OUT OF THE SHADOWS

Business relationships between industrial gold mines in Africa and refineries



CONTENT

1.	Abbreviations		3
2.	Key findings		4
3.	Introduction		5
4.	Methodology		6
5.	Business relationships by refinery		7
	Rand Refinery		
	Metalor	11	
	MKS PAMP / MMTC-PAMP		
	Argor-Heraeus		
	Valcambi	17	
	PX Precinox		
	Asahi Refining Canada		
	The Perth Mint		
	Italpreziosi		
	Nadir Metal Rafineri		
	Fidelity Gold Refinery		
	Refineries in the United Arab Emirates and China		
	Unidentified business relationships		
6.	Comments		26
7.	Transparency in the sector		28
	Refinery practices	28	
	Mining company practices		
	Other sources of information on business relationships		
8.	Analysis of the consistency of transparency pract	ices	34
9.	Need for transparency		38
10.	Recommendations		42
11.	Endnotes		44
12.	Appendix		62



CEO: Chief Executive Officer **CFGS:** Conflict Free Gold Standard ESG: Environment, Social and Governance FGR: Fidelity Gold Refinery **EITI:** Extractive Industries Transparency Initiative JORC: Joint Ore Reserve Committee Code LBMA: London Bullion Market Association **OECD**: Organisation for Economic Co-operation and Development ILO: International Labour Organization NDA: non-disclosure agreement NGO: non-governmental organisation DRC: Democratic Republic of Congo RGG: Responsible Gold Guidance SAMREC: South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves SEC: U.S. Securities and Exchange Commission **UAE**: United Arab Emirates WGC: World Gold Council

IMPRINT

Out of the Shadows: Business relationships between industrial gold mines in Africa and refineries,

research conducted by SWISSAID and published in March 2023.

Authors: Marc Ummel and Yvan Schulz, Commodities, SWISSAID, m.ummel@swissaid.ch, y.schulz@swissaid.ch Collaboration: Anna Blaser, Angela Lindt, Swiss Catholic Lenten Fund (Fastenaktion) Layout: Joséphine Billeter

Acknowledgements: Edmond de Rothschild Asset Management for its support

Photographs: P. 6 Olivier Asselin / Alamy Stock Photo; p. 24 CinemaHopeDesign / istock; p. 33 Greatstock / Alamy Stock Photo; p. 41 JLK / Alamy Stock Photo; p. 19, 23, 25, 28 and 31 Greenshoots Communications / Alamy Stock Photo **Front page photograph:** Miners digging through rock in an underground gold mine in Mpumulanga Province, South Africa.

Front page photograph: Miners digging through rock in an underground gold mine in Mpumulanga Province, South Africa. Matthew Mawson / Alamy Stock Photo

Back page photograph: Miners in a gold mine in eastern South Africa. Matthew Mawson / Alamy Stock Photo

For any reproduction, please obtain prior consent from the authors. This report is also available in French. The French version is authoritative.

SWISSAID

SWISSAID is a Swiss foundation, free of any political or religious affiliation, active in nine countries in the South. Through its various projects, it supports disadvantaged populations so that they can improve their living conditions and assert their rights. In terms of development policy, SWISSAID is committed to transparency in the management of raw materials, corporate responsibility, respect for food sovereignty, gender equality and agroecology.

SWISSAID Secrétariat romand | Rue de Genève 52 | 1004 Lausanne | Switzerland Phone +41 21 620 69 70 | info@swissaid.ch | www.swissaid.ch | CP 30-303-5

2. KEY FINDINGS

This report documents or reveals almost all business relationships that exist or have existed in recent years (2015–2023) between African industrial gold mines and gold refineries. It highlights 142 business relationships between 116 industrial gold mines and 16 refineries. It details the relationships between these companies involved in the extraction and refining of over 450 tonnes of African industrial gold worth over CHF 23 billion (figure for the year 2020¹). This report demonstrates that the majority of refineries' determination to withhold the names of the mines from which they source gold is more a matter of deliberate choice than an obligation imposed on them by suppliers or competition. However, in view of the many problems associated with industrial gold mining, transparency is essential to enhance accountability and the implementation of corrective measures.

A very small number of refineries process almost all of Africa's industrial gold.

- SWISSAID has identified 16 such refineries and notes that the number of business relationships per refinery varies greatly.
- Two thirds of the business relationships identified (i.e. 96 relationships) concern Rand Refinery, Metalor and the two refineries belonging to the MKS PAMP Group.
- Seventy-nine percent of the business relationships identified by SWISSAID are with refineries located in Switzerland, South Africa or, to a lesser extent, India. This suggests that African industrial gold is refined primarily in these three countries.
- Apart from one Zimbabwean refinery and a few Emirati and Chinese refineries involved in a limited number of supplies, all these refineries are certified to the London Bullion Market Association (LBMA) standard.

The practices of refineries and mining companies in terms of transparency of their business relationships vary greatly.

- The majority of mining companies publish or confirm their business relationships with refineries, whereas the majority of refineries do not.
- The majority of mining companies' responses to SWISSAID indicate that nothing prevents them from publishing the names of the refineries with which they have a business relationship.
- When asked by SWISSAID about their business relationships, six refineries confirmed the names of the African industrial mines from which they are or were sourcing gold, while ten refineries refused to do so.
- The study shows that there are three types of mining companies: those that systematically publish the names of the refineries that process their gold; those that publish this information on an ad hoc basis or provide it only on request; and those that refuse to disclose it.
- Certain refineries have objected to mining companies' request to disclose their names.
- Some refineries and mining companies revealed the names of partners that had not been previously identified by SWISSAID.

The opacity of these business relationships is not justified.

 Some refineries and some mining companies refuse to confirm their business relationships even though information about them is already in the public domain, their competitors publish such information, or the parties with whom they are under contract disclose it.

The arguments used by companies to keep their business relationships confidential do not stand up to analysis.

- The arguments about confidentiality, security and competition used by mining companies and refineries to justify their refusal to talk about their business relationships can easily be challenged.
- The justifications of these companies contain many contradictions and the confidentiality they seek to protect is often variable. This only adds to doubts about the reasons they give for keeping their business relationships confidential.
- Other reasons related to the problems in the mines better explain the companies' desire to keep their business relationships confidential.

Transparency in business relationships is essential.

- For the majority of the 125 industrial mines identified by SWISSAID, serious problems were found, notably relating to human rights violations and environmental degradation.
- Transparency in the business relationships between mining companies and refineries is essential. It strengthens the accountability of those involved in the gold sector and encourages them to take the necessary steps to address these problems.

3. INTRODUCTION

Geneva, January 2019, Salon International de la Haute Horlogerie, panel on sustainable gold supply chains. A person representing a major Swiss refinery is asked about the transparency of the origin of gold. Her response: "For reasons of commercial confidentiality, we cannot disclose this data publicly." This is not surprising. For many years, refineries have been repeating the same answer, citing mainly arguments of contract confidentiality and the high level of competition in the gold refining sector. Some of them even talk about having to close down if the names of their suppliers (to whom the refineries refer as "clients"²) were to become public knowledge. As a sign of their sensitivity to the issue of transparency in business relationships, the largest Swiss gold refineries joined forces to file an appeal with the Federal Administrative Court of Switzerland in 2019 to prevent the publication of their suppliers' names. This action followed a petition filed in 2018 by a Swiss NGO - the Society for Threatened Peoples - with the Federal Office of Customs and Border Security, which agreed to disclose this data³.

The panel ends. In the corridors of the Geneva trade fair, a representative from a competing refinery tells SWISSAID a surprising fact: "A lot of information on the origin of the refineries' gold can be obtained via paid databases containing detailed customs statistics with the names of the suppliers." The person gives us the names of these databases and explains that she knows the identity of many of competing refineries' suppliers. We therefore begin to wonder whether refineries are trying to hide business relationships that are in the public domain.

Driven by this doubt, we set out to research the business relationships between refineries and mining companies operating in Africa. We purchased access to several databases containing customs statistics. We soon realised that our contact was right: these databases contain information on many business relationships. In looking for other types of source, we found public reports that disclosed similar information. We continued the search and found that several mining companies with which refineries have "non-disclosure agreements" nevertheless publish the names of their refinery partners. As the research progressed, the number of relationships discovered increased. As for the mining companies that were secretive about their business relationships, we decided to contact them directly. Most of them confirmed or revealed the names of the refineries to which they send their gold. Very quickly, we came to the conclusion that the business relationships that the refineries refuse to disclose are confirmed or disclosed without any problem by the majority of the mining companies or already mentioned in other sources of information.

Encouraged by this observation, we contacted the refineries again to ask them to confirm their business relationships. The unease was palpable. The majority of them refused, in most cases hiding behind the rhetoric described above. Others confirmed, doubtless because they no longer saw the point of defending the confidentiality of information that is already publicly available.

This report highlights more than 142 business relationships between African industrial gold mines and refineries. It could have been titled Golden Leaks, yet it is in fact not a matter of leaks, but rather of a deep dive into the sector based on clearcut, in-depth research. Reading the resulting material makes it abundantly clear that confidentiality is more a matter of choice on the part of refineries than an obligation imposed on them by suppliers or competition.

This raises a key question: **why do some players refuse to confirm their business relationships?** According to an industry representative we met at the LBMA's annual conference in October 2022, the answer is obvious: "There is no reason for a refinery not to disclose the names of its suppliers other than to avoid being associated with the problems of the mines from which it sources its gold."

This answer reinforced our view that **transparency** in business relationships is essential to ensure that all actors in the gold sector take responsibility and action to stop human rights abuses, environmental degradation and many other problems associated with industrial gold mining.



4. METHODOLOGY

This report on the business relationships between African industrial gold mines and gold refineries is the result of a survey conducted by SWISSAID between January 2021 and February 2023. The research was carried out in two stages: desk research and data collection; as well as consultation with industry players.

Many sources were used, including:

- websites of and reports from mining companies, their parent companies and refineries
- reports from the national chapters of the Extractive Industries Transparency Initiative (EITI)
- data from the LBMA's Responsible Sourcing Reports
- reports from governments, international organisations and civil society organisations
- the databases of Refinitiv Eikon, Metals Focus, U.S. Geological Survey, Mining Data Solutions and UN Comtrade
- national customs statistics of several countries
- and several paid databases containing detailed customs statistics, including the names of the companies involved.

In addition, SWISSAID had informal discussions with many industry players.

After extensive data collection and analysis, SWISSAID contacted 17 refineries⁴ and 32 mining companies⁵ to check the information found and to request additional information. Numerous interviews were also held in person or online with several companies.

Prior to the publication of the report, SWISSAID sent all the refineries mentioned the passages where their names appear to allow them to react. Some of the statements with new elements have been reproduced in the final version of the report.

This report deals only with industrial gold and does not cover the artisanal or recycled gold that refineries source from the African continent. It covers business relationships proven to have existed for all or part of the years 2015 to 2023.

5. BUSINESS RELATIONSHIPS BY REFINERY

The business relationships between gold-extracting industrial mines in Africa and gold-processing refineries are presented below, in tables and maps, each of which relates to a specific refinery. For each business relationship, the following information is provided: the country where the mine is located; the name of the company operating the mine; as well as the last date on which the business relationship is documented.

The actual ownership of industrial mines is sometimes complex to identify and can change frequently. The actual ownership of industrial mines is sometimes complex to identify and can change frequently. It can be multi-level and involve one or more companies. This report only lists the names of the mining companies that have majority stakes in the mining projects identified; stakes of less than 40 per

cent are not listed. In several cases, the name of the local subsidiary directly operating the mine is given in brackets.

For some mines, no production information is available. It is therefore difficult to know whether they are still active, temporarily idle or permanently closed. The tables below show the last date on which a business relationship between a mining group and a refinery is documented; logically, the mine was producing at that time.

The name of the same mine is sometimes mentioned in the tables of several refineries. This happens when the mine sends its gold to more than one refinery in the same period, or when the mine has changed refineries in recent years. If a mining company indicates the name of the refinery on its website, SWISSAID assumes that the gold is still being sent to that refinery at the time the website was visited. This of course only applies to up-to-date websites.

The information collected is referenced in endnotes (see p. 44). These include not only the original sources that identified the business relationships, but also the responses from the mining companies and refineries confirming these relationships. There is no official directory of industrial or largescale gold mines on the African continent, or even a list that serves as a reference. Similarly, legal definitions of what constitutes large-scale mining differ from one producing country to another, as Law Insider

explains.⁶ Industrial exploitation is generally characterised by high capital investment, low labour intensity and the use of sophisticated exploration, extraction and processing equipment. SWISSAID did not define any size

There is no official directory of industrial or large-scale gold mines on the African continent.

criteria or minimum production quantities for a mine to be considered industrial for the purposes of this study. Instead, it relied on the OECD's Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas,7 which defines medium- and large-scale operations as "gold mining operations that are not considered to be artisanal or small-scale mining".8 Based on this broad definition, the study includes both mines producing a few hundred kilograms and mines producing more than 25,000 kilograms of gold annually, like the Kibali gold mine in the Democratic Republic of Congo (DRC).9 In addition, the study includes not only industrial underground and open-pit mines but also gold tailings processing operations. In Africa, the latter are primarily located in South Africa. Furthermore, several mines listed in the tables below do not only or even mainly produce gold but also silver, copper or platinum, for example.

For practical reasons, SWISSAID has chosen to provide detailed information only for those refineries that are or have been members of the LBMA. The business relationships of the other refineries, based in the United Arab Emirates and China, are also described, but only briefly.

Rand Refinery

Founded in 1920, Rand Refinery is the only African refinery to be a member of the LBMA. It is based in Germiston, South Africa, and is active in the refining, smelting and manufacture of value-added precious metal products.¹⁰ Rand Refinery is owned by several major South African gold mining companies: AngloGold Ashanti (42.41%), Sibanye Gold (33.15%), DRDGOLD (11.3%), Harmony Gold Mining (10%) and Gold Fields Operations (2.76%).¹¹ The refinery has an annual refining capacity of 450–600 tonnes of gold.¹²

When contacted by SWISSAID, Rand Refinery was open to discussion. It responded to a detailed questionnaire and several follow-up questions sent by email.¹³ Several exchanges took place by video conference with representatives of the refinery. SWISSAID was also able to speak informally with the refinery's CEO, Praveen Baijnath.

In recent years, Rand Refinery has been one of the few refineries to communicate on the quantities of gold it processes. It reported to SWISSAID that it refined 291 tonnes of gold with an average purity of 75 per cent in the fiscal year September 2020 – August 2021.¹⁴ In the same year, 71 per cent of the gold refined by Rand

Between 96 and 99.6 per cent of the gold processed in recent years by the refinery comes from African industrial mines. Refinery was from mining operations owned and co-owned by its shareholders.¹⁵ Approximately half of the gold processed by the South African refinery comes from South Africa and half from other countries. Between 96 and 99.6

per cent of the gold processed in recent years by the refinery comes from African industrial mines.¹⁶ In its more than 100 years history, Rand Refinery has refined more than 50,000 tonnes of gold in total, which is almost a third of the total world gold production to date.¹⁷ This impressive figure is due in part to the major role South Africa has played internationally in the history of gold production. For example, in 1971, South Africa produced almost 1,000 tonnes of gold annually, which amounts to 80 per cent of world gold production at the time.¹⁸

When asked by SWISSAID to confirm its business relationships with industrial mines in Africa (see table below), Rand Refinery refused to do so unless SWISSAID agree to sign a non-disclosure agreement (NDA). In its response, the refinery explained: "we are bound by confidentiality in our refining agreements accordingly we need a signed NDA to disclose this."¹⁹ SWISSAID refused to sign such an agreement, because this would defeat the main purpose of its study, which is to promote transparency in business rela-

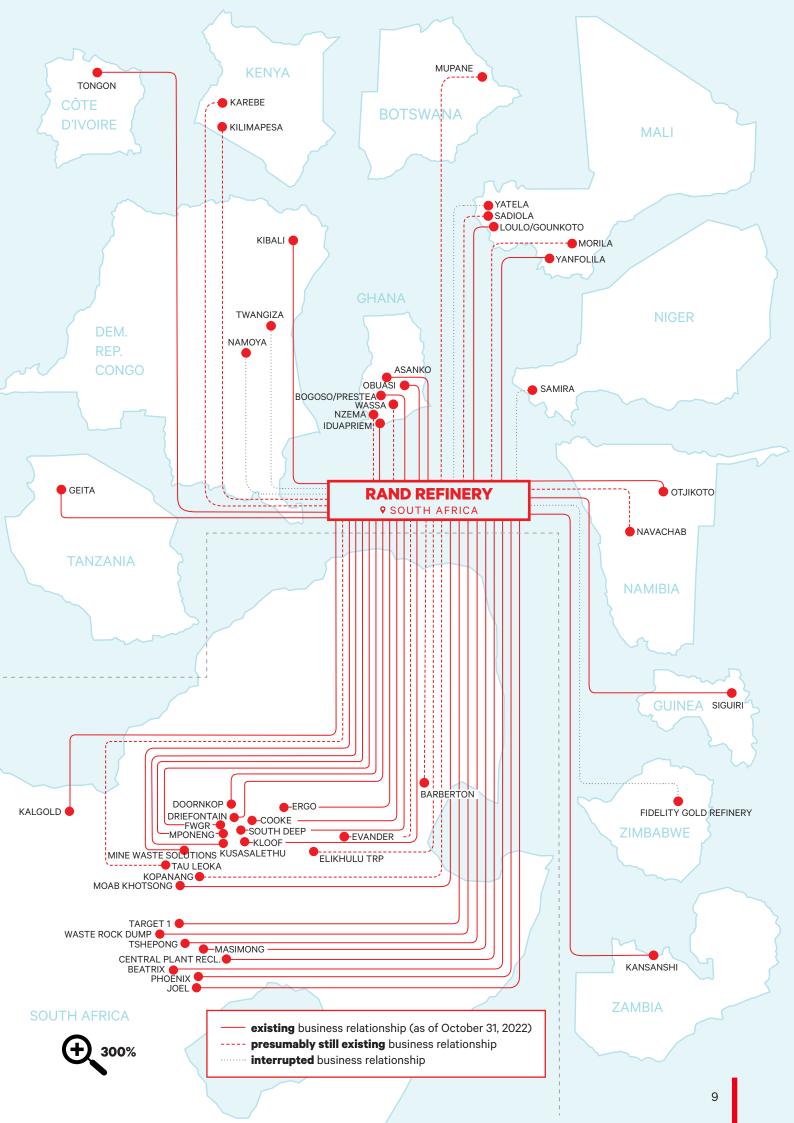
tionships. The refinery did, however, make an exception in relation to Zimbabwe, stating that it had stopped importing gold from that country, in particular from Fidelity Gold Refinery (FGR), in

"We are bound by confidentiality in our refining agreements."

2020.²⁰ Under Zimbabwean law, all gold mined in Zimbabwe must pass through FGR before it can be exported.²¹ As SWISSAID is unable to confirm that Rand Refinery was refining all of Zimbabwe's gold through FGR, the table below does not directly list the names of the industrial mines in Zimbabwe, only FGR. The large-scale mines in Zimbabwe are listed below in the table for FGR (p. 23).

Rand Refinery refused to confirm its business relationships (with the exception of the relationship with FGR), but it did provide SWISSAID with information about the African countries from which it sources gold. Until the 1990s, the South African refinery processed only South African gold. With the end of apartheid, the drop in South African gold production and the increased production in other countries, its business model changed. The Germiston refinery began sourcing from other African countries as well as from America.²² It confirmed to SWISSAID that it has processed gold from the following African countries over the past five years: South Africa, Ghana, Tanzania, DRC, Mali, Namibia, Guinea, Zimbabwe, Botswana, Côte d'Ivoire, Kenya, Zambia, Niger and Swaziland. Rand Refinery estimates that it still processes the vast majority (over 98 per cent) of South Africa's industrial gold.23

SWISSAID has identified 49 industrial mines (not including the business relationship with FGR) whose gold is being or has been refined in recent years by Rand Refinery. These include some gold tailings operations. Of the countries from which the South African refinery has confirmed sourcing gold, Swaziland is the only one where SWISSAID has not been able to identify a business relationship.



