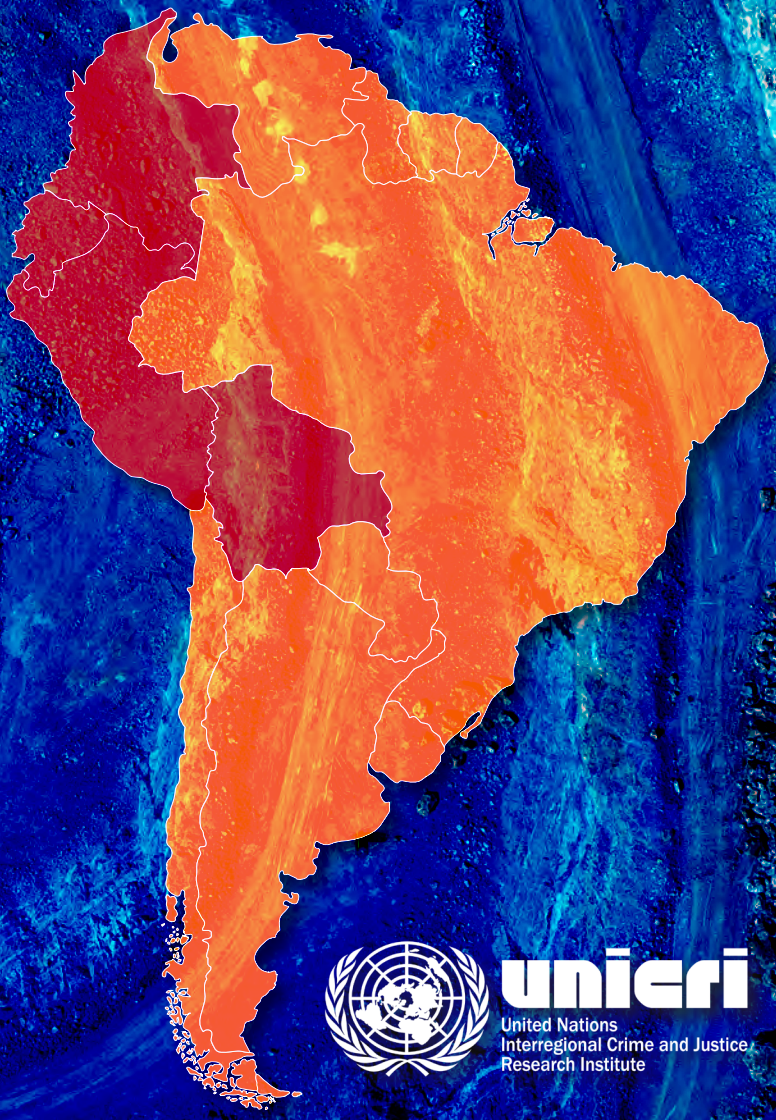
Minerals Crime in the Andean–Amazon Region: Regional Cooperation as a Governance Response



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Acronyms and Abbreviations

CAMI	Andean Ad Hoc Committee on Illegal Mining (*Comité Andino contra la Minería Ilegal*)
CAN	Andean Community (*Comunidad Andina*)
CCPI-AMAZON	Centre for International Police Cooperation in the Amazon
CETM	Critical Energy Transition Mineral
EITI	Extractive Industries Transparency Initiative
EVOA	Alluvial Gold Evidence Methodology (*Evidencias de Explotación de Oro de Aluvión*)
FATF	Financial Action Task Force
GAFILAT	Financial Action Task Force of Latin America (*Grupo de Acción Financiera de Latinoamérica*)
GI-TOC	Global Initiative against Transnational Organized Crime
IEA	International Energy Agency
MAAP	Monitoring of the Andean Amazon Project
OECD	Organisation for Economic Co-operation and Development
RANE	High-Level Strategic Meeting (*Reunión de Alto Nivel Estratégico*)
UNODC	United Nations Office on Drugs and Crime
UNICRI	United Nations Interregional Crime and Justice Research Institute

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Executive Summary

Illegal gold mining in the Andean–Amazon region has evolved from localized illegal extraction into a systemic, transnational phenomenon embedded within global supply chains. It has converged with organized crime, money laundering, corruption, and human rights abuses to become a multidimensional security threat affecting economic security, the integrity of financial systems, and the rule of law. Record gold prices exceeding USD $5,000 per ounce in early 2026, combined with rapidly rising demand for critical energy transition minerals (CETMs), have intensified both the profitability of illegal extraction and the urgency of governance responses.

This report examines how regional cooperation can help address the structural limits of fragmented national responses to minerals crime. Using the Andean Community (CAN) and its Ad Hoc Committee on Illegal Mining (CAMI) as a case study, the analysis shows that existing supranational frameworks offer legally grounded and politically viable spaces for coordinated action that no single CAN Member Country can replicate alone. The analysis draws on desk research and practitioner evidence gathered through the High-Level Strategic Meeting (RANE) held in Lima, Peru, in October 2025, convened jointly by the Secretaría General de la Comunidad Andina, the Peruvian Ministry of Foreign Affairs, United Nations Office on Drugs and Crime (UNODC), and United Nations Interregional Crime and Justice Research Institute (UNICRI). The four-pillar analytical framework developed in the report is intended to inform broader dialogue on minerals crime governance beyond the Andean context.

— KEY MESSAGES

Seizures and arrests at extraction sites often displace criminal activity rather than dismantling it.

Criminal networks in illegal gold mining operate as decentralized, adaptive systems that reconfigure rapidly under pressure – shifting routes, actors, and structures across territories and jurisdictions. Seizures and arrests at extraction sites often produce displacement rather than disruption. Criminal operations depend not only on illegal miners but also on legal actors – mining cooperatives, transport providers, customs officials, and financial intermediaries – who may act as complicit enablers. Durable impact requires sustained pressure across the enabling infrastructures of illegal gold mining – financing, inputs, logistics, commercialization nodes, and financial flows – rather than extraction sites alone.

Gold and critical energy transition minerals require distinct governance approaches.

Illegal gold mining continues to present the most mature and visible manifestation of minerals crime in the Andean–Amazon region, reflecting established illicit extraction economies and entrenched cross-border trafficking networks. At the same time, governance risks are increasingly apparent in sectors involving critical energy transition minerals, particularly copper, tin, and zinc, where production is often traded as polymetallic concentrates through complex supply chains

in which regulatory oversight remains limited. In these supply chains, the primary vulnerabilities differ structurally from those associated with gold. Misclassification of mineral content, under-valuation at the point of export, and illicit insertion at port-level nodes present distinct challenges. Strengthening anticipatory regulatory frameworks for these minerals represents a time-sensitive governance priority for the region.

The financial dimensions of minerals crime remain insufficiently addressed.

Shell companies, layered structures, nominee arrangements, and trade-based money laundering allow criminal proceeds to be recycled even when mining operations are disrupted. Where illegal mining is not recognized as a predicate offence for money laundering, financial investigations, mutual legal assistance, and asset recovery mechanisms cannot be deployed, even when criminal proceeds are evident. Performance metrics focused on seizures rather than financial disruption leave criminal networks economically intact.

Traceability systems are only as strong as the governance surrounding them.

Several CAN Member Countries have developed government-led data collection, supply chain transparency and traceability tools, and this existing capacity confirms that the primary regional challenge is not a shortage of technology. It is a connectivity gap: national systems are often not designed to communicate with each other, making it impossible to detect anomalies that only become visible when production, export, and import data – both within and across countries – are compared simultaneously. Document-based compliance systems alone are insufficient where minerals are produced and traded in weak governance areas or cross multiple jurisdictions before reaching international markets. Traceability supports accountability only when it is interoperable within agencies of the same country and across borders, not when it operates as a parallel formal compliance exercise disconnected from enforcement.

The building blocks for an effective regional response already exist — the challenge is connecting them.

The governance gap in addressing minerals crime in the Andean region is not primarily a function of missing legal instruments or insufficient political commitment. The Andean Community possesses a supranational legal architecture, an operational political coordination platform in CAMI (an ad hoc committee on illegal mining), and nationally developed data collection and traceability tools. The central challenge is translating these existing elements into a coherent regional system, through aligned definitions, linked data, integrated financial investigations, and sustained coordination across the full supply chain. Criminal networks are already operating as regional systems; the governance response must match that scale.

— RECOMMENDATIONS

The report identifies four interdependent pillars for effective regional action and advances the following priority recommendations:

PILLAR 1 POLICY HARMONIZATION

- Advance minimum common standards on definitions of illegal mining and critical minerals to close the regulatory grey zones that enable cross-border arbitrage.
- Promote convergence in recognizing illegal mining as a predicate offence for money laundering, consistent with FATF standards, across all CAN Member Countries.
- Develop shared regional typologies and risk classifications for gold, polymetallic concentrates, and selected CETMs.
- Reorient mineral supply-chain governance from an extraction-centric focus toward an integrated approach covering processing, transport, commercialization, and export, with an emphasis on supply chain due diligence obligations in the trading sector in accordance with OECD standards.
- Integrate safeguards for human rights, Indigenous Peoples' rights, and environmental protection into harmonized frameworks to ensure the legitimacy and sustainability of enforcement actions.

