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GICM 2030: A Typology of Conflict around Mineral Resources

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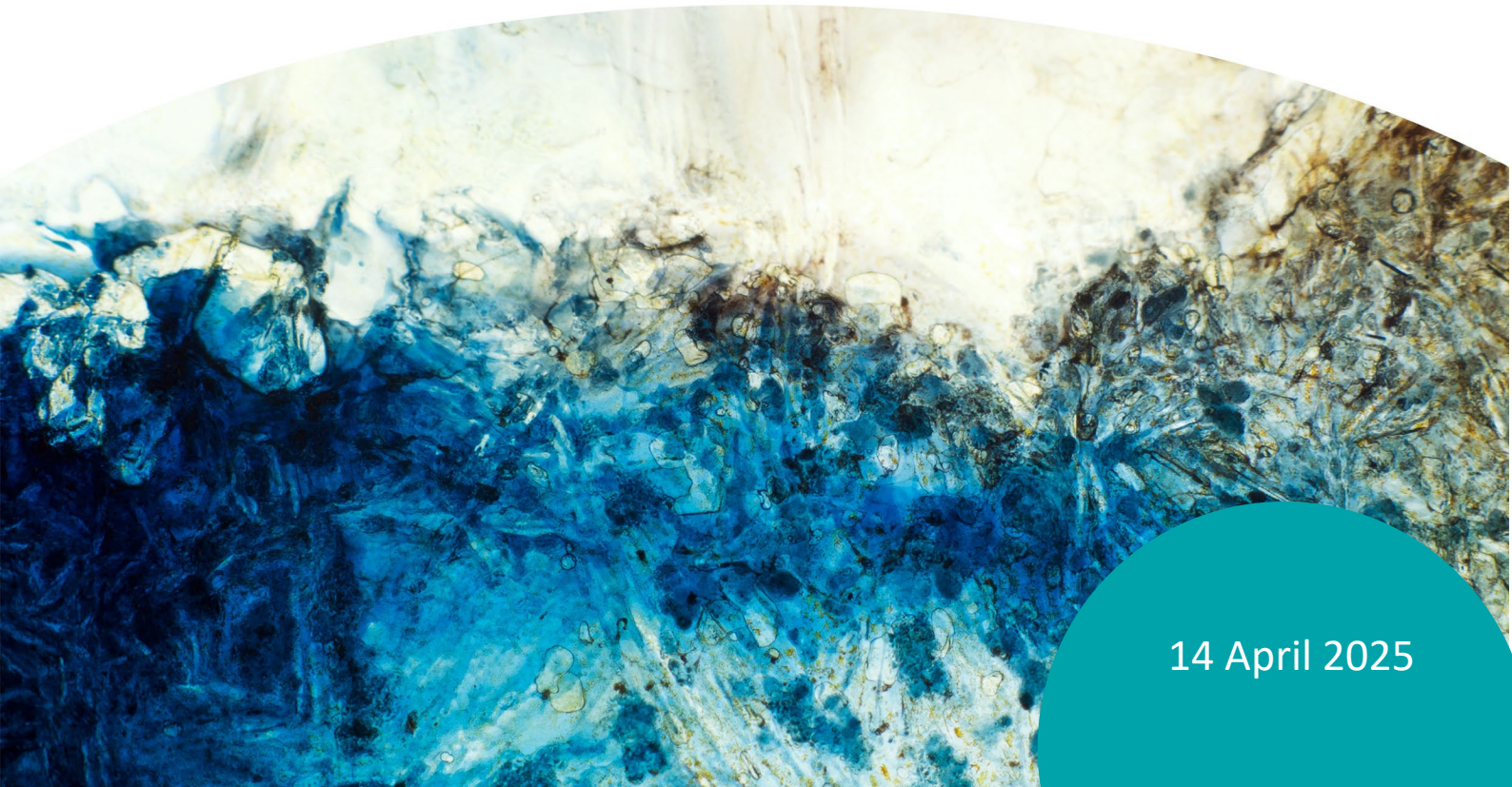

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A Typology of Conflict around Mineral Resources

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Executive summary

Mining can generate significant economic and social benefits, but in contexts marked by weak governance and political instability, it often contributes to conflict. Disputes over land, labour conditions, environmental degradation, and resource governance may escalate into violence — particularly in fragile settings. Having access to those resources can also be a driver of or provide finance for conflict. Yet when managed responsibly, mining can also serve as a stabilising force. Investors and companies have the potential to reduce the likelihood of conflict and play a proactive role in promoting peace.

This briefing supports the Global Investor Commission on Mining 2030 by offering a structured typology of mining-related conflicts and case studies that illustrate how conflicts escalate. The goal is to equip investors with practical insights into where and how risks may arise, giving context to the issues around when to intervene, and how to use their leverage to encourage more responsible and conflict-sensitive practices.

The briefing draws on conflict studies frameworks to show how resource-related tensions typically escalate — from latent grievances to full-scale violence — if left unaddressed. It emphasises that the earlier investors engage, the greater their potential to influence outcomes. When done well, investment in the mining sector can reduce harm, prevent escalation, and contribute to more stable, equitable societies.

Three core elements are key to understanding conflict in mining regions: structural drivers, immediate triggers for escalation, and the characteristics of the conflict itself. Drivers may include historical marginalisation, land tenure insecurity, corruption, or lack of equitable benefit sharing. Triggers — such as resettlement, layoffs, environmental incidents, or elections — can transform latent tensions into violent confrontations. Some triggers are internal to mining operations and within investors' influence; others are external and shaped by broader political or environmental shocks.

To support investor decision-making, the report characterises conflicts by classifying mining-related conflicts into five interrelated types: socio-environmental, socio-economic, intra-state, transnational, and international armed conflicts. These range from community-level disputes to large-scale conflict driven by geopolitical objectives over strategic minerals. Case studies offer real-world insights into how each type of conflict unfolds.

In practice, conflict types often overlap and evolve. Socio-environmental disputes, for example, may escalate into socio-economic conflicts as environmental harm affects livelihoods, and these in turn can feed into broader political or intra-state tensions. Many of these conflicts remain low intensity for long periods, particularly in the absence of meaningful grievance redress. However, they may escalate quickly when triggered by a catalytic event.

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CHAPTER 1 Introduction

Mining can generate significant economic and social benefits for mineral producing countries, yet in contexts marked by weak governance, political instability, and inadequate access to basic services, it often becomes a driver of conflict. Disputes over, for instance, land, environmental degradation, labour conditions, and resource governance can escalate tensions, potentially leading to violence and instability. However, mining can also contribute to peacebuilding when managed responsibly, with investors, companies, and regulators playing a role in reducing the likelihood of conflict and fostering stability.

This briefing aims to enhance the Global Investor Commission on Mining 2030 (GICM) understanding of how mining interacts with conflict and peacebuilding dynamics. It provides a typology of mining-related conflicts, supported by case studies that illustrate patterns of escalation and de-escalation. These examples highlight the underlying drivers of conflict and peace in mining regions, offering insights into both the risks and opportunities presented by the sector. The typology is intended to support GICM members in asking the right questions when assessing investment opportunities — helping them understand not only where risks may emerge, but also how and when to use their leverage to promote responsible practices and reduce the potential for harm. It serves as a high-level briefing tool designed to catalyse investor thinking around conflict sensitivity and the strategic role they can play in driving positive outcomes in complex contexts.

Key objectives of this briefing include:

- Developing a typology of mining-related conflicts – categorising the different types of conflict that arise in mining contexts and their defining characteristics.
- Applying this typology to case studies – illustrating real-world examples of conflict escalation and mitigation to deepen understanding of conflict dynamics.

The briefing is structured as follows. The following section in **Chapter 1** provides a conceptual overview of existing frameworks on the intersection of natural (including mineral) resources and conflict, including typologies, common drivers, stages and impacts. Then, **Chapter 2** presents a typology of mining-related conflicts, including illustrative case studies.

1.1 Defining conflict

This section defines the key terms and concepts that anchor the analysis in this briefing. By setting out a clear definition of conflict — along with related concepts such as fragility, violence, and the dynamics that drive or escalate conflict — it provides the conceptual guardrails for how this briefing understands and approaches conflict in mining contexts. Establishing these boundaries is essential: it ensures that the typology and case studies presented in Chapter 2 are grounded in a shared understanding of what constitutes conflict.

Conflict arises when two or more groups perceive their interests, values, or identities to be incompatible. It is not inherently negative — non-violent conflict is a normal and often constructive

part of human interaction, and can be an important driver of social change, political negotiation, and institutional reform. When societies have trusted mechanisms for managing competing interests — including inclusive governance, rule of law, and functioning dispute resolution systems — conflict can be addressed peacefully[1]. However, conflict becomes problematic when those mechanisms break down or are absent. In contexts marked by weak institutions, fragile political systems, and deep social divisions, tensions can escalate into violence. **In this briefing, conflict refers to situations of acute insecurity in which the use or threat of deadly force is deployed by state actors, organised non-state groups, or other entities, often with a political objective.**[2] This definition also includes grievance-based conflicts driven by long-standing exclusion or marginalisation — even when not explicitly political — as these too can escalate in fragile contexts when left unaddressed.

Importantly, conflict differs from fragility in that violence — or the credible threat of violence — has occurred. Fragility, by contrast, refers to a systemic condition characterised by extremely low levels of institutional and governance capacity, which significantly impedes the state's ability to function effectively, maintain peace, and foster economic and social development[3].

We further distinguish between the following components:

- **Characteristics of conflict**: These refer to the observable features of a conflict, such as the actors involved, the forms of violence used, duration and intensity, geographic scope, and the level of organisation behind the conflict (e.g., sporadic community protests vs. sustained armed rebellion). Characteristics also include the stage the conflict is in (see also section 1.2).
- **Drivers of conflict**: These are the deeper structural or systemic conditions that create the context for conflict to occur. In mining regions, key drivers may include historical marginalisation of certain groups, weak land tenure systems, lack of consultation or benefit sharing, institutional corruption, and / or environmental degradation. These factors do not always immediately result in violence but may increase the likelihood of conflict over time. For the purpose of this briefing, only those drivers for which there is empirical evidence that it has, across different contexts, resulted in violent confrontation are included.
- **Triggers for escalation**: Triggers are specific events or actions that cause a latent or low-intensity conflict to escalate into open confrontation or violence. In mining contexts, this could include the forced eviction of communities, a sudden influx of security forces, a collapse in commodity prices, a death of one or more protestors, a high-profile corruption case, or the announcement of a new concession without prior consultation. Triggers may stem from external factors beyond the control of investors, such as national elections, geopolitical tensions, or natural disasters, which can increase volatility or heighten existing grievances. They can also be internal to mining operations, where companies and investors have more influence — for example, abrupt layoffs, changes in local hiring practices, environmental

[1] Chatham House (2015a). Resources, Climate, Conflict and Peacebuilding. Available at: https://www.chathamhouse.org/about-us/our-departments/environment-and-society-centre/resources-climate-conflict-.
[2] World Bank (2022). Defueling Conflict. Available at: https://documents1.worldbank.org/curated/en/099040423155593454/pdf/P17715117c88d80ba1be411cb1b1aa27606.pdf
[3] World Bank, 2022

incidents, or poor stakeholder engagement. Understanding whether a trigger is internal or external helps define where investors can proactively mitigate escalation risks.

1.2 Natural resource governance and conflict

Natural resource governance plays a critical role in shaping conflict and stability, as competition over land, minerals, and water can either fuel disputes or serve as a foundation for peacebuilding.[4] Fragility and conflict are rarely driven by a single factor; instead, they emerge from a complex interplay of environmental, social, economic, and political pressures. Over the past decade, violent civil conflicts have tripled, with forced displacement reaching record highs and more communities living in proximity to conflict zones. Research suggests that 40–60% of civil wars over the past six decades have been triggered, financed, or sustained by resource disputes.[5] This is made more likely when natural resource exports represent a high proportion of GDP.[6] While mining itself is not inherently a source of conflict, the way in which it is managed can either mitigate tensions or exacerbate grievances.

Conflict and high-risk areas (CAHRAs) is a term defined by the OECD's *Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas*, first published in 2011.[7] This guidance focused on reporting and preventing the finance of armed conflict but also presented a series of other human rights risks tied to mineral resources governance in conflict and high-risk areas, including corruption, slavery, child labour, direct or indirect support to non-state armed groups, money laundering and bribery.[8]

There have been legislative attempts to regulate and prevent the finance of intra-state and international armed conflict in mineral supply chains. Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act, enacted in 2010[9], requires publicly traded companies to disclose and report on the origin of tin, tantalum, tungsten, and gold (3TG) used in their products and supply chain. This legislation was focused on the DRC and the wider Great Lakes region of Africa, where the most serious conflicts were concentrated at the time. The EU later adopted the EU Conflict minerals Regulation[10], that required companies that meet certain thresholds of size and revenue to report on their supply chains and sourcing practice of 3TG minerals; and how they identify, mitigate, and account for conflict and human rights risks in their supply chain.

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[4] Chatham House (2015b). Addressing Natural Resource Conflicts: Working Towards More Effective Resolution of National and Sub-National Resource Disputes.
World Bank, 2022
[5] Brack, D. and Hayman, G. (2007). 'Managing Trade in Conflict Resources', in: Brown, O., Halle, M., Pena-Moreno, S. and Winkler, S. (eds) (2007). Trade, Aid and Security. London: Earthscan.
[6] Le Billon, P. (2001). Fuelling War: Natural Resources and Armed Conflicts. Available at: https://blogs.ubc.ca/lebillon/files/2015/01/adelphi357.pdf p.10
[7] OECD (2016). OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas: Third Edition, OECD Publishing, Paris.
[8] See Annex II risks, in: OECD, 2016.
[9] Dodd-Frank Wall Street Reform and Consumer Protection Act. (2010). Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 1502. Available at: https://www.sec.gov/comments/s7-40-10/s74010-547.pdf
[10] European Commission (EC) (2021). Conflict Minerals Regulation: The regulation explained. Available at: https://policy.trade.ec.europa.eu/development-and-sustainability/conflict-minerals-regulation/regulation-explained_en

In 2025, there is renewed intra-state and international armed conflict in mineral resource-rich territories in the Great Lakes region, which suggests that these laws have not fully accomplished what they set out to achieve. This raises questions about best practice when companies and investors undertake due diligence to identify and prevent conflict, and whether companies can take a more proactive and pre-emptive role in contributing to international peace and security.