Country	Mine	Mining Company	Refinery
Botswana	Mupane	Hawks Mining (Galane Gold until 2022) ²⁴	Rand Refinery (until 2014 ²⁵ and from 2020 and at least until 2022) ²⁶
Côte d'Ivoire	Tongon	Barrick	Rand Refinery (at least until 2022) ²⁷
Ghana	Wassa	Chifeng Jilong Gold Mining (Golden Star Wassa)	Rand Refinery (at least until 2021) ²⁸
Ghana	Asanko	Galiano Gold/Gold Fields	Rand Refinery (at least until 2022) ²⁹
Ghana	Nzema	Nguvu Holdings (Adamus Resources) (Endeavour Mining until 2018) ³⁰	Rand Refinery (at least until 2015) ³¹
Ghana	Iduapriem	AngloGold Ashanti	Rand Refinery (at least until 2022) ³²
Ghana	Bogoso / Prestea	Blue Gold International Limited (Future Global Resources)	Rand Refinery (at least until 2023) ³³
Ghana	Obuasi	Anglogold Ashanti	Rand Refinery (at least until 2022) ³⁴
Guinea	Siguiri	AngloGold Ashanti (SAG)	Rand Refinery (at least until 2022) ³⁵
Kenya	Karebe	Maris (KGML)	Rand Refinery (at least until 2020) ³⁶
Kenya	Kilimapesa	Caracal Gold	Rand Refinery (at least until 2020) ³⁷
Mali	Sadiola	Allied Gold Corp (SEMOS) (AngloGold Ashanti/Iamgold until 2021)	Rand Refinery (at least until 2021) ³⁸
Mali	Yanfolila	Hummingbird Resources	Rand Refinery (at least until 2023) ³⁹
Mali	Loulo / Gounkoto	Barrick (SOMILO)	Rand Refinery (at least until 2022) ⁴⁰
Mali	Yatela	Government of Mali (AngloGold Ashanti/Iamgold until 2019)	Rand Refinery (at least until 2019) ⁴¹
Mali	Morila	Firefinch (AngloGold Ashanti/Barrick until 2020) ⁴²	Rand Refinery (at least until 2020) ⁴³
Namibia	Otjikoto	B2 Gold	Rand Refinery (at least until 2022) ⁴⁴
Namibia	Navachab	QKR Namibia Minerals	Rand Refinery (at least until 2021) 45
Niger	Samira	Nguvu Holdings (Liptako Mining Company)	Rand Refinery ⁴⁶
DRC	Kibali	Barrick/AngloGold Ashanti	Rand Refinery (at least until 2022) ⁴⁷
DRC	Twangiza	Baiyin International Investments (Banro Corporation until 2020) ⁴⁸	Rand Refinery (at least until 2015) ⁴⁹
DRC	Namoya	Shomka Resources (Banro Corporation until 2020) ⁵⁰	Rand Refinery (at least until 2015) ⁵¹
Tanzania	Geita	AngloGold Ashanti	Rand Refinery (at least until 2022) ⁵²
South Africa	Beatrix	Sibanye-Stillwater	Rand Refinery (at least until 2023) ⁵³
South Africa	Driefontain	Sibanye-Stillwater	Rand Refinery (at least until 2023) ⁵⁴
South Africa	Kloof	Sibanye-Stillwater	Rand Refinery (at least until 2023) ⁵⁵
South Africa	Cooke*	Sibanye-Stillwater	Rand Refinery (at least until 2023) ⁵⁶
South Africa	South Deep mine	Gold Fields	Rand Refinery (at least until 2023) ⁵⁷
South Africa	Tshepong	Harmony	Rand Refinery (at least until 2022) ⁵⁸
South Africa	Moab Khotsong	Harmony	Rand Refinery (at least until 2022) ⁵⁹
South Africa	Mponeng	Harmony	Rand Refinery (at least until 2022) ⁶⁰
South Africa	Joel	Harmony	Rand Refinery (at least until 2022) ⁶¹
South Africa	Doornkop	Harmony	Rand Refinery (at least until 2022) ⁶²
South Africa	Target 1	Harmony	Rand Refinery (at least until 2022) ⁶³
South Africa	Kusasalethu	Harmony	Rand Refinery (at least until 2022) ⁶⁴
South Africa	Masimong	Harmony	Rand Refinery (at least until 2022) ⁶⁵
South Africa	Phoenix *	Harmony	Rand Refinery (at least until 2022) ⁶⁶
South Africa	Mine Waste Solutions*	Harmony	Rand Refinery (at least until 2022) ⁶⁷

South Africa	Central Plant Reclamation*	Harmony	Rand Refinery (at least until 2022) ⁶⁸
South Africa	Waste Rock Dumps*	Harmony	Rand Refinery (at least until 2022) ⁶⁹
South Africa	Kalgold	Harmony	Rand Refinery (at least until 2022) ⁷⁰
South Africa	Tau Lekoa	VMR (Heaven-Sent Gold)	Rand Refinery (at least until 2019) ⁷¹
South Africa	Kopanang	VMR (Heaven-Sent Gold)	Rand Refinery (at least until 2019) ⁷²
South Africa	Ergo*	DRD Gold	Rand Refinery (at least until 2023) ⁷³
South Africa	FWGR*	DRD Gold	Rand Refinery (at least until 2023) ⁷⁴
South Africa	Barberton	Pan African Resources	Rand Refinery (at least until 2022) ⁷⁵
South Africa	Evander	Pan African Resources	Rand Refinery (at least until 2022) ⁷⁶
South Africa	Elikhulu TRP*	Pan African Resources	Rand Refinery (at least until 2022) ⁷⁷
Zambia	Kansanshi	First Quantum Minerals	Rand Refinery (at least until 2023) ⁷⁸
Zimbabwe	Fidelity Gold Refinery**	Reserve Bank of Zimbabwe	Rand Refinery (until 2020) ⁷⁹

* mine dumps and tailings dams processing operations

** Gold from all of Zimbabwe's industrial mines is processed by Fidelity Gold Refinery, which is why this business relationship has been included here.

Metalor

Founded in 1852, Metalor is an international group headquartered in Marin, in the canton of Neuchâtel, Switzerland. It is owned by Tanaka Precious Metals and has 17 subsidiaries, including five refineries,⁸⁰ which are located in China (Suzhou), the United States (North Attleborough), Hong Kong (Kwai Chung), Singapore and Switzerland (Marin)⁸¹. All of these refineries are LBMA certified. The group employs 1,500 people worldwide, including 280 in Switzerland, and recorded revenues of more than CHF 300 million in 2020.⁸² The Marin refinery, which processes industrial gold from Africa, has an annual refining capacity of 300 tonnes.⁸³

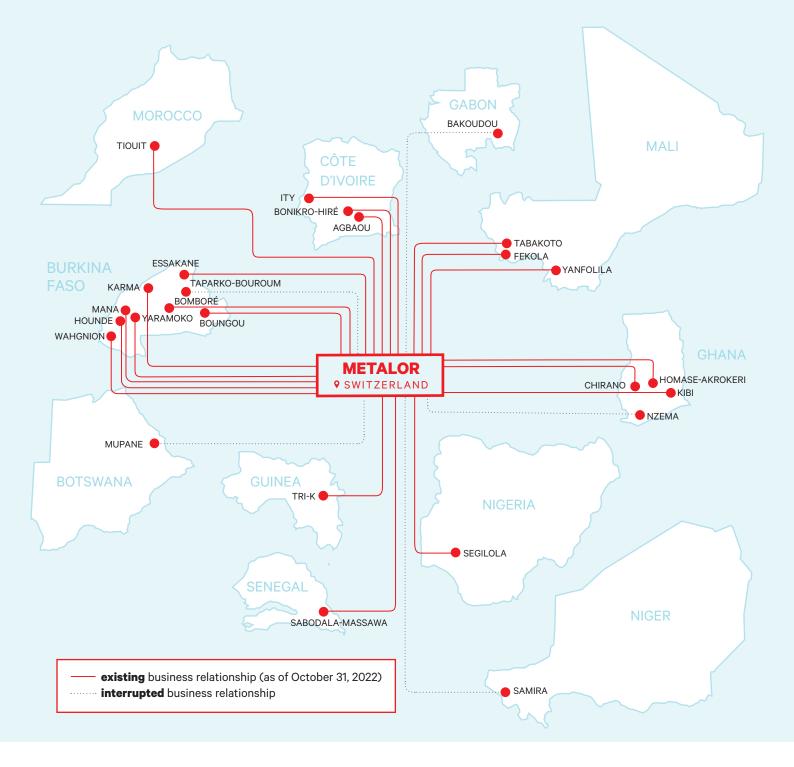
When contacted by SWISSAID, Metalor was open to discussion. The group responded to a detailed questionnaire and several follow-up questions sent by email. Several exchanges also took place in Marin, in the presence of the CEO, Antoine de Montmollin.

When asked by SWISSAID to confirm its business relationships with industrial mines in Africa (see table below), Metalor did so and clarified whether the corresponding business relationships were still ongoing.⁸⁴ In a first exchange in November 2021, the group had already spoken openly about its supplies to Africa and had even revealed the names of two mines not

included in the table that SWISSAID had initially presented to it. Metalor indicated that it has no direct commercial relations with the companies operating the Malian mines of Yanfolila (Hummingbird Resources) and Tabakoto (Nguvu Holdings), but rather with the trading companies that deliver the gold extracted from them.⁸⁵

When asked by SWISSAID to confirm its business relationships with industrial mines in Africa, Metalor did so.

SWISSAID has identified 26 industrial mines whose gold is being or has been refined in recent years by Metalor. In 21 cases the business relationship is still ongoing and in five cases it has been discontinued. As the table below shows, the Metalor Group is very active in West Africa.



Country	Mine	Mining Company	Refinery
Botswana	Mupane	Hawks Mining (Galane Gold until 2022) ⁸⁶	Metalor (2015–2020) ⁸⁷
Burkina Faso	Essakane	lamgold	Metalor (since 2010 and at least until 2023) ⁸⁸
Burkina Faso	Taparko-Bouroum	Nordgold	Metalor (until 2018) ⁸⁹
Burkina Faso	Wahgnion	Endeavour Mining	Metalor (from 2021 and at least until 2023) ⁹⁰
Burkina Faso	Mana	Endeavour Mining	Metalor (at least until 2023) ⁹¹
Burkina Faso	Bomboré	Orezone	Metalor (since 2022 and at least until 2023) ⁹²
Burkina Faso	Karma	Néré Mining (Endeavour Mining until 2022)	Metalor (at least until 2023) ⁹³
Burkina Faso	Hounde	Endeavour Mining	Metalor (at least until 2023) ⁹⁴
Burkina Faso	Boungou	Endeavour Mining	Metalor (at least until 2023) ⁹⁵
Burkina Faso	Yaramoko	Fortuna Silver Mines (Roxgold jusqu'en 2021)	Metalor (at least until 2023) ⁹⁶
Côte d'Ivoire	Ity	Endeavour Mining	Metalor (at least until 2023) ⁹⁷

Côte d'Ivoire	Agbaou	Allied Gold Corp (Endeavour Mining jusqu'en 2022)	Metalor (at least until 2023) ⁹⁸
Côte d'Ivoire	Bonikro-Hiré	Allied Gold Corp	Metalor (at least until 2023) ⁹⁹
Gabon	Bakoudou	Managem	Metalor (until 2017) ¹⁰⁰
Ghana	Chirano	Asante Gold (Kinross jusqu'en 2022)	Metalor (at least until 2023) ¹⁰¹
Ghana	Nzema	Nguvu Holdings (Adamus Resources) (Endeavour Mining until 2018 ¹⁰²)	Metalor (at least from 2017 until 2020) ¹⁰³
Ghana	Kibi	Xtra-Gold	Metalor (at least until 2023) ¹⁰⁴
Ghana	Homase-Akrokeri	Goldstone Resources	Metalor (at least until 2023) ¹⁰⁵
Guinea	Tri-K	Managem (SMM)	Metalor (at least until 2023) ¹⁰⁶
Mali	Tabakoto	Nguvu Holdings (Algom Resources)	Metalor (at least until 2023) ¹⁰⁷
Mali	Fekola	B2 Gold Corp	Metalor (at least until 2023) ¹⁰⁸
Mali	Yanfolila	Hummingbird Resources	Metalor (at least until 2023) ¹⁰⁹
Niger	Samira	Nguvu Holdings (Liptako Mining Company)	Metalor (until 2018) ¹¹⁰
Nigeria	Segilola	Thor Explorations	Metalor (at least until 2023) ¹¹¹
Morocco	Tiouit	CO Company	Metalor (since 2014 and at least until 2023) ¹¹²
Senegal	Sabodala- Massawa	Endeavour Mining (SGO)	Metalor (at least until 2023) ¹¹³

MKS PAMP / MMTC-PAMP

MKS PAMP SA was founded in 1979 and is based in Geneva, Switzerland. It is part of the MKS PAMP Group Limited, which is incorporated in Guernsey with its place of business in London, United Kingdom. The group is active in the precious metals business and provides trading, refining, storage and mine financing services.¹¹⁴ It has five brands, 13 offices worldwide and operates two gold refineries, both of which are members of the LBMA. The first refinery is located in Castel San Pietro, in the canton of Ticino, Switzerland. It has an annual refining capacity of 450 tonnes of gold.¹¹⁵ The second, MMTC-PAMP, is based in New Delhi, India. It has an annual refining capacity of 300 tonnes of gold¹¹⁶ and is jointly owned by the MKS PAMP Group and MMTC, an Indian state-owned enterprise.

Each of the refineries has its own compliance team, and MKS PAMP SA carries out due diligence on all the group's supplies of mined gold from Africa. When contacted by SWISSAID, the company was open to discussion. It responded to a detailed questionnaire and several follow-up questions sent by email. Several exchanges also took place by video conference and during a meeting at MKS PAMP's premises in Geneva. When asked by SWISSAID to confirm its business relationships with industrial mines in Africa (see table below), MKS PAMP refused to do so. In its response to SWISSAID, the company explained: "For confidentiality reasons, we cannot comment on our

sources. We have therefore not reviewed your table and cannot confirm or deny the data."¹¹⁷ When specifically asked why it could not provide this information, the company cited "contractual confidentiality, competition and security reasons."¹¹⁸ Despite this stance, MKS PAMP has made some ex-

When asked by SWISSAID to confirm its business relationships with industrial mines in Africa, MKS PAMP refused to do so.

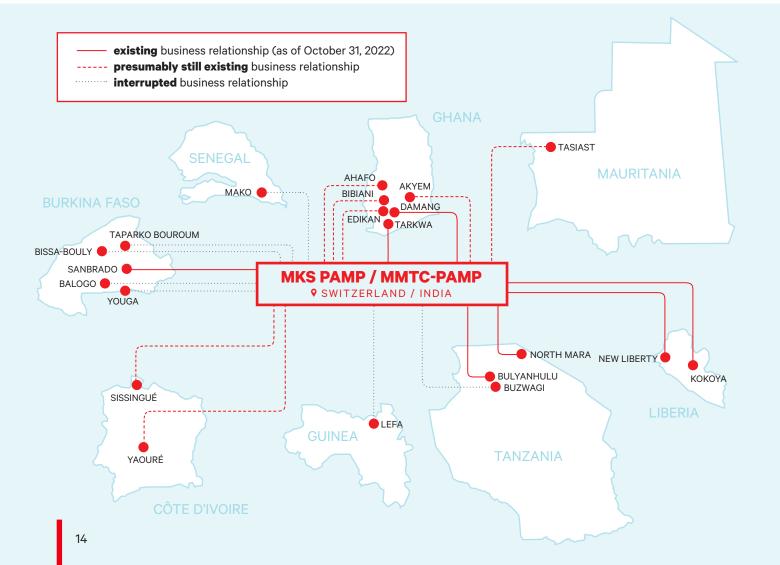
ceptions. The company has indicated that it stopped importing gold from the Russian Nordgold Group's mines, particularly those in Burkina Faso (Taparko-Bouroum and Bissa-Bouly) and Guinea (Lefa), in March 2022.¹¹⁹ It also mentioned its supplies from the North Mara mine in Tanzania in a public report.¹²⁰ MKS PAMP refused to provide SWISSAID with the names of the African countries from which it sources industrial gold. However, when confronted with the

MKS PAMP refused to provide SWISSAID with the names of the African countries from which it sources industrial gold. information collected by SWISSAID, it provided the following information. It pointed out that, based on other public information, Refinitiv Eikon's data on gold production from the Kokoya mine in Liberia appeared to be incorrect. It stated that it is not active in Mali and said that

it sources from only one mine in Guinea, while the EITI Guinea 2018 report names it as the recipient of gold from SMD and CGG mines.¹²¹

The mining companies under contract with MKS PAMP SA send their gold either to the Swiss refinery or to the Indian refinery, depending on market demand. Due to Indian legislation, it is not economically attractive to re-export gold refined in India; gold imported into India is therefore only intended for the Indian market. For the majority of the African mines where MKS PAMP sources gold, market demand determines whether the gold is refined in Switzerland or India. But the company said that some of the mining companies it works with have contractual clauses requiring that their gold be refined only in Switzerland. The Geneva-based company confirmed that MMTC-PAMP does not source from Liberia or Senegal.¹²² In the table below, where the source does not give precise information on the name or country of the refinery, both MKS PAMP refineries are mentioned for the same business relationship.

SWISSAID has identified 21 industrial mines whose gold is being or has been refined in recent years by MKS PAMP and/or MMTC-PAMP. The Geneva-based company wishes to point out that it has not validated the information in the table below.¹²³



Country	Mine	Mining Company	Refinery	Country of the refinery
Burkina Faso	Taparko-Bouroum	Nordgold	MKS PAMP or MMTC-PAMP (from 2018 to March 2022) ¹²⁴	Switzerland or India
Burkina Faso	Bissa-Bouly	Nordgold	MKS PAMP or MMTC-PAMP (until March 2022) ¹²⁵	Switzerland or India
Burkina Faso	Youga	Avesoro Holdings	MKS PAMP or MMTC-PAMP ¹²⁶ (stopped several years ago) ¹²⁷	Switzerland or India
Burkina Faso	Balogo	Avesoro Holdings	MKS PAMP or MMTC-PAMP ¹²⁸ (stopped several years ago) ¹²⁹	Switzerland or India
Burkina Faso	Sanbrado	West African Resources (SOMISA)	MKS PAMP or MMTC-PAMP (at least until 2023) ¹³⁰	Switzerland or India
Côte d'Ivoire	Yaouré	Perseus Mining	MKS PAMP or MMTC-PAMP (at least until 2022) ¹³¹	Switzerland or India
Côte d'Ivoire	Sissingué	Perseus Mining	MKS PAMP or MMTC-PAMP (at least until 2022) ¹³²	Switzerland or India
Ghana	Akyem	Newmont	MKS PAMP or MMTC-PAMP (since 2018) ¹³³	Switzerland or India
Ghana	Ahafo	Newmont	MKS PAMP or MMTC-PAMP (since 2018) ¹³⁴	Switzerland or India
Ghana	Tarkwa	Gold Fields	MKS PAMP or MMTC-PAMP (at least until 2022) ¹³⁵	Switzerland or India
Ghana	Damang	Gold Fields	MKS PAMP or MMTC-PAMP (at least until 2022) ¹³⁶	Switzerland or India
Ghana	Bibiani	Asante Gold	MKS PAMP (at least until 2022) ¹³⁷	Switzerland
Ghana	Edikan	Perseus Mining	MKS PAMP or MMTC-PAMP (at least until 2022) ¹³⁸	Switzerland or India
Guinea	Lefa	Nordgold (SMD)	MKS PAMP or MMTC-PAMP (until March 2022) ¹³⁹	Switzerland or India
Liberia	New Liberty	Avesoro Holdings (BEA Mountain Mining Corp.)	MKS PAMP (at least since 2016 ¹⁴⁰ and at least until 2022) ¹⁴¹	Switzerland
Liberia	Kokoya	Avesoro Holdings (MNG Gold Liberia)	MKS PAMP (at least until 2022) ¹⁴²	Switzerland
Mauritania	Tasiast	Kinross	MKS PAMP or MMTC-PAMP ¹⁴³	Switzerland or India
Senegal	Mako	Resolute Mining (Petowal Mining Company) (Toro Gold jusqu'en 2019)	MKS PAMP (until 2019) ¹⁴⁴	Switzerland
Tanzania	North Mara	Barrick	MMTC-PAMP (at least until 2022) ¹⁴⁵	India
Tanzania	Buzwagi	Barrick	MMTC-PAMP ¹⁴⁶ (until 2021) ¹⁴⁷	India
Tanzania	Bulyanhulu	Barrick	MMTC-PAMP (at least until 2022) ¹⁴⁸	India

Argor-Heraeus

Founded in 1951, the Argor-Heraeus Group is based in Mendrisio, in the canton of Ticino, Switzerland. It belongs to the German Heraeus technology group and has subsidiaries in Italy and Germany. The Ticino-based Argor-Heraeus refinery, which is a member of the LBMA, has an annual refining capacity of 1,300–1,400 tonnes of gold.¹⁴⁹

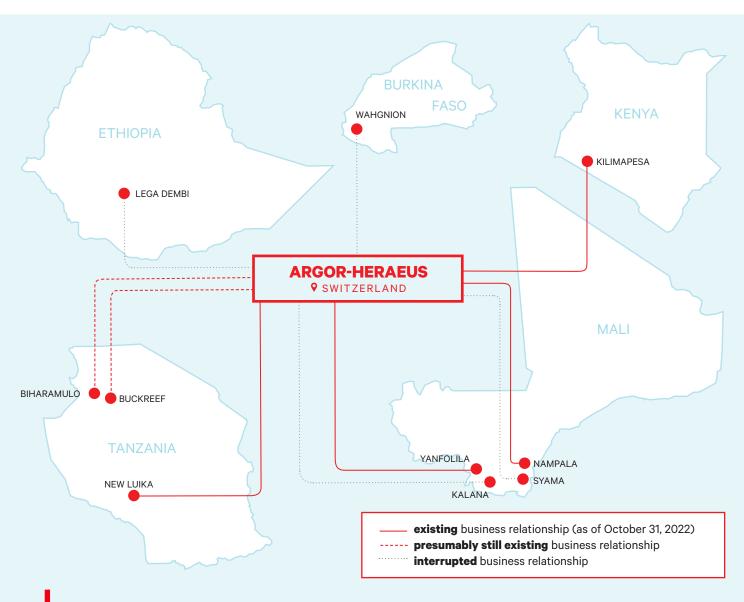
When contacted for the first time in November 2021, Argor-Heraeus initially refused to answer SWISSAID's questions. A few months later, the group changed its mind, which could be explained by the renewal of its management during this period. The group was open to discussion and responded to a detailed questionnaire and several follow-up questions sent by email. Several exchanges also took place by video conference, in particular with the new co-CEO, Robin Kolvenbach.

When asked by SWISSAID to confirm its business relationships with industrial mines in Africa (see table below), Argor-Heraeus refused to do so. In its response to SWISSAID, the group explained: "the answer to any of these questions is linked to ARGOR's commercial secret."¹⁵⁰ Asked specifically why it cannot disclose its business relationships,

the Ticino-based group replied: "we have existing NDA clauses and we have to honour our contracts."¹⁵¹ It also refused to confirm the names of the African countries where it sources industrial gold but confirmed that it had not imported gold from the DRC.

"The answer to any of these questions is linked to ARGOR's commercial secret."

SWISSAID has identified ten industrial mines whose gold is being refined or has been refined in recent years by Argor-Heraeus. The group told SWISSAID that its African gold supplies account for one per cent of the gold it processes.¹⁵²



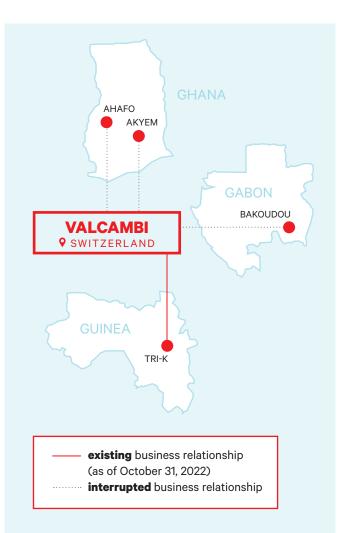
Country	Mine	Mining Company	Refinery
Burkina Faso	Wahgnion	Endeavour Mining	Argor-Heraeus (at least until 2020) ¹⁵³
Ethiopia	Lega Dembi	MIDROC	Argor-Heraeus (until 2018) ¹⁵⁴
Kenya	Kilimapesa	Caracal Gold	Argor-Heraeus (at least until 2023) ¹⁵⁵
Mali	Syama	Resolute Mining (SOMISY)	Argor-Heraeus (until 2019) ¹⁵⁶
Mali	Kalana	Endeavour Mining (SOMIKA) (Avnel Gold until 2017)	Argor-Heraeus (at least until 2016) ¹⁵⁷
Mali	Nampala	Robex Resources	Argor-Heraeus (at least until 2023) ¹⁵⁸
Mali	Yanfolila	Hummingbird Resources	Argor-Heraeus (at least until 2023) ¹⁵⁹
Tanzania	New Luika	Shanta Gold	Argor-Heraeus (at least until 2023) ¹⁶⁰
Tanzania	Biharamulo	Stamico (Stamigold)	Argor-Heraeus (at least until 2016) ¹⁶¹
Tanzania	Buckreef	TRX Gold Corp./Stamico	Argor-Heraeus (at least until 2022) ¹⁶²

Valcambi

Founded in 1961, Valcambi is an LBMA refinery based in Balerna, in the canton of Ticino, Switzerland. It has an annual refining capacity of 1,200 tonnes of gold¹⁶³ and employs 168 people¹⁶⁴. Since 2015, Valcambi has been owned by the Indian company Rajesh Export. Previously, it belonged to several investors, including the US mining company Newmont.¹⁶⁵

Valcambi refused to answer SWISSAID's questions. In its email, the refinery explained: "As long as the criminal and civil proceedings against you and Swissaid are ongoing we are not in a position to answer your questions."¹⁶⁶ Here, Valcambi is referring to the complaints it filed against SWISSAID and one of the NGO's employees following the publication in 2020 of a report on the gold trade between the United Arab Emirates and Switzerland.¹⁶⁷ For SWISSAID, these complaints constitute a strategic lawsuit against public participation (SLAPP). Valcambi is the only LBMA refinery to have altogether refused to answer SWISSAID's questions.

