



**GLOBAL  
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AGAINST TRANSNATIONAL  
ORGANIZED CRIME

# A GOLDEN CRISIS

ILLEGAL MINING  
AND GOLD  
SUPPLY CHAINS  
IN ECUADOR

Marcena Hunter

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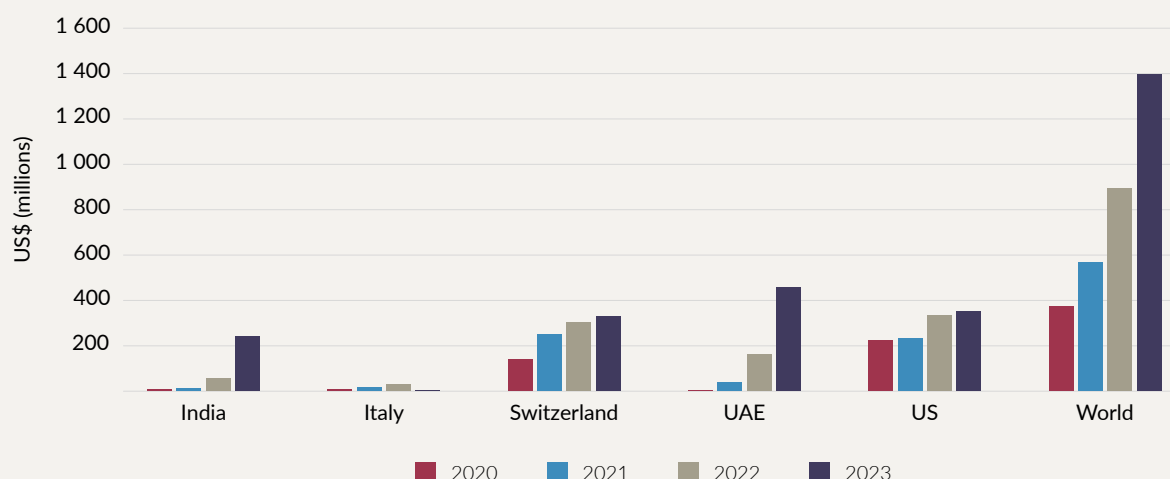
## EXECUTIVE SUMMARY

**E**cador has a rich gold mining history, dating back to the Incas and other cultures. The country's gold sector has seen rapid transformation in recent years, with significant increases in gold exports, including gold produced through artisanal and small-scale gold mining (ASGM).<sup>1</sup> Largely an informal livelihood,<sup>2</sup> ASGM has now evolved into a complex supply and value network, parts of which are preyed upon on by criminal groups, which increasingly control or engage in rent-seeking from mine sites, processing plants and export channels.

Data on the volume of gold being produced by ASGM in Ecuador is lacking owing to a combination of weak or failing institutional data collection and oversight. The 2018 closure of the national mining cadastre and chronic under-resourcing of the Agency of Mining Control and Regulation (ARCOM), has left concession records in disarray and production data unverifiable. Furthermore, increased violence across the country has made accessing ASGM areas increasingly difficult.<sup>3</sup>

Yet, available data shows ASGM accounts for a significant and growing portion of Ecuador's gold exports. In 2018, which is the last available production data, the Ministry of Mines and Energy reported that around 3.4 tonnes of gold were produced through ASGM.<sup>4</sup> According to UN Comtrade, the country exported 19.2 tonnes of gold (HS Code 7108) worth over US\$900 million in 2022.<sup>5</sup> Gold exports significantly increased in 2023, with the Central Bank of Ecuador reporting over 27 tonnes of gold doré<sup>6</sup> being exported that year.<sup>7</sup> Despite concerns about the reliability of Ecuador's customs data,<sup>8</sup> other independent data sources also show a significant spike in gold exports since 2018, including of gold concentrate and scrap metal.<sup>9</sup>

The rise in ASGM and gold exports coincides with a rise in organized crime in the country, with criminal and gang-related violence having significantly escalated in the last five years.<sup>10</sup> In January 2024, following a wave of violence, including a local gang's on-air attack of a television station in Guayaquil,<sup>11</sup> Ecuador's president, Daniel Noboa, declared 'war' on criminal gangs and issued two executive decrees:<sup>12</sup> one declared a nationwide state of emergency owing to serious internal unrest, while the second officially recognized the existence of an internal armed conflict in Ecuador and identified 22 organized crime groups (OCGs) as terrorist organizations and belligerent non-state actors, including Los Lobos and Los Choneros.<sup>13</sup> The decree mandated the Armed Forces to carry out military operations, in accordance with international humanitarian law, to neutralize these groups.



**FIGURE 1** Value of gold (HS 7108) exported from Ecuador, 2020–2023.

SOURCE: UN Comtrade, <https://comtradeplus.un.org/>

The gold sector has not been immune to the rise in criminality. In fact, gold mining in Ecuador has become an important source of income for OCGs since 2022.<sup>14</sup> One government official with knowledge of the sector reported that prior to 2018 there were less than 60 illegal mining points, but as of 2024 there were more than 600 illegal mining points.<sup>15</sup> The artisanal mining sector was left vulnerable to criminal exploitation following years of what interviewees describe as weak or inconsistent management and oversight by the state,<sup>16</sup> compounded by political interference and corruption. Other factors that drove OCGs to enter the sector include falling cocaine prices and rising international gold prices.<sup>17</sup> OCGs seized these economic opportunities, leveraging illegal mining and criminality already at play: local families, politicians and gangs already fought over mines, albeit without extreme violence, while state institutions failed to properly manage mine site permitting, mineral processing and exports.<sup>18</sup>

The current context is challenging and involves complex networks, ingrained power dynamics and powerful and violent actors. The criminal capture of Ecuador's ASGM sector also has widespread detrimental impacts: from environmental harm and increased rates of violence to undermining governance.<sup>19</sup> To design an effective response to the challenge requires unpacking and developing a shared understanding of the networks and supply chains that underpin illegal gold mining and associated criminality in the country.

As a contribution towards building this understanding, the GI-TOC undertook a focused investigation into two important gold mining and processing towns, Zaruma and Portovelo in El Oro province, to establish a case study of criminal exploitation of Ecuador's gold sector. Zaruma and Portovelo, and their surrounding areas, are where Ecuador's most significant gold processing centres are located. Gold from all over the country goes to Portovelo.<sup>20</sup> The research scoped the key nodes in gold supply networks and how they operate, and how they link to wider national and international gold and financial flows.