EXISTING TYPOLOGIES OF RESOURCE-RELATED CONFLICTS

Chatham House identifies four primary types of disputes that can escalate into intra-state conflicts: [11]

- **Secessionist conflicts** – where resource-rich regions seek to break away from a country.
- **Resource disputes linked to national restructuring** – occurring in the context of peace agreements or constitutional reforms, where resource control is contested.
- **Grievances over standalone projects** – such as mining operations or hydroelectric dams, often due to their impacts on people and natural capital.
- **Cumulative small-scale clashes** – over land, water, livestock, or other resources, which can escalate into larger conflicts.

At the heart of these disputes are four key areas of contention: ownership of the resource, allocation of power over resource management, distribution of resource revenues, and environmental and social damage linked to resource extraction. **Conflicts also differ in terms of their impact**, including direct impacts, indirect impacts, post-conflict impacts, causal chain impacts, and gender-based impacts[12], particularly in the context of socio-environmental and socio-economic disputes.

At the community level, disputes typically arise over competing claims to land, water, forests, and livelihoods. Local communities and mining operators often hold divergent priorities, leading to grievances over environmental degradation, displacement, and access to economic benefits. If not effectively mediated, these disputes can intensify, drawing in state security forces or escalating into violent confrontations. Interventions by mining operators and financial institutions should focus on containing conflicts at the latent or emerging stage before significant harm occurs. However, when disputes remain unresolved — particularly over issues such as land rights, Indigenous self-determination, and customary land ownership — conflicts can escalate to armed violence and killings.[13]

In some cases, strategic control over mineral resources becomes a central driver of conflict. In Russia's hybrid military assault and invasion of Ukraine, one of its first tactical moves was to secure access to key mineral feedstocks, coal, and coking coal for steel production. In Sudan, the Rapid

[11] Chatham House, 2015b
[12] OECD (2023). Handbook on Environmental Due Diligence in Mineral Supply Chains, OECD Publishing, Paris.
World Bank, 2022
[13] FAO (n.d.). SECTION 1: An introduction to natural resource conflicts, collaborative management and sustainable livelihoods. Available at: https://www.fao.org/4/a0032e/a0032e04.htm#:~:text=Natural%20resource%20conflicts%20are%20disagreements,or%20inequities%20in%20resource%20distribution

Support Forces (RSF) rapidly expanded control over the country's gold mines after overthrowing Omar al-Bashir, consolidating its grip on one of the world's largest gold industries. [14] Sudan's conflict has since drawn in multiple foreign actors — including Iran, Russia, the UAE, Saudi Arabia, and Turkey — each with economic and strategic interests in the outcome of the war. Similar patterns exist in Myanmar and eastern DRC, where armed groups fight for control over mineral reserves, prolonging instability.

From a governance perspective, decentralisation, and institutional change and ambiguity concerning mineral governance are also cited as key factors driving conflict around mining communities.[15] Intra-state conflicts in this context can be attributed to cases of 'states within states.'[16] Studies have found that the parallel process of artisanal and small-scale mining (ASM) expansion and the consolidation of 'states within states,' can result from both cultural and long-standing traditions of mining that are accountable to their local mining constituencies and base. This build-up of local mining governance, often happens through the local unions and cooperatives, can take place largely in isolation of the state. In the DRC, the largest artisanal cobalt mining cooperative developed a large workforce of over 12,000 miners.[17] The DRC government responded by making the cooperative leader the regional minister of mining in Lualaba, in order to integrate the network more into state decision making and apparatus.

Intractable conflicts — those deeply embedded in historical and social grievances — are particularly difficult to resolve. Without impartial third-party mediation or the enforcement of international legal standards, these disputes can evolve into mass killings, crimes against humanity, or even genocide.[18]

A key question when trying to understand resource-related conflicts is whether mineral resources are the root cause of violence or merely an enabling factor. **While resource scarcity or unequal distribution can directly fuel tensions, mineral resources more often serve as financial or strategic assets that sustain conflict by providing revenue for armed groups and political factions.**

STAGES OF CONFLICT AND PATHS TO ESCALATION

This model reflects that the vast majority of conflicts over natural resources start as low-intensity, latent conflicts, but if not checked with appropriate political and business interventions at an early stage, can escalate to manifest, intra-state or armed conflicts. **The UN and other conflict resolution bodies use a five-stage model to explain how conflicts emerge and escalate**[19]:

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[14] ICG (2019). Safeguarding Sudan's Revolution. Available at: https://www.crisisgroup.org/africa/horn-africa/sudan/281-safeguarding-sudans-revolution
Michaelson, R. (2020). Militia strike gold to cast a shadow over Sudan's hopes of prosperity. Available at: https://www.theguardian.com/global-development/2020/feb/10/militia-strike-gold-to-cast-a-shadow-over-sudans-hopes-of-prosperity

[15] Verbrugge, B. (2015a). Decentralization, Institutional Ambiguity, and Mineral Resource Conflict in Mindanao, Philippines. *World Development, 67*, issue C, 449-460. Available at: https://econpapers.repec.org/article/eeewdevel/v_3a67_3ay_3a2015_3ai_3ac_3ap_3a449-460.htm

[16] Verbrugge, B. (2015b). Undermining the State? Informal Mining and Trajectories of State Formation in Eastern Mindanao, Philippines. *Critical Asian Studies*, *47*(2), 177–199. Available at: https://doi.org/10.1080/14672715.2015.997973

[17] Interview notes with mining cooperatives in DRC, 2022-23.

[18] Chatham House, 2015b

[19] FAO, n.d.
Fienitz, M. and Siebert, R. (2023). Latent, collaborative, or escalated conflict? Determining causal pathways for land use conflicts. *Land Use Policy, Volume 134*.

1. **Latent stage** – underlying tensions exist but have not yet manifested as active conflict.
2. **Emergence** – low-intensity, largely unarmed disputes begin to take shape.
3. **Escalation** – tensions rise, often leading to violent confrontations.
4. **Armed conflict** – full-scale violence, sometimes resulting in military intervention or prolonged instability.
5. **Resolution or transformation** – through negotiation, mediation, or other conflict management strategies.

Local community conflicts and intra-state conflicts can worsen and escalate in intensity when countries experience economic shocks. Economic shocks can result from a sudden and dramatic fall of specific global commodity prices (e.g. cobalt, nickel). However, there are also many examples of heightened competition over resources because of increasing prices. For instance, high international gold prices have been a major catalyst in developing transnational illicit economies and organised crime, particularly in the Amazon region, the Sahel, and the Great Lakes region.

The degree of investor influence in mitigating conflict depends on the stage of escalation. Investors and mining operators have greater leverage to de-escalate tensions in the early latent or emerging stages, where economic incentives, stakeholder dialogue, and responsible governance interventions can still shape outcomes. However, once a conflict escalates to armed confrontation, options for constructive engagement become significantly more limited. At this stage, revenues from mining operations risk being captured and used to fund human rights abuses, illegal war aims, or geopolitical agendas.

Understanding how resource-related conflicts emerge, escalate, and evolve is critical for identifying intervention points. Investors and operators need to assess the risks associated with resource governance in fragile states and act early to prevent mining activities from exacerbating tensions. By taking proactive steps, mining companies and financial institutions can help reduce conflict risks before they escalate beyond control.

CHAPTER 2 Typologies of mining-related conflicts

Mining-related conflicts vary significantly in scale, intensity, and underlying drivers, ranging from local disputes over environmental degradation to full-scale international armed conflicts. This chapter provides a structured analysis of the key types of conflicts that arise in the mining sector, examining their drivers, escalation patterns, and potential interventions for de-escalation.

To provide a comprehensive framework for understanding these dynamics, this chapter classifies mining-related conflicts into five primary categories:

- **Socio-environmental conflicts** – Disputes between local communities, mining actors, and governments over environmental degradation, loss of natural resources, and impacts on traditional livelihoods.
- **Socio-economic conflicts** – Grievances related to job losses, economic displacement, unfair labour practices, and the uneven distribution of mining revenues.

- **Intra-state conflicts** – Armed insurgencies, secessionist movements, and ethnic or ideological struggles over control of mineral resources within a single country.
- **Transnational conflicts** – Conflicts driven by organised crime, illicit trade, and smuggling of minerals across national borders, often involving non-state actors.
- **International armed conflicts** – Large-scale warfare between states where the control of strategic mineral resources is a key factor in military objectives.

Table 1 provides a summary of the key characteristics, drivers, and potential triggers that could escalate the conflict. This table is intended as an illustrative framework to support analysis and dialogue; it does not intend to offer an exhaustive overview of all possible conflict dynamics.

The analysis is supported by case studies illustrating real-world examples of mining-related conflicts, highlighting both successful and failed attempts at resolution. **By mapping out these conflict typologies, this chapter aims to provide a practical guide to recognise early warning signs of conflict**, implement effective risk mitigation strategies, and contribute to responsible resource governance that minimises the potential for violence.

OVERLAP AND ESCALATION PATHWAYS BETWEEN CONFLICT TYPES

While this chapter presents five distinct conflict typologies, in practice, there is often substantial overlap between them — particularly among socio-environmental, socio-economic, and the interconnected climate change-driven conflicts. These types frequently share common characteristics and underlying drivers, such as land use disputes, environmental degradation, and exclusion from decision-making. In many cases, these conflicts remain low in intensity and latent for extended periods, especially when formal mechanisms for redress are weak or absent. If they are not resolved, the risk of escalation triggered by an external factor remains.

Socio-environmental conflicts, for instance, may initially centre around local grievances over pollution or forest clearance but can evolve into broader socio-economic conflicts when they disrupt livelihoods or limit access to resources. In some cases, these tensions can escalate further, fuelling national movements or feeding into larger intra-state conflicts where identity, ideology, or political power are also at stake (e.g., see case study 1). Socio-economic conflicts, which often stem from contestation over land rights, resettlement, and employment opportunities, may be more prone to sudden escalation. They are often associated with trigger events — such as forced evictions, layoffs, or incidents of violence at mine sites — that can provoke protests or clashes between communities and security forces. However, escalation is not always linear, and local-level conflicts can remain intense and protracted without necessarily becoming national or international in scale. For affected communities, such conflicts can be just as devastating — and for investors, they can carry significant reputational, operational, and financial risks.

In this study, climate change is conceptualised primarily as a driver that exacerbates existing socio-environmental and socio-economic conflicts. However, some recent World Bank analyses treat climate change as a distinct conflict typology in its own right. This is because climate-related impacts — such as droughts, floods, desertification, and biodiversity loss — are increasingly widespread,

affecting larger territories and more people. These impacts unfold gradually but can also manifest suddenly through natural disasters, which serve as powerful triggers for conflict. As such, climate change may not only intensify existing tensions but also shift the nature of conflicts, pushing them across thresholds into more acute or politically charged forms. For example, a local socio-environmental conflict over water access may escalate into an intra-state conflict if drought conditions lead to widespread displacement or exacerbate identity-based tensions. In regions where governance is weak and armed groups are active, the combination of slow-onset environmental degradation and sudden disasters may catalyse more organised, high-intensity conflict.

Table 1 Mining-related conflict typologies: summary table.

Type of conflict	Characteristics	Drivers	Potential triggers for escalation (examples)
Local community-level conflicts			
Socio-environmental	Low levels of intensity and localised. Driven by disputes over land, water, and forests. Often involves local grievances over the use and distribution of natural resources.	Uneven distribution of environmental costs. Long term environmental degradation associated with mineral production affecting community health, livelihoods and / or cultural values. Weak or contested land tenure systems as well as overlapping or unclear land rights between individuals, communities, the state and private actors. Legacies of land grabs, including loss of customary land rights, or forced displacement. Lack of meaningful community participation in mineral governance. Free, Prior, and Informed Consent (FPIC) of local communities and Indigenous Peoples is not obtained. The gradual impacts of climate change worsening existing vulnerabilities. Increased temperatures, desertification, droughts, and crop failures	Forced evictions, involuntary resettlement or loss of land without adequate consultation or compensation. Environmental disaster linked to mining activity (e.g. tailings dam failure, chemical spill, water contamination). Sudden revocation of land rights or traditional resource access. Severe climate event (e.g. drought, flash flood) that amplifies stress on natural resources in the vicinity of mine sites.

		exacerbate existing resource scarcity and exposure to food and water insecurity. Mining companies consistently fail to comply with existing (environmental) regulations.	
Socio-economic	Low levels of intensity and localised. Impacts of mineral resource production on livelihoods, income, and economic resilience in the surrounding area. Communities may feel marginalised or excluded from the benefits of resource extraction, while bearing the costs.	Perceived or actual inequitable access to mineral resources, employment, procurement opportunities, and benefit-sharing. Capture by elites, local agencies, or assumed negotiating authorities, funds intended for compensation or community development Weak or tokenistic implementation of corporate social responsibility (CSR) and community development initiatives High dependency of states on revenues derived from mineral resources reducing government responsiveness to local concerns and rights infringements. Persistent high rates of unemployment and underemployment in mineral-producing areas.	Sudden large-scale layoffs or mine closures. High-profile corruption case. Strikes or protests that are met with violent repression by public or private security forces. Announcement of new project expansions without consultation or clarity on local employment benefits Collapse in commodity prices leading to wage cuts, job losses, or cancellation of community investment. Widespread media coverage of poor working conditions, labour abuses, or unsafe practices at a mine, triggering public outcry and / or protests.

		Distrust in institutions and a lack of accountability. Perceived or actual corruption or collusion between state and private sector actors. Lack of adequate grievance mechanisms. Grievances accumulate over time and are expressed through protest or resistance. Inadequate worker protections, union representation, and labour rights. Lack of meaningful community participation in mineral resource governance. Free, Prior, and Informed Consent (FPIC) of local communities and Indigenous Peoples is not obtained. Overdependence on resource revenues undermining public investment in local economic development.	
Intra-state conflicts			
Insurgency – ideological, separatist, and / or ethnic	Medium to high intensity armed conflict characterised by rapid outbreaks and escalations of violence.	Large disparity in distribution of wealth and resources, particularly mineral resources. State fragility, including absence or weakness of state institutions and public security forces. Prevalence of	Armed group attacks on mining sites to gain strategic control or visibility. Kidnapping or assassination of mine workers, security personnel, or government officials.

