women have no choice but to participate in informal ASM, further exposing them to gender-based violence¹⁰⁸.

Figure 9: Wage equality for similar work – Global Gender Gap Index 2025



Source: [World Economic Forum, Global Gender Gap Index](#)

Figure 10: Gender Inequality Index



Source: [UNDP, Gender Inequality Index 2023](#)

Chapter 3: Regulatory focus on ASM formalisation and responsible mineral sourcing: successes and challenges so far

ASM formalisation drive

As mentioned in previous chapters, due to the socioeconomic importance of ASM, governments across key producing regions (Africa, Latin America and Southeast Asia), industry actors and international multi-stakeholder bodies have encouraged the formalisation of artisanal mining through targeted legal, regulatory and policy frameworks. Integrating ASM activities into the formal economy can bring substantial benefits to the state (taxation revenues and economic growth), mitigate environmental and social harms linked to ASM and promote sustainable development. However, global ASM formalisation faces persistent challenges, including a lack of resources, misaligned incentives, enforcement gaps and high administrative burdens¹⁰⁹. The DRC formalisation process explored in this chapter illustrates how these factors can impact regulatory and policy efforts.

What is formalisation?

Formalisation in the context of ASM can be defined as the process of bringing informal and/or illegal economic activities into the formal economy through legal, regulatory and policy measures. Integrating ASM into the formal economy facilitates sustainable development and confers numerous benefits to miners and local economies through establishing legal standards and protections related to labour and the environment, curbing corruption and increasing tax revenues¹¹⁰.

ASM regulation in the DRC

In the 2000s, the DRC government introduced large-scale reforms to address the illegal mineral trade, capture tax from mining revenues, attract foreign investors and promote economic growth. Formalisation of the ASM sector is key to achieving these goals. The key elements of the DRC ASM formalisation drive included the Mining Code (2002, revised in 2018), which recognised ASM activities, introduced designated ASM zones and licensing requirements¹¹¹, and the Regional Certification Mechanism (RCM) introduced by the ICGLR in 2011, which established multi-stakeholder mine qualification and validation systems¹¹².

In practice, implementation of these initiatives has been challenging, with key obstacles including¹¹³:

- slow government approval of designated ASM zones
- impact of conflict and local tensions (including tensions between artisanal miners and large-scale mining companies)
- inaccessibility of some sites for validation purposes
- resource and capacity limitations of government agencies
- licensing requirements creating significant additional costs for artisanal miners, prompting a preference for informal activities
- high export taxes facilitating mineral smuggling
- persistent forced labour and corruption.

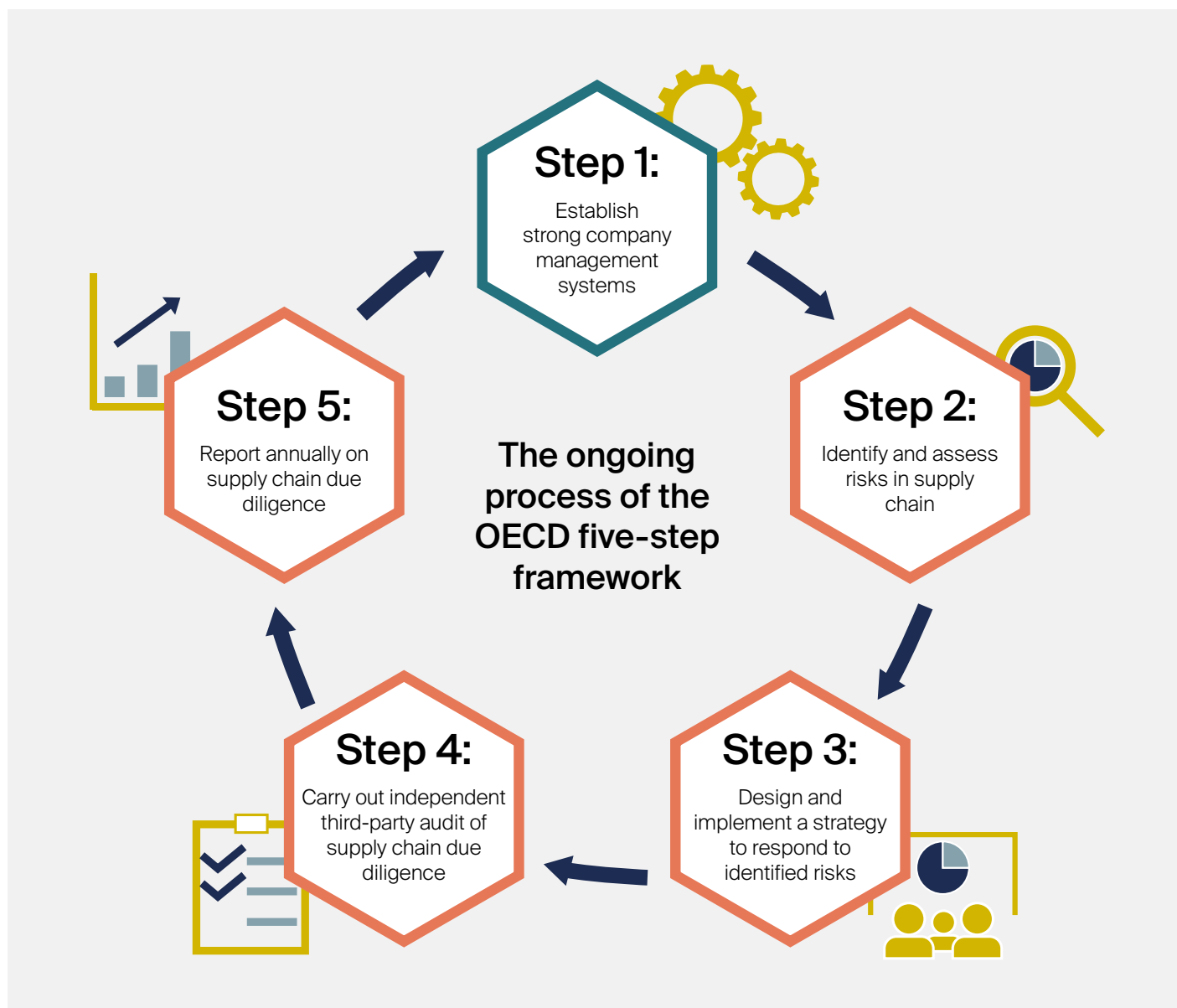
In February 2025, the DRC government introduced additional measures to improve traceability in the cobalt supply chain, which included prohibition of the mixing of artisanal cobalt ores with industrial production, and establishing responsible sourcing standards for the cobalt sector.

OECD Due Diligence Guidance

The OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas presents the key global guidelines on responsible mineral sourcing. The guidance outlines a five-step, risk-based due-diligence framework designed to help actors within mineral supply chains avoid contributing to conflicts or being linked to negative human rights impacts and facilitate stable economic growth in conflict-affected and high-risk areas (CAHRAs) through responsible mineral trade. The guidance is relevant to all minerals but includes supplements with specific recommendations for 3TG supply chains.

The OECD's guidance is a voluntary framework (outside jurisdictions that have integrated the guidance into legislation, such as the EU Conflict Minerals Regulation), which places responsibility for monitoring and enforcement on market forces. Despite widespread adoption, corporates do not always apply the requirements comprehensively: some primarily focus due diligence on 3TG minerals only, employing limited supply chain coverage and consideration of CAHRA. We discuss current corporate due diligence practices in more detail in Chapter 4.

Figure 11: OECD Five-Step Framework for Risk-Based Due Diligence in the Mineral Supply Chain



Source: [European Partnership for Responsible Minerals, How to implement the five-step OECD Due Diligence Guidance?](#)

Heightened human rights due diligence

The 2011 [United Nations Guiding Principles on Business and Human Rights](#) (UNGPs) confirmed that businesses have a responsibility to respect human rights and should implement a due diligence process to meet that responsibility. The UNGPs also highlight that the risk of involvement in human rights abuses is heightened in conflict-affected areas and addressing it effectively requires engagement with wider stakeholders, including civil society, NGOs and relevant multi-stakeholder initiatives.

The UN provided further guidance on appropriate due diligence processes in CAHRAs in the [Business, human rights and conflict-affected regions: toward heightened action](#) report published in 2020, and the 2022 UNDP guidance [Heightened Human Rights Due Diligence for Businesses in Conflict-Affected Contexts](#). Business activities in conflict-affected areas may influence conflict dynamics depending on their scale, nature, relationships and operating context (for example, the use of security forces, hiring decisions or land acquisition could lead to an escalation of violence). This is why heightened human rights due diligence places particular emphasis on conflict analysis and stakeholder engagement.

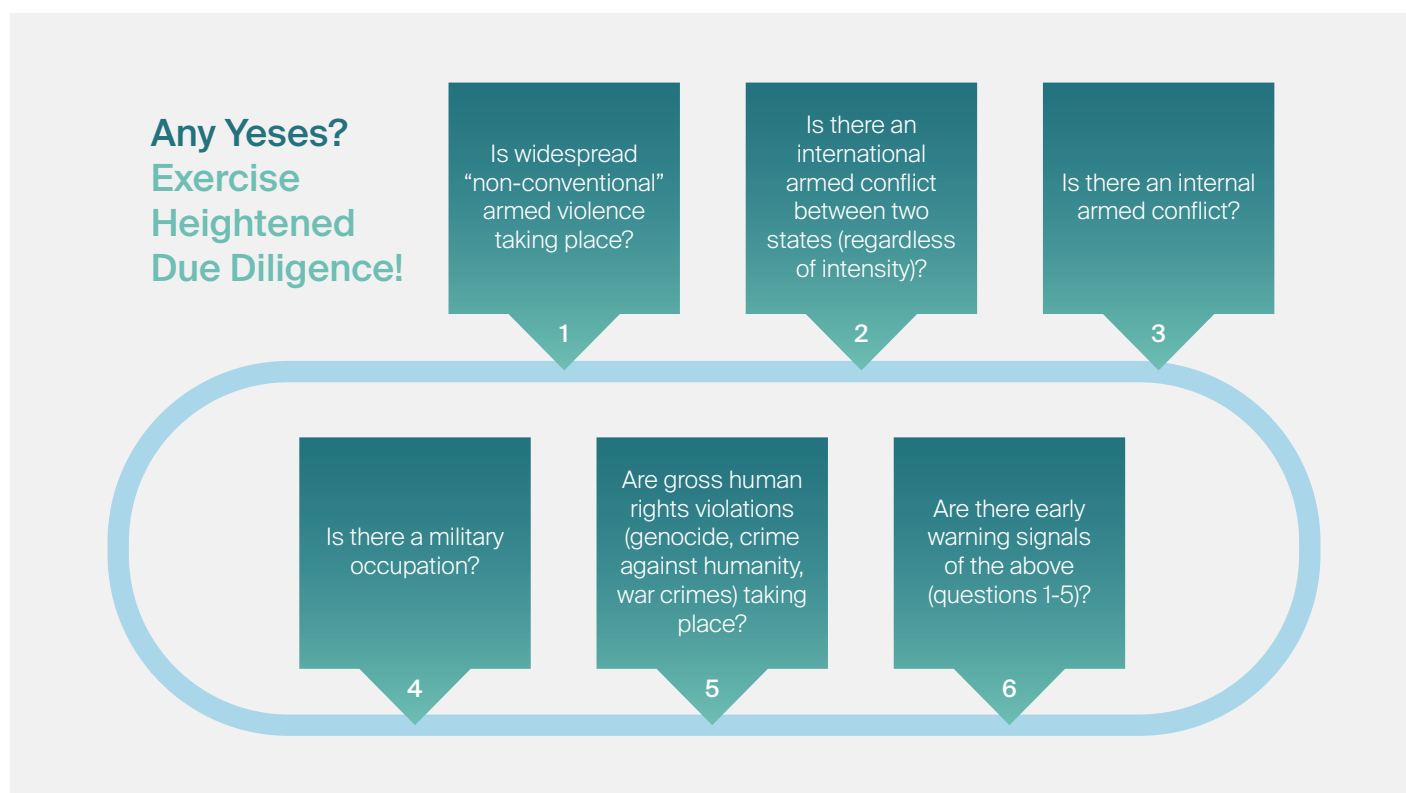
In conflict-affected and high-risk contexts, international guidance increasingly expects companies to consider heightened human rights due diligence that is proportionate to their activities, leverage, relationships and exposure. The practical form of hHRDD may vary depending on a company's role in the value chain and reasonably available information.

Importantly, the types of conflict requiring hHRDD do not just refer to traditional armed conflict between states but include military occupation, mass atrocities and other types of widespread violence, including those involving non-state actors. hHRDD (as opposed to traditional human rights due diligence) asks for a greater focus on operating context to enable businesses to minimise the risk of provoking or supporting violence. Another differentiated aspect brought about by conflict is the need to consider international humanitarian law standards alongside human rights considerations during the assessment process.

Regulatory and stakeholder expectations for companies to address CAHRA and conflict-related risks in their supply chains are growing. Beyond UN and OECD guidance, the EU Conflict Minerals Regulation, Batteries Regulation and the CSDDD integrate the requirements for OECD-aligned due diligence, including in the context of CAHRA sourcing; investors are also beginning to focus on this issue, as evidenced by the IAHR 2025 publication on navigating portfolio exposure to CAHRAs¹⁴. Intensified geopolitical tensions in recent years continue to keep stakeholder attention on conflict-related risks throughout global supply chains.

Despite the increase in stakeholder attention and global tensions, conflict-related human rights due diligence processes are currently poorly understood by many market actors. This inhibits effective implementation of these processes and hinders corporate (and investor) risk management practices.

Figure 12: hHRDD is needed in a broader range of situations than armed conflict between two states



Source: UN Development Programme (UNDP), UNWG, Heightened Human Rights Due Diligence for Business in Conflict-Affected Contexts (2022)

What is heightened human rights due diligence (hHRDD)?

hHRDD combines traditional human rights due diligence processes with conflict analysis. It involves identifying, ceasing, preventing and mitigating involvement in human rights abuses in CAHRA, in addition to respecting international humanitarian law where applicable and international criminal law.

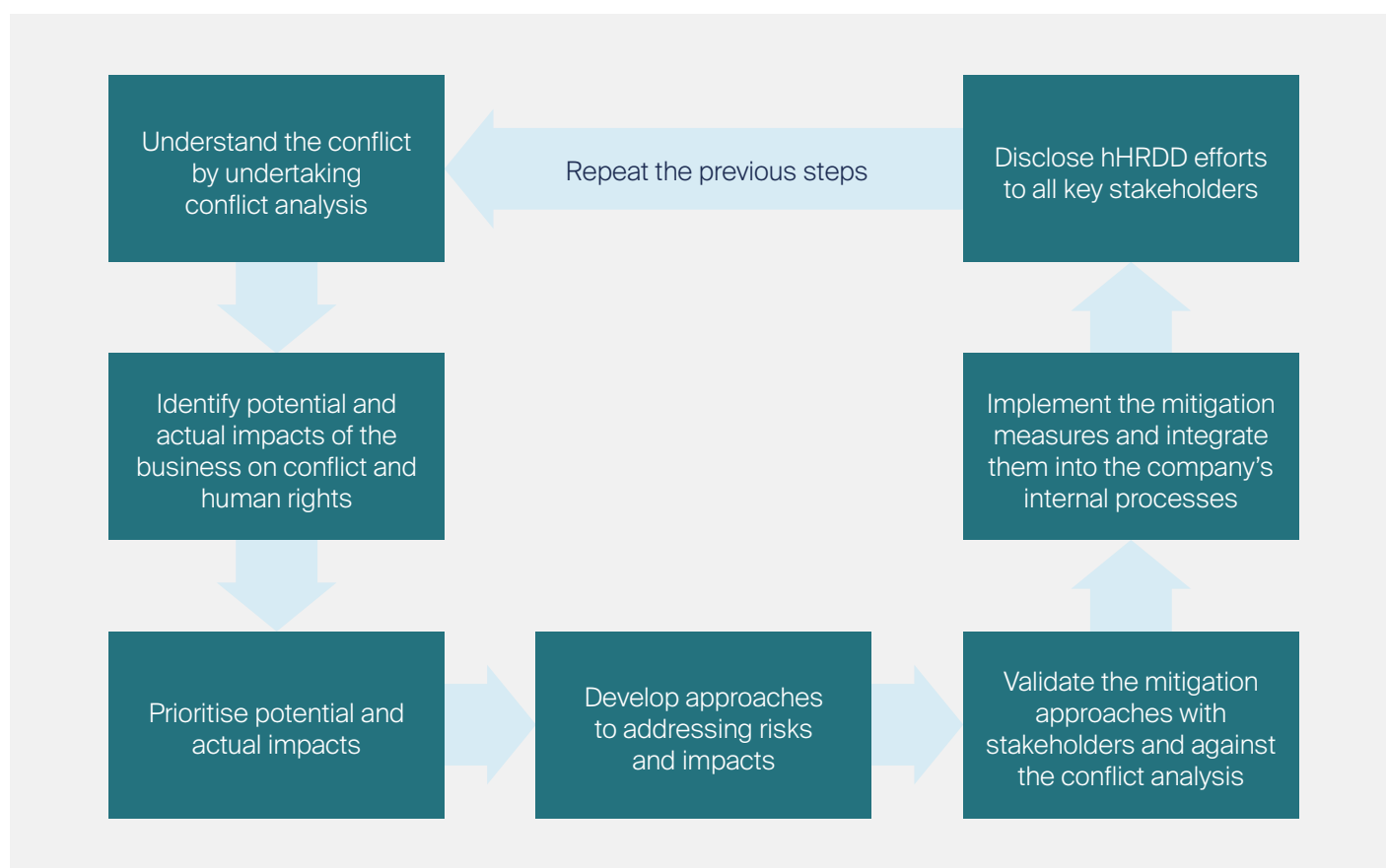
hHRDD process should consider the conflict context; motivation, roles, and relationships of the actors involved; and the ways in which a company's operations and relationships may contribute to both conflict and human rights. hHRDD should not be completely desk-based as conflict-related risks are highly context-specific.

hHRDD should be conducted:

- in contexts affected by armed conflict or other situations of widespread violence
- on an ongoing basis

[UN Development Programme \(UNDP\), UNWG, Heightened Human Rights Due Diligence for Business in Conflict-Affected Contexts \(2022\)](#)

Figure 13: Key elements of the hHRDD process



Source: SII, United Nations Development Programme, Training Facilitation Guide: Heightened Human Rights Due Diligence (2025)

Global regulatory approaches to responsible mineral sourcing and conflict risks in mineral supply chains

US: Dodd-Frank Conflict Minerals Rule still in application, but future is uncertain

In introducing Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (2010), the US government aimed to sever the link between conflict minerals and violent conflict in the DRC by preventing armed groups from benefiting from mineral trade. To that end, the Act required the Securities and Exchange Commission (SEC) to develop a disclosure rule for companies importing conflict minerals into the US, which was published in 2012 with the disclosure requirements applying from 2014.

