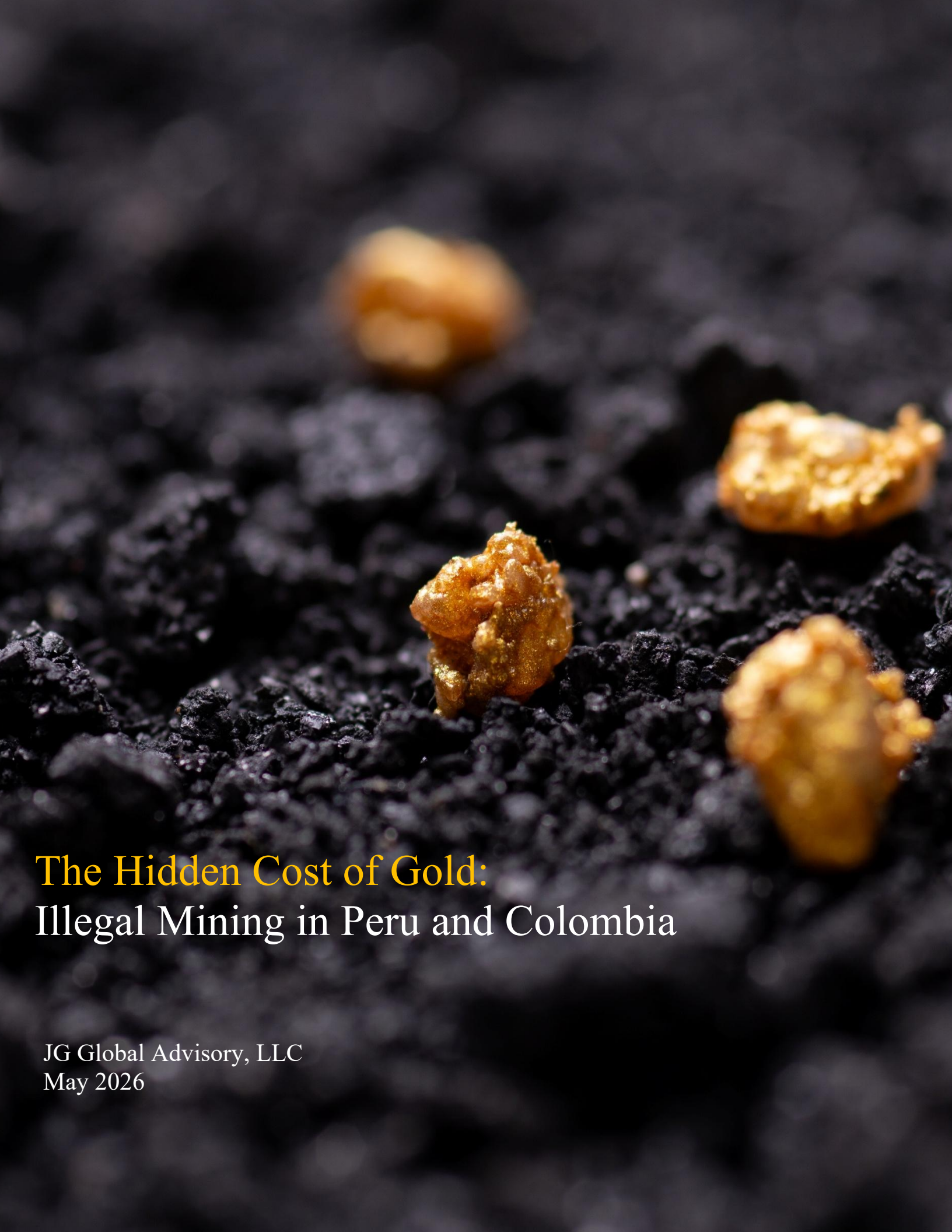

The Hidden Cost of Gold:
Illegal Mining in Peru and Colombia

JG Global Advisory, LLC
May 2026

ACKNOWLEDGEMENTS
JG Global Advisory, LLC would like to thank the researchers, practitioners, and organizations whose work and analysis informed this report. The co-authors Jessica Graham and Elisabeth Frick are particularly grateful to colleagues and reviewers who provided valuable feedback during the drafting process in particular Maggie Lober and Shannon Landheer.

This report draws upon publicly available reporting, academic literature, investigative journalism, and analysis from international organizations, civil society groups, and policy institutions cited throughout the publication.

DISCLAIMER
The findings, interpretations, and conclusions expressed in this report are those of the authors and do not necessarily reflect the views of JG Global Advisory, LLC, affiliated institutions, partner organizations, or governments.

COPYRIGHT
© 2026 JG Global Advisory, LLC. All rights reserved.

Cover image: Photograph by Shutterstock contributor “Showcake.”

No portion of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means without prior permission from JG Global Advisory, LLC except for brief quotations used in academic, journalistic, or policy analysis with appropriate citation.

TABLE OF CONTENTS

INTRODUCTION 1
CATEGORIZATION OF GOLD MINING ACTIVITY 2
EXTENT OF ILLEGAL GOLD MINING IN COLOMBIA AND PERU 3
INVOLVEMENT OF CRIMINAL GROUPS 5
LINKS TO DRUG TRAFFICKING 6
IMPEDIMENTS TO FORMALIZATION 6
ENFORCEMENT EFFECTIVENESS 8
MINING INPUTS 9
ENVIRONMENTAL IMPACT 10
LABOR VIOLATIONS 12
THREATS TO INDIGENOUS GROUPS 14
ILLEGAL GOLD LAUNDERING 15
CORRUPTION 16
RECOMMENDATIONS 16
CONCLUSION 23

ACRONYM LIST

AGC	Gaitanist Self-Defense Forces of Colombia (Autodefensas Gaitanistas de Colombia)
ASGM	Artisanal and Small-Scale Gold Mining
AUC	United Self-Defense Forces of Colombia (Autodefensas Unidas de Colombia)
DNI	Documento Nacional de Identidad (National Identity Document)
ELN	National Liberation Army (Ejército de Liberación Nacional)
FARC	Revolutionary Armed Forces of Colombia (Fuerzas Armadas Revolucionarias de Colombia)
FATF	Financial Action Task Force
GBI	Global Biodiversity Index
GFI	Global Financial Integrity
ILO	International Labor Organization
IOM	International Organization for Migration
IUCN	International Union for Conservation of Nature
NPAs	Natural Protected Areas
OAS	Organization of American States
PPP	Public Private Partnership
REINFO	Integrated Registry of Mining Formalization (Registro Integral de Formalización Minera)
RUCOM	Single Registry of Mineral Traders and Commercializers (Registro Único de Comercializadores de Minerales)
SAR	Suspicious Activity Report
UIAF	Financial Information and Analysis Unit (Unidad de Información y Análisis Financiero, Colombia)
UIF	Financial Intelligence Unit (Unidad de Inteligencia Financiera, Peru)
UNODC	United Nations Office on Drugs and Crime
USD	United States Dollar

INTRODUCTION

Transnational organized crime poses a serious threat to political stability, the rule of law, economic development, and the livelihoods of local communities. It fuels corruption, drives violence, and weakens state institutions.[1] Among its many forms, environmental crime has emerged as one of the most profitable, ranking fourth globally behind only drug trafficking, counterfeiting, and human trafficking.[2] A major component of this illicit economy is illegal mining, which generates an estimated USD 48 billion annually in criminal proceeds.[3] Illegal mining is also linked to severe human rights abuses, including debt bondage and sex trafficking, extensive environmental destruction, and a slew of financial crimes, including tax evasion, money laundering, and fraud.[4]

Illegal gold mining is particularly concerning due to its high profits, strong link to organized crime, and capacity to facilitate money laundering. Gold's immense value, portability, lack of traceability, and existing legal market make it a desirable option for illegal extraction. Over the last two decades, illegal gold mining activity has exploded, in large part driven by increased global demand, particularly following the 2008 financial crisis and the COVID-19 pandemic, as investors sought gold as a safe asset amid economic uncertainty.[5]

At the same time, intensified drug enforcement under the U.S.-led "War on Drugs", including in Latin America, increased the risks associated with narcotics trafficking and prompted criminal actors to diversify into alternative revenue streams.[6] Gold offered an appealing option: unlike cocaine, it can be easily integrated into legal supply chains and sold openly on international markets once laundered.[7] This legal façade has encouraged the involvement of multinational corporations and, in some cases, non-state armed groups, further entrenching illegal mining within global economic systems.

