





The Gold Standard:

Addressing Illicit Financial Flows in the Colombian Gold Sector through Greater Transparency









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Global Financial Integrity

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Global Financial Integrity

Global Financial Integrity (GFI) is a Washington, DC-based think tank, producing high-caliber analyses of illicit financial flows, advising developing country governments on effective policy solutions and promoting pragmatic transparency measures in the international financial system as a means to global development and security.

https://gfintegrity.org/about/



Alliance for Responsible Mining

The Alliance for Responsible Mining (ARM), based in Medellín Colombia, is a leading global expert on Artisanal and Small Scale Mining (ASM). It works to transform the ASM sector into a socially and environmentally responsible activity, while improving the quality of life of artisanal miners, their families and communities.

https://www.responsiblemines.org/en/who-we-are/history/



Cedetrabajo

The Centro de Estudios del Trabajo (Cedetrabajo) is a Colombian think tank that produces economic analysis at the national and international level as a basis for informed decision making by organizations and companies. It also advocates for the well-being of the population and the strengthening of national production and labor.

https://cedetrabajo.org/presentacion/

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Introduction

In 2019, Colombia exported over 52 tons of gold worth an estimated US\$1.75 billion to trading partners worldwide.¹ As such, gold represents an important resource for the country, as well as an economic livelihood for many.

At the same time, Colombia's gold sector has been plagued by many problems. To start with, there are certain qualities inherent to gold that make it vulnerable to illegal extraction, trafficking and laundering.² Not only tremendously valuable, it is also portable and largely untraceable. Unlike narcotics, gold is not inherently illegal, and differentiating between legally and illegally sourced gold can be difficult. Moreover, legal requirements for transporting gold are less stringent than those for cash, making it relatively easy to move across international borders. These are all attractive aspects for Colombian criminal groups looking to maximize financial gains, shift profits from one jurisdiction to another, and minimize the risks of being caught. As a former Colombian Head of State has noted, "today, criminal mining brings more money to criminal groups, to guerrilla groups, to mafias ... than drug trafficking."³

Regardless of whether the mining technique includes panning for gold in streambeds or extracting gold veins from rock, issues emerge within the sector. Many have pointed to the role of alluvial, or riverbed, gold-mining, 70 percent of which is done without any legal authorization.⁴ Yet to suggest that alluvial mining, which involves artisanal miners working in conditions of rural poverty, is responsible for the sector's problems would be both simplistic and inaccurate. As Colombian gold expert Miguel Ángel Molino has noted, legality must be analyzed along two spectrums: first, extraction that ranges from legal to illegal, and second, commercialization that ranges from legal to illegal.⁵

With this mind, Global Financial Integrity (GFI) has traced the sector's vulnerabilities along the supply chain, from extraction to commercialization and exportation to international markets. In this report, GFI partnered with expert organizations from Colombia to explore what these vulnerabilities mean for the environment, for trade, and for artisanal mining communities themselves. The participation by these organizations ensures that a variety of perspectives are considered in exploring the problem – and in thinking of policy solutions.

¹ UN Comtrade database, Exports of HS Code 7108 from Colombia to the world, accessed October 2020, https://comtrade.un.org/data/

² Lakshmi Kumar, "Illicit Gold Trade and Using Trade Data and Financial Tools to Fight Money Laundering and Transnational Organized Crime," Presentation for the Association of Certified Financial Crime Specialists, July 8, 2020, https://www.acfcs.org/webinars/illicit-gold-trade-and-using-trade-data-and-financial-tools-to-fight-money-laundering-and-transnational-organized-crime

³ Jim Wyss and Kyra Gurney "Dirty Gold is the New Cocaine in Colombia: And It's Just as Bloody," *Miami Herald*, January 16, 2018, https://www.miamiherald.com/news/nation-world/world/americas/colombia/article194188034.html

⁴ "Explotación de oro de aluvión con uso de maquinaria en tierra (EVOA), United Nations Office on Drugs and Crime, (UNODC), accessed July 2020, https://www.unodc.org/documents/colombia/2019/Diciembre/EVOA_2019 - Infografia.pdf

⁵ Interview with Miguel Ángel Molino conducted for this report. Bogotá, Colombia. February 2020.

This report is divided in two large chapters. The first looks at the country context in Colombia and why gold mining, with its long history, has recently been targeted by criminal groups. It then presents an analysis with environmental data that maps mining sites in relation to ecosystems and endangered species. Next, it presents an analysis by the Alliance for Responsible Mining regarding the challenges facing local mining communities.

The second chapter delves into trade issues. It begins with an analysis by the Centro de Estudios de Trabajo (Cedetrabajo) on trade misinvoicing within Colombia's gold exports. Next, it presents an analysis by GFI of trade data and risk factors for illicit transactions. The report concludes with a discussion of efforts by Colombian law enforcement to address the problem, and how future efforts could be strengthened through financial transparency strategies.

CHAPTER 1. GOLD MINING IN THE COLOMBIAN CONTEXT



The Rise in Illicit Gold

By Julia Yansura, Global Financial Integrity

To understand illicit gold in Colombia, it is important to analyze both the commodity itself, as well as the larger country context.

As has been noted in the introduction, there are certain qualities inherent to gold that make it vulnerable to illegal extraction, trafficking and laundering.⁶ However, the country context is also

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highly important. What happened in Colombia to give such dramatic rise to criminal gold mining and illegal gold trafficking over the past 10 years? In this section of the report, we take a closer look at contextual factors such as conflict, violence, the limited presence of the state in rural areas and disruptions to narcotics trafficking achieved by decades of the so-called "War on Drugs."

We also analyze the regional and international context as drivers for illegal gold mining in Colombia, especially in light of rising global demand for gold, increased anti-money laundering enforcement targeting bulk-cash smuggling, and the destabilizing regional effects of the Venezuelan crisis. These contextual elements

are key to understanding the rise of gold mining for criminal purposes, and must be closely considered in any policy response.

Longstanding History of Gold Mining in Colombia

Gold mining occupies an important historical and cultural role for Colombia, dating back centuries. In pre-Hispanic times, gold was mined and used to create jewelry, art and ceremonial items. Throughout colonial times, gold was a major export, and in 1848, around the time of the "Gold Rush," the first Colombian-owned mining company was created in Medellín.⁷ As a result of this history, in some regions of Colombia gold mining has been a source of economic livelihood as well as cultural patrimony for centuries. As the Alliance for Responsible Mining notes in their chapter, artisanal and small-scale mining, which generally occurs informally and using manual "panning" techniques, occupies an important cultural role in Colombia, and should not be equated with mining for criminal purposes.

⁶ Lakshmi Kumar, "Illicit Gold Trade and Using Trade Data and Financial Tools to Fight Money Laundering and Transnational Organized Crime," Presentation for the Association of Certified Financial Crime Specialists, July 8, 2020, https://www.acfcs.org/webinars/illicit-gold-trade-and-using-trade-data-and-financial-tools-to-fight-money-laundering-and-transnational-organized-crime/

⁷ Luis Fernando Molina Londoño, "La 'industrialización' de la minería de oro y plata en Colombia en el siglo XIX: sociedad de zancudo y compañía minera de Antioquia," Red Cultural del Banco de la República en Colombia, 2011, https://www.banrepcultural.org/biblioteca-virtual/credencial-historia/numero-258/la-industrializacion-de-la-mineria-de-oro-y-plata-en-colombia-siglo-xix

At the same time, unregistered, informal mining is a serious problem in Colombia, particularly from an environmental standpoint. A recent study by the Colombian Government and the United Nations of alluvial gold mining, which is the mining of gold deposits in streams and rivers, analyzed its presence through remote sensing and satellite image methodology. The study was only able to detect alluvial mining that uses machinery, and in this sense, it excluded subsistence mining using traditional panning techniques known as "barequeo," focusing instead on larger scale operations that cause greater

it excluded subsistence mining using traditional panning techniques known as "barequeo," focusing instead on larger scale operations that cause greater environmental impact. By comparing satellite images to government records of mining titles, it found that 66 percent occurred without any legal permission (permits, mining titles, etc.); moreover, only seven percent had proper environmental approvals. The study also determined that alluvial gold mining increased from 2014-2016, from 79,000 to 84,000 hectares (roughly 305 to 325 square miles). Informal mining is associated with deforestation, pollution from

associated with deforestation, pollution from mercury use, and damage to ecosystems and species.

mercury use, and damage to ecosystems and species, as discussed in the subsequent chapter.

The Growing Involvement of Criminal Groups in Gold Mining

Beyond informality and environmental concerns, Colombia has seen increasing involvement from criminal groups seeking to exert control over land, informal mining communities, and the profits associated with this sector. The involvement of criminal networks poses additional risks, far beyond environmental damage or economic informality, as gold has become a funding source for groups responsible for violence, conflict, human rights abuses, and other crimes.

While this is not an entirely new phenomenon, the situation has become much worse in the past decade. In 2013, research by Fundación Ideas para la Paz, a Colombian think tank, found that 54 percent of gold mining occurred in areas controlled by neo-paramilitary criminal groups (in Spanish, *bandas criminales* or BACRIM), primarily the Urabeños and Rastrojos. 10 As 2013 progressed, Colombian media began reporting that criminal groups were extorting artisanal and small scale gold miners and controlling the heavy equipment used at some mining sites. 11 By 2016, some analysts were warning that "illegal gold mining has supplanted cocaine trafficking as Latin America's criminal endeavor of choice." 12

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⁸ United Nations Office on Drugs and Crime and Gobierno de Colombia, *Alluvial Gold Exploitation: Evidences from Remote Sensing 2016*, (Vienna and Bogotá: United Nations Office on Drugs and Crime (UNODC) and Gobierno de Colombia, May 2018), 11 https://www.unodc.org/documents/publications/Evoa_2016_in_1.pdf

⁹ Ibid 9

¹⁰ Camilo Echandía Castilla, "Narcotráfico: génesis de los paramilitares y herencia de bandas criminales," Serie Informes No. 19 (Bogotá: Fundación Ideas para la Paz, January 2013), 21, https://www.researchgate.net/publication/31755122_Narcotrafico_genesis_de_los_paramilitares y herencia de bandas criminales

^{11 &}quot;Minería ilegal: Entre el oro y el crimen," Semana, March 29, 2013, https://www.semana.com/nacion/articulo/oro-crimen-mineria-ilegal/338107-3

Marcelo Rossi & Commentary, "Not all that glitters: Illegal gold mining has supplanted cocaine trafficking as Latin America's criminal endeavor of choice," Quartz, December 21, 2016, https://qz.com/867104/illegal-gold-mining-has-supplanted-cocaine-trafficking-as-latin-americas-criminal-endeavor-of-choice/

In 2018, the *Miami Herald* released an in-depth series called "Dirty Gold, Clean Cash" investigating the connections between violence, criminal gold mining, and the United States.¹³ And in 2019, InSight Crime called mining for criminal purposes a "gamechanger" in the Latin American region, noting that it "has become the fastest growing criminal economy wherever there are deposits to exploit."¹⁴ By 2019, US Congress was taking note; in Congressional testimony, Richard Glenn from the US Department of State noted that "in the last ten to fifteen years, some transnational criminal organizations in the Western Hemisphere realized gold trafficking can provide them higher and easier returns than cocaine trafficking."¹⁵

The following sections of this chapter look at how and why gold mining rose in prominence to become one of Colombia's largest illicit economies.

Gold in the Context of the Armed Conflict

Armed conflict has been present in Colombia for most of the 20th century and has multiple causes. In particular, it arose from unequal land distribution, the lack of an integral agrarian reform, and a bipartisan power struggle that took place in the first half of the 20th century. In this context, from the 1930's through 1960's, various armed, "guerilla" groups formed. Comprised mainly of local peasants, these groups sought a counter-weight to the Colombian State as well as greater equality.

The armed conflict has had severe and lasting impacts for the country and its citizens. It has also had impacts on the gold mining sector, more narrowly.

Meanwhile, the national governments remained largely absent from rural areas. Though it is sometimes mentioned that Colombia's armed conflict began in 1964, it is important to note that the social, economic and political bases for the conflict were laid much earlier, starting with the events mentioned in the first part of the 20th century. At the same time, conflict persists in one form or another, even after the Peace Agreement of 2016.¹⁶

The armed conflict has had severe and lasting impacts for the country and its citizens. It has also had impacts on the gold mining sector, more narrowly.

To start with, the conflict caused tremendous human suffering. In a country of 50 million inhabitants, nine million have registered with the Colombian government as victims of the armed conflict, as of August 2020.¹⁷ Half of these victims are women, and one quarter are youth under the age of

¹³ Wyss and Gurney, "Dirty Gold is the New Cocaine in Colombia."

¹⁴ James Bargent and Cat Rainsford, "GameChangers 2019: Illegal Mining, Latin America's Go-To Criminal Economy," InSight Crime, January 20, 2020. Available at: https://www.insightcrime.org/news/analysis/gamechangers-2019-illegal-mining-criminal-economy/

¹⁵ Richard Glenn, Deputy Assistant Secretary of the Bureau of International Narcotics and Law Enforcement Affairs at the US Department of State, Congressional Testimony on "Illicit Mining: Threats to US National Security and International Human Rights," December 5, 2019, https://www.foreign.senate.gov/hearings/illicit-mining-threats-to-us-national-security-and-international-human-rights

¹⁶ The Peace Agreement was signed between the Colombian government and one of the largest, most established guerrilla groups, the Revolutionary Armed Forces of Colombia (in Spanish, Fuerzas Armadas Revolucionarias de Colombia, or FARC-EP).

^{17 &}quot;Víctimas del conflicto armado," Gobierno de Colombia, accessed August 2020, https://www.unidadvictimas.gov.co/es/registro-unico-de-victimas-ruv/37394

18 years.¹⁸ According to cases reported to the Colombian government, they include eight million displaced persons,¹⁹ one million homicide victims, and nearly 200,000 forced disappearances.²⁰ Many of the victims experienced multiple and/or repeated forms of violence: one study of female victims noted that among those who had been raped, the average frequency of victimization was between four and five times.²¹ Official counts of victims are likely to underrepresent the true scale of violence, as not all victims have chosen to report to the government.

Moreover, the armed conflict made certain areas of the country, particularly rural areas, unlivable. Of the eight million displaced persons, the vast majority (64 percent) were displaced from rural areas. ²² Colombian cities became increasingly crowded, while rural areas emptied out. Rural economies, which had always struggled, became even more fragile and disconnected from more prosperous urban hubs, creating a vicious cycle in which criminal networks assumed more and more control.

At the same time, the conflict damaged the lands and ecosystems where it took place. Colombia has the second greatest biodiversity of any country in the world, and is the most biodiverse in terms of birds and orchids.²³ This generates certain vulnerabilities in terms of illegal trafficking of species and of timber, only a few of the many illicit activities that affect the natural richness of the country. At the same time, illegal land grabbing and forced land sales, which occurred during the armed conflict, resulted in extensive cattle ranching in protected areas or areas not meant for agricultural use. Moreover, the departure of most the FARC-EP guerrillas from forested areas resulted in higher rates of deforestation in the Amazon and other ecosystems, which had previously been under their control.²⁴

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These dynamics can be observed in towns with the highest levels of illegal mining in Colombia. These are communities that suffered acutely during the armed conflict, losing large numbers of residents to displacement. They are also communities where extreme poverty levels are well above

¹⁸ Ibid.

¹⁹ Ibid.

²⁰ Since a single victim may have experienced more than one type of victimization, the total does not add to 9 million.

²¹ Ruta Pacífica de las Mujeres, La verdad de las mujeres: Víctimas del conflicto armado en Colombia (Bogotá: Ruta Pacífica de las Mujeres, November 2013),pg 18, https://www.aecid.es/Centro-Documentacion/Documentos/Publicaciones%20coeditadas%20por%20AECID/La%20verdad%20de%20la%20mujeres%20(Resumen).pdf

^{22 &}quot;Retorno a la vida económica: Las víctimas del conflicto producen," UNDP Colombia, May 2, 2016, https://www.co.undp.org/content/colombia/es/home/presscenter/articles/2016/05/02/retorno-a-la-vida-ec-nomica-las-v-ctimas-del-conflicto-producen.html

^{23 &}quot;Colombia, el segundo país más biodiverso del mundo, celebra el Día Mundial de la Biodiversidad," MinAmbiente, May 21, 2019, https://www.minambiente.gov.co/index.php/noticias-minambiente/4317-colombia-el-segundo-pais-mas-biodiverso-del-mundo-celebra-el-dia-mundial-de-la-biodiversidad

²⁴ Sibylla Brodzinsky, "Deforestation soars in Colombia after FARC rebels' demobilization," *The Guardian*, July 11, 2017, https://www.theguardian.com/world/2017/jul/11/colombia-deforestation-farc

the national average, and where high homicide rates signal ongoing violence and conflict. While a full discussion of the historical and current causes of violence – and whether illegal mining exacerbates them – is beyond the scope of this study, suffice it to say that these are rural communities where the rule of law is very fragile. The table below provides more detail.

Table 1: Municipalities with High Levels of Illegal Alluvial Gold Mining - Municipal Conditions

		Municipalities with High Levels of Illegal Alluvial Gold Mining (2019)			Municipal Conditions			
Department	Municipality	Area Affected (ha)	% Total Nationwide	% Municipal area affected	Displacement Victims (Who have left)	Census Population	Extreme Poverty	Homicides per 100,000
	Zaragoza	2,726.08	4.21%	2.33%	17,240	24,651	16.74	28.57
Antioquia	Nechí	3,361.23	5.19%	3.59%	15,173	25,790	20.54	14.33
Antioquia	Cáceres	3,468.09	5.36%	1.85%	20,025	28,996	18.43	40.08
	El Bagre	2,264.87	3.50%	1.45%	43,757	51,862	13.15	23.88
	Nóvita	3,774.37	5.83%	3.99%	5,548	9,153	9.11	50.23
Chocó	El Cantón Del San Pablo	4,952.98	7.65%	13.02%	1,606	6,116	11.52	23.88
	Istmina	2,475.53	3.82%	1.32%	18,220	30,742	11.74	38.93
	Río Quito	3,210.90	4.96%	4.59%	4,380	8,236	18.10	54.47
Córdoba	Ayapel	4,694.92	7.25%	2.39%	9,506	46,968	14.33	15.05
Nationwide	Nationwide				8 million	50 million	7.4% ²⁵	23.9 ²⁶

Source: For illegal alluvial gold mining, Colombian Ministry of Mines and Energy (MinMinas) and the UN Office on Drugs and Crime (UNODC), 2019. For all other data, https://terridata.dnp.gov.co/index-app.html#/comparaciones using most recent value (2017 or 2018).

The conflict reflected – but also contributed to – lasting social divisions. A recent study found that only 27 percent of Colombians say they trust their neighbors, and barely 14 percent report trusting the government.²⁷ This creates considerable challenges for social cohesion and effective governance.

In 2016, the Colombian Government and the Revolutionary Armed Force of Colombia (in Spanish, Fuerzas Armadas Revolucionarias de Colombia or FARC-EP), finalized a Peace Agreement, leading FARC to lay down arms. Yet true peace is a work in progress. Many of the commitments of the Colombian Government under the Peace Agreement are still pending. Meanwhile, issues have arisen with the FARC dissidents, a small number of guerrillas who either failed to lay down arms, or subsequently rearmed.