The rule applies to 3TG minerals sourced from the DRC or neighbouring countries ("covered countries"). Companies using conflict minerals are required to trace the origins of the minerals, determine whether they originated in covered countries and publicly disclose the results. If the enquiry shows that the minerals did originate in covered countries, further due diligence and reporting requirements apply¹¹⁵. Currently, there is a degree of uncertainty regarding the status of the Conflict Minerals Rule: according to a US district court decision in 2017¹¹⁶, a requirement for companies to disclose whether their products have not been found to be DRC conflict free was invalidated. A subsequent SEC statement¹¹⁷ suggested it would not pursue enforcement if a company disclosed only its country-of-origin enquiry and whether any of its conflict minerals originate from a covered country.

At the same time, the rule has not been revised, and most companies continue to make disclosures in the prescribed form¹¹⁸. Recently, senior SEC officials have made public statements discussing the possibility of rolling back the Conflict Minerals Rule¹¹⁹ but no further action had been taken at the time of writing. Beyond the purely legal sphere, any non-compliance with US regulation continues to pose potential reputational risks even without active enforcement or litigation.

EU: establishing mandatory supplier due diligence

The Conflict Minerals Regulation is the cornerstone of the EU conflict minerals regime. Central elements of the OECD Guidance were incorporated into the regulation, requiring EU importers of 3TG (mineral ores and unprocessed metals; importers of parts and products are not covered) from CAHRAs to follow relevant due diligence processes. Implementation of the regulation and compliance checks were delegated to the national authorities of member states.

In the context of minerals critical to low-carbon technologies (such as cobalt, nickel, lithium and graphite), the EU Battery Regulation requires car and battery manufacturers to establish that their due diligence processes address social and environmental impacts along the supply chain (these rules are currently postponed and expected to come into force in August 2027¹²⁰).

Other EU initiatives promoting robust supplier due diligence and reporting across sectors include the Corporate Sustainability Reporting Directive (CSRD) and the Corporate Sustainability Due Diligence Directive (CSDDD).

Other jurisdictions: facilitating voluntary action

Several other jurisdictions have sought to address conflict minerals and responsible sourcing through voluntary initiatives and industry action that promote supply chain due diligence. In China, the Due Diligence Guidelines for Responsible Mineral Supply Chains expand on Clause 2.4.6 of the CCCMC Guidelines for Social Responsibility in Outbound Mining Investments by providing guidance to companies involved in mineral supply chains. These guidelines are aligned with the UNGPs and OECD Due Diligence Guidance¹²¹.

In Japan, the Electronics and Information Technology Industries Association (JEITA) formed the Responsible Minerals Trade Working Group to address responsible sourcing concerns and relevant international laws, including the Dodd-Frank Act¹²². Additionally, the Ministry of Economy, Trade and Industry (METI) published the Guidelines on Respecting Human Rights in Responsible Supply Chains in 2022¹²³.

Figure 14. Key global responsible mineral sourcing regulatory regimes and initiatives

Name	Jurisdiction	Minerals covered	Key requirements	Implementation
Dodd-Frank Act (Section 1502)	US	3TG	Companies are required to trace the origins of 3TG minerals to determine if they originated from the DRC or covered countries; if yes, companies must conduct further due diligence on the origins of minerals and publish a conflict minerals report.	While the Dodd-Frank Rule increased corporate transparency, its success in reducing mineral-related violent conflict in the DRC has been limited and potentially exacerbated conflicts in some cases.
OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas	Global	All minerals and supplemental guidance on 3TG	Companies should integrate a five-step framework for risk-based due diligence in the mineral supply chain from conflict-affected and high-risk areas, establish strong company management systems, identify and assess risk in the supply chain, design and implement a strategy to respond to identified risks, and report on supply chain due diligence.	The OECD Due Diligence Guidance is the cornerstone of the global responsible mineral sourcing regime. However, it is voluntary and therefore its effectiveness depends on the quality of corporate implementation. While uptake is considerable, implementation is impaired by the exclusive focus on 3TG minerals, supply chain opacity and limited application of heightened due diligence in CAHRA contexts.
EU Conflict Minerals Regulation	EU	3TG	EU importers of minerals from CAHRA are required to follow the five-step framework outlined in the OECD guidance. Due diligence requirements apply to upstream and downstream companies.	The effectiveness of the regulation appears limited due to its narrow scope (it only applies to raw materials), flawed national implementation and enforcement, and spotty compliance.
EU Batteries Regulation	EU	Cobalt, graphite, lithium and nickel	Companies are required to establish and implement due diligence processes related to the sourcing of raw materials critical for battery production. They are also required to identify, assess and mitigate risks linked to the extraction, trading or processing of materials from CAHRA, and conduct third-party audits to monitor and report on due diligence efforts.	Application of the due diligence provisions is postponed until August 2027 ¹²⁴ .
Chinese Due Diligence Guidelines for Responsible Mineral Supply Chains	China	All minerals	The guidelines aim to assist Chinese upstream and downstream companies to identify, prevent and mitigate their risk of contributing to conflicts, human rights abuses and risks of serious misconduct. To that end, the guidelines outline a five-step due diligence model.	The degree and quality of adoption are unclear due to a lack of available information.

Industry due diligence and certification schemes

Companies frequently participate in industry schemes established to facilitate compliance with regulatory and voluntary due diligence obligations. While these schemes are popular, generally the regulators (for example, see the EU Conflict

Minerals Regulation) highlight that while companies can use information provided by industry schemes in their due diligence processes, they bear ultimate responsibility for due diligence.

Similarly, most industry schemes also point out the responsibility of companies to conduct appropriate checks on the information they provide¹²⁵. Some of the most frequently adopted industry initiatives are discussed in more detail in the next chapter.

Figure 15. Examples of industry responsible sourcing schemes

Name	Materials covered
Responsible Minerals Initiative Responsible Minerals Assurance Process (RMI)	3TG
Initiative for Responsible Mining Assurance (IRMA)	All minerals and metals, excluding the energy sector
International Tin Association's International Tin Supply Chain Initiative	3T
London Bullion Market Association Responsible Gold Guidance, the Gold Bar Integrity programme	Gold
Responsible Jewellery Council (Chain-of-Custody Certification)	Gold, silver, platinum
International Council on Mining and Metals Performance Expectations	Broad range of materials
Aluminium Stewardship Initiative Performance Standard	Aluminium
International Copper Association, the Copper Mark	Copper

Limited success of the global responsible mineral sourcing initiatives in the ASM context of eastern DRC

There has been limited success in addressing armed interference with ASM mining in eastern DRC due to a combination of factors including flawed governance, misaligned incentives and corruption. As such, any positive impact of global responsible sourcing efforts on local sustainable development and conflict has also been insufficient. At present, many of these initiatives appear to be more adept at addressing consumer concerns rather than fostering better upstream mining practices.

There is evidence of a positive impact of responsible sourcing initiatives in reducing armed interference in mining areas in the DRC. Specifically, mines covered by responsible sourcing initiatives (such as iTSCI) experience lower armed interference¹²⁶. At the same time, it is uncertain whether there is direct causation between the introduction of responsible sourcing initiatives and increased security. The lack of armed interference at specific sites often predates the involvement of such initiatives. Furthermore, increased levels of formalisation and security have

not coincided with higher revenues for artisanal miners; overall, the socioeconomic situations of miners have worsened while local elites benefitted¹²⁷. IPIS data covering eastern DRC artisanal mines over the 2021-2023 period showed that approximately 65% of artisanal miners still experience interference from armed groups¹²⁸. Notably, the prevalence of child labour was not found to be significantly lower in mines covered by due diligence programmes¹²⁹.

The Dodd-Frank Wall Street Reform and Consumer Protection Act was introduced in 2010 to curb the ability of armed groups to fund their activities through mineral trade and promote peace and security in the DRC. By requiring companies to disclose the presence of conflict minerals in their products, legislators sought to facilitate responsible sourcing practices and minimise the use of mineral trade proceeds by armed groups. The effectiveness of this approach in reducing conflict minerals-related human rights harms in eastern DRC appears to be limited. A review published by the US Government Accountability Office in 2024 concluded that the conflict minerals disclosure rule has not reduced violence in the DRC and neighbouring countries and was, in fact, associated with increased conflicts around informal small-scale gold mines¹³⁰.

One study showed an increase in companies disclosing conflict-free certified smelters in their mandated disclosures; the study also highlighted an increase in companies directly or indirectly purchasing 3TG minerals from certified smelters after the section 1502 disclosure requirements took effect in 2014. Conflicts in 3T mining areas were also found to decrease after 2014, while conflict in gold mining areas increased. This points to armed groups shifting their focus towards gold as an easier-to-smuggle mineral¹³¹. Other studies evaluating the effects of Dodd-Frank in the DRC (focused on data between 2004 and 2012) found that in the short term, it increased the probability of civilian looting and violent conflict in gold mining territories¹³². Between 2013 and 2015, gold mining territories saw a 44% increase in incidents of conflict, 51% increase in looting and 28% increase in violence against civilians after the introduction of Dodd-Frank¹³³.

The 2024 EC Review of the Conflict Minerals Regulation analysed its effectiveness in mitigating significant human rights impacts in mineral supply chains. This analysis concluded that while the awareness and application of due diligence practices in the DRC has improved, this cannot be directly attributed to the regulation – local awareness of the regulation is low and direct export volumes of 3TG minerals from CAHRA areas to the EU are limited. In 2023, EUR18.3 billion of 3TG minerals were imported; however, only 4.83% of gold ores and concentrates, 0.04% of tantalum, 1.04% of tungsten and 1.46% of tin came from CAHRA¹³⁴.

Another evaluation of the Conflict Minerals Regulation reached similar conclusions with regards to its effects on supply chains or mineral-producing countries. As the regulation only applies to raw materials, its effect is bound to be limited as most products containing 3TG minerals in the EU are imported as manufactured goods. Other contributing factors included a lack of expertise and capacity of member state authorities responsible for implementation of the regulation and flawed importer compliance¹³⁵. In 2025, an NGO published an investigation that alleged flawed enforcement of the regulation, citing a 2023 incident in which tungsten ore imported by a European company was falsely tagged as coming from a validated mine in the DRC¹³⁶.

The effects of responsible sourcing initiatives in the DRC also differ depending on the mineral: 3T have been subject to a greater number of efforts that resulted in some progress (although issues including inaccurate tagging and contamination of supply chains persist), while **most artisanal gold (over 90% according to estimates) continues to be smuggled out from eastern DRC**¹³⁷.

Key industry initiatives such as ITSCI also face significant challenges, including inaccurate or fraudulent tagging, supply chain contamination¹³⁸ and allegations of laundering of unvalidated minerals¹³⁹.

Challenges undermining the effectiveness of responsible mining frameworks

Weak local governance

The DRC government's attempts to implement domestic and international ASM regulations are undermined by weak governance structures¹⁴⁰. Mining governance challenges facing the DRC are longstanding; one example is the presence of non-state actors (including armed groups, army officials and customs authorities) involved in mining governance that impact mine access, trade and taxation¹⁴¹. The informal mining sector in the DRC is highly organised, which complicates regulation and enforcement. Another factor is the limited means and technical capabilities of individuals tasked with implementing traceability schemes; sometimes there is also a breakdown of trust between these agents and local communities due to misconduct.

Limited local awareness of global responsible mining regulation

Notably, NGOs engaging with local rightsholders and stakeholders in the DRC (including civil society and mining authorities) observe a lack of awareness of recent EU responsible mineral sourcing regulations, including the Critical Raw Material (CRM) Act, Battery Regulation, and the CSDDD. This highlights the disconnect between EU regulators and local realities in the DRC¹⁴².

Lack of consultation with local stakeholders and rightsholders and resultant unintended consequences

Following the introduction of the Dodd-Frank Act in 2010 and heightened scrutiny on the link between mineral trade and conflict in the DRC, many companies stopped sourcing minerals from the region, negatively affecting the socioeconomic circumstances of approximately two million people. Between September 2010 and March 2011, ASM activities in eastern DRC were banned by the DRC government. Even after the ban was lifted, trade was still affected as two major electronics industry bodies announced they were stopping sourcing DRC conflict minerals. For local communities, the consequences included reduced trade and family income, a decrease in school attendance and increase in criminal activity¹⁴³.

This example highlights the potential negative consequences of linking a particular geography to increased due diligence and reporting requirements, especially in the context of ASM.

Higher due diligence costs, reputational concerns, and the difficulty that local ASM actors can have with fulfilling responsible sourcing requirements can lead to upstream companies turning away from the sector and/or region, negatively affecting the local communities¹⁴⁴.

The EU Conflict Minerals Regulation takes a more nuanced approach by focusing on countries in a state of conflict, providing a non-exhaustive list of conflict-affected and high-risk areas. However, there are concerns that the additional costs and complexity of heightened due diligence requirements provide an incentive for companies to disengage from sourcing minerals from affected areas¹⁴⁵.

Increased regulation of the ASM sector was found to have a negative effect on the socioeconomic circumstances of local miners. According to local rightsholders, responsible sourcing initiatives and local reforms have negatively affected mineral prices and expanded the number of stakeholders requiring contributions, reducing the revenues of miners and benefiting local elites¹⁴⁶.

An OECD study of due diligence costs in mineral supply chains also recognised that smaller upstream suppliers, especially in conflict-affected areas, face substantial financial constraints, including smaller margins and higher costs. At the same time, upstream actors perceive that due diligence activities do not increase the value of their products (the value of due diligence is not reflected in prices they receive; however, they recognise that due diligence provides better market access). In the case of gold, black market sources can sometimes attract higher prices than responsibly sourced gold (due to its convenience for illegal money transfers)¹⁴⁷.

Access to finance

Many artisanal miners lack access to funding needed to purchase new tools, protective equipment, pay administrative and certification fees. The informal nature of their activity exacerbates these issues as miners often lack the documents required to access traditional financial services (e.g. bank loans). As a result, artisanal miners are often forced to rely on illicit finance, which tends to be short term, have high interest payments and does not allow for the level of investment needed to create sustainable mining operations.

A financial access program for ASM operators conducted by PlanetGold across nine countries (Colombia, Ecuador, Peru, Indonesia, Burkina Faso, Guyana, Kenya, Mongolia and the Philippines) identified numerous barriers preventing the provision of financial services to artisanal miners¹⁴⁸:

- financial institutions lack ASM expertise, which complicates loan application reviews
- informality, lack of licences and permits
- lack of formal transaction records to evidence production and profitability

- ASGM operators are largely perceived as unreliable and a high default risk
- ASM operators are associated with a range of ESG risks, such as environmental compliance, AML and terrorist financing risks
- Lack of geological data.

At the same time, miners frequently do not have the financial literacy required for submitting credible financing applications, are hesitant to commit to a consistent repayment schedule due to the unpredictable nature of ASM, potential exposure to additional taxation or informal payments, and limitations experienced by women with regards to property ownership.

A significant expansion of public and private financing instruments as well as financial literacy initiatives and record-keeping support for miners would help facilitate investments in ASM and enable artisanal miners to access international markets¹⁴⁹.

Existing examples of financial mechanisms established through partnerships between PlanetGold and financial institutions in participating countries (such as leading national banks and microfinance institutions), include:

- Provision of a US\$66,000 loan guarantee to a Colombian financial institution enabled the institution to cover up to 30% of losses incurred from providing loans to miners; 49 loans totalling US\$307,229 were granted as a result.
- Development of specialised loan products for smaller mining organisations in Peru (not exceeding 100 metric tonnes of ore exploitation per month) resulted in the provision of 28 loans totalling US\$215,200; 25 of these were granted to artisanal miners, of which five were to women.
- Engaging with an Indonesian micro-credit agency to revise lending codes to enable lending to ASGM, resulting in 49 miners accessing US\$311,627 in microloans.

Other challenges and opportunities of ASM formalisation in the DRC

Critical analyses of global responsible sourcing efforts highlight that many local conflicts in the DRC are rooted in disputes around access to land and power, inequality between communities, flawed demobilisation and reintegration programs for ex-combatants and weak state governance. One example is the recent M23 uprising, where the key drivers of conflict include regional and ethnic tensions and access to land.

While it is unlikely that responsible sourcing initiatives could play a decisive role in reducing armed conflict, they can make a substantial contribution to sustainable development and peace. Such efforts could be more effective by considering local complexities, engaging with local stakeholders and incentivising them to take part in responsible sourcing¹⁵⁰.

In the context of violent conflict in the DRC, an example of the role that responsible ASM could play in contributing to sustainable development is the integration of the disarmament, demobilisation and reintegration (DDR) and community violence reduction (CVR) efforts. ASM is a key source of employment for ex-combatants, allowing them to re-enter civilian life; it also can play an important role in preventing the recruitment of vulnerable individuals by armed groups. Due diligence and industry responsible sourcing initiatives can potentially reinforce the effectiveness of DDR and CVR efforts in ASM through risk monitoring and mitigation measures coordinated with local authorities, rightsholders and civil society stakeholders¹⁵¹.

Policy measures to support successful formalisation also include legal frameworks addressing ASM activities, financial inclusion and environmental protections adapted to the local context, supported by rightsholders. Experience from jurisdictions including Tanzania and Ecuador shows that such measures are key to facilitating responsible and profitable ASM practices¹⁵².

Effects of formalisation and the responsible sourcing initiatives in the DRC – gender dimension

As noted in previous chapters, women comprise a substantial proportion of ASM workers and tend to be involved in hazardous manual labour activities, generally receiving lower pay compared to men. However, involvement in ASM can be a source of increased agency and income for women compared to other fields. In the context of ASM formalisation, there are concerns that many domestic and international formalisation and responsible sourcing initiatives do not consider gender equality and consideration issues in ASM, or the differing effects such initiatives have on men and women¹⁵³.

For example, the DRC Mining Code includes a prohibition for pregnant women to engage in mining activities but does not

address numerous challenges women in ASM face (limited access, low pay, lack of decision-making powers). Gender-specific issues are not covered by other key initiatives, including the ICGLR Regional Certification Mechanism or Dodd-Frank¹⁵⁴.

A study focusing on three artisanal mines in South Kivu covered by the ITSCI system highlighted the gender-specific unintended effects of responsible sourcing frameworks. Pay for women at these sites is insufficient to cover their basic needs. As a result, they are unable to purchase administrative documents required by the authorities, forcing them to circumvent regulatory systems to access sites during verification periods.

Furthermore, women were often unaware of the legal and policy reform initiatives or their importance. As women are pushed into informality, their vulnerability to gender-based violence significantly increases. They are also unable to sell minerals through official trading houses, instead having to enter unfavourable transactions and receive reduced income. At the same time, due diligence and certification initiatives covering the mines had a positive impact on site security, illegal taxation and human rights violations, including sexual violence¹⁵⁵.

Some regulatory initiatives are beginning to integrate gender considerations. The EU Conflict Minerals Regulation highlights the importance of considering the impact of violence on women in conflict-affected areas in its preamble. Nevertheless, greater attention on inclusion and empowerment of women in ASM would be beneficial in addressing gender-specific harms more effectively. Some of the ways to achieve this could include strengthening gender-specific due diligence practices and facilitating gender-disaggregated data collection in mining regions, which could then be used to develop evidence-based interventions¹⁵⁶.