---

[1] United Nations Office on Drugs and Crime. (n.d.). *Illegal mining and trafficking in precious metals.* https://www.unodc.org/unodc/en/environment-climate/illegal-mining.html
[2] Duri, J. (2020). *Corruption and environmental crime in Latin America*. Transparency International. https://www.u4.no/corruption-and-environmental-crime-in-latin-america
[3] INTERPOL. (2022, April 28). *The devastating impact of illegal gold mining in Latin America.* https://www.interpol.int/en/News-and-Events/News/2022/The-devastating-impact-of-illegal-gold-mining-in-Latin-America
[4] UNODC, *Illegal mining and trafficking in precious metals.*
[5] Global Financial Integrity. (2021). *The gold standard: Addressing illicit financial flows in the Colombian gold sector through greater transparency*. https://gfintegrity.org/report/the-gold-standard-addressing-illicit-financial-flows-in-the-colombian-gold-sector-through-greater-transparency/
[6] Wagner, L. (2016). *Organized crime and illegally mined gold in Latin America*. The Global Initiative Against Transnational Organized Crime. https://globalinitiative.net/wp-content/uploads/2016/03/Organized-Crime-and-Illegally-Mined-Gold-in-Latin-America.pdf
[7] Organization of American States. (2022). *On the trail of illicit gold proceeds: Strengthening the fight against illegal mining finances: Colombia*. https://www.oas.org/en/sms/dtoc/docs/On-the-trail-of-illicit-gold-proceeds_Colombias-case.pdf

CATEGORIZATION OF GOLD MINING ACTIVITY

While gold mining associated with illegally armed groups and drug trafficking is clearly criminal, not all mining activity exists within the same legal or regulatory category. A key distinction must be made between illegal, informal, and artisanal and small-scale gold mining.

Illegal mining generally refers to mining activities conducted without officially registered titles or in violation of tax, environmental, labor, and administrative regulations.[8] Mining that occurs on protected land or that is directly controlled by criminal organizations is also considered illegal. For the scope of this paper, illegal mining will refer primarily to this definition, particularly mining activity conducted outside of legal frameworks and especially operations controlled, financed, or exploited by criminal groups.

In contrast, informal mining refers to mining activities that do not yet meet legal requirements but may be in the process of formalization. In some legal interpretations, mining can possess a valid government-issued title yet fail to comply with environmental or labor standards, rendering it legal but not fully formal. Importantly, informal miners should not necessarily be criminalized but should be encouraged to acquire the requirements for legal status.[9]

Artisanal and small-scale gold mining (ASGM) typically involves miners operating with little capital and limited access to state support. As a result, many lack official mining titles and do not meet administrative, environmental, and labor standards for legal status.[10] However, it is essential to distinguish between traditional, subsistence-based ASGM and heavily armed, well-financed criminal networks. Failure to make this distinction risks unfairly criminalizing vulnerable, low-income communities for whom ASGM often holds cultural and economic significance.[11] At the same time, many ASGM operators are highly vulnerable to exploitation by organized criminal groups, blurring the line between illegality and legality. Legislative gray areas further exacerbate this problem, creating loopholes that criminal actors exploit to infiltrate and control artisanal mining activities.[12]

---

[8] Wagner, L. (2016). *Organized crime and illegally mined gold in Latin America*. The Global Initiative Against Transnational Organized Crime. https://globalinitiative.net/wp-content/uploads/2016/03/Organized-Crime-and-Illegally-Mined-Gold-in-Latin-America.pdf

[9] Espin & Perz, 2021. Environmental crimes in extractive activities…

[10] Planet Gold. (n.d.). *ASGM 101: A primer on mercury use in artisanal and small-scale gold mining.* https://www.planetgold.org/asgm-101

[11] Global Financial Integrity. (2021). *The Gold Standard: Addressing Illicit Financial Flows in the Colombian Gold Sector through Greater Transparency.* https://gfintegrity.org/report/the-gold-standard-addressing-illicit-financial-flows-in-the-colombian-gold-sector-through-greater-transparency/

[12] Espin & Perz, 2021. Environmental crimes in extractive activities...

EXTENT OF ILLEGAL GOLD MINING IN COLOMBIA AND PERU

China ranks first globally in *reported* gold production, but many Latin American countries are not far behind.[13] Peru and Colombia are major producers of gold, specifically illegally mined gold. As of 2025, Peru is the largest gold producer in Latin America and the ninth largest globally. Today, illegal gold exports are estimated to be worth approximately USD 4.8 billion and USD 1 billion annually in Peru and Colombia, respectively.[14] Nearly 50% of Peru's total gold exports were mined illegally, while in Colombia this figure rises to 85%.[15] A large portion of this production comes from alluvial, or "riverbed" mining, a process that involves extracting gold from water sources through panning (barequeo), sluicing, and dredging.[16] These methods dominate informal and illegal mining operations across the region, particularly in areas where oversight of gold production is weak.

In Peru, illegal mining occurs across all 26 provinces, but the majority is concentrated in the remote and poorly monitored Madre de Dios region.[17] Widely known as the "capital of biodiversity", over 90% of Madre de Dios is covered in tropical forest ecosystems.[18] Virtually all mining in the region is conducted illegally and is characterized by minimal use of machinery, inefficient extraction methods, hazardous working conditions, and severe environmental degradation.[19] Weak infrastructure, limited government presence, and scarce legal economic opportunities have made Madre de Dios heavily dependent on illegal gold mining, particularly ASGM, which accounts for over half of all economic activity in the region. Estimates suggest that hundreds of thousands of individuals rely directly or indirectly on this extractive industry for their livelihoods, including employment in transportation, security, hospitality, and processing.[20] Some estimates suggest that up to 90% of the Madre de Dios population depends in some manner on

[13] Holmes, F. (2021, June 23). *Update: Top 10 gold producing countries.* Forbes. https://www.forbes.com/sites/greatspeculations/2021/06/23/updated-top-10-gold-producing-countries/?sh=78e87242ce2e
[14] Instituto Peruano de Economía. (2024). El Perú exporta el 44 % del oro ilegal de Sudamérica. IPE. https://ipe.org.pe/el-peru-exporta-el-44-del-oro-ilegal-de-sudamerica/
[15] Instituto Peruano de Economía. (2025, July 20). Las exportaciones de oro ilegal igualarían a las exportaciones legales por primera vez. IPE. Retrieved from https://ipe.org.pe/las-exportaciones-de-oro-ilegal-igualarian-a-las-exportaciones-legales-por-primera-vez/
[16] Langeland, A. (2015). *Impact of alluvial artisanal and small-scale gold mining in the Madre de Dios River Basin, Peru: Total mercury levels in human and farmed fish populations*. https://deepblue.lib.umich.edu/bitstream/handle/2027.42/113181/langeland_thesis_2015.pdf?sequence=3
[17] Bird, L. & Krauer, N. (2017). *Case study: Illicit gold mining in Peru*. The Global Initiative Against Transnational Organized Crime. https://globalinitiative.net/wp-content/uploads/2017/11/tgiatoc-case-study-peru-1878-web-lo-res.pdf
[18] IUCN Netherlands. (2024). Gold mining in Madre de Dios: Mercury in every body. https://www.iucn.nl/en/story/gold-mining-in-madre-de-dios-mercury-in-every-body/
[19] Espin, J. & Perz, S. (2021). Environmental crimes in extractive activities: Explanations for low enforcement effectiveness in the case of illegal gold mining in Madre de Dios, Peru. *Extractive Industries and Society, 8*(1), 331-339. https://doi.org/10.1016/j.exis.2020.12.009
[20] Kleinhenz, M. (2017). Illegal gold mining in Peru: A push toward formalization? *Perspectives on Business and Economics*, *35*(01), 23-31. https://preserve.lehigh.edu/perspectives-v35/1

the mining sector.[21] An array of secondary gold businesses, such as transport companies, processors, and construction firms, have flourished alongside the growing trade in the region.[22]

Although the Government of Peru has taken steps to restrict and regulate the extraction, processing, sale, and export of illegal gold, criminal groups continue to operate largely unimpeded, resulting in the expansion of illegal mining at a rate of over 6,000 hectares per year in Madre de Dios.[23] The profits, however, are not reported to the government, costing the country an estimated USD 450 million in lost tax revenue and ultimately hindering broader economic growth.[24]

Like Peru, Colombia has a gold sector that functions less as a source of economic opportunity and more as a catalyst for criminal activity. Illegally mined gold accounts for over 70% of national production, most of which is extracted in rural regions. Over 80% of the country's 17,000 mines lack the required mining titles or environmental permits.[25] Colombia has experienced a surge in illegal mining activity related to the country's history of armed conflict and urban shift. Many areas of Colombia became unlivable due to heavy armed conflict, leading to a migration of citizens to urban areas and leaving only 19% of the entire population behind in rural areas.[26] The people and economies in rural regions were largely forgotten, making them even more vulnerable to the control of criminal groups.

