

**CRITICAL MINERALS,
CRITICAL CONSEQUENCES:
HUMAN COST IN THE
DEMOCRATIC REPUBLIC OF
THE CONGO**

THE OBSIDIAN CURRENT INSTITUTE



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The DRC sits at the centre of global critical-mineral supply, and at the centre of its consequences. As demand for cobalt, copper, gold, and 3T rises, weak governance and insecurity allow minerals to be converted into rents, coercion, and cross-border laundering. The result is a paradox: minerals labelled “critical” for global resilience can intensify local conflict and human harm when institutions cannot control the interfaces where minerals become money.

International due-diligence and certification frameworks have created an important compliance architecture, but enforcement remains fragile in fragmented ASM supply chains where blending and documentation fraud can “reset” provenance. Meanwhile, the human costs are compounded by insecurity and chronic humanitarian funding gaps. A credible response must align protection, targeted enforcement, and incentives for legitimate trade, so supply security does not come at the expense of civilian security.

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Critical Minerals, Critical Consequences: Human Cost in the Democratic Republic of the Congo

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Executive Summary

The Democratic Republic of the Congo sits at the centre of several critical mineral supply chains that underpin electrification and the digital economy. Yet in parts of the country, mineral extraction and trade intersect with chronic insecurity, weak state presence, and cross-border laundering networks. The result is a structural policy problem: the global race to secure “critical” inputs can amplify “critical consequences” when minerals are produced and moved through governance environments where coercion, informal taxation, and institutional fragility shape economic life.

This report asks how critical minerals in the DRC become entangled with conflict dynamics and humanitarian harm, and what this implies for policy, corporate compliance, and responsible investment. It maps the mineral value chain to show where risk accumulates and why conventional responses often struggle to change realities on the ground. The scope is deliberately integrated: it covers critical-mineral demand and supply-chain structure, conflict and armed-group political economy, human costs, and the international architecture of due diligence and humanitarian response. The intended audience includes policymakers and donor governments, investors and risk teams, NGOs and humanitarian actors, and private-sector compliance and sourcing teams seeking credible ways to reduce harm without simply shifting risk into more opaque channels.

The report proceeds in five moves. First, it clarifies what “critical” means in policy terms and why criticality depends as much on substitution limits, chokepoints, and trade vulnerability as on geology. Second, it situates the DRC’s strategic importance through geology and political economy and how money becomes power by identifying the key interfaces where extraction value is converted into revenue through documentation, aggregation, transport, and export. Fourth, it explains why insecurity persists, emphasising the role of armed-group ecosystems, state weakness, and regional dynamics that facilitate smuggling and relabelling. Fifth, it assesses international responses showing what exists, why enforcement remains difficult, and what gaps remain.

Key Findings

- **Criticality is a systems-risk label, not a geological fact.** Minerals can be strategically “critical” even when geologically abundant if they are hard to substitute, if processing is concentrated in a small number of jurisdictions, or if trade routes and controls create vulnerability, shifting policy attention from reserves to supply-chain bottlenecks and resilience.
- **The DRC’s mineral economy contains two distinct risk environments.** Industrial copper and cobalt production in the south is more formalised and export-oriented. At the same time, 3T and gold in the east are frequently ASM-linked, trader-mediated, and structurally harder to verify, creating different pathways for corruption, coercion, and hidden revenue capture.
- **The most consequential “money-and-power” nodes often sit after extraction.** Aggregation points, trading hubs, checkpoints, border crossings, and export channels can be as economically consequential as mine sites because they control documentation, movement, blending, and access to formal markets, making them prime sites for rent extraction and laundering.
- **Conflict and regional dynamics reshape mineral flows into a cross-border political economy.** In high-risk eastern corridors, minerals can be smuggled, blended, and relabelled through neighbouring jurisdictions, turning local insecurity into a regional competition over revenue, influence, and market access.

- **International responses are dense on paper but thin where enforcement and financing matter most.** Due diligence frameworks, industry schemes, and regulations have formalised norms of responsible sourcing, yet porous borders, ore mixing, documentation fraud, and local incentives routinely undermine enforcement. Meanwhile, the humanitarian system faces chronic funding gaps and access constraints, limiting continuity in food, health, WASH, and protection support in displacement hotspots.

Priority Recommendations

- **Target the “interfaces,” not only mine sites.** Prioritise enforcement and monitoring at checkpoints, trading hubs, and border crossings where value is converted into revenue: expand joint customs cooperation and data-sharing across the Great Lakes region; increase scrutiny of high-risk corridors; and apply targeted sanctions and investigations against laundering networks and repeat offenders in the trade chain.
- **Shift due diligence from paperwork to proof of risk reduction.** Encourage regulators and industry schemes to reward demonstrable improvements rather than scheme participation alone; pay special attention to gold and other compact, high-value minerals that migrate into opaque channels when compliance pressure rises.
- **Strengthen governance and revenue transparency where it changes incentives.** Support institutional capacity in licensing, oversight, and export verification; improve pay, supervision, and accountability within security deployments that interact with mining and trade; and expand community-level monitoring and formalisation pathways that reduce reliance on predatory informal taxation.
- **Prevent “risk avoidance” from displacing harm into informality.** Pair compliance with livelihood and market-access pathways for validated ASM: responsible buyer programs, credible price incentives, and support for safer working conditions, so that responsible sourcing does not unintentionally push miners toward illicit markets.
- **Fund protection and humanitarian continuity as a security measure.** Stabilisation is not only military or diplomatic: scale predictable financing for food assistance, health services, and WASH in displacement-affected provinces; protect humanitarian access corridors; and align civilian-protection efforts with delivery of essential services.

Taken together, these recommendations reflect the report’s central conclusion: critical minerals are not inherently harmful, but in weak-governance and conflict settings, the mineral economy can become a channel through which value is converted into coercion, concentrating human costs on the most vulnerable communities. A credible response, therefore, requires convergence across supply-chain enforcement, governance reform, and humanitarian continuity, rather than treating compliance, security, and relief as separate toolboxes operating on different timelines.

I. Introduction

1.1 Critical Minerals in the Democratic Republic of the Congo (DRC)

Critical minerals have become a strategic cornerstone of the energy transition and the digital economy, underpinning batteries, power grids, renewables, electronics, and a growing share of advanced manufacturing. However, the acceleration of mineral demand has also intensified scrutiny of the origin of minerals and the mechanisms by which these inputs are produced, traded, and refined. The DRC occupies a central position in this debate because it combines exceptional geological endowments, supply-chain chokepoints, and governance constraints that can translate resource extraction into severe humanitarian and security consequences. Available production data indicate that the DRC accounts for a dominant share of global cobalt mine output and ranks among leading copper producers, positioning the country as a pivotal upstream node for electrification supply chains.¹ At the same time, evidence from United Nations (UN) expert reporting, humanitarian agencies, and investigative research indicates that mineral flows, particularly in conflict-affected eastern provinces, can intersect with coercive taxation, illicit trade, and violence against civilians.²

This report addresses a core policy problem at the intersection of markets, security, and human welfare: how can international stakeholders secure access to critical mineral supply chains while reducing the risk that extraction and trade contribute to conflict dynamics and humanitarian harm in the DRC? The underlying challenge is not the existence of mineral wealth itself, but the conditions under which mineral value is converted into revenue, and revenue is converted into political power. In contexts of uneven state capacity and persistent insecurity, the most economically consequential nodes are often “interfaces” rather than mine pits alone. These interfaces include licensing decisions, checkpoints, trading hubs, border corridors, and downstream processing and refining chokepoints. Where these nodes are subject to capture or coercion, minerals can become a durable financing base for armed actors and predatory networks, while communities experience the cumulative costs through displacement, health shocks, livelihood disruption, and protection risks.³

1.2 Research Question and Policy Problem

The report is guided by the following research question: How do critical mineral supply chains in the DRC shape conflict dynamics and human cost, and what policy and compliance options offer the most credible pathways to reduce harm without producing counterproductive disengagement or risk displacement into more opaque trade channels?

This framing reflects three realities established in the literature and policy practice. First, responsible sourcing approaches generally rely on risk-based due diligence rather than blanket disengagement, particularly under the Organisation for Economic Co-operation and Development (OECD) framework, which assumes that continued engagement can be justified when risks are identified, mitigated, and transparently reported.⁴ Second, enforcement remains difficult where

¹ U.S. Geological Survey. *Mineral Commodity Summaries 2025*. Reston, VA: U.S. Geological Survey, 2025.

² United Nations Security Council. *Midterm report of the Group of Experts on the Democratic Republic of the Congo*. S/2024/969. 27 December 2024.

³ International Peace Information Service (IPIS). “Analysis of the interactive map of artisanal mining areas in eastern Democratic Republic of Congo: 2023 update.” December 2023.

⁴ OECD. *OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas*. 3rd ed. Paris: OECD Publishing, 2016. <https://www.oecd.org/due-diligence/>.

artisanal and small-scale mining (ASM) is widespread, borders are porous, and documentation can be manipulated or recycled. Third, humanitarian needs persist at scale in eastern DRC, and response systems face recurring access and funding constraints, which limits the extent to which humanitarian action can substitute for improvements in security and governance.⁵

1.3 Scope and Analytical Boundaries

The report focuses on the “critical minerals, critical consequences” nexus in the DRC across five tightly linked domains.

1. **Critical minerals and supply chains:** The analysis prioritizes a small set of minerals that are both economically significant and empirically linked to identifiable risk pathways, with emphasis on cobalt and copper in the industrial corridor, gold, and selected streams of tin and tantalum/coltan in higher-risk contexts.
2. **Conflict dynamics:** The report examines how insecurity persists through interacting drivers such as uneven distribution of resource benefits, weak or contested state authority, armed group territorial strategies, and regional cross-border incentives. These dynamics are treated as probabilistic and contingent, not deterministic resource wars.
3. **Human cost:** The report focuses on the humanitarian consequences associated with insecurity and extraction-linked governance failures, including displacement, health system disruption, epidemic vulnerability, food insecurity, labour and protection risks.
4. **Governance and political economy:** The report analyses how state capacity constraints, elite incentives, and local authority structures shape mineral governance outcomes, including the feasibility of regulation at “interfaces” such as roads, checkpoints, trading hubs, and border crossings.
5. **Compliance and international responses:** The report reviews due diligence frameworks and industry schemes, identifies recurring enforcement challenges, and assesses what remains missing within the architecture of international response.

The report does not attempt to provide a comprehensive history of the Congolese conflict, nor does it catalogue all armed groups in detail. Instead, it prioritises mechanisms that link mineral flows to revenue capture and insecurity, in addition to emphasising policy-relevant leverage points for governments, companies, investors, and multilateral actors.

1.4 Intended Audience and Applicable Cases

The report is written for a mixed audience whose decisions shape both mineral supply chains and the incentives surrounding them:

- **Policy actors and governments** seeking actionable options to reduce conflict-linked revenue streams, strengthen governance interfaces, and improve accountability across borders.
- **Investors and financial institutions** assessing material risk exposure in upstream and midstream mineral value chains, including reputational, legal, and operational risk associated with sourcing and contracting.

⁵ United Nations Office for the Coordination of Humanitarian Affairs (OCHA). *Democratic Republic of the Congo: Humanitarian Response Plan 2025* (and associated updates). 2025.

- **NGOs and humanitarian actors** requiring a structured articulation of how extraction, insecurity, and humanitarian vulnerability intersect, and where policy and corporate interventions may improve conditions or unintentionally displace harm.
- **Private sector compliance and procurement teams** implementing due diligence obligations and industry schemes, and needing a clear understanding of where traceability works, where it fails, and which nodes require heightened controls.

1.5 Structure of the Report

The report proceeds in a cumulative sequence designed to move from definition and context to mechanisms, impacts, and policy options.

- **Section II (Critical minerals primer)** defines what makes minerals “critical,” explains why lists differ across jurisdictions, and maps the value chain from extraction to final products, identifying where opacity and risk are introduced.
- **Section III (DRC context)** establishes why the DRC is central, linking demographics and state capacity constraints to the political economy of mineral governance, and distinguishing the geography of industrial mining from the geography of insecurity.
- **Section IV (Supply chains, revenue flows, risk hotspots)** explains how minerals become money and how money can become power, with attention to ASM versus industrial political economies, chokepoints (trading, borders, refining), and corporate exposure in procurement and subcontracting chains.
- **Section V (Conflict dynamics)** analyses why insecurity persists and how armed group ecosystems, regional incentives, and smuggling networks interact with mineral-rich territories.
- **Section VI (Human cost)** traces the humanitarian consequences linked to insecurity, including displacement, epidemic vulnerability, and livelihood disruption, and situates these harms within constraints faced by public services and response systems.
- **Section VII (International responses)** reviews existing due diligence frameworks and humanitarian structure, explains why enforcement is structurally difficult, and identifies what is missing in current responses.
- **Sections VIII and IX (Policy options and recommendations)** present feasible intervention pathways, clarifying theory of change, implementation steps, risks and mitigations, and measurable indicators, followed by prioritised recommendations by actor group and timeline.

This structure is intended to support practical decision-making. It establishes a shared conceptual baseline, traces causal mechanisms from supply chains to conflict and humanitarian outcomes, and then translates those mechanisms into policy and compliance options that can be implemented and monitored.

II. Critical Minerals Primer

2.1 What Makes a Mineral Critical

Critical minerals are not a geological category; they are a policy category. Across most government and multilateral frameworks, a mineral becomes “critical” when it scores highly on economic importance and supply risk, often alongside limited substitutes, market concentration, and strategic considerations such as defence, infrastructure resilience, or national security.⁶ In the U.S., for example, the federal concept of “critical minerals” is explicitly tied to both economic and national-security significance and vulnerability in supply chains.⁷

This framing is significant because it shifts attention from the question of how much ore exists to the question of how the mineral moves through the economy. A mineral can be abundant geologically yet still be “critical” if it is difficult to substitute, if processing is concentrated in a small number of jurisdictions, or if it depends on fragile trade routes, export controls, or high-risk sourcing environments.⁸ ⁹ In other words, “critical” is best understood as a systemic risk label: it reflects exposure to challenges across the value chain, from extraction to refining to component manufacturing.

2.2 Core Criteria Used in Most Frameworks

Although methodologies differ, most “criticality” assessments combine a small set of recurring criteria:

1. **Economic importance:** Minerals are evaluated by the scale of value they enable in downstream sectors (e.g., energy systems, mobility, digital infrastructure, aerospace/defence, advanced manufacturing).¹⁰ Copper illustrates this: it is not “new,” but it becomes increasingly critical as electrification expands grids and increases demand for transmission, motors, and wiring.¹¹
2. **Supply risk and vulnerability:** Risk comes from geographic concentration, corporate concentration, and processing chokepoints. Criticality frameworks also factor in exposure to political instability, trade restrictions, logistical constraints, and ESG-related disruptions.¹²
3. **Limited substitutes:** Some minerals have substitutes in principle, but those substitutes can impose performance, cost, or efficiency penalties. Where substitution is difficult at scale, supply shocks transmit quickly into price spikes and production delays.¹³
4. **Time-to-replace supply:** Mining projects and processing capacity take years to develop. The slower the system can respond to a disruption, the higher the criticality.¹⁴

These criteria are the conceptual backbone behind why the DRC appears repeatedly in critical-minerals debates: the DRC sits upstream for several minerals (notably cobalt and copper),

⁶ European Commission, “Critical raw materials,” *Internal Market, Industry, Entrepreneurship and SMEs*

⁷ United States. Federal Register notice (U.S. Geological Survey). *2022 Final List of Critical Minerals*. 2022.

⁸ International Energy Agency, “Diversification is the cornerstone of energy security, yet critical minerals are moving in the opposite direction,” news release, May 21, 2025

⁹ National Research Council, *Minerals, Critical Minerals, and the U.S. Economy* (Washington, DC: National Academies Press, 2008), chap. 1.