Mining 2030 proposes International Minerals Agency, an autonomous intergovernmental body, to promote responsible mining practices in global supply chains

In 2025, the Global Investor Commission on Mining 2030 (a collaborative initiative supported by investors with US\$18 trillion AUM aiming to promote responsible mining and define the role of finance in achieving this goal) published a [10 Year Vision and Recommendations](#), which include the establishment of an independent International Minerals Agency (IMA). The IMA's mandate could include, among other functions, monitoring corporate mineral supply chain policies, tracking implementation, monitoring illicit mineral flows into global supply chains and assisting in developing mineral governance legislation.

Chapter 4. Company risks, challenges and good practice: Why should companies prioritise responsible mineral sourcing and address conflict and human rights-related risks in their mineral supply chains?

How can mineral sourcing practices affect corporate value? Legal, reputational and regulatory risks

Businesses and investors face a range of legal, regulatory, financial and reputational pressures to address human rights-related risks linked to minerals. These pressures stem from a body of existing international norms and domestic legislation that have been developed to address conflict minerals risks and promote human rights due diligence, as well the weight of stakeholder expectations (stakeholders in this case can include consumers, civil society and investors). Failing to meet these norms and expectations can potentially have a substantial negative effect on corporate value, either through legal costs, fines or sanctions imposed by public authorities, a decline in consumer trust and brand value due to reputational damage following public controversies, decrease in capital availability due to investor exclusions or divestment, and expenditures linked to remediation measures following an incident. On the other hand, a comprehensive approach to responsible mineral sourcing can contribute to positive operational and reputational impacts and promote corporate value by building investor and consumer trust.

This section will provide a short overview of the international norms and regulation applicable (key frameworks were addressed in greater detail in the previous chapter) and highlight examples of legal or regulatory consequences, or public controversies linked to mineral sourcing impacting corporates.

International norms

The United Nations Guiding Principles on Business & Human Rights (UNGPs) require companies to conduct ongoing human rights due diligence to identify, prevent and mitigate negative human rights impacts¹⁵⁷. Business due diligence responsibilities are further established in the OECD Due Diligence Guidance for Responsible Business Conduct¹⁵⁸ and the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas (CAHRAs)¹⁵⁹.

Companies linked to CAHRAs through their business activities are at a higher risk of involvement in human rights harms and are therefore required by the UNGP and OECD rules to conduct heightened human rights due diligence to identify, prevent and mitigate involvement in human rights abuses in CAHRA and align with international humanitarian law. (See more on the definition of due diligence, heightened human rights due diligence and the OECD five-step due diligence framework in Chapter 3).

Regulatory obligations

Companies in many jurisdictions including the US (Dodd-Frank Act) and EU countries (the Conflict Minerals Regulation, EU Battery Regulation, CSRD, CSDDD; French Duty of Vigilance law; Norwegian Transparency Act) operate under mandatory disclosure and due diligence requirements. Other countries including China and Japan integrate these requirements through voluntary regimes (relevant legislation and voluntary frameworks are covered in more detail in the previous chapter).

Impact mechanisms – how do mineral sourcing-related risks impact the bottom line?

For businesses, failure to adhere to relevant norms and regulations in the context of mineral sourcing could result in being linked to or contributing to human rights harms. This can give rise to legal challenges, public controversies, reduced access to capital, breakdown of stakeholder relationships and financial loss.

Notably for investors, breaches of norms (including voluntary frameworks) and regulatory obligations are often highlighted by civil society and activist NGOs rather than governmental or multilateral agencies. NGOs (and sometimes investigative journalists) will often initiate investigations into these breaches. Whistleblowers or those that have attempted to use grievance mechanisms but failed will often be those whose testimony contributes to the seriousness of allegations (underscoring the importance of robust grievance mechanism implementation for businesses).

Figure 16: Corporate mineral sourcing activities – financial impact pathways

Legal proceedings	In December 2024, the DRC government filed a criminal complaint against the subsidiaries of a multinational electronics company in France and Belgium, alleging the presence of conflict minerals in their supply chain¹⁶⁰. In France, the prosecution office chose not to proceed with this complaint, closing the case in February 2025¹⁶¹. In Belgium, a criminal investigation was initiated in January 2025; the company strongly disputes the allegations¹⁶². Families of two artisanal miners killed in 2019 by security forces at a gold mine in Tanzania brought a claim against a London-based bullion trade body, alleging that gold sourced from that mine was wrongly certified as being free from serious human rights abuses through its responsible sourcing programme. A trial is scheduled to begin in summer 2026 at the UK's High Court¹⁶³.
Sanctions	In August 2025, the US Treasury Department imposed sanctions on several entities linked to armed group violence and critical minerals trade in the DRC, which included companies in the DRC and China engaged in trading conflict-linked minerals. A Congolese mining company operating in Rubaya was found to be selling minerals sourced and smuggled from areas controlled by an armed group active in eastern DRC; two Hong-Kong based trading companies buying these minerals also became subject to sanctions. Sanction implications involve property and asset freezes and a prohibition of transactions involving any property or interests in property of the sanctioned entities¹⁶⁴.
OECD National Contact Point (NCP) complaints¹⁶⁵	In 2022, a complaint against a multinational automotive company was filed in the Netherlands by a group of NGOs and a newspaper concerning the lack of transparent supply chain disclosure and traceability of cobalt and other minerals sourced from the DRC. The complaint was accepted in 2023 and remains under review¹⁶⁶. One NGO complaint filed in 2007 alleged that a UK mineral trading company made tax payments to an armed group in the DRC for the process of trading coltan and cassiterite (tin ore) and sourcing cassiterite from mines linked to child and forced labour. In 2008, the UK NCP concluded that the company breached the OECD Guidelines and provided recommendations. When asked for an update on implementing the NCP recommendations in 2009, the company stated that it ceased mineral trading¹⁶⁷.
Negative publicity and scrutiny following NGO investigations and reports	An NGO investigation published in 2025 indicated that a European commodities trading company was buying conflict-linked coltan smuggled from the DRC to Rwanda. The outcome of the investigation suggested that the coltan bought by the trading company was sourced from Rubaya mines used by the M23 group as a source of funding¹⁶⁸. Supply chains of several multinational consumer electronics and automotive companies were alleged to involve gold illegally extracted from indigenous territories in Brazil. A 2022 report published by Amazon Watch suggested that gold supply for these companies came from two refineries under investigation by Brazilian authorities due to links to illegal extraction and environmental damage¹⁶⁹.
Investor exclusion or divestment linked to mineral sourcing issues	In 2024, a major European shareholder investigated a UK-listed mining company following the discovery of its past involvement in the DRC mining industry and possibly links to child labour¹⁷⁰. The shareholder proceeded to divest its holdings due to the conflict between these findings and its sustainable investment policy¹⁷¹.

Response measures (including supply chain reorganisation) following identification of human rights harms

Several large consumer electronics companies had to review their gold supply chains due to allegations of environmental damage and violence at a Tanzania gold mine. According to journalist investigations published in 2019, a supplier sourcing gold from this mine was linked to many companies in the tech sector and held a certification from a major gold trade association¹⁷².

In 2010, a major American electronics company faced significant stakeholder criticism due to its approach to conflict minerals sourcing, leading to negative media coverage and consumer protests. Measures adopted by the company in response included increased supply chain transparency, participation in a multi-stakeholder body focusing on conflict minerals trade, and the introduction of stringent responsible sourcing requirements within its supply chain¹⁷³. Another American electronics firm undertook a significant mineral supply process reorganisation and traceability exercise to offer the first conflict-free microprocessors on the market¹⁷⁴.

Proactive behaviour in addressing mineral sourcing related risks leading to positive brand image

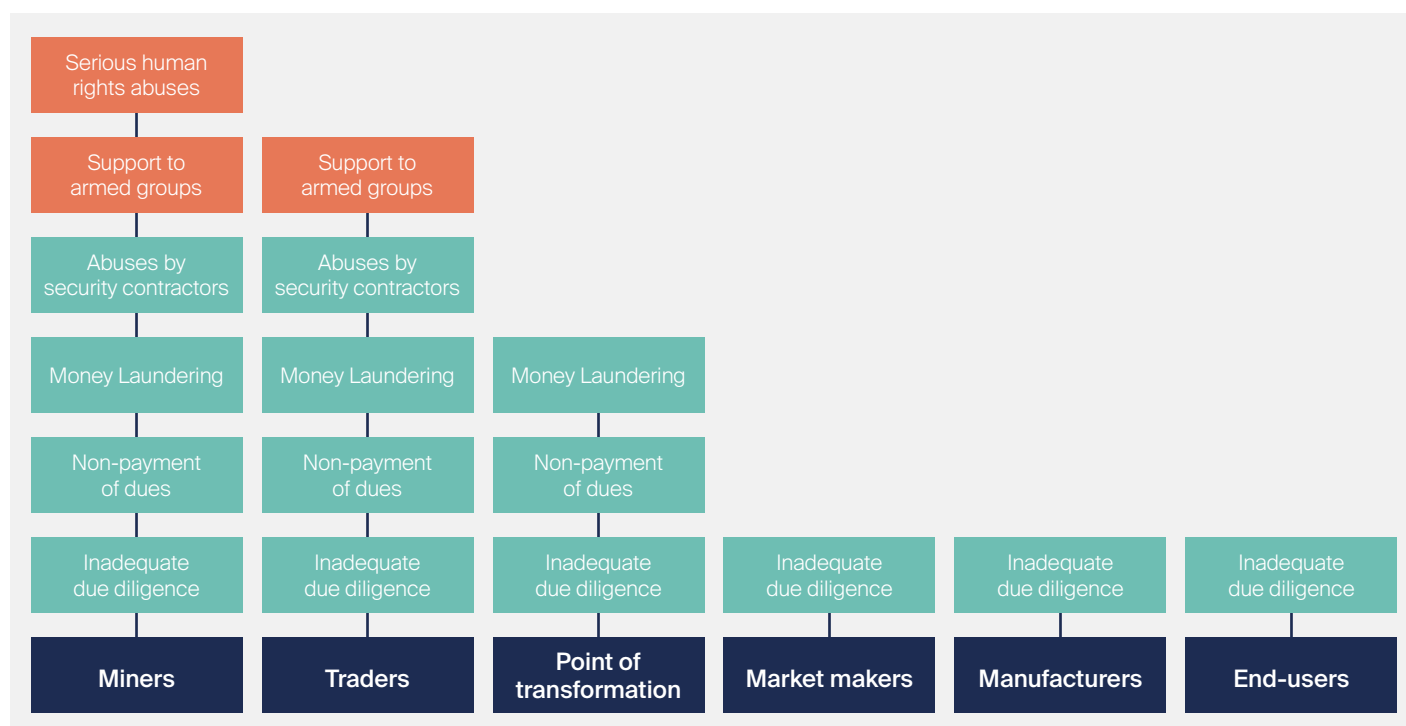
An American luxury jewellery company has been at the forefront of ethical gold sourcing efforts since the early 2000s, taking proactive measures to secure responsible supply chains, including through close collaboration with NGOs, publicly opposing controversial mining projects and founding a multi-stakeholder mining standards body. These efforts contributed to creating a positive company image associated with a strong responsible sourcing approach¹⁷⁵.

Challenges facing companies in implementing responsible mineral sourcing and due diligence

Supply chain traceability

Tracing the origins of minerals is a substantial challenge to downstream companies. Minerals can be smuggled across territories or borders to obscure their source, and local oversight structures are not always reliable, as evidenced by the documented instances of illegal tagging in the DRC. Armed conflict and the involvement of armed groups in certain areas further complicates efforts to establish mineral origins.

Figure 17: Risks associated with different stages of mineral supply chains



Source: [OECD, Due Diligence Guidance for Responsible Mineral Supply Chains](#)

Opacity at the midstream stage

Smelters and/or refineries (SoR)

Complex multi-level supply chains increase the difficulty of establishing traceability. As many companies do not purchase raw materials but rather the products containing them, the transformation point (smelters and refiners) within supply chains becomes critical for establishing the origin of minerals (smelters and refiners process minerals, transforming them into metals that can be purchased and used by downstream customers). Frequently, however, SoR transparency is limited, and information on the country of origin and the mines is not available¹⁷⁶.

A 2023 SWISSAID report suggested that most gold refineries are not transparent in their sourcing practices. According to the report, gold sourced in Africa is refined mainly in Switzerland, South Africa and India; four out of the nine largest gold refineries are in Switzerland. SWISSAID highlighted disparities in mining companies and refineries' approach to transparency: some mining companies systematically disclose the refineries they use, while others only disclose this information on an ad-hoc basis, on request or not at all. The majority (10 of 16) refineries contacted refused to name the mines where gold is sourced¹⁷⁷.

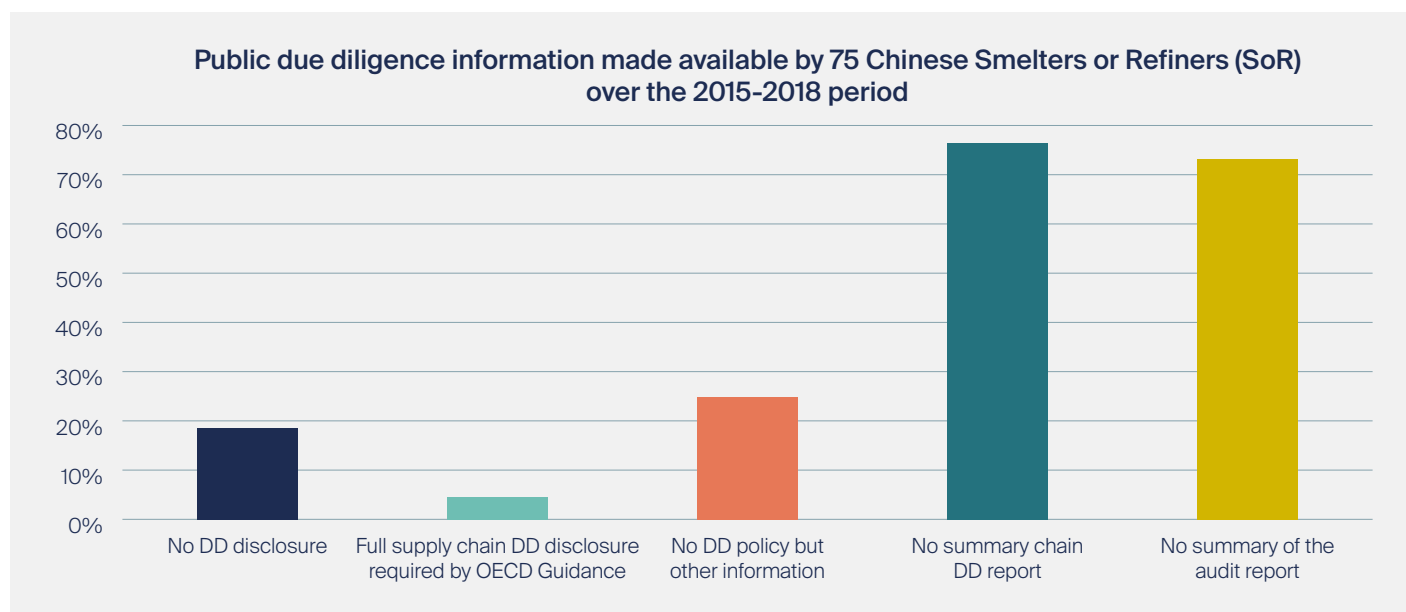
In September 2023, member companies of the World Gold Council (gold mining industry body) committed to disclosing the names and locations of their refineries at least annually¹⁷⁸. Historically, Switzerland placed limited supply chain due diligence requirements on companies. However, in 2022, Switzerland introduced due diligence and reporting obligations linked to minerals and metals from conflict-affected areas and child labour, which apply to companies importing or processing 3TG materials¹⁷⁹.

This positive development is in contrast to the 2022 Swiss Federal Administrative Court's decision in favour of four large gold refineries, arguing that trade relations, including information on the country of export, are subject to commercial secrecy and cannot be revealed under the freedom of information principles. An NGO appeal against this verdict was rejected by the Federal Supreme Court in 2023¹⁸⁰. Recent steps towards greater transparency can be seen through the government's announcement on the introduction of a corporate due diligence law aligned with the EU CSDDD; a legislative proposal was published in April 2026¹⁸¹.

China is the key location for 3T processing, meaning SoR located there have an important role to play in establishing mineral origins. According to statements provided by the relevant authorities of EU member states, EU importers of 3T minerals most often cite China as a country of origin, but it is unclear whether the minerals have been mined or only processed there¹⁸². As mentioned in the previous chapter, China introduced voluntary Due Diligence Guidelines for Responsible Mineral Supply Chains in 2015, which apply to Chinese companies across mineral supply chains. However, the level of adoption of these guidelines is currently unclear.

A 2021 study by Global Witness analysed reporting of 75 Chinese 3TG smelters and refiners between 2015 and 2018. It found that 76% did not publish a supply chain due diligence report, while 19% did not publish any due diligence information and none met the OECD's requirements for mineral supply chain due diligence. Notably, all reviewed entities participated in at least one industry responsible sourcing programmes (such as RMI RMAP, LBMA Responsible Gold Guidance, ITSCI and others)¹⁸³.

Figure 18: Global Witness study of publicly available supply chain due diligence disclosure by Chinese metal processors



Source: Global Witness, Digging for disclosure: A review of publicly available supply chain due diligence information by Chinese metals processing companies, March 2021

Commodity traders and exchanges

Commodity traders play a vital role in linking different parts of the mineral supply chains, buying, selling and transporting ores and secondary materials and connecting market actors between different geographies and supply chain levels. Some large trading firms are also involved in the extraction, refining and shipping of materials¹⁸⁴. Commodity exchanges allow market participants to buy and sell physical commodities or derivative contracts linked to their price (e.g. London Metal Exchange). The largest global metal trading hubs include Switzerland (60% of global market share for metals¹⁸⁵), the UK¹⁸⁶, Singapore and UAE¹⁸⁷.

These mineral supply chain links are integral to establishing transparency. Some metal trading centres have weaker due diligence requirements and voluntary standards are being implemented at a slow pace. As a result, traceability is inconsistent, with some commodity traders disclosing information on refineries but not mines¹⁸⁸. Supply chain transparency is further complicated in situations where multiple traders of different size and influence are involved between the source and end buyer.

At the same time, global commodity exchanges are increasingly integrating responsible sourcing considerations into their policies and requirements to establish trading eligibility. Prominent examples include LME mandating all registered brands to implement the OECD Due Diligence Guidance¹⁸⁹, London Bullion Market Association (LBMA) Responsible Sourcing Programme¹⁹⁰ and the New York Mercantile Exchange (NYMEX) and Commodity Exchange (COMEX) responsible sourcing requirements for platinum, palladium and silver¹⁹¹.

Industry due diligence, certification and audit schemes

Third-party audit and certification services provided by industry schemes and associations play a central role in due diligence and responsible sourcing frameworks for downstream companies.

One of the most prominent industry organisations is the **Responsible Minerals Initiative (RMI)**, founded in 2008. RMI conducts the Responsible Minerals Assurance Process, offering companies an independent third-party assessment of their supply chain, and provides them with the Conflict Minerals Reporting Template, streamlining responsible sourcing disclosure¹⁹².

The **Initiative for Responsible Mining Assurance (IRMA)** is another prominent multi-stakeholder initiative, which offers a third-party standard and audit of mining operations, providing transparency around responsible mining practices¹⁹³. It offers a best practice standard for industrial mining, covering all minerals and metals (except for energy fuels), developed through a multi-stakeholder process involving the private sector, NGOs, civil society and local communities. IRMA also provides third-party assessments of mine sites, which involve on-the-ground audits with affected rightsholders, allowing for independent verification and public reporting of the outcomes¹⁹⁴.