Most illegal mining activity is concentrated in the two western departments of Antioquia and Chocó, which also exhibit some of the highest multidimensional poverty levels in the country. Chocó is inhabited primarily by Indigenous and Afro-Colombian communities, most of whom depend on ASGM for their livelihoods.[27] The intrusion of criminal groups has led to a surge in violence against local communities and the displacement of local artisanal subsistence miners across all departments where illegal mining occurs. Due to negligible government oversight in

[21] Wagner, L. (2016). *Organized crime and illegally mined gold in Latin America*. The Global Initiative Against Transnational Organized Crime. https://globalinitiative.net/wp-content/uploads/2016/03/Organized-Crime-and-Illegally-Mined-Gold-in-Latin-America.pdf
[22] Organization of American States. (2021). On the trail of illicit gold proceeds: Strengthening the fight against illegal mining finances: Peru's case. Secretariat for Multidimensional Security. On the trail of illicit gold proceeds: - Peru's case.pdf.
[23] Asner, G. P., & Tupayachi, R. (2017). Accelerated losses of protected forests from gold mining in the Peruvian Amazon. Environmental Research Letters, 12(9), 094004.
[24] Kleinhenz, M. (2017). Illegal gold mining in Peru: A push toward formalization? *Perspectives on Business and Economics*, *35*(01), 23-31. https://preserve.lehigh.edu/perspective
[25] Global Financial Integrity. (2021). *The Gold Standard: Addressing Illicit Financial Flows in the Colombian Gold Sector through Greater Transparency.* https://gfintegrity.org/report/the-gold-standard-addressing-illicit-financial-flows-in-the-colombian-gold-sector-through-greater-transparency/
[26] Global Financial Integrity. (2021). *The Gold Standard: Addressing Illicit Financial Flows in the Colombian Gold Sector through Greater Transparency.* https://gfintegrity.org/report/the-gold-standard-addressing-illicit-financial-flows-in-the-colombian-gold-sector-through-greater-transparency/
[27] Global Financial Integrity. (2021). *The Gold Standard: Addressing Illicit Financial Flows in the Colombian Gold Sector through Greater Transparency.* https://gfintegrity.org/report/the-gold-standard-addressing-illicit-financial-flows-in-the-colombian-gold-sector-through-greater-transparency/

these areas, criminal groups have been able to establish and manage vast illegal mining operations, without regard for labor laws, environmental regulations, or land rights.

INVOLVEMENT OF CRIMINAL GROUPS

In both Peru and Colombia, armed criminal groups play a central role in the production, financing, and export of illegally mined gold, frequently through the coercion and extortion of artisanal and small-scale miners. These criminal groups act as de facto regulators, supplying machinery, fuel, mercury, and security, while extracting profits from both gold sales and the compulsory fees, known as "vacunas", imposed on local communities.[28]

Compared to other Latin American countries, Colombia exhibits a particularly deep and geographically widespread entanglement between illegal armed groups and the extractive sector, a legacy of decades of internal armed conflict and weak state presence in rural areas. According to Organization of American States (OAS), more than 70% of Colombia's gold is produced by illegal armed groups, including the National Liberation Army (ELN), the neo-paramilitary Gaitanist Self-Defense Forces of Colombia (AGC) and dissident factions of the demobilized Revolutionary Armed Forces of Colombia (FARC).[29] Although former President Juan Manuel Santos came to a historic peace agreement with the FARC, the deal did not address the group's heavy participation in illegal gold mining, and FARC-D remains active throughout parts of Colombia.[30] Today, illegal mining is estimated to be the ELN's primary source of income.[31] These groups also profit from engaging in trade-based money laundering, using illegal gold exports to launder proceeds from narcotics and other criminal activities.

Efforts to regulate Colombia's mining sector have largely failed due to the difficulty of distinguishing informal mining from criminal operations, especially in regions where livelihoods depend on artisanal extraction. In some cases, legally registered mining companies have outsourced services to shell companies controlled by armed groups, enabling criminal profits to

[28] Duri, J. (2020). *Corruption and environmental crime in Latin America*. Transparency International. https://www.u4.no/corruption-and-environmental-crime-in-latin-america
[29] Organization of American States. (2022). *On the trail of illicit gold proceeds: Strengthening the fight against illegal mining finances – Colombia's case*. Organization of American States, Department against Transnational Organized Crime. https://www.oas.org/en/sms/dtoc/docs/On-the-trail-of-illicit-gold-proceeds_Colombias-case.pdf
[30] Stimson Center. (2016, December 14). *The threat of illegal gold mining in a post-FARC Colombia.* https://medium.com/natural-security-forum/the-threat-of-illegal-gold-mining-in-a-post-farc-colombia-ff83d295fe7#.77hdmsycv
[31] Organization of American States. (2022). *On the trail of illicit gold proceeds: Strengthening the fight against illegal mining finances – Colombia's case*. Organization of American States, Department against Transnational Organized Crime. https://www.oas.org/en/sms/dtoc/docs/On-the-trail-of-illicit-gold-proceeds_Colombias-case.pdf

enter the formal economy. Colombian authorities have in recent years arrested executives from the country's largest gold-exporting firms for links to illegal mining and money laundering.

LINKS TO DRUG TRAFFICKING

Illegal gold mining and drug trafficking are closely interconnected criminal economies in both Peru and Colombia, with overlapping actors, financing streams, and territorial control. While coca cultivation and cocaine trafficking have long dominated organized crime in the region, illegal gold mining has emerged as an increasingly important and even more lucrative source of income for criminal groups. As former Colombian President Juan Manuel Santos observed, "criminal mining brings more money to criminal groups, to guerilla groups, to mafias… than drug trafficking".[32]

Although illegal mining is more lucrative, drug trafficking remains deeply embedded within the sector. Revenues from drug trafficking are used to fund illegal gold mining operations, including the purchase of heavy machinery and chemical inputs such as mercury.[33] At the same time, the high density of workers at illegal mining sites has provided a steady consumer base for traffickers, turning mining zones into lucrative local drug markets. This mutually reinforcing relationship has further entrenched both industries, deepening cycles of violence, exploitation, and criminal control.

IMPEDIMENTS TO FORMALIZATION

For ASGM operators, the path to formalization faces many barriers. High administrative costs, bureaucratic red tape, and stringent environmental requirements often prevent ASGM miners from completing the process.[34] A lack of coordination among relevant governmental authorities further complicates the formalization process, resulting in confusion, delays, additional costs, and reprocessing.

[32] Global Financial Integrity. (2021). *The Gold Standard: Addressing Illicit Financial Flows in the Colombian Gold Sector through Greater Transparency.* https://gfintegrity.org/report/the-gold-standard-addressing-illicit-financial-flows-in-the-colombian-gold-sector-through-greater-transparency/

[33] Organization of American States. (2021). On the trail of illicit gold proceeds: Strengthening the fight against illegal mining finances: Peru's case. Secretariat for Multidimensional Security. On the trail of illicit gold proceeds: - Peru's case.pdf.

[34] Berg, R., Ziemer, H. & Kohan, A. (2021, December 20). *A closer look at Colombia's illegal, artisanal, and small-scale mining*. Center for Strategic and International Studies. https://www.csis.org/analysis/closer-look-colombias-illegal-artisanal-and-small-scale-mining#:~:text=According%20to%20the%20United%20Nations

In Peru, the government attempted to mitigate these barriers through the creation of the Integrated Registry of Miner Formalization (REINFO). However, the initiative has achieved limited success. At one point only 2% of the 90,000 miners who had started the formalization process made it through to completion.[35] Compounding these challenges, criminal networks have exploited REINFO to launder illegally sourced gold. This has been facilitated by a provision that prevents the criminal prosecution of individuals in the formalization process, creating an unintended loophole for illicit actors. Similarly, despite Colombia's efforts to simplify its formalization and title registration procedures, these processes remain beyond the reach of most ASGM operators.[36]

One of the main barriers to formalization is the rigidity of environmental regulations. In Colombia, these requirements are especially burdensome, following the nationwide ban on mercury use in mining in 2018.[37] Informal ASGM operators often lack the financial capital to purchase legal and equally effective alternatives. Many also cannot afford approved machinery and supplies. In Peru, small-scale mining operations, regardless of their legality, are prohibited from using heavy machinery, including front-loaders, dredges, or dump trucks.[38] As a result, many ASGM are forced to rely on criminal organizations to access proper, cost-effective equipment, further entrenching them in illegality and undermining their prospects for formalization.[39]

The failure to achieve formal legal status restricts ASGM miners' access to legal markets and translates into weakened gold supply chains. Those unable to complete the process are forced to sell gold on the black market for only 60-70% of the international standard price. In addition, these transactions bypass royalty payments, contributing to fiscal losses and economic instability.[40]

However, national level inefficiencies alone do not incentivize formalization. Informal mining practices find significant success outside the boundaries of regulatory frameworks. By

[35] Organization of American States. (2021). On the trail of illicit gold proceeds: Strengthening the fight against illegal mining finances: Peru's case. Secretariat for Multidimensional Security. On the trail of illicit gold proceeds: - Peru's case.pdf.
[36] Berg, R., Ziemer, H. & Kohan, A. (2021, December 20). A closer look at Colombia's illegal, artisanal, and small-scale mining. Center for Strategic and International Studies. https://www.csis.org/analysis/closer-look-colombias-illegal-artisanal-and-small-scale-mining
[37] Colombian Government. (2013). Ley 1658 de 2013 ley-1658-2013.pdf
[38] Kleinhenz, M. (2017). Illegal gold mining in Peru: A push toward formalization? *Perspectives on Business and Economics*, *35*(01), 23-31. https://preserve.lehigh.edu/perspectives
[39] Organization of American States. (2021). On the trail of illicit gold proceeds: Strengthening the fight against illegal mining finances: Peru's case. Secretariat for Multidimensional Security. On the trail of illicit gold proceeds: - Peru's case.pdf.
[40] Global Financial Integrity. (2021). *The Gold Standard: Addressing Illicit Financial Flows in the Colombian Gold Sector through Greater Transparency.* https://gfintegrity.org/report/the-gold-standard-addressing-illicit-financial-flows-in-the-colombian-gold-sector-through-greater-transparency/

operating through the legal loopholes, ASGM miners avoid bureaucratic red tape. A 2023 study found that 73% of interviewed miners did not consider informality inconvenient, citing a lack of oversight by regulators.[41] Consequently, formalization remains not only inaccessible but also insufficiently incentivized, offering little tangible benefit compared to remaining informal.