SWISSAID has identified four industrial mines whose gold is being or has been refined in recent years by Valcambi. Only one of these business relationships is believed to be still ongoing.



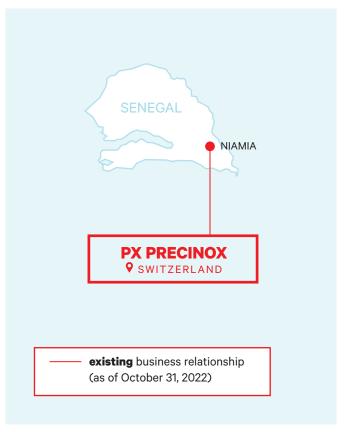
Country	Mine	Mining Company	Refinery
Gabon	Bakoudou	Managem	Valcambi (until 2017) ¹⁶⁸
Guinea	Tri-K	Managem (SMM)	Valcambi (at least until 2022) ¹⁶⁹
Ghana	Akyem	Newmont	Valcambi (until 2018) ¹⁷⁰
Ghana	Ahafo	Newmont	Valcambi (until 2018) ¹⁷¹

PX Precinox

Founded in 1976, PX Precinox is an LBMA refinery based in La Chaux-de-Fonds, in the canton of Neuchâtel, Switzerland. It is part of the PX Group, a group of ten companies with 550 employees in Switzerland and Malaysia.¹⁷² PX Precinox refused to provide SWISSAID with its annual refining capacity.¹⁷³

When contacted by SWISSAID, PX Precinox was open to discussion. It responded to a questionnaire and several follow-up questions sent by email. Some points of the study were also touched on at a meeting in La Chaux-de-Fonds with the CEO of PX Precinox, Christophe Nicolet, and the co-CEO of the PX Group, Philippe Chave.

When asked about its supplies from African industrial mines, PX Precinox replied that it imported gold from a single mine in Senegal, the name of which it disclosed to SWISSAID.¹⁷⁴

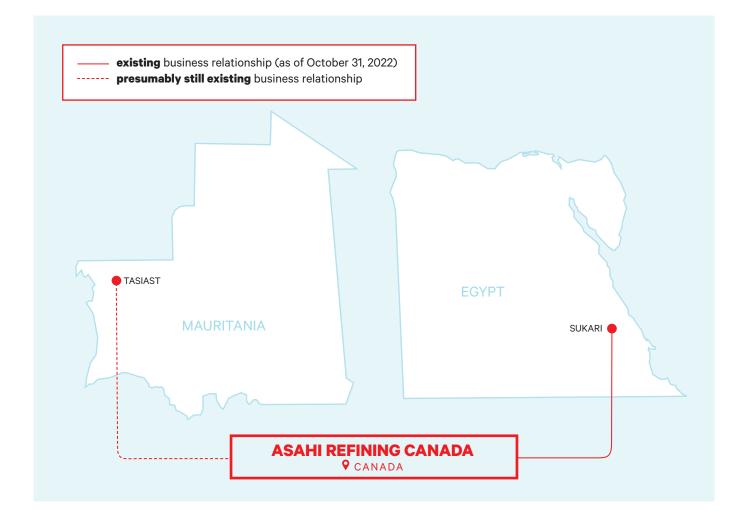


Country	Mine	Mining Company	Refinery
Senegal	Niamia	Sored Mines	PX Precinox (at least until 2022) ¹⁷⁵

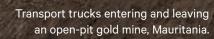
Asahi Refining Canada

Asahi Refining Canada is an LBMA member refinery based in Brampton, Canada. It is active in bullion manufacturing, refining and precious metals trading¹⁷⁶. Although it did not communicate its refining capacity to SWISSAID, it considers itself "one of LBMA's larger refiners".¹⁷⁷ The refinery was owned by the Johnson Matthey Group until 2015, when it was taken over by the Japanese group Asahi Holdings. Asahi Holdings has two other LBMA-certified refineries, one in the US (Salt Lake City) and one in Japan (Bando).

Asahi Refining Canada responded to SWISSAID's questions. When asked about its gold supplies from Africa in recent years, the Canadian refiner confirmed that it had imported gold from Egypt, Mauritania (at least in 2020 and 2021) and South Africa (in 2018/2019). However, it refused to give the names of the mines involved. In its response, Asahi Refining Canada explained: "our contracts with the mines are confidential and therefore [...] we can't publicly confirm our relationships with any of our counterparties."¹⁷⁸ Asahi Refining Canada confirmed to SWISSAID that it had imported gold from large-scale operations in Mauritania, a country with only two industrial gold mines (Tasiast and Guelb Moghrein). First Quantum Minerals, which operates the Guelb Moghrein mine, disclosed to SWISSAID the names of the Chinese refineries that process the gold from this mine.¹⁷⁹ SWISSAID therefore assumes that the Canadian refinery has been sourcing from the Tasiast mine. For South Africa, Asahi Refining Canada stated that it had only imported gold by-products. Finally, with regard to gold from Egypt, mining company Centamin mentioned Asahi Refining Canada in its annual report and also confirmed this business relationship to SWISSAID.¹⁸⁰



Country	Country Mine Mining Company		Refinery
Egypt	Sukari	Centamin/Egyptian Mineral Resource Authority (SGM)	Asahi Refining Canada (at least until 2023) ¹⁸¹
Mauritania	Tasiast	Kinross	Asahi Refining Canada (at least until 2021)



ALC: N

The Perth Mint

Established in 1899, The Perth Mint is an LBMA refinery based in Perth, Australia. It is owned by the Government of Western Australia and has an annual refining capacity of 800 tonnes of gold.¹⁸² It estimates that it processes around ten per cent of the world's gold each year.¹⁸³ The Perth Mint is one of the few refineries to provide information on its production. In its 2022 annual report, it states that it processed 549.9 tonnes of "doré" into gold and silver.¹⁸⁴

The Perth Mint responded to SWISSAID's questions. The Australian refinery confirmed its business relationships with African industrial gold mines (see table below).¹⁸⁵ It explained that it did not refine gold from Africa until the health crisis caused by the COVID-19

The Australian refinery confirmed its business relationships with African industrial gold mines. pandemic. At that time, the Australian mining companies Resolute Mining and Perseus Mining approached it and offered it the opportunity to refine gold from their African mines, which The Perth Mint agreed to do. In April 2022, the refinery ended its business relationship with Perseus Mining's mines in Côte d'Ivoire (Yaouré,

Sissingué) and Ghana (Edikan), for commercial reasons.¹⁸⁶ Supplies from Resolute Mining's mines, however, are still in place.



Country	Mine	Mining Company	Refinery
Côte d'Ivoire	Yaouré	Perseus Mining	The Perth Mint (until April 2022) ¹⁸⁷
Côte d'Ivoire	Sissingué	Perseus Mining	The Perth Mint (until April 2022) ¹⁸⁸
Ghana	Edikan	Perseus Mining	The Perth Mint (until April 2022) ¹⁸⁹
Mali	Syama	Resolute Mining (SOMISY)	The Perth Mint (at least until 2023) ¹⁹⁰
Senegal	Mako	Resolute Mining (Petowal Mining Company) (Toro Gold until 2019)	The Perth Mint (at least until 2023) ¹⁹¹

Italpreziosi

Italpreziosi is a member of the LBMA. The refinery was established in 1984 and is based in Arezzo, Italy. It is active in the production, refining and trading of precious metals.¹⁹² It has an annual refining capacity of 60 tonnes.¹⁹³

Italpreziosi responded to SWISSAID's questions. It confirmed the business relationship with the Gabgaba mine in Sudan. This is the only African industrial mine from which it has purchased gold in recent years. The Italian refinery told SWISSAID it only receives 35 per cent of this mine's gold production.¹⁹⁴

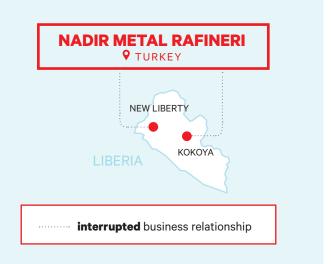


Country	Mine	Mining Company	Refinery
Sudan	Gabgaba	Managem/Norin Mining	Italpreziosi (at least until 2023) ¹⁹⁵

Nadir Metal Rafineri

Established in 1967 as Nadir Metal, Nadir Metal Rafineri is an LBMA member refinery based in Istanbul, Turkey. It has an annual refining capacity of 125 tonnes of gold and employs 163 people.¹⁹⁶

When asked by SWISSAID about its gold supplies from Africa in recent years, the Turkish refinery replied that it only imported gold from industrial mines in Liberia.¹⁹⁷After receiving the consent of its "client", it confirmed the names of these two mines to SWISSAID.¹⁹⁸ It said it had been refining this gold for almost six months in 2020, when other refineries were closed and flights to Switzerland cancelled due to the COVID-19 health crisis.¹⁹⁹



Country	Mine	Mining Company	Refinery
Liberia	New Liberty	Avesoro Holdings (BEA Mountain Mining Corp.)	Nadir Metal Rafineri (only in 2020) ²⁰⁰
Liberia	Kokoya	Avesoro Holdings (MNG Gold Liberia)	Nadir Metal Rafineri (only in 2020) ²⁰¹

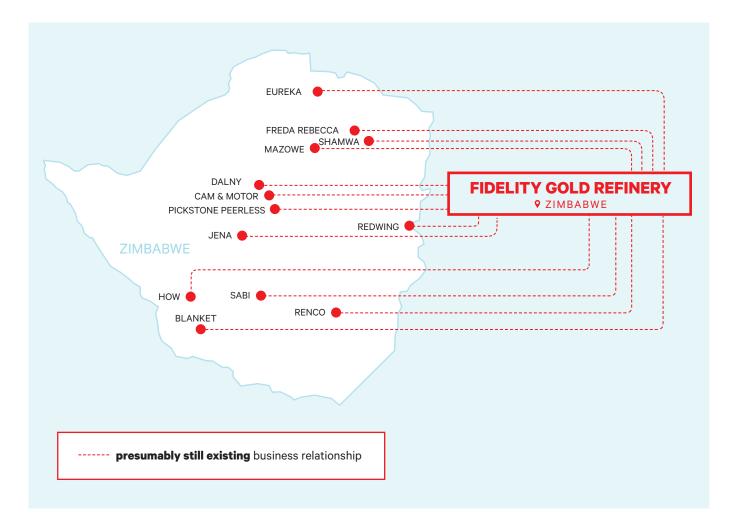
Fidelity Gold Refinery

Founded in 1966, Fidelity Gold Refinery (FGR) is a refinery based in Harare, Zimbabwe. It has been involved in gold refining since 1987 and has an annual refining capacity of 50 tonnes of gold.²⁰² It is owned by the Reserve Bank of Zimbabwe (RBZ) and was known as Fidelity Printers & Refiners until 2021.²⁰³ FGR lost its LBMA certification in 2008 after producing less than ten tonnes of gold, the minimum annual production required to be certified to the LBMA standard.²⁰⁴

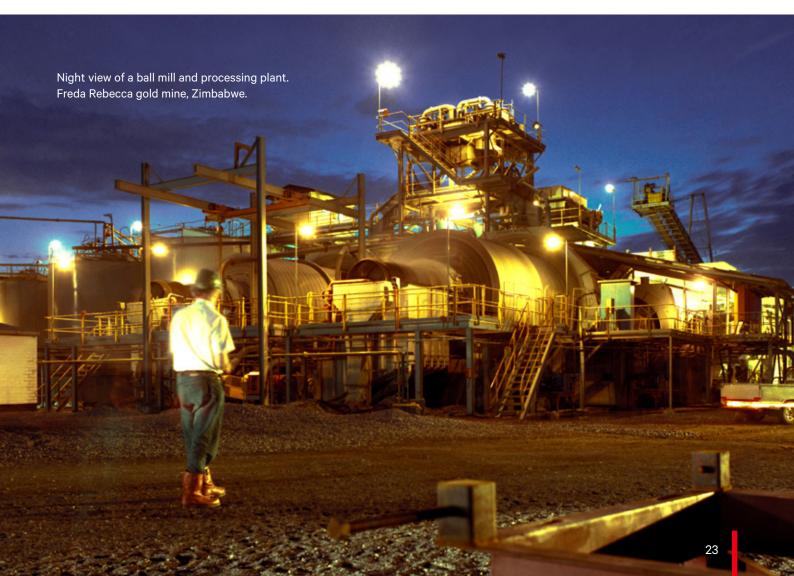
FGR responded to SWISSAID's questions. It confirmed that it has a monopoly on the refining and marketing of gold from all industrial mines in Zimbabwe, with the exception of gold from platinum mines.²⁰⁵ FGR did not provide a list of the mines that have supplied it with gold in recent years and refused to confirm the table below. FGR emphasised that it keeps a detailed record of its supplies from industrial mines and that this information is available.²⁰⁶ SWISSAID asked to be given access to this record, but FGR did not reply.

The gold produced by FGR was sent to, among others, Rand Refinery in South Africa, but this business relationship ended in 2020, according to information provided by the South African refinery to SWISSAID.²⁰⁷ When asked about the reasons for changing partners, FGR cited the exploration of new markets and favourable trade agreements. First, it confirmed that all gold processed is currently exported to the United Arab Emirates but refused to mention the names of its partners in that country.²⁰⁸ Secondly, it stated that some of the gold is sold to local jewellers.²⁰⁹

There are many gold mines in Zimbabwe and some have been out of production for many years.²¹⁰ The table below therefore only includes mines where production activity has been detected in recent years. Although SWISSAID has not found evidence for some of these business relationships, FGR's monopoly position suggests that the refinery must have processed gold from these mines. FGR was keen to point out that this table is not exhaustive.²¹¹



Country	Mine	Mining Company	Refinery
Zimbabwe	Blanket	Caledonia Mining Corporation	Fidelity Gold Refinery ²¹²
Zimbabwe	Freda Rebecca	Kuvimba Mining House	Fidelity Gold Refinery
Zimbabwe	Mazowe	Metallon (at least until 2019)	Fidelity Gold Refinery ²¹³
Zimbabwe	Shamwa	Kuvimba Mining House (Metallon until 2020)	Fidelity Gold Refinery ²¹⁴
Zimbabwe	Redwing	Betterbrands (Metallon at least until 2019)	Fidelity Gold Refinery ²¹⁵
Zimbabwe	How	Metallon (at least until 2019)	Fidelity Gold Refinery ²¹⁶
Zimbabwe	Renco	RioZim	Fidelity Gold Refinery ²¹⁷
Zimbabwe	Dalny	RioZim	Fidelity Gold Refinery ²¹⁸
Zimbabwe	Cam & Motor	RioZim	Fidelity Gold Refinery ²¹⁹
Zimbabwe	Eureka	Dallaglio (DGZ until 2018)	Fidelity Gold Refinery
Zimbabwe	Pickstone Peerless	Dallaglio (DGZ until 2018)	Fidelity Gold Refinery
Zimbabwe	Jena	Kuvimba Mining House	Fidelity Gold Refinery
Zimbabwe	Sabi	Chandiwana Mines/ZMDC	Fidelity Gold Refinery



Refineries in the United Arab Emirates and China

Zimbabwe's industrial gold mines are not the only ones to export (via Fidelity Gold Refinery) their gold to the United Arab Emirates (UAE). The Hassai mine in Sudan, operated by the Ariab Mining Company, sent gold to the UAE's Kaloti refinery, at least in 2017 and 2020.220 The Kaloti refinery, renamed MTM&O, did not respond to SWISSAID's questions. The Niger 2019 EITI report indicates that gold from Société des mines du Liptako (SML) was sent to LYS International FZE, a Dubai-based company.²²¹ According to information from Managem, gold from the Gabgaba mine in Sudan is refined not only by Italpreziosi but also by the refineries Al Masqual and Emirates Minting,222 both located in the UAE. Emirates Mining confirmed this business relationship to SWISSAID,²²³ whereas Al Masqual did not respond.

In a response to SWISSAID, Caracal Gold wrote that it exports some of the gold from its Kilimapesa mine in Kenya to Emirates Gold DMCC.²²⁴ Emirates Gold DMCC declined to comment on this business relationship.²²⁵ Gold from Nordgold's mines in Burkina Faso is also reported to be heading to Dubai from 2022, according to an Africa Intelligence article.²²⁶ The article mentions the Emirates Minting and Emirates Gold refineries as the recipients of this gold. When contacted by SWISSAID, Emirates Gold DMCC strongly denied this, stating that it had "neither accepted nor sourced gold from Nordgold, Bissa-Bouly, Taparko-Bouroum or Lefa [which are Nordgold-owned mines]".227 This position was later added to the Africa Intelligence article as a right of reply from Emirates Gold DMCC.²²⁸ Several sources²²⁹ have told SWISSAID that there is a confusion: the Nordgold gold was probably imported by a company with the same name, Emirates Gold, a

refinery based in the Emirate of Ajman, in the UAE.²³⁰ Emirates Gold DMCC has told SWISSAID that it has no connection with this company²³¹. Emirates Minting confirmed to SWISSAID that it had refined gold from Nordgold's mines in Burkina Faso and Guinea but stressed it had ended the business relationship in April 2022.²³²

When asked about its supplies from other industrial gold mines in Africa, Emirates Minting explained that it had imported gold from Mali, Ghana, Burkina Faso, Niger and Guinea over the past three years. However, the refinery refused to name the mines involved. In its response, it explained: "We wish not to disclose our clients' names due to company policy."²³³ As for Emirates Gold DMCC, the company refused to disclose its business relationships. In its response, it wrote: "We will be unfortunately unable to divulge the names of our counterparties, mines or countries."²³⁴

Gold from the Guelb Mohgrein mine in Mauritania is exported to China. First Quantum Minerals, which operates the mine through its subsidiary Mauritanian Copper Mines, told SWISSAID that it exported gold from the mine to MKS PAMP until 2014. The mining company said that the gold from this mine was subsequently sold as a by-product of copper concentrate to Chinese smelters, including Jinchuan, Jiangxi, Daye, Minmetals and more recently Shandong Humon.²³⁵



Unidentified business relationships

Among all the industrial gold mines in Africa that SWISSAID has identified, only a few could not be linked to any refinery. There are less than ten of them:

- **The Kodiéran mine in Mali,** operated by Faboula Gold (formerly Wassoul'or).²³⁶ The EITI Mali 2018 report indicates that gold from this mine has been exported to the United Arab Emirates in the past.²³⁷ Since 2022, gold from this mine is reportedly being delivered to the German company Pearl Gold AG.²³⁸ However, there are several grey areas around this mine, as explained in a Bilan magazine article.²³⁹
- **The Abujar mine in Côte d'Ivoire,** operated by Tietto Minerals, which began commercial production in 2023.²⁴⁰
- The Ndassima mine in the Central African Republic. The Canadian company Axmin had the licence to operate this mine before being dispossessed in favour of Midas Ressources. The mine is now controlled by the Wagner Group and the gold is exported to Russia, according to the media outlet Jeune Afrique.²⁴¹
- **The Koka (Zara) mine in Eritrea,** jointly owned by the Chinese group SFECO and the Eritrean national mining company ENAMCO.²⁴²
- **The Bisha mine, also in Eritrea,** produced a lot of gold between 2011 and 2013 before turning mainly to copper and zinc mining.²⁴³
- **The Sakaro mine in Ethiopia**, operated by MIDROC.²⁴⁴
- **The Manica mine in Mozambique,** operated by Mutapa Mining & Processing LDA (MMP) and owned by Xtract Resources.²⁴⁵ The first gold bar from this mine was poured in 2022.²⁴⁶
- Some semi-industrial mines have also been identified in Sudan.²⁴⁷ These are the Abu Sari mines operated by Delgo Mining²⁴⁸ and Block 30 operated by Alliance for Mining and Kush for Exploration and Production.²⁴⁹

There are other mines where former business relationships have been identified but the current refiner is not known. This is the case for, among others, the Lega Dembi mine in Ethiopia. It should also be noted that the Kalsaka mine in Burkina Faso, which has ceased operations, is not included in the above tables because Metalor stopped sourcing from it in 2013.²⁵⁰

Some platinum and palladium mines producing very small amounts of gold were not included in the study. These include the Amandebult, Mogalakwena and Mototolo mines in South Africa and the Unki mine in Zimbabwe, all owned by Anglo American Platinum.²⁵¹



Miners drilling the rock. Obuasi gold mine, Ghana.

6. COMMENTS

This study identified 125 industrial gold mines in Africa that were active in recent years (2015–2023). For 116 of them (93 per cent), SWISSAID found at least one business relationship with a refinery. As some mines send their gold to several refineries or have changed refineries in recent years, the number of identified business relationships (142) is higher than the number of mines.

An analysis of these business relationships leads to the following observations. First, a very small number of refineries process almost all of Africa's industrial gold. SWISSAID has identified 16 such refineries and

A very small number of refineries process almost all of Africa's industrial gold. notes that the number of business relationships per refinery varies greatly. Apart from Fidelity Gold Refinery and a few Emirati and Chinese refineries involved in a limited number of supplies, all these refineries

are certified to the LBMA standard. As MKS PAMP explained to SWISSAID, one explanatory factor is that World Gold Council mines are required to supply to LBMA-certified refineries.²⁵²

Rand Refinery (49 identified business relationships), Metalor (26) and the two refineries of the MKS PAMP group (21) are the main players. These four refineries alone represent two thirds (96) of the identified business relationships. These refineries are not only members of the LBMA but are also particularly influential within the London association, belonging to the circle of "LBMA referees" that also includes Argor-Heraeus and Tanaka.²⁵³ The referees are responsible for maintaining the LBMA's "good delivery" system, which means that they conduct assessments, provide technical advice and carry out anonymous monitoring of the association's member refineries.²⁵⁴

The majority of African industrial gold is refined in three countries: Switzerland (Metalor, MKS PAMP, Argor-Heraeus, PX Precinox, Valcambi), South Africa (Rand Refinery) and, to a lesser extent, India (MMTC-PAMP). The LBMA publications do not provide precise information on the quantities of African industrial gold refined by Rand Refinery and MMTC-PAMP. This is partly because the LBMA data for these two companies is aggregated with that of other refineries in the same "regions" and partly because Rand Refinery does not report its data by calendar year but by fiscal year. On the other hand, as the LBMA treats Switzerland as a region in its own right, it is possible to ascertain, in aggregate, the total quantities refined by the five Swiss refineries that are members of the LBMA. These refineries reported refining 148,157 kg of fine gold from African industrial mines in 2018,²⁵⁵ 171,122 kg in 2019²⁵⁶ and 176,902 in 2020.²⁵⁷ At the average price of gold in those years,²⁵⁸ this represents trade values of CHF 5.92, 7 and 9.3 billion respectively. It is also possible to see the total amount of gold refined by all LBMA refineries, although these figures are not precise as some refineries report their data by fiscal year. In 2020, LBMA refineries reported refining 450 tonnes of gold from African industrial mines.²⁵⁹

Industrially mined gold in Africa is apparently only refined in two African countries, namely South Africa (Rand Refinery) and Zimbabwe (Fidelity Gold Refinery); for the rest, this process takes place mainly abroad. However, this may change in the future. In Tanzania, Mwanza Precious Metals Refinery told SWISSAID that it aims to process not only artisanal but also industrial gold. This refinery has not yet started production.²⁶⁰ Interesting developments are also underway in Ghana. In its 2021 annual report, the South African mining company Gold Fields stated: "We continue to engage the government through the Ghana Chamber of Mines on details to sell a portion of gold produced in Ghana to a local refinery for value-addition purposes."261 Asked whether this refinery was the Royal Ghana Gold Refinery, Gold Fields replied in December 2022: "We sell to the Bank of Ghana not to a refinery. We still do this via MKS Pamp. This is not a unique arrangement with Gold Fields but other industry players as well."²⁶² It is also possible that the Khartoum refinery, owned by the Central Bank of Sudan, refines gold from some of Sudan's semi-industrial mines.