The **International Tin Supply Chain Initiative (ITSCI)** is one of the most well-known industry due diligence schemes. Piloted in the eastern DRC in 2010, it subsequently expanded across Central Africa by 2017. Currently, ITSCI covers 3T mineral supply chains in Burundi, DRC, Rwanda, and Uganda¹⁹⁵. ITSCI establishes mineral traceability and helps companies meet global responsible sourcing rules by labelling minerals at mine sites and implementing monitoring and risk management measures. Since it has been operating, ITSCI has faced several challenges linked to inaccurate tagging practices, smuggling and supply chain contamination¹⁹⁶. In July 2024, the Responsible Minerals Initiative paused recognition of ITSCI as a due diligence scheme due to uncertainties related to conflict escalation and its impact on mineral trade in the DRC and Rwanda¹⁹⁷.

The [Fairmined Standard](#) and certification system, as well as the [CRAFT Code](#) (aligned with the OECD Due Diligence Guidance and recognised by the RMI¹⁹⁸) and associated Upstream Assurance Mechanism scheme, were developed by the Alliance for Responsible Mining (ARM) with an aim to drive responsible transformation of the ASM sector. These standards assist artisan miners in accessing responsible markets, mitigate the risks of mining in conflict-affected or high-risk areas, and promotes sustainable development of local economies¹⁹⁹.

Better Mining is an OECD-aligned and RMI-recognised upstream mechanism implemented by the RCS Global Group²⁰⁰. Better Mining focuses on advancing responsible sourcing and improving conditions in the ASM sector by addressing environmental and social risks through monitoring and digital traceability. According to the initiative's 2023 Impact Report, its digital traceability solution supports validated exports from the DRC and Rwanda to international markets, ensuring greater transparency regarding the origins and chain of custody across minerals, including 3TGs, mica, cobalt and copper. This work is primarily funded by the downstream sector (47%), and ASM miners are free of charges associated with due diligence and mine site improvements²⁰¹.

While these schemes play a crucial role in facilitating responsible mineral sourcing practices and enabling due diligence, the high reliance on their certifications demonstrated by some market participants can be problematic. A 2024 report by the UN Group of Experts on the DRC highlight that most market actors rely on ITSCI to meet their due diligence obligations and do not conduct independent quality controls²⁰². A review of practices of EU mineral importers noted that the relevant authorities receive a limited number of third-party audit reports, and the ones available usually do not meet the regulatory standards. Additionally, importers do not often provide sufficient information on their own sourcing practices²⁰³. This tendency to completely rely on suppliers' conformance with industry initiatives and certifications is problematic considering the numerous public controversies involving the most prominent schemes (some are highlighted in the legal proceedings and controversies section above)²⁰⁴.

Another common aspect of companies' integration of responsible mineral sourcing is their reliance on software tools. When collecting data for the purposes of conflict minerals due diligence and reporting, companies often employ automated software services to aid data collection, validation, supply chain mapping, risk assessments and report generation. While these tools are useful, an excessive focus on automated processes can lead to a limited, compliance-based approach to due diligence that fails to capture the full spectrum of risks linked to conflict minerals.

These concerns are especially pertinent in relation to CAHRAs, where risks can be highly contextual, complex, fast-changing and therefore difficult to capture via an automated process (exacerbated by the lack of transparency and quality of available data). Considering these limitations, software due diligence solutions should be viewed as enabling tools that are best used in conjunction with other measures, including direct engagement with local stakeholders and rightsholders, allowing for a more complete understanding of risks and effective mitigation responses.

While this can be challenging for downstream companies (since they are far removed from the countries of origin, have limited understanding of local context and can face conflict-related risks depending on the jurisdiction), this can be addressed through collaboration with civil society bodies or NGOs who operate in the relevant geography and offer supplier audit and community engagement facilitation services.

Purpose of traceability – who is this all for?

Supply chain transparency and traceability is a necessary prerequisite for responsible mineral sourcing. However, traceability by itself is not sufficient to address adverse human rights impacts.

A report by OECD and IEA on the role of traceability in mineral supply chains highlighted that traceability should support clear objectives. For example, transparent mineral supply chain data can enable companies and consumers to make more informed decisions and support policies and regulations that push companies towards sustainable practices. It can also feed into a comprehensive due diligence process in line with the OECD and other international and domestic norms and regulations, thus allowing companies to identify and address adverse human rights impacts²⁰⁵. To facilitate this, companies need to dedicate sufficient resources towards due diligence and avoid approaching traceability as a compliance exercise.

In the context of 3TG sourcing, many downstream companies have been focusing on establishing supply chain transparency to show that they do not source their minerals from conflict-affected geographies. Although this approach can alleviate consumer concerns, it does little to improve the lives of ASM communities²⁰⁶.

Furthermore, traceability schemes have not always had a positive impact on ASM miners and local communities in the DRC, instead imposing heavy administrative and financial burdens (see chapter 3 for more detailed insight). This suggests there is a need for a more thoughtful approach to systemic issues present in mineral supply chains, including greater consideration of the impacts on local rightsholders.

Supply chain traceability and transparency continue to present challenges for companies seeking to follow responsible mineral sourcing regimes. The 2025 KnowTheChain review of the ICT sector and its supply chains showed that 27% of companies do not disclose their first-tier and below-first-tier suppliers and sourcing countries of high-risk raw materials. Only 9% disclosed a full list of their first-tier suppliers. While the majority of companies (73%) publish a conflict minerals report, the contents are limited to smelters or refiners and the sourcing countries of 3TG minerals, as mandated by Dodd-Frank. This suggests companies tend to approach responsible mineral sourcing primarily as a compliance exercise. Furthermore, companies were reliant on supplier self-reporting through the RMI Conflict Minerals Reporting Template²⁰⁷.

Human rights & conflict-related due diligence

When companies are exposed to risks of being linked to an ongoing conflict, the UNGPs set an expectation to go beyond regular human rights due diligence frameworks and conduct heightened human rights due diligence (see Chapter 3 for more detail). CAHRA-related risks are one of the most material concerns for companies seeking to establish responsible mineral supply chains. In addition to the high risks associated with 3TG minerals, copper, nickel, lithium, cobalt and gold sourcing are highly exposed to CAHRAs²⁰⁸. Meanwhile, increasing incidences of conflicts globally and the growing stakeholder (and regulatory) focus on managing conflict risk reinforces the importance of addressing conflict and CAHRA-related risks. However, many companies find implementing these requirements challenging.

Louis Marechal,
Senior Advisor, Minerals and Extractives, OECD

One of the challenges is that sometimes the OECD Guidance is instrumentalised to withdraw from CAHRA areas instead of engaging responsibly; beyond reputational issues, companies are concerned as to whether mitigating the risk is worth the investment required. Investor efforts such as Mining 2030 can help in addressing this issue.

An unexpected recent development is that for some companies, government pressure to secure critical mineral supply chains is helping them feel more comfortable engaging with higher-risk jurisdictions.

OECD research on the costs and benefits of due diligence cited commercial and non-commercial factors, including improvements in brand image (externally and within the workforce), improvements in hiring and retention, reduced reputational, legal and operational risks, and consequent lower cost of capital, improved shareholder returns and lower share price volatility. In addition, research participants mentioned improved market access, higher sales volumes and a sustainability price premium²¹¹. Due diligence can also strengthen supplier relationships and improve companies' investor relations as many investors integrate sustainability considerations into their investment decisions and engagements²¹².

An ICT sector survey conducted by the Business and Human Rights Resource Centre in 2025 indicated that many companies lack a comprehensive approach to identify, prevent and address negative human rights impacts linked to their business activities. When asked about their approach to the supply chain risks of tantalum sourcing in light of the recent conflict in eastern DRC, only 12% provided a full response; no respondents had an individual public statement on the ongoing conflict or reported actions to promote respect for human rights, peace and democracy in the DRC. While all respondents highlighted that they have policies to assess risks linked to mineral sourcing from CAHRAs, there is limited evidence of heightened human rights due diligence in light of the recent conflict²⁰⁹. A review of the effects of the EU Conflict Minerals Regulation also notes a lack of evidence that companies are applying heightened due diligence in CAHRA or ASM contexts²¹⁰.

Despite these potential benefits, corporate behaviour suggests that for many downstream actors, sourcing minerals outside ASM and CAHRA continues to represent a cheaper, low-risk alternative (this might be difficult to achieve for multinational companies with global value chains, especially in light of intensifying geopolitical tensions)²¹³. Several stakeholder interviews suggested that one of the reasons behind low levels of adoption of heightened due diligence processes is an overall lack of understanding of this concept and its differences from the broad human rights due diligence requirements (which most companies have already integrated).

Josie Lianna Kaye,
Chief Executive Officer & Founder, TrustWorks Global

Would you expect corporates to engage with governments/local authorities to promote peace in conflict situations?

In general, we would expect corporates to be well aware of the contexts in which they operate, and mindful of the direct and indirect influence they have on governments, local authorities and other stakeholders, particularly any role they may have in contributing to the drivers of conflict or peace. In terms of direct engagement, this is highly context-dependent: in some cases, direct corporate engagement or public statements may help create the conditions for peace; in others, it may be too risky or exacerbate the problem.

How would you expect companies to address conflict-related risks?

It depends on the conflict and business in question, but comprehensive “enhanced” due diligence, robust escalation procedures, careful analysis of their role in potential escalation of the conflict and the peace process, a responsible approach to site security, and deep local community engagement are some of the essential steps that should be taken.

What do you see as the key challenges facing multinational companies aiming to address CAHRA-related risks within their supply chains?

There are a few clear challenges:

- Awareness and understanding: we prefer the term ‘conflict-specific due diligence’ because ‘heightened’ human rights due diligence has created an impression that they need to do more human rights due diligence rather than a different form of due diligence which looks at i) a heightened risk of human rights abuses; ii) the risk of involvement in violations of international humanitarian law (IHL); and iii) the risk of causing, exacerbating or sustaining conflict.
- Balancing resource while addressing ongoing regulatory burden: many companies are busy preparing for mandatory legislation (such as Forced labour, CSDDD, EU Deforestation Regulation) and CAHRAs within this landscape is not well-understood. Despite adopting markedly different prioritisation logics, risk prioritisation criteria across key EU sustainability regulations – including the CS3D, CSRD, and Conflict Minerals Regulation – converge on the same point: CAHRAs are a priority for upstream and downstream due diligence. The practical implication is that CAHRA exposure is no longer a question that sits with one team – it demands a cross-functional and highly tailored response that connects sustainability, legal, compliance, security, public affairs and responsible sourcing, amongst others.
- Assessment is the beginning rather than the end of the process: companies can become overly focused on the assessment itself. Effective implementation of the recommendations is essential and doing this meaningfully is helped by a corporate structure that has sufficient understanding of conflict risks i.e. with an appropriate governance structure, policies and senior leadership understanding. Otherwise, there is a risk that the report sits on a shelf and collects dust.
- Consistent and proactive approach to conflict risk: Investors tend to take a controversies-based approach to managing exposure to conflict risk in their portfolios, which leads companies to often do the same vis-à-vis their business activities. A more systematic, comprehensive and data-informed approach is required to understand both investor and company exposure to conflict risk, which then provides an objective basis for prioritising where and how to undertake conflict-specific due diligence.
- Sector matters less than geography where business activities take place. Conflict risks are not only relevant to minerals and mining – any business activities in any sector or industry can cause, exacerbate or sustain conflict.

What can the corporates do to minimise human rights-related and conflict risks while continuing responsible engagement with CAHRA stakeholders and rightsholders?

Companies need to ensure their approach is entirely tailored to the context. First and foremost, this is a conflict-specific due diligence assessment because the actors and the factor driving conflict can change, not only from one country to another, but from one sub-region and even one community to another. What matters therefore is company-specific geographical presence. From this starting point, companies can then develop tailored, stakeholder-informed mitigation measures that are context-specific.

Responsible mineral sourcing: current corporate performance and best practice

NGO and industry sources indicate that current practice in corporate application of responsible mineral sourcing principles has considerable room for improvement. A study on implementation of the EU Conflict Minerals Regulation suggested that many EU 3TG importers have not sufficiently complied with its requirements and failed to establish adequate traceability systems or provide relevant disclosures²¹⁴. Companies complying with the Dodd-Frank Act conflict minerals disclosure requirements in 2023 have also struggled with establishing traceability – 62% were unable to determine the source²¹⁵.

An MSCI 2022 research report based on the practices of MSCI ACWI index showed that while a large proportion of companies adopted a conflict minerals policy, the overall use of RMAP certification (an independent assessment process confirming the conformance of smelters and refiners with responsible sourcing practices) was low and most companies have not disclosed the proportion of RMAP-certified smelters or refiners in their supply chain. The strongest performance was shown by technology, hardware, storage and peripherals companies, 43% of which disclosed that over 60% of their suppliers were RMAP-certified²¹⁶. According to S&P analysis published in 2025, less than half of companies that identify conflict minerals risks are implementing measures to mitigate or remediate these risks; sectors leading in establishing risk identification processes (hardware & equipment, automobile) had a particularly large gap between disclosing on risk identification and risk management measures²¹⁷.

As mentioned previously, the electronics sector is one of the key drivers of mineral demand and is therefore particularly affected by the relevant risks, making corporate due diligence and traceability practices in this sector especially important. The 2025 KnowTheChain ICT benchmark report outcomes showed that traceability and supply chain transparency remain a challenge for the sector, as 27% of reviewed companies were rated zero in this category. Only 27% disclosed partial first tier supplier lists and 9% disclosed first tier suppliers with names and addresses²¹⁸.

While the majority of corporates published a conflict minerals report, including identifying information on smelters or refiners, these disclosures were limited to 3TG minerals as mandated by the Dodd-Frank Act. Additionally, these reports relied on information provided by suppliers through the CMRT, demonstrating the continued practice of outsourcing due diligence and traceability efforts. Some companies demonstrated substantial progress in implementing due diligence and responsible sourcing practices, such as:

- Disclosure of first-tier suppliers, accounting for 80% of spending
- Going beyond disclosure of smelters and refiners for 3TG by broadening the scope to mica, cobalt, nickel, lithium, copper, aluminium and silver
- Taking steps to identify suppliers beyond the first tier by tracing parts or components

Looking at the renewables sector, the 2025 Renewable Energy and Human Rights Benchmark showed a broadly positive dynamic, with most reviewed companies improving their scores on embedding human rights due diligence into operations and supply chains from the 2023 assessment. However, further improvements are needed to align with international standards on policy commitments, mapping and identifying suppliers and establishing traceability²¹⁹.

Further insights on corporate approaches to CAHRA-related risks can be drawn from the 2025 report, showcasing leading practices from tech and renewables companies in implementing human rights due diligence in a CAHRA context²²⁰. Examples of good practices identified in the report included:

- Systematic disclosure of human rights and conflict-related risks: Relevant human rights risks identified in one company's disclosure included CAHRA-related risks and their potential impacts on key stakeholder groups throughout the value chain: the company prioritised risks based on rightsholder saliency, materiality and its ability to address the risks.
- Policies: While no companies had a standalone policy of their hHRDD process to address CAHRA risks, several companies included hHRDD elements as part of their existing risk management processes, including human rights impact assessments, supply chain due diligence, conflict mineral policies, procurement practices and regulatory compliance.
- Human rights risk and impacts assessments: As part of their saliency assessments, companies analysed how conflict can impact human rights harms linked to their business models; one company committed to conducting human rights assessments every three years to ensure an up-to-date view.
- Collaborative and cross-functional approach to CAHRA risk management: One company demonstrated a collaborative approach involving its board ethics committee, containing senior leadership from legal, compliance, finance and people areas to provide oversight. In addition, compliance and corporate social responsibility departments will respond to salient human rights risks on an operational level in collaboration with stakeholders, including the sustainability department, regional legal teams, sales and construction teams and sustainable procurement.

Assheton Stewart Carter,
Executive Chair, TDi Sustainability

Third party industry certifications form a significant part of the mineral supply chain due diligence process for many companies. Are they sufficient to address human rights and conflict risks companies face?

Downstream companies tend to recognise that they can't rely on these schemes fully since they have considerable limitations. First, companies need to understand what risks are likely to arise in their supply chains and what existing certification schemes cover and do not cover to identify and manage potential gaps. Another important element is the assurance standard in order to understand how information is verified.

How can corporates balance their need to address ASM and conflict-related risks in their supply chains with facilitating positive impact for local rightsholders in mineral-producing countries, including artisanal miners?

Those are complex problems that a company or industry cannot solve alone. For companies, wanting to minimise risk is reasonable, but you can't entirely eliminate it because for a lot of minerals, supply can be concentrated. This means companies have to balance compliance, reputational and operational risks with negative human rights impacts. Dealing with these issues requires thinking about the root causes, such as poverty and conflict and collaborating with other stakeholders to collectively address them. Additionally, companies need to demonstrate they are taking reasonable steps to understand their supply chain risks and have a robust risk mitigation approach. In practice, companies can either communicate that they have everything under control and have no conflict or human right risks in the supply chain or be transparent about the systemic issues existing in mineral supply chains and talk about how they are addressing these issues.

How do they see the role of mandatory regulatory regimes in promoting responsible mineral supply chain practices?

First, we need to think about the effects of the regulation – is it focused on addressing downstream consumer concerns or challenges in mineral-producing countries? For example, stakeholders in the DRC have limited familiarity with the EU Conflict Minerals Regulation; they have different concerns from EU countries who are focused on consumer protection. However, the OECD framework and responsible mineral sourcing practices implemented by downstream companies have considerable influence.

Case studies: Best practice in due diligence and CAHRA-related risks in mineral sourcing

The case studies below offer detailed examples of leading company practices in the implementation of the OECD Due Diligence Guidance and addressing CAHRA risks in mineral sourcing. Examples cited in this section are drawn from a variety of sources, including stakeholder interviews, corporate reporting and materials published by multi-stakeholder organisations such as the [European Partnership for Responsible Minerals \(EPRM\)](#).

Finnish multinational telecommunications and consumer electronics company – comprehensive integration of the OECD Due Diligence Guidance, combining reliance on industry schemes with internal activities to establish traceability²²¹

This Finnish telecom and electronics company aligns its due diligence processes to the OECD Due Diligence Guidance, creating a robust system focused on ensuring responsible mineral sourcing. In addition to establishing and communicating its responsible mineral policy, the company created a cross-functional responsible minerals working group including experts in sourcing, ESG and legal.

The company's approach to controls and transparency combines a reliance on industry schemes such as the RMI with internal activities and communication with direct suppliers. This includes reviewing conflict minerals reporting templates provided by direct suppliers, conducting several rounds of supplier surveys and requesting product-level information, cross-checking smelter data provided by suppliers with RMAP information, and independent online research to verify the conflict-free status of smelters and identify the countries of origin.

To strengthen its risk management approach to direct suppliers, the company provides feedback on the quality of its conflict minerals due diligence, asks for additional information and requests corrective action when needed. The company also assists suppliers in capacity building by holding information calls and encouraging participation in industry activities. Furthermore, the company conducts audits for suppliers in higher-risk countries, such as audits on the due diligence processes of suppliers in China.