This report draws on in-depth interviews conducted with various stakeholders between October and November 2024. It synthesizes first-hand accounts of operations at processing plants, illicit supply chains, environmental harms, export dynamics and ongoing reform efforts, and examines present-day manifestations resulting from long-term systemic breakdowns to identify areas for further research.

## Methodology

This report is based on analysis of over 100 academic, institutional and governmental reports and media articles and information drawn from open-source investigations. More than 30 semi-structured interviews with key stakeholders across Ecuador's gold sector, academia, media, government, non-governmental organizations and multilateral organizations were conducted in October and November 2024. Interviews and field research in Quito covered the national gold mining context in Ecuador, as well as focusing on the local context in Zaruma and Portovelo in El Oro province. Owing to security reasons, the research team was only able to conduct limited research in Zaruma and were unable to visit Portovelo to investigate gold supply chains and networks.

Interviewees were identified through purposive snowball sampling, ensuring inclusion of individuals with both technical expertise and direct field experience. Owing to the nature of the research, all interviews have been anonymized. A case-study approach establishes information points of value that are of interest in their own right, and which may contribute to establishing wider trends. The research provides a snapshot of trends and behaviours in one of Ecuador's most important ASGM and processing areas, and analyzes available trade data to provide an outline of Ecuador's international gold supply chains.



**FIGURE 2** Ecuador's most significant gold processing centres are located around the towns of Zaruma and Portovelo.



# ILLEGAL MINING IN ECUADOR: INSTITUTIONAL WEAKNESSES AND ORGANIZED CRIME GROUP DIVERSIFICATION

**T**he closure of the mining cadastre in 2018 and the closure of the ARCOM in 2020<sup>21</sup> significantly reduced oversight of Ecuador's ASGM sector. In addition, institutional reorganizations, such as the Ministry of Mines merging with energy and oil portfolios, diluted enforcement mandates, creating governance gaps and weaknesses.<sup>22</sup>

Owing to concerns around corruption, President Lenin Moreno closed the national cadastre in 2018.<sup>23</sup> The closure froze new titles, created a large regulatory gap and inadvertently left illegal miners free to exploit known deposits. As one academic reflected, there was 'not too much control of mining since the cadastre closed in 2018'.<sup>24</sup> Under a cloud of legal uncertainty, miners lodged legal claims demanding existing applications be honoured. In turn, mining exploration permits continued to be issued by local authorities, arguably in contravention of national laws; 652 small-scale mining permits were still issued by local authorities, according to media outlet Código Vidrio.<sup>25</sup> One interviewee asserted the award of mining licences was politically motivated or in return for payment from concession holders.<sup>26</sup>

Moreover, ARCOM, the agency tasked with overseeing concession approvals, processing-plant licensing and production monitoring, has been chronically understaffed and underfunded. Interviewees described ARCOM as an agency without the necessary technical capacities, which prior to its closure could not to be trusted as it was affected by corruption.<sup>27</sup> ARCOM was formally shut down when it was merged with the electricity and hydrocarbons regulators in 2020 to form a single watchdog, the Agencia de Regulación y Control de Energía y Recursos Naturales No Renovables (agency for the regulation and control of energy and non-renewable natural resources).<sup>28</sup> Although the stated purpose was to centralize oversight and optimize resources, it further weakened the agency and its ability to regulate the gold sector effectively.<sup>29</sup>

In August 2024, ARCOM was reinstated as an independent agency.<sup>30</sup> Yet allegations of corruption arose almost immediately, and in September 2024 their offices were raided owing to alleged irregularities in the awarding of mining concessions.<sup>31</sup>

The regulatory vacuum and other institutional weaknesses have resulted in confusion around the legal status of mines. Interviewees reported it was difficult to determine the legal status of mining operations around Portovelo, creating complicated grey areas between 'legal', 'informal' and 'illegal' mining operations.<sup>32</sup> For example, some miners possess some form of licence but operate outside the allowed area without approvals, whereas other miners have no form of official documentation and operate fully unchecked.<sup>33</sup> In addition, there have been reports of operators who obtained concessions before the registry was closed now renting them out to 'illegal' miners,<sup>34</sup> or that non-authorized mining activity was taking place on land assigned to a legal concession, which is easy to do given Ecuador's paper-based record system.<sup>35</sup>

The governance gaps have also created opportunities – at both the national and municipal level – for officials and businesses to exploit regulatory grey areas and limited oversight to skirt the law. This has resulted in vulnerabilities that can be exploited by corrupt actors and OCGs. One law enforcement official explained that when seeking to understand illegal mining 'it's not only about mining, it's about related crimes, submission of political will [...] and a lack of control by the state.'<sup>36</sup>

Mayors are uniquely placed power brokers in the gold sector, allowing them to both exercise power over and financially benefit from gold mining and processing operations within their jurisdiction. There have been accusations that some mayors have had ties to Los Lobos and other gangs.<sup>37</sup> In other cases, local authorities and mayors appear to work with illegal miners to close legal sites so that unauthorized operators can mine there, presumably to benefit from kickbacks.<sup>38</sup> One interviewee described mayors as 'always being in there'.<sup>39</sup>

Multiple mayors have been killed since 2024 in southern Ecuador, with suspicions some of the assassinations are linked to illegal mining – as a result of either their opposition to or their involvement in the activities.<sup>40</sup> In April 2024, José Sánchez, then mayor of Camilo Ponce Enríquez, was killed. According to media reports, Sánchez was a vocal critic of Los Lobos and had been working with the military and the police to dismantle the gang's criminal strongholds in key sectors of the canton. Sánchez had survived two attempts on his life the previous year.<sup>41</sup> Two days after Sánchez's murder, Jorge Maldonado, mayor of Portovelo, was killed in a motorcycle drive-by shooting. While the motive of the attack is unclear, a media report pitched Maldonado as a businessman with interests in at least two gold mines in cantons in the Azuay province, which may have been a factor in the assassination.<sup>42</sup> In January 2025, Eber Ponce, the mayor of Arenillas in El Oro province, was also shot in a drive-by shooting, although no direct links to gold mining could be established.<sup>43</sup>

Allegations of being involved in illegal mining have also been made against judges, heads of labour unions and prosecutors around Machala; for example, one interviewee reported that their boss had received a threat from a local prosecutor who was involved in illegal mining activities.<sup>44</sup>