²⁵ Yomaira Grandett, "La pobreza monetaria en Colombia bajó en 2017 a 26,9%," *Portafolio*, March 22, 2018, https://www.portafolio.co/economia/la-pobreza-en-colombia-bajo-en-2017-51546

²⁶ "Homicidios en Colombia: la tasa más baja en los últimos 42 años se dio en 2017," El Espectador, January 21, 2018,

https://www.elespectador.com/noticias/judicial/homicidios-en-colombia-la-tasa-mas-baja-en-los-ultimos-42-anos-se-dio-en-2017/

²⁷ Miguel Suárez and Daniel Medina, "Confianza: la clave para la inclusión en Colombia," Proyecto Migración Venezuela, August 12, 2020, https://migravenezuela.com/web/articulo/columna-de-opinion-de-miguel-suarez-y-daniel-medina-de-la-fip/2089

Moreover, FARC-EP was never the sole source of violence in the country.²⁸ Other groups, such as neo-paramilitary groups known as BACRIM, other guerrillas such as the National Liberation Army (in Spanish, Ejército de Liberación Nacional or ELN), and drug trafficking groups have continued to generate conflict and violence, quickly filling the power vacuum left by FARC. Moreover, cases of human rights abuses by state security forces have continued to emerge and be investigated.²⁹

Absence of State Presence in Rural Areas

Colombia has become one of Latin America's most urban countries, due to its history of conflict as well as other factors related to its economic development. As of 2019, only 19 percent of the population of Colombia resides in rural areas, with the remaining 81 percent in urban areas.³⁰

Rural areas, including mining areas, have been largely left behind in terms of economic and human development. As noted in a recent report by the United Nations High Commissioner for Human Rights (UNHCHR), there is a "need to address, especially in rural areas, structural causes of violence, which are linked to lack of access to human rights." Without adequate access to basic services, such as health, education, potable water³² and citizen security, rural residents are left behind. As Adam Isacson of the Washington Office on Latin America has noted, "in some cases, even just a few miles outside a major city, you'll find yourself in a place where there's no police, no paved roads, where electricity is gotten by generator, if at

Among other things, the limited role of the State makes it difficult to enforce laws and curtail illicit activity, including illegal mining. The same report by the UNHCHR notes that "efforts to establish a comprehensive State presence, particularly of civilian authorities, including the Office of the Attorney General and the police have been insufficient, especially in rural areas." The civilian distinction is important, as rural areas may have military presence, but this does not provide rural reside

all, and where almost nobody has land titles for the land they're farming."33

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and the police have been insufficient, especially in rural areas." The civilian distinction is important, as rural areas may have military presence, but this does not provide rural residents with adequate access to institutions. For example, less than half of Colombia's municipalities have a judicial presence. The justice system has "difficulties to reach rural areas (...) greatly affecting its

²⁸ Adriaan Alsema, "Guerrillas Responsible for 17% of Civilian Deaths in Colombia's Armed Conflict," Colombia Reports, August 3, 2018, https://colombiareports.com/guerrillas-responsible-for-17-of-civilian-deaths-in-colombias-armed-conflict/

²⁹ Rachelle Krygier, "Colombia is Exhuming Graves of Civilians Allegedly Killed by Soldiers," *The Washington Post*, December 17, 2019, https://www.washingtonpost.com/world/the_americas/colombia-exhuming-graves-of-civilians-allegedly-killed-by-soldiers/2019/12/17/0d99e428-20e5-11ea-b034-de7dc2b5199b_story.html

^{30 &}quot;Rural Population, % Total Population," World Bank Data, 2019, https://data.worldbank.org/indicator/SP.RUR.TOTL.ZS?locations=CO

³¹ United Nations High Commissioner for Human Rights, "Situation of Human Rights in Colombia," Advance Unedited Version (New York: United Nations Human Rights Council, February 26, 2020), 3, https://ugn9i3f3byc1y2ro6r6pfu7e-wpengine.netdna-ssl.com/files/200226

³² Regarding potable water, the article notes that "at the rural level, 58% of the population receives water that is not suitable for consumption". Sergio García Hernández, "Cuál es el panorama de servicio de agua y saneamiento en Colombia?" El Espectador, September 30, 2019, https://www.elespectador.com/noticias/nacional/cual-es-el-panorama-del-servicio-de-agua-y-saneamiento-en-colombia/

³³ Nurith Aizenman, "Can Colombia Finally Fix its Split Personality?," National Public Radio, September 17, 2016, https://www.npr.org/sections/goatsandsoda/2016/09/17/492311118/can-colombia-finally-fix-its-split-personality

³⁴ United Nations High Commissioner for Human Rights, "Situation of Human Rights in Colombia," 3.

capacity to guarantee access to justice for all."³⁵ The absence of the State in rural areas severely limits development as well as citizen security; the rapid growth of criminal gold mining is one facet of this much larger issue.

Challenges of Land Use

Land use and land access have always been contentious subjects. Colombia has a GINI index of 50.4,³⁶ which places it among the most unequal countries in the world.³⁷ Moreover, according to a ranking by Oxfam, it is the single most unequal country in Latin America in terms of access

Informal mining without proper permits and titles reflects much larger and more complex issues of equitable land distribution.

to land. The same Oxfam report found that "the top one percent of the largest holdings controls more than 80 percent of the land, while the remaining 99 percent account for less than 20 percent all together." In this regard, informal mining without proper permits and titles reflects much larger and more complex issues of equitable land distribution.

Recent events have further exacerbated the problem. In the 1980s and 1990s, for example, as the big cartels gained a stronghold, "it is estimated that the drug traffickers bought up to five million hectares of grazing land in Colombia, some 15 percent of the total."³⁹ At the same time, ordinary people were losing access to

land due to conflict and violence at the hands of a wide variety of armed and criminal groups. The scale of displacement is staggering: the land of "victims of dispossession and forced displacement is estimated to affect eight million to 10 million hectares, or almost a quarter of the country's farmland."⁴⁰

In a context where land access often seems precarious and unjust, the fact that the majority of alluvial gold mining occurs without proper permits is perhaps unsurprising.⁴¹ Moreover, the very considerable environmental damage caused by illegal gold mining in protected areas, such as national parks, must be considered within a larger context in which poor people have little access to land.

³⁵ Ibid, 7.

^{36 &}quot;GINI Index (World Bank Estimate)," World Bank Data, 2018. Available at: https://data.worldbank.org/indicator/SI.POV.GINI?most_recent_value_desc=true

³⁷ "Según el Banco Mundial, Colombia es el Segundo País Desigual de América Latina," *La República*, November 16, 2017, https://www.larepublica.co/economia/segun-el-banco-mundial-colombia-es-el-segundo-pais-mas-desigual-de-america-latina-2570469

³⁸ Arantxa Guereña and Stephanie Burgos, A Snapshot of Inequality: What the Latest Agricultural Census Reveals About Land Distribution in Colombia (Washington, D.C.: Oxfam America, May 2017), 13, https://oi-files-d8-prod.s3.eu-west-2.amazonaws.com/s3fs-public/ file_attachments/colombia -_snapshot_of_inequality.pdf

³⁹ Hannah Stone, "Colombia Elite and Organized Crime: Introduction," InSight Crime, August 9, 2016, https://staging.insightcrime.org/investigations/colombia-elites-and-organized-crime-introduction/

⁴⁰ Arantxa Guereña and Stephanie Burgos, *Unearthed: Land, Power and Inequality in Latin America* (Oxford: Oxfam GB, November 2016), 18, https://www-cdn.oxfam.org/s3fs-public/file_attachments/bp-land-power-inequality-latin-america-301116-en.pdf

⁴¹ United Nations Office on Drugs and Crime and Gobierno de Colombia, Alluvial Gold Exploitation: Evidences from Remote Sensing 2016 (Vienna and Bogotá: United Nations Office on Drugs and Crime (UNODC) and Gobierno de Colombia, May 2018), Pg 10, https://www.unodc.org/documents/publications/Evoa_2016_in_1.pdf

Counter Narcotics Efforts in Colombia

Over the years, the US and Colombian governments have invested considerable resources into counter narcotics. Colombia has consistently ranked as one of the top recipients of US foreign aid in Latin America, and much of it has been focused on security and counter narcotics. From 2006 to 2019, for example, the United States appropriated US\$3.6 billion in counter narcotics assistance to Colombia. While a full discussion of these programs is beyond the scope of this report, it should be noted that while some disruptions to narcotics cultivation and trafficking were achieved, they were not able to address the problem in a comprehensive, lasting manner. Moreover, they resulted in very severe 'collateral damage' to communities and to the environment.

Despite the considerable money spent on these programs, even a cursory glance at these efforts and their outcomes indicates that criminal groups are quick to shift routes and tactics. In the 1980s and 1990s, for example, cocaine was primarily trafficked from Colombia through the Caribbean and into south Florida. ⁴⁴ As the US stepped up enforcement in Caribbean waters, trafficking routes changed; by 2011, it was estimated that 95 percent was flowing through Central American routes, often by sea, before entering the US. ⁴⁵ As security forces increased maritime enforcement off Central American coasts, the use of aircraft increased, ⁴⁶ with a law enforcement response following in due course. By early 2020, there were reports from Colombia indicating increased use of submarines to move drugs. ⁴⁷

Illegal gold trafficking represents an extension of this evolution. Just as criminal groups are willing to change smuggling tactics, they are also willing to change commodities or move into complimentary criminal economies. Richard Glenn of the US Department of State has noted that "in the last ten to fifteen years, some transnational criminal organizations in the Western Hemisphere realized gold trafficking can provide them higher and easier returns than cocaine trafficking."

⁴² Jack Norman, "US aid to Colombia will grow to \$448 million in 2020, largest amount in 9 years," Colombia Reports, December 19, 2019, https://colombiareports.com/us-aid-to-colombia-will-grow-to-448-million-in-2020-largest-amount-in-9-years/

⁴³ "Analyze," Foreignassistance.gov, accessed August 2020, https://www.foreignassistance.gov/analyze/wizard

⁴⁴ Claire Ribando Seelke, Liana Sun Wyler, June Beittel, and Mark Sullivan, Latin America and the Caribbean: Illicit Drug Trafficking and US Counterdrug Programs (Washington, D.C.: Congressional Research Service, May 12, 2011), 2, https://fas.org/sgp/crs/row/R41215.pdf

⁴⁶ Kevin Sieff, "The Guatemalan Rainforest: Lush Jungle, Mayan Ruins, and Narco Jets Full of Cocaine," *The Washington Post*, July 5, 2020, https://www.washingtonpost.com/world/2020/07/05/guatemala-cocaine-trafficking-laguna-del-tigre/?arc404=true

⁴⁷ Luis Robayo and Florence Panoussian, "Colombia's Narco Submarines – A Photo Essay," *The Guardian*, March 23, 2020, https://www.theguardian.com/world/2020/mar/23/colombias-narco-submarines-a-photo-essay

⁴⁸ Richard Glenn, Deputy Assistant Secretary of the Bureau of International Narcotics and Law Enforcement Affairs at the US Department of State, Congressional Testimony on "Illicit Mining: Threats to US National Security and International Human Rights," December 5, 2019, https://www.state.gov/illicit-mining-threats-to-u-s-national-security-and-international-human-rights/

Other International Factors: Growing Global Demand

Another factor driving the rapid growth in illegal gold extraction and sales has been the growing global demand. While demand has been strong over at least the past decade, prices reached an all-time high of \$2,052 per troy ounce in August 2020, driven in large part by economic uncertainty and market volatility during the Covid-19 pandemic.⁴⁹

For criminal groups, profit is key, and gold has become increasingly lucrative.

For criminal groups, profit is key, and gold has become increasingly lucrative. Transnational organized crime groups are "at their core, businesses: they are overwhelmingly motivated by financial gain and seek out opportunities that offer high profits and low risks/costs." Moreover, as the price of gold has risen, the price of other illicit goods, such as narcotics, have flatlined or even decreased. As

the graphic below shows, the average price of cocaine in the US has remained around \$28,000 per kilogram during the period 2012-2017. Moreover, recent accounts suggest a dramatic drop in 2020, with some regions seeing a decline in prices of 73 percent.⁵¹ At the same time, the price of gold has reached record highs.⁵²

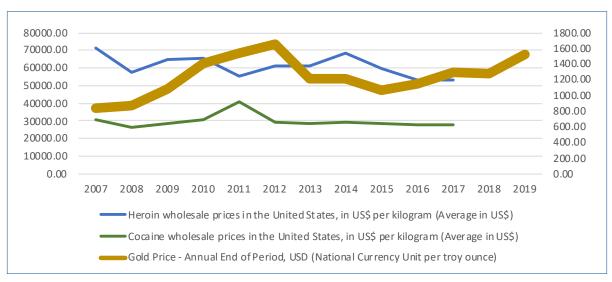


Figure 1: The Price of Gold Compared to the Price of Narcotics

Source: For narcotics prices, UNODC, 2017. Available at: https://dataunodc.un.org/drugs/heroin_and_cocaine_prices_in_eu_and_usa-2017

For gold prices, World Gold Council, 2020. Available at: https://www.gold.org/goldhub/data/gold-prices

⁴⁹ Hannah Denham, "5 reasons gold prices are soaring," *The Washington Post*, August 5, 2020, https://www.washingtonpost.com/business/2020/08/05/5-reasons-why-gold-prices-are-soaring/

Ochanning May Mavrellis, Transnational Crime and the Developing World (Washington, D.C.: Global Financial Integrity, March 2017), 1, https://secureservercdn.net/45.40.149.159/34n.8bd.myftpupload.com/wp-content/uploads/2017/03/Transnational Crime-final.pdf? time=1598419378

⁵¹ Anthony Faiola and Lucien Chauvin, "The Coronavirus Has Gutted the Price of Coca. It Could Reshape the Cocaine Trade,"

The Washington Post, June 9, 2020, https://www.washingtonpost.com/world/the_americas/coronavirus-coca-crash-bolivia-colombia-peru-latin-america/2020/06/09/8c7da42c-a11f-11ea-be06-af5514ee0385_story.html

⁵² Matt Phillips, "New Gold Rush Pushes Price to Record Highs," *The New York Times*, July 27, 2020, https://www.nytimes.com/2020/07/27/business/gold-prices-record-high.html?searchResultPosition=2

Gold in the Context of International AML/CFT Efforts

In addition to serving as a source of illicit income, gold can also serve as a means for criminal groups to shift money (or in this case, value) across jurisdictions.

There are many ways that illicit financial flows (IFFs) move from one country to another. Banking channels, non-banking financial channels, and bulk-cash smuggling are some of the methods traditionally used. However, in the past decade, many countries in the Western Hemisphere have taken actions to control IFFs through these mediums. In 2010, for example, Mexico took steps to curb bulk cash smuggling by capping the monthly deposit limit and cash currency exchange limit for US dollars.⁵³ And in 2012, Mexico enacted a law⁵⁴ which created new, tougher AML requirements for financial and non-financial institutions. In the case of Colombia, a 2006 law took a stronger stance against terrorism financing,⁵⁵ which was particularly important given the involvement of such groups in a variety of financial crimes. Around the same time, it cracked down on bulk-cash smuggling.⁵⁶ In 2018, it stepped up efforts through a new Center for Coordination on Financing by Criminal and Terrorist Groups.⁵⁷

In sum, law enforcement and policy efforts have made it more difficult to launder money through the financial system as well as through bulk cash smuggling. In light of tightening controls, criminal groups looking to shift illicit proceeds from one jurisdiction to another began to look for other methods, such as trade-based money laundering, digital currencies, or, increasingly, assets such as gold.

The Role of Venezuela

Finally, it is important to mention the role of Venezuela. While there are many domestic factors that have made Colombia vulnerable to the illegal gold trade, relations with neighboring Venezuela have exacerbated them. As political and economic conditions in Venezuela rapidly deteriorate, institutions within the Nicolás Maduro government have engaged with criminal networks in an attempt to finance operations and remain in power.⁵⁸

⁵³ U.S. Department of the Treasury, "National Money Laundering Risk Assessment 2015" (Washington, D.C.: U.S. Department of the Treasury, 2015), pgs 28-29, https://www.treasury.gov/resource-center/terrorist-illicit-finance/Documents/National%20Money%20
Laundering%20Risk%20Assessment%20-%2006-12-2015.pdf. Note that some exceptions applied to businesses in the tourism industry: Tania Moreno, "Hacienda limita operaciones en dólares," Expansión, June 15, 2010, https://expansion.mx/economia/2010/06/15/ hacienda-lavado-dinero-dolares-crimen

⁵⁴ Ley Federal para la Prevención e Identificación de Operaciones con Recursos de Procedencia Ilícita, Secretary General, Government of Mexico, published October 17, 2012, updated March 3, 2018, http://www.diputados.gob.mx/LeyesBiblio/pdf/LFPIORPI 090318.pdf

⁵⁵ Ley 1121 de 2006 normas para prevenir, detectar, investigar y sancionar la financiacion del terrorismo, Government of the Republic of Colombia, published December 29, 2006, https://www.uiaf.gov.co/sistema_nacional_ala_cft/normatividad_sistema/leyes/ley_1121_2006

⁵⁶ Sibylla Brodzinksy, "Colombia Cracks Down on Cash Smuggling," *Christian Science Monitor*, July 27, 2006, https://www.csmonitor.com/2006/0727/p06s02-woam.html

⁵⁷ Ley 1941 del 18 de diciembre de 2018, Government of the Republic of Colombia, published December 18, 2020, https://www.uiaf.gov.co/sistema_nacional_ala_cft/normatividad_sistema/leyes/ley_1941_2018

⁵⁸ "GameChangers 2019: mientras Venezuela se hunde, nexos criminales mantienen a Maduro a flote," InSight Crime, January 20, 2020, https://staging.insightcrime.org/news/analysis/gamechangers-venezuela-maduro-criminal-ties/

The 1,300-mile border between Venezuela and Colombia is relatively porous, with informal crossing trails, or trochas, heavily trafficked by people and merchandise moving in both directions. Such pathways permit critical access to healthcare, education and other basic necessities for vulnerable populations. Moreover, official sources estimate that 1.7 million Venezuelan refugees have crossed the border into Colombia.⁵⁹ The actual number may be even higher; official data may not capture the numbers of Colombians returning, or persons who enter the country at informal crossings.

In spite of their important humanitarian function, these trails have also allowed Colombian criminal/guerrilla groups to enter into Venezuela. According to a high-level Colombian military leader, 45 percent of ELN combatants, or an estimated 1,100 members, have taken refuge in Venezuela. Moreover, analysis by InSight Crime suggests the ELN has a presence in 12 of 24 Venezuelan states. Finally, there is evidence of illicit substances, from illegally mined Venezuelan gold to Colombian-grown cocaine, moving with relative ease across the border.

^{59 &}quot;Venezolanos en Colombia, corte de 31 diciembre 2019," Migración de Colombia, 2020, https://ugn9i3f3byc1y2ro6r6pfu7e-wpengine.netdna-ssl.com/files/200225_migr_ven_co_1912.pdf

María Victoria Llorente, Juan Carlos Garzón, Lorena Zárate, Ángela Silva, Tatiana Prada, and Andrés Cajiao, Qué hacer con el ELN? Opciones antes una derrota militar lejana y un diálogo improbable (Bogotá: Fundación Ideas para la Paz, January 2020), 20, http://ideaspaz.org/media/website/FIP_NE_QuehacerELN_Final.pdf

^{61 &}quot;ELN en Venezuela," InSight Crime, March 1, 2019, https://es.insightcrime.org/venezuela-crimen-organizado/eln-en-venezuela/.

⁶² Antonio María Delgado, Kyra Gurney, Bram Ebus, Jim Wyss, Jay Weaver, and Nicholas Nehamas, "How Miami, a Major Destination for Venezuelan Gold, is Helping Prop Up Maduro's Regime," Miami Herald, August 5, 2019, https://www.miamiherald.com/news/nation-world/world/americas/venezuela/article230669164.html

⁶³ Nick Paton Walsh, Natalie Gallón, and Diana Castrillon, "Corruption in Venezuela Has Created a Cocaine Superhighway to the US," CNN, April 17, 2019, https://www.cnn.com/2019/04/17/americas/venezuela-druq-cocaine-trafficking-intl/index.html

Mapping Gold Mining and Its Environmental Impacts

By Natalia Aguilar Moreno

This analysis looks into the environmental impacts of alluvial gold mining in Colombia, considering ecosystems, forests and biodiversity. Using data from the Colombian Government, it differentiates between gold mining that is informal versus that which is known to be illicit.

Introduction

According to the Colombian Ministry of the Environment and Sustainable Development (Ministerio de Ambiente y Desarrollo Sostenible),⁶⁴ Colombia ranks second in the world in overall biodiversity. Moreover, it is first in the world in biodiversity of birds and orchids, second in the world in plants, amphibians, butterflies and freshwater fish, third in the world in reptiles and palms, and fourth in mammals.⁶⁵

The richness of Colombia's nature and ecosystems contrasts with extractive economic activities, both legal and illegal, that affect the country's biodiversity, ecosystems, and the benefits that these generate for Colombian society. According to data from the National Agency of Mining (ANM), ⁶⁶ Colombia is the second largest producer of emeralds in the world. Moreover, among Latin American countries, it is the largest producer of coal, the fourth largest producer of nickel and the sixth largest producer of gold. ⁶⁷ With regards to gold, it is estimated that only five percent of the country's potential areas of resources have been explored and exploited overall, ⁶⁸ stimulating a search for the mineral that includes

The richness of Colombia's nature and ecosystems contrasts with extractive economic activities, both legal and illegal, that affect the country's biodiversity, ecosystems, and the benefits that these generate for Colombian society.

both legal and illegal mining. Since 2014, illegal alluvial gold mining has been monitored by the

⁶⁴ El Ministerio de Ambiente y Desarrollo Sostenible (MADS) is a public entity charged with establishing the National Environmental Policy and promoting the recovery, conservation, protection, management, use and exploitation of natural renewable resources, with the goal of ensuring sustainable development and the rights of citizens to enjoy and inherit a health environment: "Misión y Visión," Ministerio de Ambiente y Desarrollo Sostenible, accessed August 2020, https://www.minambiente.gov.co/index.php/ministerio/mision-y-vision

^{65 &}quot;Colombia se pone ante el desafío de proteger su enorme biodiversidad," Posibl., June 5, 2020, https://www.posibl.com/es/news/medio-ambiente/colombia-y-el-desafío-de-proteger-su-enorme-biodiversidad-2216eab9

⁶⁶ La Agencia Nacional de Minería (ANM) is a specific type of state agency. Its objective is to comprehensively manage mineral resources owned by the State to promote their optimal use and sustainability in accordance with current regulations and in coordination with environmental authorities. "Agencia," Agencia Nacional de Minería, accessed August 2020, https://www.anm.gov.co/?q=agencia

⁶⁷ Agencia Nacional de Minería, Exploring opportunities,(Bogotá: Agencia Nacional de Minería, 2015), 23, https://www.anm.gov.co/sites/default/files/DocumentosAnm/publication_exploring_opportunities.pdf

^{68 &}quot;La riqueza minera de Colombia en otros materiales," Semana, August 31, 2017, Available at https://www.semana.com/edicion-impresa/informe-especial/articulo/riqueza-minera-de-colombia/249256/

Colombian Ministry of Mines and Energy (MinMinas)⁶⁹ and the United Nations Office on Drugs and Crime (UNODC), and there has been an exponential increase in this illegal activity. In this regard, it is important to identify and analyze those areas affected by alluvial gold mining in Colombia and to assess the accompanying environmental impacts.

To this end, this section analyzes the impacts of gold mining on Colombia's rich ecosystems and natural environment. This analysis draws on 2019 data on alluvial gold extraction generated by MinMinas and UNODC. It also draws on data and technical guidance provided by the Humboldt Institute. It follows a classification by the Colombian government in analyzing alluvial gold mining in three large categories: alluvial gold mining with any technical or environmental permit, informal alluvial gold mining with permitting in progress, and alluvial gold mining through illicit extraction. The latter two categories represent roughly two thirds of all alluvial gold mining in Colombia, according to government data. While there is obviously some challenge in determining these categories and certain overlap may potentially occur, they are nonetheless useful for analyzing environmental impacts.