	Involves non-state armed groups with ideological, religious, political, or socio-cultural objectives. Tactics may include guerrilla warfare, sabotage of mining infrastructure, extortion, kidnapping, and targeting of state-aligned operators Ethnic-based violence and discrimination often initiated or reinforced by dominant groups in power. Mining companies (especially foreign or state-owned) are seen as symbols of state or elite power.	governance vacuums in mineral-producing (often remote) areas. Fragmentation in land governance between different government agencies; competition for power and authority in administering land and access to natural resources. Historical exclusion or persecution of specific ethnic, religious, or ideological groups. An absence of effective conflict resolution mechanisms. This might include a failed transitional justice process in mineral resource-rich areas. Lack of recognition of ethnic, cultural, regional and / or Indigenous identities. Leading to the persistent exclusion from political representation, employment, land ownership, or access to mineral resources. Foreign political or financial support to insurgent groups. Lack of political devolution or power sharing agreements.	Political negotiations with paramilitary groups operating in mineral-rich territories fall through. Militarisation of resource extraction, increased presence of armed forces around mine sites leads to confrontation with militants. Retaliatory military strikes following sabotage or seizure of mining infrastructure. Emergence of charismatic ideological or religious leader mobilising around mineral resource grievances. Major hostage-taking events provoke government siege and armed conflict. Sudden displacement of ethnic minority communities for exploration or expansion without resettlement.

			Sudden surge in commodity prices making extraction zones strategic targets for insurgent groups.
International conflicts			
Transnational organised crime	Conflict and violence involving transnational criminal networks operating in or around mining areas. Criminal groups infiltrate supply chains to finance illicit economies (e.g. drugs, arms, human trafficking). Tactics may include extortion, forced labour, money laundering, illegal taxation, and targeted killings of activists, unionists, or local leaders. Sporadic acts of violence, killings, massacres or use of violence to intimidate. Coercion of local populations and political elements	Weak border controls and law enforcement in mining regions enable trafficking of minerals, arms, and people. Criminal groups exploit ASM actors to launder money or generate revenues. High level collusion between public actors, security forces, and criminal networks, leads to impunity. In some severe cases, the government may openly benefit from, and / or participate in, criminality. Lack of traceability and due diligence in mineral supply chains as an enabling factor for illicit trade. Former armed groups or militia evolve into criminal enterprises post-conflict. Disbanded or partially reintegrated armed actors continue to operate in resource-rich zones.	External armed actors (e.g. paramilitaries, foreign-linked cartels) enter mining zones to assert control. Transnational organised crime groups cross-borders or enter into new territory contested by rival crime groups and spheres of influence. Assassination, kidnapping, or public intimidation of human rights defenders, trade unionists, or community leaders opposing criminal activity. Law enforcement crackdowns on informal mining or smuggling routes provoke violent retaliation. High-profile public exposure of government or company collusion with criminal networks.

	involved in mineral resource governance. Clandestine or hybrid capture of physical infrastructure.	Absence of formal dispute resolution mechanisms in areas where criminal groups act as de facto authorities. High value of, and demand for mineral resources (e.g., gold has historically served as a lightning rod for transnational organised crime, because of its use as a money laundering tool). Organised crime groups use of mineral resources to purchase and procure weapons also drives and escalates conflict. High-level state sponsors and deference to transnational organised crime Post-conflict settings provide fertile ground for organised crime to capture rent and benefit from mineral resource industries. Exploitation of political vacuums to the benefit of organised crime.	Displacement of ASM actors leading to their recruitment or coercion by organised crime networks. Collapse of ceasefire or peace agreements involving resource-sharing arrangements.
International armed conflict	High-intensity industrial warfare between states or	Strategic mineral resource reserves of minerals deemed critical for the energy, defense, and digital	Mobilisation of armed forces near contested borders with mineral deposits.

	state-backed actors. High casualties and death tolls. May include occupation of territory, industrial warfare, and high risk of violations of international humanitarian law and/or war crimes Control over mineral resources often plays a part in the conflict and the territorial objectives of the belligerent partly, but it is rarely the objective in itself. Development of hybrid warfare: a cross between conventional warfare and hybrid tactics, including proxy wars, cyber operations, and resource-backed insurgencies.	transitions are located in contested and / or conflict-affected areas. States seeking territorial expansion or access to critical minerals to strengthen geopolitical or economic power Use of mining revenues to fund war efforts or sanction-proof national economies. Mineral resources become bargaining chips in foreign policy, trade wars, or sanctions regimes. Weak international enforcement of territorial or mineral rights increases militarisation risks. Use of mining revenues to fund war efforts or sanction-proof national economies.	Actual or fabricated threats to security, as a pretext for invasion or annexation of territory rich in mineral resources. Military occupation or annexation of a mineral-rich region by another state (e.g. under territorial claims). Nationalisation or expropriation of mining assets held by foreign companies, prompting international retaliation. Strategic denial of mineral exports to rival states (e.g. export bans).

2.1 Socio-environmental conflict

CHARACTERISTICS AND DRIVERS

Socio-environmental conflicts are the most common form of conflict linked to the mining sector, typically occurring at the local level. In many cases, these conflicts remain low-intensity disputes, but if unresolved, they can escalate into violent confrontations between communities, companies, and state forces. These conflicts typically emerge when mining activities disrupt access to land, water, and forests — resources that are often central to the livelihoods, health, and cultural identity of local communities. The grievances are frequently rooted in the uneven distribution of environmental costs and economic benefits associated with mineral extraction.

Research and existing guidance show that environmental impacts by mining operations can occur without having an impact on local communities.[20] However, in almost all conflicts with natural resource extraction in populated areas, it is difficult to separate the social and environmental impacts, as several social and environmental factors usually intersect. For example, populations are usually dependent on fresh water sources to use as potable water and to cultivate crops, which in turn gives them livelihoods.

Environmental degradation caused by mining can include pollution of water sources, deforestation, and destruction of arable land. These impacts directly threaten traditional farming, fishing, or pastoralist livelihoods, and are particularly acute where communities lack access to alternative sources of income or food. The gradual effects of climate change — such as rising temperatures, drought, and desertification — can further compound these stresses by exacerbating existing vulnerabilities and intensifying competition over natural resources (see text box below "A spotlight on climate change, conflict and mining").

These types of conflicts often arise or deepen in contexts where land tenure systems are weak, contested, or poorly documented. Overlapping or unclear rights between communities, the state, and private actors — combined with legacies of land grabs or forced displacement — can leave local populations without formal recognition of their customary land rights. This legal ambiguity makes it easier for mining concessions to be granted without adequate consultation or compensation, fuelling a sense of injustice and dispossession.

Lack of meaningful community participation in resource governance is another major driver. Mining projects frequently proceed without obtaining Free, Prior, and Informed Consent (FPIC), particularly in areas inhabited by Indigenous Peoples or other marginalised groups.[21] Communities are often excluded from environmental and social impact assessments, denied access to information, and given little influence over decisions that affect their health, environment, and livelihoods.

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[20] OECD, 2023

[21] Oxfam International (2025). Recharging Community Consent. Available at: https://webassets.oxfamamerica.org/media/documents/2023_OXF_Recharging_Community_Consent_Report_FNL-AA.pdf?_gl=1*1mg1qky*_gcl_au*MjY5ODAwNjUzLjE3NDQzNTY4MDU.*_ga*MjkwNzIoMDcxLjE3NDQzNTY4MDY.*_ga_R58YETD6XK*MTcoNDM1NjgwNS4xLjAuMTcoNDM1NjgwNi4wLjAuMTU1ODg2NTcxOQ.

Governance failures also contribute significantly to socio-environmental conflict. In many countries, environmental regulations are either inadequately enforced or systematically bypassed. Mining companies may operate with little oversight, ignore rehabilitation obligations, or fail to mitigate pollution and waste risks. These regulatory gaps not only harm ecosystems but also erode trust in state institutions and fuel community mobilisation against both companies and public authorities.

Multilateral institutions such as the World Bank and IFC recognise that addressing these conflicts requires improvements in environmental governance, greater transparency, and the early inclusion of affected communities in decision-making. Their policy frameworks emphasise conflict-sensitive development, strengthened consultation processes, and integrated approaches that respond to both environmental and social risks.

While socio-environmental conflicts may initially manifest as localised disputes — protests, road blockades, or legal challenges — they have the potential to escalate if underlying grievances remain unresolved. These conflicts are deeply embedded in questions of equity, recognition, and environmental justice, and they require targeted interventions that address both the immediate impacts of mining and the broader systemic drivers.

Mining-related socio-environmental conflicts are commonly categorised based on their primary impact on water, land, or forests:

A spotlight on climate change, conflict and mining

Climate change, biodiversity loss, environmental degradation, and conflict are closely linked. Natural resource disputes were a factor in one in four global crises and conflicts between 2014 and 2018, and nearly 40% of all intra-state conflicts between 1946 and 2006.[22] Additionally, 70% of the most climate-vulnerable countries are also among the most fragile, highlighting the risks of environmental stressors leading to conflict.[23]

While climate change is not in and of itself a cause of conflict, it contributes to and exacerbates conflict, particularly socio-environmental (as well as socio-economic) conflicts, and this trend is set to worsen.[24] Livelihoods such as farming and agriculture are extremely sensitive to climate conditions and climate change, particularly those caused by flooding and desertification. Of the 15 countries most vulnerable to climate change, 13 are struggling with violent conflicts.[25] This includes a number of states with high levels of fragility, that are also countries rich in natural resources, including, but not limited to: the DRC, Ethiopia, Sierra Leone, Afghanistan, Syria, Sudan

[22] World Bank, 2022
[23] World Bank, 2022
[24] Comments from participants at the Conflict Working Group Mining Indaba Roundtable.
[25] United Nations (2023). Climate, Peace and Security: What we need to know. Available at: https://www.un.org/en/peaceandsecurity/climate-peace-and-security-what-we-need-know#:~:text=Climate%20change%20affects%20us%20all,its%20impacts%20on%20human%20security

and South Sudan.[26] In the DRC, increasingly, severe flooding combined with intra-state conflict has contributed to the country now having the largest number of internally displaced people in Africa, at 6.4 million people.[27] Floods and storms between 2008 and 2023 drove nearly 2 million displacements in the DRC alone.[28] In South Sudan floods and droughts are destroying agriculture and deepening food insecurity, impacting approximately 1 million people annually, according to the UN Office for the Coordination of Humanitarian Affairs.[29]

This trend is a driver for increased socio-environmental and intra-state conflict, and there are indications in geographies such as the Sahel, the Nile; the dry corridor of Central America, that impacts caused by climate change will increasingly disrupt international peace and security and contribute to intra-state and international conflicts.

Biodiversity loss is one of the defining characteristics of climate change. If conflict driven by climate change were conceived as a type of conflict in itself, then biodiversity loss would be one of its defining characteristics. Environmental degradation occurs during peace time but can be particularly exacerbated by an armed conflict.[30]

Mining operations in ecologically sensitive or biodiverse areas can accelerate land-use change, deforestation, and species loss — all of which heighten tensions between conservation priorities and local livelihoods. In fragile contexts, poorly governed biodiversity loss may deepen grievances over land and natural resources, particularly when communities depend on ecosystem services for survival. The erosion of biodiversity can also reduce natural resilience to climate stressors, creating feedback loops that increase competition over scarce resources and compound conflict risks[31].

Water-based

Mining operations, particularly those involving open-pit extraction or mineral processing, can have significant impacts on water resources. These impacts include excessive water withdrawal, contamination of surface and groundwater through tailings leakage or acid mine drainage, and the alteration of hydrological systems. Water-intensive sectors such as gold, copper, and lithium mining are especially associated with the depletion of freshwater sources, which can severely affect downstream users, ecosystems, and livelihoods.[32]

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[26] World Food Program USA (2023). The 8 Countries Most Affected by Climate Change. Available at: https://www.wfpusa.org/articles/countries-most-affected-by-climate-change/;
United Nations, 2023
[27] SIPRI (2023). Climate, Peace and Security Fact Sheet. Available at: https://www.sipri.org/sites/default/files/2023-11/2023_sipri-nupi_fact_sheet_drc_nov.pdf
[28] United Nations, 2023
[29] The United Nations Office for the Coordination of Humanitarian Affairs (OCHA) (2024). South Sudan: On the front line of climate change. Available at: https://unocha.exposure.co/south-sudan-on-the-front-line-of-climate-change
[30] Conflict and Environment Observatory (2020). How does war damage the environment? Available at: https://ceobs.org/how-does-war-damage-the-environment/ ;
UNISDR (2009). UNISDR Terminology on Disaster Risk Reduction. United Nations International Strategy for Disaster Reduction (UNISDR). Available at: https://www.undrr.org/publication/2009-unisdr-terminologydisaster-risk-reduction
[31] Rist, L., Norström, A., & Queiroz, C. (2024). Biodiversity, peace and conflict: understanding the connections. *Current Opinion in Environmental Sustainability, 68*, 101431.
[32] Salem, J., Amonkar, Y., Maennling, N., Lall, U., Bonnafous, L., & Thakkar, K. (2021). An analysis of Peru: Is water driving mining conflicts?. *Resources Policy, 74*, 101270.

In regions already experiencing water scarcity — often exacerbated by climate change — mining-related pressures can become a driver for conflict. Local communities depend on shared water sources for their livelihoods, cultural practices, and health. When mining activities reduce access to clean water or are perceived to prioritise industrial use over community needs, tensions can escalate. The lack of consultation and transparency in water governance, combined with weak environmental enforcement, further deepens mistrust.[33]

Conflicts related to water and mining often begin as grievances over perceived injustice or exclusion but can evolve into organised resistance, legal action, or direct confrontation.