The lack of economic opportunities and relative poverty makes the allure of revenue from illegal gold sales appealing to community members, further opening opportunity for corruption at the local level.<sup>45</sup> As one interviewee stated: 'At first the population is against it [illegal mining], but when they see that this generates high economic resources [...] they become part of it [...] so they [...] put aside the idea that "they are damaging my land, they are damaging my water, they are damaging my agriculture, the animals are dying". That was a discourse prior to what they knew about what this was generating [...] if in the mining area it was like this about the flow of money, imagine what it is like in the public sphere.'<sup>46</sup>



## A culture of impunity

A culture of impunity is also fuelling criminality in the gold sector. Of the 393 registered gold producers and exporters reviewed in a 2024 media investigation, 76 individuals faced formal charges related to illegal mining over the past two decades, yet most of these cases never resulted in convictions. Among 16 exporters prosecuted, 13 saw their cases dismissed or archived before trial, and most of the 60 small-scale miners charged never appeared at a hearing.<sup>47</sup>

Limited law enforcement and judicial capacity is a major hurdle in bringing perpetrators to book. Investigating the illicit financial flows and supply chains that underpin illegal mining and finance OCGs requires significant resources – which are seldom readily available.<sup>48</sup> Ecuador's national police have added specialized units for environmental intelligence, in addition to its special unit on environmental crime, but their primary focus is environmental crime rather than crime directly linked to mining activity.<sup>49</sup>

As such, police investigations tend to focus on catching individuals *in flagrante delicto* – 'in the act' of committing a crime. This often results in law enforcement action against more visible targets, such as miners and mining equipment. However, miners are often the least influential and most vulnerable actors within illicit networks, as opposed to individuals who are powerful lynchpins in the supply chains and value networks, controlling gold and financial flows. Also, as explained by an economist working in the sector, destroying mining machinery is not a strong disincentive for criminals: at start-up costs of around US\$350 000 for an artisanal gold mine, it's cheap to replace destroyed machinery.<sup>50</sup> A law enforcement official agreed that targeting mining equipment was not an effective means of weakening OCGs, although equipment seizure or destruction is one of only a few options provided by Ecuador's Mining Code to combat illegal mining.<sup>51</sup>

Corruption further undermines prosecutorial efforts. Powerful mining concession holders, local officials and OCGs alike can count on *padrinos* (politically connected patrons or sponsors) in the judiciary to shield them from accountability, perpetuating a self-reinforcing cycle of impunity.<sup>52</sup>

## Expanding illicit portfolios

OCGs have been able to exploit these systemic vulnerabilities in Ecuador's mining industry. Originally, crime groups' portfolios were rooted in narcotics trafficking, but gold is now a central pillar of their business and thought to be the leading income source for OCGs in Ecuador.<sup>53</sup> The surge in gold exports is attributed to OCGs increasingly engaging with the gold sector, which has contributed to an overall rise in illegal ASGM according to sector experts in El Oro province.<sup>54</sup>

OCGs are reported to launder money through the gold sector,<sup>55</sup> receive narcotics payments in gold<sup>56</sup> and invest profits into setting up and running mines.<sup>57</sup> 'Gold doesn't rot,' reflected an Ecuadorian journalist, explaining that gold is seen as a safer way for criminal groups to store wealth, purchase drugs and launder money.<sup>58</sup> 'Gold is easier than drugs – it's not illegal when it enters the formal sector,' added an individual who previously worked in government.<sup>59</sup> The gold sector is therefore an attractive form of diversification for spending and laundering illegal funds. The use of the US dollar in Ecuador makes the country even more attractive to OCGs,<sup>60</sup> with one law enforcement official describing the phenomenon as 'green collar crime'.<sup>61</sup>

OCGs have expanded across Ecuador's gold sector. In September 2024, the president of the country's mining chamber, María Eulalia Silva, told BNAmericas that organized crime is taking over small-scale mining areas, including Ponce Enríquez in the Azuay province.<sup>62</sup> According to an individual working with small-scale miners in El Oro province 'the sector is completely taken over by the OCGs', referring to mines around Camilo Ponce Enríquez, Santa Rosa, Zaruma and Portovelo. 'You can see them [...] if you go along the Pan-American highway [at Santa Rosa] and you stop on the bridge [...] you can see the people with big machine guns.'<sup>63</sup>

## Los Lobos

Los Lobos,<sup>64</sup> the country's largest OCG, became involved in Ecuador's gold sector as early as 2017, extorting miners and securing mining routes originally forged for drug smuggling. By September 2023, the group was reported to be directly involved in illegal mining in the Camilo Ponce Enríquez area as well as extorting gold miners.<sup>65</sup> Los Lobos are now reported to be involved in illegal gold mining across Ecuador and throughout the gold supply chain. This includes reports of Los Lobos control in Portovelo and Zaruma.<sup>66</sup> A media investigation describes how the group takes gold from all over the country to processing plants in Portovelo and then to the ports – mainly Guayaquil – for export.<sup>67</sup> Police and local authorities may work with Los Lobos as profit-driven collaborators or out of fear; those who oppose Los Lobos may pay with their life.<sup>68</sup> ■



A man with a Los Lobos tattoo is arrested in Guayaquil, Ecuador, January 2024.

© Gerardo Menoscal/AFP via Getty Images

In addition to controlling mine sites and extorting miners, OCGs demand protection fees – locally known as *vacuna* ('vaccine') – from gold processors to keep them 'safe'.<sup>69</sup> Some larger gold processors, which have their own security, are reported to have avoided being forced to make the payments at the time of research.<sup>70</sup> While the presence of OCGs can be overt and visible, several interviewees described how those in control or who provide financing are hidden.<sup>71</sup>

A lack of formal financing options also leaves small-scale miners vulnerable to criminal exploitation. Although the Central Bank of Ecuador has taken steps to address the vulnerability, uptake has been limited to date. In turn, miners opt for informal financing options. Although not necessarily part of OCGs, informal loan sharks can offer loans with high interest rates to miners. These loans are both high interest and high risk: if the individual stops paying, the creditor often uses violence – sometimes even murder – to recover the debt.<sup>72</sup>

In other cases, gold mines are reported to be totally controlled by OCGs, who recruit miners, especially youths, who are used to carry out violent acts.<sup>73</sup> An interviewee described the situation as being like 'having a small army from illegal miners'.<sup>74</sup>

Dynamics of direct exploitation, extortion and criminal convergence around mining areas translate into increasing rates of violence in places where illegal gold mining occurs. For example, in the first half of

2024, the homicide rate in Camilo Ponce Enríquez was 171 per 100 000 inhabitants, four times the national rate.<sup>75</sup> Provinces and cantons where illegal mining takes place have subsequently been defined as homicide hotspots.<sup>76</sup> Apart from the concerning numbers, violence around mining sites has also become notoriously symbolic of the control exerted by OCGs, as also seen in other areas of Ecuador.