Dutch multinational health technology company – going beyond OECD Due Diligence Guidelines and supporting industry change in gold supply chains²²²

This company's approach to responsible sourcing included a supplier engagement plan that achieved a 100% response rate to the conflict minerals reporting templates. Approximately 85% of the responses exceeded the company's minimum acceptance criteria upon first submission.

To go further in facilitating responsible mineral sourcing and driving systemic change for ASM gold, the company developed strong partnerships and takes part in multi-stakeholder initiatives to address key challenges within gold supply chains.

Through the European Partnership for Responsible Minerals (EPRM), the company financially contributes to projects improving mining practices in CAHRAs and engages in knowledge sharing in due diligence to build local expertise, such as working with partners that assist Ugandan artisanal miners in building capacity to professionalise their activities. Additionally, the company requests its suppliers to prioritise smelters validated by RMAP or an equivalent scheme, resulting in a substantial reduction in the number of non-recognised smelters.

Japanese multinational electronic components company – broadening responsible mineral sourcing efforts and pursuing systemic change²²⁴

This Japanese electronics company established its conflict minerals policy to promote compliance with the OECD Due Diligence Guidelines in 2013 and later expanded its responsible mineral sourcing efforts to cover CAHRA, serious human rights violations and environmental pollution linked to 3TG, cobalt and mica.

The company conducted surveys to identify cobalt smelters and mica processors to consider child labour risk in the DRC's cobalt mines and mica mines in India and Madagascar. It is also pursuing systemic change in collaboration with industry partners: it is a founding member of the Responsible Minerals Trade Working Group convened by the Japan Electronics and Information Technology Industries Association (JEITA).

As a member of this group, in 2024 the company took part in activities including awareness raising events to promote responsible mineral sourcing and improve expertise in surveying secondary suppliers and other value chain stakeholders; a joint working group with automotive industry members; and providing feedback on the development of the reporting template to cover the expansion of regulated minerals.

Austrian manufacturer of tungsten powders – commitment to responsible sourcing of tungsten from ASM operations in CAHRAs and meeting customer sourcing expectations²²³

This Austrian manufacturer sources tungsten from various destinations, including domestic operations and mines worldwide. The company is committed to sourcing from ASM operations in CAHRAs due to the positive potential this can have in fostering economic growth and sustainable development (as highlighted in the OECD Guidance). At the same time, the company's downstream customers can express a preference for tungsten to be sourced elsewhere to minimise risk. To address this challenge, the company had to provide appropriate assurance that tungsten from CAHRA can be sourced responsibly and meet customers' standards.

The solution required a multi-step approach, involving:

- 1) Collaborating with industry stakeholders to establish the Tungsten Industry – Conflict Minerals Council, which then established a shared tungsten-specific audit approach with RMI, allowing tungsten smelters and refiners to achieve RMAP-compliant status.
- 2) Developing CAHRA-specific sourcing policies and requirements to reflect the higher risks associated with CAHRAs, including visiting and assessing mines and mining areas against a set of minimum requirements, remaining in contact with CAHRA-based suppliers and encouraging gradual improvements, providing technical support and training to ASM miners and supplementing industry standard assurance mechanisms with its own traceability approach.
- 3) Advocating for a more nuanced and informed approach to ASM and CAHRA sourcing by communicating the developmental impact of sourcing from CAHRA and its own efforts to establish responsible sourcing to customers.

German automobile manufacturer – integrating responsible sourcing requirements into supplier contracting process, active use of audits, engaging local communities through industry collaboration²²⁵

This automaker identified 18 priority high-risk raw materials (3TG, lithium, cobalt, nickel, natural graphite, aluminium, copper, cotton, leather, magnesium, mica, natural rubber, platinum, rare earths and steel) to be addressed through the Raw Materials Due Diligence Management System. As part of the contracting process with direct suppliers, the company adopted binding sustainability specification sheets, which outline raw-material-specific expectations related to human rights and the environment. The specification sheets can include requirements such as the implementation of specific sustainability standards (e.g. IRMA) within key points in the supply chain.

The company's approach to supply chain audits includes second-party audits, which are conducted regularly or on an ad-hoc basis throughout the battery supply chain from battery suppliers to precursors, refiners, processing plants and mines. Audits follow a risk-based approach and cover compliance with the OECD Due Diligence Guidance framework (this is done alongside the use of third-party auditing and certification including IRMA, the Aluminium Stewardship Initiative (ASI) and the Leather Working Group (LWG)). When addressing 3TG risks in the supply chain, the company focuses on smelters and refiners in line with the OECD's guidance, aiming to ensure responsible sourcing through CMRT surveys and promoting RMAP compliance.

This company also actively cooperates with various industry initiatives to enhance its raw material due diligence and engage with impacted local communities. Recent examples of these collaborative engagements include:

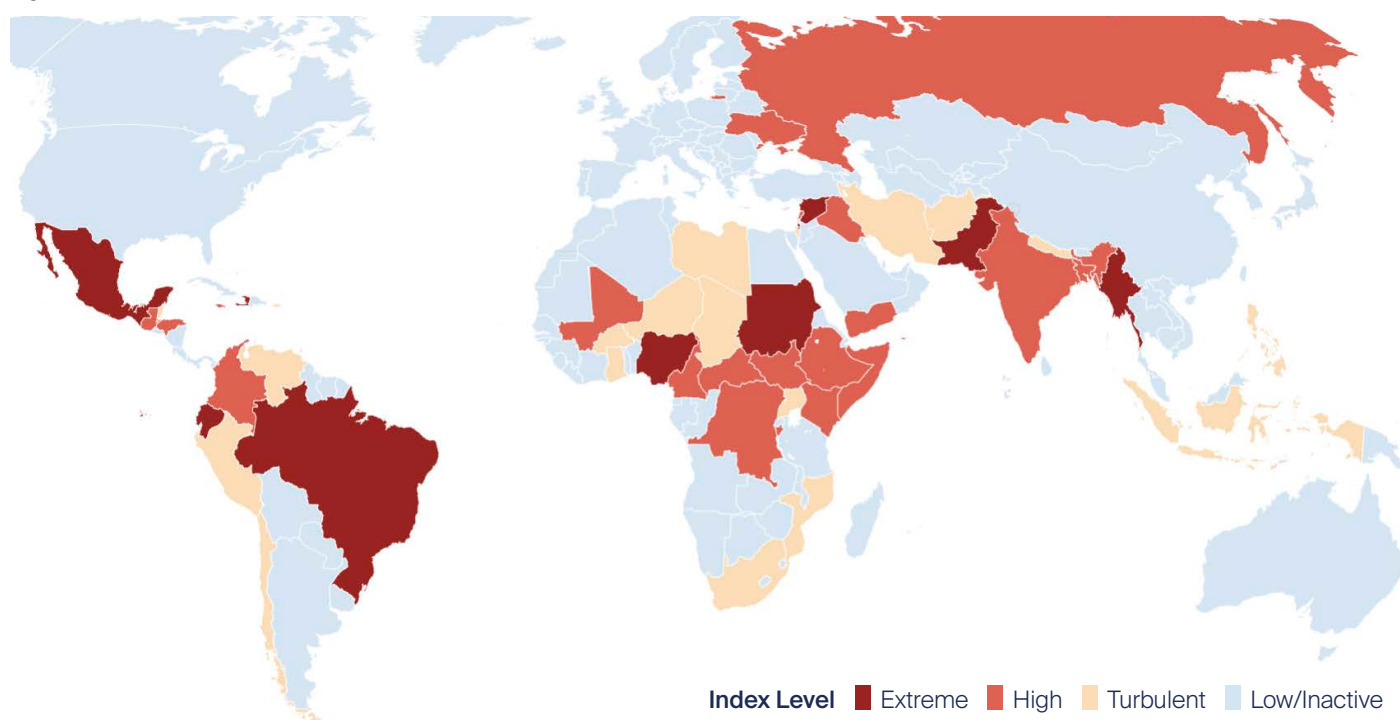
- 1) Participation in Cobalt for Development, a cross-industry project aiming to support communities dependent on ASM cobalt mining in the DRC's Lualaba province by improving working and living standards of miners and local communities.
- 2) Involvement in the Responsible Mica Initiative's Community Empowerment Program, which covers approximately 180 villages in India and seeks to eliminate child labour in mica mines by promoting better access to education and income diversification.

Chapter 5: The role of investors in addressing mineral sourcing risks and facilitating responsible sourcing practices

Why are responsible mineral sourcing practices, conflict risks, and human rights issues in mineral supply chains relevant for investors?

Corporate proximity to human rights violations can carry significant reputational and commercial risks that can manifest through negative financial impacts on their shareholders. Such risks are heightened in the context of conflict-affected and high-risk areas (CAHRAs). Chapter 4 highlighted that companies linked to conflict and human rights violations in the mineral supply chain more broadly can face civil or criminal liability, sanctions, fines, operational disruption and reputational damage, which in turn can negatively impact investors' returns. Conflict risks are becoming increasingly significant due to heightened geopolitical tensions and the rising number of conflicts globally, which are at their highest level since World War II²²⁶.

Figure 19: ACLED Conflict Index 2025



Source: <https://acleddata.com/series/acledd-conflict-index>

Investors also have their own responsibilities under the UN Guiding Principles on Business and Human Rights (UNGPs) and the OECD Guidelines to respect human rights²²⁷. UNGPs establish an expectation for investors to undertake heightened human rights due diligence (hHRDD) on investment and business activities in CAHRAs²²⁸. These responsibilities and expectations, in addition to the need to manage company-level risks highlighted above, encourage investors to address risks related to conflict minerals and mineral sourcing within supply chains.

In practice, asset owners and asset managers address these risks through human rights policy commitments, governance frameworks, human rights due diligence and monitoring mechanisms, while human rights concerns can also be integrated into investment decision-making, stewardship, stakeholder engagement and divestment decisions²²⁹.

What can investors do?

Institutional investors have limited scope to address ASM directly as they typically would not have direct investments in the sector. However, they have an opportunity to address ASM and conflict risks via their investments in mineral value chains (including mining, electronics, automotive and other sectors). Specific actions investors could take include integrating human rights and conflict risks in mineral sourcing into their decision-making (e.g. taking companies' approach to responsible mineral sourcing and conflict into account as part of pre-investment due diligence and risk assessments), and by leveraging their resources and influence to engage with portfolio companies, industry, policymakers and wider stakeholders.

Investor participation in facilitating responsible mineral sourcing practices is particularly important considering the growing demand for critical minerals to support energy transition.

Internal capacity building

Gaining greater insight into the relevant international norms, guidelines and regulatory frameworks, as well as the risks and opportunities linked to responsible mineral sourcing and conflict risks, can enable investors to effectively integrate these considerations into their wider approach to human rights and take steps to address and mitigate potential negative portfolio and stakeholder impacts. Capacity-building exercises can include partnering with industry organisations and NGOs for knowledge-sharing and training sessions on ASM and conflict risks. For recent examples, see UNPRI, IAHR, PeaceNexus and Heartland Initiative capacity building work on international humanitarian law and hHRDD cited in Figure 20 below.

Josie Lianna Kaye,
Chief Executive Officer & Founder, TrustWorks Global

How can investors ensure an effective approach to CAHRA-related portfolio risks?

Investors should adopt a proactive approach to engagement that is not exclusively based on controversy tracking – in those instances, the damage has already been done, and investors should focus on what the company is doing to prevent similar incidents in the future. Instead, portfolio engagement strategies should be long-term and based on CAHRA risk mapping.

Companies whose business activities are linked to CAHRAs should be able to demonstrate appropriate conflict-related policies, processes, accountability structures and relevant board competencies on an ongoing basis.

Portfolio human rights due diligence and monitoring

Developing a comprehensive understanding of mineral sourcing-linked human rights impacts in portfolio companies' operations and supply chains, as well as the norms and responsibilities of companies established by the relevant regulatory frameworks and guidelines, will influence investors' ability to adequately assess and respond to mineral sourcing risks within their portfolio and minimise potential negative impacts on stakeholders, rightsholders and financial returns.

This can involve portfolio mapping to identify exposures to ASM and CAHRA, highlight the salient issues, high-risk value chain relationships, and verify existing ASM and conflict-related policies and processes companies have in place. [The Navigating Portfolio Exposure to Conflict-Affected and High-Risk Areas: Practical Guidance for Investor Engagement with Companies](#) report produced by the IAHR in 2025 offers insight into what this process could look like.

Sebastien Akbik,
Chronos Sustainability, Mining 2030 Secretariat

There is a need for additional guidance on heightened human rights due diligence as many investors still struggle to understand this concept. Existing guidance does not fully address this need.

Corporate and wider stakeholder engagement to facilitate adoption of responsible mineral sourcing practices (External capacity building)

Corporate engagement is an important lever that can be used to address responsible mineral sourcing and CAHRA-related portfolio risks and facilitate systemic change. Using the information collected through portfolio assessments and monitoring exercises, investors can initiate dialogue to ensure comprehensive implementation of responsible mineral sourcing principles, robust due diligence processes and responsible engagement with ASM and CAHRA-located stakeholders. Figure 20 presents several examples of investors engaging with corporate across different sectors as well as wider stakeholders in an effort to address links to conflict in mineral value chains, facilitate responsible sourcing and due diligence practices and reduce human rights risks.

Participating in collective engagement initiatives can give investors greater leverage and pool resources and expertise to enable engagement on a sector level. Working with others also helps harmonise market expectations and understanding of good practice ([The Global Investor Commission on Mining is an example of such a collaboration](#)). Furthermore, engaging with multi-stakeholder initiatives such as the RMI and IRMA can provide investors with access subject-matter expertise, strengthen their own capabilities and offer additional opportunities to drive industry change.

Chapter 3 presents studies indicating that many responsible sourcing efforts to date have been focused on addressing consumer concerns down the supply chain but have had limited success in instilling better practices in countries of origin.

Stakeholder engagement could be a way for investors to help address this imbalance. Considering the complexities surrounding conflict minerals and mineral sourcing from CAHRAs (such as local security, lack of transparency), collaboration with relevant civil society bodies and NGOs operating in relevant jurisdictions is an invaluable opportunity for investors to draw on the necessary expertise, gain a better understanding of the specific challenges portfolio companies are facing, address risks and facilitate positive impacts for local communities.

Louis Marechal,
Senior Advisor, Minerals and Extractives, OECD

Investors have a crucial role to play in driving the effective implementation of due diligence standards – they can set a clear expectation that comprehensive due diligence matters across the mineral supply chain, including downstream companies. It is also important that investors demonstrate a willingness to engage deeply with investees to understand how they are implementing due diligence processes in practice, beyond just reading a sustainability report.

Facilitate engagement and investment in ASM to promote formalisation and responsible practices, peace and security

As mentioned in Chapter 3, artisanal miners often struggle to access the financing they need to upgrade their operations and formalise their status. A 2024 World Bank report highlighted the need for a substantial public and private sector effort to expand the financing options available to miners. While direct investment in ASM would not be a feasible option for most institutional investors due to scale, complexity, illiquidity and high levels of risk (including sustainability risks), they can consider participating (and encourage other stakeholders' participation) in multi-stakeholder initiatives supporting ASM financial inclusion and the promotion of responsible ASM practices including gender equality, conflict resolution and peacebuilding. Notably, while efforts to provide ASM financing have been extended in recent decades, they had little effect at a mine-site level, primarily due to a lack of scale, highlighting the need for de-risking to enable greater financial flows needed for lasting improvements²³⁰. The PlanetGold's ASM financial access project produced several examples of de-risking approaches on a local level²³¹:

- NGOs supporting artisanal miners in formalisation and capacity building led to improvements in financial literacy and business conduct, increasing trust among formal financial institutions.

- Providing first-loss guarantees (30% and 33% in two participating countries) enabled domestic banks to provide loans to artisanal miners, with one bank eliminating the requirement for collateral – a key factor that had negatively affected financial access for women
- Involvement of supply chain intermediaries to reduce the risk of direct lending to miners: collaboration between Planet Gold Peru, a bank, local gold ore processors and the NGO Solidaridad enabled miners to sell unprocessed gold ore to the processor, with the processing facility used as a financial intermediary. The bank granted loans to miners supplying the processor, while the processor withheld part of the payment for ore to make loan repayments on behalf of miners.

Gemma James,
Chronos Sustainability, Mining 2030 Secretariat

Regulation is one lever among many to address ASM risks. There is a clear need to facilitate professionalisation of ASM to help local miners, so the question is – how do we develop the ASM community without imposing excessive administrative and financial burdens?

Several existing multi-stakeholder initiatives aiming to support responsible ASM and address conflict risk and contribute to peace are shown below:

- [European Partnership for Responsible Minerals \(EPRM\)](#): bringing together governments, the private sector and civil society organisations worldwide to promote responsible mineral supply chains with a focus on ASM and high-risk areas. EPRM adopts an engagement-based approach involving learning, inclusive collaboration among supply chain actors, funding and supporting enabling policy environments.
- [Swiss Better Gold Initiative](#): aims to improve social and environmental standards in ASM and enable artisanal miners to access international markets by providing technical support and training, facilitating direct investment in mine safety and productivity, and incentivising community development projects.
- [The Multi-stakeholder Partnership Initiative for Sustainable and Responsible Artisanal and Small-Scale Mining \(MSPi\)](#): launched by the World Bank and the World Gold Council, this initiative seeks to engage a wide range of stakeholders, including large-scale gold mining companies, development agencies, investors and downstream companies to promote legal and sustainable small-scale gold mining.
- [Alliance for Responsible Mining \(ARM\)](#): Through this initiative, corporates, financial institutions and other stakeholders can support artisanal mining communities, collaborate and address social and environmental challenges linked to ASM.

- [The Impact Facility](#): this social enterprise works to facilitate access to equipment and capital through sourcing donor finance and impact capital to fund improvements in productivity, labour conditions and health and safety at an individual mine level.
- [Public-Private Alliance for Responsible Minerals Trade \(PPA\)](#): PPA is a cross-sector initiative involving the private sector, governments and civil society that aims to strengthen due diligence and governance within mineral supply chains. Focus areas include artisanal 3TG mining in the African Great Lakes region, as well as a broader scope of minerals and geographies that are key to energy transition.
- [Global Centre for Peacebuilding & Business \(GCPB\)](#): launched in February 2026 in response to the recommendation of the Global Investor Commission on Mining 2030, the GCPB brings together investors and corporates to advance reconciliation and sustainable development globally, and endeavours to highlight the perspectives of impacted communities and improve understanding of conflict drivers. Its geographical focus includes the DRC, Madagascar, Mozambique and South Africa.

James Megoran,
Director of the Global Centre for Peacebuilding and Business

What is the primary driver behind investors and corporates seeking to contribute to the peacebuilding process?

Conflict-affected and high-risk areas present significant operational challenges for corporates, including corruption, operational disruption, difficulties with local recruitment and high security costs, to say nothing of other risks to business (reputational etc). These concerns are increasingly top of mind with the rising number of conflicts globally. Corporates require a stable environment to operate normally, and it is in the best interest of investors to facilitate that.

What role can multi-stakeholder initiatives such as the Global Centre for Peacebuilding and Business can play in addressing conflict risks in mineral supply chains?