As some of the above tables show, the health crisis due to the COVID-19 pandemic led to rearrangements in supply chains. New refineries have entered the African gold market. The MKS PAMP Group pointed out that "during the COVID pandemic, there were many changes in our gold supplies for logistical reasons. Some mines could no longer send us material because of the lack of available flights."²⁶³ The MMTC-PAMP refinery, based in India, was one of those particularly affected. Other refineries, such as The Perth Mint, Nadir Metal Refineri and Asahi Refining Canada, benefited from this situation. However, most of these changes were temporary and most supply chains have returned to their pre-crisis form.

An analysis of the above tables also gives rise to some interesting observations about mining companies. Firstly, the mines identified are operated by a large number and diversity of companies. Contrary to what one might

think, not all of these companies are listed on the stock exchange or members of the World Gold Council. Nor are they all domiciled in Canada, South Africa, Australia or the UK. This partly explains the difficulties in finding information on some mines, particularly with regard to their production or actual ownership. In addition, some mining companies do not even have a website. This is the case for, among others, CO Company, which operates the Tiouit mine in Morocco, and Allied Gold Corp, which operates the Agbaou and Bonikro-Hiré mines in Côte d'Ivoire. Metalor, the refinery that processes gold from these mines, has confirmed that these companies do not or no longer have a website.²⁶⁴ According to the Swiss refinery, however, Allied Gold Corp has offices in Toronto, where the company can be reached without difficulty.²⁶⁵ In some cases, identifying the actual owner of a mine is complex. As the tables above show, a mine can frequently change from one company to another, depending on mergers and acquisitions, among other things.

The types of business relationships between mining companies and refineries are also very diverse. In some cases, the links are close because the mining company owns shares in the refinery. This is the case for Rand Refinery, which obtains some of its supplies from the mines owned by its shareholders (with the exception of gold from Ghana's Gold Fields mines, which is refined by MKS PAMP). This was also the case for Valcambi when the Swiss refinery was partly owned by the US mining group Newmont. In contrast, most refineries and mining companies do not seem to have any particularly close relationships. Some mining companies work with one refinery for all their mines. This is the case for, among others, Endeavour Mining (which works with Metalor),266 DRD Gold Limited (Rand Refinery)²⁶⁷ and Sibanye-Stillwater (Rand Refinery).²⁶⁸ Conversely, other mining groups, such as Managem or Hummingbird Resources, send gold from the same mine to several refineries.²⁶⁹

Contracts between mining companies and refineries

To understand the business relationship between mining companies and refineries, it is necessary to look at the contracts signed between these companies. As explained by MKS PAMP and Metalor, refineries generally sign an individual contract for each mine from which they source gold and not a general contract with a mining group for all its mines.²⁷⁰

The duration of contracts and tendering practices vary from company to company. The tables above show that business relationships range from a few months to many years. For example, the Essakane mine in Burkina Faso, operated by IAMGOLD, has been sending its gold to Metalor since the mine opened in 2010.²⁷¹

When asked about the duration of its contracts, South African miner Gold Fields stated that it has "3 years overall contracts" and added: "we review the addendum of the contract annually. The reason is that the different costs (e.g. transports) can change rapidly and we have to adjust them. After 3 years we decide if we continue or if we change the refinery. Therefore we do not always have a new call for tender after 3 years."272 For its part, the Canadian mining company Newmont stated that: "refining contracts terms are variable with most currently between two - three years in duration. We will retender the contracts at the end of the term."273 Finally, MKS PAMP explained that: "contracts are concluded for only a few years. A tender is usually reissued after a few years. Note that the existence of a contract makes deliveries from the mine possible but not mandatory."274 The Geneva-based company also indicated that the refinery does not usually have exclusive rights to the production of a mine when it has a contract with the operating company.²⁷⁵

It is important to note that some mining companies do not have contracts with refineries but with trading companies. This is the case of Hummingbird Resources for its Yanfolila mine or Nguvu Holdings for its Tabakoto mine.²⁷⁶ In a response to SWISSAID, Hummingbird Resources wrote: "We do not currently have any contracts with refiners. All the gold ore produced by our mines is purchased by Auramet, who then refine this at one of those three refiners [i.e. Metalor, Rand Refinery, Argor-Heraeus]."²⁷⁷



7. TRANSPARENCY IN THE SECTOR

A. Refinery practices

SWISSAID surveyed 17 refineries about their sourcing of gold from industrial mines in Africa. Analysis of their responses shows that their respective transparency practices vary widely.

When asked about these business relationships, some of the refineries confirmed the names of the African industrial mines from which they are or were sourcing gold. This is the case for Metalor (26 mines), PX Precinox (1), The Perth Mint (5), Nadir Metal Rafineri (2), Italpreziosi (1) and Emirates Minting (3). The first two also revealed the names of two and one mines respectively that had not been initially identified by SWISSAID.

However, other refineries contacted by SWISSAID refused to confirm their business relationships (unless SWISSAID agree to sign a non-disclosure agreement). These were Rand Refinery, MKS PAMP SA, MMTC-PAMP, Argor-Heraeus, Asahi Refining Canada and Emirates Gold DMCC. Most of these refineries took refuge behind the argument of the confidentiality of contracts and refining agreements (see Part 8, p. 34). In addition to this argument, MKS PAMP also cited "competition and security reasons".²⁷⁸ The competition argument is unconvincing as some of the refineries agree to confirm this type of information. The security argument is also difficult to understand. The geographical positions of the mining sites are in the public domain and the security of transport is not affected by the revelation of the final destination of the gold. If the argument was relevant, why didn't the mining companies, transport companies and other refineries that confirmed their business relationships mention it too?

Although they refused to confirm their business relationships, some refineries confirmed the names of the African countries from which they source or were sourcing industrial gold. This is the case for Rand Refinery and Asahi Refining Canada. MKS PAMP and Argor-Heraeus, on the other hand, only

provided information on specific countries. Emirates Minting and Fidelity Gold Refinery are special cases. Emirates Minting confirmed the business relationships identified by SWISSAID but refused to reveal the unidentified relationships. It did, however, mention the names of the African countries where it sources industrial gold.²⁷⁹ The Zimbabwean refinery has a monopoly on refining and marketing gold from Zimbabwe's industrial mines but refused to provide SWISSAID with a list of mines that have supplied it with gold in recent years.

Some refineries	Finally, some refineries refused	
	to answer SWISSAID's ques-	
refused	tions. Valcambi, Al Masqual and	
to answer	MTM&O (formerly Kaloti) de-	
SWISSAID's	clined to comment on the busi-	
	ness relationships identified by	
questions.	SWISSAID. Argor-Heraeus also	
	initially refused, but the Ticino-	

based group finally changed its mind. Valcambi was the only LBMA refinery interviewed by SWISSAID that altogether declined to answer questions.

B. Mining company practices

The level of transparency varies greatly from one mining company to another. Some companies publicly disclose the names of the refineries they work with, although they are under no obligation to do so. Neither the laws of the countries where mining companies operate or are registered, nor stock market regulations, nor indeed industry standards require the publication of this information.

This chapter analyses the level of transparency of mining companies with regard to their business relationships with the refineries that process their gold. It is based on the information publicly disclosed by the mining companies and on the responses of these companies to questions addressed directly to them by SWISSAID. The analysis distinguishes between three types of companies: those that systematically publish information; those that publish information on an ad hoc basis or provide it only on request; and those that refuse to disclose it.

Mining companies that disclose the names of their partner refineries

Some mining companies have chosen to systematically publish the names of the refineries that process their gold. This is the case for Endeavour

Mining (which works with DRD Metalor),²⁸⁰ Gold Limited (Rand Refinery)281 Sibanye-Stillwater and (Rand Refinery),282 which publish this information directly on their website. Other mining companies mention these business relationships in their annual reports. This is the case for Centamin (2021 annual report),²⁸³ West African Resources (2021),²⁸⁴

Some mining companies have chosen to systematically publish the names of the refineries that process their gold.

Pan African Resources (2022)²⁸⁵, Robex (2021)²⁸⁶ and Nordgold (2020, it should be noted that this is Nordgold's latest available annual report).²⁸⁷ When contacted by SWISSAID, Centamin, West African Resources and Robex confirmed the names of the refineries currently processing gold from their mines.²⁸⁸

Some mining companies mention the names of the refineries in their ESG (Environment, Society, Governance) reports. This is the case for Harmony (2022 report),²⁸⁹ Toro Gold (2018)²⁹⁰ and Newmont (2018).²⁹¹ Toro Gold did not publish a report after 2018, as the group was acquired by Resolute Mining in 2019.292 The case of Newmont is discussed below (see p. 31).

Information on business relationships is contained in the U.S. Securities and Exchange Commission (SEC) Forms 40-F and 20-F, which are required for foreign companies wishing to list their securities in the United States. Form 40-F is for companies domiciled in Canada, while Form 20-F is for non-Canadian foreign companies.²⁹³ Mining companies such as Fortuna Silver Mines (2021²⁹⁴) and Gold Fields (2022²⁹⁵) publish the names of their refineries in their SEC reports. However, Gold Fields does not disclose this information in its annual reports and its website only mentions the name of a refinery in the case of a single mine.²⁹⁶ When asked about this, the South African mining company's representative replied: "[I] wasn't aware it is not mentioned on the reports you speak about, but it's not confidential."297 Gold Fields confirmed to SWISSAID the names of the refineries currently processing gold from its Ghanaian and South African mines.²⁹⁸ Fortuna Silver Mines confirmed to SWISSAID that Metalor is still refining gold from its mine in Burkina Faso.²⁹⁹

Mining companies that confirmed the names of their partner refineries on request

Most mining companies do not systematically disclose their business relationships with refineries. However, some of them do mention this information for some of their mines in various types of publications.

Many of the business relationships between a mine and a refinery appear in the National Instrument 43-101 Technical Reports. All publicly traded mining companies in Canada are required to publish this type of report for all their mine sites.³⁰⁰ Mining companies listed on the Australian and South African stock exchanges are required to publish similar reports under the Joint Ore Reserve Committee Code (JORC Code) and the South African Code for the Reporting of Mineral Resources and Mineral Reserves (SAMREC) respectively.³⁰¹ The purpose of these regulations is to protect investors and maintain the integrity of the financial markets.³⁰² The reports they require from mining companies include technical information on geology, mineral resources, mining methods and social and environmental issues.³⁰³ They are usually produced by experts from outside the company.³⁰⁴

SWISSAID found information on the business relationships between mining companies and refineries in the NI 43-101 Technical Reports of at least 12 mines. These are Wassa (Golden Star Resources, Ghana),³⁰⁵ Asanko (Galiano - Gold Fields, Ghana),³⁰⁶ Nzema (Endeavour Mining, Ghana),307 Agbaou (Endeavour Mining, Côte d'Ivoire),308 Otjikoto (B2 Gold, Namibia),309 Fekola (B2 Gold, Mali),³¹⁰ Kibali (Barrick, DRC),³¹¹ Bibiani (Asante, Ghana),³¹² Chirano (Asante, Ghana),³¹³ Edikan (Perseus Mining, Ghana),³¹⁴ Kalana (Avnel Gold Mining, Mali)³¹⁵ and Tasiast (Red Back Mining, Mauritania).³¹⁶ There is no obligation for mining companies to mention the name of the refinery in NI 43-101 Technical Reports, especially in Section 19 (Market Studies and Contracts). Some Technical Reports of operating mines do not mention this information. For example, the report for the Guelb Moghrein mine, operated by First Quantum, simply states that the gold is refined in Switzerland.³¹⁷

The names of the refineries appear in press releases on the production of certain mines, such as those operated by TRX Gold,³¹⁸ Shanta Gold³¹⁹ and Avesoro.³²⁰ Information may also be disclosed in prospectuses, such as those of Resolute Mining,³²¹ Caracal³²² or Heaven-Sent Gold.³²³ Hummingbird Resources published the name of a refinery in an optimisation study report.³²⁴ Barrick mentions the name of the refinery processing gold from its North Mara mine in its sustainability report (2021),³²⁵ but does not mention the name of the refineries processing gold from its other mines. Asked about this, the Canadian mining group replied: "if you read the full report, you will understand the context as to why we named MMTC-PAMP – due to a review by the LBMA."³²⁶

Although they do not generally make this information public, the following mining companies have confirmed the names of the refineries that process gold from their mines to SWISSAID: AngloGold Ashanti, Barrick, Avesoro, Managem, Shanta Gold, Galane Gold, Hummingbird Resources, Maris Group, Blue Gold International (FGR), B2 Gold, IAMGOLD, Resolute Mining, Orezone, Caracal Gold and First Quantum Minerals. It should be noted that Managem, Galane Gold, Maris Group, Caracal Gold and First Quantum Minerals revealed the names of refineries that had not been identified by SWISSAID.

SWISSAID asked these mining companies if there are any particular reasons why they do not publish the names of their partner refineries on their website or in their annual reports, whereas some of their competitors do. Their answers varied, but none of the companies gave the argument of confidentiality.

Several companies, including Hummingbird Resources,³²⁷ B2Gold³²⁸ and Shanta Gold,³²⁹ acknowledge that there is no particular reason. In its response, B2 Gold explains that it "just hasn't

None of the mining companies gave the argument of confidentiality.

been a practice".³³⁰ Resolute Mining's response is similar: "There is no defined industry practice regarding this, and therefore [we] have chosen not to disclose it."³³¹ Barrick stated: "for Barrick it is not material to us."³³² For its part, Managem indicated that it would only provide this information on request: "We do not publish the names of our customers in general. But we provide all the information necessary for the traceability of our metals to the organisations that request it."³³³

Some mining companies have argued that they are not obliged to provide such information. AngloGold Ashanti, for example, simply emphasised that it was already complying with its obligations: "We produce an annual CFGS standard report annually (made public) as per our obligations as members of the World Gold Council."³³⁴ IAMGOLD, on the other hand, explained in its response that "while we have



not disclosed the names of refineries we have a business relationship with as it is not a requirement for any of the reporting frameworks IAMGOLD complies with, we will internally review updating our disclosure regarding refineries going forward, to the extent permissible."³³⁵ This is also the position of First Quantum Minerals, whose representative wrote: "The Company's disclosures are guided by financial, sustainability and regulatory reporting frameworks. Although, I'm not aware of a current requirement to disclose the refineries used by the Company, we monitor the evolution and progression of reporting standards."³³⁶

Shanta Gold expressed the intention to be more transparent in the future: "Now that you have raised it we will disclose it in the annual report."³³⁷ Caracal Gold did the same: "It never occurred to us to put this information on our website, I will make a recommendation [so that] it's done - I think this will be a positive step for us."³³⁸ The representative from Blue Gold International (FGR) claimed that it was simply an oversight: "I'm not part of those who designed the website but I'm sure it must an oversight on their part."³³⁹ The responses from these mining companies indicate that there is nothing to prevent them from publishing the names of the refineries with which they have a business relationship.

Mining companies that refused to provide the names of their partner refineries

Some mining companies, however, take a very different view. Newmont, Kinross, Perseus Mining and Allied Gold Corp refused to confirm their business relationships with refineries processing gold from their African mines to SWISSAID.

The case of Newmont is paradoxical. The Canadian miner published the names of all refineries processing gold from its mines in its 2015 to 2018 sustainability reports.³⁴⁰ However, in its subsequent reports (2019, 2020, 2021),³⁴¹ it no longer mentions this information; these reports only state that the group's gold is transported to refineries certified to LBMA and RMI standards. Asked about this surprising change and sudden opacity, Newmont explained: "Our contract format changed with our refining partners following the 2018 Annual Sustainability Report (ASR) which

required, in most cases, express consent from the refining partner to release their name. Since that time, we have not had any inquiries related to our refining partners and have not requested consent from them to release their names (hence they were not listed in the ASR)."342 The company added: "Our current contracts, in most cases, require Newmont to request approval prior to publishing our business relationship."343 SWISSAID insisted that the mining company should contact MKS PAMP and ask for its consent to confirm the business relationships. The Canadian mining company confirmed that it had contacted the Geneva-based company.344 After several reminders, Newmont finally replied: "Our current contractual arrangements do not allow us to disclose our refining partners."345 This response suggests that MKS PAMP objected to Newmont's request. However, the Canadian miner seems to want to avoid this lack of transparency in the future and assures that: "We will be revising/discussing new contracts as they come due to ensure we are able to disclose our refining partners as we move forward."346

Kinross also refused to confirm to SWISSAID the names of the refineries with which it has a business relationship. In its 2021 annual report, the Canadian mining company simply mentions that the refineries processing gold from its mines are located in Canada, Switzerland, Russia, India and the USA.³⁴⁷ In its 2021

"Following your reminder, we have reached out to them, and they have not given us permission to disclose their identity." sustainability report, it states that it only works with LBMA-certified refineries.³⁴⁸ It is therefore clear that Kinross sends some of its gold to MMTC-PAMP, as it is the only refinery in India certified to this standard. When asked why it does not disclose the names of its partner

refineries, Kinross simply replied: "we do not disclose our refinery relationships",³⁴⁹ without giving an explanation. In response to further questions, Kinross indicated that gold from the Tasiast mine in Mauritania has never been sent to Turkey or Swaziland (thereby claiming that the Mauritania EITI 2019 report contains an error on this point).³⁵⁰ Perseus Mining also refused to confirm its business relationships with refineries. Asked why, the Australian mining company replied: "we are under confidentiality obligations under our agreement with our refiner."³⁵¹ It added: "Following your reminder, we have reached out to them, and they have not given us permission to disclose their identity."³⁵² According to SWISSAID's information, it was again MKS PAMP that did not give permission for the mining company to confirm its business relationship.

Allied Gold Corp was also among the companies that refused to confirm the names of the refineries processing gold from its mines. When asked why, it simply replied "we are a private company and don't disclose information publicly."³⁵³

Mining companies that refused to respond

Of the 32 mining companies contacted, six refused to answer SWISSAID's questions. These are Midroc, Xtra-Gold, Nguvu Holdings, Goldstone Resources, Stamigold and Tietto Minerals. They have been contacted on numerous occasions and through various means. SWISSAID is able to prove that the information was received by those concerned, who therefore deliberately refused to respond. None of these six companies publishes information on their business relationships with refineries.

C. Other sources of information on business relationships

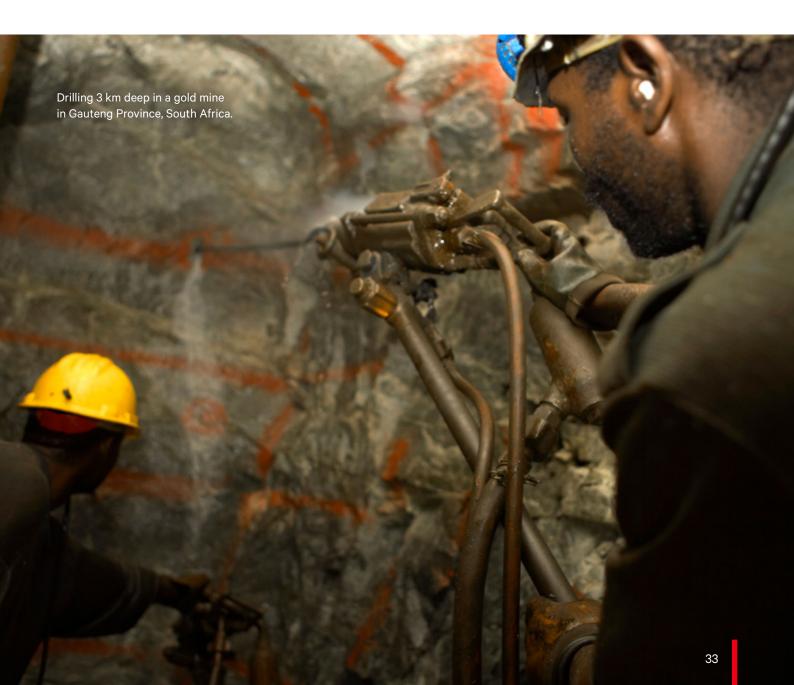
Reports from mining companies and gold refineries are not the only sources of information on the business relationships of these two types of companies. Others include national customs statistics and Extractive Industries Transparency Initiative (EITI) reports.

Detailed national customs statistics can be accessed through paid databases. SWISSAID has had access to export statistics from several African countries where industrial mines have been identified, in particular from Botswana, Côte d'Ivoire, Ghana, Tanzania, Ethiopia and Nigeria. SWISSAID also had access to import statistics from India. The years available and the level of detail of these national statistics vary from country to country.

In some EITI member countries, detailed data on gold exports is available in the reports published by the EITI national chapter. These reports sometimes indicate the quantities exported by each individual mine and the names of the refineries that process that gold. This applies to the following reports: EITI Guinea 2018,³⁵⁴ EITI Mali 2016,³⁵⁵ EITI Burkina Faso 2012,³⁵⁶ EITI Mauritania 2013³⁵⁷ and EITI Niger 2019.³⁵⁸

Detailed national customs statistics can be accessed through paid databases. However, the EITI does not require the publication of this type of information. Indeed, according to requirement 3.3 of the 2019 EITI Standard, "Implementing countries must disclose

timely export data, including export volumes and the value by commodity. This data could be further disaggregated by region, company or project, and include sources and the methods for calculating export volumes and values."³⁵⁹ Implementing countries are thus free to choose the level of disaggregation of the information they publish. SWISSAID has found that some EITI national chapters that have disclosed relationships between mines and refineries in the past have subsequently ceased to do so, indicating a decline in transparency of information. SWISSAID also found information on the business relationship between African industrial mines and the refineries that process their gold from other sources: reports from chambers of mines (e.g. Namibia's),³⁶⁰ press articles,³⁶¹ NGO reports,³⁶² a report from the International Cyanide Management Institute,³⁶³ a report from USAID,³⁶⁴ and an OECD report.³⁶⁵



8. ANALYSIS OF THE CONSISTENCY OF TRANSPARENCY PRACTICES

The results of the study show that the level of transparency varies greatly from company to company. Among refineries, six companies confirmed their business relationships while seven refused to do so and three deliberately refused to answer. Amongst mining companies, 12 publicly disclose their business relationships with refineries, 15 companies confirmed previously identified relationships, four companies refused to confirm them and six companies deliberately refused to reply. It should be noted that some refineries (Metalor, PX Precinox) and some mining companies (Managem, Maris Group, Galane Gold, Caracal Gold and First Quantum Minerals)

Why do some companies refuse to confirm their business relationships while their competitors publish this type of information on their side? revealed the names of partners that had not been previously identified by SWISSAID. These different positions, ranging from total transparency to total opacity, raise questions. Why do some companies refuse to confirm their business relationships while this

information is already in the public domain, their competitors publish this type of information on their side, or the parties with whom they are under contract disclose it? This chapter analyses the inherent contradictions in the positions expressed by the companies included in this study.