This chapter is divided into three sections. The first section provides a mapping and analysis of illegal gold mining at the national level throughout Colombia, specifically drawing on data from the category of "alluvial gold mining through illicit extraction." The second provides an analysis of environmental impacts on strategic ecosystems and protected areas of Colombia using data on all forms of alluvial gold mining, of which an estimated two thirds is illicit and 92% has no environmental permitting.⁷¹ The third section considers the relationship between mining activity and deforestation. The fourth and final section presents an analysis of the biodiversity present in those areas that are affected by alluvial gold mining.

Location of Illegal Gold Mining in Colombia

Illegal alluvial gold mining is present in four of Colombia's six natural regions.⁷² By total hectares, the Pacific Region is most heavily impacted, followed by the Andean Region and to a lesser degree the Caribbean and Amazonian Regions. By another measure, the percentage of land area dedicated

⁶⁹ El Ministerio de Minas y Energía (Minenergía) is the public entity in charge of directing the national policy regarding mining, hydrocarbons and energy infrastructure. "Misión y Visión," Ministerio de Minas y Energía, accessed August 2020, https://www.minenergia.gov.co/mision-y-vision

⁷⁰ The impacts of legal, large scale corporate mining operations on biodiversity is an important topic meriting discussion, but is beyond the scope of this report.

⁷¹ A research decision was made to analyze all categories of alluvial gold mining for this section, since many of the environmental impacts are the same across categories. Moreover, it provides a more accurate overview of environmental impacts since precise categorization is inherently challenging. As previously noted, data by the Colombian Government and the UNODC indicates that the majority of alluvial gold mining falls into the category of illicit extraction. See "Explotación de oro de aluvión con uso de maquinaria en tierra (EVOA), United Nations Office on Drugs and Crime, (UNODC), accessed July 2020, https://www.unodc.org/documents/colombia/2019/Diciembre/EVOA 2019 - Infografia.pdf

⁷² The Colombian territory is divided into six natural regions and each one of them has unique characteristics in terms of topographical relief, climate, vegetation, hydrography, and soil type, among other things. The six natural regions are: Amazon, Andean, Caribbean, Insular, Orinoquía and Pacific. Sandra Ropero Portillo, "Natural regions of Colombia," Ecología verde, updated August 11, 2020, https://www.ecologiaverde.com/regiones-naturales-de-colombia-2784.html

to illegal gold mining, the natural region that is most affected by illegal gold mining (IGM) is again the Pacific Region, followed by the Andean, Caribbean and Amazon Regions (see Table 2 below).

Table 2. Presence of Illicit Gold Mining in Colombia by Natural Region, 2019

Natural Region	Area Affected By Igm (Ha)	% Igm / Total Igm	Size Of The Region (Ha)	% Igm / Total Ha Region
Pacific	30,930.94	47.79%	5,832,865.12	0.530%
Andean	24,897.76	38.47%	32,198,140.35	0.077%
Caribbean	83,79.71	12.95%	12,202,671.56	0.069%
Amazon	518.49	0.80%	41,266,155.43	0.0013%
Total Area (Ha)	64,726.89	100%	91,499,832.46	

Source: Authors' own elaboration with 2019 data from MinMinas and UNODC.

Moreover, 12 out of Colombia's 32 departments have reported illicit gold extraction,⁷³ covering an area of over 64,000 hectares (approximately 250 square miles), distributed among the departments of Antioquia, Chocó, Bolívar, Córdoba, Nariño, Cauca, Valle del Cauca, Putumayo, Guainía, Caldas, Caquetá and Tolima. By total area, the department with the largest presence of illicit gold extraction is Chocó, which represents 43 percent of the nationwide total by hectares. It is followed by Antioquia. The table below provides additional detail.

Table 3. Presence of Illegal Gold Mining in Colombia by Department, 2019

Department	Area Affected By Igm (Ha)	Area Affected By Igm, 2019, By % Of Total Area
Chocó	27,543.20	42.55%
Antioquia	20,744.04	32.05%
Bolívar	5,799.25	8.96%
Córdoba	4,723.27	7.30%
Nariño	2,862.24	4.42%
Cauca	1,885.19	2.91%
Valle Del Cauca	608.04	0.94%
Putumayo	285.05	0.44%
Guainía	134.82	0.21%
Caldas	86.15	0.13%
Caquetá	53.10	0.08%
Tolima	2.54	0.004%
Total Area (Ha)	64,726.89	100%

Source: Authors' own elaboration with 2019 data from MinMinas and UNODC.

⁷³ According to the 1991 National Constitution of Colombia, for the administration of the State and political representation, the national territory is divided for administrative purposes into departments, districts, municipalities and indigenous territories, which is known as the political-administrative division. As a result, Colombia is divided into 32 departments headed by a governor and an assembly of deputies elected by popular vote. "División Político-Administrativa de Colombia," DANE, accessed August 2020, https://www.dane.gov.co/files/investigaciones/divipola/olddivipola/2007.pdf

From the previous table, it is important to highlight that around 74 percent of total illegal gold mining present in Colombia is concentrated in Chocó and Antioquia. These two departments contain a total of 44 of the 96 municipalities affected by illicit extraction.⁷⁴ The remaining 52 municipalities are distributed across the departments of Bolívar (13), Cauca (11), Nariño (eight), Putumayo (six), Caldas (four), Córdoba (three), Guainía (three), Valle Del Cauca (two), Caquetá (one) and Tolima (one).

Moreover, the top nine municipalities by hectares of land under illegal gold mining represent 48 percent of all illicit gold extraction in Colombia. More detail on these municipalities is presented in the following table.

Table 4. Municipalities Most Affected by Illegal Gold Mining, 2019

Department	Municipality	Area Affected By Igm, Measured In Ha	% Of Total Igm Nationwide Measured In Ha
	El Cantón Del San Pablo	4,952.98	7.65%
Chocó	Nóvita	3,774.37	5.83%
CHOCO	Río Quito	3,210.90	4.96%
	Istmina	2,475.53	3.82%
	Cáceres	3,468.09	5.36%
Antioquia	Nechí	3,361.23	5.19%
Antioquia	Zaragoza	2,726.08	4.21%
	El Bagre	2,264.87	3.50%
Cordoba	Ayapel	4,694.92	7.25%

Source: Authors' own elaboration with 2019 data from Minenergía and UNODC.

All of these municipalities have an area larger than 2,000 hectares affected by illegal gold mining, and, in the following map, they can be found shaded in red.

⁷⁴ According to the 1991 National Constitution of Colombia, for the administration of the State and political representation, the national territory is divided for administrative purposes into departments, districts, municipalities and indigenous territories, which is known as the political-administrative division. At the second level of administrative division, Colombia is currently divided into 1,123 municipalities, which by grouping make up the departments. The municipalities are headed by mayors and a municipal council elected by popular vote.
"¿Cómo es la organización político-administrativa de Colombia?," Colombia.co, accessed August 2020, <a href="https://www.colombia.co/pais-colombia/estructura-del-estado-colombiano/como-es-la-organizacion-politico-administrativa-de-colombia

Legend Departamental Boundary Municipalities with Illicit Gold Extraction LA GUAJIRA Illicit Extraction in Hectares, 2019 CARIBBEAN SEA0.16 - 25.15 TLÁNTICO 25.16 - 77.53 MAGDALENA 77.54 - 166.01 166.02 - 270.05 270.06 - 459.42 459.43 - 625.86 BOLÍVAR PANAMA ORDOBA) AYAPEL SUCRE 625.87 - 1102.39 1,102.40 - 1,814.74 NECHÍ NORTE DE CÁCERES 1,814.75 - 2,726.07 SANTANDER 2,726.08 - 4,952.98 EL BAGRE ZARAGOZA SANTANDER ARAUCA **VENEZUELA** PACIFIC ANTIOQUIA OCEAN CHOCÓ RIO QUITO EL CANTÓN DEL SAN PABLO RIŞÂRALDA CASANARE QUINDÍO ISTMINA VICHADA CUNDINAMARCA NÓVITA TOLIMA DEL META CAUCA HUIL GUAINÍA GUAVIARE NARIÑO VAUPÉS CAQUETÁ **BRAZIL** AMAZONAS **ECUADOR PERU** 75°0'0"W 72°0'0"W 69°0'0"W 78°0'0"W

Figure 2. Locations of Illicit Gold Extraction in Colombia (municipal level), 2019

Source: Authors' own elaboration with data from MinMinas and UNODC.

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With regards to the percent of municipal lands impacted by illicit gold extraction, 11 municipalities have over two percent of lands affected. The municipality with the highest of percentage of land used for illicit gold extraction is El Cantón del San Pablo, followed by Unión Panamericana. Both are located in the department of Chocó.

Table 5. Municipalities with Greatest Coverage of Illicit Gold Extraction, 2019

Department	Municipality	A. Area Affected Illicit Extraction, 2019 (Ha)	B. Municipal Land (Ha)	C. % Municipal Land Affected By Illegal Extraction (A/B)
	El Cantón Del San Pablo	4,952.98	38,049.54	13.02%
	Unión Panamericana	1,611.81	17,776.01	9.07%
	Río Quito	3,210.90	69,898.26	4.59%
	Nóvita	3,774.37	94,527.72	3.99%
Chocó	Cértegui	1,415.18	42,336.34	3.34%
	Condoto	1,252.43	46,771.74	2.68%
	Atrato (Yuto)	920.12	42,156.68	2.18%
	Medio San Juan	1,342.98	66,341.29	2.02%
	Nechí	3,361.23	93,731.98	3.59%
Antioquia	Zaragoza	2,726.08	116,760.20	2.33%
Córdoba	Ayapel	4,694.92	196,495.44	2.39%

Source: Authors' own elaboration with 2019 data from MinMinas and UNODC.

Impacts of Alluvial Gold Mining on Specific Ecosystems and Protected Areas

To understand the impacts on ecosystems and protected areas – specifically looking at páramos,⁷⁵ wetlands,⁷⁶ tropical dry forests,⁷⁷ and the National System of Protected Areas of Colombia (in Spanish, Sistema Nacional de Áreas Protegidas or SINAP)⁷⁸ – the presence of alluvial gold mining

⁷⁵ Alpine tundra ecosystems.

⁷⁶ According to the Humboldt Institute, wetlands are ecosystems that allow the accumulation of water temporarily or permanently and give rise to a characteristic type of soil and/or organisms adapted to these conditions. The presence of these ecosystems throughout Colombia is widely recognized and includes biotic, physical and human communities. Úrsula Jaramillo Villa, Jimena Cortés-Duque, and Carlos Flórez-Ayala, editors, Colombia Anfibia. Un país de humedales. Volumen I (Bogotá: Instituto de Investigación de Recursos Biológicos Alexander von Humboldt, 2015), https://repository.humboldt.org.co/handle/20.500.11761/9290

⁷⁷ This is a unique biome found mainly in the lowlands, where there is a marked period of drought during the year. In the Neotropics, dry forests are found in contrasting biogeographical regions that contain high beta diversity and endemism, but also strong anthropogenic pressures that threaten their biodiversity and ecological integrity. Roy González-M, Hernando García, Paola Isaacs, Hermes Cuadros, René López-Camacho, Nelly Rodríguez, Karen Pérez, Francisco Mijares, Alejandro Castaño-Naranjo, Rubén Jurado, Álvaro Idárraga-Piedrahíta, Alicia Rojas, Hernando Vergara, and Camila Pizano, "Disentangling the environmental heterogeneity, floristic distinctiveness and current threats of tropical dry forests in Colombia," 13, vol. 4, April 3, 2018, https://iopscience.iop.org/article/10.1088/1748-9326/aaad74/meta

⁷⁸ These are a group of protected areas – as well as social actors, management strategies and instruments that articulate them – to contribute an in integral manner to the country's conservation objectives. They include all protected areas of public, private or community governance, and of national, regional or local management. "Sistema Nacional de Áreas Protegidas – SINAP," Parques Nactionales Naturales de Colombia, accessed August 2020, https://www.parquesnacionales.gov.co/portal/es/sistema-nacional-de-areas-protegidas-sinap/

was analyzed within and in proximity to each of these four areas. Methodologically, this was done by selecting and quantifying the presence of alluvial gold mining that is completely contained within each of these four ecosystems of interest, and then subsequently creating a 10-kilometer buffer around the units to also analyze environmental spillover effects.

While the previous section focused exclusively on illicit mining, this section is primarily interested in environmental impacts, and thus, it analyzes the broader category of all alluvial gold mining, since 92% of alluvial gold mining lacks environmental permits.⁷⁹

The analysis found that alluvial gold mining is not present within the páramos ecosystem, nor is it present in the 10-kilometer buffer zone. However, it did find presence in wetland ecosystems, with 17,520 hectares affected by alluvial gold mining, impacting all types of Colombian wetlands (permanent open, permanent under canopy, temporary and potential). The department whose wetlands are most affected by alluvial gold mining is Chocó (14,119 Ha), followed by Antioquia (2,258 Ha) and Bolívar (1,037 Ha). When the 10-kilometer buffer zone is applied, we find that 80,218 hectares of illegal gold mining has direct or spillover impacts on the wetlands ecosystem.

The analysis conducted of the tropical dry forest ecosystem did not find a direct presence of alluvial gold mining, but did find 465 hectares of alluvial mining within the buffer zone. The department whose tropical dry forest is most impacted is Cauca (314 Ha), followed by Bolívar (122 Ha) and Tolima (30 Ha).

^{79 &}quot;Explotación de oro de aluvión con uso de maquinaria en tierra (EVOA), United Nations Office on Drugs and Crime, (UNODC), accessed July 2020, https://www.unodc.org/documents/colombia/2019/Diciembre/EVOA 2019 - Infografia.pdf

With regards to SINAP, 5,849 hectares of alluvial gold mining is present within protected zones, as the following table shows.

Table 6. Categories of the Sistema Nacional Ambiental Affected by Alluvial Gold Mining in Colombia, 2019

Category	Name Of The Protected Area	Department	Area Affected By Alluvial Gold Mining, (Ha)
Diatritas Pagionalos Do	Del Complejo De Humedales De Ayapel	Córdoba	4,698.26
Distritos Regionales De Manejo Integrado	Ciénagas El Sapo Y Hoyo Grande	Antioquia	651.85
	Ciénagas Corrales Y El Ocho	Antioquia	213.48
Reservas Forestales	Rio Anchicaya	Valle Del Cauca	149.24
Protectoras Nacionales	Darién	Chocó	58.7
Reserva Natural	Puinawai	Guainía	75.35
Parque Nacional Natural Farallones De Cali		Valle Del Cauca	1.86
	5,848.75		

Source: Authors' own elaboration with 2019 data from MinMinas and UNODC.

As the previous table indicates, the Regional Integrated Management Districts (in Spanish, Distritos Regionales de Manejo Integrado)⁸⁰ are the most affected, with 5,564 hectares corresponding to 95 percent of the alluvial gold mining in these areas. They are followed by the National Protected Forest Reserves (in Spanish, Reservas Forestales Protectoras Nacionales)⁸¹ at 208 hectares, the Natural Reserves (in Spanish, Reservas Naturales)⁸² at 75 hectares and the National Natural Parks (in Spanish, Parques Nacionales Naturales)⁸³ at two hectares. When the analysis is conducted considering the 10-kilometer buffer zone, 7,900 hectares of alluvial gold mining has spillover environmental impacts for all of the protected areas (in Spanish, the "Sistema Nacional Ambiental"). The departments experiencing the greatest pressure on protected areas are Antioquia (7,068 Ha), Valle del Cauca (340 Ha) and Cauca (167 Ha).

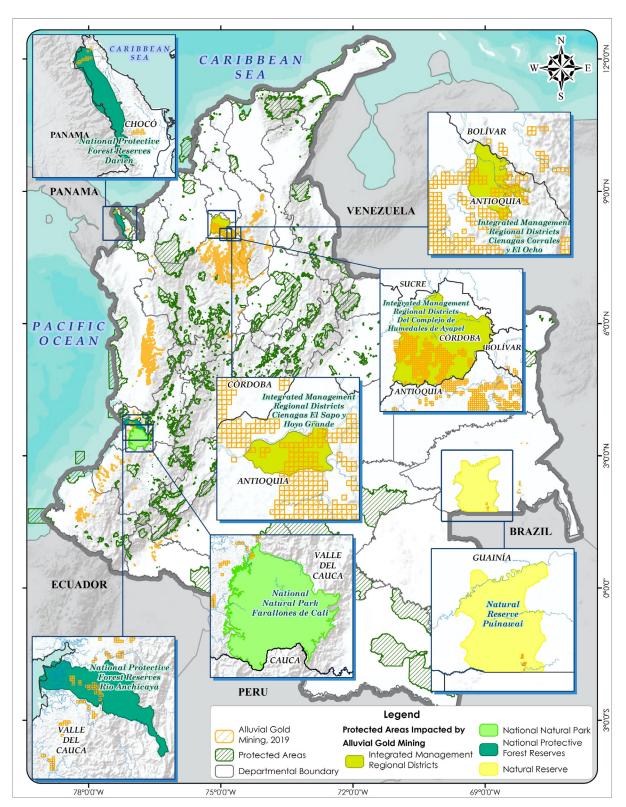
⁸⁰ Regional Integrated Management Districts (in Spanish, Distritos Regionales de Manejo Integrado) are regionally landscapes and ecosystems that, while maintaining their natural state, are also made available to people for sustainable use and recreation. See "Áreas protegidas que conforman el Sistema Nacional de Áreas Protegidas – SINAP," Parques Nacionales de Colombia, https://runap.parquesnacionales.gov.co/acerca

⁸¹ National Protected Forest Reserves (in Spanish, Reservas Forestales Protectoras Nacionales) are national protected areas that remain primarily forest, though their structure and composition have been modified. They are available to the human population to be used for sustainable use and recreation. See "Áreas protegidas que conforman el Sistema Nacional de Áreas Protegidas – SINAP," Parques Nacionales de Colombia, https://runap.parquesnacionales.gov.co/acerca

⁸² The Natural Reserves (in Spanish, Reservas Naturales) are protected areas with special conditions of flora and fauna which are preserved for conservation, research and study. See "Áreas protegidas que conforman el Sistema Nacional de Áreas Protegidas – SINAP," Parques Nacionales de Colombia, https://runap.parquesnacionales.gov.co/acerca

⁸³ National Natural Parks (in Spanish, Parques Nacionales Naturales) are ecosystems that have not been substantially altered by human exploitation or occupation, in which plants, animals, unique landforms, and historical and cultural artifacts have unique scientific, educational, aesthetic and recreational value. See "Áreas protegidas que conforman el Sistema Nacional de Áreas Protegidas – SINAP," Parques Nacionales de Colombia, https://runap.parquesnacionales.gov.co/acerca

Figure 3. Protected Areas Affected by Alluvial Gold Mining in Colombia, 2019



Source: Authors' own elaboration using data from MinMinas, UNODC and Parques Nacionales Naturales de Colombia.

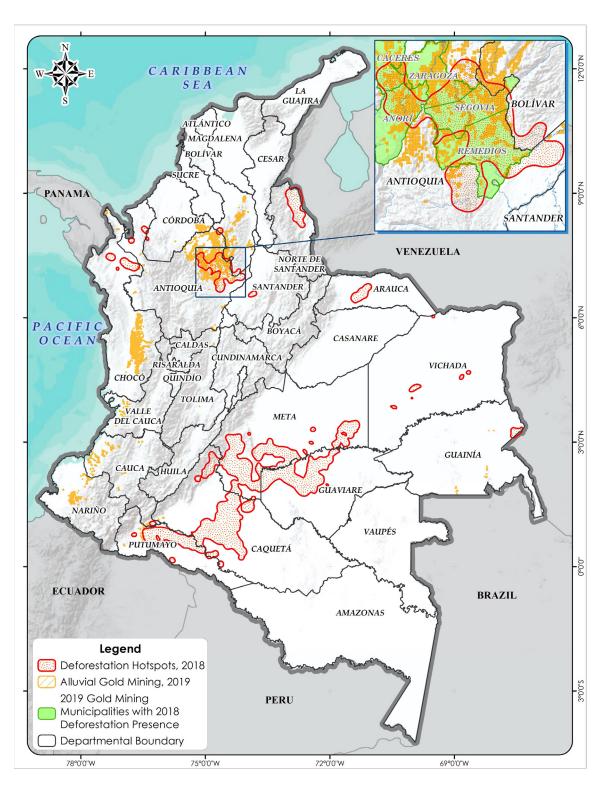
Deforestation and Illegal Gold Mining in Colombia

Deforestation is one of the major environmental issues facing Colombia today. According to analysis by the Forest and Carbon Monitoring System of Colombia (in Spanish, Sistema de Monitoreo de Bosque y Carbono para Colombia or SMByC) on the primary drivers of forest loss in 2019,⁸⁴ illicit extraction of minerals was ranked as the fourth direct cause of deforestation, following land grabbing, illicit crops and extensive cattle ranching. For this analysis, the 2019 gold extraction data was compared with the most recent geographical data on deforestation (2018). The analysis showed that 10,253 hectares of alluvial gold mining are located in deforestation hotspots, or "nuclei," concentrated in four departments: Antioquia (9,126 ha), Bolívar (970 ha), Chocó (141 ha) and Putumayo (16 ha).