These challenges are often compounded by a disorganized formalization process in which multiple groups are frequently granted formal rights to use the same land for different activities. A 2023 spatial analysis of land use rights in Peru found 22,213 hectares with three overlapping permitted uses and 596,661 hectares with two overlapping uses. These overlapping claims include land designated simultaneously for legal mining, protected natural areas (NPAs) and their buffer zones, and Indigenous territories. Mining concessions are particularly affected, with the 2023 analysis finding 341,746 hectares of land formally allocated for mining overlapped with other land uses—81% with forestry concessions, 13% with NPAs, and 11% with titled Indigenous land.[42] This widespread overlap creates legal uncertainty, contributes to conflict, and undermines the credibility and effectiveness of the formalization process.

ENFORCEMENT EFFECTIVENESS

Illegal gold mining has persisted widely across Colombia and Peru in part due to weak governance, rule of law, and law enforcement. The two leading reasons for ineffective enforcement are a lack of interagency collaboration and poor resource allocation to regional and local levels.[43] Additional challenges include minimal funding, corruption, and technical knowledge of the mining industry. Government interventions in illegal gold mining operations have typically followed an approach based on the destruction of heavy machinery and confiscation of processing chemicals.[44] While highly visible, these methods have only temporarily halted illegal mining activity and represent an inefficient use of public funds. Similarly, efforts to restrict or entirely ban the use of illegal mining inputs, such as certain machinery and chemicals,

[41] Malca, U. F. G., Dunin-Borkowski, A. S., Bustamante, N. F., Reaño, M. J. M., & Armas, J. M. G. (2023). Alluvial gold mining, conflicts, and state intervention in Peru's southern Amazonia. The Extractive Industries and Society, 13, 101219. https://www.sciencedirect.com/science/article/pii/S2214790X23000102
[42] Malca, U. F. G., Dunin-Borkowski, A. S., Bustamante, N. F., Reaño, M. J. M., & Armas, J. M. G. (2023). Alluvial gold mining, conflicts, and state intervention in Peru's southern Amazonia. The Extractive Industries and Society, 13, 101219. https://www.sciencedirect.com/science/article/pii/S2214790X23000102
[43] Espin, J., & Perz, S. (2021). Environmental crimes in extractive activities: Explanations for low enforcement effectiveness in the case of illegal gold mining in Madre de Dios, Peru. The Extractive Industries and Society, 8(1), 331–339. https://doi.org/10.1016/j.exis.2020.12.009
[44] Kaufmann, C. & Côte, M. (2021). Frames of extractivism: Small-scale goldmining formalization and state violence in Colombia. *Political Geography. 91,* 102496. https://doi.org/10.1016/j.polgeo.2021.102496

have had unintended consequences. Because criminal groups control many of these supply chains, such policies have further increased ASGM miners' dependence on illicit networks.[45]

MINING INPUTS

Gold mining requires significant inputs, including heavy machinery, explosives, fuel, and most notably, mercury. In the case of illegal mining, these inflows are obtained unlawfully and are controlled by armed criminal groups. Procurement often involves cross-border smuggling, threats, bribery of government officials, and extortion of legal operators.[46] In Peru, the construction of the Interoceanic Highway, a 2,600 kilometer road network including 22 bridges, has enabled the transport of contraband supplies to remote mining sites, unintentionally enabling the expansion of illegal mining.[47]

Mercury plays a central role in gold extraction, where it forms an amalgam with gold particles. Workers, typically women and children, separate this amalgam by hand and heat it to evaporate the mercury, leaving behind purified gold. Mercury is highly toxic and causes permanent damage to the nervous system, inflammation of vital organs, shock, and death.[48] Common symptoms of exposure include sensory issues, difficulty breathing, skin lesions, tremors, memory loss, and reduced motor function. Community leaders in Chocó describe how "you see women with skin blemishes on their bodies as a result of exposure to chemicals used in mining" and that "sometimes you see babies with deformities".[49] Every year, over 30 tons of mercury end up in Amazonian rivers and lakes, resulting in contamination levels 34 times higher than what is considered safe for pregnant women.[50] A 2013 study found that nearly 60% of the fish sold at markets in Puerto Maldonado in Peru contained mercury levels far surpassing international safety limits.[51]

---

[45] Espin, J., & Perz, S. (2021). Environmental crimes in extractive activities: Explanations for low enforcement effectiveness in the case of illegal gold mining in Madre de Dios, Peru. The Extractive Industries and Society, 8(1), 331–339. https://doi.org/10.1016/j.exis.2020.12.009

[46] Organization of American States. (2022). *On the trail of illicit gold proceeds: Strengthening the fight against illegal mining finances – Colombia's case*. Secretariat for Multidimensional Security. https://www.oas.org/en/sms/dtoc/docs/On-the-trail-of-illicit-gold-proceeds_Colombias-case.pdf

[47] Bird, L., & Krauer, N. (2017). *Case study: Illicit gold mining in Peru.* The Global Initiative against Transnational Organized Crime. https://globalinitiative.net/tgiatoc-case-study-peru.pdf

[48] Esdaile, L. & Chalker, J. (2018). The mercury problem in artisanal and small-scale gold mining. *Chem. Eur. J., 24*(27), 6905-6916. https://doi.org/10.1002/chem.201704840

[49] Winstanley, L. (2016, October 31). *The devastating environmental and social impact of gold mining in Chocó, Colombia*. Centre for Latin American and Caribbean Studies. https://latinamericandiaries.blogs.sas.ac.uk/2016/10/31/the-devastating-environmental-and-social-impact-of-gold-mining-in-choco-colombia/

[50] Bird, L., & Krauer, N. (2017). *Case study: Illicit gold mining in Peru.* The Global Initiative against Transnational Organized Crime. https://globalinitiative.net/wp-content/uploads/2017/11/tgiatoc-case-study-peru-1878-web-lo-res.pdf

[51] Carnegie Institution for Science. (2013). *Mercury in Madre de Dios: Mercury concentrations in fish and humans in Puerto Maldonado*. https://www-legacy.dge.carnegiescience.edu/research/CAMEP/CAMEP%20Research%20Brief%20-%20Puerto%20Maldonado%20English%20-%20FINAL.pdf

Despite being banned under Colombian Law 1658 of 2013, mercury use remains widespread due to its favorable cost-benefit analysis.[52] Colombia continues to rank among the world's largest mercury polluters, excreting between 50 and 100 tons annually.[53] Similarly, although Peru introduced a registry of authorized mercury users, the substance remains pervasive in domestic and regional criminal markets. An investigation by C4ADS in 2020 showed that many registered users were flagged on a national database of mining concessions for having past illegal activity.[54] According to the Government of Peru, almost 50,000 people across roughly 85,000 square kilometers have been significantly impacted by mercury pollution.[55] Beyond its severe health risks to humans, mercury use also contaminates surrounding ecosystems.

ENVIRONMENTAL IMPACT

Colombia and Peru rank third and seventh, respectively on the Global Biodiversity Index (GBI), which measures national biodiversity by comparing the number of species across vascular plants, mammals, reptiles, birds, amphibians, and fish.[56] Colombia has the largest number of bird species in the world, and within the country, the department of Chocó alone is home to over 50% of the country's bird species. Unfortunately, Chocó is also an area with some of the highest rates of illegal mining, accounting for nearly half of all illegal mining across Colombia.[57] If the Amazon is considered the "lungs of our planet", illegal gold mining is the cancer.