Case study 1: Lithium mining and Indigenous water rights in Chile

Lithium mining in the Salar de Atacama and Maricunga regions of Chile, and the Jujuy and Catamarca provinces of Argentina, spans a vast expanse of the Andean salt flats — an ecologically sensitive area that is also the ancestral territory of interconnected Indigenous communities, including the Kolla, Atacameños, and Ocloya.

These communities have raised concerns about the impacts of lithium mining on water resources in one of the most arid regions in the world[34]. Water scarcity, already exacerbated by climate change, is seen as being further intensified by water-intensive lithium extraction. Many Indigenous groups attribute the degradation of water sources directly to mining activities and claim that they were not meaningfully consulted, as required by FPIC protocols[35]. Some also report limited or no access to environmental and social impact assessments related to the projects[36].

What began as latent tensions over resource use and exclusion from decision-making processes has evolved into open conflict, involving national armed forces and police confronting Indigenous protestors. In Chile, longstanding resistance against lithium mining — particularly by Kolla communities — gained national attention and political significance. The controversy contributed to the drafting of a new national constitution and to the partial nationalisation of the country's largest lithium concession. Although the proposed constitution was ultimately rejected in a national referendum, the government responded to social pressures by renegotiating the business model and increasing royalties in an effort to de-escalate community tensions.

However, conflict resurfaced just a year later. In 2023, a new partnership was announced between lithium producer SQM and state-run copper company Codelco. Local communities accused the

[33] NRGI (2016). Water Management, Environmental Impacts and Peru's Mining Conflicts. Available at: https://resourcegovernance.org/articles/water-management-environmental-impacts-and-perus-mining-conflicts

[34] Schween, J.H., Hoffmeister, D. and Löhnert, U. (2020). Filling the observational gap in the Atacama Desert with a new network of climate stations. *Global and Planetary Change, Volume 184*, ISSN 0921-8181.
Maldonado, A., Santoro, C. M., Uribe, M., De Porras, M. E., Capriles, J., Gayó, E. M., ... & Castro, V. (2016). Climate change and social complexity in the Atacama Desert during the Late Quaternary. *Pages Magazine, 24*(2), 56-57.

[35] Oxfam International, 2023.

[36] Initiative for Responsible Mining assurance (IRMA) (2023). SQM Salar de Atacama Audit Packet. Available at: https://responsiblemining.net/wp-content/uploads/2023/09/Packet-SQM-Salar-de-Atacama-audit-en.pdf

companies of failing to consult them adequately, again violating FPIC commitments. This reignited tensions, leading to mass mobilisations, including roadblocks and protests by hundreds of community members. The protests forced the temporary closure of the SQM mine for five days, highlighting the continued volatility surrounding lithium extraction and water governance in the region.[37]

Land-based

Land-based socio-environmental conflicts are also widespread forms of low-intensity, community-level disputes in the context of mining. These conflicts often centre on issues of land tenure, ownership, and control — particularly where mineral extraction takes place on land that local communities claim through customary or ancestral rights, or land of Indigenous Peoples. In many countries, land governance systems are weak or contested, leading to overlapping claims between communities, the state, and private actors. This creates an environment of legal ambiguity that fuels conflict when mining concessions are awarded without adequate recognition of local land rights.[38]

A key driver of these conflicts is the physical expansion of mining operations, which may result in involuntary resettlement, forced evictions, and / or the loss of farmland. Such displacements are often found to occur without fair compensation or adequate consultation, and in violation of international human rights standards and safeguards. This disproportionately affects rural and agricultural communities who depend on land for food production, livelihoods, and cultural identity.[39]

Loss of land access also increases community vulnerability to external shocks, including those associated with climate change. When subsistence farming areas are replaced by mining zones, local communities face heightened food insecurity, diminished income sources, and greater exposure to poverty and disease. For example, in the DRC and Indonesia (see case studies), large-scale cobalt, copper, and nickel mining has significantly reduced access to arable land, displacing farming communities and undermining local food systems.[40]

Forest-based

Mining activities are increasingly encroaching upon forested regions, posing significant threats to both ecosystems and Indigenous and local communities. Globally, mining is a notable driver of deforestation, with approximately 1.4 million hectares of forest lost between 2001 and 2020 due to mining operations.[41] Notably, more than 80% of this deforestation occurred in just 10 countries, including Indonesia and Brazil, highlighting the concentrated impact of mining in specific regions.[42]

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[37] Reuters (2024a). Protest ends at Chile's lithium salt flats with promise of Boric visit. Available at: https://www.reuters.com/world/americas/protest-ends-chiles-lithium-salt-flats-with-promise-boric-visit-2024-01-13/

[38] FAO (2021). Tenure rights in large-scale and artisanal mining: Implications of the Tenure Guidelines. Available at: https://openknowledge.fao.org/server/api/core/bitstreams/1c107593-5dc7-45d0-8ab5-d1e3d7fcb8fe/content

[39] Rugadya, M. A. (2020). Land tenure as a cause of tensions and driver of conflict among mining communities in Karamoja, Uganda: Is secure property rights a solution? *Land Use Policy*, *94*, 104495.

[40] Amnesty International, 2023

[41] Financial Times (2024). Mining eats into more of the world's forests. Available at: https://www.ft.com/content/e350a40b-01ea-4342-af02-120467406486

[42] WWF (2023). Mining impacts affect up to 1/3 of global forest ecosystems, and tipped to rise with increased demand for metals. Available at: https://wwf.panda.org/wwf_news/?8455466%2FMining-impacts-affect-up-to-13-of-global-forest-ecosystems-and-tipped-to-rise-with-increased-demand-for-metals=

In Indonesia, the world's largest producer of laterite nickel ore, mining activities have been linked to extensive deforestation. Nickel mining, in particular, has contributed to the country's high deforestation rates, leading to environmental degradation and displacement of local communities. The Amazon rainforest, the world's largest tropical forest, is also under increasing threat from mining activities. Studies have shown that mining has driven extensive deforestation in the Brazilian Amazon, with significant environmental and social consequences. Similarly, the Congo Basin, home to the world's second-largest rainforest, faces escalating risks from mining operations. Research indicates that mining in the Congo rainforest causes more deforestation than previously recognised, with indirect impacts such as settlement expansion and agricultural development further exacerbating forest loss.[43]

These mining-induced deforestation activities not only lead to the loss of biodiversity and disruption of ecosystems but also pose severe threats to Indigenous peoples who have been stewards of these forests for millennia. The encroachment of mining operations often results in the displacement of Indigenous communities, loss of livelihoods, and erosion of cultural practices. For instance, in Indonesia's Halmahera island, nickel mining has been reported to cover about 40% of the territory inhabited by the uncontacted Hongana Manyawa people, posing existential threats to their way of life.[44]

Such impacts have at times triggered social unrest, especially in areas with strong cultural and spiritual ties to forested lands. These grievances have led to protests, legal challenges, and, in some cases, confrontations between communities, mining companies, and state security forces.

Case study 2: Forest-based socio-environmental conflict in Sulawesi

Indonesia's largest and longest-running mining concession is operated by Vale and spans 70,566 hectares across central Sulawesi's rainforest and the shores of Lake Towuti, the country's second-largest freshwater lake.[45]

For decades, a long-term, low-intensity conflict has simmered between local communities, thousands of migrant workers from across Sulawesi, and the mining company over access to land, forest use, and tenure rights. Several flooding incidents, reportedly linked to mining activities since the 1970s[46], damaged traditional rice fields, prompting many community members to shift toward peppercorn cultivation and other crops within nearby forested areas. While this adaptive measure has helped restore livelihoods, some of the cultivated land falls within protected forest zones, where both tree farming and mining are officially prohibited.

[43] CIFOR (2024). Mining for valuable minerals in the Congo Basin rainforest triggers extensive deforestation. Available at: https://forestsnews.cifor.org/89558/mining-in-the-congo-rainforest-causes-more-deforestation?fnl=
[44] The Guardian (2024). Uncontacted hunter-gatherers facing threat of genocide because of minerals mining, claims report. Available at: https://www.theguardian.com/world/2024/nov/26/uncontacted-hunter-gatherers-facing-threat-of-genocide-because-of-minerals-mining-claims-report.
[45] PT Vale Indonesia (n.d). About PT Vale Indonesia. Available at: https://vale.com/nl/indonesia/about-pt-vale-indonesia
[46] Griffiths, J. (2024). In Indonesia's Sulawesi, the promise of a nickel boom comes at a cost for local farmers. Available at: https://www.theglobeandmail.com/business/article-indonesia-sulawesi-nickel-electric-vehicles-farmers/

Sulawesi has seen extensive forest loss, with nearly 550,000 hectares (roughly 3.5 times the size of London) of rainforest destroyed in Central and Southeast provinces since 2011, largely due to nickel and coal production.[47] Data compiled by environmental group Mighty Earth shows that at least 76,301 hectares of tropical forests — an area the size of New York City — has been cleared within 329 nickel concessions.[48] Roughly 23,000ha of that — or 30% — has been cut down since 2019, as demand for electric vehicles has increased.[49]

A lack of meaningful community participation in mineral resource governance, including some Indigenous Peoples and customary land owners within the community that are entitled to FPIC, has exacerbated and escalated the conflict.[50] A recent protest against the concession's expansion and an involuntary resettlement process turned violent following a forceful police response, resulting in arrests. Vale reported that protestors had vandalised company vehicles, while local community members cited ongoing intimidation by security forces, distrust in institutions, and a perceived lack of accountability. [51]

Deforestation data show that PT Vale Sorowako's concession — formerly operated by Inco — is responsible for one of the highest levels of forest loss in Indonesia, with over 14,550 hectares of tree cover cleared in the past two decades, including 51% categorised as high carbon stock (HCS) forest.[52]

In response to these pressures, a women's cooperative has initiated small-scale peppercorn farming around the concession area to secure financial stability, particularly as male family members face risks of arrest.[53] Local farming communities have also formally requested that 17,000 hectares of actively used agricultural land within and around the forest be excluded from any future expansion of mining operations.[54]

POTENTIAL TRIGGERS FOR ESCALATION

Socio-environmental conflicts around mining operations are often long-standing and rooted in structural inequalities related to access to, and control over, land, water, and natural resources. However, these tensions typically escalate into open confrontation or violence only when specific events — known as triggers — occur. One of the most common triggers is forced displacement or the loss of land without adequate consultation, compensation, or resettlement

[47] Hidayat, B. and Hermawan, E. (2022). From Nickel to Deforestation. Available at: https://pulitzercenter.org/stories/nickel-deforestation
[48] Jones, S. and Mitchell, C. (2023). Sourcing Responsible Nickel for EVs. Available at: https://mightyearth.org/article/electric-vehicles-evs-are-vital-to-the-transition-away-f-efficient-than-cars-that-run-on-gasoline-even-better-th/
[49] Ibid.
[50] Business and Human Rights Resource Centre (BHRRC) (2019). Indonesia: Indigenous groups allege abuses of rights by Vale's nickel mining activity. Available at: https://www.business-humanrights.org/en/latest-news/indonesia-indigenous-groups-allege-abuses-of-rights-by-vales-nickel-mining-activity/
[51] BHRRC (2024). Indonesia: Land rights defenders from Sorowako reported by PT Vale Indonesia for alleged illegal land use; inlc. company response. Available at: https://www.business-humanrights.org/en/latest-news/indonesia-land-rights-defenders-from-sorowako-reported-by-pt-vale-indonesia-for-alleged-illegal-land-use/
[52] Jones, S. and Mitchell, C. (2023). Sourcing Responsible Nickel for EVs. Available at: https://mightyearth.org/article/electric-vehicles-evs-are-vital-to-the-transition-away-f-efficient-than-cars-that-run-on-gasoline-even-better-th/
[53] Stambaugh, A. and Jamaluddin, A. (n.d). "They destroyed our trees": Women say their farms were seized to support Indonesia's electric vehicle boom. Available at: https://edition.cnn.com/2023/12/08/asia/indonesia-sulawesi-nickel-ev-as-equals-intl-hnk/index.html
[54] WALHI South Sulawesi, WALHI, Friends of the Earth Japan, and Pacific Asia resource Center (2023). Civil Society Organizations' Comments/Reactions to the Vale's "Our Strategy and Commitments - Statement on PT Vale Indonesia Tbk". Available at: https://walhisulsel.or.id/wp-content/uploads/2023/09/Civil-Society-Organizations-Comments-or-Reactions-to-the-Vale-Our-Strategy-and-Commitments-Statement-on-PT-Vale-Indonesia-Tbk.pdf

planning. When mining projects physically displace communities, grievances over exclusion and injustice can erupt into direct action.[55]

Environmental disasters linked to mining activity are another key trigger. Tailings dam failures, chemical spills, and water contamination events not only damage ecosystems but also pose immediate health risks to communities. These incidents often spark protests and can lead to demands for compensation, accountability, or even mine closures.[56]

The sudden revocation of land or resource access rights, including traditional use areas for farming, herding, or spiritual practices, can similarly provoke an escalation. These acts may be perceived as both an economic and cultural threat, particularly where legal recourse is limited, or government actions are opaque.

Climate-related events — such as droughts or flash floods — can exacerbate already strained relations between mining actors and communities. In resource-stressed areas, these events intensify competition over water and land, making environmental impacts of mining feel more acute and less tolerable.

2.2 Socio-economic conflict

CHARACTERISTICS AND DRIVERS

Socio-economic conflicts in the mining sector arise when communities perceive and / or experience limited or inequitable access to economic benefits, economic marginalisation, or loss of livelihoods due to mining activities. These conflicts are often caused by unmet expectations regarding employment, unfair revenue distribution, poor compensation for land acquisition, lack of access to information, and economic displacement.