PILLAR 2 INSTITUTIONAL AND OPERATIONAL COORDINATION

- Move from ad hoc cooperation toward routine, sustained cross-border coordination mechanisms, building on existing CAN/CAMI structures and the standing platform model of CCPI-Amazon.
- Adopt structural investigation models prioritizing criminal organizations, facilitators, and command-and-control structures over site-based enforcement.
- Institutionalize joint investigation teams or equivalent standing arrangements with clear mandates, protocols, and sustainable resourcing.
- Strengthen comprehensive control of critical inputs, including mercury, cyanide, explosives, fuels, and heavy machinery, through mandatory registries, technical marking, GPS tracking, and differentiated quota systems.
- Develop common operational risk indicators for high-risk corridors, ports, and processing nodes to enable shared early-warning systems across CAN Member Countries.
- Incorporate community-based monitoring and local early-warning systems as complementary inputs to enforcement in remote areas, alongside robust protection mechanisms for environmental defenders and Indigenous leaders.

PILLAR 3 FINANCIAL INTELLIGENCE INTEGRATION

- Systematically integrate parallel financial investigations into all operations targeting illegal mining and minerals trafficking.
- Strengthen cooperation between financial intelligence units, tax authorities, prosecutors, and mining authorities on asset tracing, beneficial ownership analysis and disclosure, and trade-based money-laundering detection.
- Rebalance performance metrics toward financial disruption, asset recovery, and decapitalization alongside arrests and mineral seizures.
- Expand regional typology work on mineral-linked illicit financial flows through GAFILAT and CAMI cooperation.
- Use production-export discrepancies and ghost production indicators as systematic triggers for financial scrutiny.
- Support specialized training for financial investigators, prosecutors, and judges on complex corporate structures and cross-border asset recovery linked to mineral trade.

PILLAR 4 INTEROPERABLE TRACEABILITY INFRASTRUCTURE

- Develop minimum regional data standards allowing comparability across mining cadastres, customs systems, and fiscal registries, prioritizing interoperability over uniformity.
- Prioritize mid-stream nodes, including processors, traders, and export points, in risk-based traceability approaches.
- Advance mandatory beneficial ownership transparency for licence-holders and mineral traders by fully implementing and extending EITI Requirement 2.5 across CAN Member Countries, and by ensuring that beneficial ownership registries are interoperable with financial intelligence units, customs, and tax authority systems.
- Pool access to high-cost forensic tools, including mineral fingerprinting, isotopic analysis, satellite monitoring, and trade data analytics, through regional cooperation rather than project-based deployment.
- Promote harmonized sampling, laboratory, and chain-of-custody protocols to strengthen evidentiary admissibility across jurisdictions.
- Advance interoperable traceability systems that combine physical marking, secure digital infrastructure, and data management tools to preserve provenance information across the supply chain, including at stages where material becomes difficult to distinguish through documentation alone. These systems should be embedded in nationally governed platforms and connected regionally.

Section 1

Minerals Crime as a Transnational Governance Challenge: The Andean–Amazon Case

The global expansion of mineral supply chains, driven by the energy transition, digital technologies, and strategic resource competition, has created new opportunities not only for economic growth but also for organized crime. Minerals crime has evolved from localized activities into systemic, transnational phenomena embedded in global trade and financial systems. The sustained increase in gold prices, which reached historic highs exceeding USD $5,000 per ounce in early 2026, together with the growing demand and price volatility associated with critical minerals linked to the energy transition, has further intensified incentives for minerals crime.[1]

BOX 1. WORKING DEFINITION OF MINERALS CRIME

No international treaty or other legal instrument provides a definition of minerals crime. The term may, however, be understood to refer to criminal activities involving the extraction, trade, and processing of minerals, metals, sand and gravel, as well as the decommissioning of mines. It includes offences relating to the illegal prospecting, exploration, and exploitation of minerals; offences related to the unlawful use of prohibited or regulated equipment, devices, and chemicals; offences concerning unlawful mining-related activities in protected areas and on Indigenous land; knowing possession of unlawfully extracted minerals; trafficking in minerals, including trafficking in a mineral knowing that it was obtained or exported illegally from another country; and fraud relating to licences, permits, and certificates for mining and other activities relating to minerals.[2]

1 World Gold Council, *Gold Demand Trends*, 2025; UNODC, *Minerals Crime: Illegal Gold Mining*, United Nations publication, May 2025. https://doi.org/10.18356/9789211068153; United Nations Interregional Crime and Justice Research Institute (UNICRI), *UNICRI's Strategic Response Framework for Tackling Crimes Linked to Critical Minerals*, 2024.

2 UNODC, *Minerals Crime: Illegal Gold Mining*, United Nations publication, May 2025. https://doi.org/10.18356/9789211068153.

The term **minerals crime** therefore refers to criminal activities occurring across all stages of the mineral supply chain, from exploration and extraction through processing, transport, commercialization, and export, and encompasses the full range of associated offences including money laundering, corruption, document fraud, and illicit financial flows. The term **illegal mining,** by contrast, refers specifically to criminal activities during the exploration and extraction phase. Both terms appear throughout this report, and the distinction between them is analytically significant: governance tools effective at the extraction stage – site-based enforcement, input controls, and decapitalization – operate differently from those targeting commercialization, financial flows, or export nodes. The relative effectiveness of the governance tool employed depends heavily on the stage of the supply chain at which criminal activity is occurring.

This report focuses primarily on illegal gold mining as the most developed and extensively documented form of minerals crime in the Andean–Amazon region. Gold supply chains in the region exhibit a mature pattern of criminal infiltration, extending well beyond extraction into commercialization, financial recycling, and integration into formal trade, which provides the primary empirical basis for the analysis. Critical energy transition minerals (CETMs), including copper, lithium, cobalt, coltan, and nickel, are treated as distinct. The governance challenges associated with CETMs differ structurally from gold, and consequently governance approaches designed for gold supply chains cannot be assumed to apply to CETMs without significant adaptation.[3]

The complexity of mineral supply chains, combined with regulatory gaps, uneven rules across countries, and weak oversight, creates opportunities for money laundering, tax evasion, and illicit financial flows. These conditions allow illegal production to be absorbed into legal markets. Organized crime can then converge with financial crime, environmental crime, and human rights abuses around mineral trade. Gold's high value-to-weight ratio, liquidity, and ease of laundering make it a preferred vehicle for money laundering, tax evasion, and duty fraud. This vulnerability is directly exploited across Andean supply chains, where illicit production is systematically absorbed into formal commercial circuits through first buyers, aggregation centres, and export nodes before effective controls can be applied.[4]

The impact of minerals crime extends beyond environmental and economic harm and increasingly represents a security concern for states. Revenues generated through illegal mining and mineral trafficking finance organized criminal groups and, in some contexts, armed actors, reinforcing territorial control, violence, and the erosion of governance. As the United Nations Office on Drugs and Crime (UNODC) noted, regional cooperation is key to tackling organized crime, money laundering, corruption, and abuse of power that characterize the mining sector across Latin America and the Caribbean.[5] However, national

3 UNODC, *Minerals Crime: Crimes in the Supply Chains of Critical Energy Transition Minerals*, United Nations publication, September 2025. https://www.unodc.org/documents/data-and-analysis/Crimes_on_Environment/Minerals_Crime/Critical_minerals_2025.pdf.

4 UNODC, *Minerals Crime: Illegal Gold Mining*, May 2025; GAFILAT, *Cuarta Actualización del Informe de Amenazas Regionales en materia de Lavado de Activos y Financiamiento del Terrorismo*, 2024.

5 UNODC, *Explainer: Organized Crime, Money Laundering and Corruption in the Mining Sector in Latin America and the Caribbean*, December 2025. https://www.unodc.org/unodc/en/frontpage/2025/December/explainer---organized-crime--money-laundering-and-corruption-in-the-mining-sector-in-latin-america-and-the-caribbean.html.

authorities frequently face structural constraints in responding effectively, including fragmented mandates among mining regulators, customs administrations, law enforcement agencies, prosecutors, and financial intelligence units. Criminal networks, by contrast, operate across borders and adapt rapidly to enforcement pressure, shifting routes and commercialization channels toward jurisdictions with weaker controls.[6]

Corruption acts as a central enabler of minerals crime across the entire value chain. It facilitates illegal extraction, abuse of licensing systems, document fraud, and the laundering of illegally sourced minerals through legal commercial channels. These risks are increasingly pronounced in the CETM sectors, where accelerating licensing processes, rapidly expanding investment pressures, and evolving regulatory frameworks may outpace institutional oversight capacity. Approaches that focus solely on disrupting extraction sites – without treating minerals as potential proceeds of crime or integrating mining oversight with financial intelligence, customs, and anti-corruption efforts – risk leaving intact the financial systems that sustain minerals crime.[7]

Against this backdrop, regional and global coalitions have emerged as necessary responses. They promote shared norms, coordinated institutions, and cross-border cooperation mechanisms that reduce regulatory arbitrage and mitigate capacity gaps among states. While such alliances face coordination challenges and uneven implementation, they provide platforms for collective action that no single state can replicate alone.