Despite the extraordinary ecological wealth of the region, illegal mining and its reliance on mercury has caused severe environmental degradation and contamination, threatening both countries' once pristine ecosystems. Biodiversity mapping of alluvial gold mining zones in Colombia identified more than 4,500 plant and animal species within affected areas, including over 400 endemic species. Several species present in these regions are classified as Critically Endangered, Endangered, or Vulnerable on the International Union for Conservation of Nature (IUCN) Red List of Threatened Species, the world's leading global inventory of species' extinction

[52] Cardona, A. (2018, August 1). *Colombia bans the use of mercury in mining*. Mongabay. https://news.mongabay.com/2018/08/colombia-bans-the-use-of-mercury-in-mining
[53] Pure Earth. (2021, June 1). *Investigating and mapping mercury contamination in Colombia.* https://www.pureearth.org/investigating-mercury-contamination-in-colombia/
[54] Peyronnin, H. (2020, May 11). *Poison pathways: Peru's illicit trade in mercury*. C4ADS. https://c4ads.org/commentary/2020-5-11-poison-pathways/
[55] Kleinhenz, M. (2017). Illegal gold mining in Peru: A push toward formalization? *Perspectives on Business and Economics*, *35*(01), 23-31. https://preserve.lehigh.edu/perspectives
[56] WorldAtlas. (2022). *The 10 most biodiverse countries in the world*. Retrieved from https://www.worldatlas.com/nature/the-10-most-biodiverse-countries-in-the-world.html
[57] Organized Crime and Corruption Reporting Project. (2021, August 24). *How illegal mining fuels pollution and corruption in Colombia's northwest*. OCCRP. Retrieved from https://www.occrp.org/en/investigation/how-illegal-mining-fuels-pollution-and-corruption-in-colombias-northwest

risk.[58] Additionally, over half of all alluvial gold extraction occurs in prohibited regions, including protected nature reserves.[59]

Alluvial gold mining has led to widespread mercury pollution, rapid deforestation, soil degradation, and biodiversity loss. This process involves massive stretches of Amazonian rainforest being cleared and burned, after which land is flooded to provide miners access to the alluvial soil.[60] Such environmental disruption fundamentally alters hydrological systems and weakens soil stability, leaving landscapes highly vulnerable to erosion and slope failure. In Latin America, Colombia and Peru are among the country's most affected by landslides, with deforestation playing a critical role in destabilizing terrain and increasing landslide risk. In Colombia, a landslide inventory for the period between 1900 and 2018, reveals 30,730 landslides with more than 34,000 fatalities during this period.[61] The Government of Colombia reported that 50% of deforestation epicenters coincided with illegal mining activity.[62] Estimates indicate that remediating the damage from decades of mining activity would require over USD 11 billion and more than 25 years.[63]

The environmental threats in Peru are similar. In Madre de Dios, deforestation is occurring at an accelerated rate, with the extent of primary forest loss more than doubling in 2024 compared to 2025.[64] In the past two decades, the region has lost 301,755 hectares of forest, largely due to illegal mining, which has transformed intact rainforest into degraded landscapes marked by contaminated waterways and unstable soils.[65] This environmental degradation threatens local livelihoods such as agriculture and fishing, forcing communities into greater dependence on illegal mining for income.

[58] Global Financial Integrity. (2021). *The Gold Standard: Addressing Illicit Financial Flows in the Colombian Gold Sector through Greater Transparency.* https://gfintegrity.org/report/the-gold-standard-addressing-illicit-financial-flows-in-the-colombian-gold-sector-through-greater-transparency/

[59] Organization of American States. (2022). On the trail of illicit gold proceeds: Strengthening the fight against illegal mining finances – Colombia's case. Secretariat for Multidimensional Security. https://www.oas.org/en/sms/dtoc/docs/On-the-trail-of-illicit-gold-proceeds_Colombias-case.pdf

[60] Wagner, L. (2016). *Organized crime and illegally mined gold in Latin America*. The Global Initiative Against Transnational Organized Crime. https://globalinitiative.net/wp-content/uploads/2016/03/Organized-Crime-and-Illegally-Mined-Gold-in-Latin-America.pdf

[61] Aristizábal E, Sanchez O (2020) Spatial and temporal patterns and the socioeconomic impacts of landslides in the tropical and mountainous Colombian Andes. https://onlinelibrary.wiley.com/doi/10.1111/disa.12391

[62] Wagner, L. (2016). *Organized crime and illegally mined gold in Latin America*. The Global Initiative Against Transnational Organized Crime. https://globalinitiative.net/wp-content/uploads/2016/03/Organized-Crime-and-Illegally-Mined-Gold-in-Latin-America.pdf

[63] Jones, S. (2016, April 7). *Illegal gold mining drives human rights abuses in Latin America, claims study*. The Guardian. https://www.theguardian.com/global-development/2016/apr/07/illegal-gold-mining-drives-human-rights-abuses-in-latin-america-claims-giatoc-study

[64] Global Forest Watch (2025), Madre de Dios, Peru Deforestation Rates & Statistics, https://www.globalforestwatch.org/dashboards/country/PER/18

[65] El Comercio (7 June 2024), "Minería ilegal en Madre de Dios ha devastado el equivalente a toda Lima Metropolitana", https://elcomercio.pe/peru/madre-de-dios/mineria-ilegal-en-madre-de-dios-ha-devastado-el-equivalente-a-toda-lima-metropolitanaruana-noticia/

LABOR VIOLATIONS

Gold mining operations often violate internationally recognized core labor standards established by the International Labor Organization (ILO), including protections against forced labor, hazardous work, and child labor.[66] Characteristic of both artisanal and small-scale mining and criminal mining, workers endure long hours in dangerous conditions and are routinely exposed to highly toxic chemicals. There has even been a rise in malaria cases around gold mines, as the stagnant water in which workers stand creates ideal breeding grounds for mosquitos.[67]

Indigenous populations face heightened vulnerability to employment in mining for two primary reasons. First, the intrusion of illegal mining activity decimates the environment, and their livelihoods along with it, and second, most have not acquired a national identity card (DNI), preventing them from obtaining employment in legal sectors. Miners are unable to escape due to the remote nature of the mines, threats of, violence, and surveillance and the cooperation of informants. Interviewed workers have reported deceptive recruitment, forced overtime, limited freedom of mobility, isolation, physical abuse, and horrendous living conditions.

Forced labor and labor trafficking are characteristic of illegal gold mining in Peru and Colombia. Recruiters known as *enganchadores,* along with human traffickers, travel to rural communities promising locals high-paying jobs at mining sites.[68] Recruited workers are often given an "advance payment", to which they are later indebted in a debt-bondage system known as *habilitación-enganche.*[69] Research conducted by the International Organization for Migration (IOM) in Peru uncovered that 90% of labor trafficking victims in extractive sectors were male, particularly young men from Cusco, Puno, Arequipa, and Apruimac.[70]

In Colombia, nearly 80% of the country's gold comes from transitional zones that double as key trafficking corridors, from Bajo Cauca and the Serranía de San Lucas to the Micay Canyon and the Telembí triangle.[71] Indigenous and rural populations are especially vulnerable to recruitment into mining for two primary reasons: first, illegal mining activity degrades the

[66] International Labour Organization. (1998). *ILO Declaration on Fundamental Principles and Rights at Work*. Geneva: ILO. https://www.ilo.org/declaration
[67] Berg, R., Ziemer, H. & Kohan, A. (2021, December 20). *A closer look at Colombia's illegal, artisanal, and small-scale mining*. Center for Strategic and International Studies. https://www.csis.org/analysis/closer-look-colombias-illegal-artisanal-and-small-scale-mining
[68] Kleinhenz, M. (2017). Illegal gold mining in Peru: A push toward formalization? *Perspectives on Business and Economics*, *35*(01), 23-31. https://preserve.lehigh.edu/perspectives
[69] Verité. (2013). Risk analysis of indicators of forced labor and human trafficking in illegal gold mining in Peru. https://verite.org/resource/risk-analysis-of-indicators
[70] Verité. (2013). Risk analysis of indicators of forced labor and human trafficking in illegal gold mining in Peru. https://verite.org/resource/risk-analysis-of-indicators
[71] Instituto Peruano de Economía (November 2024), *El Perú exporta el 44 % del oro ilegal de Sudamérica,* https://ipe.org.pe/el-peru-exporta-el-44-del-oro-ilegal-de-sudamerica/

environment and undermines traditional livelihoods such as agriculture and fishing; and second, many individuals lack national identity documentation (DNI), limiting their access to formal employment opportunities.

Once at mining sites, workers face severe restrictions on their mobility due to the remote location of the mines, threats of violence, constant surveillance, and the presence of informants. Testimonies from interviewed workers describe deceptive recruitment practices, forced overtime, limited freedom of movement, isolation, physical abuse, and extremely poor living conditions.