Mining operations, particularly large-scale industrial projects, often create limited employment opportunities for local workers while displacing traditional livelihoods such as farming, fishing, and artisanal mining. In the DRC, for instance, one of the country's largest industrial mining concessions employs approximately 3,000 workers, whereas a nearby artisanal mine of a similar size provides jobs for over 20,000 people.[57] When local communities see fewer direct economic benefits from mining operations, frustration and resentment build, increasing the likelihood of conflict. For example, in the Tenke Fungurume Mine (TFM) in Lualaba, DRC, local community members reported that many skilled job positions were allocated to workers from outside the region, increasing tensions between local and non-local employees.[58]

One of the most common causes for the loss of livelihoods, and drivers of socio-economic conflict, is the involuntary resettlement, forced eviction and displacement of local

[55] Amnesty International, 2023
[56] Williams, D. J. (2021). Lessons from tailings dam failures—where to go from here? *Minerals*, *11*(8), 853.
[57] Interview notes with ASM workers, Kolwezi, 2023.
[58] Interview notes with local communities impacted by involuntary resettlement 2023

communities.[59] In the context of the rapid expansion of mining to meet global demand for critical minerals, this challenge has become even more widespread. Systemic issues around land ownership, governance, and arbitrary processes of compensation and livelihood restoration, contribute to the problem.[60] 5In cases where representation is legitimate, this might expedite processes. However, in cases where negotiation authority is assumed, this can lead to socio-economic conflicts and grievances further down the line. This can also open up space for corruption, as corrupt actors, officials from government agencies with weak governance, could seek to exploit this gap in decision making.

The adverse impacts on livelihoods in the surrounding area can be worsened by communities heightened vulnerability to economic shocks, and commodity prices. These shocks can be exacerbated in monopolistic or oligopoly market structures where supply can be restricted and a degree of price setting, collusion and cartelism might exist.[61] [62]

Another major driver of socio-economic conflict is the role of local governance structures and power dynamics in resource management. In some cases, community leaders, local authorities, or tribal chiefs act as intermediaries in negotiations with mining companies, sometimes leading to perceived or actual conflict of interest, corruption, and exclusion of broader community interests. This can result in disputes over land compensation, forced evictions, and allegations of elite capture of mining revenues.

Local community-level conflicts with armed security and police around the periphery of mine sites are also common. For large industrial mining operations of strategic significance, national armed forces and police are often deployed to guard mine sites from external threats, including terrorism, encroachment from artisanal and subsistence miners, terrorism, robbery, and trespassing, but also use violence and force to silence peaceful assembly and opposition to the mine. There are many reported cases of armed security and police engaging in human rights abuses, shootings, killings, and sexual violence around mine sites.

Competition between ASM and LSM is another flashpoint for socio-economic conflict, including where ASM is legal and / or formal. ASM often takes place on or near industrial mining concessions, leading to disputes over access to mineral resources. Concerns over human rights violations, including child labour and forced labour in ASM mines, as well as allegations of funding armed groups, further complicate these conflicts. When international buyers disengage from ASM-dominated supply chains due to concerns over conflict minerals and human rights abuses, this can

[59] Climate Rights International (CRI) (2024). Nickel Unearthed The Human and Climate Costs of Indonesia's Nickel Industry. Available at: https://cri.org/reports/nickel-unearthed/
Amnesty International, 2023
[60] ActionAid. (2021). ActionAid warns the green energy transition could fuel human rights abuses. Available at: https://actionaid.org/news/2021/actionaid-warns-green-energy-transition-could-fuel-human-rights-abuses
[61] Buxton, A. (2020). Mining cobalt better. Available at: https://afrewatch.org/mining-cobalt-better/
[62] RAID. (2021). The Road to Ruin? Electric vehicles and workers' rights abuses at DR Congo's industrial cobalt mines. Available at: https://raid-uk.org/wp-content/uploads/2023/03/report_road_to_ruin_evs_cobalt_workers_nov_2021.pdf

lead to economic shocks that exacerbate poverty, informal labour conditions, and tensions with industrial mine operators.

At the same time, ASM provides a vital source of income for millions and is often perceived by populations in mineral-rich countries as a more stable and lucrative livelihood than alternatives like farming or informal wage labour. The World Bank's Mining.Better.Together initiative encourages companies and governments to lean in to support professionalisation and legalisation of ASM. External pressures — such as climate change, environmental degradation, and the loss of traditional livelihoods — are driving more people into ASM. These push factors are compounded by high global prices and rising demand for minerals such as gold, cobalt, and lithium, which act as pull factors increasing reliance on ASM. **While ASM can offer important socio-economic opportunities, growing participation and competition over mineral-rich areas, especially where regulatory frameworks are weak, may increase the risk of conflict between miners, communities, and industrial mining operators**.

POTENTIAL TRIGGERS FOR ESCALATION

Socio-economic conflicts emerge gradually, but certain factors escalate them from latent grievances into open confrontations, protests, or even violent clashes. While extractive industries cannot be expected to fulfil functions of the state, conflicts emerge when local community members face an actual or perceived lack of equity and benefit-sharing from a local project.[63] In some instances, community members might perceive that mining operators need to more actively contribute to local economic development and poverty alleviation, such as increased wages.[64]

The announcement of a new project or expansion — without consultation or clear commitments to local employment, procurement opportunities, or benefit-sharing — can trigger feelings of exclusion and injustice. In some instances, community members may believe that mining companies have a responsibility to offer increased wages, invest in social services, or provide more stable employment for local populations.

Strikes or peaceful protests demanding better economic outcomes may escalate into violent conflict when met with repression by public or private security forces, as has been reported at multiple mine sites globally. These confrontations often deepen distrust between workers, communities, and companies, particularly where security forces are used to protect assets rather than de-escalate tensions.

Widespread media coverage of labour abuses, hazardous working conditions, or unsafe practices — especially when accompanied by poor corporate responses — can inflame socio-economic grievances and trigger local, national, or international protest. Similarly, **high-profile corruption**

[63] Chatham House (2013). Conflict and Coexistence in the Extractive Industries. Available at: https://www.chathamhouse.org/sites/default/files/field/field_document/chr_coc1113exec.pdf
[64] NRGI (2018). Natural Resources Can Fuel Conflicts, But Also Bring Peace: A Conversation with AFRIM's Starjoan Villanueva. Available at: https://resourcegovernance.org/articles/natural-resources-can-fuel-conflicts-also-bring-peace-conversation-afrims-starjoan

scandals can reinforce perceptions that local populations are being exploited for the benefit of political or corporate elites.

Sudden large-scale layoffs, wage cuts, or mine closures — especially following a collapse in commodity prices — can act as acute triggers for socio-economic conflict. These disruptions may cancel community investment projects, deepen poverty, and fuel anger among displaced workers and surrounding communities.

Case study 3: Land-based and socio-economic conflict: Cobalt mining and involuntary resettlement in the DRC

In the Haut-Katanga and Lualaba provinces of southern DRC, and concentrated around the city of Kolwezi, there is a long running conflict between companies expanding land used for mining, and local communities that have housing and farmlands in these same areas. Recent involuntary resettlements and forced evictions by cobalt and copper mining companies have led to widespread involuntary resettlement and forced evictions, mostly on the periphery of large-scale industrial mines.[65]

Arbitrary and differing levels of compensation by local government agencies, coercion into accepting unfavorable terms, or even the embezzlement of funds intended for communal benefit, have exacerbated these conflicts. While legitimate local representation can facilitate more efficient negotiations, assumed or contested authority frequently leads to grievances.

The lack of clear accountability and oversight also creates opportunities for corruption. In this context, actors seeking personal or political gain may exploit the absence of transparent governance to push through land transfers or resettlement agreements without proper consultation.[66] Cases of individuals being pressured or intimidated into accepting inadequate compensation — under threat of eviction or harassment — are widespread.

The underlying causes of land conflict are weak land tenure systems and weak land rights for individuals. However, the sudden revocation of land rights and forced displacement of communities without adequate consultation escalated the tension into violence, especially for those communities that continued to try and access their land where they harvested maize and cassava. In response, they were reportedly subject to serious human rights abuse, violence and even sexual violence by Congolese Armed Forces on the periphery of the mining concession.[67]

While this conflict is primarily about land, it covers socio-economic dimensions, as these local communities and workers use this farmland to earn a living and grow essential crops for sustenance. Many of these workers that lost their farmlands turned to informal ASM cobalt, on the

[65] Amnesty International, 2023
[66] Interview notes with rightsholders affected by involuntary resettlement in Kolwezi, 2022.
[67] Initiative Bonne Gouvernance et Droits Humains (IBGDH) (2017). Analysis of the fiscal and para-fiscal obligations of the Mutanda Mining Project. Available at: https://congomines.org/system/attachments/assets/000/001/218/original/IBGDH_Press-Release_EN_Jan_2017.pdf?1486677411
Amnesty International, 2023

periphery of these same large industrial cobalt mines. The socio-economic conflict between the ASM workers and mining companies became more volatile as local farmers or displaced individuals resorted to breaking the law to mine on the periphery of concessions out of necessity to earn a living.[68] In such cases, local miners have faced criminalisation and violent responses from police. The Congolese Armed Forces (FARDC) began to deploy around the region's largest mines in 2019, partly in response to the death of 43 miners after an artisanal mine collapsed within the Glencore mining concession.[69]

2.3 Intra-state conflict

CHARACTERISTICS AND DRIVERS

Separatist, ethnic and ideological intra-state conflicts occur in areas where state presence and governance institutions are weak, basic services are absent, and mineral resources become an enabling factor that finances or facilitates conflict. These conflicts are characterised by large disparities in distribution of wealth and resources, particularly mineral resources, can be part of a pattern of historical discrimination and a factor that exacerbates separatist, ethnic, or ideological conflict. In many cases, mineral resources not only fund armed actors but also shape territorial control, with rebel groups seeking to establish authority over mineral-rich zones.

NB there are significant differences between these types of conflict, though there is also substantial overlap between the drivers and triggers for escalation – which makes it complex to separate them when categorising. For the sake of this briefing, these three types of conflict are analysed together.

Research by UN Peacekeeping suggests that in the last 60 years, at least 40 percent of all intra-state conflicts have a link to natural resources, and that this link doubles the risk of a conflict relapse in the first five years.[70]

Separatist conflicts may involve ethnic groups from territories rich in mineral resources that seek to separate or secede control from a state. These types of conflict are increasingly common.[71] [72]**Separatist conflicts often seek to control mineral resources for their own political objectives; to use mineral resources to strengthen the economy and political power of a region that they back to secede as an independent state**.

In themselves, these conflicts are technically intra-state, but often separatist or secessionist movements have the support of a third-party state, which can transform intrastate conflicts into international proxy wars or international armed conflicts.[73] For instance, the ongoing conflict between the DRC and Rwanda-backed M23. Such third parties often act as a powerful backer with a

[68] Ibid.
[69] Financial Times (2019). Congolese army deployed to Glencore copper mine following death. Available at: https://www.ft.com/content/5464d61a-9e3b-11e9-b8ce-8b459ed04726
[70] United Nations (n.d). Conflict and natural resources. Available at: https://peacekeeping.un.org/en/conflict-and-natural-resources
[71] Ahmed, K. E. (2024). Resolving Secessionist Wars in the Horn of Africa: A Call for a Critical Discourse. *African Security*, *17*(1–2), 35–58.
[72] Fazal, T. (2018) Go Your Own Way: Why Rising Separatism Might Lead to More Conflict. *Foreign Affairs. 97(4)* 113-123.
[73] Wentker, A. with Jackson, M. and Hill-Cawthorne, L. (2024). Identifying co-parties to armed conflict in international law: How states, international organizations and armed groups become parties to war, Research Paper, London: Royal Institute of International Affairs.

stake in the outcome of the conflict. These third-party actors can be motivated by access to strategic minerals and trade routes, deepening the role of mineral wealth in shaping the trajectory of intra-state violence.

In instances where intrastate conflict escalates to an international armed conflict and third-party states are invited to intervene by the legitimate host government, e.g., Russia's intervention in Syria that was reportedly in part driven by its interest in natural gas resources.[74] The issue of legitimacy of the host government here is complex and subjective, as external states might recognise a separatist organisation's right to self-determination, but the host government may not. The legal and territorial ambiguities over mining concessions in contested regions may be used by both host governments and separatist groups to justify resource claims and invite external interventions.

Intrastate conflicts and insurgencies driven by ideology may range from Maoist/communist armed insurgencies to Islamic fundamentalists, and are more disperse throughout a state or territory, and less likely to concentrate in one region in the way that ethnic and sectarian groups do. These groups might harbour aspirations for full state control, or an independent ideological state, and earn significant revenues from mineral resources. In general, these groups use more guerrilla warfare and insurgency tactics compared to separatists, and frequently engage in kidnap, sabotage and extortion. However, as these groups gain influence and territory, they may also gain the capacity to engage in full armed conflict. Control over mining areas allows ideological armed groups to tax production, extort mine operators, and finance recruitment and weapons purchases.

Ethnic and sectarian conflicts are widespread, range from low to high intensity, and can occur because of historic injustice that benefits one side more than the other, or daily patterns of discrimination. While such conflicts are widespread, they can also prove to be volatile and escalate rapidly into violence. Where ethnic and sectarian conflicts occur over a wide area of territory claimed by one ethnicity or sect, these conflicts can escalate into separatist conflicts. Where mining activities overlap with ethnic territories, disputes over who has the right to access and benefit from mineral wealth can deepen identity-based grievances.

POTENTIAL TRIGGERS FOR ESCALATION

Major triggers for intra-state conflict usually involve violent actions to attract attention or are used as part of a wider bargaining strategy. This might include attacks on mining sites to gain strategic control or visibility, or the kidnapping or assassination of mine workers, security personnel, or government officials. If such violent actions do not result in support for a political or ideological cause, then this could also trigger conflict, e.g., if political negotiations with armed and violent paramilitary groups operating in mineral-rich territories fall through, it would likely result in a surge or cycle of violence.

[74] Butter, D. (2025). Russia's Syria Intervention is Not All About Gas. Available at: https://carnegieendowment.org/posts/2015/12/russias-syria-intervention-is-not-all-about-gas?lang=en

Mining operations can escalate tensions between ethnic groups around mine sites, particularly in regions with aspirations of greater autonomy, in the territory of armed separatists, or armed insurgents. Mineral resources offer an immediate and potentially medium-long term resource to sustain conflict. In some cases where mineral resource bottlenecks are acute, this can significantly reduce supply and raise the price of a mineral resource, that in turn can exacerbate ethnic-sectarian conflict.

Governments, either of one particular sect or allied to various different ethnic groups, might favour business and political elites from these sides, allocating contracts through cronyism and nepotism, which can trigger escalations in conflict.