¹⁰ Congressional Research Service, *Critical Mineral Resources: National Policy and Critical Minerals List* (Washington, DC: CRS, updated 2025)

¹¹ International Energy Agency (IEA), *The Role of Critical Minerals in Clean Energy Transitions* (Paris: IEA, 2021)

¹² European Commission, *Study on the Critical Raw Materials for the EU 2023: Final Report* (Luxembourg: Publications Office of the European Union, 2023)

¹³ European Commission, *Study on the Critical Raw Materials for the EU 2023: Final Report* (2023)

¹⁴ International Energy Agency (IEA), *The Role of Critical Minerals in Clean Energy Transitions* (2021)

and this upstream concentration can become downstream leverage, or downstream fragility, when the governance and security environment is weak.

2.3 Why Critical-Mineral Lists Differ Across the U.S., EU, Canada, and the International Energy Agency (IEA)

Because “criticality” is a policy label, lists differ based on institutional purpose and strategic priorities¹⁵:

- **Different objectives:** A defence-oriented list may prioritize specialty metals for aerospace and semiconductors; an energy-transition list may emphasize battery materials and grid metals; an industrial policy list may include inputs for domestic manufacturing.
- **Different system boundaries:** Some frameworks consider only upstream extraction risk; others include midstream processing, refining concentration, and downstream dependence.
- **Different economic structures:** Countries define criticality relative to their own industries (automotive, defence, electronics), domestic resource base, and trade relationships.
- **Different time horizons:** Some lists focus on immediate vulnerabilities; others anticipate future bottlenecks as clean-tech deployment accelerates.

Canada’s Critical Minerals Strategy, for instance, frames critical minerals in terms of strategic economic opportunity and supply-chain positioning, explicitly linking mineral priorities to energy transition, advanced manufacturing, and allied supply security.¹⁶ The IEA similarly emphasizes critical minerals as an energy-security issue under clean-energy transitions, focusing on the minerals that underpin electrification, batteries, renewables, and related infrastructure.¹⁷

2.4 The Role of Critical Minerals in the Energy Transition and Digital Economy

Critical minerals are foundational inputs for both the energy transition and the digital economy:

- **Electric vehicles (EVs) and batteries:** Battery chemistries rely on combinations of lithium, nickel, cobalt, manganese, graphite, copper, and aluminum. Even where chemistries evolve to reduce cobalt intensity, cobalt remains important in many battery types and continues to matter for durability and safety trade-offs.^{18 19}
- **Grid storage and grid expansion:** Grid-scale batteries increase demand for battery inputs; grid expansion and electrification increase demand for copper and aluminum.²⁰
- **Renewables:** Wind and solar depend on copper, aluminum, rare earth elements (in permanent magnets for some wind turbines), and specialty metals in power electronics.²¹

¹⁵European Commission, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: On the Review of the List of Critical Raw Materials for the EU and the Implementation of the Raw Materials Initiative, COM(2014) 297 final (Brussels, May 26, 2014).

¹⁶The Mining Association of Canada. *Facts & Figures 2023* (references the Government of Canada’s Critical Minerals Strategy and list framing). 2023.

¹⁷International Energy Agency (IEA). *Critical Minerals Market Review 2023*. Paris: IEA, 2023.

¹⁸International Energy Agency (IEA), “Critical Minerals Outlook 2024 – Launch webinar,”

¹⁹International Energy Agency (IEA), *The Role of Critical Minerals in Clean Energy Transitions*, executive summary

²⁰IEA, *The Role of Critical Minerals in Clean Energy Transitions*, executive summary.

²¹IEA, *The Role of Critical Minerals in Clean Energy Transitions*, executive summary.

- **Electronics and digital infrastructure:** Tantalum (capacitors)²², tin (solder)²³, tungsten (tooling and industrial uses)²⁴, gold (high-conductivity contacts)²⁵, and copper (wiring and data infrastructure) are embedded in devices and networks.
- **Defence and advanced manufacturing:** Aerospace alloys, precision tooling, satellites, and advanced electronics create additional strategic demand and reinforce “security of supply” logic.^{26 27 28}

2.5 The “Demand Shock” Logic: Scaling Clean Tech Means Scaling Minerals

Clean-tech deployment is not only a manufacturing challenge, it is a materials challenge. The more rapidly EVs, renewables, and grids scale, the more sharply demand rises for the mineral inputs embedded in them. The IEA’s critical-minerals work emphasizes that accelerating clean-energy transitions increases exposure to supply concentration and midstream chokepoints, making mineral supply an energy-security concern rather than a niche mining topic.²⁹

The “demand shock” framing is essential for policy analysis because it explains why:

- price volatility can spike even without sudden geological scarcity;
- Operation constraints in refining and processing can limit downstream deployment;
- “responsible sourcing” pressures increase as buyers face both compliance risk and supply risk

2.6 From Rock to Device: The Critical Mineral Value Chain

A simple value-chain lens helps to locate where risk accumulates³⁰:

1. **Extraction (industrial mines and ASM sites):** Extraction risks include labour harms, coercion/extortion, unsafe conditions, and conflict-linked revenue capture, especially where state authority is weak or contested.
2. **Transport and aggregation:** Minerals move from mine sites through traders, depots, and transport corridors. This is where informal taxation, checkpoint rents, and blending of material can occur.³¹
3. **Processing and refining (midstream):** Concentrates and ores are transformed into refined metals or chemicals. This stage often functions as a point of congestion: it concentrates material from multiple upstream sources, which can dilute provenance signals while also creating leverage for jurisdictions and firms that dominate refining capacity.³²
4. **Component manufacturing:** Refined materials become cathodes, anodes, magnets, semiconductors inputs, solder, capacitors, wiring, and other components.
5. **Final products and end markets:** EVs, batteries, wind turbines, electronics, and defence systems incorporate these components.

²² U.S. Geological Survey, “Tantalum—Statistics and Information”

²³ U.S. Geological Survey, “Tin”

²⁴ U.S. Geological Survey, “Tungsten—Statistics and Information”

²⁵ U.S. Geological Survey, *Mineral Commodity Summaries 2022*

²⁶ European Commission, JRC, *Critical Raw Materials for the EU: Assessment of critical raw materials* (2023).

²⁷ U.S. Geological Survey, “What are critical minerals?”

²⁸ Congressional Research Service, *Critical Minerals: A Summary of U.S. Policy and Key Considerations*.

²⁹ International Energy Agency (IEA). *Critical Minerals Market Review 2023*. Paris: IEA, 2023.

³⁰ OECD, *OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas* (Paris: OECD Publishing, 2016), and OECD, “FAQ: How can gold be sourced from artisanal and small-scale miners in line with the OECD Due Diligence Guidance?” (OECD, n.d.).

³¹ OECD, “FAQ: How can gold be sourced from artisanal and small-scale miners in line with the OECD Due Diligence Guidance?” (OECD, n.d.).

³² International Energy Agency (IEA), *Global Critical Minerals Outlook 2025* (Paris: IEA, 2025).

2.7 The Governance Problem: Why the “Critical” Label Can Produce “Critical Consequences”

Criticality can intensify harm when it meets weak governance. When a mineral is high-value and strategically demanded, it creates rents that actors compete to capture. In settings where institutions are weak, the mechanisms of capture often include:

- **Rent-seeking:** This can occur as licensing discretion, opaque contracting, preferential access, and off-budget revenue practices.³³
- **Corruption and coercion at key interfaces:** This predominantly takes place at checkpoints, border crossings, trading hubs, and enforcement nodes.³⁴
- **Armed actor taxation and protection rackets in conflict-affected areas:** Minerals become a financing stream, particularly where territory is contested and civilians have limited protection.³⁵
- **Displacement of harm through risk avoidance:** Stringent compliance requirements can push some buyers to disengage from high-risk regions or ASM supply, which can reduce traceable trade while increasing informal trade and vulnerability.³⁶

This is the central bridge to the rest of the report: critical minerals are not inherently harmful, but under conditions of weak state capacity, insecurity, and intense external demand, the mineral economy can become a channel through which value is converted into coercion, and through which human costs are concentrated in the most vulnerable communities.

III. DRC Context: Geology, Political Economy, and the Centrality of the DRC

3.1 Snapshot of the DRC: Demographics, Poverty, and State Capacity

The DRC is a large, rapidly growing country with a young demographic profile and persistent multidimensional deprivation. Data from the World Bank shows a population exceeding 100 million and continuing to rise quickly, a factor that increases demand for livelihoods while also stretching already limited public administration and service delivery capacity.³⁷

Poverty levels in the DRC remain exceptionally high. The World Bank’s Poverty and Equity Brief for the DRC reports that poverty at the international poverty line (US\$2.15 per day, 2017 PPP) remained widespread, and provides recent estimates indicating only modest improvement after the COVID-19 shock.³⁸ Complementary human development indicators reinforce this picture; UNDP data place the DRC in the low human development category, with a 2023 Human Development Index (HDI) value reported at 0.522.³⁹

³³ International Monetary Fund, Democratic Republic of the Congo: Fourth Review Under the Extended Credit Facility, Request for Modification of Quantitative Performance Criterion, and Financing Assurances Review—Press Release; Staff Report; and Statement by the Executive Director for the Democratic Republic of the Congo, IMF Country Report No. 23/244 (Washington, DC: International Monetary Fund, 2023), 75–76.

³⁴ International Peace Information Service (IPIS), *Mapping Conflict Minerals: Armed Interference in Mining and the Trade of Tin, Tantalum, Tungsten and Gold in Eastern Democratic Republic of Congo* (Antwerp/Brussels: International Peace Information Service, 2019).

³⁵ International Peace Information Service (IPIS), *Mapping Conflict Minerals: Armed Interference in Mining and the Trade of Tin, Tantalum, Tungsten and Gold in Eastern Democratic Republic of Congo* (Antwerp/Brussels: International Peace Information Service, 2019).

³⁶ Nik Stoop, “The Effects of Dodd-Frank 1502 on Civil Conflict: A Regression Discontinuity Approach,” MPRA Paper No. 89488 (Munich: Munich Personal RePEc Archive, 2018).

³⁷ World Bank, “Population, total, Congo, Dem. Rep.,” World Development Indicators.

³⁸ World Bank, Poverty and Equity Brief: Democratic Republic of Congo (Washington, DC: World Bank, 2024).

³⁹ United Nations Development Programme (UNDP), “Democratic Republic of the Congo,” Human Development Data Center (HDI 2023 value).

State capacity constraints are not limited to social indicators, extending to core functions that are directly relevant to mineral governance including territorial control, revenue collection, security provision, and the credible enforcement of rules at borders and along transport routes. In such contexts, control over “interfaces” between local production and wider markets, including checkpoints, licensing, taxation points, and export corridors, can become as economically consequential as the extraction sites themselves.⁴⁰ This is particularly salient where insecurity is persistent and where state authority competes with armed actors and informal networks in parts of the east.

3.2 Resource Wealth and the Resource-Conflict Link

The DRC is central to critical mineral supply chains because its geology combines exceptional endowments with a political economy that can convert resource value into contestation. The risk associated with critical minerals can be framed as a recurring interaction among four elements: high resource value, weak or uneven state reach, armed actors capable of extracting rents, and external commercial and geopolitical interests seeking access to supply. This interaction does not imply deterministic “resource wars,” but available evidence suggests it does increase the probability that mineral flows become entangled with coercion, informal taxation, and cross-border competition.⁴¹

A concise articulation of this relationship appears in the U.S. Committee for Refugees and Immigrants (USCRI) backgrounder, which explicitly links the roots of modern conflict and humanitarian crisis to the country’s history and its mineral wealth.⁴² The UN Security Council’s Group of Experts similarly documents how minerals, especially high-value commodities in conflict-affected areas, can be exploited outside effective state control, with the potential of generating substantial revenues for armed groups and criminal networks.⁴³

This evidence base supports a pragmatic inference for the report: mineral governance is not only a question of economic management, but it is also a question of security, territorial, and institutional integrity. The monetisation of minerals is often mediated through coercive power at specific nodes, including mine sites, roads, crossings, and trading hubs.

3.3 The Central Role of the DRC: Geology and Strategic Supply-Chain Position

The DRC’s strategic significance begins with its geology. Large-scale copper and cobalt production is anchored in the southern extension of the Central African Copperbelt, which concentrates high-grade deposits and supports industrial extraction and export-oriented logistics.⁴⁴ By contrast, much of the eastern tin, tungsten, tantalum, and gold (3TG) production is associated with geological formations that lend themselves to artisanal methods, including dispersed ore

⁴⁰Christoph Vogel, “Between Tags & Guns: Fragmentations of Public Authority Around Eastern Congo’s Artisanal 3T Mines,” *Political Geography* 63 (2018): 101–116.

⁴¹ Ken Matthysen and Erik Gobbers, *Armed Conflict, Insecurity, and Mining in Eastern DRC: Reflections on the Nexus Between Natural Resources and Armed Conflict* (Antwerp: International Peace Information Service (IPIS), 2022), esp. 5–7

⁴² U.S. Committee for Refugees and Immigrants (USCRI), *The Crisis in the Democratic Republic of the Congo* (Backgrounder, December 2020).

⁴³ UN Security Council, *Midterm report of the Group of Experts on the Democratic Republic of the Congo*, S/2024/969 (27 December 2024).

⁴⁴ Michael W. Hitzman et al., *Cobalt—Styles of Deposits and the Search for Primary Deposits*, U.S. Geological Survey Open-File Report 2017–1155 (Reston, VA: U.S. Geological Survey, 2017)

bodies and alluvial systems that are easier to exploit with limited capital.⁴⁵ This geological distribution produces a spatial pattern: concentrated industrial operations in the south and more fragmented, trader-mediated ASM supply chains in parts of the east, where chain-of-custody integrity is structurally harder to sustain and where conflict dynamics more readily intersect with mineral flows.

The DRC's centrality is captured in two overlapping realities. First, the country has an outsized supply of specific minerals that are foundational to electrification. U.S. Geological Survey (USGS) estimates indicate that Congo (Kinshasa) produced roughly 3.3 million tonnes of copper in 2024, and accounted for approximately 76 per cent of global cobalt mining production in the same year.⁴⁶ Even when downstream processing occurs elsewhere, these upstream shares create a structural dependence and intensify the strategic significance of Congolese stability, governance, and infrastructure. Second, the DRC sits at the heart of the Great Lakes region, where porous borders, regional trade routes, and conflict dynamics interact. For minerals that can be easily smuggled and disguised, especially gold and certain tin, tantalum, and tungsten (3T) streams, the geography of the DRC creates opportunities for laundering into neighbouring jurisdictions and onward shipments into global trading and refining systems. UN expert reporting and associated investigations have repeatedly stressed the relevance of cross-border dynamics and the commercial incentives that can arise when conflict-affected material can be relabelled and monetised externally.⁴⁷

3.4 The Geography of Mining Versus the Geography of Insecurity

A high-level geographic distinction is analytically useful for this report because it maps mineral types onto governance and risk environments.

Southern Copper and Cobalt Corridor (Predominantly Industrial)

Copper and cobalt production is heavily concentrated in the south, particularly in Haut-Katanga and Lualaba.⁴⁸ Extraction is often industrial and export-oriented, with more formal licensing and clearer corporate structures. The predominant risks are therefore less about artisanal control of mine pits and more about regulatory discretion, revenue governance, subcontracting opacity, labour standards in peripheral supply services, and transport and export logistics.

Eastern Provinces and Border Dynamics (Higher-Risk, ASM-Heavy for 3TG)

In the east, particularly in and around North Kivu, South Kivu, Ituri, and parts of adjacent provinces, the mineral economy often intersects with insecurity and the presence of armed groups. International Peace Information Service (IPIS) research, which maps ASM sites and documents interference by armed actors, provides a useful empirical anchor. More specifically, the IPIS

⁴⁵ Michel Villeneuve, Nandefo Wazi, Christian Kalikone, and Andreas Gärtner, "A Review of the G4 'Tin Granites' and Associated Mineral Occurrences in the Kivu Belt (Eastern Democratic Republic of the Congo) and Their Relationships with the Last Kibaran Tectono-Thermal Events," *Minerals* 12, no. 6 (2022): 737.

⁴⁶ U.S. Geological Survey, "Copper" and "Cobalt," in *Mineral Commodity Summaries 2025* (Reston, VA: U.S. Geological Survey, 2025).