OCCURRENCE OF SEX TRAFFICKING

Similar patterns of exploitation are experienced by the countless victims of sex trafficking linked to illegal gold mining. Sexual slavery has become commonplace, especially since most criminal groups involved in mining are simultaneously involved in human trafficking. As with labor trafficking, women and girls are frequently lured with false promises of jobs as waitresses, cooks, or store clerks. In many cases, family members themselves sell women and girls into the sex trade. Others are forced into prostitution to pay off debts owed to organized criminal groups.[72]

At a mine run by the family of a former United Self-Defense Forces of Colombia (AUC) leader in Sur de Bolívar, Colombia, roughly 1,5000 sex workers were employed and controlled by a nearby narco-paramilitary group.[73] In Peru, organized crime groups, low-level recruiters, and even miners' wives utilize similar methods to entrap women and girls in sex slavery. In the area around La Rinconada, a major illegal mining hub, up to 4,500 girls were trafficked in 2016 alone.[74] Additional research indicates that roughly 2,000 sex workers were employed across 100 brothels in Delta 1, a mining area in Madre de Dios, with an estimated 60% being children, including girls as young as 12 years old.[75] Some of these girls are forced to sell their virginity under threats of harm to their family.[76]

---

[72]Organization of American States. (2021). On the trail of illicit gold proceeds: Strengthening the fight against illegal mining finances: Peru's case. Secretariat for Multidimensional Security. https://www.oas.org/en/sms/dtoc/docs/On-the-trail-of-illicit-gold-proceeds-Peru-case.pdf

[73]Wagner, L. (2016). Organized crime and illegally mined gold in Latin America. The Global Initiative Against Transnational Organized Crime. https://globalinitiative.net/wp-content/uploads/2016/03/Organized-Crime-and-Illegally-Mined-Gold-in-Latin-America.pdf

[74]Amazon Aid Foundation. (n.d.). *Gold mining in Amazon countries: An overview.* https://amazonaid.org/trackingamazongold/gold-mining/

[75]Moloney, A. (2016, March 30). *Sex trafficking 'staggering' in illegal Latin American mines: researchers.* Reuters. https://www.reuters.com/article/us-latam-trafficking-mines/sex-trafficking-staggering-in-illegal-latin-american-gold-mines-researchers-idUSKCN0WW21U

[76]Hill, D. (2016, May 1). *Gold-mining in Peru: Forests razes, millions lost, virgins auctioned.* The Guardian. https://www.theguardian.com/environment/andes-to-the-amazon/2016/may/01/gold-mining-in-peru-forests-razed-millions-lost-virgins-auctioned

Like forced laborers, trafficked women and girls are prevented from leaving due to threats, violence, physical isolation, and the complicity of transport service providers with organized criminal groups. Unfortunately, local government officials have been reported to display sexist attitudes toward victims and blame them for agreeing to travel to mining regions.[77] Complicating the matter, law enforcement efforts are primarily focused on arms and drug trafficking, rather than human trafficking for forced labor and sexual exploitation. As a result, sex trafficking remains a deeply entrenched and largely unaddressed consequence of illegal gold mining in Peru and Colombia.

THREATS TO INDIGENOUS GROUPS

In regions affected by illegal mining, Indigenous and Afro-Colombian communities are particularly vulnerable to human trafficking. These groups are also disproportionately threatened by physical displacement and violence. The mines are often established on ancestral lands. In the Choco department of Colombia, 96% of land is owned either by Indigenous or Afro-descendant communities.[78]

The environmental destruction caused by mining, both legal or illegal, severely damages local agriculture and fishing potential, eliminating traditional livelihoods. Indigenous and Afro-Colombian communities are then forced to either move or participate in illegal mining and related activities. Displacement has reached staggering levels, affecting an estimated 8 to 10 million hectares in Colombia.[79] Although many assume the scale of displacement stems from armed conflict, extractive industries such as illegal mining are responsible for approximately 87% of displacement cases.[80]

Similar patterns are observed in Peru, where illegal miners have encroached into Bahuaja Sonene National Park, forcing the Indigenous Ese'eja community from their ancestral lands.[81] Displacement is not caused solely by armed groups; multinational corporations also play a

[77] Wagner, L. (2016). *Organized crime and illegally mined gold in Latin America*. The Global Initiative Against Transnational Organized Crime. https://globalinitiative.net/wp-content/uploads/2016/03/Organized-Crime-and-Illegally-Mined-Gold-in-Latin-America.pdf
[78] Winstanley, 2016. *The devastating environmental…*
[79] Global Financial Integrity. (2021). *The Gold Standard: Addressing Illicit Financial Flows in the Colombian Gold Sector through Greater Transparency.* https://gfintegrity.org/report/the-gold-standard-addressing-illicit-financial-flows-in-the-colombian-gold-sector-through-greater-transparency/
[80] Wagner, L. (2016). *Organized crime and illegally mined gold in Latin America*. The Global Initiative Against Transnational Organized Crime. https://globalinitiative.net/wp-content/uploads/2016/03/Organized-Crime-and-Illegally-Mined-Gold-in-Latin-America.pdf
[81] Peruvian Society of Environmental Law. (2015, November 25). *Minería illegal llegó a RN Tambopata y ahora amenaza a Parque Nacional Bahuaja Sonene*. https://www.actualidadambiental.pe/mineria-ilegal-llego-a-rn-tambopata-y-ahora-amenaza-a-parque-nacional-bahuaja-sonene/

significant role. In both countries, local communities have expressed concerns that the government is pushing them out in favor of these highly profitable multinational corporations.[82] Peru's government has even granted mining concessions to corporations with blatant disregard for the existing land rights belonging to Indigenous groups or the land being protected.[83] Without stronger legislation and enforcement, Indigenous land rights in mining regions will remain inadequately protected and vulnerable to ongoing rights violations and exploitation.

ILLEGAL GOLD LAUNDERING

The discussion of illegal gold mining in Peru and Colombia would not be complete without mention of illegal gold laundering. For illegally sourced gold to enter the existing legal market, it must first be laundered. This process is significantly easier than laundering proceeds from drug trafficking, as gold typically needs to be laundered only once before it can be bought and sold freely across international markets.[84] It only needs to be laundered once, and then it can be bought and sold freely across international markets. Laundering is accomplished through the creation of false documents, cross-border smuggling, selling through front export companies, and exploitation of legal operators. Gold traders often collaborate with plant processors and registered miners, sometimes knowingly and sometimes under coercion, to pass illegally sourced gold as legitimate. In 2020, Peruvian authorities arrested 18 members of the criminal group "Los Topos" for illegal gold laundering. Four of the individuals were registered under REINFO and utilized its status to legitimize tens of millions of dollars in illicit gold.[85] Similarly, in Colombia, gold traders bribe legal ASGM miners registered in the Single Registry of Mineral Traders and Commercializers (RUCOM)--the national registry of authorized mineral traders and commercializers—to falsely claim illegal gold as their own.[86] In many cases, these operations rely heavily on corrupt officials who approve and maintain fake registrations.

[82] Sanchez, 2017. *Illegal gold mining fuels violence in Colombia.*
[83] Bird, L., & Krauer, N. (2017). Case study: Illicit gold mining in Peru. The Global Initiative against Transnational Organized Crime. https://globalinitiative.net/tgiatoc-case-study-peru.pdf
[84] Duri, J. (2020). *Corruption and environmental crime in Latin America*. Transparency International. https://www.u4.no/corruption-and-environmental-crime-in-latin-america
[85] Praeli, Y. (2020, February 24). Perú: crimen organizado utiliza permissos de formalización minera para 'lavar' oro illegal. Mongabay. https://es.mongabay.com/2020/02/peru-crimen-organizado-reinfo-oro-ilegal/
[86] Organization of American States. (2022). On the trail of illicit gold proceeds: Strengthening the fight against illegal mining finances: Colombia. https://www.oas.org/en/sms/dtoc/docs/On-the-trail-of-illicit-gold-proceeds_Colombias-case.pdf

CORRUPTION

As with all forms of transnational organized crime, the scale and intensity of illegal gold mining in the region would be impossible without the facilitation of corruption. Corruption occurs at all stages of the supply chain, from acquiring concessions to exporting gold internationally. Transparency International's Corruption Perceptions Index indicates high levels of corruption in Peru and Colombia, with corruption increasing since 2023 in both countries.[87] . A large proportion of bribery cases involve contract procurement, and criminal groups routinely bribe officials to falsify mining permits, approve fraudulent documentation, or certify illegal gold as legitimate. Environmental impact assessors are paid to ignore ecological violations, while public works officials accept bribes to facilitate access to machinery and chemicals during the extraction process.[88] At export points, airport and customs officials are paid to turn a blind eye to illegal gold passing through customs checkpoints. Corruption is also evident during investigations and interdiction efforts, with miners often tipped off about upcoming raids.[89]

Judicial systems in both Peru and Colombia are highly susceptible to corruption, where evidence is destroyed, cases fail to make it to trial, and suspects are released.[90] In Peru, a judge accepted bribes to release confiscated gold and facilitate its illegal export to the U.S.[91] In many cases, government officials have a conflict of interest and act to protect their investment. For example, Peru's former Director of Hydrocarbons for the Ministry of Energy and Mines owned a gold mining company generating over USD 900 million annually.[92] A congressional member from Madre de Dios similarly owned illegal gold mines under the cover of frontmen and false identification.[93]

RECOMMENDATIONS

Illegal gold mining in Peru and Colombia has evolved from a regional enforcement challenge into a sophisticated transnational criminal economy — one that rivals drug trafficking