— STRATEGIC RELEVANCE OF THE ANDEAN–AMAZON REGION

Latin America occupies a central position within global mineral supply chains, supplying commodities essential both to established industrial production and to emerging clean energy and digital technologies. The region accounts for a significant share of global copper production and hosts a large proportion of globally identified lithium resources – concentrated in the lithium triangle of Bolivia, Chile, and Argentina, which together account for over 60 per cent of known global lithium reserves. The concentration of these mineral resources positions Latin America at the centre of strategic value chains and associated governance risks.[8]

Gold supply chains remain particularly exposed. Peru, Colombia, and Brazil rank among major global producers, yet significant shares of production there originate outside effective regulatory oversight, reflecting widespread informality and illegal extraction prior to market entry. A defining feature of minerals crime in Latin America is the early absorption of illegally sourced production into formal commercial circuits, including through first buyers, aggregation centres, initial processing, and export nodes.[9]

6 UNODC, *Minerals Crime: Illegal Gold Mining*, May 2025; GI-TOC, *Global Organized Crime Index 2025: Crime at a Crossroads*. https://globalinitiative.net/analysis/global-organized-crime-index-2025/.

7 UNODC, *Minerals Crime: Crimes in the Supply Chains of Critical Energy Transition Minerals*, September 2025.

8 USGS, *Mineral Commodity Summaries 2025*; UNODC, *Explainer: Organized Crime, Money Laundering and Corruption in the Mining Sector in Latin America and the Caribbean*, December 2025.

9 Cortés-McPherson, D., *Peru: Curtailing Smuggling, Regionalizing Trade*, in Verbrugge and Geenen (eds.), Global Gold Production Touching Ground, Springer, 2020.

Bolivia, Colombia, Ecuador, and Peru are strategically significant owing to their gold production and CETM endowments. According to the World Gold Council, their combined gold production represents roughly 7–8 per cent of formal global output, a figure likely higher when accounting for informality and underreported artisanal and small-scale mining.[10]

The Andean region holds a strategically significant but uneven endowment of CETMs. Peru ranks among the world's leading copper producers, accounting for approximately 10–11 per cent of global mine output, alongside substantial production of silver and zinc.[11] Bolivia hosts some of the world's largest identified lithium resources within its salt-flat systems, estimated at approximately 23 per cent of globally identified resources, though commercial-scale production remains constrained by infrastructure and investment challenges. Colombia contributes a modest but regionally significant share of global nickel supply, while also advancing early-stage copper and cobalt exploration projects. Ecuador complements the regional profile through rapidly expanding large-scale copper projects expected to increase national output significantly over the coming decade.[12]

10 World Gold Council, *Gold Demand Trends*, 2025.

11 USGS, *Mineral Commodity Summaries 2025*.

12 Ecuador Ministry of Energy and Non-Renewable Natural Resources, 2024.

This resource profile creates both opportunity and risk. While gold supply chains in the region are already affected by criminal dynamics, several critical mineral sectors remain at an earlier stage of criminal penetration. This presents a strategic window for strengthening governance and regional coordination before similar patterns of minerals crime become entrenched in energy-transition supply chains in the Andean-Amazon Region.

— METHODOLOGY AND SCOPE

This report draws on desk research, comparative regional analysis, and applied research facilitated by UNICRI and regional partners. It examines the **Andean Community (CAN) and its Ad Hoc Committee on Illegal Mining (CAMI)** as a case study in regional governance – analyzing how existing regional frameworks, while uneven in implementation, offer legally grounded and politically viable avenues for coordinated action against minerals crime.

The analysis is informed by practitioner exchanges and policy dialogue conducted through regional consultative processes, including the High-Level Strategic Meeting (RANE) held in Lima, Peru, in October 2025, organized jointly by the Secretaría General de la Comunidad Andina, the Peruvian Ministry of Foreign Affairs, UNODC, and UNICRI.[13] The dialogue brought together senior authorities from CAN Member Countries, technical experts, security and judicial actors, and international organizations.[14] Findings from these processes are treated as practitioner evidence alongside desk research and published sources, rather than serving as the primary basis of this report.

The CAN Member Countries case study is grounded primarily in gold governance experience, reflecting the extent of illegal gold mining as the dominant form of minerals crime in the Andean region and the most developed basis of CAMI's operational mandate to date. The analytical framework developed in this report – organized around four interdependent pillars of policy harmonization, operational coordination, financial intelligence integration, and traceability infrastructure – is intended to support broader dialogue on minerals crime governance across regional contexts.

13 XXXII Reunión Ordinaria del Comité Andino de Minería Ilegal (CAMI) y II Reunión de Alto Nivel Estratégico (RANE), Lima, Peru, 20-21 October 2025, organized by the Secretaría General de la Comunidad Andina, the Ministry of Foreign Affairs of Peru, UNODC, and UNICRI. See Agencia Andina, *Perú impulsa la cooperación regional en la lucha contra la minería ilegal*, 20 October 2025. https://andina.pe/agencia/noticia-peru-impulsa-cooperacion-regional-la-lucha-contra-mineria-ilegal-1049051.aspx.

14 Member Country delegations were led by senior officials from Bolivia (Autoridad Jurisdiccional Administrativa Minera; Policía Boliviana/Red Jaguar), Colombia (Fiscalía General de la Nación; Unidad de Información y Análisis Financiero; Policía Nacional/Red Jaguar; Ministry of Foreign Affairs), Ecuador (Vice-Ministry of Public Security; UNIDCAN; Unidad de Análisis Financiero y Económico; Ministry of Foreign Affairs), and Peru (Alto Comisionado para el Combate a la Minería Ilegal; Ministerio de Relaciones Exteriores; Fiscalía Especializada en Materia Ambiental; SUNAT; Ministerio de Energía y Minas; Ministerio del Ambiente; Unidad de Inteligencia Financiera). The Secretaría General de la Comunidad Andina participated as convening institution. International organizations represented included UNICRI, UNODC, INTERPOL, GAFILAT, OECD, EITI International Secretariat, Ibero-American Association of Public Ministries (AIAMP), Eurojust, Amazon Cooperation Treaty Organization (ACTO/OTCA), the Brazilian Federal Police, the Basel Institute on Governance, SICPA, and the UK Embassy. Civil society and expert participants included representatives of FENAMAD, Red CORAL, and Earth First.

Section 2

The Andean Community as a Platform for Coordinated Action on Minerals Crime

The CAN is a regional integration framework with a supranational legal architecture under which binding Andean Decisions apply across its four member countries: Bolivia, Colombia, Ecuador, and Peru. CAN's added value lies less in direct regulation than in its capacity to align national approaches and facilitate collective responses to cross-border dynamics – enabling coordination across legal, institutional, and operational domains without substituting for national authorities.

Within this framework, CAMI serves as the principal political and technical coordination platform, bringing together authorities responsible for mining, environmental governance, security, customs, justice, and financial intelligence. Established under **CAN Decision 774** and subsequently ratified and operationalized through **CAN Decision 797,** CAMI was designed as a specialized, issue-driven and explicitly non-permanent body. Its ad hoc design allows CAN to mobilize national authorities across sectors without expanding supranational competences, thereby preserving state sovereignty while strengthening collective response capacity. CAMI thus functions as the institutional hinge between CAN's legal framework and national implementation, with a mandate centred on joint diagnostics, early-warning mechanisms, and coordinated policy and operational measures.

CAMI's work has focused primarily on gold, reflecting both the Andean region's role as a major global gold-producing area and the sustained expansion of illegal mining over the past decade, largely associated with artisanal and small-scale mining. Across CAN Member Countries, artisanal and small-scale gold mining largely continues to operate outside effective state control despite the involvement of mining authorities, environmental agencies, customs services, and financial intelligence units.