Refusal to confirm a business relationship in the public domain

Some refineries and mining companies refuse to confirm their business relationships despite the fact that information about them is already in the public domain. This is the case, for example, of the business relationship between MKS PAMP and the Tasiast mine, owned by Kinross. Although it is mentioned in the 2013 Mauritania EITI report,³⁶⁶ both parties refuse to confirm it. The same is true of the Argor-Heraeus and Rand Refinery refineries, some of whose business relationships are mentioned in the Mali 2016³⁶⁷ and Guinea 2018³⁶⁸ EITI reports.

Business relationships involving the mining companies Allied Gold Corp and Perseus Mining (Côte d'Ivoire) as well as the refineries Argor-Heraeus (Tanzania, Ethiopia), Rand Refinery (Botswana, Ghana, Côte d'Ivoire) and MKS PAMP (Côte d'Ivoire) also appear in national customs statistics, which are accessible via paid databases.³⁶⁹ Yet these companies refuse to confirm them. Moreover, India is one of the few countries with an LBMA-certified refinery (MMTC-PAMP) where detailed customs statistics are available. SWISSAID sought to find out why MKS PAMP presents information that is relatively easy to access as "confidential", but the refinery evaded the question: "We cannot comment on the publication of imports into India."³⁷⁰

Refusal to confirm a business relationship while competitors do it

How can we explain the refusal of some refineries to confirm their business relationships while some of their competitors, active in the same market and responding to the same calls for tender from mining companies, agree to do so? The case of the Yanfolila mine, operated by Hummingbird Resources, is revealing. While gold from this mine is refined by Metalor, Argor-Heraeus and Rand Refinery,³⁷¹ only Metalor has agreed to confirm that it refines this gold.³⁷² The case of the mines owned by Perseus Mining is also telling. The Perth Mint has confirmed to SWISSAID that it imported gold from the Australian mining company's three mines (Edikan, Sissingué and Yaouré) until April 2022.373 While the MKS PAMP group is now refining gold from these same three mines, it refuses to confirm these business relationships. When asked about the differences between the positions of the two refineries, the Perseus Mining representative replied: "I don't know the answer to your question. All I can say is that obviously different refiners take a different approach."374

SWISSAID asked refineries that refuse to confirm their business relationships, while some of their competitors agree to do so, to explain the reasons for this. Argor-Heraeus dodged the question by referring to its previous responses.³⁷⁵ Rand Refinery replied: "We cannot comment on our competitors and their disclosure to you and what confidentiality clauses they are (or are not) bound by."³⁷⁶ The representative from Asahi Refinery Canada replied in the same vein: "I can't speak for other refiners who may or may not have confidentiality clauses in their contracts."³⁷⁷

The positions of some mining companies raise the same questions as those of some refineries. Why does a mining company refuse to confirm the names of the refineries that process its gold while most of its competitors do? The cases of the Tasiast mine in Mauritania and the Agabou mine in Côte d'Ivoire are particularly interesting. At the time when these mines were operated by Red Back Mining (Tasiast) and Endeavour Mining (Agbaou) respectively, these mining companies published the names of their partner refineries.³⁷⁸ When these mines were taken over by Kinross and Allied Gold Corp respectively, the information about these same business relationships was not available anymore, as these mining companies did not publish it. In these particular cases, the relationships between the mines and their partner refineries were already known and it is difficult to understand why the mining companies that took over these mines did not adopt the same transparency practices as their predecessors.

Refusal to confirm a business relationship while the partner discloses the information

The results of this study show that the majority of mining companies publish or confirm their business rela-

The majority of mining companies publish or confirm their business relationships with refineries, whereas the majority of refineries do not. tionships with refineries, whereas the majority of refineries do not. How is this possible? How can it be that a contract signed between a mining company and a refinery, which includes confidentiality clauses, can be applied differently by each party?

When asked by SWISSAID about contract confidentiality, Asahi Refining Canada replied: "We have had confidentiality clauses in our contracts since at least 2016 and we respect them at all times and in all cases. We would have to seek permission from individual clients before discussing details with any third party."379 The Canadian refinery confirmed that the confidentiality clauses in its contracts apply to both signatory parties. Does this mean that the Centamin mining group is not respecting this clause when it discloses its business relationship with the Canadian refinery? When asked about this, the representative from Asahi Refining Canada replied: "That's not for me to comment. You would have to speak to Centamin. From our understanding we are only mentioned in their 2020 Modern Slavery Statement."380 Actually, Asahi Refining Canada is also mentioned in Centamin's 2021 Annual Report³⁸¹ and the mining company has confirmed this business relationship to SWISSAID.382

Argor-Heraeus has refused to confirm its business relationships with Robex, Shanta Gold and TRX Gold Corp. All three mining companies publicly mention their business relationships with the Ticino refinery³⁸³ and two of them (Robex and Shanta Gold) have also confirmed them to SWISSAID.³⁸⁴ When asked about its refusal, Argor-Heraeus replied that it did not share SWISSAID's observation that these three mining companies mention the information publicly.³⁸⁵ This response suggests that the Ticino refinery is not aware that it is mentioned in the publications of these mining companies. In its response to SWISSAID, Argor-Heraeus further clarified: "We have existing NDA clauses and we have to honour our contracts."386 Does this mean that Robex, Shanta Gold and TRX Gold Corp are not respecting these non-disclosure agreements? The Ticino refinery did not answer this specific question. Following the reasoning of Argor-Heraeus, SWISSAID asked why it would not abandon the confidentiality clauses in its contracts in order to disclose its business relationships. The answer was: "We operate in a competitive market environment."³⁸⁷ The argument is unconvincing when one considers that some of its competitors and the majority of mining companies publish or confirm their business relationships.

Rand Refinery has confirmed to SWISSAID that its commercial contracts contain confidentiality clauses. In an email to SWISSAID, the South African refinery showed the content of these clauses.³⁸⁸ The latter state that the information in the contract is confidential, but that the contracting parties may be compelled to disclose it, for example, by state institutions or regulatory bodies. However, this information can only be disclosed to a third party with the consent of the other contracting party. Rand Refinery has indicated that it provides information about its contracts to the LBMA and other regulatory authorities. However, it refuses to confirm its business relationships publicly. Several mining companies, including AngloGold Ashanti, Barrick, B2 Gold, Sibanye-Stillwater, Harmony, Gold Fields and Pan African Resources have confirmed to SWISSAID or publicly disclosed their business relationships with the South African refinery.³⁸⁹ Rand Refinery explains this difference in practice by the fact that these mining companies are listed on the stock exchange and are obliged to publish information about their contracts in their securities filings for the benefit of investors.³⁹⁰ According to Rand Refinery, "these entities can therefore disclose that they have a contractual relationship with Rand Refinery."391 Although some of these mining companies may be required to disclose that they are shareholders in Rand Refinery, they are under no obligation to disclose their contractual relationship with respect to the refining of gold from their mines, as they explained in their responses to SWISSAID (see Part 7, p. 30). Rand Refinery's argument is therefore difficult to understand. On the basis of its contracts, the South African refinery could also have asked these mining companies whether it could disclose its business relationships. They would have been unlikely to refuse as they have already confirmed or publicly disclosed the same information. The South African refinery was

also keen to point out that it had offered to sign a non-disclosure agreement with SWISSAID and that it is "a mine-owned refinery that serves the African mining industry."³⁹²

When asked by SWISSAID about the confidentiality of the contracts, MKS PAMP replied: "Our standard contract provides for a mutual obligation of confidentiality. The contract with each mine is the result of negotiations on a case-by-case basis and may therefore be subject to adaptations of our standard contract."³⁹³ This response suggests that not all contracts involving the Geneva-based company have the same confidentiality clauses.

This mutual obligation of confidentiality does not seem to apply to the business relationships between MKS PAMP and Gold Fields, Barrick, Avesoro or West African Resources. Indeed, these mining companies have publicly mentioned or confirmed to SWISSAID their business relationships with MKS PAMP.³⁹⁴ One would therefore expect the latter to agree to publicly acknowledge them and yet it does not do so.

In some cases, however, MKS PAMP appears to have succeeded in imposing this mutual confidentiality obligation on its partners. Indeed, mining companies Perseus Mining, Newmont and Kinross have refused to confirm to SWISSAID that they export gold to MKS PAMP.³⁹⁵ Two of them (Perseus Mining and Newmont) told SWISSAID that they had requested permission from the refinery, but to no avail.³⁹⁶ When asked why they had not authorised these mining companies to mention this information, the Geneva-based company reiterated that it was "contractually committed not to disclose the existence or content of a commercial relationship".397 These revealing cases suggest that it is MKS PAMP which insists on confidentiality clauses and on their respect by its partners, and therefore that it is MKS PAMP which imposes the opacity of its business relationships.

There are also cases where the refinery confirms the business relationship while the mining company refuses to do so. These, however, represent a small minority. These are, among others, Xtra-Gold, Goldstone Resources, Nguvu Holdings and Allied Gold Corp who refused to confirm their business relationship with Metalor while the latter confirmed it.³⁹⁸

Inconsistent application of confidentiality

The position of some mining groups is not entirely consistent, as illustrated by the case of Perseus Mining. The Australian mining company refused to confirm its business relationships with its refinery partners, explaining: "We are under confidentiality obligations under our agreement with our refiner."³⁹⁹ However, these confidentiality obligations do not appear to apply to its Edikan mine in Ghana. Indeed, the NI 43-101 Technical Report for this mine, dated 2022, states: "Refining contracts are in place with MKS PAMP Group and the Perth Mint Refinery."⁴⁰⁰ Why is the Edikan mine an exception to the Perseus Mining confidentiality rule?

The confidentiality policy of some refineries also appears not to apply to all their business relationships. For example, Rand Refinery has acknowledged that it ended its sourcing from Zimbabwe's Fidelity Gold Refinery (FGR) in 2020.401 Argor-Heraeus has confirmed that it ended its business relationship with the Central Bank of Ethiopia in 2020.402 Although the latter example does not involve an industrial mine, it is particularly interesting because business relationships between refineries and central banks are considered highly confidential. For its part, MKS PAMP has confirmed that it had stopped importing gold from Nordgold's mines in Burkina Faso (Taparko-Bouroum and Bissa-Bouly) and Guinea (Lefa) in March 2022.403 In addition, MKS PAMP is one of the only refineries to mention its sourcing from an industrial mine, namely North Mara in Tanzania, in its LBMA compliance report.⁴⁰⁴

SWISSAID asked Argor-Heraeus, MKS PAMP and Rand Refinery why their privacy policies do not apply to some of their business relationships, citing the above-mentioned examples. Argor-Heraeus dodged the question by referring to its previous responses.405 Rand Refinery responded: "there were a few erroneous media articles in the Zimbabwean press wrongly claiming that Rand Refinery was refining material from Zimbabwe. Rand Refinery chose to engage with Fidelity and the Zimbabwe Reserve Bank and rebut these incorrect articles. In this regard we agreed with these parties to publicly disclose that we had disengaged from Fidelity. What we disclosed to you was already in the public domain."406 For its part, MKS PAMP responded in relation to the North Mara mine that "this publication is required under the applicable LBMA rules, and we therefore had to specifically obtain the mine's permission to publish this information."407 SWISSAID finds this explanation unconvincing. Indeed, the LBMA Disclosure Guidance explicitly states that in the case of mitigation measures for industrial gold mines in high-risk countries, "refiners do not have to disclose the names of their

counterparties."⁴⁰⁸ Furthermore, RGG 9 of the LBMA requires refineries to disclose their risk mitigation strategies but only in general terms and not at the level of individual mines.⁴⁰⁹ If this requirement applied at the individual mine level and refineries performed their due diligence in a robust manner, LBMA refinery compliance reports would contain the names of many mines. But this is not the case.

So why do these refineries only talk about some of their business relationships and not all of them, as some of their competitors do? The answer may lie in the reputational risks associated with these business relationships. Indeed, the relationships on which these three refineries express themselves have in common that they can be described as sensitive.

The supply of artisanal gold from the Central Bank of Ethiopia became problematic with the onset of the civil war in the Tigray region in 2020. It was therefore in the interest of Argor-Heraeus to confirm to SWISSAID that it had ended this business relationship. Similarly, any business relationship with Russian mining company Nordgold has become problematic since the invasion of Ukraine by Russian armed forces in February 2022. MKS PAMP therefore had an interest in publicly acknowledging that it had ended its relationship with Nordgold, especially as Nordgold displayed its business relationships publicly. In the case of Barrick's North Mara mine, several journalistic investigations⁴¹⁰ and the NGO RAID⁴¹¹ have highlighted human rights and environmental abuses. As the business relationship between this mine and the MMTC-PAMP refinery had been identified, RAID asked the LBMA to suspend the refinery,412 which the London-based organisation refused to do.413 In response to these accusations, MMTC-PAMP publicly explained the various steps it had taken in its LBMA compliance report.414

In the case of Fidelity Gold Refinery, it is the human rights abuses in the Zimbabwean gold sector that appear to have been the problem. Gold-related attacks by armed gangs, resulting in several hundred deaths, have been documented.415 FGR, acting under a mandate from the Reserve Bank of Zimbabwe, has a monopoly on the purchase of mining gold (artisanal and industrial) produced in Zimbabwe. As explained in a report by the United Nations Industrial Development Organisation and the Global Initiative against Transnational Organized Crime, FGR's no-questionsasked purchasing policy⁴¹⁶ aimed at formalising the sector means that illegal gold can be refined by FGR.⁴¹⁷ To avoid being associated with this, Rand Refinery probably had an interest in publicly confirming the termination of its business relationship, especially as there were reports that the relationship was still ongoing, as noted by the South African refinery.⁴¹⁸ Rand Refinery told SWISSAID: "we followed step 3 of the LBMA's responsible gold guidance and our risk committee took the decision to disengage from Fidelity."⁴¹⁹

These examples show that these refineries no longer hide behind the argument of confidentiality when they

find themselves openly involved in business relations with a heavily criticised company or a mine where problems have been raised. Does this mean that some refineries are waiting until they are confronted with problematic business relationships to be more transparent and accountable?

Does this mean that some refineries are waiting until they are confronted with problematic business relationships to be more transparent and accountable?

The confidentiality, security and competition arguments that mining companies and refineries use to refuse to talk about their business relationships do not stand up to analysis. The justifications of these companies contain many contradictions and the confidentiality they seek to protect is often variable. This only reinforces doubts about the reasons they give for keeping their business relationships confidential. It is therefore worth asking: What if the real reason for the opacity of business relationships is the desire not to be associated with problems in the mines or with companies on which aspersions have been cast?

9. NEED FOR TRANSPARENCY

Transparency in the business relationship between mining companies and refineries is essential. It strengthens the accountability of the gold industry and encourages companies to take action against a range of problems associated with industrial mining, including human rights abuses, environmental degradation, illicit financial flows, corruption and tax evasion.

In this study, SWISSAID did not attempt to identify all the problems associated with each of the 125 industrial gold mines in Africa. This would have required a major survey at the individual mine level. However, a simple literature search provides an overview of the nature and extent of the negative impacts of many mines.

SWISSAID found serious problems with the majority of the 125 industrial mines identified. These cases, which occurred during the study period (2015–2023),

SWISSAID found serious problems with the majority of the 125 industrial mines identified. were found in reports from civil society organisations, reports from international organisations, journalistic investigations and scientific studies. In this report, SWISSAID has confined itself to referencing these sources in a general way (see Appendix, p. 62). It has not directly associated the problems identified

with the mines with the mining companies operating them or the refineries processing the gold extracted from them. There are several reasons for this choice. The first relates to the differences in information density, methodological rigour and quality of analysis between the sources consulted by SWISSAID. In addition, the number of cases recorded is not exhaustive; some mines have been analysed more rigorously than others and it seems clear that only a portion of violations have been documented. Another reason is that refineries having confirmed their business relationships would be at a disadvantage compared to those that have refused to do so, as they would have to respond to the allegations. That would go against the spirit of this study, which is to encourage companies to be more transparent.

The following problems were identified in the industrial mines covered in this report:

- Environmental damage
 - The release of fine particles has led to air pollution.
 - Land pollution caused by the use of cyanide, arsenic and lead has had a negative impact on the quality and quantity of agricultural and cereal production, leading to or increasing food insecurity.
 - Contamination of ground and surface water has deprived people of access to drinking water.
- Damage to the health of local populations
 - Exposed to various types of pollution, people have developed illnesses and diseases (e.g. skin irritations, cancer, convulsions, headaches).
- Injuries and deaths of mine workers
 - The lack of respect for workers' rights and violations of health and safety regulations (e.g. collapse in the mine, exposure to chemicals, working without protective equipment) have resulted in several fatalities and serious illnesses among workers.

Land expropriation and forced displacement

 Local populations have been dispossessed of their land and could no longer carry out their livestock, agricultural or gold digging activities. They have thus lost their main sources of income.

Compensation issues

- Compensation offered has not been commensurate with the damage caused, particularly in the case of loss of livelihoods, forced resettlement or destruction of homes.
- Mining companies have not kept their promises and people have not been compensated as agreed.

- · Corruption and tax fraud
 - Mining companies have made false statements in order to pay less tax.
 - Several companies mentioned in this report have been implicated in the Panama Papers scandal.
- Rape and sexual assault
 - Security guards at the mine have committed rape and sexual assault on the local population.
- Murders
 - Mine security guards or police have been implicated in killings. Although the mining company sometimes blames these abuses on the local police, the latter are sometimes supported financially or materially (fuel, accommodation, meals) by the mining company to protect the mine site. The victims are often gold miners who have been dispossessed of their land and livelihoods. There are also cases where looters or illegal gold diggers have died within the perimeter of the mine following the intervention of the police.

• Attacks and threats against journalists and human rights defenders investigating problems in the mines.

SWISSAID's findings on the problems associated with these gold mines are reminiscent of the more general findings of a report by the Responsible Mining Foundation.⁴²⁰ The vast majority of mining groups are unaware of, and often deny, the harmful effects of their operations. They are all too often negligent in preventing harm and fail to take the necessary steps to remedy the problems posed by their mines. Complaint and grievance mechanisms are rarely functional and few mining companies disclose information about the problems raised. This makes it very difficult for those exposed to harm to have their voices heard and to obtain redress.

In a few cases, local people who have suffered human rights abuses or environmental degradation have taken legal action against the mining company operating the incriminated mine or against the bank financing its operations. In other cases, the government has fined the mining company for non-compliance with environmental standards or for tax evasion. There have even been cases where a government has ordered the cessation of mining operations because of excessive pollution problems. However, these cases are rare. The regulatory framework in many African gold-producing countries is insufficient to prevent or ensure compensation for damages caused by mining operations. In addition, several African states have shares in mines and are therefore directly responsible for the damage caused by them.

In the face of the negligence of many mining companies and the inaction of many producer states, refineries play a central role. They know the origin of the industrial gold they refine, but their intervention makes this origin impossible to trace physically. As Mark Pieth, author of

a seminal book on the global gold market, explains, they are the gatekeepers of a responsible supply chain.⁴²¹ The Federal Council has explicitly recognised this: "Their

The refineries are the "gatekeepers" of a responsible supply chain.

influential position in the production chain gives them a role in addressing human rights abuses."⁴²² The OECD's Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas⁴²³ and the LBMA's Responsible Gold Guidance (RGG)⁴²⁴ require refineries to exercise due diligence by identifying risks and taking the necessary steps to prevent them and mitigate their negative impacts. However, in many cases, refineries do not perform their due diligence effectively, particularly because they do not meet all the requirements of steps 2 (identify and assess risks) and 3 (respond to risks) of the OECD Guidance.

The level of information that LBMA refineries have to disclose is clearly insufficient. According to the requirements of RGG 9, they must disclose identified risks or risk mitigation strategies in general, but not in relation to individual mines. In the face of problems at many of the industrial mines from which they source their gold, this lack of transparency is particularly problematic and does not ensure the effectiveness of their due diligence. Indeed, the more transparently a refinery communicates the risks identified and the mitigation measures taken against its suppliers, the less likely it is to be accused of breaches of due diligence and allegations of involvement in human rights and environmental abuses. The LBMA's Disclosure Guidance, most recently issued in November 2022, rightly states that refineries should take a proactive approach to disclosure.425 It also encourages refineries to make ongoing disclosures in addition to the information published in compliance reports.

The LBMA's Disclosure Guidance contains several other interesting elements. It states, for example, that "Refiners may choose to disclose Country of Origin data voluntarily in the annual reporting to provide transparency on worldwide gold supply chains and generate confidence amongst stakeholders"⁴²⁶ and that "Precious metals Refiners are encouraged to disclose on payments to governments if they directly buy mined gold from SOEs [state-owned enterprises] operating in EITI member countries."⁴²⁷ However, these recommendations and voluntary disclosures need to become obligations so that all refineries disclose the same type of information. Refineries should also be required to disclose not only the countries from which they source, but also the names of their suppliers.

The refineries and the LBMA do not meet some of the requirements of Step 5 (publish a due diligence report) of the OECD Guidance. The LBMA publishes the list of countries of origin of gold processed by its refineries in its Responsible Sourcing Reports but aggregates the information about the refineries in order to "protect confidentiality".⁴²⁸ However, such confidentiality is not justified. This study shows that a significant number of mining companies already pub-

Much of the information that the LBMA anonymises is already in the public domain. lish the names of their partner refineries and that some refineries confirm their supplies from industrial mines. Therefore, much of the information that the LBMA anonymises is already in the public domain and the pre-

cautions it takes are unnecessary. In so doing, the LBMA not only sides with non-transparent refineries, but also fails to comply with some of the requirements of Step 5 of the OECD Guidance. These state, among other things, that "the identity of the refiner and the local exporter located in red flag locations should always be disclosed."⁴²⁹ Many industrial gold mines in Africa are located in such "red flag locations" and the OECD has confirmed to SWISSAID that the disclosure obligation implies public communication.⁴³⁰ Version 9 of the LBMA's RGG mentions this OECD requirement but specifies that the information related to this requirement does not have to be published by the refineries but simply transmitted to the LBMA.⁴³¹ Following the consultation on RGG 9 with stakeholders, the London-based association acknowledged that its standard would not be fully aligned with the OECD Guidance and expressly postponed such alignment: "Future versions of the RGG will focus on fuller public disclosure, with the ultimate intention to provide the full list of information as provided under the gold supplement of the OECD Due Diligence Guidance."⁴³² The LBMA's position to delay the inclusion of this requirement is difficult to understand. It is notably likely to make it more difficult for the European Conflict Minerals Regulation to recognise its standard, a request that the LBMA has made to the European Commission.⁴³³

Despite the nine versions of its standard and the tightening of requirements, it is clear that the LBMA still has a long way to go to truly "protect the integrity of the global supply chain for the wholesale precious metals markets",⁴³⁴ as it claims to do.