[87] Transparency International. (2025). Corruption Perceptions Index 2024: Peru. Transparency International. https://www.transparency.org/en/cpi/2024
[88] Organization of American States. (2022). *On the trail of illicit gold proceeds: Strengthening the fight against illegal mining finances: Colombia*. https://www.oas.org/en/sms/dtoc/docs/On-the-trail-of-illicit-gold-proceeds_Colombias-case.pdf.
[89] Bird, L., & Krauer, N. (2017). *Case study: Illicit gold mining in Peru.* The Global Initiative against Transnational Organized Crime. https://globalinitiative.net/tgiatoc-case-study-peru.pdf
[90] Duri, J. (2020). *Corruption and environmental crime in Latin America*. Transparency International. https://www.u4.no/corruption-and-environmental-crime-in-latin-america
[91] La República. (2019, May 26). *OCMA abre investigación a juez que ordenó retirar oro de Aduanas*. https://larepublica.pe/politica/765659-ocma-abre-investigacion-a-juez-que-ordeno-retirar-oro-de-aduanas/
[92] Durand, F. (2012, July 31). *Exportadoras de oro a Suiza financiaron a clanes de minería ilegal en Madre de Dios.* Inforegion. https://www.inforegion.pe/139648/exportadoras-de-oro-a-suiza-financiaron-a-clanes-de-mineria-ilegal-en-madre-de-dios/
[93] Duri, J. (2020). *Corruption and environmental crime in Latin America*. Transparency International. https://www.u4.no/corruption-and-environmental-crime-in-latin-america

in profitability, exceeds it in environmental destruction, and increasingly intersects with it in organizational structure. With gold now trading above $3,000 per ounce, the financial incentives driving illegal extraction have never been stronger, with illegal gold exports reaching $6.8 billion in Peru alone in 2024, a 41 percent annual increase.[94] Without coordinated, multi-layered intervention, this criminal economy will continue to expand, deepening its grip on vulnerable communities, undermining legitimate governance, and laundering billions of dollars into the international financial system.

While this report focuses primarily on Peru and Colombia, the underlying dynamics described throughout, including criminal infiltration of ASGM sectors, gold-linked money laundering, weak traceability systems, environmental devastation, and supply-chain laundering through international markets, are increasingly visible across gold-producing regions globally, including elsewhere in Latin America, Sub-Saharan Africa, and parts of Southeast Asia. The recommendations below are therefore intended not only for Peru and Colombia, but for broader adaptation across jurisdictions confronting illicit gold economies.

1. Reframe Illegal Gold Mining as a Financial Crime Priority

Illegal gold mining is too often treated as an environmental or public order problem rather than the sophisticated financial crime it is. This framing gap deprioritizes the money laundering, asset concealment, and illicit finance dimensions of the trade, and leaves critical legal tools unused.

Policy Action: Governments should designate illegal gold mining, transport, and trade as predicate offenses for money laundering in domestic law and advocate for equivalent treatment in international anti-money laundering frameworks, closing the accountability gap that currently prevents recovery of illicit profits across jurisdictions. Financial intelligence units should issue sector-specific guidance on gold-linked money laundering typologies, including trade-based laundering through false export documentation, over- and under-invoicing, and the use of front companies. Mandatory Suspicious Activity Reporting (SAR) typologies specific to gold should be required for financial institutions in high-risk jurisdictions, building on existing advisory precedents from bodies such as the Office of Foreign Assets Control (OFAC). Governments should also bolster declaration requirements for travelers carrying gold, aligning them with existing cross-border cash declaration standards. This straightforward reform would help to close one of the least-scrutinized smuggling channels in the illicit gold trade.

Implementation Mechanisms: Gold-specific predicate offense language should be integrated into Financial Action Task Force (FATF) mutual evaluation processes and national risk assessments. Peru's Financial Intelligence Unit (UIF) and Colombia's Financial Information and Analysis Unit (UIAF) should coordinate with their counterparts in major importing countries to develop and

[94]The Dialogue. (2025). *Why has Peru struggled to limit illegal gold mining?* Inter-American Dialogue. https://thedialogue.org/analysis/why-has-peru-struggled-to-limit-illegal-gold-mining

publish shared red-flag indicators, and updated regulatory guidance should be issued to the financial sector reflecting the specific risks posed by illegal gold flows.

Measurable Outputs: Percentage increase in gold-linked SAR filings; number of financial investigations opened specifically in connection with gold; volume of assets seized from gold trading networks.

2. Expand Criminal Investigations to Target Entire Supply Chains

Enforcement in both countries has historically focused on the point of extraction, destroying machinery, confiscating chemicals, and evicting miners from protected areas. While necessary, these operations are insufficient on their own, and often produce only temporary results while leaving the business models that sustain illegal gold production intact.

Policy Action: Investigations should be reoriented toward whole-of-supply-chain disruption, tracing illicit gold from the mine to the refinery to the export point and targeting the financiers, mineral processors, traders, and shell company operators who capture the largest share of illegal gold profits. Task forces should also prioritize upstream enablers, such as mercury suppliers, fuel distributors, and transport networks, which represent more scalable intervention points than the mining sites themselves. Network-level sanctions should be pursued against key actors and their professional enablers, including the lawyers, accountants, and corporate service providers who structure the financial architecture of illegal gold operations.

Implementation Mechanisms: Joint task forces should link Peru's UIF and Colombia's UIAF with specialized anti-money laundering prosecutors and customs authorities. Existing capacity-building programs that train customs and airport officials on fraudulent documentation should be expanded into more integrated financial investigation units capable of following money both upstream and downstream from extraction sites. Cross-border cooperation mechanisms should be developed along key trafficking corridors, such as the Peru-Colombia-Brazil tri-border region, and across transnational corridors in West Africa, the Sahel, and parts of Southeast Asia.

Measurable Outputs: Ratio of financial investigations and prosecutions to site raids; value of assets seized from mining-linked networks; number of prosecutions targeting financiers and traders rather than miners alone.

3. Strengthen Anti-Money Laundering Architecture and Close Formalization Loopholes

The laundering of illegally mined gold into global supply chains is facilitated by structural weaknesses across many producer-country regulatory frameworks, including in Peru and Colombia. A particular vulnerability that receives insufficient policy attention is recycled and

scrap gold, which is widely exploited to introduce illicit gold into formal supply chains and warrants dedicated monitoring beyond first-tier supply chain reporting.

Policy Action: Independent audits of formalization registries should be conducted to identify and revoke fraudulent registrations, and legal immunity provisions that allow actors in the formalization process to operate with impunity should be reformed. Beneficial ownership disclosure should be required for all gold exporters, traders, and processing entities. Enhanced reporting on recycled and scrap gold should be mandated, requiring traders and refiners to describe the full circumstances of supply chains rather than disclosing only first-tier sourcing information.

Implementation Mechanisms: Financial intelligence units, such as the U.S. Financial Crimes Enforcement Network (FinCEN) should publish annual gold-specific risk indicators, with independent third-party audits of formalization registries conducted and made publicly available. Cooperative data-exchange relationships between exporting and importing country customs agencies should be established, with scrap and recycled gold monitoring integrated into existing reporting requirements.

Measurable Outputs: Number of fraudulent registrations identified and revoked; volume of recycled gold subject to enhanced due diligence; reduction in discrepancies between reported production and export data.

4. Leverage Advanced Technology for Real-Time Monitoring and Enforcement

The vast and difficult-to-monitor terrain associated with many major gold-producing regions, including the Amazon and Colombia's Pacific lowlands, has historically made consistent monitoring of illegal mining extremely difficult. Advances in remote sensing have fundamentally changed this calculus. Radar-based systems such as the Radar Mining Monitoring Tool (RAMI), developed through US government partnership with Peru's Ministry of Environment, can generate continuous monthly deforestation alerts regardless of weather conditions.[95] This provides a critical advantage over optical imagery, which is rendered ineffective during rainy seasons when mining activity often intensifies. Machine learning platforms such as Amazon Conservation's Amazon Mining Watch can automate detection of new mining fronts across the entire Amazon basin and enable authorities to respond before significant damage occurs.[96]

Policy Action: Support for these monitoring programs should be expanded and their outputs integrated into the operational workflows of environmental prosecutors, police, and protected

[95] NASA. (2021). *Teaming up to track illegal Amazon gold mines in Peru.* National Aeronautics and Space Administration. https://www.nasa.gov/missions/servir/teaming-up-to-track-illegal-amazon-gold-mines-in-peru/

[96] Amazon Conservation. (2025, November 13). Amazon Mining Watch: AI-powered platform detects gold mining deforestation in all Amazonian countries for the first time. Amazon Conservation Association. https://www.amazonconservation.org/amazon-mining-watch-launch-press-release/

area managers. Complementing satellite monitoring, unmanned aerial vehicles (UAVs) can provide higher-resolution surveillance of sites flagged by satellite alerts, enabling authorities to confirm illegal activity and document evidence suitable for prosecution without risking personnel in remote or dangerous terrain. Donors should fund pilot programs to embed drone surveillance capacity within Colombia's environmental prosecution units and Peru's Specialized Environmental Prosecutor's Office (FEMA).