## Environmental harms

The concentration of gold processing plants around Portovelo and Zaruma has raised significant environmental concerns, risks heightened by weak oversight and regulation of the sector. Processing plants can be found along the entire length of the riverbank in the area, and tailings are dumped directly into the water.<sup>77</sup> This is illegal and very harmful to the environment. ARCOM, which officially oversees tailings management, appears to be stymied in its efforts to enforce regulatory control in the sector owing to (long-standing) capacity constraints.<sup>78</sup> For example, three interviewees mentioned a community tailings facility near Portovelo, which although based on an accepted tailings re-processing model, was not functioning as it should.<sup>79</sup>

Tailings being dumped into rivers leads to high levels of mercury and cyanide pollution in the waterways, creating serious and long-lasting environmental problems.<sup>80</sup> The use of cyanide to reprocess tailings of ore previously treated with mercury is considered a harmful 'worst practice' under the Minamata Convention because mercury is converted into methyl-mercury, which is more bioavailable – meaning it accumulates more easily and quickly in the tissues of birds, fish and other aquatic animals. The river running through Portovelo now bears significant dead zones, which have destroyed local economies and fish stocks, according to a biologist who has studied the area.<sup>81</sup> The water pollution is also the source of a long-standing international conflict with Peru over heavy-metal contamination at the interconnection of the Puyango basin in Ecuador and the Tumbes basin in Peru, from where water flows into the Gulf of Guayaquil.<sup>82</sup>

As a signatory of the Minamata Convention, Ecuador prohibited the use of mercury to process gold ore in 2015.<sup>83</sup> While the GoldPlus programme has had successes in curbing mercury use, the practice persists. Mercury offers a relatively inexpensive and quick method to process gold, meaning miners can seize profits easily and quickly. One expert described how the mercury ban pushed the trade underground, leading to people now using mercury in processing at home, which poses a serious health hazard.<sup>84</sup> Another source commented that although anti-mercury laws are acknowledged, they are not enforced in practice.<sup>85</sup>

**Portovelo, Ecuador.**  
**Contamination from gold**  
**processing has polluted**  
**the town's river, destroying**  
**local economies and**  
**biodiversity.** © Vicente Gaibor/  
*Bloomberg via Getty Images*





## GOLD SUPPLY CHAINS

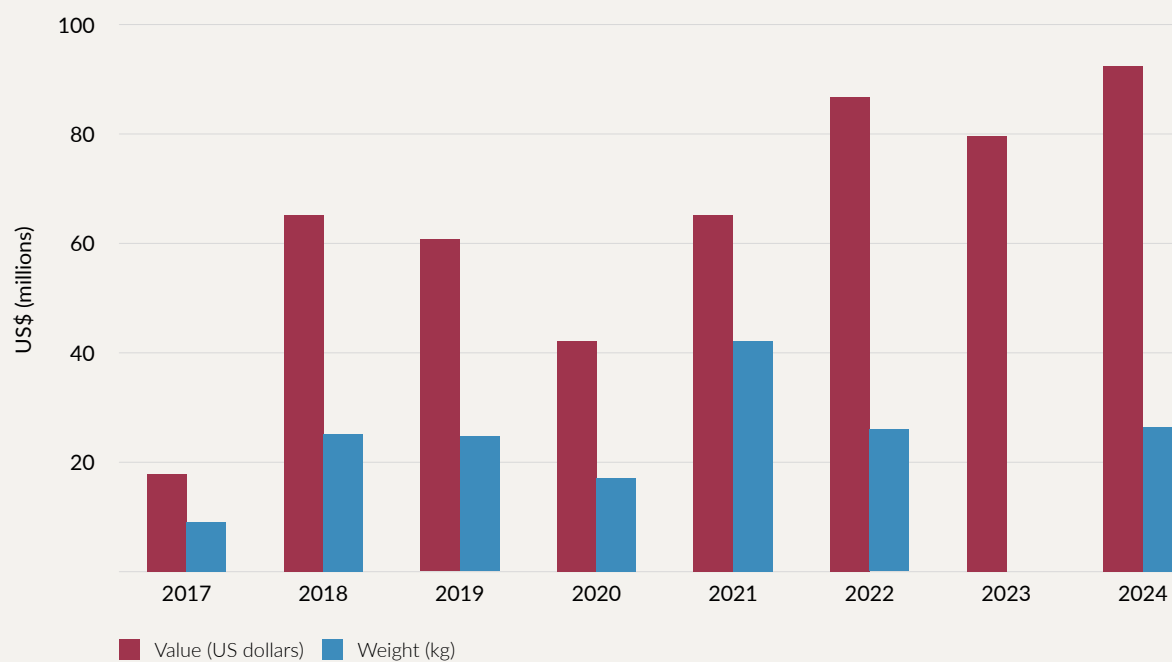
**P**rocessing plants (locally known as *plantas de beneficio*) are an important point of value-add in Ecuador's gold sector. Gold-bearing ore from across the country, even the northern regions, flows to Portovelo and the surrounding area for processing.<sup>86</sup> According to the Central Bank, a total of 156 registered processing plants operated in Ecuador in 2023,<sup>87</sup> with the majority of these in or around Portovelo. However, the exact number is unclear, because they are not all registered as processing entities or listed with the bank. Interviewees put the number of processors in the Portovelo area between 80 and 140 or more.<sup>88</sup>

Processors either buy ore from artisanal miners or process ore for them.<sup>89</sup> The 'rental model', where cooperatives strike deals with local processing plants to rent out the facilities, is also common.<sup>90</sup> Miners deliver ore, use mercury to amalgamate the gold, and then leave the mercury-laden tailings with the plant operators. These tailings can be reprocessed up to four times because of significant amounts of gold left in the discarded material after the first rounds of processing. Miners are incentivized to use the processing plants because it increases their yield: approximately 30% processing efficiency can be achieved using mercury separation alone, but 70% efficiency is possible when using a processing plant that uses cyanide.<sup>91</sup>

Ecuador's imports of chemical products and preparations such as flotation agents have significantly increased since 2021,<sup>92</sup> which also suggests increased ore processing is taking place. Independent data shows a steady increase in the amount of imported activated carbon, which is used in the cyanide-based gold separation process.<sup>93</sup> Trade data also shows that imports of sorting and crushing equipment,<sup>94</sup> used for small-scale gold crushing, increased since 2021.