Antioquia is the department with the greatest convergence between alluvial gold mining and the presence of deforestation (see Figure 4 below). This department alone represents 89 percent of the total areas of alluvial gold mining that are located within the 2018 deforestation hotspots. This finding suggests the urgent need for measures to be taken, at a departmental and national level, to prioritize this department and to seek solutions to control and mitigate the grave environmental impacts on forests, ecosystems, and the environment as a whole.

The Forest and Carbon Monitoring System of Colombia (in Spanish, Sistema de Monitoreo de Bosque y Carbono para Colombia or SMByC) is comprised of a series of tools, procedures and professionals specialized in generating information that is used to pinpoint where, when, and why changes are occuring to the land and to the forest carbon contents. See "What is the Forest and Carbon Monitoring System of Colombia, "Sistema de Información Ambiental de Colombia, accessed August 2020, <a href="http://www.siac.gov.co/smbyc#:-:text=%C2%BFQu%C3%A9%20es%20el%20sistema%20de.y%20carbono%20para%20Colombia%20%2D%20SMBYC%3F&text=Para%20lograr%20esto%2C%20el%20sistema,la%20deforestaci%C3%B3n%20a%20nivel%20nacional

Figure 4. Deforestation Hotspots and Presence of Alluvial Gold Mining. Inset Shows the Department of Antioquia, with 89 percent of Alluvial Gold Mining Occurring in Deforestation Hotspots, 2019



Source: Authors' own elaboration with data from MinMinas, UNODC and the Instituto de Hidrología, Meteorología y Estudios Ambientales (IDEAM). Alluvial mining data is from 2019, and deforestation data from 2018 (most recent year available).

Impacts on Biodiversity

This section compares 2019 geographical data on alluvial gold mining in Colombia⁸⁵ with the species in the Global Biodiversity Information Facility (GBIF).⁸⁶ This database is currently the single most comprehensive source for registries of species found in Colombia published by national and international institutions and organizations. The registries on species and presence published by GBIF and analyzed in this section, provide an approximation of the richness and abundance of species located in alluvial gold mining areas in 2019.

Keeping this in mind, the analysis found 1,552 animal species and 3,019 plant species, in a total of 46,959 geographically-coded species records (see Table 7 below) in areas of alluvial gold mining. Within this data, it is important to highlight the presence of 428 endemic species.⁸⁷

Table 7. Species Present within the Geographical Areas of Alluvial Gold Mining in Colombia, 2019

Biological Group	Number of Species	Endemic Species	Number of Geographical Records
Plants	3,019	281	19,232
Birds	776	15	19,521
Insects	214	Does Not Apply ⁸⁸	3,653
Fish	197	87	1,530
Amphibians	98	24	1,452
Reptiles	130	15	988
Mammals	137	6	583
Total	4,571	428	46,959

Source: Authors' own elaboration with data from MinMinas, UNODC, the Instituto de Hidrología, Meteorología y Estudios Ambientales (IDEAM) and Global Biodiversity Information Facility (GBIF).

⁸⁵ Using a spatial scale of one kilometer squared, with data from MinMinas and UNODC for 2019.

⁸⁶ Global Biodiversity Information Facility (GBIF) is an international organization and research network funded by governments around the world, aimed at providing anyone, anywhere, free and open access to data on any type of life on Earth. "What is GBIF?" Global Biodiversity Information Facility, accessed August 2020, https://www.gbif.org/es/what-is-gbif

⁸⁷ Endemism is a term used in biology to indicate that the distribution of a taxon is limited to a narrow geographic range and that is not found naturally in any other part of the world. When it is indicated that a species is endemic to a certain region, it means that it is only possible to find it naturally in that place. Elkin A. Noguera-Urbano, "El endemismo: diferenciación del término, métodos y aplicaciones," Acta zoológica mexicana 33, no. 1, 2017, http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S0065-17372017000100089

⁸⁸ Colombia does not have documented endemic insect species. For more detail, see Estefanía Fajardo de la Espriella, "Qué tanto conocemos de nuestros insectos?" El Heraldo, July 5, 2019, https://www.elheraldo.co/ciencia/que-tanto-conocemos-de-nuestros-insectos-647148

The species identified as present in alluvial mining areas were then compared to the International Union for Conservation of Nature's (IUCN) Red List of Threatened Species, which categorizes species based on their extinction risk.⁸⁹ As seen in Table 8, 76 species were identified as being either "critically endangered" (facing an extremely high risk of extinction in the wild), "endangered" (facing a very high risk of extinction in the wild), or "vulnerable" (facing a high risk for extinction in the wild).⁹⁰

Table 8. Species in IUCN Threat Categories Present within Alluvial Gold Mining Areas in Colombia

Category	Number Of Threatened Species
Critically Endangered	6
Endangered	21
Vulnerable	49
Total	76

Source: Authors' own elaboration with 2019 mining data from MinMinas, UNODC, IDEAM and GBIF.

Those species that are classified as "critically endangered" are further identified in Table 9.

Table 9. Critically Endangered Species in Areas Affected by Alluvial Gold Mining, 2019

Species	Biological Group	Common Name
Ateles Hybridus	Mammal	Brown Spider Monkey
Lipaugus Weberi	Bird	Chestnut-Capped Piha
Oophaga Histrionica	Amphibian	Harlequin Poison Frog
Pimelodus Grosskopfii	Fish	"Capaz" (Spanish Common Name)
Saguinus Oedipus	Mammal	Cotton-Top Tamarin
Swartzia Oraria	Plant	-

Source: Authors' own elaboration with 2019 mining data from MinMinas, UNODC, IDEAM and GBIF.

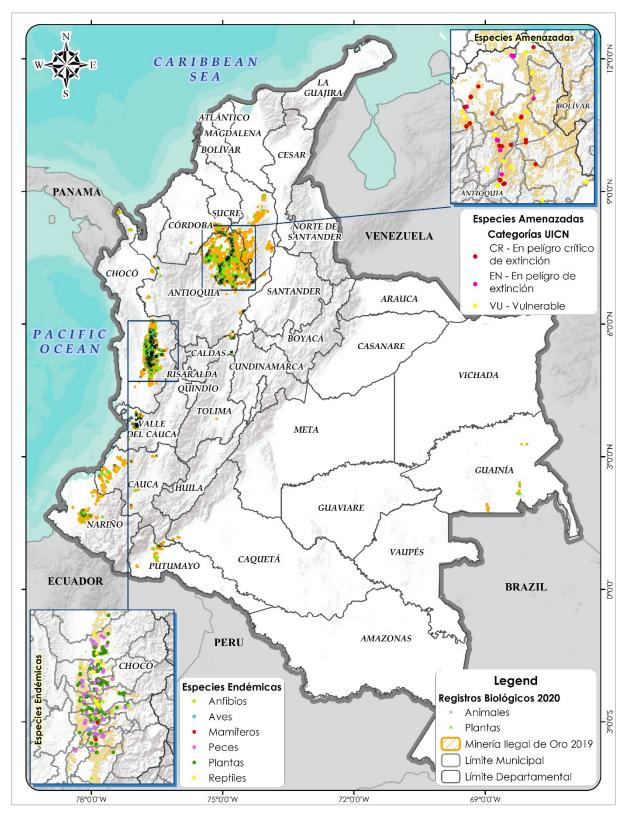
⁸⁹ IUCN is a Union of Members made up of government organizations and civil society organizations. IUCN draws on the experience, resources and reach of its more than 1,400 Member organizations and the contributions of more than 15,000 experts. This diversity and extensive experience make IUCN the world's authority on the state of the natural world and the measures necessary to safeguard it. "About," International Union for the Conservation of Nature, accessed August 2020, https://www.iucn.org/about

⁹⁰ For more information on the criteria for each category, see IUCN Species Survival Commission, "IUCN Red List categories and criteria, version 3.1, second edition" (Gland and Cambridge: IUCN, 2012), https://portals.iucn.org/library/node/10315

The tables above raise substantial concerns about the impacts of alluvial gold mining, the majority of which occurs without environmental permits, on Colombia's biodiversity. On the one hand, they indicate the presence of 428 endemic species, that is to say, species that can only be found living or growing naturally in areas where illegal gold mining is occurring. The department with the largest number of endemic species affected is Chocó, with 204 species, followed by Antioquia with 196 species. Moreover, 76 threatened species – species who are at risk for future extinction – are affected. In this sense, it is important to take steps to address the continued pressure on and environmental damage to these areas due to gold mining. In regards to threatened species, Antioquia is home to 42 and Chocó, 32.

Considering the fact that the departments of Antioquia and Chocó have the largest presence of alluvial gold mining in Colombia, Figure 5 was created with two special insets that provide greater detail on these two departments. On the national map, the geographical distribution of species is shown in relation to the presence of alluvial gold mining, in the special inset for Chocó, alluvial gold mining is shown relative to endemic species, and in the special inset for Antioquia, alluvial gold mining is shown in relation to the location of IUCN threatened species.

Figure 5. Biological Registries in Alluvial Mining Areas, Insets Showing The Two Departments of Antioquia and Chocó, Where Mining Has Greater Impacts on **Biodiversity, 2019**



Source: Authors' own elaboration using data from MinMinas, UNODC and GBIF.

29

Informal Gold Mining in Colombia: Vulnerabilities and Challenges

by Angela María Mesa González and Natalia González Parias from the Alliance for Responsible Mining

This chapter addresses the role of small-scale and artisanal gold mining communities within the larger context of illicit gold mining. Small-scale and artisanal gold mining is not inherently illicit, by any means. However, such miners are often vulnerable to the larger forces at play in illicit economies. This section considers some of the reasons why, from poverty and economic informality on the one hand, to complex regulatory requirements and inadequate coordination among government agencies on the other. Next, the chapter discusses several promising initiatives for formalizing and better protecting small-scale and artisanal gold miners, including certifications and community programs. The chapter concludes with recommendations to strengthen supply-chain integrity while also protecting the rights and livelihoods of small-scale and artisanal miners.

Context

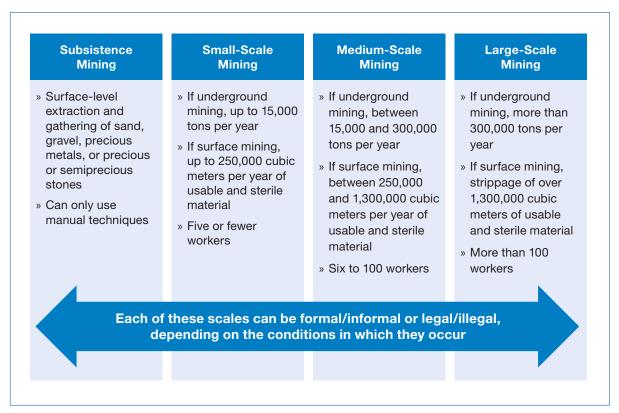
In Colombia, mining is an important economic activity that not only generates, on average, close to two percent of the national GDP, but also contributes at least 20 percent of royalties that provide social spending for the country. The mining sector directly generates approximately 350,000 jobs, or 1.5 percent of employment nationwide. Moreover, it indirectly generates more than a million jobs via productive supply chains throughout the country. In addition, mining exports represent 20 percent of all exports from Colombia by value.⁹¹

To fully understand the context of mining in Colombia, it is helpful to analyze it in terms of three overarching categories: the classification of the scale of mining, and the differentiation between mining that is formal/informal and legal/illegal. With regards to the former, Decree 1666 of 2016 classifies the scale of a mining operation as either subsistence, small, medium or large depending on the amount of mineral that is extracted and the type of mining operation, whether it be surface or underground, 92 as is outlined in Figure 6 below.

^{91 &}quot;Entra en operación nuevo Catastro Minero que fortalece la protección del medio ambiente, la legalidad y la transparencia," Agencia Nacional de Minería, December 13, 2019, https://www.anm.gov.co/?q=entra-en-operacion-nuevo-catastro-minero-que-fortalece-la-proteccion-del-medio-ambiente-la-legalidad-y-la-transparencia

⁹² The definitions of "surface mining" may vary depending on the country. In Colombia, alluvial mining is considered surface mining.

Figure 6: Definition of the Mining Scales



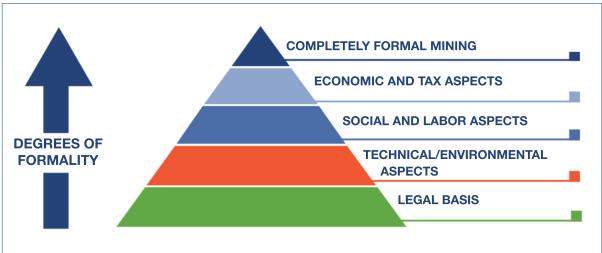
Source: Angela María Mesa González and Natalia González Parias, Alliance for Responsible Mining, 2020.

Next, it is important to lay out two additional concepts to help understand this sector: formality and legality. Extraction is legal (this being the first step in achieving formality) when it is carried out under the legal framework of a proper mining title issued by government authorities, ⁹³ either the National Agency of Mining or the Secretary of Mines of Antioquia, ⁹⁴ and when it has a valid environmental license. In cases where mining activity takes place without a current mining title, this extraction is considered illegal, and falls under "illicit extraction of mineral deposits," which is a crime according to Colombia's penal code. Formality refers to compliance with additional legal, environmental, technical, economic, labor and social requirements according to Colombian legislation, ensuring that the mining operation is sustainable and responsible and that it demonstrates progressive compliance with requirements, as Figure 7 shows. In this sense, a mining operation may be legal without being completely formal.

⁹³ In Colombia, a mining title is granted, through a concession contract, to the person or legal entity who carries out the mining operation. It is generally valid for 30 years. The concession contract specifies the name of the person or legal entity, as well as its legal representative, should it have one. It also specifies the geographical limits of the mining area, the Labor and Works Program, and the monthly production limits. Finally, it lavs out the responsibilities and obligations under the duration of the contract.

⁹⁴ The National Mining Agency (in Spanish, Agencia Nacional de Minería or ANM), as the government authority charged with management of mining resources, delegated responsibility for granting mining titles within the Department of Antioquia to the Secretary of Mines of the Interior. However, Special Reserve Areas remain under the jurisdiction of the ANM.

Figure 7: Degrees of Formality



Source: Cristina Echevarría, ¿Qué es legal? Formalización de la minería artesanal y de pequeña escala en Colombia (London and Envigado, Colombia: International Institute for Environment and Development and Alliance for Responsible Mining, 2015) p58. http://www.responsiblemines.org/wp-content/uploads/2017/05/Que-es-legal-Cristina-Echavarria-U.pdf

However, it is important to note that certain mining operations, despite the fact that they are carried out under a valid mining title, may not fully comply with labor and environmental legislation – that is, they do not meet all the requirements to be considered a fully formal enterprise.

Similarly, it is important to differentiate another category within the mining sector, which is criminal mining. This occurs when extractive activities are carried out to obtain income that is used to finance criminal operations, or that use criminal methods to carry out mineral extraction.⁹⁵ Unfortunately, there are a number of examples of criminal mining in Colombia, from the Goldex Case,⁹⁶ to the Metales Hermanos Case,⁹⁷ to the Gutierrez Case.⁹⁸

The last regional mining census, which was conducted by the Colombian Ministry of Mines and Energy in 2010-2011, helps to shed light on these dynamics. The census, which surveyed 14,357 production sites for metallic minerals, nonmetallic minerals, coal and precious stones, found that 63 percent lacked a legal mining title under the National Mining Registry. Though at the time of the census the mining scale classification had not yet been introduced, on the basis of the number of

⁹⁵ GDIAM (Grupo de Diálogo sobre Minería en Colombia), Propuestas para una visión compartida sobre la minería en Colombia, 2016. Publication forthcoming.

^{96 &}quot;Desarticulada red de lavado de dinero a través de exportaciones de oro," Fiscalía de Colombia, January 16, 2015, https://www.fiscalia.gov.co/colombia/noticias/destacada/desarticulada-red-de-lavado-de-dinero-a-traves-de-exportaciones-de-oro/

^{97 &}quot;Usaban personas muertas y a indígenas para lavar dinero de exportación ilegal de oro," Noticias Caracol, April 5, 2019, https://noticias.caracoltv.com/colombia/usaban-personas-muertas-y-a-indigenas-para-lavar-dinero-de-exportacion-ilegal-de-oro

^{98 &}quot;2.4 billones de pesos fueron blanqueados en operaciones ficticias de compra y venta de oro," Fiscalía de Colombia, April 11, 2019, https://www.fiscalia.gov.co/colombia/noticias/2-4-billones-de-pesos-fueron-blanqueados-en-operaciones-ficticias-de-compra-yventa-de-oro/

employees per extraction site,⁹⁹ the census found that only one percent of operations were large-scale, 26 percent were medium scale and 72 percent were small-scale. With regards to formality, it found that 65 percent did not pay royalties and 75.7 percent did not have proper environmental permits and authorizations. Meanwhile, 72 percent did not have worker safety and health policies, and only 54 percent of workers had a legal employment contract.¹⁰⁰

With regards to gold mining specifically, the census found that 86.7 percent occurred without a legal mining title, which is 23 percentage points higher than the mining sector overall. By geographic region, the departments of Antioquia, Chocó and Bolívar were the top producers of gold, and, at the same time, represented the highest rates of informality with regards to metal mining. These departments are also representative of nation-wide trends, since the majority of their mining operations are small-scale: 68 percent in the case of Antioquia, 54 percent in Chocó and 67 percent in Bolívar. For gold mining, the census also found that 78 percent of production sites did not pay any royalties.¹⁰¹

The census results also shed light on the socioeconomic characteristics of people who are involved in mining. For example, it found that 10.4 percent of miners belong to minority groups, mainly Afrodescendent (approximately 70 percent of minority miners) and indigenous (roughly 12 percent of minority miners). Moreover, census data indicates that 50 percent of Afro-descendent miners reside in Chocó, and that 90 percent work in mines that do not have a mining title. Within the informal mining sector, 62.7 percent of miners are illiterate, and only 15 percent have reached some level of university studies, compared to 84 percent within the formal mining sector.¹⁰²

Antioquia, Chocó and Bolívar, the geographic regions with the highest levels of informal gold mining, also have high levels of multidimensional poverty: 85.79 percent for Chocó, 62.84 percent for Bolívar and 44.29 percent for Antioquia. Moreover, the population living in extreme poverty is at 20.22 percent for Chocó, 8.02 percent for Bolívar, and 2.48 percent for Antioquia. It is also important to note that, at a national level, Chocó is the most unequal department, with a GINI Coefficient of 0.57; Antioquia is in seventh place, with a GINI Coefficient of 0.50, and Bolívar in sixteenth place, at 0.46. In this sense, these departments experience conditions of poverty and inequality that affect small and artisanal miners, as well as the general population; moreover, this context highlights the importance of small and artisanal mining as critical for economic livelihoods.

⁹⁹ Large-scale mining is defined as those operations with more than 100 workers, medium-scale as six to 100 workers, and small-scale as five or fewer workers.

Ministerio de Minas y Energía, Censo minero departamental 2010 – 2011 (Bogotá: Ministerio de Minas y Energía, 2012), 19-22, https://www.minenergia.gov.co/documents/10180/698204/CensoMinero.pdf/093cec57-05e8-416b-8e0c-5e4f7c1d6820

¹⁰¹ Ibid, 19.

¹⁰² Ibid, 27.

[&]quot;Fichas de caracterización territorial," Departamento Administrativo Nacional de Estadística, accessed August 2020, https://terridata.dnp.gov.co/index-app.html#/comparaciones. Multidimensional poverty is defined in terms of 15 indicators, and households are considered to be experiencing multidimensional poverty when they lack at least 33% of them. The indicators include access to improved drinking water, access to adequate plumbing or sanitation services, and access to schooling, among other things. For more detail, see https://www.dane.gov.co/files/investigaciones/condiciones_vida/pobreza/2018/bt_pobreza_multidimensional_18.pdf

¹⁰⁴ Ibid.

In Colombia there are structural barriers – cultural, ¹⁰⁶ legal and institutional in nature – that hinder the formalization of the mining sector, and, in particular, the formalization of artisanal and small-scale mining, which represents the majority of mining activity in the country. However, this also

Because of its informality, mining has become vulnerable to criminal groups seeking to profit.

exposes the need to update the mining census, in accordance with current legislation, in order to design better formalization strategies that more accurately reflect the realities on the ground.

These issues with informality translate into weakened supply chains. One result is that it is not possible to connect with formal markets, and miners end up forced to sell their products in informal and local markets, which in turn reduces the collection of royalties, generates barriers to business growth and reduces

incomes, as the prices miners receive are very low by international standards; in the case of gold, miners receive between 60-70 percent of the international price.¹⁰⁷ An additional consequence of weakened supply chains is their vulnerability to activities such as the laundering of illicit resources that, in the context of armed conflict, may permeate mining activity. And because of its informality, mining has become vulnerable to criminal groups seeking to profit.

Barriers to Formality in Gold Mining¹⁰⁸

Regulatory Barriers

Though Colombia does have a classification of mining scales, up until 2019 there were no differentiated regulations for the diverse contextual conditions in which mining operations take place. For example, the requirements to access mining titles or to develop technical instruments were the same for both small-scale and large-scale mines, which was out of touch with the real-life capabilities of small-scale miners and made it materially impossible for them to comply with regulations in terms of formalization. As a result, these requirements ultimately pushed many small-scale miners into informality. However, Colombia's National Development Plan of 2018-2022,

¹⁰⁶ Cultural barriers include a variety of regional dynamics that affect the development of mining. These include, for example, a lack of skills and technical knowledge as well as the prevalence of practices that are harmful to the health, such as the use of mercury, which has required special efforts to raise awareness. They also include the belief that children and teenagers should start working in mining activities at an early age. Finally, it is important to mention the distance to these mining communities from urban areas, which makes it difficult to establish more robust communication channels and access to markets.