Implementation Mechanisms: Technology investments should be coordinated with existing programs, such as remote sensing capacity-building initiatives, to ensure standardization across agencies and avoid duplication. Satellite alert systems should be integrated into the case management workflows of anti-mining prosecutors to ensure that monitoring data translates into enforcement action.

Measurable Outputs: Number of enforcement actions initiated on the basis of satellite or UAV alerts; reduction in illegal mining expansion rates in monitored areas; time elapsed between detection of new mining activity and enforcement response.

5. Reform and Incentivize Formalization for Legitimate ASGM Operators

The majority of individuals engaged in ASGM, including in Peru and Colombia, are not criminal actors but vulnerable workers and subsistence communities with few legal economic alternatives. Current formalization processes remain prohibitively inaccessible: administrative costs are high, bureaucratic coordination is poor, and technical requirements often exceed the financial means of small operators. A frequently overlooked dimension of this challenge is the financial exclusion of the ASGM sector. Blanket de-risking by banks that categorically excludes miners from financial services, rather than engaging in thoughtful risk assessment, pushes operators further into informal and illicit financial networks.

Policy Action: Formalization should be redesigned as a tiered incentive system rather than a compliance burden, granting legal recognition and market access first, requiring phased environmental compliance second, and achieving full regulatory integration over time. Technical assistance grants for mercury-free extraction technologies such as retorts and centrifuge-based systems should be made available to reduce compliance costs. Governments and donors should link newly formalized miners to certified international buyers through responsible sourcing schemes such as Fairtrade Gold or Alliance for Responsible Mining certification, enabling access to price premiums that reward legal operation. Financial institutions should be encouraged to develop risk-tiered approaches to the ASGM sector rather than categorical exclusion.

Implementation Mechanisms: Government-backed purchasing partnerships with certified refiners should create direct market linkages for formalized miners. Simplified digital registration

tools and coordination with the ILO and regional development institutions should support financial inclusion programs tailored to ASGM operators.

Measurable Outputs: Percentage of ASGM operators entering formal supply chains; price differential between legal and illegal gold at point of sale; number of ASGM operators gaining access to formal financial services.

6. Scale Up Demand-Side Accountability in the International Gold Market

The persistence of illegal gold mining is sustained not only by weak governance in source countries but by demand from international refiners, traders, and financial institutions that knowingly or negligently purchase illicit gold. In 2024, the world's top importers of gold were Switzerland, mainland China and the United Kingdom, and since 2023, the fastest-growing markets for gold include Thailand (up 93.8%), Germany (up 71.5%), United Kingdom (up 60.6%) and Italy (up 54.7%).[97] Imposing meaningful due diligence requirements in these markets could significantly constrain criminal networks' ability to monetize illegally mined gold.

Policy Action: Mandatory reporting and disclosure requirements should be adopted for all gold trades, including over-the-counter transactions, which currently represent the least transparent segment of the global gold market. Central banks and government purchasing offices should be required to publicly report on the due diligence conducted on their gold supply chains. All mined gold exports should be accompanied by evidence of a valid mining permit and relevant environmental compliance documentation, published at the national level to enable independent verification. Importing countries should work to identify and sanction specific trading networks and refining companies that knowingly process illicit gold, building on the model of targeted sanctions already applied against narcotics trafficking organizations. A multilateral real-time data-sharing mechanism should be established among key importing and transit countries to close the intelligence gap that currently allows illicit traders to launder gold well before sanctioning authorities can act.

Implementation Mechanisms: Requirements should be aligned with the OECD Due Diligence Guidance for Responsible Supply Chains, with legally enforceable standards applied across the full gold supply chain including financial markets. Engagement with major refining associations should require third-party audits at key supply chain control points.

[97] World's Top Exports. (2025). *International markets for imported gold by country*. https://www.worldstopexports.com/international-markets-for-imported-gold-by-country/

Measurable Outputs: Percentage of gold exports accompanied by verified documentation; number of sanctions actions taken against gold trading networks; reduction in discrepancies between production and export data across key source countries.

7. Invest in Environmental Remediation and Alternative Livelihoods

The environmental devastation wrought by illegal gold mining will endure long after criminal networks are dismantled if remediation is not built into programmatic responses from the outset. In regions like Madre de Dios and Chocó, where communities have become structurally dependent on illegal mining for economic activity, enforcement without economic alternatives will simply displace workers into other criminal economies.

Policy Action: Integrated remediation frameworks should sequence enforcement with ecosystem recovery, including reforestation using native species, phytoremediation for mercury-contaminated soils, and restoration of degraded waterways. These programs should simultaneously generate employment for former miners through mechanisms such as payment-for-ecosystem-services schemes, community-managed ecotourism concessions, and sustainable agroforestry. Anti-mining operations should be explicitly paired with immediate access to social services, retraining programs, and formalized employment pathways. Remediation and livelihood programs should be co-designed with affected communities rather than imposed externally, both to ensure sustainability and to draw on local knowledge that external designers cannot replicate.

Implementation Mechanisms: Programs should be structured through partnerships between governments, NGOs with demonstrated on-the-ground presence, and the private sector where appropriate. Coordination between environmental enforcement programs and integrated rural development initiatives should ensure that economic programming is sequenced alongside, rather than after, enforcement operations.

Measurable Outputs: Hectares of degraded land under active remediation; employment diversification metrics in communities formerly dependent on illegal mining; reduction in illegal mining expansion rates in areas where alternative livelihood programs have been implemented.

8. Strengthen International Cooperation and Public-Private Partnerships

Illicit gold supply chains are inherently transnational. Gold mined illegally in Madre de Dios or Chocó passes through multiple transit jurisdictions before reaching international markets, with no single country possessing the full picture needed to disrupt the network. Closing this gap requires purpose-built multilateral cooperation specifically focused on gold, rather than relying on broader natural resource crime frameworks that lack the sectoral specificity needed to trace gold's unique laundering pathways.

Policy Action: An international gold law enforcement task force should be established spanning source, transit, and major trading hub countries, with a mandate focused specifically on gold and a structure that avoids duplicating existing initiatives. The task force should bring together national law enforcement agencies alongside bodies including Interpol and regional organizations such as the OAS, designate clear points of contact for gold-related cases in each participating jurisdiction and build shared forensic capacity to trace gold origin across borders. Binding multistakeholder partnerships between priority countries should be negotiated to support source countries in tackling the underlying drivers of illicit gold flows, including through development of national traceability systems and targeted support for small-scale miner formalization.

A structured PPP on illicit gold should formalize operational intelligence-sharing among governments, financial institutions, refiners, and the gold industry. Financial institutions and trading companies hold transactional data that law enforcement rarely accesses in a timely way, and formalizing this exchange could significantly shorten the time between the introduction of illicit gold into supply chains and enforcement action. For such partnerships to function effectively, participation must extend beyond industry and government to explicitly include local civil society organizations, Indigenous community representatives, and small-scale miner associations from producer countries, with meaningful decision-making authority rather than observer status. Producer countries should also be supported in developing domestic revenue accountability frameworks that digitally track gold from extraction to export, creating auditable records that make illicit diversion detectable at multiple checkpoints.

Implementation Mechanisms: The task force should be anchored within an existing multilateral framework such as the OAS to leverage established relationships and avoid duplication. PPP governance structures should include accessible grievance mechanisms through which affected communities can raise supply chain concerns. Customs authorities in major trading hubs should be engaged through cooperative data-exchange relationships to enable investigation and prosecution of illicit traders across jurisdictions.

Measurable Outputs: Number of cross-border investigations initiated through the task force; volume of illicit gold intercepted at customs checkpoints in transit and hub countries; percentage of PPP member institutions implementing real-time transaction reporting against agreed red-flag indicators.

CONCLUSION

Without swift and effective government intervention, illegal gold mining will continue to fuel conflict, economic instability, environmental destruction, and human rights abuses in Peru

and Colombia, while reinforcing similar criminal economies across gold-producing regions globally. Enforcement efforts can be strengthened by clarifying legal loopholes surrounding formality and legality, reallocating centralized funds to local levels, and increasing cross-agency collaboration.[98] Clear distinctions must be made between actors involved in mining, including ASGM operators, subsistence miners, criminal networks, and multinational corporations. Such differentiation would enable governments to support traditional miners without enabling exploitation by criminal actors. Traditional ASGM plays a critical cultural and economic role for millions of people globally and must not be unfairly criminalized. Instead, policies should focus on lowering barriers to formalization, providing technical assistance, and creating economic alternatives that reduce dependence on illegal mining. Although Peru and Colombia provide particularly urgent case studies, the broader policy lessons outlined in this report carry implications for governments, financial institutions, and enforcement bodies confronting illicit gold economies worldwide.

[98] Espin, J. & Perz, S. (2021). Environmental crimes in extractive activities: Explanations for low enforcement effectiveness in the case of illegal gold mining in Madre de Dios, Peru. *Extractive Industries and Society, 8*(1), 331-339. https://doi.org/10.1016/j.exis.2020.12.009