Global demand for critical minerals is increasing, leading to mining's footprint expanding into fragile countries, which could further increase conflict risk. The GCPB aims to convene global investors and corporates to support peacebuilding initiatives informed by conflict analysis and local perspectives, supporting the vision of an extractive sector that benefits all stakeholders and promotes long-term sustainable development.

Policy engagement

Regulation and policy are key instruments in driving widespread adoption of responsible mineral sourcing practices. At the same time, a number of important elements forming the global approach to conflict minerals (such as the Dodd-Frank Act and EU Conflict Minerals Regulation) have made a limited contribution to mitigating mineral-related conflicts and promoting peace and security. Additionally, several studies showed that the global responsible mineral sourcing efforts have had unintended negative effects on local communities and artisan miners, including increasing the probability of conflict, imposing high compliance costs, reduced income stemming from upstream companies avoiding specific countries or regions, and disproportionate administrative and financial burdens placed on women engaged in artisanal mining activities (see Chapter 3 for more details).

Investors can contribute to addressing these limitations and unintended consequences of regulatory and policy frameworks related to conflict minerals and responsible mineral sourcing by sharing their perspectives on the strengths, weaknesses and possible improvements of existing and proposed approaches with national authorities and regulators, and facilitating wider stakeholder participation to ensure local contexts and complexities are considered in the regulatory process. Furthermore, investors can advocate for harmonising global regulatory approaches²³² to ensure corporate accountability and increase adoption rates.

By lending their expertise and participating in working groups and consultations, investors can contribute to the development and implementation of human rights due diligence standards to address challenges throughout the value chain, from local communities in the countries of origin to end consumers.

Key investor engagement initiatives to date

Figure 20: Prominent recent investor and asset owner engagement initiatives on responsible mineral sourcing

Sector focus	Initiative
Multi-sector	(2025) The Church of England Pensions Board called for investor action to support the Goma Call for Peace issued following the capture of Goma by the M23 armed group ²³³ . This was followed by a series of investor roundtables at Davos, which provided attendees with deeper insight on the conflict informed by local perspectives ²³⁴ .
Technology hardware and equipment, transportation, mining	(2025) Federated Hermes has engaged on responsible mineral sourcing with companies across technology hardware and equipment, transportation and mining. In the US, the investor has begun to engage with technology companies to enhance their understanding of the mineral supply chain and relevant risks and opportunities and encourage companies to disclose their responsible sourcing policies for critical minerals. Federated Hermes also encourages companies in the engagement programme to join industry standard organisations such as IRMA ²³⁵ .
EVs	In 2024, VBDO, in collaboration with Rainforest Foundation Norway and supported by 36 institutional investors, launched the Investor Initiative on Responsible Nickel Supply Chains. This engagement initiative focused on 28 automotive and EV battery producing companies, promoting sustainable nickel supply chains through robust due diligence processes, supplier codes of conduct, and adoption of credible third-party standards ²³⁶ .
Metals, mining, renewables	UNPRI Advance is a collaborative initiative among investors with a collective US\$35 trillion AUM that focuses on human rights stewardship. Metals, mining and renewables have been the focus sectors with ongoing investor engagement seeking to ensure human rights standards are upheld throughout the value chain. Key human rights risks for investors include unsafe working conditions and impacts on local and indigenous communities. To support investors on issues related to CAHRA contexts, the initiative held a webinar series on international humanitarian law and hHRDD in collaboration with IAHR, PeaceNexus and Heartland initiative and facilitated informal dialogues among investors.
Mining	The Global Investor Commission on Mining 2030 is a collaborative investor-led initiative supported by 120 financial institutions representing US\$18 trillion AUM. The Commission is working towards a long-term vision for a sustainable mining sector and developing a better understanding of the role of finance in achieving this goal ²³⁷ . The initiative supports investor engagement seeking to reduce conflicts linked to mineral extraction while not disengaging from CAHRAs (among other goals).
EV manufacturers, EV battery producers	In February 2024, 36 investors with US\$4.5 trillion of AUM signed a joint statement initiated by the Dutch Association of Investors for Sustainable Development (VBDO) and Rainforest Foundation Norway. It calls for companies to incorporate comprehensive environmental and social due diligence processes in nickel supply chains in the EV industry (including requirements for free, prior and informed consent of indigenous peoples and local communities for mining operations, and independent audits applying transparent social and environmental standards), and adopt time-bound commitments for deforestation-free supply chains ²³⁸ .
Semiconductors	(2020-2021) Stewart Investors' collaborative engagement focused on the semiconductor supply chain and involved 160 signatories with US\$6.59 trillion AUM. This engagement aimed to address the downstream part of the supply chain by sending engagement letters to companies to improve traceability, transparency and reporting, encourage industry collaboration, greater use of recycled materials, attending face-to-face meetings with companies and collaborating with NGOs and industry bodies, including the RMI ²³⁹ .

Sector focus	Initiative
Electronics, automotive	(2018-2020) This PRI-supported engagement campaign on responsible cobalt sourcing focused on companies in the electronics and automotive sector and involved 46 investors with US\$6.4 trillion AUM. This engagement sought to improve companies' performance in human rights risk assessments and due diligence, impact monitoring and corrective actions including remediation, and collaboration on systemic issues. Following the engagement, there was a 25% increase in companies implementing a supply chain policy or code covering social issues, and all publicly acknowledged the importance of responsible cobalt sourcing. There were also substantial improvements in conducting due diligence and risk assessments for suppliers and the rates of disclosure ²⁴⁰ .
Multi-sector	In June 2018, the Investor Alliance for Human Rights (IAHR) led 47 institutional investors with \$US1.2 trillion AUM in issuing a collective statement to their portfolio companies, calling for continuing compliance with Dodd-Frank conflict minerals reporting requirements ²⁴¹ .
Policymakers	In October 2014, a group of investors with €855 billion AUM and led by a working group, including Boston Common Asset Management, Calvert Investments, Eurosif, Responsible Sourcing Network, Trillium Asset Management, Triodos Investment Management and US SIF, published a joint investor statement to European policymakers calling for greater compatibility between the Dodd-Frank Act and the proposed EU conflict mineral rules ²⁴² .
Consumer electronics	Between October 2009 and September 2012, 16 PRI signatories with US\$635 billion AUM engaged with consumer electronics companies in the US, Europe and Japan to promote robust disclosure of company policies on minerals sourced from eastern Congo and implementation of external verification and monitoring of supplier practices. Investors also held 18 meetings with target companies; several investors also participated in the development of the SEC's Conflict Minerals Rule implementing the 1502 provision of the Dodd-Frank Act ²⁴³ .

Figure 21: Investor engagement initiatives focused on CAHRA-related risks but not specifically mineral sourcing

Sector focus	Initiative
Technology, renewables	In October 2023, the IAHR, PeaceNexus and Heartland Initiative launched an investor engagement on conflict-affected and high-risk areas project, aiming to support a group of investors in conducting heightened human rights due diligence of their investments in CAHRAs. This project also engaged with several companies in the technology and renewable sectors on CAHRA risks and reporting on the outcomes²⁴⁴. In April 2025, the collaboration released the 'Navigating Portfolio Exposure to Conflict-Affected and High-Risk Areas: Practical Guidance for Investor Engagement with Companies' report²⁴⁵.

Stephen Barrie,
Deputy Chief Responsible Investment Officer, Church of England Pensions Board

What is your experience of facilitating collective investor action in the context of recent conflict in the DRC?

Investors are showing strong interest in understanding illicit financial flows, value chain implications and how they can contribute to solutions. The Global Investor Commission on Mining 2030 (supported by 125 institutions with approximately \$18 trillion AUM) identified conflict as a priority topic. Following the launch of the Global Centre for Peacebuilding and Business, we have convened a series of investor and multi-stakeholder roundtables that have been well-attended. These discussions allowed participants to gain a deeper understanding of the conflict informed by local perspectives and careful forward-looking scenario analysis, which can be a powerful driver for action.

Stakeholder engagement guide for investors – promoting responsible mineral sourcing practices

Governance

- Does the company have a comprehensive responsible mineral sourcing policy? Does the policy cover minerals beyond 3TG and set OECD-aligned due diligence standards?
 - Best practice would include establishing a responsible mineral sourcing policy aligned with the OECD and UNGP guidelines and broad in scope beyond the conventional focus on 3TGs – examples include silver, aluminium, mica, cobalt, nickel, lithium, copper and other materials as relevant.
 - Ideally, the company would have a specific policy on hHRDD; good practice could also include incorporating hHRDD concerns into the overall responsible mineral sourcing/conflict minerals policy.
- What internal stakeholders are involved in the implementation and oversight? Do they have appropriate competencies? What are the internal monitoring and accountability mechanisms covering implementation of the policy? Is there a grievance mechanism?
 - Board-level oversight of responsible mineral sourcing processes and conflict-related risks represent best practice; relevant prior experience or qualifications of board members would ensure a higher standard of oversight.
 - Currently, governance of CAHRA and conflict-related risks is in the early stage of development; progressive examples include collaborative approaches with legal, compliance, finance, human capital, sustainability and procurement stakeholders involved in the oversight and implementation of conflict-related risk management.
- How is the responsible mineral sourcing policy communicated to suppliers and other relevant stakeholders? How does the company engage with suppliers to ensure its alignment with responsible mineral sourcing principles and the OECD Due Diligence Guidance?
 - This can involve building long-term relationships with suppliers to increase leverage, incorporating responsible mineral sourcing requirements into supplier contracts, assisting suppliers with capability building and designing measurable improvement plans. Companies can use internationally recognised frameworks to standardise supplier requirements – comprehensive standards such as IRMA or mineral-specific certification schemes (e.g. the Copper Mark), and supplement information produced through these schemes through direct communication with suppliers and independent supplier audits.

Identifying and assessing supply chain risks

- What processes does the company have in place to map its supply chain and assess risk?
 - Identifying and assessing risks and opportunities in the mineral supply chains involves conducting a material risk assessment to prioritise high-risk minerals, identify components where these minerals are used and suppliers providing these materials/components, and develop risk mitigation measures (which can involve direct engagement with suppliers or industry-wide collaboration).
- Does the company implement a chain of custody or traceability system that provides the following information in relation to minerals originating from CAHRAs (for upstream companies)? Is this information available to downstream customers, auditors and the institutional mechanisms mandated to collect and process information on minerals sourced from CAHRA areas?
 - mine of origin
 - quantity and dates of extraction
 - locations where minerals are collected traded or processed
 - all payments, including taxes, made in relation to the extraction, trade, transport and export of minerals
 - taxes and payments made to public or private security forces or other armed groups
 - identification of all actors in the upstream supply chain
 - transportation routes
- Does the company implement a supply chain transparency framework that allows for the identification of smelters/refiners in the supply chain, and provides information on the countries of origin, transport and transit of minerals in the supply chains of each smelter/refiner in relation to the high-risk minerals, and their due diligence practices?
 - An example of this process can be an annual supply chain survey, which includes reliance on the Responsible Minerals Initiative Responsible Minerals Assurance Process (RMAP) information, and independent company research into suppliers not covered/non-conformant with the RMI RMAP process. Companies can supplement their data by requesting product-level information directly from suppliers.

- What is the company's approach to identifying suppliers beyond the first tier? What measures is the company taking to identify smelters/refiners in its supply chain (including for minerals other than 3TG)? Does the company engage with smelters/refiners to collect information on the country of origin, transit and transportation routes from the mine (including for minerals other than 3TG)? Is this information included in its public disclosures?
 - Companies routinely request supplier data through reporting systems such as Conflict Minerals Reporting Template (CMRT)/Extended Minerals Reporting Template (EMRT) but tracing suppliers beyond the first tier remains a substantial challenge due to limited transparency. However, strengthening efforts in conducting due diligence throughout the supply chain are critical to advance responsible mineral sourcing efforts. Companies can align with leading practices by internal review of supplier-provided data; onsite verification; tracing parts or components.
 - An example of this process can be an annual supply chain survey that includes reliance on RMI RMAP information, and independent company research into suppliers not covered/non-conformant with the RMI RMAP process. Companies can supplement their data by requesting product-level information directly from suppliers.
- Does the company due diligence process cover ASM and CAHRA-related risks?
 - In addition to the standard supply chain due diligence activities, companies can conduct audits and due diligence on suppliers located in high-risk locations.
 - Meeting transparency and heightened due diligence challenges in the context of CAHRA mineral sourcing in a comprehensive way often requires access to on-the-ground expertise. Partnering with industry organisations and non-profits operating in the countries of origin can help gain this access.
- How does the company assess whether smelters/refiners have appropriate due diligence processes with regards to minerals sourced from CAHRAs? Does the company have a robust approach to traceability beyond relying on supplier self-reporting through the RMI CMRT and other information provided by industry certifications and due diligence frameworks? What measures are taken to ensure quality control of information provided through these sources?
 - Additional steps companies can take beyond requiring third-party certifications include direct collaboration with suppliers, workers, trade unions, civil society organisations or NGOs. Going beyond industry scheme reporting could involve conducting supplier surveys and audits, requesting product-level information, conducting independent audits

for suppliers in high-risk countries, cross-checking smelter data provided by suppliers and independently verifying the conflict-free status of smelters and countries of origin.

- Providing suppliers with feedback on the quality of their due diligence data, requesting additional information if necessary and suggesting corrective action when needed would facilitate further improvements of responsible mineral sourcing practices.

Mineral supply chain risks mitigation

- How does the company respond to risks related to mineral sourcing (including minerals sourced from CAHRAs)?
 - Supply chain risk mitigation measures can include integrating responsible sourcing requirements into the supplier selection and contracting process, regular reviews of supplier performance (through second or third-party audits and certifications, and direct communication), providing training and support to suppliers and participating in industry or multi-stakeholder initiatives seeking to address human rights and conflict risks in mineral supply chains.
 - Risk mitigation over risk avoidance: Avoiding the sourcing of minerals from ASM or CAHRAs should not be a blanket policy as it is likely to negatively affect local communities (the OECD Due Diligence Guidance aims to help companies contribute to sustainable development and enable responsible sourcing from CAHRA areas). Where possible, appropriate due diligence processes should be conducted to ensure responsible sourcing instead.
 - Existing examples of best practice include collaboration with industry stakeholders to develop certification and audit approaches (for minerals where none exist), developing CAHRA-specific sourcing policies and processes that address heightened risks (which can include on-site visits and assessments), close communication with CAHRA-based suppliers, providing technical support and training to ASM miners (for example by participating in existing multi-stakeholder initiatives), and strengthening due diligence and traceability processes beyond relying on industry schemes.
- Does the company monitor and track performance of risk mitigation measures?
 - Companies can track the implementation of their responsible mineral sourcing policies and processes through metrics including the number of supplier audits, their outcomes, corrective measures agreed and/or implemented, supplier compliance rates with internal or external frameworks or standards, supplier training sessions or workshops conducted.

- How does the company use its leverage over suppliers to mitigate risks of adverse human rights impacts?
 - Companies can promote responsible mineral sourcing practices in their supply chains by:
 - Integrating responsible mineral sourcing requirements, including due diligence and conflict-related risks considerations, into the supplier code of conduct
 - Promoting responsible mineral sourcing practices for midstream suppliers (processors or refiners) can include requirements to comply with RMI RMAP or IRMA assessments.
 - For material or component suppliers, the requirements can include provision of transparent due diligence information (including the chain of custody) and integration of responsible sourcing practices within their own supply chains.
 - Regularly assessing supplier performance and implementing corrective measures when needed.
 - Directly engaging with suppliers of key materials to provide them with training and support on responsible mineral sourcing, human rights and conflict risks-related topics.
 - Encouraging suppliers to participate in industry initiatives promoting responsible mineral sourcing practices.

Independent audit of suppliers' due diligence practices

- How are supply chain audits carried out and what system is used for verification? What are the scope and criteria of the audits? What activities are involved?
 - An example of best practice is adopting a risk-based approach to supplier audits, covering compliance with the OECD Due Diligence Guidance and relevant due diligence processes. This can result in the company and supplier agreeing on corrective measures, the implementation of which are then monitored by the company, including follow-up audits. Audits can be conducted directly at supplier locations such as manufacturing sites, refineries or mines; they can be carried out on a regular or case-by-case basis and involve internal specialists or external consultants.
 - Third-party audits and certification by initiatives such as RMI RMAP, IRMA, the Copper Mark and others can also form part of a supplier assessment approach. It is advisable for the company to be aware of the scope of risks assessed by third-party standards and certifications to minimise risk management gaps.
 - ASM suppliers can be assessed against standards such as [CRAFT](#) or [Fairmined](#).

Supply chain due diligence reporting

- Does the annual company disclosure include sufficient information on its responsible mineral sourcing activities, including due diligence processes (covering heightened due diligence applicable to CAHRA sourcing)? What minerals are in scope? Does the supplier disclosure include information beyond first-tier suppliers?
 - Best practice in responsible mineral sourcing reporting includes annual public disclosure aligned with UNGP and OECD Guidance requirements and can include information about governance (supply chain due diligence policies, internal accountability structures and controls), supply chain risk assessment, risk management processes and audits. (See OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, Step 5).
 - Regarding the scope of due diligence processes and reporting, recent best practice included covering a broad scope of materials beyond 3TGs (e.g. mica, cobalt, nickel, lithium, copper, aluminium and others) and disclosing suppliers beyond the first tier.

Industry initiatives

- Does the company participate in industry initiatives promoting responsible mineral sourcing?
 - Companies could improve their operational efficiency, reduce risk and have a positive impact on responsible practices throughout the supply chain by participating in multi-stakeholder and industry initiatives addressing human rights and conflict-related risks within mineral supply chains. These can include [RMI](#), [IRMA](#), [EPRM](#), [ARM](#), [Global Centre for Peacebuilding & Business](#) (GCPB) and others.

Industry bodies and NGOs

- Engage in multi-stakeholder and industry initiatives to address systemic issues in mineral value chains and promote responsible formalisation of ASM.
- Collaborate with NGOs, industry bodies and corporates to reduce the financial and administrative burden responsible-sourcing programmes place on ASM and small-scale local miners and expand access to finance.
- Promote better understanding of gender-specific impacts of responsible sourcing programmes and ASM formalisation on local communities by engaging with local civil society groups and facilitating knowledge sharing with regulators and industry partners.

Policymakers and regulators

- Engage with policymakers and regulators to promote the development and adoption of robust human rights due diligence standards and frameworks.
- Regulation can be a key lever of change, but needs to be developed with consideration of broader stakeholder and rightsholders' interests. Investors can participate in multi-stakeholder initiatives and consultations to promote greater awareness of the challenges facing corporates and rightsholders along the mineral value chain and the real-life effects of the regulatory response.