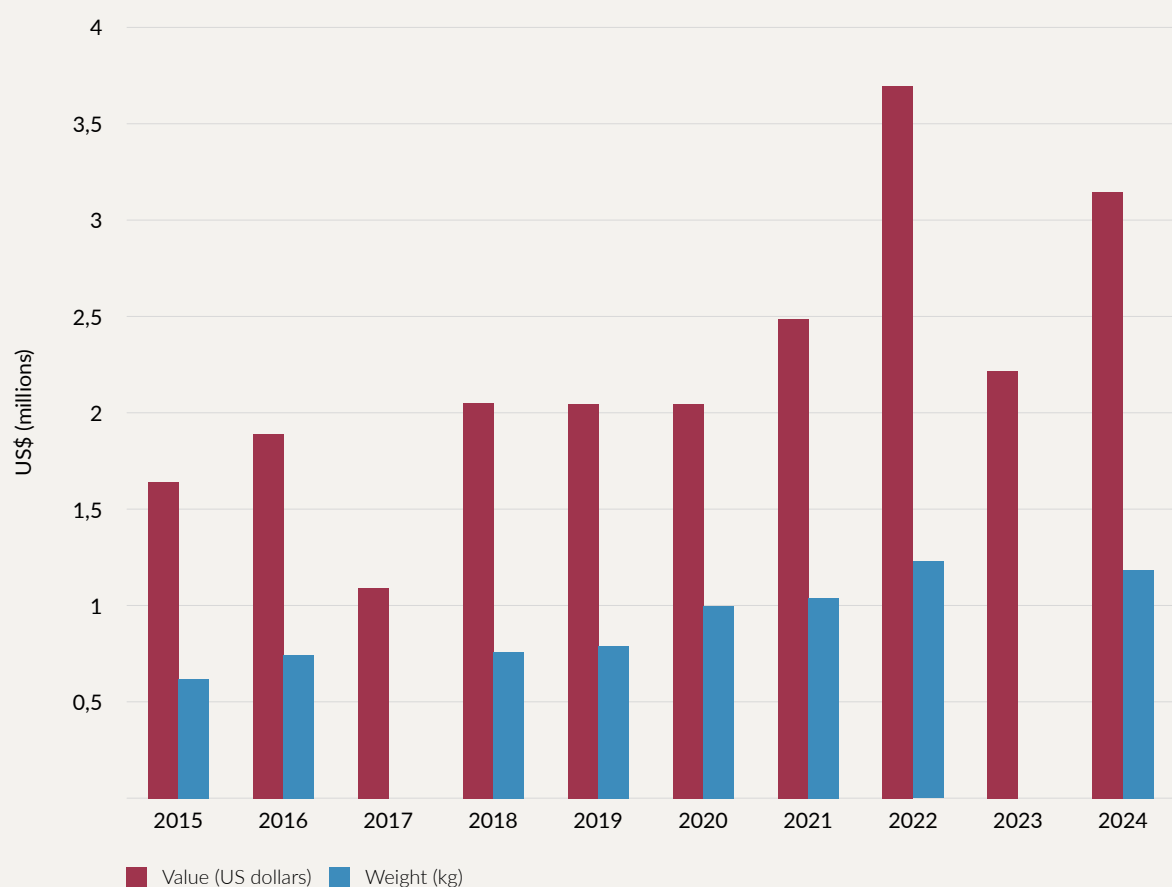
Interviewees described processing plants as the 'weak link' in gold supply chains, and that processors around Portovelo convert illegally or informally mined gold into 'legal' gold for international export, as they often receive ore that has been mined without the necessary permissions.<sup>95</sup> OCGs are also reported to force processing plants to process illegally mined gold, thereby allowing illicit gold and laundered money to enter international supply networks.<sup>96</sup>





**FIGURE 3** Imports of HS 3824.99 chemicals used to make foundry binders for moulding gold bars, 2017–2024.

SOURCE: UN Comtrade, HS Code 382499, Ecuador reported imports from 'world'



**FIGURE 4** Imports of activated carbon (HS Code 3802.10), 2015–2024.

SOURCE: UN Comtrade, HS Code 380210, Ecuador reported imports from 'world'

For example, processing plants may be affiliated with mining companies or own or be affiliated with a licensed mining concession. This allows processing plants to treat ore that has been illegally mined and launder it into formal supply chains. The processing plant can claim the ore was sourced from the licensed mining operations it is associated with, even when the mine it is associated with is producing little to no ore.<sup>97</sup>

Opaque ownerships further thwart transparency in the sector. The ownership of some of Portovelo's processing plants is unclear, with reports citing influential families and politicians, including local mayors, as owners or being involved in gold processing in some way.<sup>98</sup> The lack of a public ownership registry inhibits transparency.<sup>99</sup> A 'revolving door of ownership between concessions, processing plants, and political power', including the alleged involvement of local mayors, makes ownership and accountability more challenging.<sup>100</sup> There are some allegations around certain processing plants being front companies, with the true beneficial ownership of the operations hidden.<sup>101</sup>

Questions on the ownership of processing plants are also reflected in the evidence seized during the September 2024 raid of the ARCOM offices: prosecutors and police officials involved reported that preliminary investigations pointed to an unusual increase in the number of gold processing plants.<sup>102</sup> ARCOM officials continue to face challenges such as anomalies in the (restricted) database of plant ownership, a lack of controls at ports and shortcomings with regard to export certificates.<sup>103</sup>

The lack of transparency on the ownership of processing plants, political links and the potential for big profits and easy laundering of illegally mined gold are weaknesses that can readily be exploited by OCGs and other criminal actors. This is a key vulnerability to be addressed in combatting organized crime in Ecuador's gold sector.