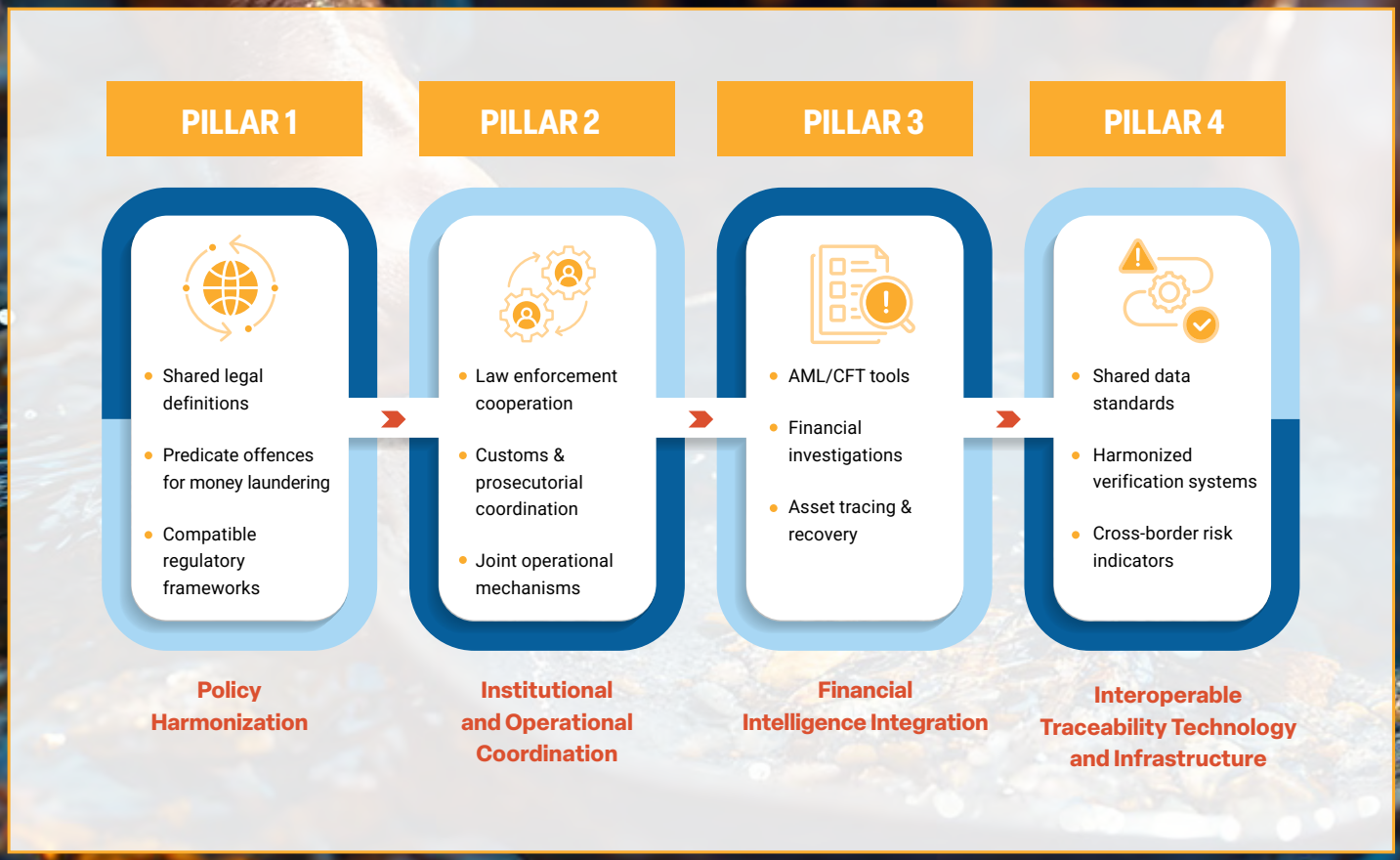
Governance configurations differ across countries – ranging from largely informal and illegal artisanal and small-scale mining supply chains in Peru and Colombia, to cooperative-based mining structures in Bolivia, and more centralized, security-led approaches in Ecuador. Yet common structural vulnerabilities persist across the region. These include weak traceability systems, uneven enforcement capacity, corruption risks, and enduring links between gold production, organized crime, and illicit financial flows. These shared

challenges help explain why national regulatory approaches have proven insufficient on their own and why regional coordination through CAN, and operationally through CAMI, has become increasingly relevant.

The **CAMI Illegal Mining Action Plan 2025–2030** gives operational substance to this mandate by explicitly framing illegal mining as a multidimensional threat encompassing environmental destruction, organized crime, illicit financial flows, human trafficking, and social harm. Grounded in a subregional diagnostic that identifies priority hotspots – particularly in Amazonian and border territories – the Action Plan aligns CAMI's work with broader Andean security instruments, including CAN Decision 922 on transnational organized crime. The Action Plan positions CAMI as the central regional coordination hub on illegal mining within CAN, while also highlighting its structural constraints: uneven implementation, persistent capacity gaps, and the ongoing challenge of translating supranational norms into durable operational outcomes on the ground.

— FOUR PILLARS FOR EFFECTIVE REGIONAL ACTION

Comparative regional experience in countering minerals crime suggests that four interdependent governance functions consistently determine whether cooperation translates into operational impact. These pillars form the analytical framework for the findings and opportunities that follow.



Pillar 1 Policy Harmonization

Divergent definitions of illegal mining, inconsistent recognition of predicate offences, and uneven regulatory standards create the legal asymmetries that criminal networks systematically exploit across borders. Normative alignment does not require identical legislation; it requires functional compatibility: clear and shared definitions, aligned criminal classifications, and mutually intelligible standards that enable mutual legal assistance, cross-border investigations, and consistent enforcement. Without it, and without an enabling civic space, the other three pillars cannot operate at the regional level.

Pillar 2 Institutional and Operational Coordination

Shared norms generate impact only when translated into practical enforcement capacity through sustained, routine cooperation among law enforcement agencies, customs administrations, financial intelligence units, and prosecutors. The most effective arrangements move beyond episodic joint operations toward standing coordination mechanisms with clear mandates, dedicated liaison structures, and shared operational risk indicators, converting political commitment into durable operational architecture.

Pillar 3 Financial Intelligence Integration

Illegal gold mining is sustained by financial incentives and illicit flows that site-based enforcement alone cannot dismantle. The parallel deployment of anti-money laundering, counter-financing of terrorism, and asset-recovery tools – alongside consistent recognition of illegal mining as a predicate offence for money laundering – is essential for disrupting the economic foundations of criminal mineral networks rather than merely displacing their operations.[15]

Pillar 4 Interoperable Traceability Technology and Infrastructure

Data systems, harmonized verification protocols, and cross-border interoperability allow anomalies in mineral flows to be detected before illicit material enters formal supply chains and before evidence chains are broken. Effective traceability does not require a single universal system; it requires a minimum interoperability framework: technology solutions combining digital and physical traceability of minerals, shared data standards, compatible customs classifications, linked databases, and agreed procedures for cross-border anomaly referrals that connect regulatory oversight to enforcement and judicial action.

15 FATF, Egmont Group, INTERPOL and UNODC, *International Cooperation on Money Laundering Detection, Investigation and Prosecution*, September 2025. https://www.fatf-gafi.org/en/publications/Methodsandtrends/international-cooperation-against-money-laundering.html.

Section 3

Key Structural Dynamics and Trends

This section examines key structural dynamics that shape minerals crime and explains why their cross-border nature calls for regional responses. While similar patterns are observed in multiple parts of the world, they are particularly visible in the Andean region, where shared ecosystems, porous borders, and interconnected trade corridors intensify transnational risks.

— FROM ILLEGAL GOLD MINING TO A REGIONAL SECURITY CHALLENGE

In the Andean region, illegal gold mining has evolved from localized illegal extraction into a form of organized and systemic criminality embedded within broader illegal economies. It also functions as a major source of financing for organized crime, generating revenue through control of extraction sites, extortion, taxation of production and transport, and participation in commercialization and laundering channels. Exploiting gold's high value, liquidity, and ease of laundering, criminal networks have integrated illegal mining with drug trafficking, trafficking in persons, corruption, and other illegal activities, extending operations across extraction, transport, commercialization, and entry into formal supply chains.[16] These dynamics operate through cross-border corridors, shared refining and trading hubs, and regional financial circuits, enabling criminal groups to shift operations in response to enforcement pressure in any single country. In 2024, Latin America accounted for 82 per cent of documented global killings of land and environmental defenders, with mining-linked cases among the most prevalent, reflecting the depth of criminal territorial control associated with illegal extraction economies.[17]

A critical analytical distinction highlighted by regional practitioners concerns the difference between confrontation and collusion dynamics in how criminal actors relate to legal

16 UNODC, *Minerals Crime: Illegal Gold Mining*, May 2025.

17 Global Witness, *Roots of Resistance*, September 2025. https://www.globalwitness.org/en/campaigns/environmental-activists/roots-of-resistance/.

actors across the supply chain.[18] While enforcement efforts have traditionally focused on confrontational forms – seizures, arrests, and site closures – collusion often represents the greater governance challenge: legal actors including private security companies, mining cooperatives, transport providers, customs officials, and financial intermediaries may act as complicit enablers rather than victims of criminal activity. This distinction between criminal mining and criminality in the mining sector has direct implications for how investigations are framed and which actors are subject to regulatory oversight.

From a criminological perspective, the persistence of illegal gold mining reflects the convergence of three conditions: highly attractive targets, minerals with exceptional value density, liquidity, and ease of concealment, motivated criminal actors with established networks and adaptive capacity, and fragmented oversight systems unable to sustain pressure across the full supply chain.[19] Criminal structures in this sector have evolved away from rigid hierarchies toward decentralized networks organized through opportunistic contractual relationships and compartmentalized functions – extraction, transport, processing, money laundering – which gives them exceptional resilience against enforcement actions that target individual sites or visible leadership.[20] These networks reconfigure rapidly when subjected to pressure, shifting operations across territories, jurisdictions, river systems, and trading hubs; machinery seizures and arrests at extraction sites therefore tend to produce displacement rather than disruption, with activities relocating to neighbouring areas or countries.