Useful investor resources

[OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas](#)

[OECD Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector](#)

[UNDP Heightened Human Rights Due Diligence for Business in Conflict-Affected Contexts: A Guide](#)

[EU CAHRA list](#)

[RIAA Investor Toolkit on Human Rights and Armed Conflict](#)

[Global Investor Commission on Mining 2030: 10 Year Vision and Recommendations](#)

[PRI Responsible cobalt sourcing engagement recommendations](#)

References

1. [Responsible Mining Foundation, Harmful Impacts of Mining: when extraction harms people, environments and economies](#)
2. The World Bank, Achieving Sustainable and Inclusive Artisanal and Small-Scale Mining (ASM): A Renewed Framework for World Bank Engagement, 2024
3. The authors are aware of the ongoing debates on the merits of the 'conflict minerals' term and acknowledge the concerns regarding the narrow scope (creating an impression that only 3TGs can be linked to conflict risks) and the potential tendency to promote disengagement. This report retains the 'conflict minerals' terminology for the following reasons: 1) 3TGs are the primary focus of this research 2) this term remains commonly used by many stakeholders across jurisdictions and retaining it ensures greater accessibility.
4. The term 'rightsholders' is used in this report to refer to individuals and communities whose human rights are or can be affected by mineral sourcing activities; 'stakeholders' is a broader term which can refer to various public, private, or civil society actors depending on the context.
5. World Bank, EGPS, Achieving Sustainable and Inclusive Artisanal and Small-Scale Mining (ASM): A Renewed Framework for World Bank Engagement, September 2024
6. For examples of controversies, see Figure 16 in Chapter 4.
7. For more detailed discussion of company practices see Chapter 4 and the cited third-party sources.
8. Stakeholder interviews. The Institute conducted a variety of stakeholder interviews during the research process for this report, with participants including investors, asset owners, international organisations, NGOs, and consultancies. These interviews were used to gather practitioner's insight into the theme and complement desk-based research.
9. [Isabelle Ramdoo, Gregoire Bellois, Murtiani Hendriwardani, What makes minerals and metals "critical"? International Institute for Sustainable Development, May 2024](#)
10. [Bali Barume, Uwe Naeher, Desiree Ruppen, Philip Schutte, Conflict minerals \(3TG\): Mining production, applications and recycling. Current Opinion in Green and Sustainable Chemistry, Vol 1, August 2016](#)
11. [IRENA, Geopolitics of the Energy Transition, July 2023](#)
12. [IEA, Batteries and Secure Energy Transitions – Analysis, 2024](#)
13. <https://rmis.jrc.ec.europa.eu/eu-critical-raw-materials>
14. https://single-market-economy.ec.europa.eu/sectors/raw-materials/areas-specific-interest/critical-raw-materials_en
15. https://single-market-economy.ec.europa.eu/sectors/raw-materials/areas-specific-interest/rare-earth-elements-permanent-magnets-and-motors_en
16. <https://www.usgs.gov/centers/national-minerals-information-center/rare-earths-statistics-and-information>
17. [IGF, Artisanal and Small-Scale Mining of Critical Minerals, December 2024](#)
18. U.S. Geological Survey, Mineral Commodity Summaries, January 2024
19. <https://www.nasdaq.com/articles/top-10-tin-producing-countries-updated-2024>; <https://www.cruxinvestor.com/posts/tin-market-faces-supply-challenges-amid-growing-energy-transition-demand>
20. <https://tanb.org/about-tantalum/applications-for-tantalum/>
21. U.S. Geological Survey, Mineral Commodity Summaries, January 2024
22. <https://www.zionmarketresearch.com/report/tantalum-market>
23. <https://www.itia.info/applications-markets/>
24. <https://www.samaterials.com/content/what-are-the-applications-of-tungsten.html>
25. U.S. Geological Survey, Mineral Commodity Summaries, January 2024
26. <https://www.tungstenmetalsgroup.com/blog-blog/outlook-for-2025-tungsten-supply-chain-dynamics>; <https://www.argusmedia.com/en/news-and-insights/latest-market-news/2628171-five-factors-to-watch-for-in-the-tungsten-market>
27. <https://www.gold.org/about-gold/gold-demand/by-sector>; <https://www.nasdaq.com/articles/beyond-jewelry-and-bars-golds-industrial-applications>
28. <https://www.gold.org/goldhub/data/gold-production-by-country>
29. Benjamin K. Sovacool, Andrew Hook, Mari Martiskainen, Andrea Brock, Bruno Turnheim, [The decarbonisation divide: Contextualizing landscapes of low-carbon exploitation and toxicity in Africa, Global Environmental Change, Volume 60, January 2020](#)
30. [Responsible Minerals Initiative, Material Change: A study of risks and opportunities for collective action in materials supply chains of the automotive and electronics industries, 2018](#)
31. <https://tincorp.com/tin-market/>
32. [Responsible Minerals Initiative, Material Change: A study of risks and opportunities for collective action in materials supply chains of the automotive and electronics industries, 2018](#)
33. [Ibtisam Abbasi, Applications of Gold in Automotive Engineering, Azo Materials, 8 November 2024](#)
34. [International Tin Association, Tin anodes for lithium-ion batteries may be a game changer, 27 June 2024](#)
35. First Sentier MUFG Sustainable Investment Institute, Sustainable Lithium-ion batteries: Investor Briefing, May 2025
36. [IEA, Global Critical Minerals Outlook 2024](#)
37. [Emmanuel Umpula, Abbi Buxton, Brendan Schwartz, Islands of responsibility? Corporate sourcing of artisanal cobalt in the Democratic Republic of Congo, International Institute for Environment and Development, September 2021](#)
38. [Amnesty International, Powering change or business as usual? Forced evictions at industrial cobalt and copper mines in the Democratic Republic of Congo, 11 September 2023](#)
39. [Global Witness, AFREWATCH, JATAM, Critical mineral mines tied to 111 violent incidents and protests on average a year, Briefing, 07 November 2024](#)

40. [Benjamin K. Sovacool, Andrew Hook, Mari Martiskainen, Andrea Brock, Bruno Turnheim, The decarbonisation divide: Contextualizing landscapes of low-carbon exploitation and toxicity in Africa, Global Environmental Change, Volume 60, January 2020](#)
41. [Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development, IGF Guidance for Governments: Managing Artisanal and Small-Scale Mining, International Institute for Sustainable Development, 2017](#)
42. The World Bank, Achieving Sustainable and Inclusive Artisanal and Small-Scale Mining (ASM): A Renewed Framework for World Bank Engagement, 2024
43. <https://artisanalmining.org/inventory/>
44. [IISD, Global Trends in Artisanal and Small-Scale Mining \(ASM\): A review of key numbers and issues, 2018](#)
45. [Philip Schütte, Uwe Näher, \(2020\). Tantalum supply from artisanal and small-scale mining: A mineral economic evaluation of coltan production and trade dynamics in Africa's Great Lakes region, Resources Policy, Volume 69, December 2020](#)
46. <https://www.internationaltin.org/artisanal-small-scale-mining/>
47. Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development, Artisanal and small-scale mining of critical minerals, 2024
48. [Philip Landrigan et al, Reducing disease and death from Artisanal and Small-Scale Mining \(ASM\) – the urgent need for responsible mining in the context of growing global demand for minerals and metals for climate change mitigation, Environmental Health 21 \(78\), August 2022](#)
49. [Sam Jones, Illegal gold mining drives human rights abuses in Latin America, claims study, April 2016](#)
50. [Ami A Meutia et al., Indonesian Artisanal and Small-Scale Gold Mining-A Narrative Literature Review, International journal of environmental research and public health vol. 19\(7\), 26 March 2022](#)
51. [Gabriel Kamundala, ICI ON TRAVAILLE: The role of cooperatives in structuring social relations of production in artisanal and small-scale gold mining in Eastern DRC, Journal of Rural Studies, Vol 113, January 2025](#)
52. [Felipe Rodríguez-Novoa, Elizabeth Holley, Coexistence between large-scale mining \(LSM\) and artisanal and small-scale mining \(ASM\) in Perú and Colombia, Resources Policy, Volume 80, January 2023](#)
53. [Responsible Mining Foundation, Harmful Impacts of Mining: when extraction harms people, environments and economies](#)
54. [Anabel Marin, Gabriel Palazzo, Civic Power in Just Transitions: Blocking the Way or Transforming the Future?, IDS Working Paper 614, Brighton: Institute of Development Studies, 2024](#)
55. [Shivani Lakshman, More Critical Minerals Mining Could Strain Water Supplies in Stressed Regions, World Resources Institute, 10 January 2024](#)
56. [Global Witness, Critical mineral mines tied to 111 violent incidents and protests on average a year, 7 November 2024](#)
57. [Sarah Way, Integrating artisanal mining into the formal economy would benefit African miners and economies alike, Atlantic Council, 12 July 2024](#)
58. George Ofori, Francis Arthur-Holmes, Becoming a friend of the foe: The evolving perspectives on the 'cohabitation' strategies of large-scale and artisanal and small-scale mining operations, World Development 195, 2025
59. [Business and Human Rights Centre, Transition Minerals Tracker, Key Findings 2026](#)
60. [International Labour Organisation, Child labour in mining and global supply chains, 2019](#)
61. <https://www.unepfi.org/humanrightstoolkit/minerals-and-metals-extraction/>
62. [Cortinhas Ferreira Neto L et al, Uncontrolled Illegal Mining and Garimpo in the Brazilian Amazon. Nature Communications, 15\(1\), November 2024](#)
63. [Adator Stephanie Worlanyo, Li Jiangfeng, Evaluating the environmental and economic impact of mining for post-mined land restoration and land-use: A review, Journal of Environmental Management, Vol 279, 2021](#)
64. [Maureen Walschot, Mineral extraction, environmental harm, and conflict: The role of EU due diligence in promoting sustainable practices in conflict hotspots, IPIS, 16 April 2025](#)
65. [Melissa \(Mel\) Sanderson, Congo, Cobalt and Children – A Tailings Dam Fails in Kolwezi, November 2025](#)
66. [Jennifer Hinton, The Gender Dimensions of Tin, Tantalum and Tungsten Mining in the Great Lakes Region, Gender Resource Facility, 2016](#)
67. [Raphael Parens, Conflict in Eastern Congo: A Spark Away from a Regional Conflagration, 8 September 2022](#)
68. [Ken Matthysen, Erik Gobbers, Armed conflict, insecurity, and mining in eastern DRC: Reflections on the nexus between natural resources and armed conflict, IPIS, 2022](#)
69. [Raphael Parens, Conflict in Eastern Congo: A Spark Away from a Regional Conflagration, 8 September 2022](#)
70. [Ken Matthysen, Lotte Hoex, Peer Schouten, Steven Spittaels, Mapping artisanal mining areas and mineral supply chains in eastern DR Congo, IPIS, April 2019](#)
71. AFC (Alliance Fleuve Congo)/M23
72. [UN Security Council, Midterm report by Group of Experts on the Democratic Republic of the Congo \(security-related developments in Nord-Kivu, Ituri and Sud-Kivu provinces\), 27 December 2024](#)
73. [Didier Makal, Landslides claim more than 220 lives in DRC's Rubaya coltan mining site, 9 February 2026; Mongabay Africa, 200 dead, more missing in another DRC mine collapse, 6 March 2026](#)
74. [Clarkson Kamurai, Brad Handler, and Morgan Bazilian, Illicit mineral supply chains fuel the DRC's M23 insurgency, Atlantic Council, 23 April 2025](#)
75. [Ken Matthysen, Why the DR Congo is putting Apple on the spot, IPIS, 15 May 2024](#)
76. [DRC was ranked 5th in the 2024 State Fragility Index](#)
77. [Ken Matthysen, Erik Gobbers, Armed conflict, insecurity, and mining in eastern DRC: Reflections on the nexus between natural resources and armed conflict, IPIS, 2022](#)

78. [Ken Matthysen, Erik Gobbers, Armed conflict, insecurity, and mining in eastern DRC: Reflections on the nexus between natural resources and armed conflict, IPIS, 2022](#)
79. [Patrick Anderson, Cobalt and Corruption: The Influence of Multinational Firms and Foreign States on the Democratic Republic of the Congo, Journal for Global Business & Community, 14\(1\) March 2023](#)
80. [Cyrus Njonde, African Mining, Tanzania's artisanal mining renaissance and its key enablers, 1 August 2024](#)
81. [Emmy Metta, Ramadhani Abdul, Alison Koler, Eveline Geubbels, Ecological aspects shaping child labour in Tanzania's artisanal and small-scale gold mines: A qualitative inquiry, Heliyon, 9\(3\), March 2023](#)
82. [The Responsible Security Association, Violent repelling of illegal miners leading to litigation; BHRC, UK lawsuit against Barrick Gold's subsidiaries over alleged deaths and injuries by police at Tanzanian gold mine settled, 28 March 2024](#)
83. [BHRC, Tanzania: Miners allegedly engage in human-trafficking & rape claiming it will boost chances of finding minerals, 21 April 2023](#)
84. <https://www.tandfonline.com/doi/full/10.1080/02772248.2020.1839074#d1e229>
85. [ICF, US Department of Labor, Study on Child Labor in the Scrap Mica Supply Chain in India, September 2024](#)
86. [ABCColombia, River Atrato First River in Colombia to be Awarded Rights; Charlie Espinosa, Charles Lyons, For some Colombians, vows of mining reform are just a flash in the pan, 20 February 2023](#)
87. [Daniel Ealedona, Economy 'suffered' K1.1bil hit, 1 November 2023](#)
88. [Hannah Tabara, What fuels the violence at Papua New Guinea's Porgera Gold Mine, and what lies ahead?, 25 April 2025](#)
89. [CNCA, Case Study: Barrick Gold Corp.'s Porgera Joint Venture mine – Human Rights Abuses, 14 February 2023](#)
90. [Human Rights Watch, Gold's Costly Dividend, 1 February 2011](#)
91. [Oliver Gray, Barrick's big trouble in little Porgera, 19 September 2024](#)
92. [The National, Reopened mine brings much promise, 5 January 2024](#)
93. [Tribal warfare kills at least 20 near Porgera mine in PNG, estimates UN, 16 September 2024, Nick Marsh, Rival tribe shootouts kill 30 in Papua New Guinea, 16 September 2024](#)
94. [Hannah Tabara, What fuels the violence at Papua New Guinea's Porgera Gold Mine, and what lies ahead? 25 April 2025](#)
95. [World Bank, 2023 State of the Artisanal and Small-Scale Mining Sector, 2023](#)
96. [GIZ, Sexual and Gender-Based Violence in the Mining Sector in Africa: Evidence and reflections from the DRC, South Africa, Tanzania & Uganda, 2020](#)
97. [Maureen Walschot, The gendered dimensions of the EU Conflict Minerals Regulation: A step forward in addressing gender-specific risks in conflict-affected mining areas?, IPIS, 11 December 2024](#)
98. [Jennifer Hinton, The Gender Dimensions of Tin, Tantalum and Tungsten Mining in the Great Lakes Region, 2016](#)
99. [Marie-Rose Bashwira, Gemma van der Haar, Necessity or choice: women's migration to artisanal mining regions in eastern DRC, Canadian Journal of African Studies, 54\(1\), 2020](#)
100. [Jennifer Hinton, The Gender Dimensions of Tin, Tantalum and Tungsten Mining in the Great Lakes Region, 2016](#)
101. [Siri Aas Rustad, Gudrun Østby, Ragnhild Nordås, Artisanal mining, conflict, and sexual violence in Eastern DRC, Extractive Industries and Society, 2016](#)
102. [WILPF, Life at the bottom of the chain: women in artisanal mines in DRC, Women's International League for Peace and Freedom, 2016](#)
103. [GIZ, Sexual and Gender-Based Violence in the Mining Sector in Africa: Evidence and reflections from the DRC, South Africa, Tanzania & Uganda, 2020](#)
104. [Sophie Rickard, German Ministry for Economic Cooperation and Development, A Guide to Gender and Mining: Issues, Actors, and Initiatives, 2024](#)
105. [UNEP, UN Women, PBSO, UNDP \(2013\) Women and Natural Resources: Unlocking the Peacebuilding Potential](#)
106. [Maureen Walschot, The gendered dimensions of the EU Conflict Minerals Regulation: A step forward in addressing gender-specific risks in conflict-affected mining areas? IPIS, 11 December 2024](#)
107. [Jennifer Hinton, The Gender Dimensions of Tin, Tantalum and Tungsten Mining in the Great Lakes Region, 2016](#)
108. [Marie-Rose Bashwira, Michaël Bahigira Akilimali, Increasing Awareness of Policy Reforms on Gender Equality Issues in Artisanal and Small-scale Mining \(ASM\) in Eastern DRC: Case Study of the Numbi, Nzibira and Nyabibwe Sites, IPIS, 2023](#)
109. [IGF, Transforming Artisanal and Small-Scale Gold Mining: Progress in formalisation of the sector, Draft, February 2025](#)
110. [International Institute for Sustainable Development \(IISD\), Global Trends in Artisanal and Small-Scale Mining \(ASM\): A review of key numbers and issues, 1 January 2018](#)
111. <https://www.a-mla.org/en/country/law/7#>
112. [OECD/United Nations, Conflict transformation and the role of responsible artisanal and small-scale mining: Supporting peace through supply chain due diligence. OECD Business and Finance Policy Papers, OECD, 2023](#)
113. [Impact, Best Practices: Formalisation and Due Diligence in Artisanal and Small-Scale Mining, May 2018](#)
114. [IAHR, Navigating Portfolio Exposure to Conflict-Affected and High-Risk Areas: Practical Guidance for Investor Engagement with Companies, April 2025](#)
115. <https://www.sec.gov/resources-small-businesses/small-business-compliance-guides/conflict-minerals-disclosure>
116. [National Association of Manufacturers v. SEC, No. 13-CF-000635 \(D.D.C. Apr. 3, 2017\)](#)
117. [SEC, Updated Statement on the Effect of the Court of Appeals Decision on the Conflict Minerals Rule, 7 April 2017](#)
118. [Dynda A. Thomas, New Day for the US Conflict Minerals Rule, 21 January 2021](#)
119. <https://practicalesg.com/2025/05/sec-begins-closing-the-door-on-conflict-minerals-rule/>

