Gold Standards in the Supply Chain – A Golden Example

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Abstract

Sourcing gold is an example of one of the most problematic mineral supply chains. This is undoubtedly the case in artisanal mining (with serious environmental degradation through deforestation, the use of mercury, child labour and frequent violence). However, industrial mining is rarely better (local communities suffer from displacement and toxic emissions). The international community is struggling to regulate, however most of the rules remain soft law and self-regulation is unreliable. Furthermore, a large part of the supply chain evades the regulation altogether, since consumers in the Middle East, India and China rarely insist on clean sourcing.

Keywords: Gold Supply Chain, Deforestation, Child Labour, Corruption, Displacement, Toxic Tailings, Self-regulation, Hard Law

A. Introduction

In ancient Egypt, as in the South American Inca State gold was a privilege of the Pharaohs or the Inca. It gained a high religious significance: in both cultures, it was considered the Sun God's metal.[1] It still stands for value and ultimate glamour. At

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1 *Pieth*, pp. 34, 45.

the same time, the gold supply chain has always been one of the most problematic supply chains. There are efforts to regulate the supply chain, but standards are very unevenly enforced. The highly competitive market allows many loopholes, including for criminal activities.

In this article I will start off by discussing the challenges in artisanal and in industrial mining as well as in recycling. I will address the standards, starting with international soft law and its translation into industry standards. I will indicate the shortcomings of current implementation in order to address some national and regional hard law legislation and regulation.

B. A field trip to hell

If you want to experience the harsh conditions of informal, artisanal gold mining, resembling the situation in Sacramento River in 1848, go to La Rinconada in southern Peru:[2]

La Rinconada is a shantytown on over 5000 meters, hosting 60'000 desperate miners, living in tin huts without heating and drinking contaminated water. The life in this informal mining camp is rough. There is no police, everyone is armed and there is a lot of frustration around. It is uncertain, how much influence organized crime has in La Rinconada. A year ago, though, six men were mowed down with automatic weapons under unclear circumstances.

Miners work in improvised mining shafts, 28 days for free for the owner, in order to obtain the right to take with them, what they can carry on the remaining days of the month (this system, called *cachorreo,* goes back to the days of the Incas).

Women are not allowed in the mines, due to the superstitious belief that they could arouse the jealousy of mother earth.[3] The so called *pallaqueras* sift through the tailings, often exposed to temperatures below zero. Other women are working in bars, many of them under age, and forced into prostitution. The authorities in Peru are fully aware that La Rinconada is a hotspot of trafficking in women. However, little is done about it.

Back to mining: What the miners carry out on "their days", they crunch with an archaic mill (the *quimbalete*): stones moving in a basin under their weight crush the mined material to powder. The powder is mixed with water and mercury. Ultimately the miners drain the amalgamated heavy metals and mercury out of the brown soup with bare hands.[4] The mercury, like all sewage and garbage, is carried away by rainwater. It seriously contaminates any river and the nearby Lago Titicaca. In adjoining shacks women blow-torch the amalgamate off to extract the metal. The vapors of the mercury escape through little chimneys onto the road. The women rarely wear protective gear.[5]

2 Ibid., pp. 16 ff.
3 Ibid., p. 20.
4 Pictures: *Pieth,* pp. 21 ff.
5 Ibid., p. 24.

The gold is sold to collectors domiciled in the nearby boarder town Juliaca (like Minerales del Sur).[6] Many of these collectors are under investigation by Peruvian authorities for their close ties to organized crime. They are frequently accused of money laundering and their gold is seized before export.[7] Until very recently a large part of this gold from La Rinconada was refined in Switzerland.[8]