Durable disruption requires sustained coordinated pressure across the enabling infrastructures of illegal gold mining – financing, inputs, logistics, and commercialization nodes – rather than extraction sites alone, and criminal investigations structured around identifying inputs, financial flows, and facilitators throughout the production chain are significantly more likely to achieve it. The control of critical inputs – mercury, cyanide, explosives, fuels, and heavy machinery – represents a specific and underperforming dimension of this enabling infrastructure. Practitioners at the RANE held in Lima, Peru, 2025 identified that information generated by the Andean Mercury Observatory, established under CAN Decision 844 as a regional instrument for monitoring mercury flows, is not systematically reaching all competent national authorities responsible for enforcement and border control.[21]

— DEFINITION GAPS, KNOWLEDGE ASYMMETRY, AND REGULATORY GREY ZONES

Illegal gold mining and minerals crime involving CETMs present fundamentally different risk profiles and therefore require distinct regulatory and policy approaches. Illegal gold mining is characterized by high value, ease of concealment, and irreversible transforma-

18 Expert Presentation at CAMI XXXII Ordinary Meeting, Lima, Peru, October 2025.

19 Expert Presentation at CAMI XXXII Ordinary Meeting, Lima, Peru, October 2025.

20 Expert Presentation at CAMI XXXII Ordinary Meeting, Lima, Peru, October 2025.

21 Expert Presentation at CAMI XXXII Ordinary Meeting, Lima, Peru, October 2025.

tion upon processing, making control at the point of first sale and aggregation critical. CETM-related crimes, by contrast, typically occur in large industrial volumes, where illegal activity relies on misclassification, manipulation of trade documentation, and opacity in processing and commercialization stages.[22] According to the UNODC September 2025 analysis of CETM supply chains, the primary mechanism of criminal exploitation is not physical concealment but systemic documentation fraud: false declarations of mineral content, misclassification of concentrate grades, fraudulent origin certificates, and under-invoicing in export transactions – vulnerabilities concentrated at port-level controls that currently receive minimal targeted oversight in the region.

Recent field-based research in the Amazon basin highlights a persistent knowledge asymmetry with direct governance implications: producing states and local authorities have limited capacity to verify the composition and commercial value of mineral concentrates, while downstream traders and refiners possess advanced analytical capabilities.[23] This imbalance enables under-valuation, misclassification, and concealment of high-value minerals within mixed shipments – vulnerabilities that are particularly acute for polymetallic concentrates such as black sands containing tin, tantalum, rare earth elements, and other strategic minerals that fall between regulatory categories and circulate through legal and semi-legal channels with limited scrutiny.

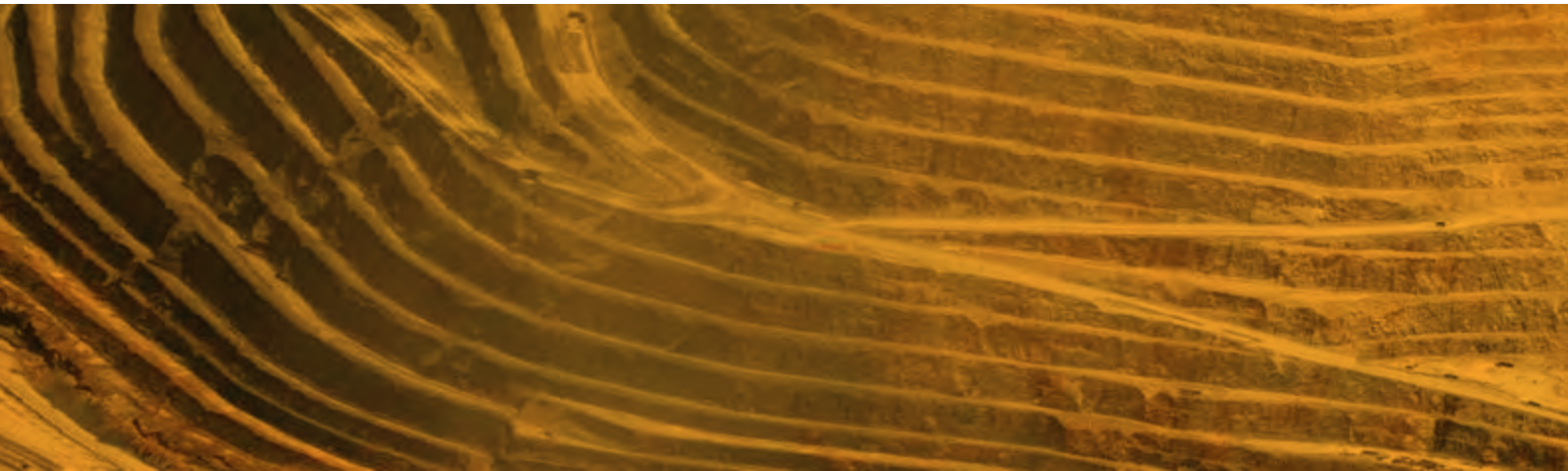
Practitioners report the absence of clear and harmonized operational definitions of illegal mining and critical minerals across national frameworks. In the CAN context, policy frameworks have focused predominantly on gold and vein deposits, while four CETM minerals – copper, coltan, tin, and zinc – linked to illegal mining and predominantly extracted from alluvial deposits in Peru, Bolivia, and the broader Amazon basin remain largely invisible in national policies and legislation.[24] These minerals remain in informal or illegal circuits primarily due to the absence of inclusive legal frameworks adapted to their production characteristics, and because their formalization pathways, designed with gold in mind, fail to reflect the differentiated production scale and commercialization routes of these commodities. Notably, these minerals are predominantly commercialized in concentrate form through maritime routes, making port-level controls a critical and currently underutilized governance node.[25]

22 UNODC, *Minerals Crime: Crimes in the Supply Chains of Critical Energy Transition Minerals*, September 2025.

23 Amazon Underworld, *The Price of Progress: The Dark Side of Amazon Critical Minerals*, 2025.

24 Expert Presentation at CAMI XXXII Ordinary Meeting, Lima, Peru, October 2025; The Guardian, *The lawless mining gangs targeting the Amazon's precious green energy minerals*, August 2024.

25 OECD, *Illicit Flows of Gold Concentrates in the Maritime Space*, 2025.



When artisanal and small-scale mining formalization frameworks are applied without mineral-specific differentiation, they tend to displace production into informal circuits rather than integrate it into regulated supply chains – increasing, rather than reducing, exposure to illegal economies and, as CETM markets grow, creating conditions for further criminal professionalization in these supply chains.[26]

— THE NEED FOR A UNIFIED REGIONAL FRONT AGAINST MONEY LAUNDERING

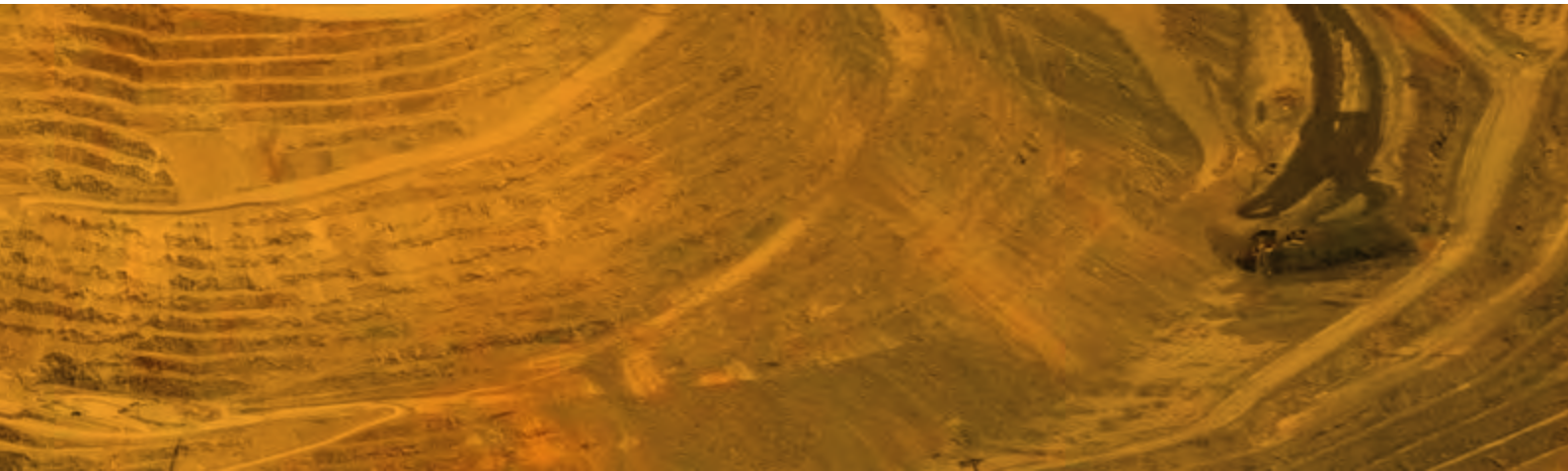
Money laundering is a central enabler of minerals crime and cannot be effectively confronted through enforcement actions focused solely on extraction sites. Illegal gold and other minerals move through trading, transport, export, and processing chains in which the physical trade itself becomes a vehicle for disguising both origin and proceeds. Criminal actors often use short-lived trading companies, layered intermediary structures, nominee arrangements, and rapidly reconstituted commercial entities to disguise both the origin of the mineral and the proceeds derived from it. This reflects a hybrid criminal model in which illegal extraction is combined with legal, corporate, and trade infrastructures.[27]