⁴⁷ International Peace Information Service (IPIS), "Analysis of the interactive map of artisanal mining areas in eastern Democratic Republic of Congo: 2023 update" (December 2023).

⁴⁸ Centre for Research on Multinational Corporations (SOMO), *Cobalt Blues: Environmental Pollution and Human Rights Violations in the DRC's Cobalt and Copper Supply Chains* (Amsterdam: SOMO, 2016), 7; United Nations Organization Stabilization Mission in the Democratic Republic of the Congo (MONUSCO), "Katanga Factsheet," January 2015, 1.

reports extensive site-level data collected across hundreds of ASM sites and underscores the persistence of armed interference and governance fragility in the eastern ASM sector.⁴⁹

A UN Group of Experts reporting further indicates that gold in parts of the east has been exploited outside of effective state control and has generated significant revenues for armed groups and criminal networks.⁵⁰ This further reinforces the importance of focusing on specific provinces and corridors rather than treating “DRC minerals” as a single homogeneous risk category.

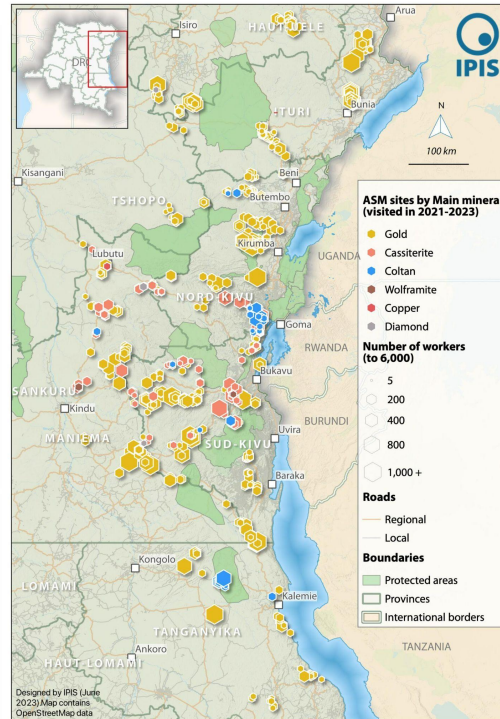


Figure 3. Mineral zones and conflict-affected provinces in the DRC. Source: IPIS mapping of ASM sites; UN Group of Experts reporting; authors' synthesis.⁵¹

3.5 Key Actor Ecosystem: A High-Level Schematic

The DRC's mineral political economy is shaped by an ecosystem of actors whose incentives intersect at the points where minerals become money and where money can be converted into coercive power.

State Institutions and State-Linked Entities

At the national level, institutions responsible for mining governance, revenue collection, and export oversight face acute capacity constraints and political pressures. In the industrial sector, state-linked entities and regulatory bodies influence licensing, contract stability, and oversight. In the artisanal sector, specialised agencies and services play roles in formalisation and site-level oversight. Practical descriptions of cooperation with Congolese artisanal mining authorities, including Service d'assistance et d'encadrement des mines artisanales et de petit echelle

⁴⁹International Peace Information Service (IPIS). "Analysis of the interactive map of artisanal mining areas in eastern Democratic Republic of Congo: 2023 update." December 2023.

⁵⁰ UN Security Council, S/2024/969.

⁵¹ IPIS, "Maps of DRC" and Open Data dashboard resources.

(SAEMAPE), appear in technical reporting and programme documentation, illustrating the institutional architecture often involved in ASM governance initiatives.⁵²

Security Forces and Armed Groups

The national security apparatus, including the Congolese armed forces, is a central actor in the east, both as a security provider and as a party operating in a complex field of local militias and foreign-backed groups. In parallel, a large number of armed groups operate across eastern areas, with evidence suggesting that some armed groups extract revenue through coercive taxation at mine sites, along roads, and at crossings. The UN Group of Experts continues to document these dynamics, including the monetisation of gold and the role of territorial control.⁵³

Local Elites, Cooperatives, Traders, and Transport Networks

At the operational level, the mineral economy depends on local authority structures, cooperatives, traders, and transport intermediaries. These nodes can enable livelihoods and market access, but they are also frequent points where informal fees, documentation manipulation, and blending occur. IPIS research is particularly useful here because it is grounded in site-level mapping and explicitly examines trade routes, actor interference, and the conditions under which chain-of-custody integrity becomes fragile.⁵⁴

Multinational Firms and Downstream Buyers

Large-scale industrial production connects the DRC to global commodity markets, traders, and processors. The principle risks for international firms often arise not only from direct operations but also from subcontracting, security arrangements, transport providers, and trader relationships that can obscure payment flows.⁵⁵ This is why responsible sourcing frameworks treat due diligence as risk management under conditions of imperfect information, especially in conflict-affected and high-risk areas.

Neighbouring States and Regional Dynamics

Regional political economy remains significant since cross-border corridors can enable smuggling, laundering, and relabelling. Recent reporting linked to UN findings has highlighted allegations of mineral smuggling and blending across borders, notably within mineral areas controlled by the M23 armed group, and the export of minerals as “domestic” production elsewhere.⁵⁶

⁵² Bundesanstalt für Geowissenschaften und Rohstoffe (BGR), *Mapping of the Artisanal Copper-Cobalt Mining Sector in the Provinces of Haut-Katanga and Lualaba in the Democratic Republic of the Congo* (Hannover: BGR, 2019), 2.

⁵³ United Nations Security Council, Midterm report of the Group of Experts on the Democratic Republic of the Congo, S/2024/969 (27 December 2024).

⁵⁴ International Peace Information Service (IPIS), “Analysis of the interactive map of artisanal mining areas in eastern Democratic Republic of Congo: 2023 update” (December 2023).

⁵⁵ Organisation for Economic Co-operation and Development, *OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas: Supplement on Gold* (Paris: OECD Publishing, 2012), 21–22, 34.

⁵⁶ The Associated Press, “Tens of billions of dollars in gold flows illegally out of Africa each year, a new report says,” 30 May 2024; United Nations Security Council, Midterm report of the Group of Experts on the Democratic Republic of the Congo, S/2024/969 (27 December 2024).

International Presence and the United Nations Organization Stabilization Mission in the Democratic Republic of the Congo (MONUSCO)

The UN peacekeeping mission MONUSCO remains a key institutional actor in civilian protection and stabilisation efforts. The UN peacekeeping mission's official description emphasises civilian protection and peace consolidation, and Security Council communications continue to frame MONUSCO's mandate around the protection of civilians and responses to armed group violence.⁵⁷ In practice, the mission operates amid political contestation, operational constraints, and ongoing violence, factors that shape the wider security context for mineral governance and humanitarian conditions.

IV. Critical Minerals in the DRC: Supply Chains, Revenue Flows, and Risk Hotspots

4.1 Significant Minerals in This Case Study

Available production data and recent reporting indicate that four mineral groups are most consequential for the DRC within the “critical minerals, critical consequences” nexus: cobalt, copper, tin and tantalum, commonly associated with cassiterite and coltan, and gold.⁵⁸ These minerals combine substantial economic value and strong demand from electrification and digital industries,⁵⁹ identifiable constraints at trading and processing nodes, and an institutional environment in which extraction can be converted into coercive revenue streams.⁶⁰

To begin with, cobalt remains a core input into many lithium-ion battery supply chains, particularly for EV's and consumer electronics. The DRC's position is structurally relevant: the USGS estimates that Congo (Kinshasa) accounted for approximately 76 per cent of global cobalt mine production in 2024, making cobalt among the most geographically concentrated critical mineral supplies at the point of extraction.⁶¹

Copper is indispensable to electrification, including grid build-out, renewable integration, and electric mobility. It has become a macroeconomic pillar of the DRC's industrial mining corridor, particularly in Haut-Katanga and Lualaba. USGS figures indicate that the Congo (Kinshasa) produced approximately 3.3 million tonnes of copper in 2024, reinforcing downstream leverage while increasing exposure to commodity cycles, export logistics, and external processing dependencies.⁶²

For tin and tantalum, the DRC's salience refers primarily to conflict sensitivity and the fragility of chain-of-custody integrity in specific eastern provinces. Reporting linked to UN briefings and expert findings has repeatedly highlighted Rubaya (North Kivu) as a strategic node, associated

⁵⁷ United Nations Peacekeeping, “MONUSCO”; United Nations, Security Council Press Release on MONUSCO mandate renewal (December 2025).

⁵⁸ U.S. Geological Survey, *Mineral Commodity Summaries 2025* (Reston, VA: U.S. Geological Survey, 2025), “Cobalt” and “Copper.”

⁵⁹ International Energy Agency, *Global Critical Minerals Outlook 2025* (Paris: International Energy Agency, 2025).

⁶⁰ Reuters, “Major Rwandan coltan exporter bought smuggled Congolese minerals, UN report says,” July 3, 2025.

⁶¹ U.S. Geological Survey, “Cobalt,” in *Mineral Commodity Summaries 2025* (Reston, VA: U.S. Geological Survey, 2025).

⁶² U.S. Geological Survey, “Copper,” in *Mineral Commodity Summaries 2025* (Reston, VA: U.S. Geological Survey, 2025).

with a material share of global coltan output, with significant revenues extracted through coercive taxation at production and transit points.⁶³

Finally, gold is particularly high-risk because it combines high value per unit weight with ease of concealment and frequent reliance on opaque marketing channels. Available evidence treats gold as among the most readily smuggled mineral commodities in the Great Lakes region, with laundering risk heightened by cross-border trading and the role of major external refining and trading hubs.⁶⁴

4.2 ASM and Industrial Mining: Distinct Political Economies

The DRC's mineral economy is most accurately understood as two partially overlapping systems: industrial mining and ASM. Industrial mining is typically capital-intensive and licenced, while ASM is labour-intensive, low-capital, and frequently informal.⁶⁵ The two systems diverge in labour relations, state presence, revenue capture mechanisms, and the feasibility of credible traceability.⁶⁶ They therefore generate distinct risk profiles for communities, the state, and downstream firms.

Industrial Mining: Formal Licensing, Higher Visibility, and Political Bargaining

Industrial copper and cobalt production is concentrated in the southern provinces, notably Haut-Katanga and Lualaba. Where licensing and corporate structures are more visible, revenue flows are, in principle, identifiable through royalties, corporate taxation, dividends, and export-related charges. However, In practice, formalisation does not imply low risk. Key drivers include regulatory discretion, contract renegotiation, procurement and subcontracting opacity, and dependence on a limited set of export and processing routes that can be disrupted by policy decisions or logistical shocks.^{67 68}

Furthermore, a defining structural feature of industrial mining is processing dependence. Processing and refining capacity for several critical minerals remains highly concentrated, with the IEA noting that China accounts for a very large share of global refining for cobalt and other energy-transition inputs.⁶⁹ This concentration produces downstream constraints; revenue realisation and strategic leverage that may be shaped as much by access to traders, refineries, and shipping channels as by mine output alone.

⁶³ Reuters, "Major Rwandan coltan exporter bought smuggled Congolese minerals, UN report says," 3 July 2025; see also Reuters reporting on Rubaya taxation and UN briefings.

⁶⁴ Associated Press, "Tens of billions of dollars in gold flows illegally out of Africa each year, a new report says," 30 May 2024; Swissaid, press release accompanying the report, 30 May 2024.

⁶⁵ Global Investor Commission on Mining 2030, *Mining Landscape Report: The Role of Investors in Realising an Environmentally and Socially Responsible Mining Industry* (London: Global Investor Commission on Mining 2030, 2024), 61.

⁶⁶ Organisation for Economic Co-operation and Development (OECD), *Monitoring and Evaluation Framework: OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas* (Paris: OECD Publishing, 2021), "Glossary" (definitions of ASM and supply-chain concepts underpinning traceability constraints).

⁶⁷ International Monetary Fund, *Democratic Republic of the Congo: Technical Assistance Report—Governance and Anti-Corruption Assessment*, IMF Country Report No. 21/95 (Washington, DC: IMF, 2021), esp. sections on mining-sector governance, discretionary decision-making, contract stability/negotiation risks, and transparency gaps

⁶⁸ Reuters, "US agency, consortium sign \$553 million loan for Angola railway revamp," December 17, 2025 (on the Lobito Corridor's role in reducing logistics risk and dependence on existing export routes for DRC/Zambia copper-cobalt).

⁶⁹ International Energy Agency, "Clean energy supply chains vulnerabilities," in *Energy Technology Perspectives 2023* (Paris: IEA, 2023).

ASM: Labour Intensity, Informality, and Rent Extraction at the Margins

ASM is central to livelihoods in several mineral zones, especially in the east for 3TG minerals, and in certain cobalt areas. Human-rights investigations have repeatedly documented hazardous working conditions and child labour risk in segments of artisanal cobalt extraction, with enforcement constraints prevalent where informality is widespread.⁷⁰

The political economy of ASM is frequently characterised by layered informal payments, including charges levied by mine-site authorities or cooperatives, payments at checkpoints and along transport corridors, and, in some contexts, coercive “protection” arrangements.⁷¹ These burdens compress miners’ bargaining power, increase incentives for smuggling, and generate discretionary revenue streams that can be mobilised by armed actors.

The Difficulty of Traceability as a Property of the System

Traceability is structurally more feasible for industrial copper and cobalt; material moves through fewer nodes and is shipped in more standardised forms. Traceability is materially harder for ASM-linked minerals because ore is repeatedly exchanged through traders and aggregators and can be blended across sites. This is not solely a technical constraint as it reflects incentive structures, limited enforcement capacity, and the profitability of material of uncertain origin. The OECD due diligence framework explicitly treats minerals from conflict-affected and high-risk areas as requiring risk-based controls because the chain-of-custody integrity can be compromised even where documentation exists.⁷²

4.3 The Transition from Minerals to Money, and from Money to Power

Minerals generate revenue through a sequence of commercial steps, each creating opportunities for value capture, discretion, and coercive extraction. Available evidence suggests that the most consequential “money and power” nodes are often not the extraction site itself, but the points where material is aggregated, documented, exported, and refined.⁷³

Pricing: Global Benchmarks, Local Discounts, and Discretionary Margins

For copper and cobalt, headline prices are anchored in global benchmarks, but actual prices vary with grade, processing form, transport costs, and trader market power. Additionally, policy instruments can reshape rents. In 2025, the DRC imposed a temporary suspension of cobalt exports amid concerns about oversupply and price weakness, signalling that export governance can be used to influence price formation and the timing of revenue.^{74 75}

⁷⁰ Amnesty International, “This is what we die for”: Human rights abuses in the Democratic Republic of the Congo power the global trade in cobalt (London: Amnesty International, 2016).

⁷¹ International Peace Information Service (IPIS), *Analysis of the Interactive Map of Artisanal Mining Areas in Eastern Democratic Republic of Congo: 2023 Update* (Antwerp: IPIS, 2023), 5–6.

⁷² OECD, *OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas*, 3rd ed. (Paris: OECD Publishing, 2016).

⁷³ Organisation for Economic Co-operation and Development (OECD), *OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas* (Paris: OECD Publishing, 2013), 15.

⁷⁴ Reuters, “Congo weighs cobalt export quotas to revive prices amid supply glut,” 26 February 2025.

⁷⁵ Reuters, “Congo extends cobalt export ban by three months,” 21 June 2025.

Middlemen and Export Channels: Where Opacity Enters

In ASM-linked chains, intermediaries can provide liquidity and transportation, while also controlling price discovery and facilitating mineral blending. For 3TG, export pathways frequently involve cross-border movement through neighbouring jurisdictions and onward shipment to refining hubs, making the origin of the mineral progressively more contestable.⁷⁶ UN reporting and related investigations have repeatedly documented how mineral flows can intersect with coercion, territorial control, and monetisation at crossings and transit points.⁷⁷

Challenges with Refining: Leverage Beyond Extraction

Refining concentrates material from multiple upstream sources into fewer downstream facilities, which can dilute any indicators of the mineral's origin and effectively "reset" commercial legitimacy.^{78 79} This dynamic is particularly salient for cobalt and other inputs that move through a small number of dominant refining jurisdictions.⁸⁰

Key Implication

Minerals become money through a ladder of margins. Where governance is weak, each step can be partially captured by rent-seeking actors, predatory intermediaries, or armed groups, converting economic activity into political financing and coercive capacity.