120. [Council of the EU, Simplification: Council adopts law to 'stop-the-clock' on due diligence rules for batteries, 18 July 2025](#)
121. [CCCMC, Chinese Due Diligence Guidelines for Responsible Mineral Supply Chains](#)
122. <https://home.jeita.or.jp/mineral/eng/rmtg.html>
123. [Guidelines on Respecting Human Rights in Responsible Supply Chains, September 2022](#)
124. <https://www.consilium.europa.eu/en/press/press-releases/2025/07/18/simplification-council-adopts-law-to-stop-the-clock-on-due-diligence-rules-for-batteries/>
125. [IPIS, PAX, The EU Conflict Minerals Regulation: High Stakes, Disappointing Results. Antwerp/Goma/Utrecht, October 2023](#)
126. [Ken Matthysen, Lotte Hoex, Peer Schouten, Steven Spittaels, Mapping artisanal mining areas and mineral supply chains in eastern DR Congo, IPIS, April 2019](#)
127. [Ken Matthysen, Lotte Hoex, Peer Schouten \(DIIS/IPIS\), Steven Spittaels, Mapping artisanal mining areas and mineral supply chains in eastern DR Congo, April 2019](#)
128. [Marieke Haagh, Revisiting responsible sourcing: Lessons from the Democratic Republic of Congo, IPIS, 16 September 2024](#)
129. [IPIS, Evaluating Due Diligence Programs for Conflict Minerals, 29 March 2021](#)
130. [U.S. Government Accountability Office, Conflict Minerals: Peace and Security in Democratic Republic of the Congo Have Not Improved with SEC Disclosure Rule, October 2024](#)
131. [Bok Baik, Omri Even-Tov, Russel Han, David Park, The Real Effects of Supply Chain Transparency Regulation: Evidence from Section 1502 of the Dodd-Frank Act, Journal of Accounting Research, Vol. 64\(2\), May 2024](#)
132. [Dominic P. Parker and Bryan Vadheim, Resource Cursed or Policy Cursed? US Regulation of Conflict Minerals and Violence in the Congo, Journal of the Association of Environmental and Resource Economists Volume 4, Number 1 March 2017](#)
133. [Nik Stoop, Marijke Verpoorten, Peter van der Windt, More legislation, more violence? The impact of Dodd-Frank in the DRC, PLoS ONE 13\(8\), 2018](#)
134. [European Commission, Review of the functioning and effectiveness of Regulation \(EU\) 2017/821 \(Conflict Minerals Regulation\) pursuant to Article 17 \(2\) of Regulation \(EU\) 2017/821, 24 September 2024](#)
135. [IPIS, PAX, The EU Conflict Minerals Regulation: High Stakes, Disappointing Results, October 2023](#)
136. [Chloé Farand, Halt illegal imports of conflict minerals from DRC, campaigners urge EU, 15 January 2025](#)
137. [Ken Matthysen, Lotte Hoex, Peer Schouten, Steven Spittaels, Mapping artisanal mining areas and mineral supply chains in eastern DR Congo, IPIS, April 2019](#)
138. [Ken Matthysen, Why the DR Congo is putting Apple on the spot, IPIS, 15 May 2024](#)
139. [Global Witness, The ITSCI laundromat, April 2022](#)
140. [Marieke Haagh, Revisiting responsible sourcing: Lessons from the Democratic Republic of Congo, 16 September 2024](#)
141. [Claude Iguma Wakenge, Marie-Rose Bashwira Nyenyezi, Sylvia I. Bergh, Jeroen Cuvelier, From 'conflict minerals' to peace? Reviewing mining reforms, gender, and state performance in eastern Democratic Republic of Congo, The Extractive Industries and Society, 8\(2\), June 2021](#)
142. [Marieke Haagh, Revisiting responsible sourcing: Lessons from the Democratic Republic of Congo, 16 September 2024](#)
143. [Nik Stoop, Marijke Verpoorten, Peter van der Windt, More legislation, more violence? The impact of Dodd-Frank in the DRC, PLoS ONE 13\(8\), 2018](#)
144. [Boukje Theeuwes, Catarina Vieira, Lotte Hoex, IPIS, Solidaridad, Due diligence and the risk of disengagement: Experiences from the mineral sector and a way forward for the CSDDD, June 2024](#)
145. [Boukje Theeuwes, Catarina Vieira, Lotte Hoex, IPIS, Solidaridad, Due diligence and the risk of disengagement: Experiences from the mineral sector and a way forward for the CSDDD, June 2024](#)
146. [Ken Matthysen, Lotte Hoex, Peer Schouten \(DIIS/IPIS\), Steven Spittaels, Mapping artisanal mining areas and mineral supply chains in eastern DR Congo, April 2019](#)
147. [OECD, Costs and Value of Due Diligence in Mineral Supply Chains – OECD Position Paper, 2021](#)
148. [planetGOLD, Cross-programme analysis of planetGOLD ASGM financial access interventions, May 2024](#)
149. [World Bank, EGPS, Achieving Sustainable and Inclusive Artisanal and Small-Scale Mining \(ASM\): A Renewed Framework for World Bank Engagement, September 2024](#)
150. [Marieke Haagh, Revisiting responsible sourcing: Lessons from the Democratic Republic of Congo, 16 September 2024](#)
151. [OECD/United Nations, Conflict transformation and the role of responsible artisanal and small-scale mining: Supporting peace through supply chain due diligence. OECD Business and Finance Policy Papers, OECD, 2023](#)
152. [IGF, Draft IGF Case Study I Transforming Artisanal and Small-Scale Gold Mining: Progress in formalization of the sector, February 2025](#)
153. [Marie-Rose Bashwira Nyenyezi, Michaël Bahigira Akilimali, Increasing Awareness of Policy Reforms on Gender Equality Issues in Artisanal and Small-scale Mining \(ASM\) in Eastern DRC: Case Study of the Numbi, Nzibira and Nyabibwe Sites, IPIS, 2023](#)
154. [Claude Iguma Wakenge, Marie-Rose Bashwira Nyenyezi, Sylvia I. Bergh, Jeroen Cuvelier, From 'conflict minerals' to peace? Reviewing mining reforms, gender, and state performance in eastern Democratic Republic of Congo, The Extractive Industries and Society, 8\(2\), June 2021](#)
155. [Marie-Rose Bashwira Nyenyezi, Michaël Bahigira Akilimali, Increasing Awareness of Policy Reforms on Gender Equality Issues in Artisanal and Small-scale Mining \(ASM\) in Eastern DRC: Case Study of the Numbi, Nzibira and Nyabibwe Sites, IPIS, 2023](#)
156. [Maureen Walschot, IPIS, The gendered dimensions of the EU Conflict Minerals Regulation: A step forward in addressing gender-specific risks in conflict-affected mining areas? 11 December 2024](#)
157. [OHCHR, Working Group on Business and Human Rights, Corporate human rights due diligence – identifying and leveraging emerging practices](#)

158. [OECD, OECD Due Diligence Guidance for Responsible Business Conduct, 2018](#)
159. [OECD, OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas: Third Edition, 2016](#)
160. [Will Ross, Damian Zane, Apple accused of using conflict minerals, 17 December 2024](#)
161. [Reuters, Paris prosecutor drops case against Apple over Congo minerals, document shows, 27 February 2025](#)
162. [David Pilling, Alice Hancock, Laura Dubois, Michael Acton, Apple hit by Belgian probe over 'blood minerals' from Congo, 20 January 2025](#)
163. [Leigh Day, Trial of the London Bullion Market Association to go ahead at the High Court next year following alleged human rights abuses at African gold mine, 27 January 2025](#)
164. [US Treasury, Treasury Sanctions Entities Linked to Violence and Illegal Mining in the Democratic Republic of the Congo, 12 August 2025](#)
165. OECD National Contact Points are established by governments following the OECD Guidelines for Multinational Enterprises on Responsible Business Conduct; their responsibilities include handling complaints against companies who are alleged to have failed to meet the Guidelines.
166. <https://www.oecdwatch.org/complaint/italian-csos-vs-stellantis-italy-and-stellantis-nv/>
167. <https://www.oecdwatch.org/complaint/global-witness-vs-afrimex/>
168. [Global Witness, New investigation suggests EU trader Traxys buys conflict minerals from DRC, 15 April 2025](#)
169. [Amazon Watch, Blood Gold, 2022](#)
170. [Victor Stenquist, The Swedish Teachers' Union owned mining companies in Congo, 31 January 2024](#)
171. <https://www.sverigeslarare.se/om-oss/nyheter/sveriges-larare-avyttrar-aktier-i-arc-minerals/>
172. [Jonathan Watts, Tech firms to check suppliers after mining revelations in Tanzania, 18 June 2019](#)
173. [Sasha Lezhnev, Apple Makes New Pledges on Conflict Minerals, Should Begin Clean Congo Sourcing Program, 15 February 2013](#)
174. [Thomas Osburg, Branding Raw Material to Improve Human Rights: Intel's Ban on Conflict Minerals, GfK Marketing Intelligence Review 8\(1\), April 2016](#)
175. [Time, How Tiffany & Co. Helped Make Mining More Sustainable, 18 January 2024; Human Rights Watch, The Hidden Cost of Jewellery, 8 February 2018](#)
176. [IPIS, PAX, The EU Conflict Minerals Regulation: High Stakes, Disappointing Results, October 2023](#)
177. [SWISSAID, Out of the Shadows. Business Relationships between Industrial Gold Mines in Africa and Refineries, March 2023](#)
178. <https://www.gold.org/news-and-events/press-releases/world-gold-council-members-commit-enhanced-supply-chain-transparency>
179. [Ordinance of 3 December 2021 on Due Diligence and Transparency in relation to Minerals and Metals from Conflict-Affected Areas and Child Labour \(DDTrO\)](#)
180. [The Swiss Times, No transparency on gold imports into Switzerland, 16 November 2023](#)
181. https://www.news.admin.ch/de/newsb/UDaIr4CV5UX2_sLwdBHN_
182. [IPIS, PAX, The EU Conflict Minerals Regulation: High Stakes, Disappointing Results, October 2023](#)
183. [Global Witness, Digging for disclosure: A review of publicly available supply chain due diligence information by Chinese metals processing companies, March 2021](#)
184. [Joshua Schneyer, Commodity Traders: The trillion dollar club, 28 October 2011](#)
185. [Public Eye, Switzerland – the commodities hub, 17 October 2018](#)
186. <https://www.gold.org/gold-market-structure/global-gold-market>
187. [DMCC, DMCC Predicts 'Asian Century' for Precious Metals as UAE Surpasses UK to Become World's Second-Largest Gold Trade Hub, 18 November 2024](#)
188. [Christina Saulich, German Institute for International and Security Affairs, Due Diligence Obligations in Metal Supply Chains: Traders and exchanges are key sustainability actors, SWP Comment, N 32, June 2023](#)
189. <https://www.lme.com/sustainability-and-physical-markets/sustainability/responsible-sourcing>
190. <https://www.lbma.org.uk/responsible-sourcing>
191. <https://www.cmegroup.com/notices/market-regulation/2021/04/MSN04-19-21.html>
192. <https://www.responsiblemineralsinitiative.org/about/rmi-initiative/>
193. <https://responsiblemining.net/what-you-can-do/mining-companies/>
194. <https://responsiblemining.net/what-we-do/assessment/>
195. <https://www.itsci.org/purpose/>
196. [Ken Matthysen, Why the DR Congo is putting Apple on the spot, IPIS, 15 May 2024](#)
197. <https://www.responsiblemineralsinitiative.org/news/rmi-update-on-itsci-recognition-and-great-lakes-region-due-diligence/>
198. <https://www.responsiblemineralsinitiative.org/minerals-due-diligence-container/recognized-standards-or-programs/upstream-assurance-mechanisms/>
199. <https://www.responsiblemines.org/en/>
200. <https://www.rcsglobal.com/bettermining/>
201. <https://www.rcsglobal.com/better-mining-impact-report-2023/>
202. [UN Security Council, Midterm report by Group of Experts on the Democratic Republic of the Congo \(security-related developments in Nord-Kivu, Ituri and Sud-Kivu provinces\), 27 December 2024](#)
203. [IPIS, PAX, The EU Conflict Minerals Regulation: High Stakes, Disappointing Results, Antwerp/Goma/Utrecht, October 2023](#)

204. [BHRC, KnowTheChain ICT benchmark 2025: Supply chain traceability and transparency, 24 March 2025](#)
205. [OECD/IEA, The role of traceability in critical mineral supply chains, OECD, 2025](#)
206. [Impact, Beyond the Label: Rethinking Traceability in Critical Minerals, 29 April 2025](#)
207. [BHRC, KnowTheChain ICT benchmark 2025: Supply chain traceability and transparency, 24 March 2025](#)
208. <https://www.maplecroft.com/solutions/consulting/political-risk/insights/leveraging-data-to-identify-conflict-affected-and-high-risk-areas-cahras-in-mineral-supply-chains/>
209. [BHRC, Downstream ITC companies fail to engage with heightened risks of indirectly financing M23 rebel armed group through sourcing tantalum from eastern DRC, 30 April 2025](#)
210. [IPIS, PAX, The EU Conflict Minerals Regulation: High Stakes, Disappointing Results, October 2023](#)
211. [OECD, Quantifying the Costs, Benefits and Risks of Due Diligence for Responsible Business, 2016; Conduct, OECD Publishing, Paris](#)
212. [OECD, Costs and Value of Due Diligence in Mineral Supply Chains – OECD Position Paper, 2021](#)
213. [IPIS, PAX, The EU Conflict Minerals Regulation: High Stakes, Disappointing Results, Antwerp/Goma/Utrecht, October 2023](#)
214. [IPIS, PAX, The EU Conflict Minerals Regulation: High Stakes, Disappointing Results, October 2023](#)
215. [U.S. Government Accountability Office, Conflict Minerals: Peace and Security in Democratic Republic of the Congo Have Not Improved with SEC Disclosure Rule, October 2024](#)
216. [MSCI, How Can Investors Push for a Responsible Supply Chain? July 2022](#)
217. [Tomas Pintado, Tracing trouble: How companies are confronting conflict minerals risks, 29 August 2025](#)
218. [BHRC, KnowTheChain ICT benchmark 2025: Supply chain traceability and transparency, 24 March 2025](#)
219. [BHRC, Renewable energy and human rights benchmark, September 2025](#)
220. <https://investorsforhumanrights.org/investor-engagement-cahra>
221. <https://www.nokia.com/sites/default/files/2025-05/nokia-conflict-minerals-report-for-2024.pdf>
222. <https://europeanpartnership-responsibleminerals.eu/blog/view/4056615d-3102-41c3-ac1f-456dc2b1818a/company-case-study-philips-new>
223. <https://europeanpartnership-responsibleminerals.eu/blog/view/d79b0ee9-24cb-4ae2-8129-179f31efc24b/company-case-study-wolfram-bergbau-hutten-ag-wbh>
224. https://www.tdk.com/system/files/sustainability/tdk_sustainability_2024_en.pdf
225. [Volkswagen Group, Responsible Raw Materials Report 2024](#)
226. [Siri Aas Rustad, Conflict Trends: A Global Overview, 1946–2024, PRIO Paper, 2025](#)
227. <http://mneguidelines.oecd.org/guidelines/; https://mneguidelines.oecd.org/RBC-for-Institutional-Investors.pdf>
228. <https://investorsforhumanrights.org/conflict-affected-and-high-risk-areas>
229. [Investor Alliance for Human Rights, Investor Toolkit on Human Rights, May 2020](#)
230. [World Bank, EGPS, Achieving Sustainable and Inclusive Artisanal and Small-Scale Mining \(ASM\): A Renewed Framework for World Bank Engagement, September 2024](#)
231. [planetGOLD, Cross-programme analysis of planetGOLD ASGM financial access interventions, May 2024](#)
232. [For example, see the 2014 collective investor statement calling for better alignment between the Dodd-Frank Act and the proposed EU rules](#)
233. <https://www.churchofengland.org/media/finance-news/church-england-pensions-board-lead-investor-engagement-companies-support-goma-call-peace-following>
234. [Stakeholder interview](#)
235. <https://www.hermes-investment.com/uk/en/institutions/eos-insight/stewardship/public-engagement-report-q1-2025/>
236. <https://vbdo.nl/en/2025/07/nickel-initiative-a-multi-stakeholder-approach-to-esg-in-supply-chains/>
237. <https://mining2030.org/about/>
238. <https://vbdo.nl/en/2024/02/investors-worldwide-call-for-responsible-mining-practices-in-nickel-industries/>
239. <https://www.stewartinvestors.com/global/en/all/insights/conflict-minerals-power-of-collaborative-engagement.html>
240. <https://www.unpri.org/collaborative-engagements/responsible-cobalt-sourcing-engagement-results/8208.article>
241. <https://investorsforhumanrights.org/rapid-response/investor-expectations-conflict-mineral-reporting>
242. <https://www.responsible-investor.com/844-conflict-mins/>
243. <https://www.unpri.org/stewardship/engaging-with-electronics-companies-on-sourcing-conflict-minerals-/569.article>
244. <https://investorsforhumanrights.org/investor-engagement-cahra>
245. [IAHR, Navigating Portfolio Exposure to Conflict-Affected and High-Risk Areas: Practical Guidance for Investor Engagement with Companies, April 2025](#)

Important information

This material is intended for professional investors, sophisticated or wholesale clients or professional or institutional clients (or equivalent) as may be defined in the jurisdiction in which the material is received and should not be relied upon by other persons including retail clients. It is made available to you for information purposes only and does not constitute investment or financial advice, an offer of asset management services, a recommendation or an offer or solicitation to buy, hold or sell any security and has not been prepared in connection with any such offer. It does not take into account any objectives, financial situation or needs of a reader.

This material is neither directed at nor intended to be accessed by persons resident in, or citizens of any country, or types or categories of individual where to allow such access would require any registration, filing, application for any licence or approval or other steps to be taken by First Sentier Group in order to comply with local laws or regulatory requirements in such country.

This material does not constitute investment research. Accordingly, this information has not been prepared in compliance with the legal provisions promoting independent investment research, and it is not subject to any restriction prohibiting the execution of transactions prior to the dissemination of investment research. Any research in this document has been procured and may have been acted upon by First Sentier Group for its own purposes.

Reference to specific securities (if any) is included for the purpose of illustration only and should not be construed as a recommendation to buy, sell or hold the same. All securities mentioned herein may or may not form part of the holdings of First Sentier Group, Mitsubishi UFJ Trust and Banking Corporation ("the Trust Bank") or Mitsubishi UFJ Financial Group, Inc. ("MUFG") portfolios at a certain point in time, and the holdings may change over time.

Although the information presented here is from sources believed to be reliable and reputable, neither First Sentier Group, the Trust Bank nor MUFG make any representation or warranty in relation to the accuracy, completeness or reliability of any information contained here. The information and views expressed are those of the authors and not necessarily those of either First Sentier Group, the Trust Bank or MUFG.

The opinions expressed are subject to change without notice. Reliance upon information in this material is at the sole discretion of the reader. To the extent permitted by law, no liability is accepted by the Trust Bank, MUFG or First Sentier Group, nor their affiliates for any loss or damage as a result of any reliance on or use of this material.

This document is the intellectual property of First Sentier Group, the Trust Bank and if applicable a third party. They retain all intellectual property or other rights in all information and content (including, but not limited to, all text, data, graphics and logos).

References to "we" or "us" are references to First Sentier Group, a global investment management business, the ultimate owner of which is MUFG. First Sentier Group includes a number of affiliate investment teams in different jurisdictions.

For readers located in the United Kingdom, this document is issued by First Sentier Investors (UK) Funds Limited, authorised and regulated by the Financial Conduct Authority. Registered office: Finsbury Circus House, 15 Finsbury Circus, London EC2M 7EB (company number 02294743, FCA reference number 143359).

For readers located in the EU, this document is issued by First Sentier Investors (Ireland) Limited, authorised and regulated by the Central Bank of Ireland. Registered office: 70 Sir John Rogerson's Quay, Dublin 2, (company number 629188, CBI registration number C182306)

For readers located in Hong Kong, this document is issued by First Sentier Investors (Hong Kong) Limited and has not been reviewed by the Securities & Futures Commission in Hong Kong.

For readers located in Singapore, this document is issued by First Sentier Investors (Singapore) whose company registration number is 196900420D. This advertisement or publication has not been reviewed by the Monetary Authority of Singapore.

For readers located in Australia, this document is issued by First Sentier Investors (Australia) IM Limited (ABN 89 114 194311 AFSL 289017). This material is not intended for persons who are "retail clients" (as defined under the Corporations Act).

In the US, this document is issued by First Sentier Investors (US) LLC registered with the Securities Exchange Commission (RIA 801-93167).