These arrangements are particularly important at the commercialization stage, where minerals can be blended, relabelled, misdeclared, or exported through intermediaries that obscure traceability and beneficial ownership. Proceeds are frequently reinvested in machinery, transport, real estate, livestock, and other ostensibly legitimate businesses, reinforcing criminal resilience. Because these arrangements routinely link production sites, trading entities, financial intermediaries, and offshore structures across multiple jurisdictions, the corruption architecture of minerals crime operates as a regional network rather than a collection of isolated national problems. The Financial Action Task Force of Latin America (GAFILAT) has documented recurring typologies across the region: multiple formally independent entities under common control, nominee-based ownership structures, asset acquisition followed by intra-group transfers, trade-based money laundering through false exports, and trade triangulation and smuggling via border and fluvial routes.[28]

26 Expert Presentation at CAMI XXXII Ordinary Meeting, Lima, Peru, October 2025.

27 UNODC, *Minerals Crime: Illegal Gold Mining*, May 2025.

28 GAFILAT, *Cuarta Actualización del Informe de Amenazas Regionales en materia de Lavado de Activos y Financiamiento del Terrorismo*, 2024.



A key constraint is the uneven treatment of illegal mining as a predicate offence for money laundering: where this recognition is absent or inconsistent, financial investigations, international cooperation tools, and asset recovery mechanisms cannot be systematically deployed even when criminal proceeds are evident. The joint guidance published in 2025 by the Financial Action Task Force (FATF), the Egmont Group, INTERPOL, and UNODC specifically identifies the absence of predicate offence recognition as a structural barrier to effective mutual legal assistance and cross-border asset recovery.[29] Financial investigations are not routinely conducted alongside interdiction operations, and performance metrics continue to emphasize arrests and mineral seizures over financial disruption, leaving the economic foundations of criminal networks largely intact even after operational successes.

— TRACEABILITY FRAGMENTATION AND THE INTEROPERABILITY GAP

Traceability has become a key tool to support due diligence processes in mineral supply chains in line with government-backed international standards such as the *OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas*. Traceability alone cannot replace but can support risk-based due diligence – which encompasses management systems, identification and mitigation of negative impacts, monitoring, disclosure, and remediation.[30] Private-sector supply chain due diligence processes can complement, and be supported by, government oversight mechanisms targeting traders, aggregators, and exporters. These may include measures to incentivise due diligence uptake in line with OECD expectations, such as disclosure obligations, due diligence audits, and post-export verification mechanisms.[31]

Field evidence from artisanal and small-scale mining contexts in the Andean region illustrates the practical limits of document-based approaches. Transactions often depend on producer self-declarations of origin, supported by accompanying legal documentation that may certify unreliable or unverifiable information. This creates opportunities for under-valuation, misclassification, and uncertainty about mineral content, especially for lesser regulated sources such as concentrate, scrap, and recycled gold.[32] Documentary fraud vulnerabilities further undermine traceability.[33] Emerging forensic approaches such as isotopic or trace-element profiling offer potential to strengthen evidentiary linkages, but their scalability remains unrealistic at this stage due to high costs and uneven laboratory capacity. More financially accessible options, such as reconciliation and interoperability between production and trading databases, can significantly improve risk identification and help prioritize enforcement action.

29 FATF, Egmont Group, INTERPOL and UNODC, *International Cooperation on Money Laundering Detection, Investigation and Prosecution*, September 2025.

30 IEA and OECD, *The Role of Traceability in Critical Mineral Supply Chains*, Paris, February 2025. https://doi.org/10.1787/edb0a451-en.

31 Expert Presentation at CAMI XXXII Ordinary Meeting, Lima, Peru, October 2025.

32 Pachas Cuya and Narváez López, 2025.

33 Expert Presentation at CAMI XXXII Ordinary Meeting, Lima, Peru, October 2025.

For CETMs such as copper, lithium, cobalt, coltan, and nickel, the challenge differs in structure. Their bulk trading creates risks linked to misclassification, under-valuation, and limited transparency in commercial transactions, with significant impacts on domestic resource mobilisation. Effective oversight therefore depends not only on effective physical sampling at key production and export points, but also on documentation integrity, valuation transparency, and trade-data analysis.[34]

A specific and sometimes underutilized transparency mechanism is the Extractive Industries Transparency Initiative (EITI) Standard, implemented in eleven countries across Latin America including Peru, Ecuador, and Colombia. The standard's Requirement 2.5 mandates the public disclosure of beneficial owners of companies holding mining licences or contracts, precisely the ownership transparency that the shell company and nominee structures documented in this report are designed to circumvent. When EITI-published beneficial ownership data is integrated with mining cadastres, customs records, production data, and financial intelligence databases, it enables the kind of cross-referencing that can generate early warning alerts on discrepancies, flag politically exposed persons, and identify atypical corporate structures linked to illicit flows.

Despite these mineral-specific differences, a common structural weakness applies across all commodity types: national data collection, supply chain transparency and traceability systems in the Andean region are not designed to communicate with each other, and in many cases within agencies in the same country. Data standards, risk indicators, and verification protocols differ across jurisdictions, making it impossible to detect anomalies that only become visible when production, export, and import data from multiple countries are compared simultaneously. This is compounded by a persistent disconnect between mining cadastres, customs systems, environmental registries, and financial intelligence databases even within individual CAN Member Countries, allowing illicit material to be inserted precisely at the points where national oversight is weakest and cross-border data exchange is absent. Effective regional traceability therefore requires not a single universal system but a minimum interoperability framework. This framework includes shared data standards and risk indicators, harmonized customs and laboratory protocols, linked cadastre and export licensing databases, and agreed procedures for cross-border anomaly referrals.

BOX 2. TECHNOLOGY-ENABLED APPROACHES TO IMPROVING VISIBILITY OVER MINERAL PRODUCTION AND TRADE

Governments have several options for improving visibility over mineral production, commercialization, transport, and export. These approaches vary significantly in cost, technical complexity, and institutional requirements. No single tool is sufficient on its own, and the governance value of these approaches depends on how they are embedded within regulatory frameworks, investigative mandates, and cross-border cooperation arrangements.

34 Amazon Underworld, *The Price of Progress*, 2025.

Satellite monitoring and remote sensing. Geospatial monitoring tools can support the detection of unauthorized extraction activity, dredging operations, and associated environmental degradation in remote areas where state presence is limited. Initiatives such as the Monitoring of the Andean Amazon Project (MAAP) have demonstrated the potential of near-real-time satellite analysis to improve situational awareness and inform enforcement prioritization across parts of the Amazon basin.[35] Regional law-enforcement cooperation arrangements have also expanded the operational use of such data, including through the Amazon International Police Cooperation Centre (CCPI) in Manaus and Brazil's Brasil MAIS imagery platform.[36] Their impact, however, is constrained when capabilities are unevenly distributed or confined to short-term, stand-alone projects.

Digital traceability platforms. Integrated digital registries, mining cadastres, transport authorization platforms, and commercialization-control systems can help record the origin, movement, and declared ownership of mineral material across supply chains. When linked to customs and fiscal-reporting systems, such tools may support risk-based oversight and anomaly detection. Several national systems already exist in the region. Colombia operates the *Registro Único de Comercializadores de Minerales* (RUCOM) alongside a number of registries linked to artisanal and small-scale mining, including Genesis, Siminero, and Anaminería, which are expected to be progressively integrated into a new national *Plataforma de Trazabilidad Minera*. In Peru, authorities are currently discussing the development of an interoperable platform for artisanal and small-scale mining, building on tools such as the *Evidencias de Explotación de Oro de Aluvión* (EVOA) methodology and the mercury registry (*Registro Único de Mercurio*, RUME).[37] Bolivia operates *Servicio Nacional de Registro y Control de la Comercialización de Minerales y Metales* (SENARECOM) which supports traceability controls from production through commercialization and whose national architecture could inform regional registration standards.[38] These systems confirm that technical capacity exists within the region. The Andean Mercury Observatory (OAM) represents a related regional monitoring instrument whose data on mercury flows are not yet systematically reaching the enforcement and border control authorities best positioned to act on them.

Physical marking and traceability recovery. A key limitation of chain-of-custody and document-based traceability systems is that provenance becomes harder to verify once mineral material is aggregated, smelted, or processed into concentrates, particularly where material from different sources is combined. Physical traceability techniques may help preserve, recover, or verify provenance at these downstream stages when linked to traceability records. These include physical or chemical marking methods, as well as forensic and geochemical fingerprinting techniques that use isotopic or trace-element signatures to associate mineral

35 MAAP, Monitoring of the Andean Amazon Project. https://www.maapprogram.org

36 Mongabay, *Governments are Ramping up Actions to Fight Environmental Crime across the Amazon*, May 2024.

37 Expert Presentation at CAMI XXXII Ordinary Meeting, Lima, Peru, October 2025.

38 Expert Presentation at CAMI XXXII Ordinary Meeting, Lima, Peru, October 2025.

samples with specific geological formations or mine sites. Their relevance lies in the possibility of maintaining a verifiable connection between physical material and digital records at stages where minerals become difficult to distinguish through documentation alone.