4.4 Illicit Flows and Conflict Financing Pathways

Available evidence points to three recurrent pathways: coercive taxation, protection-based extraction, and smuggling corridors that link mine areas to external markets.^{81 82 83}

Coercive Taxation and Revenue Extraction by Armed Actors

In conflict-affected eastern provinces, armed actors may extract rents by controlling access, imposing levies on production, and charging fees along transport routes and at crossings. Reporting linked to UN briefings has alleged substantial monthly revenues associated with coltan-linked taxation in areas under armed-group influence, illustrating how control over a single strategic mining zone can generate durable financing capacity.⁸⁴

Smuggling Corridors and Laundering Through Neighbouring Jurisdictions

Gold is often treated as the most vulnerable commodity because it is compact, high-value, and easily blended. An analysis conducted by the United Nations Office on Drugs and Crime

⁷⁶UN Security Council, Midterm report of the Group of Experts on the Democratic Republic of the Congo, S/2024/969 (27 December 2024).

⁷⁷ UN Security Council, Midterm report of the Group of Experts on the Democratic Republic of the Congo, S/2024/969 (27 December 2024).

⁷⁸ Organisation for Economic Co-operation and Development (OECD), *OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas*, 3rd ed. (Paris: OECD Publishing, 2016), 18

⁷⁹ London Bullion Market Association (LBMA), *Responsible Gold Guidance*, Version 9 (London: LBMA, 2021), 5.

⁸⁰ International Energy Agency, *Energy Technology Perspectives 2023* (Paris: IEA, 2023).

⁸¹ United Nations Security Council, Midterm report of the Group of Experts on the Democratic Republic of the Congo, S/2024/969 (27 December 2024)

⁸² United Nations Office on Drugs and Crime, *Global Analysis on Crimes that Affect the Environment – Part 2b: Minerals Crime: Illegal Gold Mining* (Vienna: UNODC, 2025)

⁸³ International Peace Information Service (IPIS), *Analysis of the interactive map of artisanal mining areas in eastern Democratic Republic of Congo: 2023 update* (Antwerp: IPIS, December 2023).

⁸⁴ Reuters, "UN says Congo rebels generating \$300,000 monthly in seized mining area, UN official says," 30 September 2024; Reuters, 3 July 2025.

(UNODC) highlights that illegal mining and trafficking can be coupled with company structures and laundering mechanisms, particularly where oversight varies across borders, and enforcement capacity is uneven.⁸⁵ Reporting on undeclared African gold flows also identifies major external destinations for refining and trading, reinforcing that illicit extraction is frequently monetised through international hubs rather than exclusively local markets.⁸⁶

Corruption, Documentation Fraud, and the Commercial Interface

Illicit flows rarely rely on smuggling alone. They also depend on document manipulation, misdeclaration of origin, and blending practices that create plausible deniability for traders and buyers.^{87 88 89} This is why the evidence base frames due diligence as risk management rather than as a guarantee of “clean” sourcing. OECD guidance frameworks and the EU conflict-minerals regulation adopt a risk-based approach precisely because documentation can be necessary yet insufficient where incentives favour laundering.⁹⁰

4.5 Corporate Exposure: Where Companies Face Risk

Downstream firms are typically several steps removed from mine sites, yet exposure persists through procurement choices, contracting structures, and reliance on third-party assurance.⁹¹ The most persistent risks include procurement opacity, subcontracting chains, trader intermediation, audit limits, and blending of material of uncertain origin.

Procurement and Subcontracting

Even where firms purchase refined material rather than ore, risk can be imported through subcontracted logistics, local security arrangements, transport providers, and intermediary services. These layers can obscure payment flows and create legal and reputational exposure where coercion, extortion, or forced payments occur.

Traders and Blending Risk

Traders and aggregators provide market access, but they are also nodes where material from multiple sources can be blended. This matters because blending can convert higher-risk ore into administratively “average-risk” shipments, especially for 3T and gold.⁹² This is one reason compliance frameworks focus on chokepoints, particularly smelters and refiners, and require upstream controls to reduce the probability of unknown-origin inputs entering audited streams.⁹³

⁸⁵ UNODC, Minerals Crime (Vienna: United Nations Office on Drugs and Crime, 2025).

⁸⁶ Associated Press, 30 May 2024; Swissaid, press release, 30 May 2024.

⁸⁷ OECD and International Conference on the Great Lakes Region (ICGLR), *Overview: OECD–ICGLR Due Diligence Guidance* (n.p.: n.p., n.d.), 10–11

⁸⁸ United Nations Office on Drugs and Crime (UNODC), “UNODC warns rising demand for critical minerals can heighten crime, corruption and instability,” May 20, 2025

⁸⁹ Reuters. “Major Rwandan coltan exporter bought smuggled Congolese minerals, UN report says.” 3 July 2025.

⁹⁰ Regulation (EU) 2017/821; OECD, *Due Diligence Guidance*, 3rd ed.

⁹¹ Responsible Minerals Initiative, *Five Practical Steps for Conflict Minerals Due Diligence and SEC Disclosure* (Washington, DC: Responsible Minerals Initiative, 2017)

⁹² Romane Dideberg and Chris Vandome, *Traceability of Critical Raw Materials, with a Focus on Africa: Technical and Logistical Considerations* (Brussels: European Parliament, Directorate-General for External Policies of the Union, June 2025), 11.

⁹³ OECD, *Due Diligence Guidance*, 3rd ed.

Third-Party Audits: Value and Limits

Audits can strengthen baseline discipline when the scope is clear, access sustained, and consequences for non-compliance credible. They weaken where insecurity restricts verification, where documentation is systematically unreliable, or where commercial incentives encourage circumvention. Recent assessments cited in Reuters reporting on the U.S. conflict-minerals disclosure regime suggest that transparency requirements alone have not demonstrably reduced violence in eastern DRC, and that risk can shift toward more opaque minerals, notably gold.⁹⁴

V. From Critical Minerals to Critical Consequences: Conflict Dynamics

5.1 Why Insecurity Persists

Raw Materials and Armed Groups

Mining and conflict financing contribute to the question of why insecurity persists. The main source of revenue in the eastern DRC's conflict is natural resources. These natural resources are raw materials that can be used for economic production or consumption.⁹⁵ Specifically, raw materials such as gold, tin, and copper, are essential to the local community because they are in demand in the international market. Matthysen and Gobbers (2023) highlight that the relationship between conflict and natural resources stems from the mechanisms through which conflict resources provide opportunities to finance different armed groups. The resources do not cause conflict; armed groups will see natural resources as a tool to finance their interests.⁹⁶ As armed groups control gold production and trade, they can accumulate wealth and further finance their armed presence.⁹⁷

An example of how the presence of raw materials can lead to a higher presence of armed groups is the case of Ituri. Violence in Ituri began to escalate in December 2017, when the leading armed actor, the Lendu militia, the Coopérative pour le Développement Économique du Congo (CODECO), engaged in an armed struggle against the Hema community, which formed its own group, Zaire.⁹⁸ To protect Hema communities, the Zaire members set up mining sites as their primary source of income. As time passed, Zaire expanded its mining activities to Djugu, forcing miners to work for them and establishing a system of war taxes.⁹⁹

State Weakness

The purpose of a state is the political organization of the population of a territorially defined area.¹⁰⁰ The state is fragmented when it is unable to maintain power and authority within its own

⁹⁴ Reuters, "US rules on conflict minerals have not reduced violence in Congo, watchdog says," 7 October 2024.

⁹⁵ Ken Matthysen and Erik Gobbers, "Armed Conflict, Insecurity, and Mining in Eastern DRC," *Journal of Refugee Studies* 33, no. 4 (2020), 12.

⁹⁶ Matthysen and Gobbers, "Armed Conflict, Insecurity, and Mining in Eastern DRC," 13.

⁹⁷ Matthysen and Gobbers, "Armed Conflict, Insecurity, and Mining in Eastern DRC," 15.

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Matthysen and Gobbers, "Armed Conflict, Insecurity, and Mining in Eastern DRC," 16.

⁹⁹ Matthysen and Gobbers, "Armed Conflict, Insecurity, and Mining in Eastern DRC," 16.

¹⁰⁰ Hussein Solomon and Cornelia Cone, "The State and Conflict in the Democratic Republic of the Congo," *Scientia Militaria: South African Journal of Military Studies* 32, no. 1 (2004), 53.

borders.¹⁰¹ Based on this definition, the DRC does not qualify as a strong state because its government lacks effective territorial control and has weak institutions.¹⁰² The fragility of the DRC can be traced back to Belgium's occupation, as its colonial administration at the time placed all economic policy into the hands of corporations, which would exploit resources for Belgium's economy.¹⁰³ After independence, the exploitative industry that Belgium built persisted, and the DRC's fragility increased as armed groups and elites continued to engage in extractive activities that did not benefit the state but rather served their private interests.¹⁰⁴

For example, under Laurent Kabila's rule, the government banned the possession of foreign currency due to the increase in rebel groups and their control of diamond-rich areas.¹⁰⁵ This led to an inverse effect, weakening the formal economy and encouraging rebel groups to broaden their control as they entered into agreements with international actors.¹⁰⁶ The conflict over resources stems from the weakness of public institutions, as profits from resource exploitation are diverted into private accounts rather than being reinvested into the public economy.¹⁰⁷

Moreover, the DRC's fragility is also due to weak government structures and poor state performance. The DRC's inability to provide public services and security reflects the weakness of its institutions. In the south of Kivu, the absence of government programs has led to an increase in sexual violence as the state does not have control over the security of its population.¹⁰⁸ The state's failure to uphold security demonstrates its inability to perform core state functions, reflecting its fragility.

Identity and Ethnic Mobilization

Ethnic identity has been a factor in shaping political conflict in the DRC, particularly in the eastern provinces. The DRC is an ethnically diverse country, and these ethnic differences have influenced struggles over land, resources and political authority. These ethnic divisions are not the cause of the conflict, but rather, it is the instrumentalization of identity when reinforcing grievances and legitimizing the presence of armed groups that promotes conflict.¹⁰⁹

In eastern DRC, ethnic identity is directly linked to access to land. The territorial organization of the DRC highly depends on ethnicity. An example of ethnic territorial conflict is the creation of the Bunyonyi territory. In this conflict, two groups were at odds: the Havu and the Tembo. The Tembo leaders did not control the land, as it belonged to the Havu.¹¹⁰ During their land claim, the system of governance denied them control based on their ethnicity, deepening the divisions between the Havu and Tembo, rather than unifying them.¹¹¹ This illustrates how ethnicity is embedded within territorial claims and further perpetuates conflicts. In addition to this, ethnic

¹⁰¹ Hussein Solomon and Cornelia Cone, "The State and Conflict in the Democratic Republic of the Congo", 53.

¹⁰² Solomon and Cone, "The State and Conflict in the DRC," 54.

¹⁰³ M. Kongolo and A. M. Zamberia, "State Fragility and Capacity Building in Sub-Saharan Africa: The Case of the Democratic Republic of Congo," in *State Fragility and State Building in Africa*, ed. D. Olowu and P. Chanie, United Nations University Series on Regionalism, vol. 10 (Cham: Springer, 2016), 188.

¹⁰⁴ Kongolo and Zamberia, "State Fragility and Capacity Building in Sub-Saharan Africa.", 189.

¹⁰⁵ Solomon and Cone, "The State and Conflict in the DRC," 65.

¹⁰⁶ Solomon and Cone, "The State and Conflict in the DRC," 65.

¹⁰⁷ Solomon and Cone, "The State and Conflict in the DRC," 66.

¹⁰⁸ Kongolo and Zamberia, "State Fragility and Capacity Building in Sub-Saharan Africa.", 192.

¹⁰⁹ T. Karbo and M. Mutisi, "Ethnic Conflict in the Democratic Republic of Congo (DRC)," in *Handbook of Ethnic Conflict*, ed. D. Landis and R. Albert, International and Cultural Psychology (Boston: Springer, 2012), 388.

¹¹⁰ Solomon and Cone, "The State and Conflict in the DRC," 40.

¹¹¹ Solomon and Cone, "The State and Conflict in the DRC," 41.

conflicts taking place in neighbouring countries also play a role in the DRC conflict. Events such as the Rwandan genocide of 1994 acted as a catalyst for the Congo wars due to the creation of refugee camps.¹¹²

5.2 Armed Group Ecosystem

The Eastern DRC has the presence of multiple armed groups, which are spread across the two Kivus (North and South). Using the Kivu Security Tracker (KST), researchers found approximately 120 armed groups in both Kivus.¹¹³ Most armed groups are small and tend to cluster in areas of high population density, while larger armed groups are present in sparsely populated lands.¹¹⁴ There are three hotspots in the Eastern DRC where armed groups are present: the border between Walikale and Massis territories, which has around nine armed groups clustered around the area, and the Ruisizing plain with around 15 groups present in the Moyen Plateau.¹¹⁵ The Armed Forces of the Democratic Republic of the Congo (FARDC) offensives are a major hotspot for armed groups, as this is where the national army conducts its operations.¹¹⁶

The question remains, how armed groups maintain power over territory and civilians. To begin with, armed groups can exert authority over a population through community grievances. These groups will link their causes to broader political and economic struggles, acting as the authority that responds to these grievances.¹¹⁷ Furthermore, control over civilians is maintained by regulating economic activity. For example, the Raia Mutomboki imposed taxes on civilians in order to maintain control over the population.¹¹⁸ Through taxation, they demonstrated to civilians that their money is accompanied by security. The taxation of civilians allowed them to maintain power and legitimize their actions through security.¹¹⁹

These armed groups have profoundly affected the mining regions of eastern DRC. The strategies of war exercised by the armed groups reflect economic interests.¹²⁰ Moreover, violence by armed groups is accompanied by the looting and pillage of resources in order to finance the conflict. One example is the rebel group RCD-Goma reportedly raising 1.5 million USD through such activities.¹²¹ The control of mining by armed groups worsens the situation in DRC, as they exploit the labour of thousands of adults and children for profit.¹²²

5.3 Regional Dimension

Cross-Border Mineral Flows

The conflict in eastern DRC is highly affected by the regional movement of mineral resources across borders. Particularly due to weak state control over borders, these minerals flow out of the

¹¹² Karbo and Mutisi, "Ethnic Conflict in the DRC.", 389.

¹¹³ Stearns, Jason, and Christoph Vogel. "The landscape of armed groups in the Eastern Congo." (2015), 2.

¹¹⁴ Stearns, Jason, and Christoph Vogel. "The landscape of armed groups in the Eastern Congo." (2015), 2.

¹¹⁵ Stearns, Jason, and Christoph Vogel. "The landscape of armed groups in the Eastern Congo." (2015), 5-6.

¹¹⁶ Stearns, Jason, and Christoph Vogel. "The landscape of armed groups in the Eastern Congo." (2015), 6

¹¹⁷ Hoffmann, Kasper, and Koen Vlassenroot. "Armed groups and the exercise of public authority: the cases of the Mayi-Mayi and Raya Mutomboki in Kalehe, forS reasonsouth Kivu." *Peacebuilding* 2, no. 2 (2014): 208.

¹¹⁸ Vogel, Christoph. "Between Tags & Guns: Fragmentations of public authority around eastern Congo's artisanal 3T mines." *Political Geography* 63 (2018), 101

¹¹⁹ Vogel, Christoph. "Between Tags & Guns: Fragmentations of public authority around eastern Congo's artisanal 3T mines." /01

¹²⁰ Vogel, Christoph. "Between Tags & Guns: Fragmentations of public authority around eastern Congo's artisanal 3T mines." /01

¹²¹ Karbo and Mutisi, "Ethniprovidesc, Conflict in the DRC.", 390.

¹²² Karbo and Mutisi, "Ethnic Conflict in the DRC.", 391.