Case study 4: Philippines – Intrastate ideological (Islamic-fundamentalist) Conflict

In Mindanao, two separatist groups – the Moro National Liberation Front (MNLF) and the Moro Islamic Liberation Front (MILF) – have an ongoing intra-state armed conflict with the Philippines government, that dates back over 400 years to Spanish colonial times, when the pre-existing Moro population were oppressed and threatened by the Spanish.[75] The ethnic group was subject to several other colonial occupations since, including by the United States from 1898-1946.[76]

A degree of autonomy and self-rule was granted to the MILF in a 2014 peace treaty[77] and new power-sharing laws. The Bangsmoro Organic Law in 2018[78] led to the creation of the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM).[79] This granted the ethnic minorities and a coalition of Muslim groups a greater degree of control over culture and language, Indigenous rights, and mineral resources – all of which are points of contention that caused conflict since Spanish colonial times.

The conflict can be considered as primarily ethnic and sectarian, however, the MILF and MNLF previously harboured separatist-Islamist objectives. The conflict is partly rooted in unresolved governance issues around mineral resources,[80] and the Philippine governments historic reluctance to grant the Bangsamoro effective management and control over mineral resources in the Bangsamoro territory.[81] Some analysts note that demands for greater involvement in mineral resources governance long predates the establishment of Islamist insurgents and terrorist cells.[82]

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[75] The University of Michigan. (n.d). Creating the Moro Subject: Resistance and Pacification. Available at: https://philippines.michiganintheworld.history.lsa.umich.edu/s/exhibit/page/creating-the-moro-subject

[76] The Editors of Encyclopaedia Britannica (n.d). Moro Wars, Philippine history. Available at: https://www.britannica.com/event/Moro-Wars

[77] International Crisis Group. (2023). Southern Philippines: Making Peace Stick in the Bangsamoro. Available at: https://www.crisisgroup.org/asia/south-east-asia/philippines/331-southern-philippines-making-peace-stick-bangsamoro

[78] Republic of the Philippines. (2018) Congress of the Philippines. Bangsmoro Organic Law. Available at: https://web.senate.gov.ph/republic_acts/ra%2011054.pdf

[79] Ximenes, F.B. (2019). The changing actor dynamics in the Philippines' Moro conflict. Available at: https://www.bsg.ox.ac.uk/blog/changing-actor-dynamics-philippines-moro-conflict

[80] Batac, M. and van Bijnen, M. (2019). Interview: the Struggle for Peace in Mindanao, the Philippines. Available at: https://www.gppac.net/news/interview-struggle-peace-mindanao-philippines#:~:text=Main%20actors%20to%20this%20decades,sustainable%20peace%20in%20the%20region.

[81] International Organisation for Migration (IOM) and World Bank (2013). Land disputes in conflict affected areas of Mindanao: Report of the joint World Bank – International Organisation for Migration Scoping Mission. Available at: https://www.iom.int/sites/g/files/tmzbdl2616/files/2018-07/Land-Disputes-in-Conflict-Affected-Areas-of-Mindanao.pdf

[82] International Crisis Group (2018). Philippines: Addressing Islamist Militancy after the Battle for Marawi. Available at: https://www.crisisgroup.org/asia/south-east-asia/philippines/philippines-addressing-islamist-militancy-after-battle-marawi

The region has vast mineral and natural gas reserves, which play an important part of the conflict dynamics and the political economy of the region.[83]

At the national level, prior to the power-sharing agreement, a fragmentation in land governance was an underlying driver of conflict, as three government agencies competed for power and authority in administering land and access to natural resources across the country: the Department of Environment and Natural Resources (DENR); the Department of Agrarian Reform (DAR); and the National Commission for Indigenous Peoples (NCIP).[84]

The BARMM has had some success in integration and representation of local populations in the management of mineral resources in Mindanao, and enabled ethnic minorities greater access to land and livelihoods, with the revenues generated by nearby extractive operations.[85] However, despite economic progress, BARMM remains one of the poorest regions in the Philippines, and clan rivalries, poverty and a perception that gold and nickel reserves are unexploited because of historic conflicts and corruption, means that the situation remains volatile.[86]

A major intra-state conflict was triggered when a coalition of Moro ethnic and Islamist groups, including the Maute group, the Abu Sayyaf Group (ASG), and other jihadist groups under the banner of 'Islamic State'[87] took control of the city of Marawi and its 200,000 inhabitants. This led to an armed conflict and siege of the city in which over 1,000 people were killed during May-October 2017,[88] and became known as the battle of Marawi.[89] Prior to taking the city, the groups engaged in extensive kidnappings and killings, using similar tactics to other ideological paramilitary groups, Islamists militants, and terrorist groups.

During the armed conflict, the belligerents deployed similar methods to the Islamic State group in Syria and Iraq,[90][91] and sought to control mineral resource infrastructure in the surrounding mountains in order to finance operations.[92] As with other Islamist-militant groups, the organisation was partly sustained with foreign fighters and funding, which enabled the organisation to hold control of Marawi city for a longer period of time.[93]

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[83] Herbert, S. (2024). Conflict dynamics, political-economy, and natural resources in the Bangsamoro Autonomous Region. *K4DD Rapid Evidence Review 61*. Brighton, UK: Institute of Development Studies.
[84] Gulane, J.T. (2014). Land Governance In The Bangsamoro. Available at: https://www.international-alert.org/app/uploads/2021/08/Philippines-Land-Governance-EN-2014.pdf
[85] Medina, L., Savelli, A., Jaquet, S., Torres, M.A., Arcede, J. (2023). Towards a Community of Practice on Climate Security and Environmental Peacebuilding in Mindanao. Available at: https://www.cgiar.org/news-events/news/towards-a-community-of-practice-on-climate-security-and-environmental-peacebuilding-in-mindanao/#:~:text=Mindanao%20is%20rich%20in%20natural,to%20gain%20access%20and%20control.
[86] Herbert, 2024
[87] International Crisis Group (2018). Philippines: Addressing Islamist Militancy after the Battle for Marawi. Available at: https://www.crisisgroup.org/asia/south-east-asia/philippines/philippines-addressing-islamist-militancy-after-battle-marawi
[88] Lewis, J. (2018). The Battle of Marawi: Small Team Lessons Learned for the Close Fight. Available at: https://cove.army.gov.au/article/battle-marawi-small-team-lessons-learned-close-fight
[89] Ximenes, F.B. (2019). The changing actor dynamics in the Philippines' Moro conflict. Available at: https://www.bsg.ox.ac.uk/blog/changing-actor-dynamics-philippines-moro-conflict
[90] Spencer, J., Geroux, J. and Collins, L. (2024). Urban Warfare Project Case Study Series. Available at: https://mwi.westpoint.edu/urban-warfare-case-study-8-battle-of-marawi/#:~:text=The%20Battle%20of%20Marawi%20occurred,before%20the%20battle%20were%20Muslim;
[91] Fealy, G. (2017). The Battle for Marawi and ISIS in South East Asia. Available at: https://www.aspistrategist.org.au/battle-marawi-isis-southeast-asia/
[92] International Crisis Group (2018). Philippines: Addressing Islamist Militancy after the Battle for Marawi. Available at: https://www.crisisgroup.org/asia/south-east-asia/philippines/philippines-addressing-islamist-militancy-after-battle-marawi
[93] Spencer, J., Geroux, J. and Collins, L. (2024). Urban Warfare Project Case Study Series. Available at: https://mwi.westpoint.edu/urban-warfare-case-study8-battle-of-marawi/#:~:text=The%20Battle%20of%20Marawi%20occurred,before%20the%20battle%20were%20Muslim

Case study 5: Myanmar – Intra-State Separatist Conflict

Separatist conflicts in Kachin state, Myanmar – a region that borders China and Thailand – has seen a decades-long struggle between ethnic communities and the Myanmar military for greater political autonomy. The conflict is partly over control and access to mineral revenues such as jade[94], rubies[95], and now rare earth and heavy rare earth minerals.[96]

The conflict has become more complex and intractable in recent years. After the violent military coup in 2021, the military junta has struggled to maintain territorial control due to strong opposition from the public and armed groups. Some of the Kachin rare earth mining territory was previously under the control of the militia group NDA-K, which is allied with the Myanmar's junta government. The group also welcomed payments from Chinese companies looking to establish mines.[97] The Kachin Independence Army (KIA) said it took control of the towns of Panwa and Chipwe close to China's southwestern Yunnan province on Oct. 19, 2024.[98] However, there is a lack of clarity about their operational role at the mine, and the degree to which the mine is directly financing the conflict.[99]

In Kachin Special Region 1, the number of mining sites has increased by more than 40%.[100] Almost all of this production has reportedly gone to China[101], which raises questions about their role in indirectly financing the conflict. Several international investors and companies withdrew from Myanmar, in adherence to the UNGPs, over concerns that its operations and subsidiaries were unable to conduct business independently of the military junta.[102]

Rare earths, jade, and rubies are all difficult supply chains to trace. Heavy rare earth minerals are processed into permanent magnets in China, where they are exported to European and American automobile manufacturers and wind power industries. Rare earth and heavy rare earth mineral imports from the Kachin region of Myanmar to China have more than doubled in the space of two years. From their previous high of 19,500 tons of heavy rare earth oxides in 2021, imports reached 41,700 tonnes in 2023.[103]

The environmental and human rights impacts of rare earth production in Kachin state are particularly egregious, partly because the region has no active mining regulator. There are reports

[94] Global Witness (2021). Jade and conflict: Myanmar's vicious circle. Available at: https://www.globalwitness.org/en/campaigns/natural-resource-governance/jade-and-conflict-myanmars-vicious-circle/#:~:text=Kachin%20State%20in%20northern%20Myanmar,poison%20the%20pathways%20to%20peace
[95] Global Witness (2021). International ruby sales funding Myanmar military, armed groups and human rights abuses – buyers include top jewellery brands
[96] Global Witness (2022). Myanmar's poisoned mountains: The toxic rare earth mining industry at the heart of the global green energy transition. Available at: https://www.globalwitness.org/en/campaigns/natural-resource-governance/myanmars-poisoned-mountains/
[97] Reuters (2024b). Armed group says it takes control of Myanmar rare earth mining hub. Available at: https://www.reuters.com/world/asia-pacific/armed-group-says-it-takes-control-myanmar-rare-earth-mining-hub-2024-10-23/
[98] Ibid.
[99] Ibid.
[100] Global Witness, 2022
[101] Interview with Industry Analysts, 2025.
[102] Amnesty International Secretariat (2021). Myanmar: Kirin cuts ties with military-owned conglomerate in Myanmar – ending years of a problematic business relationship. Available at: https://www.amnesty.org/en/documents/asa16/3644/2021/en/
[103] Global Witness, 2022

of individuals transporting bags of oxalic acid to the collection ponds. Oxalic acid — a toxic chemical used to treat the rare earths once they have been drained from the mountainside. This process begins high above the ponds, where ammonium sulphate is injected into the earth through a network of pipes. As the solution tracks downslope, it gathers rare earth elements, but not without devastating consequences for the environment.[104] The technique is known as in-situ-leaching — and was first developed in China in the 1980s. There are widespread reports of polluted watercourses and farmland, and the destruction of vegetation. Trade data indicates that most of these chemicals come from China itself — with exports to Myanmar of 1.5 million tonnes of ammonium sulphate in 2023 (up from 93 thousand tonnes in 2015) and 174 thousand tonnes of oxalic acid (up from 342 tonnes in 2015). Local community members said that arable land is completely destroyed by the leaching process.

Although the ongoing conflict in Myanmar is typified as an intra-state and separatist conflict, China is exploring hybrid forms of intervention such as setting a 'joint security company' with Myanmar's military junta.[105] This could be a pretext for greater military intervention, and there are credible reports that China has sent security personal into Myanmar to protect the military junta.[106] The rare earth supply chain might play a role in the calculus of whether to intervene or not, as stockpiles in China start to dwindle. If China perceives that its economic interests are harmed by KIA's takeover of rare earth mining and infrastructure, it is possible that China would intervene military in order to help secure supply and inevitably escalate and transform the conflict into an international armed conflict.[107]

2.4 Transnational conflict

CHARACTERISTICS AND DRIVERS

There is fluidity and overlap between transnational organised crime (TOC) groups and paramilitary organisations. Transnational organised crime are associations of individuals who operate, wholly or in part, by illegal means,[108] and often use violence and threat of violence to coerce individuals to fulfil their objectives.