Gold ingots from a Swiss refinery.



10. RECOMMENDATIONS

To the refineries

- Disclose the names of all mines from which they source and the quantities of fine gold involved in their annual compliance report.
- Comply with all the requirements of the OECD Guidance, in particular steps 2 (identify and assess risks), 3 (respond to risks) and 5 (publish a due diligence report), by including the measures taken to address these for each mine where they source and where there are problems in their annual compliance report.

2

1

To the mining companies

- Disclose the names of the refineries that process gold from each of their mines on their website and indicate the quantities of gold exported to each of these refineries in their annual report.
- Comply with the UN Guiding Principles on Business and Human Rights, the OECD Guidelines for Multinational Enterprises, EITI standards, the Voluntary Principles on Security and Human Rights, the International Cyanide Management Code, ISO 45001 (health and safety) and ISO 14001 (environment), and the core conventions of the International Labour Organisation (ILO).
- Have their mines certified to the Initiative for Responsible Mining Assurance (IRMA), a particularly demanding standard.

To the LBMA

- Revise its Responsible Gold Guidance (RGG, currently version 9) so that it is fully aligned with the OECD Guidance. The RGG should require LBMA refineries to publish the names of all mines from which they source and the quantities of fine gold involved in their compliance report. It should also require refineries to include, the specific measures implemented to address the problems associated with each mine from which they source in their annual compliance report. The LBMA is responsible for monitoring that member refineries comply with and implement all the requirements of the OECD Guidelines.
- Publish the names of the mines from which each member refinery is sourcing and the quantities of fine gold involved in its Responsible Sourcing Report.

To the WGC

- Require its mining companies to disclose the names of the refineries processing gold from each of their mines and the quantities of gold sent to each of these refineries.
- Ensure that mining companies comply with the UN Guiding Principles on Business and Human Rights, the OECD Guidelines for Multinational Enterprises, EITI standards, the Voluntary Principles on Security and Human Rights, the International Cyanide Management Code, ISO 45001 (health and safety) and ISO 14001 (environment), and the ILO core conventions.
- Revise the Responsible Gold Mining Principles to include all requirements of the Initiative for Responsible Mining Assurance (IRMA), a particularly demanding standard.

3

4

7

8

To the EITI

- Revise requirement 3.3 of the 2019 EITI Standard to include a requirement to publish the quantities of gold exported by each mine and to provide the names of the refineries that process this gold.
- Revise requirement 4.2.c of the 2019 EITI Standard to include a requirement for companies, particularly refineries, that purchase mineral resources to "disclose the volumes of products they acquire and the amounts they pay to the state or state-owned enterprises for their purchases of mineral resources".

6

5

To the governments of the countries where the mining companies are based

- Revise disclosure standards for publicly listed mining companies, in particular the Securities and Exchange Commission (US) forms, the Standards and Disclosure for Mineral Projects (Canada), the Joint Ore Reserve Committee Code (Australia) and the South African Code for the Reporting of Mineral Resources and Mineral Reserves (South Africa), to require mining companies to publish the names of their refinery partners in the technical reports of their active mines.
- Adopt legislation obliging mining companies to respect human rights and international environmental standards in their overseas operations and containing a mechanism for sanctions in case of violation.

To the governments of the countries where the refineries are based (international bullion centres)

- Revise their legislation on the control and trade of precious metals so that it is aligned with the OECD Guidelines and includes a mandatory human rights and environmental due diligence and penalty regime for violations. Authorities should ensure compliance with these requirements by conducting annual audits of refineries and publishing audit reports.
- Require refineries in their territory to disclose the names of all mines from which they source and the quantities of fine gold involved.

To the governments of the countries where gold mines are located

 Implement the UN Guiding Principles on Business and Human Rights, in particular Pillar 1 ("the existing obligations of States to respect, protect and fulfil human rights and fundamental freedoms") and Pillar 3 ("the need for rights and obligations to be accompanied by appropriate and effective remedies for violations").

11. ENDNOTES

- 1 LBMA, Sustainability and Responsible Sourcing Report 2022, https://www.lbma.org.uk/responsible-sourcing.
- 2 Refineries do not consider them to be suppliers but clients, as in most cases they do not buy the gold but simply perform a refining service. In this report, however, SWISSAID is not interested in the ownership of the gold but in its origin. This is why SWISSAID uses the term 'supplier'.
- 3 At the time of writing, the Federal Supreme Court of Switzerland is addressing an appeal in this case.
- 4 Argor-Heraeus, Metalor, MKS PAMP, MMTC-PAMP, Valcambi, PX Precinox, Rand Refinery, The Perth Mint, Nadir Metal Rafineri, Italpreziosi, Ashahi Refining Canada, Fidelity Printers Refinery, Emirates Gold, Emirates Minting, Al Masqual, MTM&O (formerly Kaloti), Mwanza Precious Metals Refinery.
- 5 Endeavour Mining, AngloGold Ashanti, Barrick, Newmont, Avesoro, Kinross, Managem, Gold Fields, Perseus Mining, Shanta Gold, Galane Gold, Midroc, Hummingbird Resources, Maris Group, Blue Gold International, Firefinch, B2 Gold, First Quantum Minerals, IAMGOLD, Xtra-Gold, Nguvu Holdings, Resolute Mining, Robex Gold, West African Resources, Orezone, Fortuna Silver Mines, Goldstone Resources, Allied Gold Corp, Stamigold, Centamin, Caracal Gold and Tietto Minerals.
- 6 Law Insider, Large-scale mining definition, accessed 14 February 2023, https://www.lawinsider.com/dictionary/large-scale-mining.
- 7 OECD, OECD Guidance on Due Diligence for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, 2016, p. 69, https://www.oecd.org/daf/inv/mne/OECD-Due-Diligence-Guidance-Minerals-Edition3.pdf.
- 8 Ibid.
- 9 Barrick, Annual Report 2021, p. 30,

https://s25.q4cdn.com/322814910/files/doc_financial/annual_reports/2021/Barrick_Annual_Report_2021.pdf.
Rand Refinery, Summary version of annual report 2021, p. 2,

- https://www.randrefinery.com/wp-content/uploads/2022/05/%E2%80%A2-Rand-Refinery-Apr-Summary-2022.pdf.
- 11 Rand Refinery, Shareholding, accessed 16 January 2023, https://www.randrefinery.com/about-us/.
- 12 Rand Refinery's response to SWISSAID, 15 February 2023.
- 13 Rand Refinery's response to SWISSAID, 21 November 2022.
- 14 Rand Refinery's response to SWISSAID, 21 November 2022.
- 15 Rand Refinery's response to SWISSAID, 21 November 2022.
- 16 Rand Refinery's response to SWISSAID, 15 February 2023.
- 17 Rand Refinery, Summary version of annual report 2021, p. 2, https://www.randrefinery.com/wp-content/uploads/2022/05/%E2%80%A2-Rand-Refinery-Apr-Summary-2022.pdf.
- 18 LBMA, Alchemist, May 2021, p. 5, https://cdn.lbma.org.uk/downloads/Alchemist/PDFs/Alch101Complete-1.pdf.
- 19 Rand Refinery's response to SWISSAID, 21 November 2022.
- 20 Rand Refinery's response to SWISSAID, 21 November 2022.
- 21 FGR's response to SWISSAID, 19 October 2022.
- 22 Rand Refinery's response to SWISSAID, 21 November 2022, "At the same time as South African gold output was declining, gold production across the rest of Africa began to increase. In response, Rand Refinery changed its business model from being a Southern African gold refinery to reflect its international ambitions. In addition to almost all of South Africa's gold, gold for the refinery is now sourced from all parts of the continent and America."
- 23 Rand Refinery's response to SWISSAID, 21 November 2022.
- 24 Azo Mining, Galane Gold Ltd. Declares the Sale of Its Mupane Property, accessed 12 December 2022, https://www.azomining.com/News.aspx?newsID=16949.
- "The gold is exported as gold bars to Rand Refineries Ltd in South Africa, from where it is sold", MSA Group, Independent Technical Report on the Mupane Gold Mine, 2011, p. 15, https://www.golcondagold.com/_resources/technical-report-mupane.pdf;
 "We did sell to Rand Refinery up to 2014", email from Galane Gold to SWISSAID, 8 March 2022.
- Botswana customs statistics from 2021, obtained via a paid database;
 "We have been shipping to Rand Refinery since April 2020", Galane Gold email to SWISSAID, 8 March 2022.
- 27 "Rand Refinery is refining the gold from Tongon", email from Barrick to SWISSAID, 8 December 2022;
- Côte d'Ivoire customs statistics for the year 2021, obtained via a paid database.
- 28 "Gold sales contract is in-place with Rand Refinery in South Africa", "All gold from Wassa is shipped to a South African gold refinery under a long-term sales contract", Golden Star Resources, Technical Report on the Wassa Gold Mine, 2021, p. 227, http://s1.q4cdn.com/789791377/files/doc_downloads/2021/02/LON-TSX-REP-Wassa-Dec2020-NI43-101-Tech-Report-DRAFT-v20210301-(final)-CONFORMED.pdf; Ghana Customs Statistics for the years 2017, 2018 and 2021, obtained via a paid database.

- 29 "[Asanko Gold Mine] currently refines all gold bars produced at Rand Refinery under a two-year contract that commenced on 1 August 2019. The contract was awarded to Rand Refinery after an open tender on competitive terms", Asanko Gold Inc, Technical Report for the Asanko Gold Mine, Ghana, 2020, p. 376, http://d18rn0p25nwr6d.cloudfront.net/CIK-0001377757/b2708099-342b-43a6-a686-027d950fa55a.pdf;
 "Refined at Rand Refinery under a refining contact", Galiano Gold, Technical Report for the Asanko Gold Mine, Ghana, 2022, p. 357, https://minedocs.com/22/Asanko-TR-02282022.pdf;
 Ghana Customs Statistics for the years 2017, 2018 and 2021, obtained via a paid database; confirmed by Gold Fields to SWISSAID, 15 December 2022.
 30 Mining.com, Endeavour sells its mine in Ghana, 4 January 2018, https://www.mining.com/endeavour-sells-mine-ghana/.
 "Dore alloy (87% Au average) produced by the Nzema process plant is usually shipped to Rand Refinery (Johannesburg,
- South African Republic)"; Endeavour Mining, Technical Report, 2013, p. 11 https://s21.q4cdn.com/954147562/files/doc_downloads/technical_report/lan-Hamilton-technical-report-nzema.pdf; "Dore alloy (87% Au average) produced by Nzema process plant is shipped to Rand Refinery (Johannesburg, South Africa)", Endeavour Mining, Annual Information Form, 2015, p. 22, https://www.asx.com.au/asxpdf/20150330/pdf/42xl676j6m4nk1.pdf.
- 32 Confirmed by AngloGold Ashanti to SWISSAID, 11 November 2022; Ghana customs statistics for the years 2017, 2018, 2021, 2022, obtained via a paid database.
- 33 Blue Gold International (FGR) response to SWISSAID, 25 January 2023; Ghana customs statistics for the years 2021 and 2022, obtained via a paid database; "Rand Refinery in South Africa in the case of the Bogoso Mine", Business & Financial Times Limited, 17 February 2022, https://thebftonline.com/2022/02/17/harnessing-the-mining-sector-effectively/.
- 34 Confirmed by AngloGold Ashanti to SWISSAID, 11 November 2022.
- 35 Confirmed by AngloGold Ashanti to SWISSAID, 11 November 2022; EITI Report 2018 Guinea, December 2020, p. 86, https://eiti.org/sites/default/files/attachments/rapport_itie-guinee_2018_version_finale_signe_30122020.pdf.
- 36 Confirmed by Maris to SWISSAID, 10 November 2021.
- 37 "The gold doré was transported to the Rand Refinery in South Africa and refined," Papillon Holdings PLC (formerly Caracal Gold), Prospectus, 2021, p. 42, https://caracalgold.com/wp-content/uploads/2021/07/Prospectus-Final-19.07.21.pdf.
- 38 AngloGold Ashanti confirmed to SWISSAID that gold from this mine was refined by Rand until 2021 (when the mine was divested), 11 November 2022; EITI Report 2016 Mali, December 2018, p. 114, https://eiti.org/sites/default/files/attachments/rapport-itie-mali-2016-version-finale-03.12.2018.pdf.
- 39 "We have used three refineries: Metalor and Argor in Switzerland, and Rand in South Africa. All the gold ore produced by our mines is purchased by Auramet, who then refine this at one of those three refiners. All three refiners are used at the moment, however initially it was only Metalor and Argor in 2017", Hummingbird Resources' response to SWISSAID, 12 January 2023.
- 40 "Yes, Rand Refinery is refining the gold from Loulo-Gounkoto", email from Barrick to SWISSAID, 8 December 2022; EITI Report 2016 Mali, December 2018, p. 114,
 - https://eiti.org/sites/default/files/attachments/rapport-itie-mali-2016-version-finale-03.12.2018.pdf.
- 41 AngloGold Ashanti confirmed to SWISSAID that gold from this mine was refined by Rand until 2019 (when the mine was divested), 11 November 2022; EITI Report 2016 Mali, December 2018, p. 114, https://eiti.org/sites/default/files/attachments/rapport-itie-mali-2016-version-finale-03.12.2018.pdf.
- 42 "Firefinch is no longer funding or operating the Morila mine", Firefinch's response to SWISSAID, 30 January 2023.
- 43 AngloGold Ashanti has confirmed to SWISSAID that gold from this mine has been refined by Rand Refinery until 2020 (when the mine was handed over), 11 November 2022.
- Confirmed by B2 Gold to SWISSAID, 14 December 2022; "The gold is exported to the Rand Refinery in South Africa", B2 Gold, Otjikoto Gold Mine, Namibia, NI 43-101 Technical Report 2018, pp. 1-20, https://www.miningnewsfeed.com/reports/Otjikoto_Technical_Report_12312018.pdf.
- 45 "Navachab gold mine is an open pit mine, producing gold bullion which is refined for onward sales at the Rand Refinery in South Africa. Chamber of Mines of Namibia, 2020 Annual Review, 2021, p. 48,
 https://ohamberofmines.org.pa/wp-content/uploads/2021/07/2020-Chamber-Appual-Boview.pdf
- https://chamberofmines.org.na/wp-content/uploads/2021/07/2020-Chamber-Annual-Review.pdf.
- 46 SWISSAID interview with a stakeholder, January 2023.
- 47 Confirmed by AngloGold Ashanti to SWISSAID, 11 November 2022; "Yes, Rand Refinery is refining the gold from Kibali", email from Barrick to SWISSAID, 8 December 2022; "Gold doré produced at the Mine is shipped from site under secured conditions and sold under agreement to Rand Refinery in South Africa", Barrick, Technical Report on the Kibali Gold Mine, DRC, 2022, p. 21, https://minedocs.com/22/Barrick_Kibali_TR_12312021.pdf.

- 48 "The company sold its Twangiza mine to minority shareholder Baiyin International Investments of China", Reuters, Canadian miner Banro looking to sell Congo gold mine at discount: CEO, 7 February 2020, https://www.reuters.com/article/us-congo-mining-idCAKBN2011F9.
- "Banro refines its Twangiza gold onsite to 92% purity, and the resulting bullion is flown out to Rand Refinery in Johannesburg (South Africa)", Mthembu-Salter, OECD, 2014, p. 16, https://www.oecd.org/daf/inv/mne/Gold-Baseline-Study-2.pdf;
 "Rand Refinery refine Banro's gold production the Twangiza and Namoya mines", Tetra Tech, Capacity building for a responsible minerals trade, USAID, 2015, p. 8, https://pdf.usaid.gov/pdf_docs/PA00TFS4.pdf.
- 50 Reuters, Banro agrees sale of troubled Namoya gold mine in Congo, 23 June 2020, https://www.reuters.com/article/us-congo-mining-idUSKBN23U1T9.
- ⁵¹ "Rand Refinery refine Banro's gold production the Twangiza and Namoya mines", Tetra Tech, Capacity building for a responsible minerals trade, USAID, 2015, p. 8, https://pdf.usaid.gov/pdf_docs/PA00TFS4.pdf.
- 52 Confirmed by AngloGold Ashanti to SWISSAID, 11 November 2022; "Gold is sent to Rand Refinery in South Africa", International Cyanide Management Institute, AngloGold Ashanti Geita Gold Mine Tanzania, 2016, p. 5, https://cyanidecode.org/wp-content/uploads/2021/04/AngloGoldGeitaSAR2016_0.pdf.
- 53 "Doré produced at Sibanye-Stillwater and other SA gold mining companies, is further refined at Rand Refinery", Sibanye-Stillwater, accessed 11 January 2023,

https://www.sibanyestillwater.com/business/southern-africa/gold-operations/rand-refinery/.

54 "Doré produced at Sibanye-Stillwater and other SA gold mining companies, is further refined at Rand Refinery", Sibanye-Stillwater, accessed 11 January 2023,

https://www.sibanyestillwater.com/business/southern-africa/gold-operations/rand-refinery/.

55 "Doré produced at Sibanye-Stillwater and other SA gold mining companies, is further refined at Rand Refinery", Sibanye-Stillwater, accessed 11 January 2023,

https://www.sibanyestillwater.com/business/southern-africa/gold-operations/rand-refinery/.

- 56 "Doré produced at Sibanye-Stillwater and other SA gold mining companies, is further refined at Rand Refinery", Sibanye-Stillwater, accessed 11 January 2023,
- https://www.sibanyestillwater.com/business/southern-africa/gold-operations/rand-refinery/.
- 57 "Final product from the gravity and CIP circuits is smelted into gold bars for refining at Rand Refinery", Gold Fields, accessed 11 January 2023,

https://www.goldfields.com/south-africa-region.php; confirmed by Gold Fields to SWISSAID, 15 December 2022.

- 58 "Rand Refinery smelts, evaluates, refines and fabricates the gold we produce for investment and retail clients", Harmony, 2022 ESG report, 2022, p. 42, https://www.har.co.za/22/download/HAR-ESG22.pdf.
- 59 "Rand Refinery smelts, evaluates, refines and fabricates the gold we produce for investment and retail clients", Harmony, 2022 ESG report, 2022, p. 42, https://www.har.co.za/22/download/HAR-ESG22.pdf.
- 60 "Rand Refinery smelts, evaluates, refines and fabricates the gold we produce for investment and retail clients", Harmony, 2022 ESG report, 2022, p. 42, https://www.har.co.za/22/download/HAR-ESG22.pdf.
- 61 "Rand Refinery smelts, evaluates, refines and fabricates the gold we produce for investment and retail clients", Harmony, 2022 ESG report, 2022, p. 42, https://www.har.co.za/22/download/HAR-ESG22.pdf.
- 62 "Rand Refinery smelts, evaluates, refines and fabricates the gold we produce for investment and retail clients", Harmony, 2022 ESG report, 2022, p. 42, https://www.har.co.za/22/download/HAR-ESG22.pdf.
- 63 "Rand Refinery smelts, evaluates, refines and fabricates the gold we produce for investment and retail clients", Harmony, 2022 ESG report, 2022, p. 42, https://www.har.co.za/22/download/HAR-ESG22.pdf.
- 64 "Rand Refinery smelts, evaluates, refines and fabricates the gold we produce for investment and retail clients", Harmony, 2022 ESG report, 2022, p. 42, https://www.har.co.za/22/download/HAR-ESG22.pdf.
- 65 "Rand Refinery smelts, evaluates, refines and fabricates the gold we produce for investment and retail clients", Harmony, 2022 ESG report, 2022, p. 42, https://www.har.co.za/22/download/HAR-ESG22.pdf.
- 66 "Rand Refinery smelts, evaluates, refines and fabricates the gold we produce for investment and retail clients", Harmony, 2022 ESG report, 2022, p. 42, https://www.har.co.za/22/download/HAR-ESG22.pdf.
- 67 "Rand Refinery smelts, evaluates, refines and fabricates the gold we produce for investment and retail clients", Harmony, 2022 ESG report, 2022, p. 42, https://www.har.co.za/22/download/HAR-ESG22.pdf.
- 68 "Rand Refinery smelts, evaluates, refines and fabricates the gold we produce for investment and retail clients", Harmony, 2022 ESG report, 2022, p. 42, https://www.har.co.za/22/download/HAR-ESG22.pdf.
- 69 "Rand Refinery smelts, evaluates, refines and fabricates the gold we produce for investment and retail clients", Harmony, 2022 ESG report, 2022, p. 42, https://www.har.co.za/22/download/HAR-ESG22.pdf.