Congo into neighbouring countries within the Great Lakes region.¹²³ Cross-border dynamics changed after the two wars of 1996-1998. As the Kivu regions experienced conflict, state control along borders with Rwanda in the South and Uganda in the North weakened. Both neighbouring countries worked through trans-border networks.¹²⁴ These networks allow minerals to flow through informal channels that bypass the Congolese government. The cross-border mineral flows transform local conflict into a regional affair, as unregulated borders allow neighbouring countries to transport minerals from the DRC into their own territories.¹²⁵

Proxy Dynamics

Proxy dynamics also drive the conflict in the DRC, as neighbouring countries fund armed groups operating there to maintain influence and access to mineral-rich territories. Moreover, neighbouring countries such as Rwanda and Uganda have supported and funded armed groups in the DRC for economic purposes. Rwanda has been accused by the DRC government, the United Nations, and the United States of supporting the M23 by providing it with the weapons and financing it needs.¹²⁶ Rwanda's support of the M23 is linked to their economic interests in the DRC. Since the 1990s, Rwanda has been establishing a buffer zone that passes through Rubaya, Masisi and Walikale, as it gives them access to minerals such as coltan, cassiterite, and gold.¹²⁷ Evidence shows that Rwanda has exported around 50 tons of gold, most likely extracted from artisanal mining zones in the Kivu provinces.¹²⁸

Beyond neighbouring countries, extra-regional actors have also played a role in the Congolese mineral economy. Players such as China are prominent economic actors in the DRC, having invested heavily in the former Katanga region.¹²⁹ This region is strategically important to China due to its cobalt reserves, which are essential to China's growing demand for the metal.¹³⁰ Chinese firms and the DRC government have economic agreements, in which state-owned mining companies have joined other Chinese companies, providing them with access to the DRC's cobalt resources. According to a report by the New York Times, both private and state-owned Chinese companies control 15-19 per cent of the cobalt mines in the DRC.¹³¹

Commodity Smuggling

Commodity smuggling is one of the main factors behind the DRC's continued insecurity. Large-scale mineral smuggling in the DRC dates back to 1981, when Mobutu legalized artisanal mining.¹³² This reform allowed the artisanal mining sector to expand as locals exploited minerals

¹²³ Ferrato, Giulia. "Cross-border dynamics and the role of intermediaries in the political economy of DRC.", 2.

¹²⁴ Ferrato, Giulia. "Cross-border dynamics and the role of intermediaries in the political economy of DRC.", 12.

¹²⁵ Ferrato, Giulia. "Cross-border dynamics and the role of intermediaries in the political economy of DRC.", 12-13.

¹²⁶ Anna Mier y Teran, "Who Profits from Conflict in the Democratic Republic of the Congo," *Global Affairs*, University of Navarra, May 15, 2025.

¹²⁷ Anna Mier y Teran, "Who Profits from Conflict in the Democratic Republic of the Congo," *Global Affairs*, University of Navarra, May 15, 2025.

¹²⁸ Anna Mier y Teran, "Who Profits from Conflict in the Democratic Republic of the Congo," *Global Affairs*, University of Navarra, May 15, 2025.

¹²⁹ Patrick Anderson, "Cobalt and Corruption: The Influence of Multinational Firms and Foreign States on the Democratic Republic of the Congo," *Journal for Global Business and Community* 14, no. 1 (2023), 2.

¹³⁰ Patrick Anderson, "Cobalt and Corruption: The Influence of Multinational Firms and Foreign States on the Democratic Republic of the Congo," *Journal for Global Business and Community* 14, no. 1 (2023), 2.

¹³¹ Patrick Anderson, "Cobalt and Corruption: The Influence of Multinational Firms and Foreign States on the Democratic Republic of the Congo," *Journal for Global Business and Community* 14, no. 1 (2023), 3-4.

¹³² Sebastian Gatimu, "The True Cost of Mineral Smuggling in the DRC," *ISS Today*, Institute for Security Studies, 11 January 2016.

and sold them to external markets.¹³³ Driven by the demand of international markets, smuggling networks are coordinated across and within states. These smuggling networks are decentralized structures that answer to elites. For these networks to succeed, they must retain control of the flow of the mineral supply chains, including transport routes and border crossings.¹³⁴ Therefore, these smuggling networks reinforce insecurity in the DRC as the country's minerals continue to be extracted and traded in foreign markets.¹³⁵ A 2014 report by the National Security Council Group estimated that around 98 per cent of the gold produced in the DRC is smuggled out.¹³⁶ Why is this harmful? The smuggling of minerals robs the DRC of the revenue needed to fund the country. Instead, the revenue from mineral extraction is reinvested in foreign markets.¹³⁷

VI. Human Cost in the DRC: Humanitarian Impacts Connected to Insecurity and Extraction

6.1 Displacement and Civilian Vulnerability

Insecurity linked to armed conflict has produced one of the world's most severe humanitarian crises in the DRC, classified by the United Nations in 2017 as a Level Three emergency and characterized by massive internal displacement concentrated in the mineral-rich eastern provinces.¹³⁸ As of 2025, over 10 million people have been internally displaced with North and South Kivu accounting for a disproportionate share, reflecting the strategic importance of these regions for armed actors seeking territorial control.¹³⁹ While displacement is often treated as the outcome of communal and intra-state conflict, the places from which civilians are forced to flee reveal a clear connection between the militarization of mineral-rich land and armed control of key roads used to secure access to extraction sites and revenue streams.¹⁴⁰ Armed groups, including the M23, Allied Democratic Forces, and local militias, use violence, intimidation, and the destruction of civilian infrastructure to assert authority over these areas, producing a vicious cycle of displacement rather than a one-time movement.¹⁴¹ Indeed, civilians are frequently forced to flee multiple times as frontlines shift, camps are dismantled, or access routes become unsafe, resulting in repeated uprooting that weakens households and leaves them increasingly vulnerable to looting and arson, for example.¹⁴²

Each episode of movement deepens humanitarian vulnerability by increasing exposure to disease, destroying livelihoods and assets, and intensifying protection risks, particularly for women and children.¹⁴³ Indeed, repeated displacement pushes families into overcrowded camps, often near roads or contested areas, or host communities with limited water, sanitation, and healthcare

¹³³ Sebastian Gatimu, "The True Cost of Mineral Smuggling in the DRC," *ISS Today*, Institute for Security Studies, 11 January 2016.

¹³⁴ Sebastian Gatimu, "The True Cost of Mineral Smuggling in the DRC," *ISS Today*, Institute for Security Studies, 11 January 2016.

¹³⁵ Sebastian Gatimu, "The True Cost of Mineral Smuggling in the DRC," *ISS Today*, Institute for Security Studies, 11 January 2016.

¹³⁶ Sebastian Gatimu, "The True Cost of Mineral Smuggling in the DRC," *ISS Today*, Institute for Security Studies, 11 January 2016.

¹³⁷ Sebastian Gatimu, "The True Cost of Mineral Smuggling in the DRC," *ISS Today*, Institute for Security Studies, 11 January 2016.

¹³⁸ Heavy Nala Estriani, Hasbi Asyidiqi, and Nurul Qomaria, "Globalization and Marginalized Groups: Finding Durable Solutions for Internally Displaced Persons (IDPs) in the Democratic Republic of Congo," *WIMAYA: Interdisciplinary Journal of International Affairs* 6, no. 1 (2025): 40.

¹³⁹ Jacky Habib, "Conflict in the DRC Raises Concerns About Polio's Return," *Global Citizen*, December 22, 2025. ; Concern Worldwide, "The Democratic Republic of the Congo Crisis, Explained," Concern Worldwide, July 24, 2025.

¹⁴⁰ Kagarura Willy Rwamparagi and Nahabwe Patrick Kagambo John, "Modelling Conflict-Induced Displacement of Persons in the Democratic Republic of Congo," *International Journal of Southern Economic Light (JSEL)* 13, no. 2 (February 2025): 10.

¹⁴¹ Estriani, Asyidiqi, and Qomaria, "Globalization and Marginalized Groups," 40; The New Humanitarian, "DRC Multiple Displacements Making People More Vulnerable," *The New Humanitarian*, August 1, 2013. ; Ottilia Anna Maunganidze and Aimée-Noël Mbiyozo, "Displacement as a Weapon of War: Targeting Africa's Most Vulnerable," *ISS Today (Institute for Security Studies)*, August 21, 2025.

¹⁴² Maunganidze and Mbiyozo, "Displacement as a Weapon of War."

¹⁴³ Estriani, Asyidiqi, and Qomaria, "Globalization and Marginalized Groups," 40.

access, facilitating outbreaks of communicable diseases such as cholera and contributing to elevated infant mortality rates and sexual violence.¹⁴⁴ Road control also plays a critical role in this process; armed actors use checkpoints and blockades to tax movement, restrict aid delivery, and isolate rival-held territories, transforming civilian mobility and humanitarian access into means of enforcing conflict.¹⁴⁵ At the same time, displacement prevents access to farmland, tools, and markets, thus disrupting agricultural production and accelerating food insecurity in a country where poverty is already widespread despite vast natural wealth.¹⁴⁶ These economic shocks are rooted in everyday insecurity around extractive zones, where armed control over land and transport corridors prevents safe cultivation, restricts mobility, and blocks humanitarian access.¹⁴⁷ In this context, displacement is not only a by-product of violence but a deliberate mechanism through which armed groups assert power over resource-rich territory, while civilians bear the survival costs. The humanitarian crisis in eastern DRC thus reflects a structural pattern in which extraction-related insecurity leads to repeated displacement, progressively weakening health, livelihoods, and protection systems, leaving populations trapped in long-term vulnerability.

Displacement is therefore closely linked to conflict in mining areas, where armed competition over resources uproots communities from their homes and into temporary settlements, as well as collapsing local economies. This pattern of movement continues to undermine local support systems and limit opportunities for stable recovery.

6.2 Public Health and Epidemics in Conflict Conditions

Additionally, conflict around mineral-rich areas weakens public health systems, intensifying the humanitarian impact on affected populations, as well as the spread of epidemics. Clinics are frequently destroyed, looted, or rendered inaccessible; heavy artillery shelling and looting have destroyed 70,000 emergency shelters around Goma, forcing medical staff to flee and leaving communities without routine care or emergency treatment.¹⁴⁸ In fact, the International Committee of the Red Cross Facilities reported that 85 per cent of facilities lack adequate medicines and almost 40 per cent have experienced a departure of health-care personnel.¹⁴⁹ The facilities that remain operational are often overwhelmed with a 60 per cent increase in wounded patients treated between January and September 2025 compared to the same period in 2024, while simultaneously managing trauma care and disease outbreaks amid extreme shortages of medicines and humanitarian aid.¹⁵⁰ Even when vaccines and medicines are available, the ability to deliver them is obstructed by road closures, armed checkpoints, and shifting frontlines, creating significant gaps in immunization coverage.¹⁵¹ In fact, in Goma, the airport has been shut down, most of the 28 nearby IDP sites have been destroyed, and roughly 70 per cent of health facilities in North Kivu are now non-functional, leaving communities without essential services.¹⁵²

¹⁴⁴ Ibid.

¹⁴⁵ Brian G. Karamuka, “M23 Leverages Taxes and Minerals to Sustain DRC Operations,” *Terrorism Monitor; Military & Security Publication*, vol. 23, no. 10 (April 12, 2025). ; International Organization for Migration (IOM), *Democratic Republic of the Congo Crisis Response Plan 2025* (Geneva: IOM, 2025). ; Concern Worldwide, “The Democratic Republic of the Congo Crisis, Explained.”

¹⁴⁶ Concern Worldwide, “The Democratic Republic of the Congo Crisis, Explained.”

¹⁴⁷ UN News, “DR Congo: Shortage of Humanitarian Routes Threatens Aid Operation, Top UN Official Warns,” *UN News*, February 13, 2025.

¹⁴⁸ UN News, “DR Congo Displacement, Health Crisis Worsens amid Dwindling Aid Access,” February 14, 2025. ; UNHCR, *Regional External Update #24, West and Central Africa Region: Eastern DRC Situation* (Geneva: UNHCR, December 11, 2025).

¹⁴⁹ International Committee of the Red Cross (ICRC), “Democratic Republic of the Congo: Health Care Increasingly Difficult to Access in North and South Kivu,” news release, October 7, 2025.

¹⁵⁰ ICRC, “Democratic Republic of the Congo: Health Care Increasingly Difficult to Access in North and South Kivu.”

¹⁵¹ UN News, “DR Congo Displacement, Health Crisis Worsens.” ; ICRC, “Democratic Republic of the Congo: Health Care Increasingly Difficult to Access in North and South Kivu.”

¹⁵² World Health Organization (WHO), *Public Health Situation Analysis (PHSA): Escalation of Violence: North Kivu and South Kivu*, (February 3, 2025), 5 ; UN News, “DR Congo Displacement, Health Crisis Worsens.”

With health systems pushed to the breaking point, even basic life-saving care slips out of reach, and something as routine as a newborn's first vaccines becomes a privilege rather than a right; aid agencies struggle to follow families constantly on the move and keep vaccination records in what has been described by Eujin Byun to the *Global Citizen* as a "mission impossible" context.¹⁵³ In this setting, health workers frequently meet "zero-dose" children who have never received a single vaccine.¹⁵⁴ Indeed, displacement worsens the challenges to get appropriate health care by pushing communities into overcrowded camps or informal settlements such as small offices and schools where sanitation is inadequate, heightening the risk of rapid monkeypox (mpox) transmission amid extreme population density and sexual violence.¹⁵⁵ In these conditions, infectious diseases such as cholera, measles, mpox, and Ebola spread rapidly, driven by overcrowding, limited access to clean water, and a shortage of vaccines, with over 1,000 people sharing a single latrine in some camps.¹⁵⁶ As of September 2025, nearly 57,000 cholera cases and 1,700 deaths had been reported in the DRC. The mpox outbreak of over 15,000 cases and 700 deaths has positioned the country at the epicentre of the global crisis, particularly in densely populated displacement camps around Goma. In these displacement camps, five mpox treatment centres were evacuated, and 128 out of 143 confirmed patients fled isolation, allowing the disease to spread more widely.¹⁵⁷ Although no polio cases have been reported so far, widespread displacement, the collapse of health services, and poor sanitary conditions create an environment conducive to a resurgence.¹⁵⁸

Therefore, extreme overcrowding and inadequate hygiene infrastructure make isolation of infected individuals nearly impossible, as close physical proximity among camp residents accelerates disease transmission and increases vulnerability among women caregivers and underage girls engaged in survival sex.¹⁵⁹ Furthermore, for many communities, fear, stigma and misinformation surrounding mpox keep people from seeking help until the illness becomes severe.¹⁶⁰ Indeed, memories of Ebola responses in eastern DRC have shaped how people now understand these interventions, with medical teams perceived as part of a profit-seeking system rather than allies, fostering mistrust that expresses itself through the refusal of care and occasional attacks on health facilities.¹⁶¹ Even when international organizations deploy resources, insecurity in extractive zones, combined with historical exploitation, as well as economic disparities between local and international staff, creates an environment of mistrust that undermines public health interventions.¹⁶² Mistrust in the Ebola response escalates into demonstrations, attacks on treatment centres, and even the killing of frontline health workers, with each incident followed by a rise in new cases.¹⁶³ The response to such escalations relies heavily on police and military protection, using armed convoys and securing staff in guarded hotels, which transforms measures meant to ensure safety into a form of armed control that further alienates communities.¹⁶⁴ Under

¹⁵³ Jacky Habib, "Conflict in the DRC Raises Concerns about Polio's Return," *Global Citizen*, accessed January 28, 2026.

¹⁵⁴ *Ibid.*

¹⁵⁵ Majani Edward, "Mpox in Conflict Zones: Lessons from Displaced Populations in the Democratic Republic of Congo (DRC)," *Global Public Health* 20, no. 1 (2025), 1. ; Nida Shoaib, Maryam Saghir, and Hozefa Mateen, "Monkey Pox Epidemic in Democratic Republic of Congo Needs Urgent Attention," *African Health Sciences* 25, no. 3 (2025): 41.

¹⁵⁶ Habib, "Conflict in the DRC Raises Concerns About Polio's Return." ; Shoaib, Saghir, and Mateen, "Monkey Pox Epidemic," 42.