Article 49 of Ecuador's mining code requires that artisanally produced gold should be sold to and exported by the Central Bank or by private agents authorized by the bank.<sup>104</sup> Natural or legal persons marketing or exporting gold must have an export licence. In addition, Article 50 of the code states that gold must be assayed (assessed for purity and quantity) prior to export.<sup>105</sup> While some gold from the Portovelo-Zaruma area has been bought by the Central Bank's office in Machala,<sup>106</sup> much more significant volumes of gold processed around Portovelo and Zaruma bypass the bank and are exported directly, without the proper authorization.<sup>107</sup>

## Weak export processes

Weak export controls facilitate illegal activity. Ecuador's customs service is characterized by ongoing customs fraud, corruption, involvement of OCGs and failings of the ECUAPASS system.<sup>108</sup> Several interviewees described gaps in the export procedures and corruption in the system, including allegations that customs were 'selling regional directorships at regional level to local businessmen'.<sup>109</sup>

The lack of assay facilities for export, and the physical checking of declared gold exports, presents another major weakness. Although the Central Bank offers an assay service for gold it buys and exports,<sup>110</sup> such evaluations do not appear to be performed for ASGM gold exports, which do not go through the Central Bank. While some private assessment facilities are registered in Ecuador,<sup>111</sup> interviewees reported that laboratories were often consulted to validate the work of processing plants rather than as a pre-export requirement.<sup>112</sup> The absence of assays at the point of export means there is much less surety about the quality and value of reported gold exports, which creates an opportunity for misinvoicing or false declarations.

Misinvoicing and false declarations can be used to mask the proceeds of crime or corruption or to evade taxes and capital controls.<sup>113</sup> One interviewee reported their analysis of trade data showed inconsistencies in the value and weight of gold exported from the country, pointing to misinvoicing as a significant problem.<sup>114</sup> Trade data analysis for this research also found inconsistencies that pointed to misinvoicing or false declarations. Furthermore, without assay checks, gold does not have to exist or be moved physically to be traded on paper; instead, citing 'gold' as the traded good on an invoice can be used to justify large movements of money, either domestically or across borders.<sup>115</sup> This offers significant money laundering opportunities.

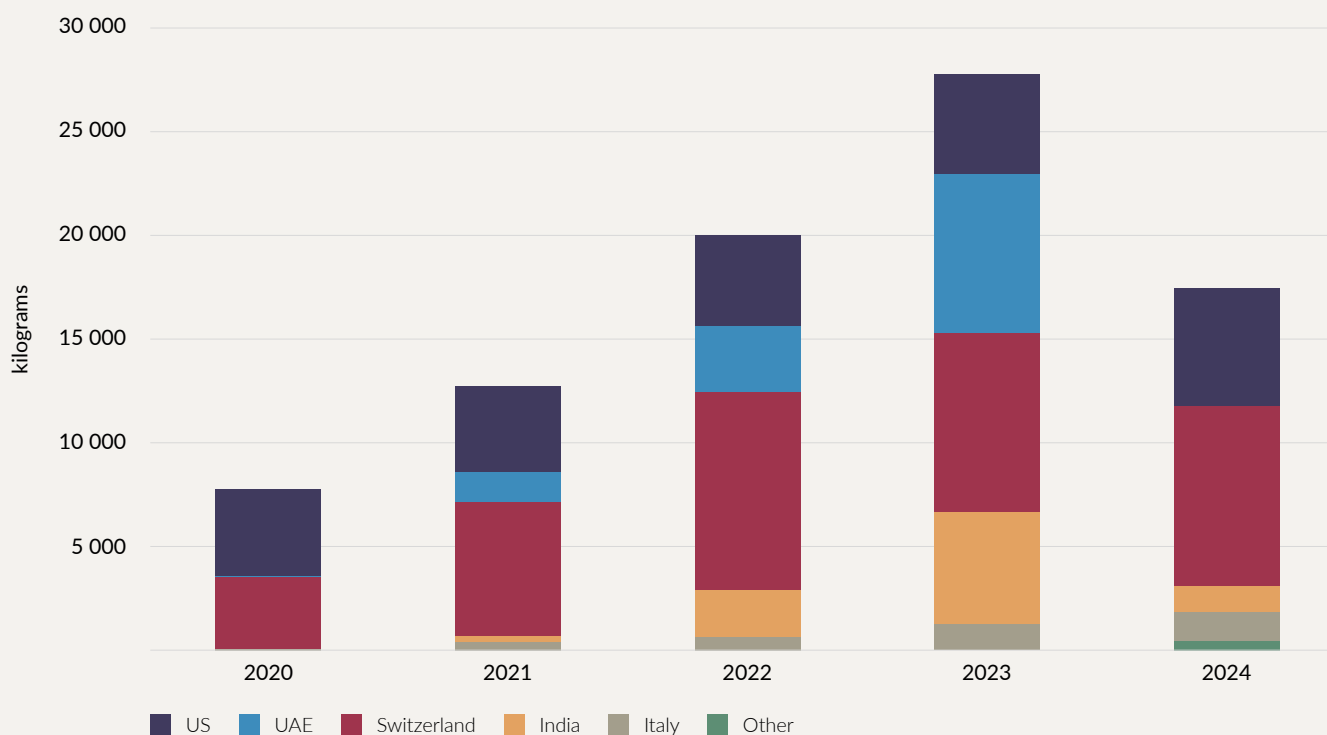
A spike in scrap and jewellery gold exports also rings alarm bells. Scrap gold exports from Ecuador increased by 73% between 2022 and 2023, with the overwhelming majority imported by companies based in the US – a small number went to Hawaii and the rest to Florida (Miami or Palm Beach). Between 2022 and April 2024, over 1.7 tonnes of gold scrap were exported by plane from Ecuador. Ecuador's gold jewellery exports also appeared to spike in 2023.<sup>116</sup> In particular there is a concern that simplified joint-stock companies may be being abused to launder and smuggle gold. Introduced in 2020 to support small entrepreneurs through the COVID-19 pandemic, the corporate vehicle is now reportedly being used to hide criminal identities and launder gold.<sup>117</sup>

During field research, some interviewees speculated that gold ore exported from Ecuador may be smuggled into the country from Peru.<sup>118</sup> Similarly, there are reports of gold being smuggled out of the country. One interviewee speculated that planes used in the banana trade around Machala are doubling up to ship gold, due to reports of the flights being used to move drugs.<sup>119</sup> In November 2024, an article in *The Economist* described how Ecuador's banana-sector infrastructure, which supports the export of 4 million tonnes of bananas annually, was being exploited by OCGs to facilitate international drug-trafficking.<sup>120</sup>