- 70 "Rand Refinery smelts, evaluates, refines and fabricates the gold we produce for investment and retail clients", Harmony, 2022 ESG report, 2022, p. 42, https://www.har.co.za/22/download/HAR-ESG22.pdf.
- "All of our gold bars are processed by Rand Refinery", Heaven-Sent Gold Group Company Limited, Global Offering, 2019, p. 9, https://minedocs.com/22/HSG-Global-Offering-2019.pdf.
- "All of our gold bars are processed by Rand Refinery", Heaven-Sent Gold Group Company Limited, Global Offering, 2019, p. 9, https://minedocs.com/22/HSG-Global-Offering-2019.pdf.
- "All gold transactions are done strictly with Rand Refinery", DRD Gold Limited, accessed 10 January 2023, https://www.drdgold.com/faqs.
- "All gold transactions are done strictly with Rand Refinery",
 DRD Gold Limited, accessed 10 January 2023, https://www.drdgold.com/faqs.
- 75 "Delivery of the gold to Rand Refinery", Pan African Resources, Integrated Annual Report, 2022, p. 172, https://www.panafricanresources.com/wp-content/uploads/Integrated-annual-report-2022.pdf.
- 76 "Delivery of the gold to Rand Refinery", Pan African Resources, Integrated Annual Report, 2022, p. 172, https://www.panafricanresources.com/wp-content/uploads/Integrated-annual-report-2022.pdf.
- 77 "Delivery of the gold to Rand Refinery", Pan African Resources, Integrated Annual Report, 2022, p. 172, https://www.panafricanresources.com/wp-content/uploads/Integrated-annual-report-2022.pdf.
- 78 Confirmed by First Quantum Minerals to SWISSAID, 3 February 2023; "First Quantum sends its gold to Rand Refinery in Germiston for refining", Sulphuric Acid on the Web, 20 June 2011, http://www.sulphuric-acid.com/sulphuric-acid-on-the-web/acid%20plants/First%20Quantum%20-%20Bwana%20Mkubwa.htm.
- "The value that the country acquires from selling its gold to Rand Refineries in South Africa",
 Zimbabwe Environmental Law Association (ZELA), 18 August 2021,
 http://zela.org/zelas-statement-on-governments-move-to-unbundle-fidelity-printers-and-refiners-fpr/;
 "We have disengaged from Zimbabwe, specifically Fidelity in 2020", Rand Refinery's response to SWISSAID, 21 November 2022.
- 80 Metalor, Press Release, 16 March 2021, https://metalor.com/wp-content/uploads/2021/03/Metalor-communique-Geoforensic-passport_16_3_2021_final-.pdf.
- LBMA, Good Delivery Current List Gold, accessed on 18 January 2023, https://www.lbma.org.uk/good-delivery/gold-current-list#%7B%22search%22%3A%22metalor%22%7D.
 The five refineries are registered as: Metalor Precious Metals (Suzhou) Limited, Metalor Technologies (Hong Kong) Ltd, Metalor Technologies SA, Metalor Technologies Singapore Pte Ltd and Metalor USA Refining Corp.
- 82 Metalor, Press Release, 16 March 2021, https://metalor.com/wp-content/uploads/2021/03/Metalor-communique-Geoforensic-passport_16_3_2021_final-.pdf.
- 83 Metalor's response to SWISSAID, 21 February 2023.
- 84 Metalor's response to SWISSAID, 18 January 2023.
- 85 Metalor's response to SWISSAID, 18 January 2023.
- 86 Azo Mining, Galane Gold Ltd. Declares the Sale of Its Mupane Property, accessed 12 December 2022, https://www.azomining.com/News.aspx?newsID=16949.
- "During the period 2015 to 2020 we sold our gold produced at Mupane at mine gate (i.e. in Botswana) to Samsung.
 I believe that they shipped the gold to Metalor but you would need to confirm with them that this is correct", email from Galane Gold to SWISSAID, 7 November 2021; confirmed by Metalor to SWISSAID, 18 January 2023.
- 88 EITI Report 2012 Burkina Faso, 2014, p. 64, https://eiti.org/sites/default/files/attachments/2012_burkina_faso_eiti_report_final.pdf; confirmed by Metalor to SWISSAID, 18 January 2023; confirmed by lamgold to SWISSAID, 20 December 2022.
- 89 Nordgold, 2018 Annual Report, 2019, p. 94, https://www.nordgold.com/upload/iblock/aef/2018-Nordgold-Annual-Report.pdf; confirmed by Metalor to SWISSAID, 18 January 2023.
- 90 "METALOR currently refines 100% of the Corporation's gold doré", Endeavour Mining, FAQ, accessed 20 December 2022, https://www.endeavourmining.com/investors/faq; confirmed by Metalor to SWISSAID, 18 January 2023.
- 91 "METALOR currently refines 100% of the Corporation's gold doré", Endeavour Mining, FAQ, accessed 20 December 2022, https://www.endeavourmining.com/investors/faq; confirmed by Metalor to SWISSAID, 18 January 2023.
- 92 Confirmed by Orezone to SWISSAID, 17 January 2023; confirmed by Metalor to SWISSAID, 18 January 2023.
- 93 "METALOR currently refines 100% of the Corporation's gold doré", Endeavour Mining, FAQ, accessed 20 December 2022: https://www.endeavourmining.com/investors/faq; confirmed by Metalor to SWISSAID, 18 January 2023.
- 94 "METALOR currently refines 100% of the Corporation's gold doré", Endeavour Mining, FAQ, accessed 20 December 2022: https://www.endeavourmining.com/investors/faq; confirmed by Metalor to SWISSAID, 18 January 2023.

- 95 "METALOR currently refines 100% of the Corporation's gold doré", Endeavour Mining, FAQ, accessed 20 December 2022: https://www.endeavourmining.com/investors/faq; confirmed by Metalor to SWISSAID, 18 January 2023.
- 96 Confirmed by Fortuna Silver to SWISSAID, 14 January 2023;
 "Refining arrangements are provided by METALOR Technologies SA", Roxgold, 2020 Annual Information Form, 2021, p. 11, https://fortunasilver.com/site/assets/files/7088/roxgold-aif-2020-v10-final.pdf;
 "Refining arrangements are provided by Metalor USA Refining Corporation and Metalor Technologies SA", SEC Report 2021, Fortuna Silver Mines, 2022, p. 20, https://www.annualreports.com/HostedData/AnnualReports/PDF/TSX_FVI_2021.pdf; confirmed by Metalor to SWISSAID, 18 January 2023.
- 97 "METALOR currently refines 100% of the Corporation's gold doré", Endeavour Mining, FAQ, accessed 20 December 2022, https://www.endeavourmining.com/investors/faq; confirmed by Metalor to SWISSAID, 18 January 2023.
- 98 "Gold output from Agbaou is in the form of gold bars which are shipped to Europe for refining byMetalor, the contract refiner", Endeavour Mining, Technical Report for the Agbaou Gold Mine, 2015, p. 6, https://s21.q4cdn.com/954147562/files/doc_downloads/technical_report/lan-Hamilton-technical-report-agbaou.pdf; confirmed by Metalor to SWISSAID, 18 January 2023; Côte d'Ivoire customs statistics from the year 2022, obtained from a paid database.
- 99 "Bonikro gold doré is refined by Metalor Technologies S.A. ("Metalor") in Switzerland", Newcrest Mining Limited, Annual Information Form, 2012, p. 28, https://www.asx.com.au/asxpdf/20120302/pdf/424s1frt12yh3l.pdf; confirmed by Metalor to SWISSAID, 18 January 2023; Côte d'Ivoire customs statistics for the year 2022, obtained via a paid database.
- 100 "The BAKKOUDOU mine in Gabon closed 4 years ago. When it was in operation, the gold from BAKKOUDOU was refined at METALOR and VALCAMBI", Managem's to SWISSAID, 8 December 2022; confirmed by Metalor to SWISSAID, 18 January 2023.
- 101 Ghana Customs statistics for the years 2017, 2018 and 2021, obtained via a paid database; "CGML entered into a refining contract with Metalor Technologies SA, on 1 March 2015. [...] The original contract was valid for a period of three years and was renewed for a second term expiring on 30 June 2021. The contract was renewed on the 1 February 2021 and is due to expire on 31 December 2023", Asante Gold Corporation, Technical Report Chirano Gold mine, 2022, p. 205, https://asantegold.com/operations/chirano-gold-mine/; confirmed by Metalor to SWISSAID, 18 January 2023.
- 102 Mining.com, Endeavour sells its mine in Ghana, 4 January 2018, https://www.mining.com/endeavour-sells-mine-ghana/.
- 103 Ghana customs statistics from 2017 and 2018, obtained via a paid database. Confirmed by Metalor to SWISSAID, 18 January 2023.
- 104 Ghana customs statistics for the years 2017, 2018 and 2021, obtained via a paid database; confirmed by Metalor to SWISSAID, 18 January 2023.
- 105 Confirmed by Metalor to SWISSAID, 18 January 2023.
- 106 Confirmed by Metalor to SWISSAID, 18 January 2023; "VALCAMBI and METALOR refine TRIK's gold in their refinery in Switzerland", reply from Managem to SWISSAID, 8 December 2022.
- EITI Report 2016 Mali, December 2018, p. 114, https://eiti.org/sites/default/files/attachments/rapport-itie-mali-2016-version-finale-03.12.2018.pdf;
 "The gold, in the form of doré bars, is refined into bullion by Metalor Technologies SA", Endeavour Mining, 2018 Sustainability Report, p. 29, https://www.endeavourmining.com/sites/endeavour-mining-v2/files/ endeavour-mining/media/reports-and-fact-sheets/2019-endeavour-sustainability-report.pdf;
 "Metalor does not have a direct commercial relationship with these mines (Yanfolila and Tabakoto) but with traders who supply Metalor with gold from these mines", Metalor's response to SWISSAID, 18 January 2023.
- 108 "The doré is exported to the Metalor refinery in Switzerland", B2 Gold, Technical Report Fekola Gold Mine, pp. 1-21, 2019, https://minedocs.com/20/Fekola_TR_03202020.pdf;
- confirmed by Metalor to SWISSAID, 18 January 2023; confirmed by B2 Gold to SWISSAID, 14 December 2022.
- 109 "We have used three refineries: Metalor and Argor in Switzerland, and Rand in South Africa." "All the gold ore produced by our mines is purchased by Auramet, who then refine this at one of those three refiners. All three refiners are used at the moment, however initially it was only Metalor and Argor in 2017", Hummingbird Resources response to SWISSAID, 12 January 2023; "Metalor supplied their refinery terms and conditions which provided cost and payment terms for doré product used in working capital calculations", Hummingbird Resources, Optimization Study Report for the Yanfolila Gold Project, Mali, 2015, p. 151, https://www.miningdataonline.com/reports/Yanfolila%20Gold%20Project_TR_2015.pdf; "Metalor does not have a direct commercial relationship with these mines (Yanfolila and Tabakoto) but with traders who supply Metalor with gold from these mines", Metalor's response to SWISSAID, 18 January 2023.
- 110 Confirmed by Metalor to SWISSAID, 10 January 2022.
- 111 Nigerian customs statistics from 2022, obtained via a paid database; confirmed by Metalor to SWISSAID, 18 January 2023.

- 112 Confirmed by Metalor to SWISSAID, 18 January 2023.
- 113 "METALOR currently refines 100% of the Corporation's gold doré", Endeavour Mining, FAQ, accessed 20 December 2022: https://www.endeavourmining.com/investors/faq; confirmed by Metalor to SWISSAID, 18 January 2023.
- 114 MKS PAMP, MKS (Switzerland) SA and PAMP SA become One, 30 November 2021, https://www.mkspamp.com/mks-switzerland-sa-and-pamp-sa-become-one.
- 115 MKS PAMP, Refining, accessed 16 February 2023, https://www.mkspamp.com/refining/excellence.
- 116 MMTC-PAMP, Sustainability Report 2020, p. 10, https://www.mmtcpamp.com/documents/41872/225059/2020_Sustainability.pdf.
- 117 MKS PAMP's response to SWISSAID, 6 October 2022, "Pour des raisons de confidentialité, nous ne pouvons pas apporter de commentaires sur nos sources. Nous n'avons dès lors pas revu votre tableau et ne pouvons pas confirmer ni infirmer les données".
- 118 MKS PAMP's response to SWISSAID, 6 October 2022,
 "des raisons contractuelles de confidentialité, des raisons de concurrence et de sécurité".
- 119 Reuters, Russia's Nordgold shuts Burkina Faso mine due to security threats, 11 April 2022, https://www.reuters.com/article/nordgold-burkina-idUKL5N2W93TK.
- 120 "During the reporting period, we have sourced gold from the North Mara Gold Mine in Tanzania (NMGM)", MMTC-PAMP, Compliance Report 2021, 14 March 2022, p. 10, https://cdn.lbma.org.uk/gdl-downloads/MMTC-PAMP-FY2021-RGG-and-RSG-audit-for-website.pdf.
- 121 MKS PAMP's response to SWISSAID, 6 October 2022.
- 122 MKS PAMP's response to SWISSAID, 18 March 2022.
- 123 Nordgold, 2020 Annual Report, 2021, p. 113, https://www.nordgold.com/upload/iblock/9e3/Nordgold-2020-Annual-Report.pdf; confirmed by MKS PAMP to SWISSAID, 6 October 2022.
- 124 Nordgold, 2020 Annual Report, 2021, p. 113, https://www.nordgold.com/upload/iblock/9e3/Nordgold-2020-Annual-Report.pdf; confirmed by MKS PAMP to SWISSAID, 6 October 2022.
- 125 Nordgold, 2020 Annual Report, 2021, p. 113, https://www.nordgold.com/upload/iblock/9e3/Nordgold-2020-Annual-Report.pdf; confirmed by MKS PAMP to SWISSAID, 6 October 2022.
- 126 Confirmed by Avesoro to SWISSAID, 13 December 2022.
- 127 The mine has stopped production. "Youga and Balago are not producing since year[s] due to security reasons", Avesoro's response to SWISSAID, 13 December 2022.
- 128 Confirmed by Avesoro to SWISSAID, 13 December 2022.
- 129 The mine has stopped production. "Youga and Balago are not producing since year[s] due to security reasons", Avesoro's response to SWISSAID, 13 December 2022.
- 130 Confirmed by West African Resources to SWISSAID, 7 February 2023; "All metal sales in the year were made to MKS PAMP SA", West African Resources, Annual Report 2021, p. 61, https://wcsecure.weblink.com.au/pdf/WAF/02504670.pdf.
- 131 Customs statistics for Côte d'Ivoire for the year 2022, obtained via a paid database.
- 132 Customs statistics for Côte d'Ivoire for the year 2022, obtained via a paid database.
- 133 "In October, we signed new refining agreements, and as a result [...]. Our Ghana operations use Swiss refinery MKS PAMP", Newmont, 2018 Social and Environmental Performance Report, p. 38, https://s24.q4cdn.com/382246808/files/doc_downloads/sustainability/downloads/Newmont_2018_Beyond_the_Mine_%E2%80%93_Full_Report.pdf.
- 134 "In October, we signed new refining agreements, and as a result [...]. Our Ghana operations use Swiss refinery MKS PAMP", Newmont, "2018 Social and Environmental Performance Report", p. 38, https://s24.q4cdn.com/382246808/files/ doc_downloads/sustainability/downloads/Newmont_2018_Beyond_the_Mine_%E2%80%93_Full_Report.pdf.
- 135 "MKS collects the gold from either the Tarkwa or Damang mine and transports it either to its Switzerland refinery or to its Indian refinery where the gold is then refined", SEC report Form 20-F, Gold Fields Limited, 2022, p. 73, https://www.goldfields.com/pdf/investors/form-20-f/2021/20-f.pdf; confirmed by Gold Fields to SWISSAID, 15 December 2022.
- 136 "MKS collects the gold from either the Tarkwa or Damang mine and transports it either to its Switzerland refinery or to its Indian refinery where the gold is then refined", SEC report Form 20-F, Gold Fields Limited, 2022, p. 73, https://www.goldfields.com/pdf/investors/form-20-f/2021/20-f.pdf; confirmed by Gold Fields to SWISSAID, 15 December 2022.
- 137 "Transported from the mine via Accra to MKS Pamp, in Switzerland", "MGBL have entered into a refining and offtake agreement with MKS PAMP SA of Switzerland for the refining and sales of gold doré", Asante Gold Corporation, Technical Report Bibiani Gold Project, 2022, p. 169, https://asantegold.com/operations/bibiani-gold-mine/.

- 138 "Refining contracts are in place with MKS PAMP Group and the Perth Mint Refinery", Perseus Mining, Technical Report Edikan Gold Mine, 6 April 2022, p. 11, https://perseusmining.com/wp-content/uploads/2022/05/Edikan_NI_43_101_Technical_Report_2022.pdf.
- 139 EITI Report 2018 Guinea, December 2020, p. 86, https://eiti.org/sites/default/files/attachments/rapport_itie-guinee_2018_version_finale_signe_30122020.pdf; Nordgold, 2020 Annual Report, 2021, p. 113, https://www.nordgold.com/upload/iblock/9e3/Nordgold-2020-Annual-Report.pdf; confirmed by MKS PAMP to SWISSAID, 6 October 2022.
- 140 "To date there have been 25 shipments of gold from New Liberty for smelting and refining at the MKS PAMP refinery in Switzerland", Avesoro Resources, Commercial production declared: February production exceeds 9,000 ounces, 2 March 2016: https://avesoro.com/2016/03/02/commercial-production-declared-february-production-exceeds-9000-ounces/.
- 141 Confirmed by Avesoro to SWISSAID, 13 December 2022.
- 142 Confirmed by Avesoro to SWISSAID, 13 December 2022.
- 143 EITI Report 2013 Mauritania, April 2015, p. 63, https://eiti.org/sites/default/files/attachments/2013_mauritania_eiti_report_fr.pdf;
 "Gold production from the Tasiast Mine is shipped and refined under contract by MKS", Red Back Mining, Technical report on the Tasiast Gold Mine, 2010, https://www.sec.gov/Archives/edgar/data/701818/000110465910044984/a10-15597_4ex99d1.htm.
- 144 Resolute Mining's response to SWISSAID, 23 January 2023; "At the Mako mine, gold ore is mined and processed to produce gold. The gold is then transported to MKS PAMP in Switzerland where it is refined," Toro Gold, Sustainability Report 2018, p. 13, https://s411039637905c6a0.jimcontent.com/download/version/1617210704/ module/10347744670/name/TG-SusReport-2018-FRENCH-Final-Hi-Res.pdf.
- 145 Confirmed by Barrick to SWISSAID, 8 December 2022; "The MMTC-PAMP refinery processes gold from North Mara", Barrick Sustainability Report 2020, p. 59,

https://s25.q4cdn.com/322814910/files/doc_downloads/sustainability/Barrick-Sustainability-Report-2020.pdf; "During the reporting period, we have sourced gold from the North Mara Gold Mine in Tanzania (NMGM)", MMTC-PAMP, Compliance Report 2021, 14 March 2022, p.10,

https://cdn.lbma.org.uk/gdl-downloads/MMTC-PAMP-FY2021-RGG-and-RSG-audit-for-website.pdf.

- 146 "Our Gold is refined by MMTC PAMP", Barrick email to SWISSAID, 8 December 2022; "Barrick's three gold mines in Tanzania similarly shifted their refining from Switzerland to India during this time", IMPACT, Alan Martin, A Golden Web, 2019, p. 18, https://impacttransform.org/wp-content/uploads/2019/11/IMPACT_A-Golden-Web_EN-Nov-2019_web.pdf.
- 147 Buzwagi mine ceased production on 19 July 2021, email from Barrick to SWISSAID, 8 December 2022.
- "Our Gold is refined by MMTC PAMP The North Mara and Bulyanhulu refining agreements are with MKS PAMP SA which is the owner of both the Swiss refinery and the Indian refinery",
 Barrick email to SWISSAID, 8 December 2022; "Barrick's three gold mines in Tanzania similarly shifted their refining from Switzerland to India during this time", IMPACT, Alan Martin, A Golden Web, 2019, p. 18, https://impacttransform.org/wp-content/uploads/2019/11/IMPACT_A-Golden-Web_EN-Nov-2019_web.pdf.
- 149 Argor-Heraeus' response to SWISSAID, 13 February 2023.
- 150 Argor-Heraeus' response to SWISSAID, 6 October 2022.
- 151 Argor-Heraeus' response to SWISSAID, 6 October 2022.
- 152 Argor-Heraeus' response to SWISSAID, 6 October 2022.
- 153 "The Wahgnion mine ships its gold to be refined by ARGOR-HERAEUS, also a Swiss-based refiner of precious metals", Endeavour Mining, Annual Information Form, March 2021, p. 10, https://www.endeavourmining.com/sites/endeavour-mining-v2/files/2020-annual-information-form.pdf.
- 154 "The gold doré bars are shipped to Argor Heraus refinery in Switzerland", New Business Ethiopia, Ethiopia revokes gold mining license of MIDROC Gold, 10 May 2018, https://newbusinessethiopia.com/mining/ethiopia-revokes-gold-mining-license-of-midroc-gold/; Ethiopia's customs statistics from the years 2017 and 2018, obtained via a paid database.
- 155 Caracal Gold's response to SWISSAID, 2 February 2023.
- 156 Resolute Mining's response to SWISSAID, 23 January 2023; EITI Report 2016 Mali, December 2018, p. 114, https://eiti.org/sites/default/files/attachments/rapport-itie-mali-2016-version-finale-03.12.2018.pdf.
- 157 EITI Report 2016 Mali, December 2018, p. 114, https://eiti.org/sites/default/files/attachments/rapport-itie-mali-2016-version-finale-03.12.2018.pdf;
 "it has been assumed that the gold produced from the project would be shipped to the Argor Heraeus refinery (Mendrisio, Switzerland) as per the current production from the Kalana Mine", Avnel Gold Mining Limited as Operator of SOMIKA, Technical Report, 2016, p. 251, https://s21.q4cdn.com/954147562/files/doc_downloads/technical_report/TechnicalReport-2016-AvnelGold.pdf.

- 158 Confirmed by Robex to SWISSAID, 26 January 2023; EITI Report 2016 Mali, December 2018, p. 114, https://eiti.org/sites/default/files/attachments/rapport-itie-mali-2016-version-finale-03.12.2018.pdf;
 "Gold bars represent the marketable product held in a metal account at Argor-Heraeus ready for sale", Robex, Annual Report 2021, June 2022, p. 60, https://robexgold.com/wp-content/uploads/2022/06/rapport-annuel.pdf.
- 159 "We have used three refineries: Metalor and Argor in Switzerland, and Rand in South Africa.", "All the gold ore produced by our mines is purchased by Auramet, who then refine this at one of those three refiners. All three refiners are used at the moment, however initially it was only Metalor and Argor in 2017", Hummingbird Resources response to SWISSAID, 12 January 2023.
- 160 Confirmed by Shanta Gold to SWISSAID, 16 January 2023; Tanzania Customs Statistics for the years 2015 and 2016, accessed via a paid database; "including 2,841 oz Au delivered to the Argor-Heraeus refinery in Switzerland prior to 31 December 2019", Shanta Gold Limited, Q4 2019 Production & Operational Update, 16 January 2020, p. 3, https://www.shantagold.com/_resources/Q4%202019%20Production%20and%20Operational%20Update.pdf.
- 161 Tanzania customs statistics from 2015 and 2016, accessed via a paid database; "Kaimu Mkurugenzi Mtandaji huyo wa STAMICO pia amesema Kampuni ya STAMIGOLD ikiwa kama Muuzaji (Supplier) imetia saini Mkataba wa Mauzo na Kampuni ya Argor-Heraeus SA ya Via Moree Mendrisio-Lugano mnamo tarehe 6 Oktoba, 2014 hatua ambayo imehusisha ufunguaji wa akaunti ya Madini (Metal Account) ya STAMIGOLD itakayotumika kufanya ufuatiliaji wa maendeleo ya kibiashara", Mem II News Bulletin, November 2014,

http://memnewsbulletin.blogspot.com/2014/11/stamico-yauza-dhahabu-za-bilioni-519.html.

162 "The Company is also pleased to announce that it has entered into a refining agreement with Argor Heraeus, a leading international gold refiner based in Switzerland, and has successfully completed its first export of gold for refining in February 2022", Tanzanian Gold Corporation, Buckreef Gold Completes First Phase of Mill Expansion and Achieves Record Gold Production, 17 February 2022,

https://www.sec.gov/Archives/edgar/data/1173643/000127351122000021/ex991.htm.