¹⁵⁷ UN News, "DR Congo Displacement, Health Crisis Worsens." ; WHO, *Public Health Situation Analysis (PHSA): Escalation of Violence*. ; Habib, "Conflict in the DRC Raises Concerns About Polio's Return."

¹⁵⁸ Habib, "Conflict in the DRC Raises Concerns About Polio's Return."

¹⁵⁹ Edward, "Mpox in Conflict Zones," 2.

¹⁶⁰ *Ibid.*, 3.

¹⁶¹ Sung-Joon Park, "A Fanonian Anthropology of the Atmosphere of Felt Disasters and Felt Changes: Revisiting Fanon to Explore the Felt Disasters of War, Epidemics, and Humanitarian Interventions in the Tenth Ebola Epidemic in Eastern DRC," *FHAU: Journal of Ethnographic Theory* 15, no. 2 (2025): 435.

¹⁶² Park, "A Fanonian Anthropology of the Atmosphere of Felt Disasters," 439.

¹⁶³ *Ibid.*, 432.

¹⁶⁴ *Ibid.*, 438.

these conditions, small community grievances can quickly spiral into conflict, feeding a cycle of fear, anger, and resistance.

Epidemics are therefore aggravated by population displacement and insecurity linked to mining conflicts, which further weaken already deteriorating health services and reduce access to prevention and treatment. In these conditions, outbreaks spread more easily and become harder to control, highlighting the importance of consistent healthcare access alongside stability and security measures in mining zones.

6.3 Food Insecurity, Economic Shocks, Human Rights, and Labour Harms

The extractive economy in the DRC operates within a framework of extraversion, emulating a model where economic activities serve the interest of external actors, thereby creating a dependency that leaves local populations vulnerable to global markets volatility and failing local infrastructures.¹⁶⁵ This structural imbalance manifests acutely in food insecurity and economic imbalances. Nearly 90% of the DRC's exports are heavily reliant on minerals export, which constitutes a core element of the country's economy and a major source of employment in the region.¹⁶⁶ As with many other African countries, this kind of high dependency exposes the nation's economy and individual's household to significant risks associated with global price volatility.¹⁶⁷ For example, the decline in cobalt prices leading to a dropping of over 60% from their peak in 2022 due to oversupply and demand shifts impacted the nation's revenues drastically.

This volatility disproportionately affects the artisanal and small-scale mining (ASM) sector, which employs vast numbers of Congolese citizens. When global prices fall, artisanal miners who often make financial safety nets see their meager income evaporate, plunging their households further into poverty. This was similar to the case during the Covid 19 pandemic, while ASM sites were officially closed during the period, mining activities of ASM continued illegally on these sites, highlighting the impact of many livelihoods.¹⁶⁸ The lack of economic diversification means that when the mining sector suffers shocks, there are few alternative livelihoods available to absorb the labor force or sustain household incomes. Furthermore, the wealth generated by extraction is rarely reinvested in local communities. Despite the 2018 mining code's requirement for community development contributions, revenues often fail to reach provincial populations or are diverted through corruption.¹⁶⁹ In a RAID report (a UK based NGO exposing corporate wrongdoings, environmental harms and effects on human rights) from interacting with local residents, interviewees all trace the decline in their living standards to the recent cobalt boom. Consequently, the cobalt boom has correlated with a decline in living standards for many fenceline communities.

The expansion of the extractive sector has directly undermined food security through the displacement of agricultural activities and the degradation of arable land. Large scale mining (LSM) concessions often overlap with customary lands, leading to the dispossession of local communities without adequate consultation or compensation.¹⁷⁰ Loss of access to farmlands forces communities that previously relied on subsistence agriculture to purchase food in volatile markets.

¹⁶⁵ Mel Auffredou, COBALT MINING IN THE DEMOCRATIC REPUBLIC OF THE CONGO: COLONIALISM, SUSTAINABLE DEVELOPMENT, AND ENVIRONMENTAL JUSTICE IN ENERGY TRANSITIONS, n.d.

¹⁶⁶ "RAID_UN-SR_Climate-Change_Renewable-Energy_Critical-Minerals_April-2025,"

¹⁶⁷ *Critical Minerals for Africa's Inclusive Growth and Development*, n.d.

¹⁶⁸ "WEF_Making_Mining_Safe; Artisanal Cobalt Extraction in the Democratic Republic of Congo, 2020.

¹⁶⁹ Auffret O'Neill, *Human Rights and the Energy Transition: The Case of Critical Minerals in the DRC*, n.d.

¹⁷⁰ "Between_a_rock_and_a_hard_place," n.d.

Environmental degradation further exacerbates food insecurity. Mining activities have contaminated water sources and soil with heavy metals and acids, leading to significantly reduced crop yields and fish stocks.¹⁷¹ In some areas where 99% of the residents rely on agriculture, reported yield decreases due to pollution, forcing families to reduce food intake to one meal a day. The destruction of crops and water sources contamination forces communities into a reliance on imported food, which is often more expensive and subject to supply chain disruptions.¹⁷²

Infrastructural deficits compound these issues. The DRC's road network is severely underdeveloped, with fewer than 10% of roads passable year round.¹⁷³ This insecurity on the roads, often exacerbated by conflicts and lack of maintenance, blocks the transport of agricultural produce from fertile rural areas to urban centers. As a result, food rots on farms while urban populations face shortages and price spikes. poor transport links also restricts economic diversification, trapping communities in a cycle of poverty where mining remains the only viable, albeit precarious, livelihood.

Additionally, the supply chains for critical minerals in the DRC are paired with severe human rights and labour risks. These risks are not merely incidental but are structural consequences of a regulatory vacuum, a two tier employment system, and the militarization of mining areas. The presence of armed actors in and around mining sites creates a persistent risk of coercion and extortion. In eastern DRC, armed groups and militias finance their activities through the illicit trade of minerals, exerting control over mining areas to levy illegal taxes on miners. for example, the M23 rebel groups has occupied key mining areas to fund its operations, generating significant monthly revenue from local "taxes".¹⁷⁴

However, coercion is not limited to non-state armed groups. State security forces, including the mining police and the army, are frequently implicated in abuses. Tasked with securing mining concessions, these forces often engage in extortion, confiscating minerals, and levying arbitrary fines on artisanal miners. in industrial zones, the deployment of security forces to clear artisanal miners from concessions has resulted in forced evictions characterized by violence, arson, and the destruction of property.¹⁷⁵ This militarization of the mining sector creates a climate of fear and prevents workers from advocating for their rights or reporting abuses.

In the industrial mining sector, a widespread system of subcontracting facilitates labor exploitation. A significant portion of the workforce, up to 57% in some major mines¹⁷⁶ is employed through subcontractors rather than by mining companies directly. This kind of two-tier employment system allows multinational corporations to reduce labor costs and evade legal liability for workers' rights violations. The exploitation and risks are enormous. Both artisanal and industrial mining operations expose workers and communities to life-threatening hazards. For example, subcontracted workers earn significantly less than direct employees and lack essential benefits such as healthcare and job security. workers report shifts exceeding 12hours and working up to 30 consecutive days without rest, in violation of the Congolese Labour code. Anti-union discrimination is widespread, particularly in foreign-owned companies, preventing workers collectively bargaining for better conditions. Artisanal miners work in hand-dug tunnels lacking structural sports for ventilation, leading to frequent and often fatal cave-ins. Miners are exposed to dust containing cobalt, uranium, and other heavy metals,

¹⁷¹ O'Neill, *Human Rights and the Energy Transition: The Case of Critical Minerals in the DRC*.

¹⁷² "Beyond-Critical-Minerals-Capitalizing-on-the-DRCs-Vast-Opportunities," June, 2025.

¹⁷³ "Beyond-Critical-Minerals-Capitalizing-on-the-DRCs-Vast-Opportunities."

¹⁷⁴ O'Neill, *Human Rights and the Energy Transition: The Case of Critical Minerals in the DRC*.

¹⁷⁵ Iza Camarillo, *THE DEADLY COST OF COBALT MINING IN THE CONGO*, n.d.

¹⁷⁶ "RAID_UN-SR_Climate-Change_Renewable-Energy_Critical-Minerals_April-2025."

leading to hard metal lung diseases and respiratory conditions. In industrial settings workers report exposure to radiation and harsh chemicals without adequate protection”¹⁷⁷.¹⁷⁸¹⁷⁹

Child labor remains a critical concern, particularly in the ASM sector. It is driven primarily by structural exclusion rather than cultural factors. Estimates suggests tens of thousands of children work in the mining sector, with some figures citing up to 40,000 in the former Katanga province.¹⁸⁰ The primary driver is extreme poverty. When families cannot afford education, children are pushed into income generating activities. Children typically perform tasks such as washing minerals, sorting ore, and transporting heavy loads¹⁸¹, and some work in tunnels. These activities constitute the worst forms of child labor due to the hazardous nature of the environment and physical strain involved. These risks are not anomalies but predictable outcomes of a system that prioritizes low cost extraction over human rights and safety.

VII. International Responses

7.1 Due Diligence and Compliance Frameworks

International responses to conflict-linked mineral extraction assume that global companies can be held responsible for harms arising at mining sites and in the earliest stages of mineral supply chains.¹⁸² In the DRC, where critical minerals such as tin, tantalum, tungsten, gold, and cobalt are extracted under conditions of chronic insecurity, this responsibility is framed primarily through due diligence and compliance frameworks.¹⁸³ The key element of this approach is the OECD Due Diligence Guidance, which sets out a five-step logic requiring companies to establish internal management systems, identify and assess risks in their supply chains, respond to those risks, submit smelters and refiners to independent audits, and report publicly on due diligence efforts.¹⁸⁴ This framework does not prohibit sourcing from conflict-affected areas; instead, it assumes that continued engagement, if properly managed, can reduce harm.¹⁸⁵ In practice, however, this approach places heavy emphasis on documentation, reporting, and procedural compliance, often distancing international buyers from the everyday realities of mining communities where insecurity, coercion, and survival shape economic life.

To implement OECD standards, a dense ecosystem of industry schemes and regional mechanisms has emerged. The Responsible Minerals Initiative provides companies with tools such as the Conflict Minerals Reporting Template and the Responsible Minerals Assurance Process, the latter being the first scheme formally recognized by the European Commission for compliance with

¹⁷⁷ Emmanuel Umpula and Mark Dummett, “The Blood Cobalt Narrative: Addressing Human Rights Concerns or Scaremongering?,” *Business and Human Rights Journal* 9, no. 2 (2024): 308–14.

¹⁷⁸ Lonzo Lubu Gastonfils, “Mining Governance and Human Development in the Democratic Republic of the Congo,” *Journal of Business Administration Research* 13, no. 1 (2024): 13.

¹⁷⁹ Sarder Ali Haider, *The Ethical Dilemma of Green Economy: Examining the Human and Environmental Costs of Cobalt Mining in DRC*, 2023.

¹⁸⁰ Maurizio Malpede, *The Dark Side of Batteries: Child Labor and Cobalt Mining in the Democratic Republic of Congo*, September, 2022.

¹⁸¹ Dorothee Baumann-Pauly, *Cobalt Mining in the Democratic Republic of the Congo: Addressing Root Causes of Human Rights Abuses*, December, 2022.

¹⁸² OECD, “Responsible Mineral Supply Chains,” OECD, accessed January 17, 2026.; OECD, *Monitoring and Evaluation Framework: OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas* (Paris: OECD Publishing, 2022): 15.

¹⁸³ OECD, *Mineral Supply Chain and Conflict Links in the Eastern Democratic Republic of Congo: Five Years of Implementing Supply Chain Due Diligence* (Paris: OECD Publishing, 2015): 6.

¹⁸⁴ OECD, *Monitoring and Evaluation Framework*, 2022, 25.

¹⁸⁵ *Ibid.*

conflict minerals regulation (Responsible Minerals Initiative).¹⁸⁶ Regional efforts also exist: since 2014, the International Conference on the Great Lakes Region has required traders in the DRC to follow the OECD diligence framework in order to receive export certificates, while a national DRC Action Plan aims to reduce irregular army deployment at mine sites and improve police training.¹⁸⁷ Together, these initiatives demonstrate that international concern has resulted in a wide range of formal institutions and oversight mechanisms; however, they also reveal how responsibility has been fragmented across private actors, certification systems, and weak state structures.¹⁸⁸

Despite this extensive institutional framework, enforcement remains profoundly limited because it collides with the material and political realities of extraction. Artisanal mining sites, that is small, informal mines often run by local miners, are numerous, remote, and constantly changing, making it difficult for state authorities to conduct regular validation missions or even determine how many sites are active at any given time.¹⁸⁹ Borders in the region are weakly controlled and easily crossed without official checks, so high-value minerals such as gold and coltan are routinely smuggled into neighboring countries like Rwanda, Burundi, and Uganda, where they are re-exported through formal channels.¹⁹⁰ In fact, nearly all of the DRC's artisanal gold production leaves the country illicitly and unrecorded.¹⁹¹ When minerals from different mines are combined at trading hubs or processing centers, it becomes impossible to track their original source.¹⁹² This creates ongoing risks of "leakage-in," where unverified minerals enter certified supply chains through bribery, fake paperwork, and money laundering.¹⁹³ These practices are not merely technical failures but responses to powerful local incentives. In fact, for many political and military elites, conflict has become deeply functional, providing opportunities for patronage, extortion, and informal taxation.¹⁹⁴ Soldiers from the DRC's national army FARDC often go unpaid for months, giving them strong incentives to extract rents from miners and traders, thus, interfering with mining at most sites through illegal taxation.¹⁹⁵

These enforcement failures point to deeper gaps in what international responses prioritize and what they neglect.¹⁹⁶ Indeed, peacebuilding and governance reforms often concentrate on national elites and official institutions, leaving out the daily reality of local actors, informal economies, and the survival choices ordinary people must make.¹⁹⁷ Mining reforms also move slowly due to budget constraints and insecurity, meaning that many artisanal sites are never validated as formal and are pushed outside legal trade altogether.¹⁹⁸ At the same time, strict due diligence requirements encourage companies to avoid risk by disengaging from the DRC or artisanal

¹⁸⁶ Divin-Luc Bikubanya, Hadassah Arian, Sara Geenen, and Sarah Katz-Lavigne, "Due Diligence in Mineral Supply Chains from the Democratic Republic of Congo," E-International Relations, January 26, 2023, 1.

¹⁸⁷ OECD, *Mineral Supply Chain and Conflict Links in the Eastern Democratic Republic of Congo*, 2015, 35.

¹⁸⁸ Miho Taka, *A Critical Analysis of Human Rights Due Diligence Processes in Mineral Supply Chains: Conflict Minerals in the DRC*, Governance of Africa's Resources Programme, Occasional Paper 208 (South African Institute of International Affairs, December 2014).

¹⁸⁹ OECD, *Mineral Supply Chain and Conflict Links in the Eastern Democratic Republic of Congo*, 2015, 10.

¹⁹⁰ Philipp Sandner, "Why Eastern DR Congo Remains Stuck in Conflict," *DW In Focus*, February 27, 2025.

¹⁹¹ OECD, *Mineral Supply Chain and Conflict Links in the Eastern Democratic Republic of Congo*, 2015, 20.

¹⁹² Taka, *A Critical Analysis of Human Rights Due Diligence Processes*, 12.; Dormakaba, *Tracing Cobalt in Fragmented Supply Chains: A Case Study in Collaboration with the University of St. Gallen* (2022), 17.

¹⁹³ OECD, *Monitoring and Evaluation Framework*, 2022, 21.

¹⁹⁴ Ibid., 30.; Adeline Auffret O'Neill and Indira Boutier, *Human Rights and the Energy Transition: The Case of Critical Minerals in the DRC* (United Nations, Special Rapporteur on Climate Change, 2025), 13.

¹⁹⁵ Sandner, "Why Eastern DR Congo Remains Stuck in Conflict."; OECD, *Mineral Supply Chain and Conflict Links in the Eastern Democratic Republic of Congo*, 2015, 8.

¹⁹⁶ Bikubanya et al., "Due Diligence in Mineral Supply Chains," 4.