Brazil's Ouro Alvo programme has developed a national gold profile bank using these methods, and INTERPOL has proposed establishing an International Gold Profile Bank built on this model, inviting Andean countries to contribute reference samples and participate in a regional forensic network. The governance constraints on these tools are cost, the requirement for comprehensive reference databases, uneven laboratory capacity across Member Countries, and the absence of harmonized evidentiary standards for their use in judicial proceedings across the region.

BOX 3. BRAZIL'S PROGRAMA OURO ALVO: FORENSIC GOLD PROVENANCE INFRASTRUCTURE

Brazil's **Programa Ouro Alvo** is a Federal Police initiative launched in 2019 to strengthen the forensic attribution of gold provenance in support of investigations into illegal mining and associated criminality. The programme combines systematic field sampling, laboratory-based mineralogical and geochemical characterization, and inter-institutional analytical cooperation to generate reference profiles capable of supporting origin assessment for seized gold.

A central component is the development of the **Banco Nacional de Perfis Auríferos (BANPA)**, conceived as a national repository of comparative gold profiles and associated analytical data. **Ouro Alvo** is therefore relevant as an example of an emerging forensic traceability architecture designed to complement regulatory and transactional traceability systems with scientific attribution of origin.

BOX 4. SICPA: A PROPOSED HYBRID PHYSICAL-DIGITAL TRACEABILITY MODEL

SICPA has publicly presented a mineral traceability model, initially focused on gold, that combines physical marking technologies with digital traceability infrastructure and data management tools.[39] The model is an illustration of a hybrid approach to traceability, particularly in contexts where provenance information may be weakened or lost during transformation, aggregation, refining, or trading stages.

According to the company, the model would link physical security features applied at selected points in the supply chain with digital transaction records, chain-of-custody information, and monitoring interfaces. It is presented as covering multiple stages of the supply chain, from extraction to downstream processing and trade, and as incorporating tools such as smart scales, secure communications systems, refinery metals accounting, and digital monitoring dashboards.

In principle, combining physical and digital controls could help reduce risks of substitution, data discontinuity, and illicit insertion. At the same time, the practical value of such systems would depend on independent verification, interoperability with public regulatory frameworks, and integration into customs, financial, investigative, and judicial processes.

— UNEVEN FORENSIC CAPACITY, TECHNOLOGY GAPS, AND EVIDENTIARY WEAKNESSES

The approaches described in Box 2, spanning satellite monitoring, digital traceability platforms, and physical marking and traceability recovery, represent a significant and growing body of capability relevant to minerals crime governance. Its impact, however, is systematically constrained when capabilities are unevenly distributed across Member Countries or confined to short-term, stand-alone projects, creating asymmetries that criminal networks exploit by shifting operations toward jurisdictions with weaker technical capacity.

Capacity gaps across Member Countries are significant and specific. For example, in Ecuador, competent authorities currently lack X-ray analyzers, fluorescence equipment, and scanning electron microscopes needed to determine the mineralogical composition and geological origin of seized or commercially traded minerals — tools that would provide the forensic signatures necessary to link minerals to specific mine sites and underpin enforcement actions and prosecutorial evidence.[40] The Bolivian police similarly lack specialized units for financial investigation and asset tracing in mining crime cases, and do not have direct access to mineral certification and origin control systems, enabling illegal

39 Expert Presentation at CAMI XXXII Ordinary Meeting, Lima, Peru, October 2025.

40 Expert Presentation at CAMI XXXII Ordinary Meeting, Lima, October 2025

mineral transport to be concealed through falsified documentation.[41] The absence of a regional integrated database consolidating information on mining machinery, chemical inputs, explosives, customs records, and seizure reports further limits the capacity for joint analytical work across borders. These gaps reflect a structural pattern in which the most demanding forensic and analytical capabilities exceed the individual investment capacity of any Member Country but are viable when developed and maintained at the regional level.

The consequence for judicial outcomes is direct. Poor-quality technical evidence, fragmented datasets, and fragile chains of custody continue to undermine prosecutions even as criminal networks become more sophisticated — not because technology is absent but because it remains insufficiently institutionalized within investigative and prosecutorial workflows. Standardized protocols, trained personnel, and interoperable systems are prerequisites for forensic tools to generate admissible, comparable evidence across cases.

The INTERPOL proposal to establish an International Gold Profile Bank, described in Box 2, would directly address one of the most persistent evidentiary gaps in minerals crime prosecution — the inability to link seized gold to specific mine sites across jurisdictional boundaries — and illustrates the broader principle that regional pooling of technical capacity is not merely a coordination preference but an operational necessity given the investment thresholds involved.[42]

— TERRITORIAL IMPACTS, INDIGENOUS PEOPLES, AND THE LIMITS OF ENFORCEMENT-LED APPROACHES

Communities living in and around illegal mining zones bear the most severe consequences of minerals crime, including mercury contamination, territorial degradation, violence, and pressure from armed groups. Yet the plight of these communities remains structurally excluded from the policy, trade, and security debates that directly affect them.

A critical but frequently overlooked dimension is that Indigenous and Amazonian communities are not only the most vulnerable to illegal mining, they also occupy a determining role in mineral supply chains as holders of surface rights over territories where extraction occurs.[43] Communities frequently lack the resources, institutional capacity, and effective access to decision-making spaces needed to shape governance responses. This exclusion carries operational costs as well as rights implications: community-based monitoring and territorial knowledge systems represent significant but underutilized sources of early detection capacity, particularly in remote areas where state presence is limited.[44] Indigenous representatives noted that interdiction operations involving the on-site destruction or burning of mining machinery have in some cases generated additional environmental

41 Expert Presentation at CAMI XXXII Ordinary Meeting, Lima, October 2025

42 Expert Presentation at CAMI XXXII Ordinary Meeting, Lima, October 2025

43 Expert Presentation at CAMI XXXII Ordinary Meeting, Lima, Peru, October 2025.

44 FCDS/Igaraé Institute, *Amazon Security Study*, November 2025.

contamination, underscoring the importance of developing standardized protocols for machinery seizure and disposal that minimize secondary environmental harm.[45]

Effective regional governance therefore requires treating community-based monitoring not simply as a participation issue, but as a practical preventive and early-warning function within broader oversight systems. This, in turn, requires clear channels through which community-generated information can inform institutional action, as well as robust protection measures for environmental defenders, Indigenous leaders, and community monitors who face direct retaliation risks linked to their oversight roles.

— CAN MEMBER COUNTRIES IN PRACTICE

Alongside structural constraints previously described, the analysis identifies practices demonstrating how the Andean Community framework is beginning to be operationalized.

— COLOMBIA AND CAN DECISION 774: CAN AS LEGAL AND POLITICAL ENABLER

In the early 2010s, the Colombian government faced mounting pressure to combat illegal gold mining linked to environmental degradation, territorial control by armed groups, and organized crime financing. Colombia's congress was perceived as unreliable: legislators were reluctant to support coercive measures that could be framed as restricting livelihoods in mining-dependent regions, and previous enforcement reform attempts had stalled. The executive shifted the decision-making to the regional level. Under Colombia's pro tempore CAN presidency, illegal mining was reframed as a regional security issue, enabling the adoption of CAN Decision 774: the Andean Policy on the Fight Against Illegal Mining. Because CAN Decisions are supranational and binding, they did not require congressional ratification, allowing the executive to introduce coercive enforcement measures through decree. By late 2024, authorities reported the destruction or seizure of at least 240 dredges and 305 excavators linked to operations under CAN Decision 774 and subsequent national decrees.[46] Despite these efforts, illegal mining continues to affect 29 of 32 departments, and estimates from Colombian authorities and independent analysts suggest that between 65 and 85 per cent of gold exports may originate from illegal or unregulated sources.[47]

This case illustrates the leverage of CAN's supranational legal architecture, which can unlock enforcement capacity that domestic political constraints would otherwise block. It also highlights the limits of enforcement action when it is not accompanied by parallel financial investigation and traceability intervention.

45 Expert Presentation at CAMI XXXII Ordinary Meeting, Lima, Peru, October 2025.

46 Expert Presentation at CAMI XXXII Ordinary Meeting, Lima, Peru, October 2025.

47 UNODC, *Minerals Crime: Illegal Gold Mining*, May 2025.

— NANAY RIVER BASIN: COMPLIANCE MECHANISMS AS A COMMUNITY CHANNEL

Illegal alluvial gold mining in the Nanay River basin of the Peruvian Amazon has intensified rapidly. MAAP satellite analysis identified over 800 dredges operating cumulatively across the watershed since 2017, with approximately 275 active in 2025 alone in a river system that supplies drinking water to Iquitos and sustaining dozens of Indigenous and riverine communities.[48] Following a formal complaint by Nanay basin communities, Dictamen N° 007-2025 was issued by the Secretariat General of the Andean Community during a non-compliance procedure, addressing regional obligations on illegal mining, mercury management, customs cooperation, and transnational organized crime. This ruling thereby links local environmental and social impacts to shared Andean commitments at the supranational level.[49]

The case demonstrates that CAN's compliance mechanisms provide communities and civil society with a formal regional channel through which governance concerns can be raised beyond the national level, making the regional framework directly relevant to affected populations and not only to state institutions. It also illustrates the persistent challenge of remote riverine areas where enforcement capacity, state presence, and deep socioeconomic pressures resist purely regulatory solutions.