¹⁰⁷ This percentage is an estimate by the Alliance for Responsible Mining. It uses field research conducted during a study on the gold supply chain in the departments of Cauca, Nariño, Antioquia and Chocó.

These barriers and the following recommendations were identified during a participatory exercise as part of an action plan to improve the artisanal and small-scale mining sector. This took place in a regional workshop on December 5-6, 2019. It was put forth by the Alliance for Responsible Mining (ARM) as part of projects financed by the Ford Foundation, the Geneva Center for Security Sector Governance (DCAF), the Swiss-Norwegian Fund for Cooperation with Colombian Civil Society (FOS), the European Partnership for Responsible Minerals (EPRM), and the United States Department of Labor (USDOL). One hundred and five persons participated in the workshop. They included 72 male and female miners from the Departments of Antioquia, Bolivar, Boyacá, Caldas, Cauca, Chocó, Huila and Nariño. They also included 10 civil servants representing institutions such as the municipalities of Suárez, El Tambo and La Llanada; the regional governments of Cauca and Nariño; and in addition, the National Agency of Mining, the Regional Corporation of Cauca, and the Ministry of Mines and Energy. They also included 23 representatives from organizations such as ARM, Uniboyacá, Programa de Desarrollo para la Paz para el Magdalena Medio, United Nations Development Program, World Wildlife Federation, and El Grupo de Diálogo sobre Minería en Colombia (GDIAM).

¹⁰⁹ In Colombia, these technical instruments include the Labor and Works Plan, which is the cornerstone for a mining operation, as well as the environmental instrument, which generally is an environmental license.

seeking to promote formalization and a path to legality, initiated differentiated requirements for small-scale mining.¹¹⁰ These included, for example, a temporary environmental license for the formalization process, with specific terms for artisanal and small-scale miners in regards to their environmental impact study. They also included special concession contracts for small scale miners. However, these regulations have not yet begun to be implemented, and as such, the barriers faced by artisanal and small-scale miners remain in place.

Similarly, regulations undergo frequent and rapid changes.¹¹¹ As evidence of this, consider, for example, in the 19 years since the Colombian Mining Code was enacted in September 2001, it has undergone more than 10 legal and jurisprudential reforms and there have been efforts to enact at least two new codes. This generates legal uncertainty in terms of which conditions are current and how they apply to specific cases, especially in the absence of adequate public information systems. This particularly impacts artisanal and small-scale mining, as there are challenges in disseminating information about changes in legislation and guidance on how to interpret them as well as in providing greater transparency regarding the mining sector (for example, identifying the true beneficial owners on contracts).

Barriers in Institutional Coordination and Organization

There has been a lack of coordination and organization among the institutions that oversee the activities of the artisanal and small-scale mining sector, as well as a lack of clarity regarding regulatory requirements. These institutions include mining and environmental authorities, such as the Ministry of Mines, the National Agency of Mines, the Ministry of the Environment, the Ministry of Labor and the Regional Autonomous Corporations. The result has been confusion, reprocessing of permits, and added costs, delays and impositions on miners who do not have the technical or financial capacity to restart the formalization paperwork. This also comes back to the issue discussed previously, in which there is no single, unified, and easily accessible source of information to which miners can refer.¹¹²

With regards to this barrier, it's important to recognize the role of the Secretary of Mines of Antioquia, which, as has been noted, has received a delegation of authority allowing it to grant, supervise and control mining titles on behalf of the National Agency of Mining.¹¹³ As a result, Antioquia has been more agile in terms of granting titles and responding to requests, having granted 1,977 requests including concession contracts, temporary authorizations, legalizations of

¹¹⁰ Law 1955 of 2019.

¹¹¹ To list just a few of these reforms, see Law 863 of 2003; Law 926 of 2004; Law 1382 of 2010, subsequently declared unenforceable by the Constitutional Court under sentence C366 of 2011; Decree 19 of 2012; Law 1676 of 2013; Law 1753 of 2015; Decree 1666 of 2016; Law 1955 of 2019; Sentence C339 of 2002; Sentence C273 of 2016.

¹¹² These barriers were identified during a participatory exercise as part of an action plan to improve the artisanal and small-scale mining sector on December 5-6, 2019 by the Alliance for Responsible Mining.

¹¹³ Resolution 660 of 2018.

traditional mining and formalization subcontracts. This represents 21.6 percent of all requests that had been granted nationwide (9,123) as of September 2019.¹¹⁴ The role of the Secretary of Mines of Antioquia has been positive overall, reflecting improved mining management in the department. However, it is important to recognize that part of its success is due to institutional robustness and capacity, having the human and economic resources necessary to operate.

Barriers to Access to Markets

Artisanal and small-scale miners face two primary barriers that limit their access to legal and formal markets. First, there are important obstacles in terms of financial inclusion in the sector, in terms of the ability to open bank accounts and access credit with interest rates that are representative of their repayment capabilities. This lack of access has resulted in a vicious cycle of stigmatization of the mining sector, in which it is considered risky, and therefore is financially excluded, which only increases the perceived risks. Second, without clear and precise mining and commercial regulations, and in light of the weaknesses of institutional coordination, exporting has become increasingly difficult for artisanal and small-scale miners, who do not know exactly what each step of the international sales process will entail.

Barriers to the Reduction and Elimination of Mercury Use

Mercury is a metal that has traditionally been used in Colombia for gold extraction, due to what is perceived as favorable results in terms of a cost-benefit analysis: for the lowest upfront price,

Many artisanal and small-scale miners lack the economic resources to implement new, clean technologies, meaning the mercury prohibition went into effect before a full transition was really possible.

the most gold can be extracted. However, the metal has very harmful impacts on human health and the environment, which has led it to be restricted and even prohibited internationally. In Colombia, Law 1658 of 2013, required the use of mercury in the mining sector be completely eliminated by July 2018. This restriction has presented another obstacle for artisanal and small-scale miners, who, due to their technical and financial capacity, have struggled to access other, equally effective mining methods.

Despite attempts to implement a gradual process of raising awareness and sharing information regarding the harms of mercury use, this outreach only reached a portion of miners. In addition, many artisanal and small-scale miners lack the economic resources to implement new, clean technologies, meaning the mercury

prohibition went into effect before a full transition was really possible. In this sense, the policy was

^{114 &}quot;Datos del sector", EITI Colombia, accessed March 20, 2020, http://www.eiticolombia.gov.co/es/datos-del-sector/

not aimed at progressive mercury reduction in accordance with the provisions of the Minamata Convention.¹¹⁵

The impossibility of completely eliminating mercury from the artisanal and small-scale mining sector has had two important impacts on the sector's formality. First, the environmental documents required to apply for a mining title must demonstrate that no mercury use occurs during extraction, rendering this requirement impossible to comply with for many artisanal and small-scale miners. Second, the use of mercury has been criminalized by authorities, and miners may feel persecuted, and therefore decide not to disclose that they have used the toxic metal. This

makes it far more difficult for the state to adequately control and mitigate the environmental and health impacts of mercury.

Without enforceable, feasible alternatives to eliminate mercury use, miners become trapped in a vicious cycle. When the use of mercury was eliminated in Colombia, informality increased, and correspondingly, so too did the costs of purchasing mercury. As a result, the profitability of informal mining operations

Without enforceable, feasible alternatives to eliminate mercury use, miners become trapped in a vicious cycle.

has declined, making it harder for artisanal and small-scale miners to save money and invest in clean technologies that are free of the harmful metal. It is difficult for artisanal and small-scale miners to emerge from this cycle without financial support or some type of formal assistance.

Barriers in Land Use and Planning

Currently, there are important tensions regarding the use of soil and sub-soil in forest reserves that are protected by Law 2 of 1959. While the law aims to protect the environment, it does not provide any alternatives for extracting mineralogical resources in the subsoil in these areas. This has generated conflict between strict environmental protection on the one hand and on the other, traditional mining communities that have worked on such land for generations. Under the law, it became impossible for artisanal and small-scale miners to access mining titles for land located on forest reserves needed to formalize the mining operation. Tensions have emerged, as artisanal and small-scale miners face not only a shortage of areas where they can access mining concessions, but are also challenged by the distance of these areas from where the miners traditionally live and work.

Such lack of access to traditional homelands impacts the miners' "territorial vision," that is to say, their social, economic, political and cultural relationship to the land. When miners cannot do the work that they have traditionally done, their cultural relationship to the land changes, as does their

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¹¹⁵ This is an international treaty from the fifth session of the Intergovernmental Negotiating Committee on Mercury in Geneva, held in January 2013. It aims to safeguard human health and the environment from the adverse effects of mercury use, regulating its use in metal mines as well as in other daily activities. With regards to artisanal and small-scale mining, the Convention stipulates that governments should promote progressive reduction of the use of mercury, and only when viable, should they promote its complete elimination. The treaty went into effect in August 2017 and was ratified by Colombia through Law 1892 of 2018. For more information, see "Text and annexes," United Nations Environment Programme, accessed August 2020, http://www.mercuryconvention.org/Convenio/ Texto/tabid/5690/language/es-CO/Default.aspx

relationship to their community as well as their ways of subsisting and working. It has a destabilizing effect on their livelihoods.

This barrier is exacerbated by the fact that the majority of the areas protected by Law 2 of 1959 do not allow any form of mining, even on a very limited scale. This not only leaves miners unprotected, but does a disservice to the protection of the forest reserves, as the policy in fact incentivizes informal mining.

Barriers to Subsistence Mining

Current policies by the Colombian government have sought to disincentivize subsistence mining, regardless of the context and the true conditions of the sector. Through the Ministry of Mines' Resolution 40103 of 2017, the maximum volume of sales for a subsistence miner were established at 35 grams of gold monthly, or 420 grams per year. This threshold, combined with the Unique Sales Registry (in Spanish, Registro Único de Comercializadores or RUCOM), are registry of authorized mineral sellers maintained by the Agencia Nacional de Minería, are intended to control mineral sales by miners.

However, these measures have had the opposite effect, since they have been primarily used to report gold acquired from illegal mining under the names of registered miners, or via fake registrations by groups seeking to launder gold. Moreover, the measure has hindered the practice of forming associations to reduce transaction costs that was common among subsistence miners, as the Resolution has made it more difficult to sell a product coming from a group of people.

The Resolution also fails to consider the geographic context, where to formally mine, miners must register themselves before the municipal government and specify the exact location of their mining activity under penalty of being considered "illicit extractors of mineral deposits" under the law. However, this policy is disconnected from the reality of subsistence mining, and particularly that of gold panning (barequeros), as these are mobile activities that are carried out along tributaries of water, where exact locations may vary.

¹¹⁶ Selling 35 grams of gold per month represents roughly \$3.500.000 COP (US\$860) in monthly income, considering a price of \$100.000COP/gram. However, 35 grams per month is very relative, since in some areas, the maximum that can be obtained is 20 grams. It is important to consider that the minimum monthly salary, according to current Colombian law, is \$877.803 COP (US\$215).

¹¹⁷ For more information see "Registro Único de Comercializadores de Minerales," Agencia Nacional de Minería, accessed August 2020, https://www.anm.gov.co/?q=Rucom

¹¹⁸ In practice, three modalities of fraud have emerged. In the first, when the miners sell their gold, the intermediary salesman simply accepts their signature, but does not check the total number of grams sold. This allows them to subsequently falsify the amount. Second, intermediaries have sometimes registered subsistence miners, and then kept the registration information to subsequently sell their own gold under the subsistence miner's name. Third, people who are not involved in mining have been registered, including even registering under the name of deceased persons, in order to "legalize" the origin of the gold.

In addition, recognizing that subsistence mining is carried out through exclusively manual operations, there is a need to establish an intermediary step in the mining classification scale between subsistence and small-scale mining. This step would recognize some of the artisanal techniques that are used throughout the region and would help develop mining activity in line with responsible standards that address the attendant environmental and social impacts. The absence of this type of regulation means that miners may be categorized as "illicit extractors," making it difficult for them to implement steps towards formality and legality, while also limiting their business growth in terms of access to mining resources.

Initiatives for Formalization

Despite the barriers that have been described, it is important to recognize that there are initiatives by both the public and private sectors to promote and facilitate the formalization of mining as the foundation of supply chain integrity as well as for the related development impacts for the country.

First, it is important to recognize the efforts of the Colombian government in creating regulations to improve practices and, in particular, the recent regulation, Law 1955 of 2019, which aims for differentiated regulation along the different mining scales as a way to recognize the diversity of contexts in which mining occurs.

Secondly, international standards such as the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas have been adapted to the realities of artisanal and small-scale

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mining and adopted into the Code for Mitigation of Risks in Artisanal and Small-Scale Mining (in Spanish, the acronym CRAFT is used).¹¹⁹ The code, a passport to the formal market for artisanal and small-scale miners that is focused on mitigating the main risks that the sector faces, has represented an opportunity to promote and protect human rights, to avoid exacerbating conflict and to prevent financial crimes, while at the same time improving perceptions of the mining sector. Colombia also has adopted certification programs for responsibly-mined gold, such as Fairmined, which generate guidelines and opportunity-based incentives to improve mining practices as well as to reach greater degrees of legality and transparency.¹²⁰ This advocacy outreach helps miners see the benefits of formalization and to understand their contribution to local and community development through responsible behavior.

¹¹⁹ For more information, see "Why apply CRAFT?", CRAFT, accessed August 2020, https://www.craftmines.org/en/

¹²⁰ The certification is a seal of assurance that guarantees that the artisanal or small-scale miner has complied with the fair mining standards of Fairmined. The certification was developed by the Alliance for Responsible Mining, and seeks to progressively improve the practices of mining organizations as they become responsible and profitable enterprises. For more information, see "Fairmined is gold to be proud of," Fairmined, accessed August 2020, https://fairmined.org/

Third, it is important to highlight strategies by miners themselves. Within this framework, for example, miners have created associations, supply chains and community initiatives to facilitate formalization. The Cooperativa Multiactiva Agrominera de Íquira (Huila), for example, works with small-scale miners through a partnership model, allowing them to legally mine using the title of the Cooperative. This opens up important formalization opportunities for these miners. At the same time, the Cooperative has established compliance thresholds to ensure responsible practices among its members. Synergies such as these reduce the financial and time constraints of formalization through unique models of mutual cooperation.

Conclusions

Drawing on the conditions described in the above chapter, the following recommendations can be made to improve formality within Colombia's artisanal and small-scale mining sector:

- Implement differentiated regulations according to the context and needs of the sector, such
 as the different mining scales, that start by focusing on the miners themselves and raising
 their awareness about best practices and compliance.
- Reevaluate traditional forms of land management and adopt measures to de-stigmatize the mining sector.
- It is critical to implement unified information systems with a wide reach into the rural mining community that can share information about legislative changes and serve as a platform to promote transparency within the sector.
- Within Colombian regulations and institutions, it is necessary to recognize and protect subsistence mining with the understanding that this is not just an economic activity, but also a traditional way of life. It is important to ensure the visibility of subsistence mining and adapt regulations to this sector, both in terms of its unique context and growth.
- Promote institutional coordination and organization as a way to consolidate stronger, more reliable governance of the mining sector for miners.
- Offer technical assistance and training as well as raise awareness of regulations and compliance, especially in conjunction with incentive systems that promote progressive improvement within mining operations and decrease dependency on coercive measures, which tend to be costly, and, in the Colombian context, generally ineffective.

¹²¹ For more information on the Cooperative, see Alliance for Responsible Mining, https://www.responsiblemines.org/?s=IQUIRA

CHAPTER 2. GOLD TRADE AND TRANSACTION LEVEL ANALYSIS



National Trade Data and Illicit Financial Flows in Colombian Gold

By Cedetrabajo

This chapter discusses current issues in Colombia's international gold trade, particularly with regards to trade misinvoicing. The chapter addresses and diagnoses illicit financial flows (IFFs) related to the manipulation of pricing and invoicing for non-monetary gold imports and exports by companies involved in the Colombian gold trade between 2010-2018. The chapter also provides a review of various legal aspects pertaining to the Colombian gold sector, closing with a discussion of policy recommendations.

Trade misinvoicing is one of the primary issues associated with the international gold trade. Trade misinvoicing has been defined by Global Financial Integrity (GFI) as a way of moving money illicitly across borders which involves the deliberate falsification of the value, volume or quality of an international commercial transaction of goods or services by at least one party to the transaction. The following table shows some of the primary reasons that individuals and companies engage in trade misinvoicing, broken down by illicit inflows or outflows.

Table 10: Illicit Inflows and Outflows, Classification and Primary Motives

Direction of Flows	Classification	Primary Motives					
IFF outflows	Over-invoicing of imports	 To shift money abroad (evade capital controls, shift wealth into a hard currency, etc.) To overstate the cost of imported inputs to reduce income tax liability To avoid anti-dumping duties 					
	Under-invoicing of exports	- To avoid income tax (lowering taxable income levels) - To evade export taxes					
IFF inflows	Under-invoicing of imports	- To evade customs duties or VAT taxes - To avoid regulatory requirements for imports over a certain value					
	Over-invoicing of exports	 To exploit subsidies for exports To exploit drawbacks (rebates) on exports 					

Source: "Value Gap Trade Misinvoicing Methodology," Global Financial Integrity, accessed October 2020, https://gfintegrity.org/research/methodology/

¹²² Non-monetary refers to all articles that are treated as goods or commodities, including jewelry, watches, good decorations or gold bars that belong to individuals. For more detail, see "¿Por qué es importante la diferencia entre oro monetario y no monetario en las estadísticas de compra-venta de oro a nivel internacional?". Revista Oro y Finanzas, October 12, 2015. Available at: https://www.oroyfinanzas.com/2015/10/por-que-importante-diferencia-oro-monetario-no-monetario-estadisticas-compra-venta-oro-nivel-internacional/

^{123 &}quot;Value Gap Trade Misinvoicing Methodology," Global Financial Integrity, accessed July 2020, https://gfintegrity.org/research/methodology/

Export under-invoicing occurs when an exporter intentionally declares the value of an export transaction to be less than its true value and the value which is declared by the importer. Export over-invoicing, on the other hand, occurs when the exporter declares a greater value than the purchase price declared by their trade partner, the importer. This illicit activity may be related to attempts to access tax refunds to launder money.

In the case of import under-invoicing, the importer intentionally declares a lower value for the trade transaction than that reported by the exporter, with the value gap representing an illicit movement of funds into the country of import. Conversely, the over-invoicing of imports occurs when the importer intentionally declares a greater trade transaction value than that declared by the exporter. That is to say, the importer appears to pay more than the actual value of the good. This may entail everything from avoiding anti-dumping duties to avoiding income taxes due to the overvaluation of costs.

Since these financial flows are illicit – and by definition hidden – there is no single measurement methodology or definitive data. The most commonly used estimates are those by GFI, which are based on a comparison of official trade data between country trade partners. According to the Economic Commission for Latin America and the Caribbean (ECLAC), "the discrepancies in value between trade partners can arise in transactions occurring between related companies that form part of a multinational corporation (through transfer pricing) as well as through independent companies through collusion between the exporter and importer;" ¹²⁴ these discrepancies may also arise due to administrative errors and outdated accounting systems.

In this sense, misinvoicing meets the definition of technical contraband used by Colombia's National Directorate of Taxes and Customs (in Spanish, Dirección de Impuestos y Aduanas Nacionales or DIAN)¹²⁵ since it involves "the act of importing or exporting merchandise with the appearance of fulfilling all of the requirements, using an incorrect declaration with the aim of wholly or partially avoiding customs duties or requirements under Colombian law."¹²⁶ For DIAN, technical contraband is illegal in the same way that general contraband is,¹²⁷ and is defined as a practice in which merchandise is brought into the country or taken out of the country without proper declaration.¹²⁸

¹²⁴ United Nations Economic Commission for Latin America and the Caribbean (in Spanish, Comisión Económica para América Latina y el Caribe or CEPAL), Estudio Económico de América Latina y el Caribe: La Agenda 2030 para el Desarrollo Sostenible y los desafíos del financiamiento para el desarrollo (Santiago: CEPAL, 2016), pg 147, https://www.cepal.org/es/publicaciones/40326-estudio-economico-america-latina-caribe-2016-la-agenda-2030-desarrollo

The primary function of this government agency is guaranteeing the fiscal security of the Colombian State, through the administration and proper control over taxation, customs duties, currency exchange requirements, and the facilitation of international trade operations with regards to conditions of equity, transparency and legality.

^{126 &}quot;Tipologías de lavado de activos relacionado con contrabando," Unidad de Información y Análisis Financiero, Dirección de Impuestos y Aduanas Nacionales, 2006, pg 8, https://www.legiscomex.com/bancomedios/archivos/tipologias_contrabando_enero_2006.pdf

¹²⁷ According to DIAN, general or "open" contraband consists of the entry of goods into the national customs territory without being presented or declared before customs authorities (through beaches, trails, border crossings, airports, ports, warehouses). See "Tipologías de lavado de activos relacionado con contrabando," Unidad de Información y Análisis Financiero, Dirección de Impuestos y Aduanas Nacionales, 2006, pg 8, https://www.legiscomex.com/bancomedios/archivos/tipologias_contrabando_enero_2006.pdf

B. Hernandez, "Cuantificación del contrabando abierto, subfacturación y mercancía sin registro en procedencia en las importaciones colombianas," (Bogotá: Oficina de Estudios Económicos, División de Estudios Fiscales, Dirección de Impuestos y Aduanas Nacionales, September 1998), https://www.dian.gov.co/dian/cifras/Otros%20Cuadernos%20de%20Trabajo/027.%20Cuantificación%20del%20contrabando%20abierto,%20subfacturación%20y%20mercanc%C3%ADas%20sin%20registro.pdf

Tax avoidance – whether of income taxes, customs duties, or the exaggeration of the cost of imported inputs in order to reduce taxable income – is one of the reasons that companies resort

For Colombia, these practices have a number of damaging impacts, including a reduction of fiscal income, weak control over international transactions, and a boon to criminality and capital flight.

to over-invoicing imports or under-invoicing exports. Importers or exporters may also resort to under-invoicing imports or over-invoicing exports for a variety of reasons, including avoiding regulatory requirements for imports over a certain value threshold, taking advantage of fiscal benefits for exports (such as drawbacks), avoiding customs taxes or value-added taxes (VAT), circumventing of capital controls or currency controls and even engaging in money laundering.