C. How much cleaner is "fair gold"?

Not far from La Rinconada, the glaciers below the Andean peaks have piled up massive mounds of rubble. Hundreds of small mines below La Rinconada, in the plane of Ananea, sift through the sands with a somewhat more elaborate method than the ancient panning: Trucks bring rubble to a giant slide (a *chute*), where workers move the stones and sand with the help of water pressure. The heavier stones immediately drop through the grids of a sieve, and sand is pushed sideways into slower slides. Here heavy material is separated from the lighter sand, which goes down into large collection basins. In the certified "clean" mines, the heavy sand is then brought to shaking tables and, in a lengthy process, sand and metal are eventually separated. The metal (a mix of gold, silver, platinum, palladium and maybe also lesser materials like copper or lead) is melted down for a first time into rough blocks (so called *doré*) and packaged to be flown out to the refineries.[9]

The mines at Ananea are run by the local communities, they are less prone to the aggressive casino capitalism of La Rinconada and women are just as much involved in the work process as men. My personal experience, though, when visiting one such officially certified mine, was that too insistent questions ("what is in that shack?", "do you still use mercury?") led one to be escorted out by armed guardsmen.[10] Even "sustainable gold" will frequently be extracted with the help of mercury, highly damaging to humans and the environment alike.

D. The challenges of artisanal mining

Moving away from the fieldtrips to an overview of the challenges of artisanal mining, it bares relevance to highlight that mining goes along with illegal logging and serious environmental degradation. Particularly exposed are the habitats of indigenous people in the Amazon.[11] Violence is a constant factor where gold is mined artisanal: violence against women, children forced to work, organized crime controlling mines or taxing miners.[12] In the extreme case, militia force slave labour into the

6 *STP,* pp. 17 ff.; visit to Peru: *Pieth,* p. 170.
7 Cf. *Pieth,* p. 169.
8 Ibid. p. 168 ff.
9 Ibid., pp. 81 ff., 219.
10 Ibid., pp. 155 ff.
11 *Biller/Goodman*, The Washington Post, 13/1/2022; *Robinson,* CTXT, 3/1/2022.
12 *Pieth,* pp. 111 ff.

mines and civil war parties fight to control the mines (like in eastern Congo[13] or in Sudan).[14]

E. Is industrial mining safer?

Industrial mines are either surface mines or underground mines (rarely underwater mines). One is tempted to believe that industrial mining is cleaner than artisanal. However, there are formidable, if different, challenges: Not infrequently large mining companies obtain mining rights against the will of local communities (like in Ghana) through corruption. Indigenous communities are displaced.[15] Large mountains of tailings, frequently containing toxic substances are elevated close to mines. One typical hazard is radioactive substances brought to the surface and deposited close to living areas. In South Africa decommissioned mine shafts have filled with water, again surfacing hazardous waste: the phenomenon is known as *toxic mine drainage.*

F. Recycling

There is a current trend amongst jewellers to shift to recycling. The majority of recycled gold is "high value gold", like old jewellry re-melted. "Industrial recycling" is far more challenging, as the traces of gold have to be released from circuit boards or mobile phones with the help of complex chemical procedures.[16] With the growing attractivity of recycling, business associations have started to manipulate the definition of recycling: Now suddenly any re-melting of already refined material could constitute recycling. So, in the extreme, conflict gold from Sudan could have been melted last week in Dubai and "recycled" this week in Switzerland. This is what I would call laundering rather than recycling.[17]

G. Regulation: soft law

As there are no legally binding international standards, OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas[18] and its Supplement on Gold[19] are the world standard. Industry standards and national legislation follow its five-step approach. However, the Guid-

13 Ibid., pp. 123 ff.
14 *STP,* pp. 32 ff., 36 ff.; *Global Witness,* City of Gold.
15 Land grabbing: *Pieth,* p. 121.
16 Ibid., p. 93.
17 Ibid., p. 180.
18 OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, 3rd ed., Paris 2016 (*OECD Guidance* 2016).
19 OECD Guidance 2016, pp. 61 ff.

ance remains soft law.[20] In a nutshell, the Guidance demands that companies in the supply chain:

Step 1: Establish strong company management systems.
Step 2: Identify and assess risk in the supply chain.
Step 3: Design and implement a strategy to respond to identified risks.
Step 4: Carry out an independent third-party audit of supply chain due diligence at identified points in the supply chain.
Step 5: Report on supply chain due diligence.