— REGIONAL ADDED VALUE: ECONOMIES OF SCALE AND SHARED CAPABILITY

Across the evidence reviewed, a consistent finding emerges with direct implications for how regional cooperation should be resourced. Many of the capabilities required to effectively counter minerals crime – advanced forensic technologies, large-scale data analytics, high-resolution satellite monitoring, mineralogical characterization – exceed the optimal individual investment capacity of any single CAN Member Country. However, such capacity becomes viable and cost-effective when developed and maintained at the regional level. The Andean Community is therefore positioned not only as a coordination mechanism but as a vehicle for generating economies of scale: through regional information and intelligence platforms, shared specialist centres, and common operational and judicial protocols. This finding strengthens the case for viewing CAMI not as an occasional convening body but as a permanent technical mechanism.

48 MAAP, *Illegal Gold Mining in the Nanay River Basin*, 2025.

49 Comunidad Andina, *Dictamen N° 007-2025*, Secretaría General de la Comunidad Andina, 2025.

Section 4

Priorities for Coordinated Regional Action

The structural constraints identified above map directly onto the four pillars of the analytical framework and point to a clear set of priorities for coordinated regional action under the CAMI Action Plan 2025–2030. The pillars are not independent. Policy harmonization is the first pillar and the enabling condition without which the other pillars – operational coordination, financial integration, and traceability infrastructure – cannot function at the regional level.

— PILLAR 1 POLICY HARMONIZATION

The definitional and regulatory fragmentation documented throughout this analysis – divergent classifications of illegal mining, inconsistent treatment of CETMs, uneven predicate offence recognition – is not a peripheral concern. It is the mechanism through which criminal actors arbitrage across borders, exploit regulatory grey zones, and evade accountability even when evidence is available. Equally important is reorienting mineral supply-chain governance from an extraction-centric focus toward an integrated approach covering processing, transport, commercialization, and export.

Priority actions include:

* Advance minimum common standards on definitions of illegal mining and critical minerals to close the regulatory grey zones that enable cross-border arbitrage.
* Promote convergence in recognizing illegal mining as a predicate offence for money laundering, consistent with FATF standards, across all CAN Member Countries.
* Develop shared regional typologies and risk classifications for gold, polymetallic concentrates, and selected CETMs.
* Reorient mineral supply-chain governance from an extraction-centric focus toward an integrated approach covering processing, transport, commercialization, and export, with an emphasis on supply chain due diligence obligations in the trading sector in accordance with international standards, such as the OECD's.[50]

50 This is consistent with art 5.7 of the 774 Decision "Implementar el desarrollo de cadenas de suministro responsable de minerales, de conformidad con las buenas prácticas internacionalmente aceptadas"

- Integrate safeguards for human rights, Indigenous Peoples' rights, and environmental protection into harmonized frameworks to ensure legitimacy and sustainability of enforcement actions.

— PILLAR 2 INSTITUTIONAL AND OPERATIONAL COORDINATION

The decentralized and adaptive character of criminal networks in this sector – their capacity to reconfigure rapidly across territories, jurisdictions, and trading hubs in response to enforcement pressure – means that ad hoc bilateral cooperation is structurally insufficient. Pillar 2 priorities should move toward routine, sustained cross-border coordination mechanisms built on standing institutional platforms. The CCPI-Amazon model, which brings together liaison officers from multiple Pan-Amazonian countries in a permanent shared environment for intelligence exchange and joint operational planning, provides the clearest regional reference architecture. Scaling this model – including the incorporation of specialized prosecutorial delegates alongside law enforcement liaison officers – is the structural response the operational evidence points toward.

United Nations agencies are uniquely placed to support this transition, not as substitutes for national or regional authority, but as neutral conveners, technical partners, and standard-setters. In the Andean context, this means supporting joint investigation protocols under the CAMI Action Plan 2025–2030, facilitating peer-learning processes such as the forensic traceability exchanges initiated at the RANE held in Lima, Peru, 2025, and providing the sustained technical assistance that allows political commitment to translate into durable operational outcomes.

Priority Actions include:

- Move from ad hoc cooperation toward routine, sustained cross-border coordination mechanisms, building on existing CAN/CAMI structures and the standing platform model of CCPI-Amazon.
- Adopt structural investigation models prioritizing criminal organizations, facilitators, and command-and-control structures over site-based enforcement.
- Institutionalize joint investigation teams or equivalent standing arrangements with clear mandates, protocols, and sustainable resourcing.
- Strengthen comprehensive control of critical inputs (mercury, cyanide, explosives, fuels, and heavy machinery) through mandatory registries, technical marking, GPS tracking, and differentiated quota systems.
- Develop common operational risk indicators for high-risk corridors, ports, and processing nodes to enable shared early-warning systems across CAN Member Countries.
- Incorporate community-based monitoring and local early-warning systems as complementary inputs to enforcement in remote areas, alongside robust protection mechanisms for environmental defenders and Indigenous leaders.

— PILLAR 3 FINANCIAL INTELLIGENCE INTEGRATION

The persistence of illegal mining economies despite significant enforcement investment reflects a structural failure to disrupt the financial architecture that sustains them. The priority is to integrate parallel financial investigations into all operations targeting illegal mining and minerals trafficking. This means rebalancing performance metrics away from arrests and mineral seizures and toward financial disruption, asset recovery, and criminal decapitalization as primary indicators of operational success.

Priority actions include:

- Systematically integrate parallel financial investigations into all operations targeting illegal mining and minerals trafficking.
- Strengthen cooperation between financial intelligence units, tax authorities, prosecutors, and mining authorities on asset tracing, beneficial ownership analysis and disclosure, and trade-based money-laundering detection.
- Rebalance performance metrics toward financial disruption, asset recovery, and decapitalization alongside arrests and mineral seizures.
- Expand regional typology work on mineral-linked illicit financial flows through GAFILAT and CAMI cooperation.
- Use production-export discrepancies and ghost production indicators as systematic triggers for financial scrutiny.
- Support specialized training for financial investigators, prosecutors, and judges on complex corporate structures and cross-border asset recovery linked to mineral trade.

— PILLAR 4 INTEROPERABLE TRACEABILITY INFRASTRUCTURE

Several CAN Member Countries have already developed nationally significant traceability tools. This existing technical capacity confirms that the primary regional challenge is not building from scratch but achieving interoperability – aligning data standards, linking databases, and enabling cross-border anomaly detection across systems that currently cannot communicate with one another. On the forensic side, the most significant gap is the inability to link seized gold to specific mine sites across jurisdictional boundaries – an evidentiary weakness that systematically undermines prosecution outcomes and that can be addressed through the regional pooling of forensic capacity.

Priority actions include:

- Develop minimum regional data standards allowing comparability across mining cadastres, customs systems, and fiscal registries, prioritizing interoperability over uniformity.

- Prioritize mid-stream nodes, including processors, traders, and export points, in risk-based traceability approaches.
- Advance mandatory beneficial ownership transparency for licence-holders and mineral traders by fully implementing and extending EITI Requirement 2.5 across CAN Member Countries, and by ensuring that beneficial ownership registries are interoperable with financial intelligence units, customs, and tax authority systems.
- Pool access to high-cost forensic tools, including mineral fingerprinting, isotopic analysis, satellite monitoring, and trade data analytics, through regional cooperation rather than project-based deployment.
- Promote harmonized sampling, laboratory, and chain-of-custody protocols to strengthen evidentiary admissibility across jurisdictions.
- Advance interoperable traceability systems that combine physical marking, secure digital infrastructure, and data management tools to preserve provenance information across the supply chain, including at stages where material becomes difficult to distinguish through documentation alone. These systems should be embedded in nationally governed platforms and connected regionally.

Section 5

Conclusion

The evidence reviewed in this report points to a consistent finding: the governance gap in Andean minerals crime is not primarily a problem of missing legal instruments or absent political will. The Andean Community possesses a supranational legal architecture, an operational coordination platform in CAMI, and a growing body of practitioner experience that together constitute a serious foundation for regional action. The binding constraint is the failure to connect these elements into a system – aligning definitions, linking data, integrating financial investigations, and sustaining coordination across the full supply chain rather than concentrating pressure at the extraction site.

Criminal networks are already operating as regional systems; the governance response must match that scale. The window for anticipatory action on critical energy transition minerals is open but will not remain so indefinitely. The CAMI Action Plan 2025–2030 provides the political mandate; translating it into durable operational impact requires treating regional coordination not as a diplomatic exercise conducted periodically at high-level meetings, but as a permanent technical infrastructure – resourced, institutionalized, and accountable for outcomes beyond seizures and arrests.

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