The presence of transnational organised crime in mineral resource industries specifically, can be difficult to detect. This is because organised crime can infiltrate mine sites, mineral resource industries, and throughout the transnational value chain of logistics, storage, trading, manufacturing

[104] Global Witness, 2022
[105] Voice of America (VOA) (2024). China's joint security proposal sparks controversy in Myanmar. Available at: https://www.voanews.com/a/china-s-joint-security-proposal-sparks-controversy-in-myanmar/7870325.html
[106] The Strategist (2024). China edges closer to intervention in Myanmar. Available at: https://www.aspistrategist.org.au/china-edges-closer-to-intervention-in-myanmar/
[107] Pacific Forum (2024). PacNet #87 – Would China intervene in Myanmar to save the junta? Available at: https://pacforum.org/publications/pacnet-87-would-china-intervene-in-myanmar-to-save-the-junta/
[108] United Nations Office on Drugs and Crime (UNODOC) (2018). Defining organized crime. Available at: https://www.unodc.org/e4j/ru/organized-crime/module-1/key-issues/defining-organized-crime.html

and distribution. It uses political influence to disrupt supply and value chains, and engages in extortion and bribery of businesses all along the value chain.[109]

Conflict and violence caused by transnational organised crime and criminal groups around mineral resources involves sporadic and serious acts of violence, killings, use of violence to intimidate, or coerce local populations and political elements involved in mineral resource governance. TOC around mineral resource industries is growing, particularly around the gold industry, because of the commodity's use as a money laundering medium, and the large monetary value of small physical quantities of gold (as of March 2025, reaching all-time highs of GBP 85,000 a kilo). Gold is also increasingly used by international criminal organisations to launder money from the international drugs trade.[110]

TOC flourishes in fragile and conflict-affected states with vast territories that allow organised crime and criminal groups to operate with impunity. These groups often operate around mine sites to finance their illicit activities, and engage in extortion of local mining officials, local businesses; intimidation and arbitrary killing of human rights defenders, and union members.[111]

TOC groups use of mineral resources to purchase and procure weapons also drives and escalates conflict. Organised crime groups throughout Central and South America linked to the drugs and gold trade have taken hold of large swathes of territory because they have access to arms and munitions and have complex cross border networks that are comprised of armed paramilitary and criminal groups.[112]

Conflict caused by organised crime can increase when there is political deference to transnational criminal activity. In extreme cases, this deference and political inertia at a high-political level can evolve into government's tacit and corrupt collaboration with organised crime. In some severe cases, the government may openly benefit from, and participate in criminality, e.g., the Russian state's backing of the Wagner Group's criminal activity across Africa, including in the mining sector.[113] Furthermore, Venezuela has long provided tacit support to the trans-frontier Colombian criminal and paramilitary insurgent group the Ejercito Libéracion Nacional (ELN), that has enjoyed impunity while using the country as a base to conduct criminal activity along its border region with Colombia, including drug trafficking operations. This state deference and weak governance in the coca-producing and gold mining region of Catatumbo, Colombia, caused the conflict between the ELN and

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[109] WWF (n.d.). Crime Convergence: Natural Resource Exploitation and Transnational Organized Crime. Available at: https://www.worldwildlife.org/projects/crime-convergence-natural-resource-exploitation-and-transnational-organized-crime
Stridsman, M. and Østensen, Å. (2017). Shadow value chains: Tracing the link between corruption, illicit activity and lootable natural resources from West Africa. Bergen: U4 Anti-Corruption Resource Centre, Chr. Michelsen Institute (U4 Issue 2017:7).
[110] See for instances: Global Financial integrity (2023). Illicit Financial Flows and Illegal Gold Mining – New Developments in Colombia. Available at: https://gfintegrity.org/illicit-financial-flows-and-illegal-gold-mining-new-developments-in-colombia/
Amazon Underworld (2023). Crime and corruption in the shadows of the world's largest rainforest. Available at: https://amazonunderworld.org/
[111] Global Witness (2023). Standing firm: The Land and Environmental Defenders on the frontlines of the climate crisis. Available at: https://globalwitness.org/en/campaigns/land-and-environmental-defenders/standing-firm/
[112] Amazon Underworld, 2023
[113] Council on Foreign Relations (2023). What Is Russia's Wagner Group Doing in Africa? Available at: https://www.cfr.org/in-brief/what-russias-wagner-group-doing-africa
Global Initiative against Transnational Organised Crime (2025). Mercenaries and illicit markets: Russia's Africa Corps and the business of conflict. Available at: https://globalinitiative.net/analysis/russia-africa-corps-business-of-conflict/

rival FARC dissidents to escalate in January 2025, killing at least 80 people, and displacing between 57,000-80,000 in a week of conflict.[114] [115] Direct state sponsorship of TOC is rare, but tacit or indirect support, and deference to criminal organised crime groups, is more common.

The growth of TOC is complex and fluid, making it difficult for operators and investors to identify, diagnose, and respond to. The serious legal consequences and high stakes for organised crime result in clandestine tactics, and hybrid forms of conflict, including the increasing use of psychological violence and anonymous intimidation, which can make the presence and influence of these groups around mineral resource industries difficult to detect.

Recent conflicts — and the post conflict context in Colombia in particular — have demonstrated how former armed groups or militia can easily evolve into criminal enterprises in order to capture rent and benefit from mineral resources in post-conflict settings.[116] And also how some partially disbanded paramilitary groups continue to operate in mineral-rich zones.

POTENTIAL TRIGGERS FOR ESCALATION

Recent cases of transnational organised crime triggering or escalating conflict have involved incursions by transnational organised crime into new territories, crossing state borders and operating in cross-border regions. This can provoke violent responses from rival organised crime gangs over access to territory and strategic corridors to smuggle drugs and mineral resources.[117] These same armed groups are increasingly entering into mine sites, to assert control over gold mines and other minerals, and embed within the value chain. This has mostly occurred at the cross-border regions of the Amazon, but also in mainland Colombia, Ecuador, Brazil and Mexico.[118]

The assassination, kidnapping, or public intimidation of human rights defenders, union leaders, or community representatives who speak out against criminal activity around mining operations is a recurrent trigger of escalation at the local level, that can result in arbitrary assassinations, and reprisals that can escalate conflict between organised crime, local communities, private security or state armed forces. These targeted attacks aim to silence opposition and consolidate criminal influence but may provoke public protests and international condemnation.

Government-led crackdowns on informal mining sites or smuggling routes — especially where they are perceived as selective or politically motivated — can result in violent retaliation by criminal

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[114] UN Office of the United Nations High Commissioner for Human Rights (OHCHR) (2025). Colombia: UN experts call for protection of civilians caught up in Catatumbo conflict. Available at: https://www.ohchr.org/en/press-releases/2025/03/colombia-un-experts-call-protection-civilians-caught-catatumbo-conflict
[115] Norwegian Refugee Council (NRC) (2025) Colombia: 30 days in limbo amid escalating armed conflict. Available at: https://www.nrc.no/news/2025/february/colombia-30-days-in-limbo-amid-escalating-armed-conflict
[116] International Crisis Group (2021). A Broken Canopy: Deforestation and Conflict in. Colombia.. Available at: https://www.crisisgroup.org/latin-america-caribbean/andes
The Centre for Public Integrity (International Consortium of Investigative Journalists) (2012). Colombia's black-market coltan tied to drug traffickers, paramilitaries. Available at: https://publicintegrity.org/accountability/colombias-black-market-coltan-tied-to-drug-traffickers-paramilitaries/
[117] International Crisis Group (2024). A Three Border Problem: Holding Back the Amazon's Criminal Frontiers. Available at: https://www.crisisgroup.org/sites/default/files/2024-07/b051-amazon-three-border-problem_0.pdf
Pulitzer Centre (2024). How We Uncovered the Modus Operandi of Criminals Smuggling Illegal Gold out of Venezuela. Available at: https://pulitzercenter.org/how-we-uncovered-modus-operandi-criminals-smuggling-illegal-gold-out-venezuela
[118] Amazon Underworld, 2023

networks. Such confrontations could spill into civilian areas, destabilise local governance, and create humanitarian crises through displacement.

High-profile media exposés or judicial investigations that reveal collusion between government officials, security forces, or private companies and criminal networks can inflame tensions. These revelations may delegitimise local institutions, provoke community mobilisation, and expose corporate actors to operational and reputational risk.

In areas where ASM miners are forcibly removed from concessions, displaced workers may become vulnerable to recruitment or coercion by organised criminal groups. This dynamic is particularly evident in territories where ASM activity overlaps with criminal group-controlled zones, contributing to a cycle of dependency, exploitation, and criminal capture of the sector.
The breakdown or collapse of ceasefire agreements — particularly those involving resource-sharing, disarmament, or territorial control — can also quickly reignite violence.

Case study 6: Clan de Golfo, Colombia and transnational

The Gulf Clan or *Clan de Golfo* is the largest organised criminal group in Colombia, and one of the largest in South America. It is comprised of former paramilitary group members. It is also known as the Gaitanist Self-Defense Forces of Colombia, and according to government estimates has between 6000-9000 members.[119]

The group has a wide presence throughout the trans-frontier border regions of the Amazon, particularly the area around the Venezuelan border that is a strategic narcotics smuggling area.[120] An investigation by Colombian law enforcement agencies in 2024 found the group to be the most responsible for environmental crimes linked to natural resources in the country.[121] The group is increasingly expanding its influence throughout gold mining territories and regions of the country, mostly in post-conflict and fragile settings, where state presence and governance institutions are weak.

The group has gradually expanded presence in gold ASM in the Bajo Cauca area, and the building of infrastructure and tunnels around the Buriticá gold mine operated by Zijin Mining – the largest gold mine in the country.[122] The mine is surrounded by ASM gold mining activities, that fall within the orbit of the organised crime group, who reportedly extort 10% of mining revenues.[123]

The organisation has reportedly infiltrated several mine sites, this includes the physical seizing and development of mining galleries and tunnel networks close to ASM and industrial gold mines,

[119] Insight Crime (2025). Gaitanistas – Gulf Clan. Available at: https://insightcrime.org/colombia-organized-crime-news/urabenos-profile/
[120] Amazon Underworld, 2023
[121] El Espectador (2024). El Clan del Golfo es el mayor responsable de los daños ambientales en Colombia. Available at: https://www.elespectador.com/colombia-20/paz-y-memoria/clan-del-golfo-y-los-grupos-armados-responsables-de-los-danos-ambientales-en-colombia-petro-paz-total/
[122] International Crisis Group (2024). The Unsolved Crime in "Total Peace": Dealing with Colombia's Gaitanistas. Available at: https://www.crisisgroup.org/latin-america-caribbean/andes/colombia/105-unsolved-crime-total-peace-dealing-colombias-gaitanistas
[123] El Tiempo (2023). Buriticá, el pueblo que paga diezmo a las Agc por extraer oro. Available at: https://www.eltiempo.com/justicia/investigacion/mineria-de-ilegal-buritica-el-pueblo-en-el-que-las-agc-extorsionan-por-extraer-oro-781039

guarded by armed security that fall under the influence and protection of the organisation.[124] The clan also provides logistics and mining equipment to the miners.[125]

The group has regularly planted explosives to develop its tunnel networks, and in January 2025 used homemade bombs to disrupt and sabotage the mines power infrastructure,[126] — a tactic typically used by insurgents engaged in guerilla warfare. The attack caused Zijin Mining to temporarily shut down operations for a few days.[127] The organisation launched an attack with explosives that killed 2 people and injured 14 in May 2023.[128]

There were allegations that Zijin Mining responded by pouring 'toxic sludge' into nearby tunnels where informal miners were working.[129] Zijin mining denied this and responded with a statement that said these were rumours and stated that it had been carrying out mandatory backfilling of tunnels as required by authorities, and that this process "strictly complies" with regulations.[130]

The repeated incursions and violence by elements of the criminal group has sparked legal action by the mining operator against the Colombian state in July 2024, at the International Centre for Settlement of Investment Disputes (ICSID), an arbitration court in the United States.[131]

In conflicts such as this, where physical infrastructure within the mine sites is captured or security forces are paid bribes or are under the influence and coercion of the cartel, security apparatus alone is likely not sufficient to mitigate the impacts of or de-escalate the conflict. Instead, the operator or investor could consider working with national and federal law enforcement authorities to attempt to trace the captured resource through local trading hubs and investigate the use of front and shell companies that might be used by the cartel. It can also investigate and monitor the potential for trade-based or gold-based laundering through local businesses linked to trading, logistics, and transport, where proceeds from the drugs trade could also be laundered.

Case study 7: The Wagner Group in Africa's mining sector

The Russian state-backed Wagner Group is a paramilitary organisation or Private Military Company (PMC), that also functions as a transnational organised crime group and was designated

[124] The Journal (2025). The Underground Battle for Colombia's Richest Gold Mine. Available at: https://www.wsj.com/podcasts/the-journal/the-underground-battle-for-colombia-richest-gold-mine/4f028df1-82c3-4697-8a1a-e87aa510ded4
[125] The Journal, 2025
[126] Reuters (2025a). Zijin halts work at Colombia gold mine after homemade bomb attack. Available at: https://www.reuters.com/world/americas/zijin-halts-work-colombia-gold-mine-after-homemade-bomb-attack-2025-01-18/
[127] Reuters (2025b). China's Zijin restarts gold production at major Colombian mine after attack. Available at: https://www.reuters.com/markets/commodities/chinese-miner-zijin-restarts-gold-production-major-colombian-project-following-2025-01-20/
[128] Zijin Mining (2023). Zijin Mining Strongly Condemns Attack on the Buriticá Gold Mine in Colombia. Available at: https://www.zijinmining.com/sustainable/esg-message-detail-119694.htm
[129] BHRRC (2024). Colombia: Zijin denies allegation pouring toxic sludge into tunnels that endangered informal mine workers. Available at: https://www.business-humanrights.org/en/latest-news/colombia-zijin-mine-faces-local-tensions-armed-group-control-while-pursuing-430m-lawsuit-against-govt-over-security-failures/
[130] BHRRC (2024). Colombia: Statement by Continental Gold Limited Colombia Branch to the public on the situation in Buriticá. Available at: https://www.business-humanrights.org/en/latest-news/colombia-comunicado-a-la-opini%C3%B3n-p%C3%BAblica-sobre-situaci%C3%B3n-en-buritic%C3%A1/
[131] Global Arbitration Review (GAR) (2024). Colombia hit with ICSID claim over mine attacks. Available at: https://globalarbitrationreview.com/article/colombia-hit-icsid-claim-over-mine-attacks

as such by the U.S. Department of the Treasury's Office of Foreign Assets Control (OFAC), on 23 January 2023.[132]

The organisation's transnational criminal network started operating around the time of Russia's first hybrid and covert military operations in the Donbas region of Ukraine in 2014, which allowed the Russian President Vladimir Putin to deny Russian troops' involvement in the conflict, despite their clandestine and covert sponsorship.[133]

The organisation engages in hybrid warfare and private mercenary operations around mineral industries throughout Sub-Saharan Africa. The organisation is formed mostly of disbanded Russian military, paramilitary, and criminal convicts recruited into its ranks for mercenary activities.[134] The Wagner Group focuses its mercenary and paramilitary activities on fragile, conflict-affected states, rich in mineral resources, with high levels of civil unrest. The Wagner Group has taken particular interest in fragile states in sub-Saharan and northern Africa and the Middle East, notably the Central African Republic (CAR), Sudan, Libya, and Syria. All of these have armed conflicts, extreme levels of fragility, and are rich in diamonds, gold, oil, and gas, respectively. It also controls gold mining areas and retains significant military influence in several countries in the Sahel, with particularly strong ties in Burkina Faso and Mali.[135]

The organisation seeks to exploit political vacuums, and therefore is drawn to intrastate conflicts where mineral resources are a significant component and prize of the conflict – particularly in CAR and Sudan. A report by the World Gold Council found that the Wagner Group has earned over USD 2.5 billion from illicit gold mining since the invasion of Ukraine, and the control and coercion of artisanal gold mining sites and local communities, in some of the world's most conflict-affected locations.[136]

U.S and others' sanctions designations on the group sought to "degrade the Russian Federation's capacity to wage war against Ukraine."[137] There have a number of credible reports, including from the UK Foreign Affairs Committee, that the organisation has been instrumental for the Russian state's procurement of weapons and circumvention of international sanctions regimes by using revenues from smuggled gold.[138] Gold mining is therefore a central economic activity of the group – which has influenced the complex international supply chain of gold.