For Colombia, these practices have a number of damaging impacts, including a reduction of fiscal income, weak control over international transactions, and a boon to criminality and capital flight.

Trade Misinvoicing in the Colombian Gold Trade

Analyzing the international trade in Colombian gold through the centralized data in the United Nations Comtrade database (Comtrade), eight countries emerge as the main importers of Colombian gold and one country from which Colombia imports gold.

The primary countries that purchase Colombian gold represent 90 percent of all gold exports from Colombia to the world. The table below provides more detail on Colombia's main trading partners for gold.

Table 11. Data Available to Analyze IFFs in Colombian Gold

Trade Partner	Data availability	Colombian Export Data	Colombian Import Data		
Spain	2010 and 2014 – 2018	✓	-		
United States	2010 – 2018	✓	✓		
France	2011 and 2013 – 2018	✓	-		
Hong Kong	2011 – 2018	✓	-		
India	2012 – 2018	✓	-		
Italy	2010 – 2018	✓	-		
Panama	2010 – 2016	✓	-		
Switzerland	2010 – 2018	✓	-		

Source: Cedetrabajo's own elaboration using Comtrade data. Applicable refers to data being available for the period; not applicable when no data is available.

A mirror analysis was used to determine the trade gaps in Colombia's imports and exports of gold with its trading partners. For exports, this methodology compares Colombia's exports with the imports of its trading partners to see if the figures coincide. At the same time, for imports, it compares Colombia's imports with the exports declared by its trading partners. From there, two types of analysis were carried out, one considering the declared price of the product, and the other considering the declared weight in kilograms.

The first type of analysis, which looked at the value gap by declared price, required adjustments to account for the costs of shipping and freight. Exports are reported in free on board (FOB). Imports, on the other hand, are reported in cost, insurance and freight (CIF) prices, which reflects the price of the good (the price the importer purchased the good from the exporter) plus the cost of insurance and freight to transport the good from the exporting country to importing country (which is assumed by the importer). Given the difference between FOB and CIF, an adjustment was made in order to have comparable import and export data to work with.¹²⁹

Export Trade Gaps

For the years 2013, 2016 and 2017, the dollar value of gold exports reported by Colombia were lower than the imports reported by its trading partners. On the other hand, for the remaining years analyzed, the value gap went the other direction.

Both should be cause for concern. Export over-invoicing should be understood as a retention or illicit inflow of capital to the country. Some of the primary motives include money laundering or the triangulation of merchandise. Conversely, export under-invoicing refers to an illicit outflow, and is closely linked to the manipulation of pricing and the evasion of taxes.

As Colombia has a limited number of trading partners for gold exports, this section presents results by country for main trading partners, as well as the value gap, which is the difference between declared exports and declared imports, and is indicative of an illicit financial flow.

¹²⁹ For this analysis, all pricing was converted to FOB, removing ten percent from the CIF to account for the estimated average cost of insurance and freight, which is even slightly higher than the global average. This decision was made for the practicality of using a single average, which is a global estimate of the costs of transportation. See, for reference, Joseph Spanjers and Matthew Salomon, Illicit Financial Flows to and from Developing Countries: 2005-2014 (Washington, D.C.: Global Financial Integrity, April 2017), 17, https://gfintegrity.org/report/illicit-financial-flows-to-and-from-developing-countries-2005-2014/

¹³⁰ This type of transaction involves at least three stakeholders – a producer, an intermediary (or several intermediaries), and a final consumer – and has become increasingly common in today's complex network of international trade. However, this type of transaction is sometimes manipulated to avoid taxes and violate commodity rules of origin as defined by the World Trade Organization.

Table 12: Total Value Gap in Colombian Gold Exports by Trading Partner, 2010-2018

	Colombian Gold Exports to Trading Partner	Trading Partner's Imports of Colombian Gold	Value Gap				
Trading Partner	Millions of USD, FOB						
United States	11,705.7	13,929.5	2,668.5				
Switzerland	4,482.4	2,664.2	1,818.2				
India	286.1	1,402.7	1,157.1				
Italy	81.0	333.5	252.5				
France	7.3	6.6	0.7				
Hong Kong	5.7	4.5	1.2				
Panama	4.3	60.8	56.5				
Spain	1.6	1.1	0.6				

Source: Cedetrabajo calculations using data from Comtrade.

The United States is the trading partner with the largest discrepancy for this period, with an accumulated value gap of US\$2.668 billion for Colombian gold exports during this period. From 2010-2012, Colombian exports to the US were US\$74 million higher on average per year than US imports. In 2013, the trend reversed, and Colombian exports were higher than reported US imports by US\$407 million on average per year, reaching a maximum value gap of US\$870 million in 2016. From 2010-2016, an average of 10,924 kilograms of gold per year was misinvoiced between Colombia and the United States.

Switzerland ranks in second place for the largest value gap. From 2010-2018, Colombian gold exports to Switzerland were US\$1.818 billion higher than Switzerland's declared imports of Colombian gold, with a value gap ranging from US\$51 million in 2017 up to US\$727 million in 2010. With regards to volume, for most years Colombian gold exports were over-invoiced relative to Switzerland's imports, with a yearly average of 5,362 kilograms. It is important to note that Switzerland is listed as a tax haven due to its opaque banking laws; in 2018 it came in top place in Tax Justice Network's Financial Secrecy Index, 131 and in 2020 it was ranked among the least transparent countries, following the Cayman Islands and the United States.

India also presents a large value gap in its gold trade with Colombia, at US\$165 million on average annually. From 2014-2018, Colombian gold exports to India were US\$1.134 billion less than reported Indian imports of Colombian gold. With regards to volume, Indian companies declared importing 180,032 kilograms of gold one year, while Colombian exports showed only 941 kilograms of gold for the same year.

^{131 &}quot;Financial Secrecy index 2018," Tax Justice Network, February 2, 2018, https://www.taxjustice.net/2018/02/02/financial-secrecy-index-2018-watch-listen/

Value gaps also emerge with other trading partners, though to a lesser degree. In the case of Italy, for all the years analyzed, Colombian declared exports were lower than Italian declared imports, with a minimum yearly value gap of US\$126,548 and a maximum of US\$86 million. With regards to France, Colombian gold exports often appeared listed as higher than those reported by French importers. In six years, the accumulated value gap reached US\$743,557, or US\$123,900 per year on average. With Hong Kong, Colombian export declarations were higher than Hong Kong import declarations for all years for which data was available. The value gap amounted to US\$144,873 per year on average. Finally, in the case of Spain, Colombian gold exports were lower in 2015 and 2016 than the declared Spanish imports of Colombian gold; for all other available years, the opposite occurred.

Panama is another interesting case. One might expect considerable illicit financial flows in trade with Panama, considering its status as a tax haven. From 2010-2016, Colombian gold exports were, in total, US\$56 million below that of Panamanian imports of Colombian gold, with a yearly average value gap of more than US\$8 million. This places Panama high up among Colombia's trading partners for misinvoicing in the gold sector. With regards to volume, on average per year, Colombian exports were reported at 248 kilograms lower than Panamanian imports. These dynamics of Colombia's gold trade with Panama are important to highlight, since, as will be discussed later on, Panama serves as a geographically strategic point for criminal organizations involved in international gold sales.

In addition to country-by-country dynamics, it is also important to point out indications that Colombia has formed part of an illicit supply chain, acting as both a producer and an intermediary, a dynamic which has been largely facilitated thanks to its gold trade with the United States and Switzerland.

The former, as Colombia's main trading partner, has encouraged the transit of Venezuelan gold of dubious origin through Colombia as well as the exports of illegally-sourced Colombian gold.¹³³ For its part, Switzerland, with its opaque financial system, is a leader in the international gold trade,¹³⁴ and is estimated to refine over 70 percent of the of the world's gold.¹³⁵

The only country from which Colombia has consistently imported gold is the

United States. The majority of years analyzed show Colombian imports higher than US declared exports of gold to Colombia, with an accumulated value gap of US\$898,365, which pales in comparison to the larger discrepancies in Colombian exports.

It is also important to point out indications that Colombia has formed part of an illicit supply chain, acting as both a producer and an intermediary.

¹³³ Antonio Maria Delgado, Jay Weaver, Jim Wyss, Kyra Gurney, Nicholas Nehamas, and Pamela Kalkman, "El oro ilegal que terminó en mercados internacionales," El Espectador, July 24, 2019, https://www.elespectador.com/noticias/medio-ambiente/el-oro-ilegal-que-termino-en-mercados-internacionales/

¹³⁴ Diego Herranz, "Suiza: riqueza personal en el enclave más opaco del planeta," Público, October 1, 2018, https://www.publico.es/economia/paraiso-fiscal-suiza-riqueza-personal-enclave-opaco-planeta.html

¹³⁵ Maria Delgado et al., "El oro ilegal que terminó en mercados internacionales," El Espectador, July 24, 2019, https://www.elespectador.com/noticias/medio-ambiente/el-oro-ilegal-que-termino-en-mercados-internacionales/

Illegality in the Gold Market

Among the primary factors driving misinvoicing and trade fraud, specifically within the Colombian gold market, are illegal mining and illegally-sourced gold.

While this is a serious issue that must be addressed, it is unfortunate that the Colombian legal framework primarily defines illegality in terms of artisanal and small-scale miners operating through informal and ancestral mining operations. In fact, the Technical Mining Code of Colombia includes gold produced through artisanal and informal methods within its definition of illegal production.

One of the reasons that this is so unfortunate is the vulnerability of these populations. It is important to consider the impacts on many families and people in rural parts of the country, who utilize very rudimentary forms of gold mining due to their inability to access specialized machinery. They are left at a difficult crossroads, increasingly isolated by growing legal regulations that do not take into consideration their particular situation and use as a reference the massive production that large companies can carry out, all of which leaves these communities behind.

To cite one example, in 2019 the Constitutional Court invalidated Law 1658 of 2013, which had provided five years to make the transition to other mining methods that do not utilize mercury. As

discussed earlier, mercury is utilized in artisanal gold mining despite the harmful effects it generates on human health.¹³⁶

Once again, it is necessary for the local and national government to consider this type of legal crossroads that stigmatize a population group that requires training, inclusion and aid, rather than pressing forward with further measures that exclude them.

Yet it is important to note that those that use mercury in gold production are, by default, small-scale and artisanal miners due to its low cost and ease. As such, the prospect for the future of these people is not at all encouraging. Once again, it is necessary for the local and national government to consider this type of legal crossroads that stigmatize a population group that requires training, inclusion and aid, rather than pressing forward with further measures that exclude them.

Small-scale mining, which is mainly artisanal mining, is not a recent phenomenon. For more than 500 years, gold has been extracted by hand

in Colombia, usually in small quantities. Since 1991, with Law 9, the Colombian Central Bank stopped regulating the country's gold market, a responsibility that passed to the Ministry of Mines through the National Mining Agency (in Spanish, Agencia Nacional de Minería or ANM). With the

¹³⁶ For example, a study carried out from 2012 to 2013 on women who had been exposed to mercury through gold extraction concluded that mercury's effects can be associated with alterations of menstrual cycles, in addition to other medically documented impacts on the immune system and renal health of men and women alike. See Laura Andrea Rodríguez-Villamizar, Diana Carolina Jaimes, Adelaida Manquián-Tejos, and Luz Helena Sánchez, "Irregularidad menstrual y exposición a mercurio en la minería artesanal del oro en Colombia," Biomédica 35, supl. 2 (2015): 38-45, http://www.scielo.org.co/pdf/bio/v35nspe/v35nspea05.pdf

Central Bank no longer the sole purchaser of gold, sales in the domestic market have decreased dramatically in 2014, accounting for just 1.6 percent of total national production.¹³⁷

Extaction, Land Use and the Environment

In Colombia, informality and illegality in gold production is concentrated in the departments of Antioquía, Chocó, Nariño, Valle del Cauca, Cauca, Córdoba and Bolívar. Gold extraction from these areas represents more than 70 percent of national exports according to the Colombian Mining Association (in Spanish, Asociación Colombiana de Minería or ACM). It is believed that misinvoicing of gold exports frequently becomes an important source of asset laundering for armed and criminal groups involved in this business.

In 2014, only 17 percent of the gold and silver that was mined in the country had proper mining rights, ¹³⁸ which in Colombia are referred to as "titles." Moreover, in seven departments where gold is extracted, there are no mineral titles. However, not all mining activity that is carried out without a title can be classified as illegal. Rather, it is important to differentiate between the mining operations of armed and illegal groups and those carried out by artisanal and small-scale miners in order to avoid unfairly criminalizing the latter group.

To reduce some of these issues with mining titles and to try to formalize production, the ANM established, through Decree 276 of 2015, the Unique Registry of Mineral Sales (in Spanish, Registro Único de Comercialización de Minerales or Rucom). The registry contains information about the origins of the minerals which are sold, with the aim of regulating internal and external consumption.

According to the United Nations Office on Drugs and Crime (UNODC), 52 percent of mining operations in Colombia are located in areas where extraction is not permitted, such as national parks or nature reserves. While artisanal and small-scale miners may utilize such lands, it is important to note that so too do multinational corporations, as in the cases of AngloGold Ashanti in Los Nevados and in Nevado del Huila, as well as the la Sociedad Ordinaria de Minas Óptima in Las Orquídeas, often with troubling environmental implications.

 ¹³⁷ AngloGold Ashanti, El oro: Todo lo que debe saber en 100 preguntas (Bogotá: AngloGold Ashanti, 2014). This trend has continued to date.
 138 Douglas Velasquez, "Bancarrota del oro: ilegalidad, contrabando, Bacrim," Las 20rillas, January 26, 2015, https://www.las2orillas.co/bancarrota-del-oro-ilegalidad-contrabando-bacrim/

¹³⁹ AMN, ¿Qué es el RUCOM? https://www.anm.gov.co/?q=que-es-Rucom

^{140 &}quot;Minería ilegal de oro afecta a 98.000 hectáreas en Colombia," La Opinión, December 5, 2019. Available at: https://www.laopinion.com. co/colombia/mineria-ilegal-de-oro-afecta-98000-hectareas-en-colombia-188233#OP">https://www.laopinion.com.

Parque Nacional Natural Los Nevados is located in the mountain range of the Cordillera Central of the Colombian Andes. It is a range of mountain peaks and moors, among which the Nevado del Ruíz, Nevado del Tolima, and Nevado de Santa Isabel stand out. The park encompasses 58,300 hectares (225 square miles).

¹⁴² El Nevado del Huila is an active volcano located in the mountain range of Cordillera Central in the Andes. It extends 158,000 hectares (610 square miles) throughout three Colombian regions, Huila, Tolima y Cauca.

Parque Nacional Natural Las Orquídea is located in the western mountains of the Cordillera Occidental of the Andes, where it covers 32,000 hectares (123 square miles). Its primary ecosystem is that of humid forests. The park does not offer any type of ecotourism or recreational activities

¹⁴⁴ Estefanía Carvajal Restrepo, "Títulos mineros vigentes en Parques Nacionales," El Colombiano, May 11, 2016, https://www.elcolombiano.com/medio-ambiente/mineria-en-parques-nacionales-naturales-de-colombia-AE4125211

AngloGold Ashanti is a South African company which arrived in Colombia in 2008 and is currently involved in three projects: Quebradona (an underground copper mining project located near Jericó, Antioquia), Gramalote (a project carried out with the business B2Gold Corporation in San Roque, Antioquia), and La Colosa (a project located in Cajamarca, Tolima). In Quebradona, the company received a mining title for 7,593 hectares and it is estimated that the total mineral resource will amount to 2.9 million metric tons of copper, gold and silver. In Gramalote, the partnership is expected to extract up to seven million ounces of gold, with an operational size of 1,377 hectares. In the case of La Colosas, the project has been halted due to the pushback it received during a community consultation phase; the potential gold deposits are expected to amount to 28 million ounces.¹⁴⁵

Another example is Minesa, which is owned by Mubadala Investment Company, a multinational firm from the United Arab Emirates. Minesa has expressed interest in gold extraction in the areas surrounding Páramo de Santurbán in Santander. It is important to note that this area is one of the country's most unique moor ecosystems, not only in terms of its 290 animal species, 457 plant species, 78 lagoons and 400 rivers, but also in terms of serving as a source of drinking water for 2.2 million Colombians in the geographic regions of Santander and Norte de Santander. As such, the environmental impacts of such a project are cause for concern.¹⁴⁶

Especially concerning is the fact that nationwide, only 27 percent of all mining is carried out with proper technical and environmental certifications (i.e., environmental licenses or title protection). Another 36 percent occurs in mining sites with permit applications underway, and 37 percent occurs at mining sites without any legal backing, which are therefore illegal. As such, nonformalized mining amounts to 73 percent of all gold mining nationwide.¹⁴⁷

Sales

In informal mining areas, miners sell locally to intermediaries known as compraventas. Not only is this arrangement susceptible to asset laundering by the intermediaries, it also results in insufficient earnings for small-scale miners. This occurs because, without having a license or a certificate that recognizes their operation, the prices at which they can sell the product are barely 40 percent of the international standard. In subsequent steps of the supply chain, the value of the metal continues to increase.

^{145 &}quot;Operational Profile 2019: Colombia," AngloGold Ashanti, accessed October 21, 2020, http://www.aga-reports.com/19/op.

¹⁴⁶ Daniel Ferreira, "Sobre Santurbán: el páramo, desesperadamente," El Espectador, March 28, 2018, https://www.elespectador.com/noticias/cultura/sobre-santurban-el-paramo-desesperadamente/

^{147 &}quot;Exploración de oro de aluvión con uso de maquinaria en tierra (EVOA) 2019," UNODC, December 5, 2019. Available at: https://www.unodc.org/documents/colombia/2019/Diciembre/EVOA 2019 - Infografia.pdf

During the sales process, the intermediaries engage in schemes such as fraudulent or rigged use of mining titles. These gold buyers include businesses that have their own mining licenses or hold licenses for extraction rights by others, including under the names of members of indigenous or Afro-descendent communities. There have even been instances where the names of deceased individuals have been used, as using mining titles previously granted to persons who subsequently died allows these businesses to maintain the pretext of "legality". Another scheme includes complicity with municipal governments, by manipulating the RUCOM list or generating false certificates of origin for anonymous or deceased persons that have mining titles. In this case, for example, the intermediary charges one thousand Colombian pesos (US\$0.33) for each gram of gold that is laundered using a false application. Offering an artisanal gold miner a monthly payment, whether or not they actually mine, is another method used to launder illegally sourced gold. If they go over the limit (35 grams), the remainder is set aside to pad the months when they do not reach the legal quota, and in this way, the reporting always appears to be legal, even if the extraction itself is not.

These methods of getting around the law, are only a few of the many ways intermediaries "launder" gold which is illegally sourced. Criminal groups often opt to use gold –

whether it be to finance operations, to launder proceeds, or to invest them – since after extraction it can be easily laundered. Given this situation, it is believed that criminal groups earn around US\$2.4 billion a year from illegal gold mining alone.¹⁵¹

It is believed that criminal groups earn around US\$2.4 billion a year from illegal gold mining alone.

For example, in August 2019, eight people were arrested on charges of criminal conspiracy, asset laundering and contraband for illegally trafficking

gold to Panama. This was carried out by either attaching gold to their bodies (as so-called human couriers) or by carrying small amounts of jewelry and accessories that avoided notice. Having reached Panama, they headed for the city of Colón for the offices of Gold America and Alpha Trading companies to which they sold exclusively in ingots, and for which they received payment in the form of Italian jewels which would be brought back to Colombia. The individuals implicated had traveled to Panama up to 30 times, all for short periods of time. Among those arrested was an accomplice that worked in Colombia's Migration Department and who was stationed at the Palmira

¹⁴⁸ Pedro Vargas, "Así "lavan" el oro de la minería ilegal en el país," Portofolio, June 10, 2016, https://www.portafolio.co/economia/gobierno/lavan-oro-mineria-ilegal-pais-497191

Pedro Vargas, "Así "lavan" el oro de la minería ilegal en el país," Las 20rillas, June 10, 2016, https://www.portafolio.co/economia/gobierno/lavan-oro-mineria-ilegal-pais-497191

[&]quot;Se comercia con engaño y trampa: Tras el oro turbio," El Colombiano, accessed July 2020, https://www.elcolombiano.com/especiales/tras-el-oro-turbio/comercio-oro-ilegal

¹⁵¹ Yuri Neves, "Traficantes de oro innovan a lo largo de la ruta Colombia – Panamá," InSight Crime, September 2, 2019, https://es.insightcrime.org/noticias/noticias-del-dia/traficantes-innovan-ruta-colombia-panama/

[&]quot;Por los aeropuertos, y como si nada, sacaban oro ilegal a Panamá," El Espectador, August 22, 2019, https://www.elespectador.com/noticias/judicial/por-los-aeropuertos-y-como-si-nada-sacaban-oro-ilegal-panama-articulo-877261

¹⁵³ Ibid.