¹⁹⁷ Christoph Vogel and Joschka Havenith, "Why Peacebuilding in Eastern Congo Often Goes Wrong, and Why It Is So Hard to Get Right," *African Peacebuilding and Developmental Dynamics (APDD)*, October 18, 2013.; Auffret O'Neill and Boutier, *Human Rights and the Energy Transition*, 6.

¹⁹⁸ OECD, *Mineral Supply Chain and Conflict Links in the Eastern Democratic Republic of Congo*, 2015, 9.; Auffret O'Neill and Boutier, *Human Rights and the Energy Transition*, 5.

mining entirely, leaving miners without legitimate buyers and pushing them into informal and illegal markets, which can ultimately increase rather than reduce conflict.¹⁹⁹ Local monitoring committees exist to represent community concerns but they are frequently underfunded, bureaucratically constrained, and politically sidelined.²⁰⁰ Finally, accountability remains uneven: while international buyers face scrutiny, there is little sustained pressure on regional actors involved in smuggling networks, and some UN Security Council members have resisted clear condemnation of neighboring states benefiting from mineral flows.²⁰¹ As a result, international responses succeed in formalizing norms of responsible sourcing but fall short of transforming the conditions that make conflict, exploitation, and hidden transactions in the first place.²⁰²

7.2 Why Enforcement Remains a Challenge

Enforcement constraints arise from a mismatch between the procedural design of due diligence and the operational realities of mineral production and trade in conflict-affected and high-risk contexts. The dominant compliance logic assumes that traceable transactions, auditable records, and enforceable contractual obligations can be extended upstream through tiers of suppliers. In practice, the upstream environment in eastern DRC often exhibits features that systematically defeat this assumption, including fragmented production, rapid site turnover, and competing coercive authorities. Even where rules are clear on paper, enforcement capacity is frequently limited at precisely the interfaces where incentives to evade oversight are strongest, notably at mine access points, road checkpoints, trading hubs, and border crossings.

First, the structural complexity of supply chains makes verification costly and intermittent. Artisanal and small-scale mining supply chains involve a high number of producers and frequent changes in ownership as ore moves from miners to local buyers, aggregators, and traders.²⁰³ The concentration model used by several industry schemes, which focuses on smelters and refiners as “pinch points,” can improve downstream visibility but does not eliminate upstream opacity.²⁰⁴ The RMI’s Responsible Minerals Assurance Process, for example, explicitly prioritizes smelter and refiner assessments as a practical chokepoint strategy, yet this design also implies that upstream integrity remains contingent on documentation and representations provided through multiple intermediaries.²⁰⁵

Second, porous borders and regional trade corridors create persistent opportunities for relabelling and laundering. High value, low weight minerals, especially gold and coltan-related streams, can be transported across borders with limited official scrutiny and then reintroduced into formal export channels elsewhere. Compliance systems that are calibrated to national reporting and importer obligations may therefore face a structural blind spot: the most consequential enforcement challenge is not only whether a shipment is documented, but whether the documentation accurately reflects the mineral’s provenance after cross-border movement and blending.

¹⁹⁹ Taka, *A Critical Analysis of Human Rights Due Diligence Processes*, 15. ; Bikubanya et al., “Due Diligence in Mineral Supply Chains,” 2.

²⁰⁰ OECD, *Mineral Supply Chain and Conflict Links in the Eastern Democratic Republic of Congo*, 2015, 39.

²⁰¹ Auffret O’Neill and Boutier, *Human Rights and the Energy Transition*, 6. ; Sandner, “Why Eastern DR Congo Remains Stuck in Conflict.”

²⁰² Auffret O’Neill and Boutier, *Human Rights and the Energy Transition*, 6

²⁰³ OECD, “Due Diligence Guidance for Responsible Mineral Supply Chains: Mineral supply chains explained,” accessed January 17, 2026,

²⁰⁴ Organisation for Economic Co-operation and Development (OECD), *An Introduction to the OECD Due Diligence Guidance for Responsible Mineral Supply Chains for Upstream Actors* (Paris: OECD.), 11, accessed January 17, 2026

²⁰⁵ Responsible Minerals Initiative, “Responsible Minerals Assurance Process (RMAP).”

Third, mixing and blending diminishes traces of the mineral's origin even in formally regulated systems. Once minerals from different sites are combined at trading hubs, depots, or processing facilities, mine-level origin becomes increasingly difficult to reconstruct. This problem is not merely technical. Blending is often commercially rational because it smooths grade variability and reduces transaction costs.²⁰⁶ It also creates a pathway for “leakage-in,” where unverified material can be inserted into otherwise documented supply chains.²⁰⁷ Where the premium for “responsible” documentation is meaningful, the incentive to counterfeit or recycle paperwork rises correspondingly.

Fourth, documentation fraud is an adaptive behaviour, not a residual anomaly. If access to international markets depends on producing forms, certificates, and audit trails, actors seeking to evade scrutiny will often invest in producing credible-looking documentation rather than changing underlying practices. The EU's Conflict Minerals Regulation, for instance, rests on due diligence obligations for importers of 3TG from conflict-affected and high-risk areas and anticipates that third-party audits and recognized schemes can support compliance.²⁰⁸ However, compliance obligations are mediated through member-state implementation, the quality of risk assessments, and enforcement discretion, leaving considerable variation in how rigorously rules translate into penalties or exclusion.²⁰⁹

Finally, enforcement is constrained by local political economic incentives. Where security actors are under-resourced, irregularly paid, or weakly supervised, predatory rent extraction becomes a rational income strategy. In such settings, “compliance” can coexist with coercive practices because the informal revenue generated at checkpoints, mine sites, and trading nodes may be politically protected or socially normalized.²¹⁰ The resulting equilibrium can produce a paradox: procedural compliance expands while the underlying drivers of insecurity and exploitation remain resilient.

7.3 Humanitarian Architecture

International responses in the DRC are not limited to responsible sourcing frameworks, they also include a large humanitarian architecture designed to mitigate the human consequences of conflict, displacement, and health shocks in contexts where state services are overstretched. This architecture is coordinated primarily through the UN-led humanitarian system, with the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) supporting overall coordination and the cluster approach organizing sectoral responses across food security, health, shelter, protection, water, and sanitation.²¹¹

The scale of necessary support remains substantial. OCHA's DRC Humanitarian Response Plan for 2025 sought approximately \$2.5 billion USD to assist approximately 11 million people, reflecting the persistence of large-scale vulnerability and displacement.²¹² Yet the system is chronically constrained by funding shortfalls and access limitations. In a March 2025 briefing, the

²⁰⁶ Matias Saavedra, Nathalie Risso, Moe Momayez, Ricardo Nunes, Victor Tenorio, and Jinhong Zhang, “Blending Characterization for Effective Management in Mining Operations,” *Minerals* 15, no. 9 (2025): 891

²⁰⁷ Global Witness, “Behind the Shine of Responsible Sourcing: How Industrial Mines and International Buyers Are Laundering Conflict Minerals,” accessed February 1, 2026.

²⁰⁸ European Union, Regulation (EU) 2017/821 (EUR-Lex).

²⁰⁹ European Commission, “Conflict Minerals Regulation” and scheme recognition framework.

²¹⁰ CBRMT, *Evaluation of Potential Responsible Artisanal Mine Site Hubs: South Kivu, DRC* (2018), 48–49.

²¹¹ Global Camp Coordination and Camp Management (CCCM) Cluster, “Humanitarian Coordination System Overview,” Coordination Module 1.01 (Geneva: Global CCCM Cluster, February 2024), 1–3.

²¹² OCHA, “DRC Humanitarian Response Plan at a Glance 2025.”

Humanitarian Coordinator reported that the 2025 plan was funded at only 8.3 per cent at that time, with some partners already forced to reduce activities.²¹³ Funding constraints can translate directly into reduced geographic coverage, narrower beneficiary targeting, and weaker continuity of services in areas where vulnerability is driven by protracted insecurity rather than short-lived shocks.

Access and security constraints remain central operational barriers. Humanitarian actors frequently face insecurity on roads, restrictions on movement, and administrative impediments that slow deployment and monitoring.²¹⁴ These constraints are especially acute in conflict-affected eastern provinces where displacement is recurrent and where the control of transport routes is contested. UNICEF's 2025 humanitarian prioritization for the DRC explicitly highlights mass displacement, recurrent health emergencies, and access constraints as persistent threats to children and families.²¹⁵ The same dynamics complicate protection programming and the delivery of nutrition and health interventions precisely when need rises due to conflict-driven displacement.

Recent reporting underscores how funding and insecurity interact to produce potentially severe service interruptions. In late 2025, the World Food Programme warned it might have to pause food aid in eastern DRC by early 2026 due to exceptionally low funding, placing millions at risk amid ongoing conflict and high levels of acute food insecurity.²¹⁶ Health shocks further compound the crisis. Reuters reporting citing UNICEF described the DRC's worst cholera outbreak in decades in 2025, linking transmission to weak water and sanitation infrastructure and warning that funding shortfalls risk preventable loss of life.²¹⁷ These dynamics illustrate a structural limitation of humanitarian response: even well-designed emergency systems cannot substitute for durable security, functional infrastructure, and predictable financing.

In parallel, peacekeeping and political stabilization instruments continue to shape the operational environment for humanitarian and governance responses. The Security Council renewed MONUSCO's mandate in December 2025 through resolution 2808 (2025), maintaining the mission's civilian protection and stabilization functions amid ongoing violence and political contestation around the mission's effectiveness.²¹⁸ This matters for delivery of humanitarian aid because the protected environment and the control of routes often determine whether assistance can reach high-need areas safely and consistently.

7.4 Recent Developments to Pay Attention To

Several recent developments deserve attention because they may reshape the incentives and capacities that underpin international responses.

First, the institutionalization of scheme recognition under the EU Conflict Minerals Regulation is advancing. In October 2025, the European Commission acknowledged the Responsible Minerals Initiative's (RMI) Responsible Minerals Assurance Process as the first due diligence scheme officially recognized for compliance purposes, reinforcing the role of third-party schemes as compliance infrastructure for EU importers.²¹⁹ This may expand implementation of standardized

²¹³ OCHA, "Humanitarian Coordinator Statement... Geneva, 25 March 2025."

²¹⁴ ACAPS, *Humanitarian Access Overview: Spotlight on Bureaucratic and Administrative Impediments* (July 2025), 2–3.

²¹⁵ UNICEF, "DRC 2025 HAC Prioritization."

²¹⁶ Reuters, "World Food Programme may have to pause food aid in Congo due to record low funding," 7 November 2025.

²¹⁷ Reuters, "Congo battles worst cholera outbreak in 25 years, UNICEF says," 8 December 2025.

²¹⁸ UN Security Council Press Release, "Unanimously Adopting Resolution 2808 (2025)...," 19 December 2025.

²¹⁹ European Commission trade policy update on scheme recognition; RMI announcement.

audits and reporting. On the other hand, it may also intensify concerns that compliance becomes overly centered on scheme participation rather than on demonstrable improvements in upstream conditions, especially in complex ASM-linked chains.

Second, regulatory and disclosure regimes are continuing to evolve. The U.S. Securities and Exchange Commission (SEC) maintains the conflict minerals rule framework under Section 1502 of Dodd-Frank, requiring certain issuers to file specialized disclosures when conflict minerals are necessary to product functionality or production.²²⁰ Although disclosure is not equivalent to enforcement against upstream abuse, the persistence of disclosure obligations sustains a transparency baseline and can influence corporate risk governance, supplier selection, and audit demand.

Third, the international crime and corruption dimension is receiving increased attention. UNODC reporting in 2025 emphasized how rising demand for critical minerals can heighten risks of crime, corruption, and instability across mineral supply chains, and highlighted corruption as a systemic enabler that undermines fair access and lawful trade.²²¹ This framing is significant because it shifts the problem from conflict mineral compliance toward broader transnational financial and criminal governance, including laundering mechanisms and illicit market integration.

Fourth, conflict dynamics remain fluid, and international diplomatic responses continue to shape narrative and policy attention. Public Security Council messaging around the situation in eastern DRC and MONUSCO's mandate renewal has continued to emphasize protection of civilians and responses to armed group violence.²²² For supply chain governance, this implies that due diligence systems will remain under stress as insecurity disrupts monitoring and verification, and increases reliance on intermediaries.

7.5 What is Missing

Across these instruments, international responses have succeeded in establishing a formal norm that global buyers should not be indifferent to upstream harm. They have been less successful at changing the conditions that make coercive extraction, smuggling, and documentation fraud durable.

Three gaps are particularly evident. First, enforcement remains asymmetric. International buyers face reputational and procedural pressure, while actors enabling smuggling corridors, laundering, and cross-border relabelling often face limited, inconsistent consequences. Second, incentives are misaligned. Where compliance raises transaction costs without providing credible livelihoods and security improvements, risk avoidance becomes the path of least resistance, which can displace harm into more opaque commodities and routes. Third, humanitarian assistance is structurally underfinanced relative to need, and cannot substitute for institutional strengthening, border governance, and security sector integrity. The implication is that international response cannot be treated as a single toolbox. It is an ecosystem whose components often operate on different timelines and logics, and whose effectiveness depends on whether enforcement, financing, and security dynamics converge rather than work at cross purposes.

²²⁰ U.S. Securities and Exchange Commission, "Conflict Minerals" rule page.

²²¹ UNODC press release on minerals crime risks and corruption; UNODC minerals crime study.

²²² MONUSCO mandate page and related Security Council materials.

VIII. Policy options

This section sets out four policy “bundles” that respond to the same core problem from different angles: supply chains that can transmit risk and illicit value, weak governance and contested authority at key mineral interfaces, and a humanitarian crisis that both results from and reinforces insecurity. The options are not mutually exclusive. In practice, the strongest approach is a sequenced package: immediate protection and stabilisation measures, paired with supply-chain hardening in high-risk corridors, while investing in governance capacity and value-add development with safeguards.

Option A: Supply Chain Hardening

Theory of Change

If downstream buyers and transit jurisdictions face credible enforcement for sourcing from conflict-linked or fraudulently documented minerals, and if “chokepoints” (traders, exporters, refiners, and key transport corridors) are subject to stronger verification and penalties, then the profitability of illicit flows declines. By raising the cost of laundering (through audits, inspections, sanctions, and customs enforcement), this option aims to disrupt the conversion of minerals into coercive finance, reduce leakage into “clean” streams, and reward verified supply routes, especially for 3T and gold, where smuggling and blending risks are highest.

Implementation Steps

- **Target chokepoints, not only mine sites:** prioritise exporter licensing, trading hubs, border crossings, and smelter and refiner due diligence (“pinch point” approach).
- **Strengthen verification capacity:** fund joint inspection teams (customs, mining services, specialised investigators) at priority crossings and export nodes; deploy risk-based sampling and chain-of-custody checks.
- **Raise consequences for fraud:** tighten penalties for misdeclaration, document falsification, and illicit taxation payments; require corrective-action plans and delisting for repeat offenders.
- **Trade and procurement conditionality:** mandate that public procurement and major institutional buyers require verified supply routes; incentivise private adoption through preferred supplier status.
- **Cross-border enforcement compacts:** negotiate operational arrangements for information sharing (shipping manifests, export certificates, refinery intake data) and coordinated investigations.
- **“Gold first” pilot:** because gold is highly smuggleable, launch a focused gold traceability and enforcement pilot in one corridor, then scale.

Key Risks & Mitigations

- **Risk: de facto embargo & buyer disengagement from ASM.**
Mitigation: pair enforcement with **ASM formalisation pathways** (legal buying windows, price transparency, support to validated cooperatives) so “compliance” doesn’t simply push trade underground.
- **Risk: displacement to more opaque routes and minerals.**
Mitigation: broaden monitoring beyond one mineral; track substitution effects; align enforcement across neighbouring jurisdictions.

- **Risk: corruption capture of the enforcement apparatus.**

Mitigation: rotate teams, use independent oversight, publish enforcement stats, and protect whistleblowers.

- **Risk: violence spikes if armed groups lose revenue.**

Mitigation: coordinate with protection measures (Option C) and conflict-sensitive implementation.