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[132] U.S. Department of the Treasury (2023). Treasury Sanctions Russian Proxy Wagner Group as a Transnational Criminal Organization. Available at: https://home.treasury.gov/news/press-releases/jy1220

[133] Armed Conflict Location & Event Data (ACLED) (2025). The Wagner Group & Africa Corps: 1 April 2025. Available at: https://acleddata.com/actor-profiles/the-wagner-group/

[134] House of Commons Foreign Affairs Committee (2023). Guns for gold: the Wagner Network exposed. Available at: https://www.bbc.com/news/world-africa-65328165

[135] Africa Defence Forum (ADF) (2024). Russia Tightens Control of Malian Gold. Available at: https://adf-magazine.com/2024/04/russia-tightens-control-of-malian-gold/

The Africa Report In Mali (2024), Wagner has big plans for gold mines. Available at: https://www.theafricareport.com/339532/in-mali-wagner-has-big-plans-for-gold-mines/

[136] World Gold Council (2024). Silence is Golden. Available at: https://www.gold.org/news-and-events/press-releases/new-report-uncovers-scale-exploitation-artisanal-gold-miners-fund

[137] U.S. Department of the Treasury, 2023

[138] House of Commons Foreign Affairs Committee (2023). Guns for gold: the Wagner Network exposed. Available at: https://www.newarab.com/analysis/how-russias-wagner-group-fuelling-sudans-armed-conflict

According to various investigative reports by CNN and the Dossier Centre, key individuals and front companies were used to oversee operations in gold mining in Sudan,[139] including individuals convicted for kidnap, such as the Wagner Group's head of operations in Libya.[140] These organisations documented at least 16 known Russian gold smuggling flights out of Sudan.[141] These ties further demonstrate the level of Russian state sponsorship and deference to the organisation, including in its international armed conflict with Ukraine – which led to a military mutiny and almost to an attempted coup in Russia in 2023. Since then, the group has become a more direct arm of Russia's foreign policy,[142] and prominent figures in the Russian Ministry of Defense increasingly refer to the organisation as the Africa Corps.[143]

Prior to assuming a significant role in smuggling gold out of Sudan, the organisation engaged in hybrid psyops operations in Sudan to reportedly stoke liberal-Islamist conflict,[144] activity typically associated with a national military intelligence division. The organisation was reportedly involved in the murder of three Russian journalists investigating their activities in CAR.[145]

2.5 International armed conflict

CHARACTERISTICS AND DRIVERS

International armed conflict is characterised by high intensity industrial warfare, using advanced forms of technology and machinery. There are high casualties and death tolls on both sides, and risks of war crimes.

States seek territorial expansion or access to critical minerals to strengthen geopolitical or economic power. Geopolitical rhetoric and military activities demonstrate that states are prepared to annex territory and engage in international armed conflict because of strategic mineral resources. Such reserves are often located in contested and / or conflict-affected areas. Access to rare earth elements, lithium, cobalt, nickel and other critical minerals is becoming an objective in strategic competition, particularly for states dependent on external sources for these minerals.

[139] CNN (2022). Russia is plundering gold in Sudan to boost Putin's war effort in Ukraine. Available at: https://edition.cnn.com/2022/07/29/africa/sudan-russia-gold-investigation-cmd-intl/index.html
[140] CNN (2023). Exclusive: Evidence emerges of Russia's Wagner arming militia leader battling Sudan's army. Available at: https://edition.cnn.com/2023/04/20/africa/wagner-sudan-russia-libya-intl/index.html
[141] CNN, 2022
[142] ACLED (2023a). Importing Instability: How the War Against Ukraine Makes Russia Less Secure. Available at: https://acleddata.com/2023/11/09/importing-instability-how-the-war-against-ukraine-makes-russia-less-secure/
[143] ACLED (2023b). Moving Out of the Shadows: Shifts in Wagner Group Operations Around the World. Available at: https://acleddata.com/2023/08/02/moving-out-of-the-shadows-shifts-in-wagner-group-operations-around-the-world/
[144] House of Commons Foreign Affairs Committee, 2023
Howell, J., Mwai, P. and Atanesian, G. (2023). Wagner in Sudan: What have Russian mercenaries been up to? Available at: https://www.bbc.com/news/world-africa-65328165
[145] New York Times (2018). Russian Journalists Killed in Central African Republic. Available at: https://www.nytimes.com/2018/07/31/world/africa/russian-journalists-killed-central-african-republic.html

The U.S. Administration has recently proposed 'minerals for security' deals to both Ukraine[146] and the DRC.[147] This deal brokering of mineral resources in international conflicts indicates a new trend of using natural resources as bargaining chips, or as assets that can be transacted to advance stakes or end conflicts.

The growth of proxy wars, hybrid warfare, information warfare/psyops, and guerilla insurgencies has blurred the lines between more traditional intra-state, guerilla insurgency, and international armed conflict.[148] There are presently major international armed conflicts, and geopolitical conflicts with the potential to escalate because of mineral resources. Control over mining infrastructure, trade routes, and ports critical to mineral exports have become a key objective in both proxy and direct state-to-state confrontations.

Armed conflict zones are fluid environments where the objectives of warring parties can shift or evolve over time. In many cases, what may begin as a political or strategic confrontation can increasingly revolve around the control of natural resources or territory. Mineral-rich areas often become both short-term military targets and long-term economic assets, with states or their proxies seeking to extract rents, secure supply chains, or deny access to rival actors.

The International legal institutions and frameworks that underpin the rules-based international order are facing increasing strain. The United Nations Security Council, which plays a central role in authorising international responses to threats to peace and security under Chapter VII of the UN Charter, is frequently paralysed by the use of veto powers — particularly among its permanent members, including Russia, China, and the United States. This has hindered the international community's ability to respond decisively to crises involving violations of international law. However, the UNSC continues to pass Chapter VII resolutions and enforce a sanctions regime designed to combat illicit flows of mineral resources from the DRC, underlining minerals' role in financing the ongoing conflict in the region.

These developments have implications for the governance of mineral resources in conflict-affected and contested regions. Where international legal mechanisms are weakened or selectively applied, powerful actors may feel emboldened to pursue territorial or resource-related ambitions with limited fear of reprisal. The weakening of international legal norms in such contexts risks exacerbating the securitisation and contestation of natural resources, making mineral-rich territories increasingly vulnerable to violent competition.

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[146] Centre for strategic and International Studies (CISS) (2025). Breaking Down the U.S.-Ukraine Minerals Deal. Available at: https://www.csis.org/analysis/breaking-down-us-ukraine-minerals-deal

[147] Bloomberg (2025). Trump Envoy Says US-Congo Mining and Security Deal Moving Ahead. Available at: https://www.bloomberg.com/news/articles/2025-04-03/trump-envoy-says-us-congo-mining-and-security-deal-moving-ahead

[148] Centre for Strategic and International Studies (2024). The Future of Hybrid Warfare. Available at: https://www.csis.org/analysis/future-hybrid-warfare
See for instance Smith, R. (2007). The utility of force: the art of war in the modern world. 1st U.S. ed. Knopf.

POTENTIAL TRIGGERS FOR ESCALATION

Recent trends in conflict and warfare have demonstrated military occupation or annexation of a mineral-rich regions by another state, because of territorial claims or simply on the basis of economic and national security interest – including the security of supply of critical minerals.

Prior to the recent armed conflicts between Russia and Ukraine, a build-up of armed forces near contested borders with mineral deposits was seen. Furthermore, the conflict between DRC and Rwanda has also transformed into an international armed conflict, after Rwanda intervened military in the DRC in support of the insurgent group M23.[149] There are also indications that the collapse of ceasefire or peace agreements involving resource-sharing arrangements, such as that proposed by the Trump Administration in Ukraine, could result in international armed conflict if the agreements are violated.

Nationalisation or expropriation of mining assets held by foreign companies, might prompt international retaliation and escalate geopolitical conflict. However, it is unlikely to result in international armed conflict – mainly because other legal avenues and arbitration courts would be a more rationale course of action.

Case study 8: Russia – Ukraine

The conflict between Russia-Ukraine is an international armed conflict governed by the laws of war, as both parties are signatories to the Geneva Convention.[150] Russian's invasion of Ukraine is considered by the vast majority of international lawyers and legal scholars as illegal and a violation of the UN Charter, Article 2.4. concerning territorial integrity.[151] Russia invaded Ukraine under the pretext that Ukraine posed a substantial security threat to Russia's security, and that Russia was therefore taking pre-emptive measures.

The Russian invasion of Ukraine shocked international markets and commodity prices, and caused natural gas prices to sky rocket, putting pressure on economies with significant dependence on Russian gas.[152] This was likely a premeditated move, with the Russian military command calculating the impact that a timed invasion would have on commodity and power markets to enable greater leverage and strategic coercion of the adversely affected states. Mineral resources are now significant negotiable components and military prizes in a conflict that is approaching a military stalemate.

[149] The Lieber Institute (2025). West Point. International Armed Conflict in Democratic Republic of Congo. Available at: https://lieber.westpoint.edu/conflict-eastern-drc-state-responsibility-rwanda-uganda/
RULAC & Geneva Academy (2023). The Conflict in Eastern DRC and the State Responsibility of Rwanda and Uganda. Available at: https://www.rulac.org/browse/conflicts/international-armed-conflict-in-democratic-republic-of-congo
[150] Human Rights Watch (2022). Russia, Ukraine & International Law: On Occupation, Armed Conflict and Human Rights. Available at: https://www.hrw.org/news/2022/02/23/russia-ukraine-international-law-occupation-armed-conflict-and-human-rights#:~:text=Hostilities%20between%20Russian%20armed%20forces,of%20the%20laws%20of%20war
[151] British Institute of Comparative Law (2022). Russia's Invasion of Ukraine and International Law: Questions and Answers. Available at: https://www.biicl.org/blog/34/russias-invasion-of-ukraine-and-international-law-questions-and-answers
[152] Energy & Climate Intelligence Unit (2023). The Cost of Gas since the Russian Invasion of Ukraine. Available at: https://eciu.net/analysis/reports/2023/the-cost-of-gas-since-the-russian-invasion-of-ukraine

Prior to invasion, NATO governments received intelligence that Russia planned to fabricate imminent threats to its security as a pretext for invasion or annexation of territory.[153] The conflict was preceded and triggered by a mobilisation of armed forces along the Russian-Ukrainian border. In Russia's armed invasion and hybrid assault on Kiev and Ukraine, it moved quickly to secure mineral feedstocks, coal, and coking coal for steel production. At the time of writing, in March 2025, Ukraine's steel production continues to face the acute threat of Russian advance and occupation of steel manufacturing infrastructure, around Pokrovsk in Donetsk.[154] Russia is also advancing on the Ukrainian Shevchenko lithium deposit, and as of February 2025 was only 4 miles away.[155]

Mineral resources are a significant factor in the strategic objectives of Russia, but it is difficult to say exactly how significant they are in proportion to Russia's overall objective to annex most of the territory it now holds.

The U.S recently made the unprecedented offer of military assistance and support to end the fighting, in exchange for U.S. access to substantial rare earth deposits throughout Ukraine, to which Ukraine has agreed in principle. Russia has also offered the U.S. a deal for minerals in Ukrainian territory it seized.[156] This deal brokering of mineral resources in an international conflict indicates a new trend of using mineral resources as bargaining chips, or as assets that can be transacted to advance stakes or end conflicts.

Russia now has control of almost one fifth of Ukraine's territory,[157] including substantial reserves of rare earths, lithium, graphite, zirconium, tantalum in the eastern territory of Ukraine held by Russia, which are considered crucial energy transition minerals.[158] However, many of the substantial rare earth stocks in Ukraine are in the west of the country.

Irrespective of the importance of mineral resources to Russia's preconceived war goals in Ukraine, it is likely that it plans to use mining revenues to fund ongoing war efforts and help alleviate the severe economic impact of sanctions on the Russian economy. Mineral resources will also undoubtedly play an important role in providing revenue for both countries, once the fighting ends.

The Russian-Ukraine conflict is unusual because one side of the international armed conflict is financing its war efforts and supporting its economy with support from a designated

[153] New York Times (2022). U.S. Exposes What It Says Is Russian Effort to Fabricate Pretext for Invasion. Available at: https://www.nytimes.com/2022/02/03/us/politics/russia-ukraine-invasion-pretext.html
[154] Foreign Policy (2024). Ukraine Faces a Double Threat if Russia Takes Pokrovsk. Available at: https://foreignpolicy.com/2024/10/11/ukraine-pokrovsk-russia-war-coal-military/
[155] Reuters (2025c). Russian forces advance on Ukraine's critical minerals as Trump talks of a deal. Available at: https://www.reuters.com/markets/commodities/russia-advances-ukraines-critical-minerals-trump-talks-deal-2025-02-19/
[156] NBC News (2025). Russia offered U.S. a deal for minerals in Ukrainian territory it seized. Available at: https://www.nbcnews.com/politics/national-security/russia-offered-us-deal-minerals-ukranian-territory-seized-rcna193700
[157] Reuters (2025d). Russian troops push into Ukraine's Sumy region. Available at: https://www.reuters.com/world/europe/russia-says-it-gains-control-over-village-ukraines-sumy-region-2025-04-06/
[158] Conflict and Environment Observatory (2024). The environmental risks from a critical minerals rush in Ukraine. Available at: https://ceobs.org/the-environmental-risks-from-a-critical-minerals-rush-in-ukraine/

transnational organised crime group (see Case study 7). Whole battalions of the Wagner Group were previously deployed on the frontlines. This is significant because a substantial proportion of these fighters would have had recent direct experience as armed security at African mine sites, and in forcibly securing access to these mineral resource industries.