## Destinations and routes

Between 2020 and 2024, the United Arab Emirates' (UAE) gold imports from Ecuador increased significantly, and it became the country's second largest export destination after Switzerland (which received gold from Ecuador's only large-scale mine). The top four companies importing Ecuadorian gold, by number of imports and by volume, were all based in the UAE.<sup>121</sup> In 2023, India's imports of Ecuadorian gold also notably spiked. However, the exact volume of gold received by the UAE, India, or other destinations is unclear: there are discrepancies in reported export and import data for non-monetary gold from Ecuador for each year between 2021 and 2023.<sup>122</sup> Moreover, around 10 front companies, with fake addresses and non-operational emails, owned by Indian nationals were founded in 2021 and 2022 in Machala, El Oro and Guayaquil, exporting large amounts of gold to the UAE and India, while barely paying taxes, a media investigation showed.<sup>123</sup>

The majority of declared non-monetary gold exports left from the airport in Guayaquil to major international airports such as Schiphol (Amsterdam), Zurich, Miami or Bogota and then onwards. A smaller amount went from Quito to either Schiphol or Miami International Airport.



**FIGURE 5** Countries reporting gold imports from Ecuador, by volume of imports, 2020–2023 (kg).

NOTE: There are no declared imports of HS Code 7108 by the UAE from any country in 2024.

SOURCE: UN Comtrade, HS Code 7108. All reported imports from Ecuador





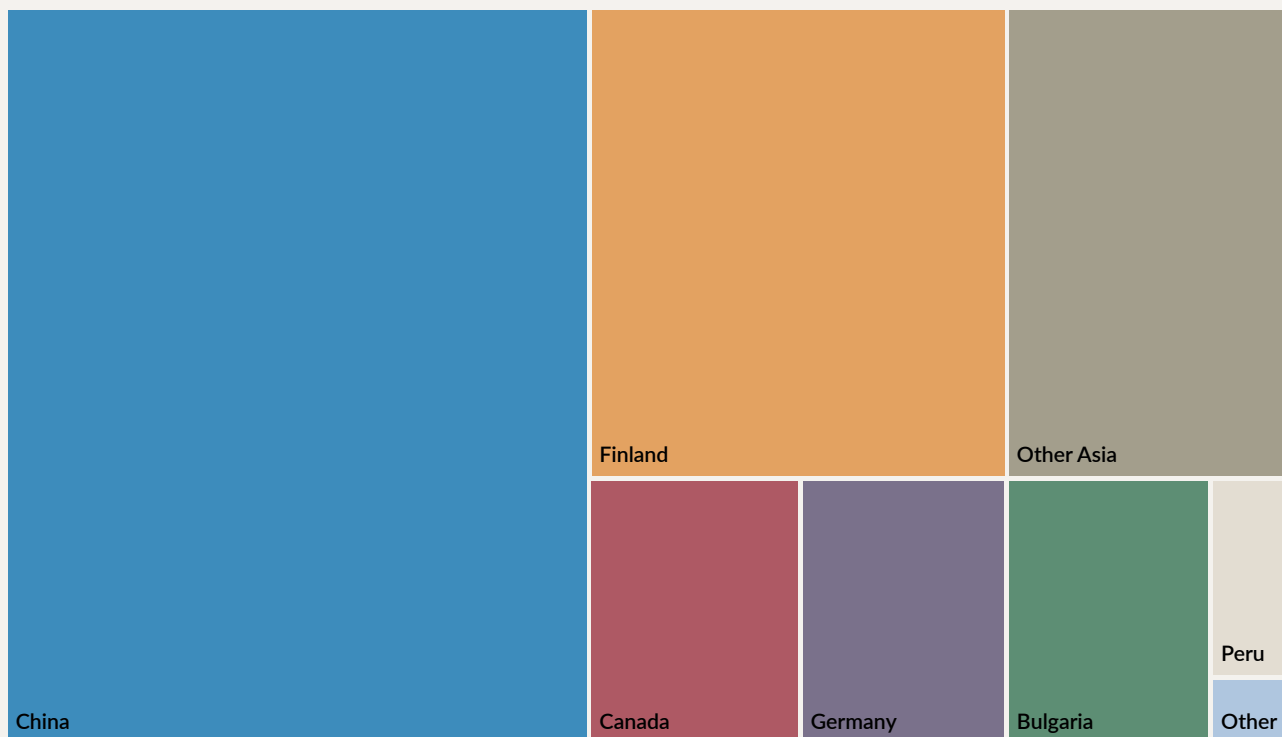
## GOLD CONCENTRATE SUPPLY CHAINS: A DIVERGENT THREAT

**G**old concentrate poses a divergent threat, differing from what is generally thought of as gold supply chains and posing a new risk that can be exploited by illicit networks. Gold concentrate is derived from a process called flotation, which is increasingly common in Ecuador.<sup>124</sup> The flotation process produces gold concentrate, which is a semi-processed ore that has a high gold concentration, usually intended for export or further refining. It generally appears as a dark grey or black powder that may have a shiny or metallic appearance. Therefore, gold concentrate offers the opportunity to hide gold in plain sight.

Trade data shows there have been large increases in exports of gold concentrates from Ecuador since 2021, with Chinese companies the main buyers.<sup>125</sup> While the production of gold concentrate and the involvement of Chinese companies are not necessarily new, the phenomenon did not seem to be common knowledge among government officials.<sup>126</sup> Gold concentrate leaves Ecuador mainly from Guayaquil Marítimo, one of South America's most important ports. Over 115 000 tonnes of concentrate – equivalent to roughly 4 602 shipping containers of 25 tonnes each – were shipped from Guayaquil to China in 2023 and 2024, according to trade data.<sup>127</sup>

Yet, questions arise about both the transparency of pricing and sourcing involved when available trade data is reviewed, pointing to the gold-concentrate supply chain potentially being high-risk territory. In the absence of reliable customs checks or a gold assaying process prior to export, the gold content of the exported concentrate is mostly unknown.