Airport. The trips that were carried out left from Bogota, Barranquilla, Palmira and Bucaramanga, primarily. They managed to send more than US\$5.5 million in pure gold to Panama. The gold was sourced from informal mines in Antioquia, Santander and Magdalena Medio. Upon the arrest, the Colombian Attorney General's Office began the process of asset forfeiture proceedings for the belongings of this illegal organization, which were valued in total at COP\$60 billion (US\$17.4 million). During raids, authorities seized more than US\$500,000 in cash and almost 80 kilograms of pure gold, assessed at US\$3.65 million.¹⁵⁴

Other gold trafficking routes operate the same way as drug trafficking, that is to say, using small motorboats that leave from the Gulf of Urabá headed for Panama, or in small private planes or charter flights that leave from Colombia's main cities headed for Panama, Aruba, Curaçao or Barbados, among other islands, to launder the merchandize. They then continue their journey to the United States. After being laundered, mixed with other products, and melted to hide their origin and avoid supervision, they end up in refineries in the United States, Europe, and even Turkey and Asia.¹⁵⁵

These illegal routes have been operating for more than 40 years, since gold was illegally brought from Panama, Peru, Venezuela or Uruguay, giving Colombia the peculiar distinction of exporting more gold than it produced. In 2017, gold production decreased relative to the volume that was reported in 2016. Curiously, Colombia's exports grew from one year to the next. This led ACM to conclude that, for 2018, illegal mining represented approximately 70 percent of international sales. ¹⁵⁶

Regulatory Framework

In Colombia, national development plans by recent administrations include various measures to complement and regulate national mining activity. However, the multiplicity of decrees and their application to mining regulations are used as an argument justifying the need to modify the Mining Code (Law 685 of 2001) and create a legal framework that is more organized, straightforward and efficient.

Government Agencies Involved

Key agencies involved include the Ministry of Mines and Energy, the Ministry of Finance and Public Credit which is in charge of collecting tax revenues, and the Ministry of Defense which is responsible for addressing issues of criminal organizations and illegal mining. The Ministry of the

[&]quot;Así sacan el oro de contrabando en Colombia," Semana, August 23, 2019. Available at: https://www.semana.com/nacion/articulo/asi-sacan-el-oro-de-contrabando-en-colombia/628899

¹⁵⁵ Frédéric Massé, "La disparada que se pegó el tráfico ilegal de oro en la region," El Tiempo, November 30, 2019, https://www.eltiempo.com/colombia/otras-ciudades/la-disparada-que-se-pego-el-trafico-ilegal-de-oro-439036

^{156 &}quot;Extraer oro y cobre dejaría USD 3.400 millones en inversion," Portafolio, May 8, 2019, https://www.portafolio.co/economia/las-ventas-de-oro-colombiano-al-exterior-crecieron-mas-de-30-529374

Interior is another institutional stakeholder involved in mining, especially in light of the increase in prior consultations for mining projects over the past few years.¹⁵⁷

Problems in the Current Legal and Regulatory Approach

A number of factors have generated community conflicts for small miners, and have benefited large-scale investment projects, including re-formulation of policies to attract greater foreign investment into the mining sector, formalization of the sector in a manner that makes it challenging

for ASM miners to participate, laws that vest ownership with the government, and ignoring longstanding traditional and cultural land ownership rights and practices. An analysis by Parra and Londoño illustrates this clash in the case of the municipality of Marmato. The authors suggest that there is a fundamental conflict between the vision of the central government, where the development of the mining sector is achieved by establishing conditions to promote foreign direct investment, and that of artisanal mining communities, which have worked the land for hundreds of years and rely on mining for subsistence.¹⁵⁹

The Office of the Comptroller General of the Republic, the highest entity for fiscal control of the Colombian State, has also documented various problems related to mining regulations. In one of its reports, it details the serious environmental impacts generated by state capture and cooptation by agents in search of income. These dynamics exacerbate issues related to weak and unenforced environmental regulation.

Prior Consultation: An Important Legal Framework under International Law

Prior consultation is a fundamental right of indigenous communities based on Convention 169 of the International Labor Organization (ILO) and ratified in Colombia through Law 21 of 1991. It requires that, prior to the implementation of projects that would directly impact their lands or people, a consultation process be held in which the affected communities are involved. The consultation process must be carried out in good faith, with transparency, clarity, and access to information. At the same time, it must respect the independence and autonomy of these communities in decisions affecting their cultural, economic and social development.

In an additional publication, the Comptroller's Office again draws attention to the problems associated with mining regulations, as opposed to the particular problems of the territories and regions throughout the country, commenting that the "low capacity of mining and environmental institutions are factors that, together with regional conditions and characteristics, have largely fostered illegal mining activity, leaving behind a less than encouraging prospect for the future." ¹⁶¹

 $^{^{\}rm 157}$ See text box, "Prior Consultations."

¹⁵⁸ Catalina Perez Roldán, Carlos Alberto Zárate Yepes, and Jorge Martin Molina, "La jurisprudencia constitucional colombiana sobre ordenamiento territorial, participación ciudadana y su impacto en la actividad minera," Revista de Derecho no. 51(2019): 91-111, Available at: http://www.scielo.org.co/scielo.php?pid=S0121-86972019000100090&script=sci_abstract&tlng=es

¹⁵⁹ Lizeth Alejandra Parra Barbosa and Hernando Londoño Berrio, "El oro como disputa: Prácticas de resistencia en Marmato frente a la economía extractiva," Estudios de Derecho 72, no. 162(2016): 173-195, https://revistas.udea.edu.co/index.php/red/article/view/328841

Jesús Antonio Mena, Capítulo 2: Economía política, fallas en regulación e institucionalidad ambiental en Colombia: Casos de estudio, Minería en Colombia Institucionalidad, y territorio, paradojas y conflictos, Contraloría General de la República, 2013, Available at: https://redjusticiaambientalcolombia.files.wordpress.com/2014/01/mineria-en-colombia-contraloria-vol-ii.pdf

[&]quot;La Explotación Ilícita De Recursos Minerales En Colombia: Casos Valle del Cauca (Río Dagua) – Chocó, (Río San Juan)," Efectos sociales y ambientales, Contraloría General de la República, 2013, Available at: https://www.contraloria.gov.co/documents/20181/198738/Separata-Mineria-llegal.pdf/4d3d5cbe-4bda-430a-831e-ef2f6bbf5d0d?version=1.0

Other reports highlight various legal conflicts related to mining operations.¹⁶² These are associated with the norms and decisions of environmental and land management regarding mining practices, the trade-off between mining and agricultural activities that involve the rights of rural farming communities and aggravate the long-standing problems of the Colombian countryside and, finally, the use and management of the land by ethnic communities in the face of the vision of utility and a mere source of extraction that accompanies mining.

All of these issues point to the urgent need for an updated mining legislation, especially in light of the current challenges facing diverse populations and rural communities. Above all, it is important to highlight the need for new legal frameworks that protect national mining activity and its stakeholders, which function and operate in ways that are very different from those of the large mining companies. In light of this, the implications of Colombia's mining regulations come into focus. The regulations are adjusted not only to attract foreign or domestic investors, but also must take into more careful consideration a series of cultural, social and environmental factors.

Conclusions

The analysis presented takes stock of the most problematic aspects of mining legislation from an economic, social and environmental perspective. To begin with, illicit financial flows surpassed

The lack of a coherent,
systematic legal
framework has left
small-scale mining
and indigenous lands,
conservation areas,
natural parks and
vulnerable ecosystems
inadequately protected.

US\$5.6 billion in FOB value for gold sales during the period 2010-2018, with particularly large value gaps in terms of Colombia's gold trade with the United States, Switzerland and India. This should be a cause for alarm. Not only are the amounts troubling on their own, but two of these countries are among the world's most financially secretive, according to the Tax Justice Network. 163

The lack of a coherent, systematic legal framework has left small-scale mining and indigenous lands, conservation areas, natural parks and vulnerable ecosystems inadequately protected. The legal framework is scattered and ambiguous, and it focuses mainly on defending large investments, avoiding prior consultation with communities, and promoting Colombia as a so-called "mining country." This results in discrimination, criminalization and repression of small-

scale and heritage mining as well as low levels of institutional capacity to ensure the economic and social wellbeing of mining regions. Moreover, it results in local participants being labeled across the board as "illegal" and "criminal," while the actions of large corporations receive much less scrutiny.

Mining policy has also led to an unfair competition between subsistence-driven small-scale and artisanal mining and large corporations that have vast amounts of investment capital, act as

Fernando Vargas Valencia, "Minería, conflicto armado y despojo de tierras: impactos, desafíos y posibles soluciones jurídicas," *Informe para la Contraloría General de la República*, June 30, 2020, Available at: https://www.contraloria.gov.co/documents/20181/472306/01_CGR_mineria_I_2013_comp.pdf/40d982e6-ceb7-4b2e-8cf2-5d46b5390dad

^{163 &}quot;Financial Secrecy index 2018," Tax Justice Network, February 2, 2018, https://www.taxjustice.net/2018/02/02/financial-secrecy-index-2018-watch-listen/

creditors of private subsoil property and employ cutting-edge production technologies to mine swaths of land, all the while enjoying huge tax exemptions.¹⁶⁴ As a result, and in the absence of a cohesive mining policy that includes productive, technological and social support, isolated regulations and policies will have different impacts depending on the size of the producer. This can be seen in the case of the ban on mercury in mining, as mercury use is concentrated primarily among small-scale miners because of the very rudimentary working conditions.

With regards to public policy recommendations, there is a need to rethink mining and evaluate the results and consequences of current policies. It is important to establish support and development measures for small-scale and artisanal mining, ensuring that the networks of families and communities involved can continue to practice this activity in a sustainable and fair manner.

Likewise, it is recommended that steps be taken to strengthen protection frameworks for the lands and residents in areas where mining occurs. One practical step that could help would be to require the approval of an environmental permit by the National Authority for Environmental Licensing (in Spanish, Autoridad Nacional de Licencias Ambientales) and the Regional Autonomous Corporations (Corporaciones Autónomas Regionales) from the very early stages of the project when land is explored, and not wait until the extraction phase, as is currently done. In addition, it is necessary for the central government to work with regional entities to resolve the issue of restricted zones, where mining concessions are not granted yet indigenous and protected communities live and work there. While the regulatory framework has been produced by entities from the central government, it should consider that legislation must be complimentary to the decentralized operations of the State and the independence of regional authorities as enshrined in the Constitution.

At the same time, the Colombian government should consider reinstating its monopoly over gold purchases by small-scale and artisanal miners, guaranteeing a fair price based on the international market. It should also maintain strict control and supervision over levels of production, as well as environmental and social impacts, especially with regards to large companies. Moreover, it should implement measures to ensure transparency in gold production and sales among large companies in order to avoid further tax evasion and tax avoidance.

Finally, it is fundamentally important that the mining authority, in conjunction with other stakeholders and sectors involved in gold production, carry out impact evaluations of mining projects by artisanal and small-scale mining as well as large companies. It is critical to compare the economic, environmental and social impacts of these projects with the royalties earned, the benefits granted to companies in the sector, and the initial impact evaluation.

Regarding tax benefits, in 2018 the mining sector received close to COP 1.5 trillion (USD 515 million), of which one percent corresponded to the extraction of gold and other precious minerals, that is, COP 15.815 billion (USD 5.4 millions). Analysis by Cedetrabajo based on data from their 2020 report, "Distorsiones de la renta recibida del sector minero," Available at: https://cedetrabajo.org/wp-content/uploads/2020/08/Distorsiones-de-la-renta-recibida-del-sector-minero.pdf

Shipment Data: The Export Pathways of Colombian Gold

By Julia Yansura, Global Financial Integrity

To complement the national-level analysis conducted by Cedetrabajo in the previous chapter, Global Financial Integrity (GFI) analyzed a dataset of 12,309 individual shipping transactions to understand Colombian gold exports and identify vulnerabilities and risk factors. Specifically, this data includes Colombian export customs declarations for gold during the period 2009-2018. The data indicate companies exported 533,425 kilograms of gold in 10,569 shipments, and individuals exported 20,784 kilograms in 1,740 shipments.

The figure below provides a visualization of Colombian gold exports by weight for the period in question, showing large flows heading to North America and Europe.

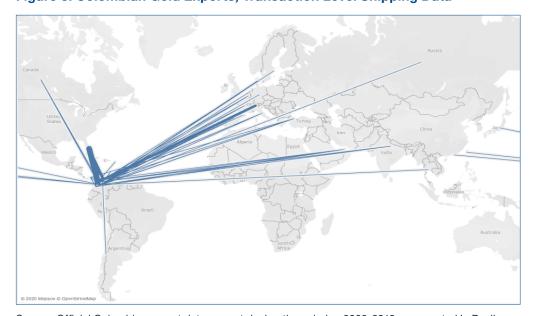


Figure 8: Colombian Gold Exports, Transaction Level Shipping Data

Source: Official Colombian export data, export declarations during 2009-2018, as reported in Panjiva, on exports by destination and weight (KG).

The main ports used to export this gold from Colombia were Medellín, Cúcuta, Cali and Bogotá. Below each port, the main destinations of the shipments can also be seen.

¹⁶⁵ The HS Code 7108 was used, which refers to "Gold (including gold plated with platinum) unwrought or in semi-manufactured forms, or in powder form." It does not include gold coins. Note that the time range of 2009-2018 applies to the customs declaration date; actual shipment times occasionally fell outside this time range.

¹⁶⁶ "Main ports" is based on the weight in KG exported for the period in questions (2008-2019). Note that Colombian Customs data refers to the "port of export" as the "Port of Lading."

Table 13: Number of Gold Shipments and Total Export Volume by Port of Export and Select Destinations, Export Declarations during 2009-2018

Location	Number of Shipments	Net Weight (kg)		
Barranquilla (CO)	109	1,743.96		
Panama	60	302.06		
United States	49	1,441.9		
Bogotá (CO)	1,520	16,458.6		
India	48	2,719.21		
Italy	148	758.64		
Switzerland	51	2,356.7		
Turkey	27	331.05		
United Arab Emirates	14	597.11		
United States	894	7,594.5		
Bucaramanga (CO)	19	198.49		
Cali (CO)	3,175	53,994.97		
United Arab Emirates	29	512.6		
United States	866	28,945.37		
Cartagena (CO)	45	388.2		
United States	40	332.89		
Cúcuta (CO)	2,328	126,329.25		
Switzerland	550	45,135.93		
United States	1,763	80,890.61		
Medellín (CO)	5,113	355,095.71		
Barbados	11	2,429		
Belgium	88	1,330.62		
Canada	114	8,998.29		
India	142	5,443.39		
Italy	24	1,964.82		
Switzerland	1,014	97,193.11		
United Arab Emirates	65	1,385.45		
United States	3,400	234,336.56		
Grand Total	12,309	554,209.18		

Source: Official Colombian export data, as reported in Panjiva.

The main export destinations were the United States and Switzerland, representing 65 percent and 25 percent, respectively, of all exports by weight for this period.¹⁶⁷ Table 14 below provides more detail. For the largest shipment destinations, principal cities are shown.

¹⁶⁷ The main export destinations were determined using the categories "Consignee Country" and "Consignee City."

Table 14: Shipment Destination of Colombian Gold by Select Countries and Cities, Export Declarations, 2009-2018

Location	Number of Shipments	Net Weight (kg)		
United States	7,092	362,407.5		
Doral, Florida	642	12,851.14		
Houston, Texas	137	9,476.52		
Miami, Florida	486	3,807.36 49,571.62		
North Attleborough, Massachusetts	1,001			
Opa-locka, Florida	3,252	152,959.73		
Salt Lake City, Utah	517	77,796.71		
Winter Park, Utah	23	2,908.75		
Switzerland	1,550	137,027.41		
Marin-Epagnier	590	22,632.47		
Mendrisio	889	110,633.8		
Zona Franca - Colombia	2,428	24,140.84		
Canada	119	8,999.74		
Vancouver	114	8,998.29		
India	168	6,965.36		
Rudrapur	114	5,315.13		
Italy	179	2,887.21		
Arezzo	70	2,320.09		
United Arab Emirates	109	2,584.19		

Source: Official Colombian export data, as reported in Panjiva.

General Risk Factors Identified

In addition to providing an overview of gold shipment routes and export destinations similar to what is available from United Nations trade data, this type of transaction analysis allows for the identification of risks factors in terms of supply chain integrity and illicit financial flows. The following risks were identified:

• Exports from border regions without significant local gold production. This is of particular concern for the Colombian city of Cúcuta, which for the period in question was the second-largest port of shipment for gold exports. It shipped 126,329 kilograms of gold in total for this period, largely to Florida. However, the immediate surrounding region produces so little gold that it is not even listed on government gold production figures. Cúcuta's location on the porous Colombian-Venezuelan border, as well as its weak regional and municipal governance capacity, are concerning, pointing to risks of smuggled Venezuelan gold flowing into Colombia and subsequently exported to the international market.

^{168 &}quot;Anuario Estadístico de Antioquia 2016," Gobernación de Antioquia, Departamento Administrativo de Planeación, accessed July 2020, http://www.antioquiadatos.gov.co/index.php/9-2-1-produccion-de-oro-en-kilogramos-por-departamentos-anos-2004-2016

While shipments directly from the port of Cúcuta leveled off after 2011, the city still figures prominently on the addresses of companies involved. As recently as 2015, 47 percent of all shipping companies listed on Colombian gold exports reported a Cúcuta address on their customs declaration. It appears that many of these Cúcuta-based shipping companies are now shipping out of Medellín, some 13 hours away, which seems difficult to justify for any legitimate business reason. Most of the gold shipments are to the United States and Switzerland, which should also be cause for concern in terms of supply chain integrity.

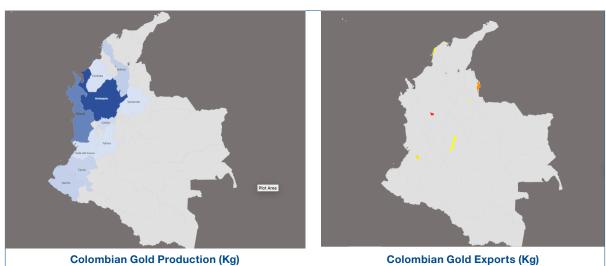


Figure 9: Colombian Gold Production and Exports (Kg), 2008-2016

Source: For production, "Anuario Estadístico de Antioquia 2016," Gobernación de Antioquia, Departamento Administrativo de Planeación, accessed July 2020, http://www.antioquiadatos.gov.co/index.php/9-2-1-produccion-de-oro-en-kilogramos-por-departamentos-anos-2004-2016.

Source: For Exports, Panjiva database, 2008-2016 gold exports from Colombia, net weight in kilograms, by shipment origin, https://panjiva.com. This export range was used to be consistent with the production data available.

100% 90% 89% 80% 70% 60% 50% 40% 30% 30% 20% 23% 18% 10% 0% 2009 2010 2012 2014 2015 2016 2017 2018 2011 2013 Origin Point Cucuta % Total ■ Shipper city Cucuta % Total

Figure 10: Cúcuta as Port of Lading, Percent of National Total and Cúcuta as Shipper Location, Percent of National Total, by Gold Shipments (Kg), Export Declarations, 2009-2018

Source: Official Colombian export data, as reported in Panjiva.

• Misinvoicing. The transaction-level data on Colombian gold exports also raises red flag indications for misinvoicing. GFI defines trade misinvoicing as a way of moving money or value across borders which involves the deliberate falsification of the value, volume, and/ or type of commodity in an international commercial transaction by at least one party to the transaction. Trade misinvoicing, which often goes undetected by authorities, has been found to be linked to international trade-based money laundering cases, including those involving gold. Other issues have been identified in relation to fake gold shipments, in which an invoice would be exchanged, payment made, and an empty container with no gold shipped – all as a pretext to move illicit money.

Analyzing shipment data by transaction, the average price per kilogram for gold export for this period was US\$38,882. We considered anything with a price per kilogram of 50 percent higher or lower than this average as potentially "misinvoiced."¹⁷²

For these cases of potential misinvoicing, the United States was the single largest trading partner for both over-priced and under-priced items, indicating risks in the bilateral gold trade relationship.

^{169 &}quot;Trade Misinvoicing," Global Financial Integrity, accessed July 2020, https://gfintegrity.org/issue/trade-misinvoicing/

¹⁷⁰ See, for example, United States Attorney's Office, Southern District of Florida, "South Florida Couple Charged with Money Laundering and Smuggling in Gold Investigation," U.S. Department of Justice, February 4, 2014,: https://www.justice.gov/usao-sdfl/pr/south-florida-couple-charged-money-laundering-and-smuggling-gold-investigation

¹⁷¹ See, for example U.S. Department of the Treasury, "National Money Laundering Risk Assessment 2015" (Washington, D.C.: U.S. Department of the Treasury, 2015), page 31, https://www.treasury.gov/resource-center/terrorist-illicit-finance/Documents/National%20Money%20Laundering%20Risk%20Assessment%20-%2006-12-2015.pdf

¹⁷² This is a simplified definition for purposes of analysis. A full determination of whether misinvoicing had occurred would also include an analysis of the true quality of the item.

Table 15: Analysis of Price per Kilogram for Colombian Gold Exports, Export Declarations, 2009-2018

Price per Kilogram	Number of transactions
Pricing within Average range	12,000
Pricing Above Average Range	48
Pricing Below Average Range	261

Source: Official Colombian export data, as reported in Panjiva.