Industry standards like the London Bullion Market Association's (LBMA) Responsible Gold Guidance[21] or the Responsible Jewellery Council's (RJC) Code of Practices[22] replicate the OECD's Supplement on Gold to a large extent. The major challenge, however, is to enforce the standards in the industry.

H. What works – what does not?

The OECD has monitored the implementation of its Standards by the industry in an Alignment Assessment.[23] It turned out that, even though the language of the industry standards resemble the OECD format in large parts, the practical implementation lags behind. The OECD puts it diplomatically:

> Industry programmes have played a major role in driving the process. At the same time, however, international organisations, monitoring groups and media outlet have reported weaknesses in company sourcing practices, including amongst those participating in industry programmes.[24]

More specifically, the OECD criticizes that even LBMA-certified refineries have failed to follow the supply chain back to the actual source: they frequently went back merely to their immediate suppliers.[25] The harshest critique, however, is directed at the implementation of Steps 4 and 5: The OECD doubts the professionalism of independent auditors.[26] It considers that auditors lack a "critical analysis".[27] Equally, the reports on supply chain due diligence were "often basic and generic".[28] This critique is damning, as it puts the entire system of self-regulation in question.

20 *Pieth*, pp. 137 ff.
21 LBMA Responsible Sourcing Programme, Responsible Gold Guidance, 2021.
22 Responsible Jewellery Council, Code of Practices, 2019, available at: https://responsiblejewellery.com/standards/code-of-practices-2019/ (3/2/2022).
23 OECD Alignment Assessment of Industry Programmes with the OECD Minerals Guidance, Paris 2018.
24 Ibid., p. 9.
25 Ibid., p. 67.
26 Ibid., pp. 11, 16, 32, 48, 71, 83.
27 Ibid., pp. 11, 32.
28 Ibid., p. 11.

The critique is corroborated, though, by the unwillingness of auditors (including most of the "big four") to discuss their auditing practices.[29]

I. Hard law?

Some countries and regions have taken a step to enact laws and regulations *in lieu* of leaving regulation entirely to the industry.

As a direct reaction to the civil war in Congo, the US Congress enacted the Dodd-Frank Act 2010.[30] It does not prohibit sourcing from high risk and conflict zones, it does, however, require downstream users, like cellphone or computer manufacturers, to disclose their sources. The law was heavily put into question by industry lobbyists and the Trump administration. However, it survived the efforts to emasculate it.

More recently, the EU enacted its Conflict Minerals Regulation of 2017.[31] It entered into force on January 1, 2021. It follows the five steps of the OECD Due Diligence Guidance closely and makes them mandatory.[32] This is a decisive step in advance, even if some of the EU countries still lag behind.

J. Remaining challenges

A large part of the gold supply chain remains unregulated. Starting with the mining sector, illegal mining is ubiquitous. Refineries may say the right things in their publications; secretly they are taking gold from wherever they can. Organised criminals and rogue states, like Venezuela or Suriname, find it easy to introduce their produce into official supply channels. Refineries, ready to launder the gold, open the way into the vaults of the respectable banking world or the gold souks of the Middle East. Swiss refiners, currently still refining roughly 50-70% of the world's gold,[33] act only marginally by state law.[34] The main markets in the Middle East, in India or China are anyhow outside meaningful control.

Gold has lost nothing of its attraction and its supply chain remains largely unregulated.

29 *Pieth,* pp. 186, 238 ff.
30 Dodd-Frank Act, Pub. L. No. 111-203 § 1502; *Pieth,* pp. 141 ff.
31 The EU's new Conflict Minerals Regulation, A quick guide if you're involved in the trade in tin, tungsten, tantalum or gold, available at: https://trade.ec.europa.eu/doclib/docs/2017/march/tradoc_155423.pdf (3/2/2022).
32 *Pieth,* pp. 143 ff.
33 Ibid., pp. 12, 196.
34 Ibid., p. 208.

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