Seaports are highly vulnerable to activity by OCGs, and Guayaquil, one of Ecuador's major ports, is no exception.<sup>128</sup> Balkan and Russian groups are also active in Guayaquil, reportedly exploiting both the dollarization of Ecuador's economy and the relative ease of acquiring false documentation, including export licences.<sup>129</sup> A 'lucrative permissiveness', as one official called it, prevails in Guayaquil: legal and criminal enterprises can operate in tandem, and the use of the US dollar as official currency facilitates money laundering.<sup>130</sup>



**FIGURE 6** Destination countries and ports of gold concentrate shipments from Ecuador, by export volume (kg), 2021–2024.

NOTE: 2023 exports appear to be misdeclared as kilograms instead of tonnes on UN Comtrade, which is reinforced by a review of private trade bases. However, trade figures reflect primary destination countries and so are included in the figure.

SOURCE: UN Comtrade, HS Code 261690, Ecuador reported exports to 'all'

The Port of Bolívar in Machala has also been identified as vulnerable to gold smuggling. A 2024 study classed Yilport at Puerto Bolívar among the country's three most vulnerable ports to narcotics – and by extension gold smuggling – which points to weak perimeter controls and endemic corruption as key enablers of these clandestine operations.<sup>131</sup> Reflecting its importance, Puerto Bolívar has become a violent battleground for rival OCGs.<sup>132</sup> Trade data analysis also identifies major discrepancies between declared gold exports and imports in destination countries. The port was also referenced in interviews as a likely hotspot for large-scale gold smuggling.<sup>133</sup>



## RESPONSES AND RECOMMENDATIONS

**E**cuator's government has taken steps to take back control of the sector. For example, the National Committee for the Integrity of the Mining Sector was set up following an executive decree issued by the president in October 2024.<sup>134</sup> Yet, government capacity to combat the threat remains limited, regulatory vulnerabilities persist, and gaps in Ecuador's Penal Code, which does not adequately cover illegal mining, limit criminal prosecution.<sup>135</sup> Moreover, law enforcement efforts have tended to target illegal mining operations rather than systemic drivers.

As emphasized in this report, combatting criminal exploitation and capture of Ecuador's gold sector requires systemic responses that tackle entire supply chains and financial flows. Thus, further support is needed to mount an effective response to the criminalization of the country's gold sector – both from the government itself as well as from the international community. To this end, the following recommendations are made:

### Recommendations

#### Strengthen financial transparency and combat illicit financial flows

- Make illegal mining and related offences predicate offences for money laundering. This includes legal frameworks in both Ecuador and destination countries.
- The Central Bank has made significant strides in engaging with the ASGM sector and gold purchasing programmes. It is important to support these efforts and to continue to strengthen the Central Bank's oversight of gold purchases to prevent money laundering through gold and increase access to formal financing options.
- Enhance international cooperation on investigations, including with INTERPOL and regional partners, to address cross-border smuggling and financial crimes. This can include partnering with international financial institutions and neighbouring countries to establish real-time data-sharing agreements to monitor suspicious transactions and cross-border financial flows related to gold trade.

## **Regulate and monitor processing plants**

- Mandate registration of all processing plants and make ownership details public. Registration ought to require detailed disclosure of ownership structures to reduce anonymity and limit criminal control.
- Establish stricter licensing requirements for processing plants, including regular audits, enhanced transparency measures and real-time monitoring to ensure compliance with environmental and financial regulations.
- Implement robust due diligence requirements for processing plants, including mandatory reporting on the origin and volume of ore processed, to prevent the laundering of illegally mined gold into the formal market. Processing plants should undertake and publish risk-based supply chain due diligence reporting on an annual basis, in line with international standards and best practice.

## **Improve traceability and export controls**

- Establish a national system to track gold from mine to export, integrating data from ARCOM, customs, the Central Bank and law enforcement. Fund the development of accurate, real-time data collection systems for tracking gold production, processing and export volumes.
- Mandate all gold exports to undergo independent assays and certification prior to shipment to ensure transparency and reduce opportunities for misinvoicing or false declarations.
- Enhance port security and monitoring at critical exit points, including Guayaquil, to disrupt the smuggling of illicit gold and related contraband.
- Partner with major gold-importing countries to harmonize export and import documentation, improving transparency and reducing opportunities for fraud.

## **Rebuild and strengthen regulatory and law enforcement capacity**

- Strengthen ARCOM with expanded technical capabilities and independent oversight to reduce political interference and enhance regulatory effectiveness.
- Bring back and modernize the national mining cadastre to ensure accurate tracking of mining permits and concessions and reduce the exploitation of legal grey areas by OCGs. To reduce the anonymity of beneficial owners and improve supply chain transparency, the mining cadastre ought to be publicly accessible, providing ownership registries for mining concessions.
- Establish specialized task forces in the police and prosecutor's offices to target OCGs in the gold sector, including units focused on asset tracking and seizure. Specialized task forces can implement coordinated, intelligence-led enforcement operations to disrupt the operations of major criminal actors controlling the gold sector.
- Support and leverage regional initiatives to combat illegal mining. This can include strengthening cross-border enforcement and intelligence sharing, technical assistance, joint operations and coordinated policy responses.
- Strengthen counterintelligence and anti-corruption investigations by establishing specialized units within oversight bodies to detect and dismantle networks facilitating illegal mining. These units should be equipped with digital forensic tools, secure whistle-blower mechanisms and mandates for proactive asset tracing of public officials in mining-related agencies.
- Promote corporate compliance and enhance supply chain transparency by requiring mining-related companies to adopt due diligence programmes aligned with international standards, supported by third-party audits and traceability systems. Incentivize compliance through technical assistance and regulatory benefits, while collaborating with financial institutions to monitor and flag suspicious transactions.



## Enhance community engagement

- Implement community-based monitoring programmes that empower local populations to report illegal mining activities and environmental violations without fear of retaliation.
- Identify pathways to provide greater access to formal financing options for miners and processing plants. This can include providing financial literacy and business training to small-scale miners to help them access formal financing where it is available.

## Include tailings in the Minamata Convention

- Article 11 of the Minamata Convention needs to go beyond primary tailings and specifically cover gold tailings, as a step towards addressing the issue of mercury gold mining tailings and tailings that have gone through cyanidation.<sup>136</sup>



Signs calling for the closure of illegal mines displayed outside homes in Zaruma, April 2022. Supporting community members to report mining activity without fear of retaliation may help curb criminality in the sector. © Vicente Gaibor/Bloomberg via Getty Images



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