- Exports using a combination of company and individual names. In some cases, exports appeared to be split, with some occurring under a company name, and others occurring under the personal name of the company owner and/or legal representative.¹⁷³ While this may conceivably be due to human error, it may also in some cases be used to minimize or otherwise conceal the true value or weight of exports by a certain company.
- Companies sharing legal representatives. In some cases, a single legal representative is
 linked to various companies, exporting under multiple names and legal structures.¹⁷⁴ As will
 be discussed in the next section regarding gold seizures cases, the creation of numerous,
 duplicative legal structures has been documented in numerous criminal cases.
- Companies sharing addresses. In one case, over 30 companies share an address that is linked to Goldex, one of the most famous cases of illegally-sourced gold exports.
- Companies listing addresses that do not appear to be legitimate places of business.

 Using Google Maps, the addresses listed on export declarations can be compared to the streets and buildings where they are located. Unmarked buildings, residential buildings, and buildings in poor condition despite high-value exports are all red flags.
- Individuals exporting large amounts without companies either present or declared.
 For the period in question, individual persons were listed on the export declarations of over a thousand transactions and exported over 12,000 kilograms of gold.

¹⁷⁷³ First, exporter data was coded as either a company or an individual based on the company name provided on the export declaration. Next, the names of companies and individuals listed on export forms, as provided in official Colombian export data, was analyzed in relation to the declared tax ID number ("NIT") associated with the shipment. This was used to identify repeated NITs under different names, or repeated names using the same NIT. Then, this information was checked against Colombian company registries at https://www.rues.org.co for declared legal representatives. Finally, a comparison was run between the official export data and the DIAN List of Fictitious Providers (in Spanish, "Lista de proveedores ficticios").

¹⁷⁴ This was analyzed by matching the tax ID number ("NIT") provided on the official Colombian export data, with information from the Chambers of Commerce Business Registry at https://www.rues.org.co regarding legal representatives.

Analysis of Illicit Trade Transactions

Certain gold exporters have been linked to criminal networks already dismantled by Colombian and international authorities, in cases widely covered by Colombian and international media.¹⁷⁵ To better understand the pathways used for illicit gold, Colombian gold export data from 2009-2018 was analyzed in relation to these publicly-available cases. A few points stand out:

- A large portion of these illicit trade transactions were headed to the United States (75 percent) and Switzerland (18 percent). The largest single port of destination for these problematic transactions was Opa-Locka, Florida.
- A large portion of these problematic transactions originated from Barranquilla, Bogotá and Cúcuta. With regards to Cúcuta, a Colombian city bordering Venezuela with weak institutional presence and a history of smuggling, over 80 percent of trade transactions for this period are linked to companies that were subsequently subject to actions by Colombian law enforcement authorities.
- Problematic transactions are clustered around single Customs Declarations Agents, one
 of the fields reported in official Colombian trade data, suggesting they may play a role in
 facilitating illicit trade.

¹⁷⁵ In most cases, the Attorney General's office (in Spanish, "Fiscalía").

Law Enforcement Efforts on Illicit Gold

By Julia Yansura, Global Financial Integrity

Over the past decade, Colombian authorities have taken increasing action to address the issue of illegal gold, both at mining sites as well as along smuggling routes. The Ministry of Defense, one of the government agencies responsible, has seen illegal mining operations skyrocket. In the first half of 2010, it carried out 34 operations against illegal mining. By the first half of 2020, these operations had grown over 6,000 percent, to 2,186 operations.¹⁷⁶

This chapter, which was written by Global Financial Integrity, analyzes cases in which illegal gold and illegal mining materials were seized by Colombian authorities as part of law enforcement operations. Following an exhaustive review of all publicly-available information for the period 2010-2020, 100 unique cases were identified, analyzed and catalogued.¹⁷⁷ In total, these cases involved 10.5 metric tons of illegal gold, 14,000 kilograms of illegal mercury, and 34 pieces of heavy mining equipment. Moreover, they represented an estimated US\$857 million in financial value. Each case narrative was classified in terms of the size and value of the seizure, the geographical regions involved, the presence of organized crime groups, and the smuggling methodology that was used.

Cases principally came from official reports, such as press releases by the Colombian Attorney General's Office, the Colombian Financial Intelligence Unit, the Colombian National Police, and various branches of the Colombian military. Other sources, such as US official reports and Colombian and international media accounts, were included as well to ensure breadth and depth of coverage. Taken together, these cases present a fascinating overview of illegal gold mining in Colombia and just how pervasive, complex and entrenched it has become.

Methodological Limitations

While this sort of seizures-based analysis can be very useful, it is only indicative of the known universe of cases that have already been dismantled. For example, many of the cases analyzed involve human couriers who smuggle illegally-sourced gold on commercial flights, either inside their luggage or on their person, sometimes worn as jewelry. The seizures data that we have can tell us that this is a common smuggling methodology among known methodologies. However, it may simply be that authorities have been more successful at detecting illegal gold at airport checkpoints, especially in light of post-9/11 intensive security screening procedures. There may be other pervasive methodologies that have not yet been discovered or documented.

^{176 &}quot;Logros de la política de defensa y seguridad," Ministerio de Defensa de Colombia, May 2020, at: https://www.mindefensa.gov.co/irj/go/km/docs/Mindefensa/Documentos/descargas/estudios_sectoriales/info_estadistica/Logros_Sector_Defensa.pdf

Each case reported was different, without repetition in the dataset.

Moreover, these cases are a drop in the bucket. As the data below shows, Colombian gold mines produced an estimated 472.8 metric tons of gold during the period 2010-2019,¹⁷⁸ and exported 546.32 metric tons.¹⁷⁹ Yet, Colombian authorities at the National Mining Agency (in Spanish, Agencia Nacional de Minería or ANM) have stated that an estimated 70-80 percent of Colombian gold exports are sourced with illegal gold.¹⁸⁰ Taking a production/export midpoint of roughly 500 metric tons, and considering that 75 percent may be illegally sourced, this would represent nearly 375 metric tons of illegally sourced gold; the seizures data we have analyzed only amounts to 10.5 metric tons for this period. To put it another way, the known seizures cases we can analyze – and the conclusions we can draw from them – may only represent three percent of all illegal gold production and trafficking in Colombia.

Table 16: Colombian Gold Mine Production (Metric Tons) and Gold Exports

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Colombian Gold Mine Production (Metric Tons)	43.6	45.9	56.2	45.7	47.0	49.2	51.8	44.1	43.0	46.3
Colombian Gold Exports (Metric Tons)	62.8	66.5	76.6	57.3	47.9	36.5	46.8	54.3	45.4	52.2
Colombian Gold Exports (USD, billions)	2.1	2.8	3.4	2.2	1.6	1.1	1.5	1.7	1.4	1.8

Sources: Production Data: "Gold mine production," World Gold Council, accessed July 2020, https://www.gold.org/goldhub/data/historical-mine-production. Export data: UN Comtrade database, accessed July 2020, https://comtrade.un.org/.

Geographic Areas Involved: Origin, Transit and Destination

The cases analyzed generally fall into one of two groups: disruption of illegal gold mining in situ, or disruption of smuggling networks along transit routes. The former is particularly helpful in identifying the main regions of Colombia where illegal gold mining is occurring. By order of prevalence, these cases are concentrated in the geographic departments of Antioquia (20 percent of cases), Cauca (13 percent), Bolívar (9 percent), Valle del Cauca (8 percent), and Chocó (7 percent). One of the things that stands out, however, is how widespread the issue is: 20 out of Colombia's 32 departments are mentioned as illegal gold extraction sites. The following graphic provides more detail. Clearly, the issue of illegal gold mining is pervasive throughout the Colombian territory.

¹⁷⁸ "Gold mine production," World Gold Council, accessed July 2020, https://www.gold.org/goldhub/data/historical-mine-production.

¹⁷⁹ UN Comtrade database, accessed July 2020, https://comtrade.un.org/

^{180 &}quot;Producción ilegal de oro es más del 70% del Mercado," Portafolio, April 21, 2019, https://www.portafolio.co/economia/produccion-ilegal-de-oro-es-mas-del-70-del-mercado-528760

¹⁸¹ For context, in 2019, the Colombian government listed official gold production data for 15 departments. See https://www1.upme.gov.co/simco/Cifras-Sectoriales/Paginas/oro.aspx

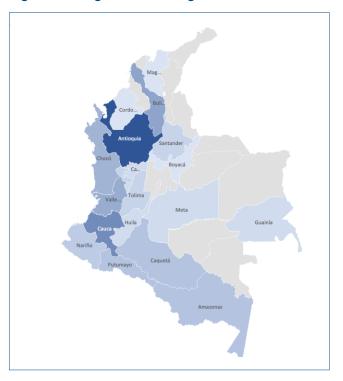


Figure 11: Illegal Gold Mining: Seizures of Gold and Materials, 2010-2020

Source: GFI Analysis of media coverage, 2010-2020. Geographical Origin of Illegal Gold, According to Official & Media Reports.

The second type of case, in which illegal gold is detected while it is being transported, also helps to shed light. For example, patterns emerge in terms of the main Colombian cities that are used as transit points for illegal gold. Bogotá is most commonly referenced (29 percent of cases), followed by Cali (20 percent) and Medellín (20 percent). El Dorado Airport in Bogotá was mentioned in numerous high-profile, large-value cases. In 2017, for example, a Colombian woman on an incoming flight from Panama was caught in that airport carrying nearly 6 kilograms of gold worth US\$234,000 in the form of gold chains, charms, brooches and locks.¹⁸²

In terms of the destination of the gold, it is not always known. However, among the cases where this information is available, Panama is the single most frequently mentioned country, often in relation to its free trade zone, Zona Libre de Colón. It is followed by a host of other countries, mentioned with similar frequency within a second tier: Ecuador, Peru, the United States, the United Arab Emirates, Italy, Venezuela, Switzerland and the United Kingdom.

^{182 &}quot;Detienen a pasajera en aeropuerto de Bogotá con 6 kilos de oro camuflados en el cuerpo," Seguimiento, February 24, 2017, https://seguimiento.co/colombia/detienen-pasajera-en-aeropuerto-de-bogota-con-6-kilos-de-oro-camuflados-en-el-cuerpo-4729

Smuggling Typologies: From Illegal Mines to Illegal Exports

This analysis can also shed light on the smuggling typologies used. Moving illegal gold from a remote mining site, across the Colombian country and subsequently across international border is a complex process involving multiple stages, actors, and types of transit.

Typically, gold is moved from a remote mining location to a town via mule, car or boat. In a 2014 media report, for example, it was noted that local persons rented their horses and mules to be used as transportation to remote, illegal gold mining areas.¹⁸³ From the town, it is then moved to a city via car or boat. For example, in a 2014 case, authorities arrested a pastor who was carrying approximately 3.5 kilograms of gold worth \$75,000 in his blue 1988 Chevrolet on a rural road near El Bagre, an area known for illegal mining activity.¹⁸⁴ From the city, the illegal gold is often exported to another country, typically via aircraft. In 2019, for example, the Colombian Attorney General's Office uncovered an "illegal and systematic network of incoming and outgoing gold, in which human couriers traveled between Colombia and Panama, with the precious metal worn as accessories, or camouflaged with the complicity of airport employees," again mentioning El Dorado Airport.¹⁸⁵

In analyzing the database of seizures cases, we can see that authorities conducted most of the seizures during air travel, followed by land travel, sea travel, and river travel in last place. This is

Authorities conducted most of the seizures during air travel, followed by land travel, sea travel, and river travel in last place.

not surprising given the limited presence of the Colombian State outside of urban areas, ¹⁸⁶ and the heightened presence of authorities and airports. It suggests that airports are key "bottlenecks" for illegal gold exports through commercial air travel, private aircraft and air-based trade channels.

The last stage of the smuggling process, the export stage, is perhaps the most complex. Here, three general typologies emerge: the use of human couriers, the presence of fake companies, and the use of trade channels. Of course, it is also important to note that these typologies are not mutually exclusive.

Human couriers. Of those cases in which the smuggling mechanism was known, 44
percent used human couriers. In a 2019 case, for example, Colombian authorities arrested a
smuggling network that was working for both the Urabeños (Clan del Golfo) and the National
Liberation Army (in Spanish, ELN). Part of the smuggling network involved a family which
would drive by car from Colombia to Ecuador and Peru, posing as vacationers, a pretext

¹⁸³ Luiyith Melo García, "Minería de oro ilegal sigue tiñendo de tragedia a los Farallones de Cali," El País, September 28, 2014, https://www.elpais.com.co/cali/mineria-ilegal-de-oro-sigue-tinendo-de-tragedia-a-los-farallones-de.html

^{184 &}quot;Pastor capturado en Caucasia cuando llevaba 270 millones en doblones de oro," Minuto30, August 7, 2014, https://www.minuto30.com/antioquia/un-pastor-fue-capturado-en-caucasia-cuando-transportaba-270-millones-de-pesos-en-doblones-de-oro-fotos/252769/.

[&]quot;La ruta ilícita de 'Los Quilates'," Fiscalía General de la Nación, August 22, 2019, https://www.fiscalia.gov.co/colombia/noticias/la-ruta-ilicita-de-los-quilates/

¹⁸⁶ See, for example, Mauricio García Villegas, Nicolás Torres Echeverry, Javier Revelo Rebolledo, José Espinosa Restrepo, and Natalia Duarte Mayorga, "Los territorios de la paz: La construcción del Estado local en Colombia," De Justicia, November 2016, https://www.dejusticia.org/wp-content/uploads/2017/04/fi name recurso 921.pdf

for transporting illicit gold.¹⁸⁷ While this example utilized a personal vehicle, many of the cases of human couriers involve flights, either by commercial or private charter, as has been previously described.

- Fake Companies. In cases for which data on smuggling methods was available, 12 percent are known to have used fake companies, whether they be shell companies, front companies or another type of legal structure. The 2016 Goldex case is perhaps the best example of this. Goldex, at the time a large Colombian gold exporter, used "a carrousel of corporate structures registered at different Chambers of Commerce across the country, that acted as providers, with different processes of legal incorporation, such as: companies that were recently created, with the same shareholders, with low amounts of capital, but with volume of operations in the billions of pesos." Unfortunately, the Goldex case has been followed by many other, similar cases in subsequent years. In the 2018 Frank de Oro case of illegal gold exports, the company allegedly created 14 "decoy" companies to confuse authorities and to attempt to disguise the large amounts of illegally sourced gold that were being exported. In the 2019 CIJ Gutiérrez case, 2.4 trillion Colombian pesos, or roughly US\$650 million, were laundered through fictitious companies, according to the Colombian Attorney General's Office.
- Trade Channels. Trade channels that is to say, gold moving in boxes through an export process, as opposed to with a passenger through a travel process were used in roughly 18 percent of cases. These cases typically involved large Colombian gold exporting companies that were charged with exporting illegally-sourced gold. For example, Colombia's National Directorate of Taxes and Customs (in Spanish, DIAN) raised charges against several large gold exporters, including CIJ Gutiérrez, Meprecol, Iron&Cooper and CI Anexpo for fraudulent exports during the period April-May 2016. According to an account in El Colombiano newspaper, the companies were denied export authorization for the period because the export documentation listed "providers such as artisanal miners and Barequeros, who were found to be dead during the period of the supposed sale." Among those cases involving trade channels, the Free Trade Zone of Palmaseca and the associated Alfonso Bonilla Aragon Airport are mentioned, as was the Port of Buenaventura.

187 Douwe den Held, "Colombia's Remote Telembí Triangle Sees Gangs Shake Down Illegal Miners," InSight Crime, March 25, 2019, https://www.insightcrime.org/news/brief/colombia-telembi-triangle-illegal-mining/

^{188 &}quot;Desarticulada red de lavado de dinero a través de exportaciones de oro," Unidad de Información y Análisis Financiero de Colombia, January 16, 2015, https://www.uiaf.gov.co/sala_prensa/noticias/16_enero_2015_desarticulada_red_21768

[&]quot;Fiscalía y Policía Nacional desarticularon organización criminal que comercializó en Colombia y en el exterior oro extraído de manera ilegal," Fiscalía General de la Nación, October 23, 2018, https://www.fiscalia.gov.co/colombia/noticias/fiscalia-y-policia-nacional-desarticularon-organizacion-criminal-que-comercializo-en-colombia-y-en-el-exterior-oro-extraído-de-manera-ilegal/

^{190 &}quot;2.4 billones de pesos fueron blanqueados en operaciones ficticias de compra y venta de oro," Fiscalía General de la Nación, April 11, 2019, https://www.fiscalia.gov.co/colombia/noticias/2-4-billones-de-pesos-fueron-blanqueados-en-operaciones-ficticias-de-compra-y-venta-de-oro/

^{191 &}quot;Tras el oro turbio," El Colombiano, accessed July 2020, https://www.elcolombiano.com/especiales/tras-el-oro-turbio/exportacion-de-oro

Involvement of Organized Crime Groups

While illegal gold mining is widely thought to be associated with organized crime groups in Colombia, only 30 percent of the seizures cases analyzed for this report made reference to such groups. One possible explanation is that it is difficult for authorities to connect a specific seizure – whether it be gold worn by a human courier at an airport or gold mining equipment found at a remote mine site – to organized crime groups because such groups make concerted efforts distance themselves from operations through the use of intermediaries, third parties and front men. Another possible explanation is that illegal gold mining, and subsequent smuggling and asset laundering, is not purely driven by organized crime groups, as is sometimes assumed. Instead, it may be driven by a combination of organized crime groups and unscrupulous companies or individuals.

Among cases that did mention organized crime groups, those most frequently mentioned were the ELN, Clan del Golfo or Los Urabeños, and the now-defunct Revolutionary Armed Forces of Colombia (in Spanish, FARC).¹⁹³ In total, 13 separate groups appeared linked to cases in which authorities seized illegal gold or illegal gold mining equipment. From a law enforcement perspective, the seizures data portrays a challenging situation, in which numerous criminal groups are directly or indirectly involved.

 $^{^{\}rm 193}$ Many of the cases analyzed were before the Peace Process.

Conclusion and Policy Recommendations

This report has identified vulnerabilities throughout Colombia's gold sector that allow criminal groups to utilize it for gain. These vulnerabilities can be traced throughout the supply chain,

from extraction to national sales, and from export to international markets. Moreover, these vulnerabilities have a number of impacts that have been discussed in each of the chapters, causing harm to environments, local mining communities, national security as well as economic development.

While each of the previous chapters have included policy discussion specific to their issue area, we wish to conclude the report by highlighting some of the most important and cross-cutting policy recommendations:

This report has identified vulnerabilities throughout Colombia's gold sector that allow criminal groups to utilize it for gain.

- Environmentally, Colombian law enforcement and environmental protection agencies should prioritize specific responses for the six critically endangered species currently affected by informal and illegal mining, ensuring action before it is too late;
- With regards to artisanal and small-scale mining, the Colombian government should consider forming a specific task force to ensure that current regulations are appropriate, differentiated, clearly communicated, and accompanied with adequate technical assistance; proper engagement with informal miners will vastly help government efforts to isolate mining that is truly criminal in nature.
- For both economic and security reasons, Colombia must do more to address trade misinvoicing. This problem must be addressed for the gold sector as well as more broadly nationwide, since misinvoicing contributes to criminality as well as loss of fiscal revenues. Technological tools to detect and prevent trade misinvoicing, such as GFTrade, should be considered.194
- With regards to the export process, Colombian authorities should verify the information of companies involved in gold exports to weed out bad actors. The verification process should ensure that information reported regarding company names, ownership, addresses, and telephone numbers is complete, accurate and makes sense. A multi-million dollar export company whose registered place of business is a shanty on an unpaved street does not make sense and should immediately trigger investigation by authorities.

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^{194 &}quot;GFTrade," Global Financial Integrity, accessed July 2020, https://gfintegrity.org/gftrade/

- With regards to Colombian law enforcement efforts, the emphasis is currently placed on seizures of gold and mining equipment, but this may not be the most effective approach. Additional efforts are needed on the financial and corporate side to prevent, detect and prosecute illicit financial flows associated with gold mining. To start with, Colombian authorities should strengthen requirements and better verify information regarding the people behind companies, the so-called "beneficial owners," since lack of transparency is a major factor enabling illicit financial flows.
- Finally, the transnational nature of the illicit gold trade requires transnational policy and law enforcement responses. Collaboration between Colombia, the United States and Panama is essential, as is targeted collaboration involving those ports and airports most affected, such as Opa-Locka, Florida, El Dorado Airport in Bogotá, and the Cólon Free Trade Zone in Panama.

¹⁹⁵ See, for example, "Beneficial Ownership and Colombia" Global Financial Integrity and Cedetrabajo, 2020, https://secureservercdn.net/45.40.149.159/34n.8bd.myftpupload.com/wp-content/uploads/2020/03/BO_Final_Eng.pdf

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The findings and analysis of each chapter represent the views of its authors, and may or may not represent the views of all participating authors and organizations. The perspectives included in this report are intentionally diverse, as befits a complex and nuanced issue.

About GFI

Global Financial Integrity (GFI) is a Washington, DC-based think tank, producing high-caliber analyses of illicit financial flows, advising developing country governments on effective policy solutions and promoting pragmatic transparency measures in the international financial system as a means to global development and security.

Every year, roughly US\$1 trillion flows illegally out of developing and emerging economies due to crime, corruption, and tax evasion—more than these countries receive in foreign direct investment and foreign aid combined. Many developing countries have failed to grow past the point where foreign aid is no longer necessary. For years, development economists were puzzled by the lack of growth in developing economies despite large inflows of aid. By drawing attention to the problem of illicit financial flows, GFI has contributed to solving this puzzle. Today, GFI is committed to constructively engaging with policymakers worldwide to develop effective, pragmatic policy solutions to address illicit financial flows.



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