Metrics

- Share of exports passing through verified and monitored channels (percentage by mineral).
- Number of confirmed fraud cases (misdeclaration and document falsification) investigated and sanctioned per quarter.
- Price differential paid to verified supply vs unverified supply (proxy for incentives).
- Reported incidence of illegal taxation at checkpoints in targeted corridors (survey and KST-style monitoring).
- Changes in seizure volumes and discrepancy rates between production estimates and declared exports.

Option B: Governance & Revenue Transparency

Theory of Change

If the state's fiscal and regulatory presence becomes stronger and more predictable, especially at licensing, taxation, border management, and security oversight nodes, then mineral rents are less likely to be captured through coercion or private diversion. By improving revenue transparency, reducing discretionary licensing and off-budget practices, and ensuring local communities see tangible benefits, this option seeks to shift incentives away from conflict economies and toward lawful production, public service delivery, and legitimacy of state authority.

Implementation Steps

- **Revenue transparency package:** publish mining revenues and key contract terms; expand public reporting on royalties, export taxes, and parafiscal charges; align with EITI-style disclosure.
- **Digitise and simplify payments:** move licensing and fee payments to traceable digital channels; reduce “cash interfaces” where extortion thrives.
- **Anti-corruption enforcement:** establish specialised capacity to investigate procurement, subcontracting, and customs fraud; target high-leverage nodes (export authorisations, contracting, border posts).
- **Security-sector integrity in mining zones:** enforce clear rules on deployment near mine sites; create complaint mechanisms for illegal taxation; pay and rotate units to reduce predatory behaviour.
- **Local benefit-sharing:** formalise community development mechanisms tied to mining revenues; set transparent criteria for projects; require participatory monitoring.
- **Institutional coordination:** clarify mandates between mining agencies, provincial authorities, customs, and security forces to reduce overlapping “fee extraction” claims.

Key Risks & Mitigations

- **Risk: reforms remain “paper compliance.”**

Mitigation: tie donor support to measurable implementation (digital payment uptake, published revenue data, prosecutions).

- **Risk: elite resistance and political interference.**

Mitigation: phase reforms; start with “least politically costly” wins (digital fees, disclosure templates), then expand.

- **Risk: local benefit-sharing captured by local elites.**

Mitigation: community oversight boards, independent audits, and public project dashboards.

- **Risk: capacity constraints slow delivery.**

Mitigation: prioritise 2-3 provinces and corridors first; scale once systems stabilise.

Metrics

- Mining and export revenue captured through traceable channels (percentage of total).
- Reduction in the number of informal and undocumented fees reported by miners and traders.
- Publication compliance: contracts and royalty flows disclosed on time (yes or no; percentage of coverage).
- Number and quality of enforcement actions (customs fraud, corruption cases) with outcomes.
- Community benefit metrics: share of revenue allocated to local projects; project completion rates.

Option C: Protection and Humanitarian Surge

Theory of Change

If civilians can move safely, access essential services, and receive protection in conflict-affected mineral zones, then the human costs of extraction-linked insecurity (displacement, disease, food insecurity, exploitation) decline, and armed groups find it harder to control populations through fear and road dominance. This option treats protection and humanitarian access as immediate stabilisers: by securing key corridors, scaling health and WASH interventions, and strengthening displacement response, it reduces vulnerability and limits the ability of armed actors to monetise control over movement and aid.

Implementation Steps

- **Corridor protection model:** identify priority humanitarian and economic corridors (roads to markets, health facilities, and key hubs); deploy protection mechanisms coordinated with local authorities and international partners.
- **Access negotiation and monitoring:** strengthen humanitarian access negotiations; monitor roadblocks, attacks, and administrative impediments; publish access constraints regularly.
- **Health surge in hotspot provinces:** scale mobile clinics, vaccination coverage tracking, and outbreak response capacity in displacement zones.
- **WASH and cholera prevention:** prioritise clean water access and sanitation in IDP sites and host communities; pre-position supplies.
- **Protection programming:** expand GBV services, child protection, legal aid, and safe reporting mechanisms; reinforce community-based protection networks.
- **Displacement response continuity:** improve registration systems, cash-based assistance where feasible, and support for host communities.

Key Risks & Mitigations

- **Risk: securitisation undermines trust.**
Mitigation: civilian-led humanitarian coordination; community engagement; avoid “militarised” public health optics.
- **Risk: access remains blocked by insecurity.**
Mitigation: flexible delivery (mobile teams, remote support, local partners), and real-time corridor monitoring.
- **Risk: funding volatility.**
Mitigation: multi-year financing commitments; pre-agreed surge triggers for outbreaks and displacement spikes.
- **Risk: protection efforts don’t address revenue drivers.**
Mitigation: integrate with Options A and B; treat this as the “stop the bleeding” track.

Metrics

- Humanitarian access: number of access incidents (roadblocks and attacks) and average delay times.
- Health outcomes: vaccination coverage in displacement zones; cholera and Mpox incidence trends in hotspot areas.
- Displacement metrics: new displacement flows and repeat displacement rates in target provinces.
- Service coverage: percentage of high-need areas receiving regular health and WASH support.
- Protection indicators: GBV service uptake and referral completion; reported attacks on civilians along corridors.

Option D: Responsible Investment Model

Theory of Change

If investment shifts from purely extractive flows toward infrastructure and value-add processing inside the country, paired with enforceable safeguards, then more of the mineral value chain can generate lawful employment, predictable public revenue, and local development, reducing the relative attractiveness of illicit rents. By building processing capacity, upgrading transport and power infrastructure, and embedding transparency and human-rights protections in contracts and financing, this option aims to transform “resource value” into durable economic capacity rather than conflict-linked contestation.

Implementation Steps

- **Prioritise enabling infrastructure:** power reliability, roads, and logistics that reduce dependence on informal corridors and lower incentives for illicit taxation.
- **Value-add with safeguards:** support processing and refining, and industrial upgrading only with strong conditions (auditable payments, labour standards, community safeguards, independent monitoring).
- **Development finance leverage:** use DFIs and blended finance to require anti-corruption clauses, open contracting, and beneficial ownership disclosure in funded projects.
- **Local content and skills:** invest in training, supplier development, and safety standards to ensure jobs are not purely imported.

- **Community consent and grievance:** institutionalise community consultation, compensation processes, and credible grievance mechanisms.
- **Conflict-sensitive site selection:** avoid building “anchor projects” in zones where protection cannot be maintained; phase investments as security stabilises.

Key Risks & Mitigations

- **Risk: rent capture through big projects.**
Mitigation: transparent contracting, beneficial ownership disclosure, third-party audits, and staged disbursements.
- **Risk: environmental and social harms.**
Mitigation: enforce ESIA standards, independent monitoring, and penalties for non-compliance.
- **Risk: infrastructure becomes a contested revenue source.**
Mitigation: corridor protection link (Option C) and community benefit-sharing (Option B).
- **Risk: geopolitical competition distorts priorities.**
Mitigation: diversify partners; standardise safeguards regardless of investor nationality.

Metrics

- Share of value retained domestically: processing volumes in-country; jobs created in midstream activities.
- Contract transparency: percentage of major mining and infrastructure contracts publicly disclosed with key terms.
- Safeguard compliance: audit outcomes, grievance mechanism usage and resolution rates.
- Infrastructure performance: power uptime for industrial corridors; transport time and cost reductions.
- Revenue integrity: discrepancy between declared production, exports, and fiscal receipts.

IX. Recommendations

This section translates the policy options into a short set of realistic, prioritised recommendations that are implementable under current constraints. The logic is sequencing: protect civilians and stabilise key corridors first, harden high-risk supply chains in parallel, then scale governance reforms and responsible investment once enforcement and oversight can credibly function.

1) Realistic Options with Benefits, Costs, Risks, and Feasibility

Option 1: Targeted Supply-Chain Hardening in High-Risk Corridors

- **What it is:** Concentrate enforcement, verification, and penalties on a small number of strategic nodes (trading hubs, exporter licensing, border crossings, and refinery intake documentation) for gold and 3T flows where laundering risks are highest.
- **Benefits:** Reduces profitability of smuggling and document fraud; improves credibility of “clean” channels; creates incentives for verified trade rather than blanket disengagement.
- **Costs:** Requires sustained monitoring capacity, data systems, and cross-border cooperation; raises compliance costs for legitimate traders if poorly designed.
- **Risks:** Displacement to other routes and minerals; corruption capture of enforcement; unintended ASM embargo effects.
- **Feasibility: Medium-high** if piloted geographically and paired with support for legal ASM buying channels.

Option 2: Governance and Revenue Integrity Package

- **What it is:** Digitise and simplify mineral payments, reduce cash interfaces, publish key revenue and contract information, and strengthen customs and anti-corruption capacity at the most important “interfaces” (licenses, checkpoints, borders, export corridors).
- **Benefits:** Cuts discretionary rent extraction; increases state fiscal capture; improves legitimacy and predictability for investors; supports long-term stability.
- **Costs:** Institutional reform is slow; requires training, political backing, and ongoing financing; potential resistance from vested interests.
- **Risks:** “Paper reforms” without enforcement; elite capture of benefits; backlash against transparency.
- **Feasibility: Medium** as strongest when phased and tied to clear, measurable implementation milestones.

Option 3: Protection and Humanitarian Surge Linked to Corridor Security

- **What it is:** Strengthen civilian protection, access, and service delivery in displacement and mining-adjacent hotspots through corridor monitoring and protection, health and WASH surge capacity, and protection programming.
- **Benefits:** Directly reduces human harm; improves health outcomes and reduces outbreak risk; can stabilise mobility and market access; increases resilience of communities under stress.
- **Costs:** Expensive, recurring funding needs; operational constraints where insecurity blocks access; heavy dependence on donor priorities.
- **Risks:** Securitisation undermines trust; aid becomes politicised or restricted; cannot substitute for governance reforms.

- **Feasibility: High** for targeted, well-funded interventions **but** vulnerable to funding volatility.

Option 4: Responsible Investment and Value-Add with Enforceable Safeguards

- **What it is:** Use development finance and private capital to build infrastructure and value-add processing, conditioned on transparent contracting, labour standards, community safeguards, and independent monitoring.
- **Benefits:** Increases domestic value retention; creates formal jobs; strengthens supply resilience; can reduce incentives for illicit rents over time.
- **Costs:** Large capital requirements; long timelines; requires stable security and credible enforcement to avoid rent capture.
- **Risks:** Corruption and elite capture; environmental and social harms; geopolitical competition distorting safeguards.
- **Feasibility: Medium-low** in insecure areas; **medium-high** in more stable industrial corridors if safeguards are enforced.

2) Prioritised Recommendations by Actor

DRC Government

1. **Digitise and publish** mineral-related fees, licensing steps, and export charges to reduce cash “interfaces” that enable informal taxation and extortion.
2. **Create and enforce** a clear security-sector code of conduct for mining and transport corridors (deployment rules, anti-extortion enforcement, complaint mechanisms, rotation and pay regularisation where possible).
3. **Pilot legal ASM buying channels** in selected zones (with transparent pricing, validated cooperatives, and basic safety standards) to prevent compliance-driven buyer disengagement from pushing miners into illicit markets.

Regional Actors

4. **Establish joint cross-border enforcement cells** focused on gold and 3T (shared manifests and export certificates, coordinated inspections, and investigations of relabeling and laundering networks).
5. **Harmonise customs risk profiling** for high-value minerals and **report** discrepancies between declared imports and exports to reduce opportunities for laundering through “paper origin.”

Companies

6. **Shift from document-only compliance to corridor-based risk controls:** require supplier participation in verified routes, fund independent monitoring where feasible, and use corrective action plans rather than immediate disengagement when risks are manageable.
7. **Disclose and audit** subcontracting, logistics, and security arrangements (the hidden nodes most likely to obscure payment flows), including grievance mechanisms accessible to workers and communities.

Donor states and development finance institutions

8. **Tie financing and trade incentives to measurable implementation:** fund capacity (customs, digital payments, inspections) but condition support on published data, enforcement outcomes, and community benefit safeguards; provide multi-year humanitarian funding with surge triggers.

Multilaterals

9. **Prioritise protected access and service continuity** in displacement hotspots by expanding corridor monitoring, rapid health and WASH surge capacity, and community-based protection networks, aligned with conflict sensitivity and local trust.

3) Sequencing

Short-Term Vision (0-12 months)

- **Fund and scale** humanitarian access and health and WASH surge in displacement hotspots; stabilise essential corridors where feasible.
- **Launch** a targeted gold and 3T enforcement-and-verification pilot at a small number of chokepoints (export licensing and border nodes).
- **Stand up** a basic transparency baseline: publish fee schedules, licensing steps, and standard export requirements.

Mid-Term Vision (1-3 years)

- **Institutionalise** digital payments and reduce cash interfaces across licensing and export processes.
- **Expand** cross-border information sharing and joint investigations into laundering networks.
- **Scale** legal ASM buying channels and validation capacity to prevent illicit displacement effects.

Long-Term Vision (3-7 years)

- **Invest** in value-add processing and enabling infrastructure where safeguards and oversight are credible.
- **Embed** enforceable contracting standards (beneficial ownership disclosure, independent audits, community benefit-sharing) as default conditions for major projects.

Conclusion

The Democratic Republic of the Congo sits at the centre of the global energy transition while also bearing a disproportionate share of its human and governance costs. This report has shown how a “critical minerals” agenda can generate “critical consequences”: coercive revenue capture at key interfaces, corruption and informal taxation along routes and borders, and persistent civilian harm in mining-adjacent conflict zones. The central lesson is not that minerals inherently cause conflict, but that value becomes politically combustible when state capacity is uneven and when armed actors, predatory intermediaries, and transnational laundering networks can convert extraction into power.

International responses have built a dense architecture of due diligence standards, certification schemes, and reporting requirements, and these have helped establish an important norm: global buyers cannot claim neutrality toward upstream abuse. Yet the report also finds that procedural compliance often outruns real-world enforcement. In high-risk contexts, documentation can be counterfeited, ores can be blended, and provenance can be “reset” as material moves through aggregation points and refining chokepoints. Where enforcement is weak, even well-designed frameworks struggle to prevent leakage of unverified minerals into “clean” channels. In the worst cases, risk avoidance by companies can unintentionally deepen harm by pushing miners and traders toward informal markets that are more easily controlled by coercive actors.

The human cost remains the urgent metric. Displacement, disease outbreaks, food insecurity, and protection risks are intensified by insecurity around strategic corridors and mineral-rich provinces. Humanitarian response can reduce suffering and prevent collapses in health and services, but cannot substitute for governance integrity, credible enforcement, and a security environment that protects civilian mobility and market access. Nor can it remain effective when it is underfunded, when access is restricted, or when insecurity undermines continuity of care. Without improvements in protection and access, the humanitarian burden will continue to rise even as global demand for minerals grows.

For these reasons, the report’s overarching conclusion is that a credible response must align three logics that too often operate in parallel: protection, enforcement, and incentives. Protection is required to reduce immediate harm and sustain health and livelihoods in conflict-affected areas. Enforcement is required to raise the cost of smuggling, laundering, and coercive taxation and to prevent procedural compliance from becoming a substitute for accountability. Incentives are required to avoid a collapse into risk avoidance and to support legitimate ASM livelihoods, responsible trade, and investment that creates value while meeting enforceable safeguards. Sequencing matters: stabilisation and humanitarian continuity must come first, targeted chokepoint enforcement can reduce illicit rents quickly, and deeper governance reforms and responsible value-add investment should be scaled as oversight and integrity become credible.

Ultimately, global energy transitions will be judged not only by decarbonization outcomes but also by whether it reproduces patterns of extraction without protection. The DRC’s experience is a warning and a test. If critical-mineral supply security is pursued without parallel commitments to civilian protection, revenue integrity, and enforceable standards across borders and firms, the transition risks entrenching the very vulnerabilities it claims to overcome. The pathway forward is therefore clear: treat mineral supply chains as both an economic system and a security-and-governance system. Success must not only be measured in tonnes, but in reduced coercion, fewer displaced families, safer work, and stronger institutions at the interfaces where minerals become money and money becomes power.

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