- 163 Valcambi, Refining, accessed on 19 January 2023, https://www.valcambi.com/services/refining/.
- 164 Valcambi, At a glance, accessed 19 January 2023, https://www.valcambi.com/about-us/at-a-glance/.
- 165 Valcambi, History, accessed on 17 February 2023, https://www.valcambi.com/about-us/history/.
- 166 Valcambi's response to SWSSAID, 10 February 2022.
- 167 SWISSAID, Golden Detour, The hidden face of the gold trade between the United Arab Emirates and Switzerland, July 2020, https://swissaid.kinsta.cloud/wp-content/uploads/2020/07/SWISSAID-Goldstudie-EN_final-web.pdf.
- 168 "The BAKKOUDOU mine in Gabon closed four years ago. When it was in operation, BAKKOUDOU's gold was refined at METALOR and VALCAMBI", Managem's response to SWISSAID, 8 December 2022.
- 169 "VALCAMBI and METALOR refine TRIK's gold in their refinery in Switzerland", Managem's response to SWISSAID, 8 December 2022.
- 170 "Swiss refinery Valcambi refined a majority of Newmont's gold produced at our North America, Peru and Ghana operations for most of 2018", Newmont, 2018 Social and Environmental Performance Report, p. 38, https://s24.q4cdn.com/382246808/files/doc_downloads/sustainability/downloads/Newmont_2018_Beyond_the_ Mine_%E2%80%93_Full_Report.pdf.
- 171 "Swiss refinery Valcambi refined a majority of Newmont's gold produced at our North America, Peru and Ghana operations for most of 2018", Newmont, 2018 Social and Environmental Performance Report, p. 38, https://s24.q4cdn.com/382246808/files/doc_downloads/sustainability/downloads/Newmont_2018_Beyond_the_ Mine_%E2%80%93_Full_Report.pdf.
- 172 PX Group, Press Release, 15 December 2022, https://pxgroup.com/news/category-actualite/px-group-sa-renforce-sa-gouvernance-dentreprise-dans-une-perspective-de-long-terme/.
- 173 Response from PX Precinox to SWISSAID, 22 February 2023.
- 174 PX Precinox's response to SWISSAID, 11 February 2022.
- 175 PX Precinox's response to SWISSAID, 11 February 2022.
- 176 Asahi Refining, Sustainability Report 2022, www.asahirefining.com/wp-content/uploads/2022/12/Asahi-Refining-NA-Sustainability-Report-2022.pdf.
- 177 Asahi Refining Canada's response to SWISSAID, 7 February 2023.
- 178 Asahi Refining Canada's response to SWISSAID, 20 January 2023
- 179 First Quantum Minerals' response to SWISSAID, 6 February 2023.
- 180 Confirmed by Centamin to SWISSAID, 24 January 2023; "All gold and silver sales during the year were made to a single customer in North America, Asahi Refining Canada Ltd" Centamin, Annual Report 2021, 5 April 2022, p. 186, https://www.centamin.com/media/2529/cent-ar21-full-web-secure.pdf.
- 181 Confirmed by Centamin to SWISSAID, 24 January 2023; "All gold and silver sales during the year were made to a single customer in North America, Asahi Refining Canada Ltd", Centamin, Annual report 2021, 5 April 2022, p. 186, https://www.centamin.com/media/2529/cent-ar21-full-web-secure.pdf.

- 182 The Perth Mint, Refinery, accessed 17 February 2023, https://www.perthmint.com/refinery-treasury/refinery/.
- 183 The Perth Mint, Refinery, accessed 17 February 2023, https://www.perthmint.com/refinery-treasury/refinery/.
- 184 The Perth Mint, Annual Report 2022, 7 September 2022, p. 5, https://www.perthmint.com/globalassets/assets/documents/annual-reports/perth-mint-annual-report-2021-22.pdf.
- 185 The Perth Mint's response to SWISSAID, 25 October 2022.
- 186 The Perth Mint's response to SWISSAID, 25 October 2022.
- 187 The Perth Mint's response to SWISSAID, 25 October 2022.
- 188 The Perth Mint's response to SWISSAID, 25 October 2022.
- 189 The Perth Mint's response to SWISSAID, 25 October 2022; "Refining contracts are in place with MKS PAMP Group and the Perth Mint Refinery", Perseus Mining, Technical Report Edikan Gold Mine, 6 April 2022, p. 11, https://perseusmining.com/wp-content/uploads/2022/05/Edikan_NI_43_101_Technical_Report_2022.pdf.
- 190 Resolute Mining's response to SWISSAID, 20 January 2023; The Perth Mint's response to SWISSAID, 23 January 2023; "At the Syama Gold Mine, gold is smelted onsite as dore bars. The bars are shipped offsite by armoured transport to gold refineries in Switzerland and Perth where refining is completed under routine commercial terms. Gold credits are transferred to the Perth Mint in Australia after subtraction of the refining costs", Prospectus Resolute Mining Limited, June 2020, https://www.rml.com.au/wp-content/uploads/2022/08/Prospectus-Final-June-2020.pdf.
- 191 Resolute Mining's response to SWISSAID, 20 January 2023; The Perth Mint's response to SWISSAID, 23 January 2023.
- 192 Italpreziosi, Sustainability report, accessed 17 February 2023, https://www.italpreziosisustainability.com/en/.
- 193 Italpreziosi's response to SWISSAID, 26 January 2023.
- 194 Italpreziosi's response to SWISSAID, 26 January 2023.
- 195 Confirmed by Italpreziosi to SWISSAID, 26 January 2023; confirmed by Managem to SWISSAID, 9 December 2022, "Gold from Gabgaba is sold at 35% to ITALPREZIOSI. Indeed the mine is 35% owned by NORIN Mining and 65% by MANAGEM"; Telquel, Why was MANAGEM helicopter carrying excess gold to Sudan, 14 May 2019, https://telquel.ma/2019/05/14/pourquoi-managem-transportait-un-excedent-dor-au-soudan_1638323.
- 196 Nadir Metal Rafineri, Sustainability report 2019, p. 15 and p. 12, https://www.nadirmetal.com.tr/wp-content/uploads/2022/10/Surdurulebilirlik_Raporu_2019-En-1.pdf.
- 197 Nadir Metal Rafineri's response to SWISSAID, 17 January 2023.
- 198 Nadir Metal Rafineri's response to SWISSAID, 28 February 2023, "we have received the written permission sent by our client".
- 199 Nadir Metal Rafineri's response to SWISSAID, 17 January 2023.
- 200 Confirmed by Nadir Metal Rafineri to SWISSAID, 28 February 2023; "We only using MKS PAMP. Nadir was only period when Brussels not fly to Monrovia. We are not sending Nadir after Brussels start flying", Avesoro's response to SWISSAID, 13 December 2022; "We have refined gold with origin of Liberia from LSM, almost 6 months in 2020, during the times when Refineries have been closed & flights had been cancelled in Switzerland due to Covid circumstances", Nadir Gold Rafineri's response to SWISSAID, 17 January 2023; "Following the onset of the Covid-19 pandemic in 2020, our researchers found that the gold from the New Liberty mine started being flown to Istanbul, Turkey. From there, we believe it is transported to the Nadir Metal Rafineri",

Inclusive Development International, Liberia: Holding Avesoro Resources to its community development promises, accessed 13 December 2022,

- https://www.inclusivedevelopment.net/cases/liberia-holding-avesoro-resources-to-its-community-development-promises/. 201 Confirmed by Nadir Metal Rafineri to SWISSAID, 28 February 2023.
- 202 Fidelity Gold Refinery, About us, accessed 17 February 2023, https://fgr.co.zw/about-us/.
- 203 The Herald, Unbundling, partial privatisation of Fidelity Printers, 12 August 2021, https://www.herald.co.zw/565443-2/.
- 204 The Zimbabwean, Zim expelled from bullion market, 3 April 2009, https://www.thezimbabwean.co/2009/04/zim-expelled-from-bullion-market/.
- 205 FGR's response to SWISSAID, 19 October 2022.
- 206 FGR's response to SWISSAID, 28 February 2023, "FGR did not refuse to confirm the table. FGR has maintained detailed records on its industrial mine sources going back more than a decade and these can be availed."
- 207 Rand Refinery's response to SWISSAID, 21 November 2022.
- 208 FGR's response to SWISSAID, 19 October 2022.
- 209 FGR's response to SWISSAID, 28 February 2023.
- 210 International Crisis Group, All That Glitters is Not Gold: Turmoil in Zimbabwe's Mining Sector, 24 November 2020, https://www.crisisgroup.org/africa/southern-africa/zimbabwe/294-all-glitters-not-gold-turmoil-zimbabwes-mining-sector.
- 211 FGR's response to SWISSAID, 28 February 2023.

- "The gold bullion, in the form of gold bars, is delivered, as required by Zimbabwean gold-mining law, to the Government-operated Fidelity Printers and Refiners for sampling and refining", Caledonia Mining Corporation, NI 43-101 Technical Report on the Blanket Gold Mine, 17 May 2021, p. 146, https://wp-caledoniamining-2020.s3.eu-west-2.amazonaws.com/media/2021/06/28160015/Technical-Report-JUne-2021.pdf.
- 213 "All gold bullion produced is sold to Fidelity Printers, a subsidiary of the Reserve Bank of Zimbabwe", Metallon, Corporation Presentation, February 2017, p. 15, https://minedocs.com/17/Metallon%20Corporation%20Ltd._Presentation_022017.pdf.
- 214 "All gold bullion produced is sold to Fidelity Printers, a subsidiary of the Reserve Bank of Zimbabwe", Metallon, Corporation Presentation, February 2017, p. 15, https://minedocs.com/17/Metallon%20Corporation%20Ltd._Presentation_022017.pdf.
- 215 "All gold bullion produced is sold to Fidelity Printers, a subsidiary of the Reserve Bank of Zimbabwe", Metallon, Corporation Presentation, February 2017, p. 15, https://minedocs.com/17/Metallon%20Corporation%20Ltd._Presentation_022017.pdf.
- "All gold bullion produced is sold to Fidelity Printers, a subsidiary of the Reserve Bank of Zimbabwe", Metallon, Corporation Presentation, February 2017, p. 15,
- https://minedocs.com/17/Metallon%20Corporation%20Ltd._Presentation_022017.pdf.
 217 "Gold is solely purchased by Fidelity Printers and Refineries (Private) Limited of Zimbabwe", RioZim Limited, 2021 Annual Report, p. 72, https://www.riozim.co.zw/?page_id=74.
- 218 "Gold is solely purchased by Fidelity Printers and Refineries (Private) Limited of Zimbabwe", RioZim Limited, 2021 Annual Report, p. 72, https://www.riozim.co.zw/?page_id=74.
- 219 "Gold is solely purchased by Fidelity Printers and Refineries (Private) Limited of Zimbabwe", RioZim Limited, 2021 Annual Report, p. 72, https://www.riozim.co.zw/?page_id=74.
- 220 SWISSAID, Golden Detour, The hidden face of the gold trade between the United Arab Emirates and Switzerland,
- July 2020, p. 31, https://swissaid.kinsta.cloud/wp-content/uploads/2020/07/SWISSAID-Goldstudie-EN_final-web.pdf. 221 EITI Report 2019 Niger, November 2021, p. 84,
- https://eiti.org/sites/default/files/attachments/rapport-itie-niger-2019-version-finale-301121.pdf.
- 222 Managem's response to SWISSAID, 8 December 2022.
- 223 Emirates Minting's response to SWISSAID, 10 February 2023.
- 224 Caracal Gold's response to SWISSAID, 2 February 2023.
- 225 Emirates Gold DMCC's response to SWISSAID, 8 February 2023.
- 226 Africa Intelligence, Nordgold gets creative to refine its African gold in the Emirates, 23 September 2022, https://www.africaintelligence.com/west-africa/2022/09/23/nordgold-gets-creative-to-refine-its-african-gold-in-theemirates,109825385-eve.
- 227 Emirates Gold's response to SWISSAID, 10 December 2022,
- "we have neither accepted nor sourced gold from Nordgold, Bissa-Bouly, Taparko-Bouroum or Lefa".
- 228 Emirates Gold's right of reply was added on 13 February 2023; Africa Intelligence, Nordgold gets creative to refine its African gold in the Emirates, 23 September 2022, https://www.africaintelligence.com/west-africa/2022/09/23/nordgoldgets-creative-to-refine-its-african-gold-in-the-emirates,109825385-eve.
- 229 SWISSAID exchanges with several industry representatives, January 2023.
- 230 Emirates Gold, accessed on 17 February 2023, https://emirates-gold995.com/.
- 231 Emirates Gold DMCC's response to SWISSAID, 22 February 2023.
- 232 Emirates Minting's response to SWISSAID, 10 February 2023.
- 233 Emirates Minting's response to SWISSAID, 10 February 2023.
- 234 Emirates Gold DMCC's response to SWISSAID, 10 January 2023.
- 235 First Quantum Minerals' response to SWISSAID, 6 February 2023.
- 236 Pressetext, Pearl Gold AG: Agreement on Gold Deliveries from Faboula Gold S.A; First Delivery June 30, 2022, February 15, 2022, https://www.pressetext.com/news/20220215035.
- 237 EITI Report Mali 2018, December 2020, p. 98, https://eiti.org/sites/default/files/attachments/rapport-itie-mali-2018-final-signe_compressed.pdf.
- 238 Pressetext, Pearl Gold AG: Agreement on Gold Deliveries from Faboula Gold S.A.; First Delivery June 30, 2022, February 15, 2022, https://www.pressetext.com/news/20220215035.
- 239 Bilan, Le financier suisse qui aimait trop l'or, Ian Hamel, 28 February 2019, https://www.bilan.ch/entreprises/le-nancier-suisse-qui-aimait-trop-lor.
- 240 Agence Ecofin, Côte d'Ivoire: New Abujar gold mine delivers first bar, 16 January 2023, https://www.agenceecofin.com/or/1601-104480-cote-d-ivoire-la-nouvelle-mine-d-or-abujar-livre-son-premier-lingot.

- 241 Jeune Afrique, Comment Wagner se finance: enquête sur l'eldorado d'Evgueni Prigojine en Centrafrique et au Cameroun, Matthieu Olivier, 17 January 2023, https://www.jeuneafrique.com/1406255/politique/comment-wagner-se-finance-enquete-sur-leldorado-devgueni-prigojine-en-centrafrique-et-au-cameroun/.
- 242 The Economist Intelligence Unit, Gold mine enters production, 27 January 2016, https://country.eiu.com/article.aspx?articleid=1363884120&Country=Eritrea&topic=Economy&subtopic=F_7.
- 243 The Economist Intelligence Unit, Chinese company to buy out Bisha mine, 18 September 2018, https://country.eiu.com/article.aspx?articleid=1107150694&Country=Eritrea&topic=Economy&subtopic=F_7; Linkedin, Bisha Mining Share Company, accessed 28 February 2023, https://www.linkedin.com/company/bisha-mining/about/.
- 244 Midroc Investment Group, Midroc Gold Mine PLC, accessed 28 February 2023, https://www.midrocinvestmentgroup.com/mining-cluster/.
- 245 Xtract Resources, Unaudited Interim Results for the six months ended 30 June 2022, 30 September 2022, https://xtractresources.com/wp-content/uploads/Xtract-Interims-2022.pdf.
- 246 Creamer Media's Mining Weekly, First gold poured by contractor at Xtract's Mozambique project, 21 July 2022, https://www.miningweekly.com/article/first-gold-poured-by-contractor-at-xtracts-mozambique-project-2022-07-21.
- 247 US Geological Survey, 2017-2018 Minerals Yearbook, Sudan, January 2022, p. 7, https://pubs.usgs.gov/myb/vol3/2017-18/myb3-2017-18-sudan.pdf.
- 248 Barer Holding, Delgo Mining Co, accessed February 15, 2023, https://www.barerholding.com/delgomining.php.
- 249 Kush for Explorations & Production / Alliance for Mining, accessed 16 February 2023, http://www.alliance-kush.com/.
- 250 Metalor's response to SWISSAID, 22 December 2021.
- 251 Anglo American Platinum, Integrated annual report 2021, https://www.angloamericanplatinum.com/~/media/Files/A/Anglo-American-Group/Platinum/report-archive/2021/iar-2021.pdf.
- 252 MKS PAMP's response to SWISSAID, 6 October 2022.
- 253 LBMA, Rules and Governance, accessed 17 February 2023, https://www.lbma.org.uk/good-delivery/good-delivery-rules-and-governance.
- 254 LBMA, Rules and Governance, accessed 17 February 2023, https://www.lbma.org.uk/good-delivery/good-delivery-rules-and-governance.
- 255 LBMA, Responsible Sourcing Report 2020, p. 37, https://cdn.lbma.org.uk/downloads/Publications/LBMA-Responsible-Sourcing-Report-2020-FULL-REPORT.pdf.
- 256 LBMA, Responsible Sourcing Report 2021, p. 47, https://cdn.lbma.org.uk/downloads/responsible-sourcing/Responsible-Sourcing-Report_LBMA_2021_Final.pdf.
- 257 LBMA, Sustainability and Responsible Sourcing Report 2022, p. 28, https://cdn.lbma.org.uk/downloads/ Publications/2022/LBMA_Sustainability-and-Responsible-Sourcing-Report_2022_Final.pdf.
- 258 CHF 40,000 in 2018, CHF 45,000 in 2019 and CHF 52,500 in 2020. Gold rate, accessed on 16 February 2023, https://www.cours-or.ch/cours-de-l-or/.
- 259 LBMA, Sustainability and Responsible Sourcing Report 2022, p. 28, https://cdn.lbma.org.uk/downloads/Publications/2022/LBMA_Sustainability-and-Responsible-Sourcing-Report_2022_Final.pdf.
- 260 Mwanza Precious Metals Refinery's response to SWISSAID, 27 January 2023.
- 261 Gold Fields, Integrated Annual Report 2021, p. 86, https://www.goldfields.com/pdf/investors/integrated-annual-reports/2021/iar-2021.pdf.
- 262 Gold Fields' response to SWISSAID, 15 December 2022.
- 263 MKS PAMP's response to SWISSAID, 6 October 2022, "lors de la pandémie COVID, il y a eu beaucoup de changements auprès de nos approvisionnements en or pour des raisons logistiques. En effet, certaines mines ne pouvaient plus nous envoyer de la matière, faute de vol disponible."
- 264 Metalor's response to SWISSAID, 18 January 2023.
- 265 Metalor's response to SWISSAID, 18 January 2023.
- 266 "METALOR currently refines 100% of the Corporation's gold doré", Endeavour Mining, FAQ, accessed 20 December 2022, https://www.endeavourmining.com/investors/faq.
- 267 "All gold transactions are done strictly with Rand Refinery", DRD Gold Limited, accessed 25 January 2023, https://www.drdgold.com/faqs.
- 268 "Walleye produced at Sibanye-Stillwater and other South African gold mining companies is further refined at Rand Refinery", Sibanye-Stillwater, accessed 25 January 2023, https://www.sibanye.stillwater.com/businees/couthern_office/reld_energians/cond_refinery/
- https://www.sibanyestillwater.com/business/southern-africa/gold-operations/rand-refinery/.
- 269 Managem's response to SWISSAID, 8 December 2022; Hummingbird Resources' response to SWISSAID, 12 January 2023.
- 270 Metalor's response to SWISSAID, 18 January 2023; MKS PAMP's response to SWISSAID, 6 October 2022.
- 271 IAMGOLD's responseto SWISSAID, 20 December 2022.
- 272 Gold Fields' response to SWISSAID, 15 December 2022.
- 273 Newmont's response to SWISSAID, 19 December 2022.

- 274 MKS PAMP's response to SWISSAID, 6 October 2022, "Les contrats sont conclus pour quelques années seulement. Un appel d'offres est généralement refait après quelques années. Notez que l'existence d'un contrat rend possible mais pas obligatoire les livraisons de la mine."
- 275 MKS PAMP's response to SWISSAID, 6 October 2022.
- 276 Metalor's response to SWISSAID, 18 January 2023.
- 277 Hummingbird Resources' response to SWISSAID, 12 January 2023.
- 278 MKS PAMP's response to SWISSAID, 6 October 2022, "pour des raisons contractuelles de confidentialité, pour des raisons de concurrence et de sécurité".
- 279 Emirates Minting's response to SWISSAID, 10 February 2023.
- 280 "METALOR currently refines 100% of the Corporation's gold doré", Endeavour Mining, accessed 20 December 2022, https://www.endeavourmining.com/investors/faq.
- 281 "All gold transactions are done strictly with Rand Refinery", DRD Gold Limited, accessed 25 January 2023, https://www.drdgold.com/faqs.
- 282 "Doré produced at Sibanye-Stillwater and other South African gold mining companies is further refined at Rand Refinery", Sibanye-Stillwater, accessed 25 January 2023,
 - https://www.sibanyestillwater.com/business/southern-africa/gold-operations/rand-refinery/.
- 283 "All gold and silver sales during the year were made to a single customer in North America, Asahi Refining Canada Ltd", Centamin, Annual Report 2021, 5 April 2022, p. 186, https://www.centamin.com/media/2529/cent-ar21-full-web-secure.pdf.
- 284 "All metal sales in the year were made to MKS PAMP SA, West African Resources", Annual Report 2021, p. 61, https://wcsecure.weblink.com.au/pdf/WAF/02504670.pdf.
- 285 "Delivery of the gold to Rand Refinery", Pan African Resources, Integrated Annual Report, 2022, p. 172, https://www.panafricanresources.com/wp-content/uploads/Integrated-annual-report-2022.pdf.
- 286 "Gold bullion represents the marketable product held in a metal account at Argor-Heraeus ready for sale", Robex, Annual Report 2021, June 2022, p. 60, https://robexgold.com/wp-content/uploads/2022/06/rapport-annuel.pdf.
- 287 Nordgold, 2020 Annual Report, 2021, p. 113, https://www.nordgold.com/upload/iblock/9e3/Nordgold-2020-Annual-Report.pdf; The Russian mining company still mentions the names of its customers (including refineries) in its financial and operational results for the first six months of 2021,
- https://www.nordgold.com/upload/iblock/4a6/Nordgold-H1-2021-Financial-and-Operating-results.pdf. 288 Centamin's response to SWISSAID, 24 January 2023; West African Resources' response to SWISSAID, 7 February 2023;
- Robex's response to SWISSAID, 24 January 2023, West Amcan Resources Tesponse to SWISSAID, Robex's response to SWISSAID, 26 January 2023.
- 289 "Rand Refinery smelts, evaluates, refines and fabricates the gold we produce for investment and retail clients", Harmony, 2022 ESG report, 2022, p. 42, https://www.har.co.za/22/download/HAR-ESG22.pdf.
- 290 "At the Mako mine, gold ore is mined and processed to produce gold. The gold is then transported to MKS PAMP in Switzerland where it is refined", Toro Gold, Sustainability Report 2018, p. 13, https://s411039637905c6a0.jimcontent.com/ download/version/1617210704/module/10347744670/name/TG-SusReport-2018-FRENCH-Final-Hi-Res.pdf.
- 291 Newmont, 2018 Social and Environmental Performance Report, p. 38, https://s24.q4cdn.com/382246808/files/doc_down-loads/2022/sustainability/Newmont_2018_Beyond_the_Mine_%E2%80%93_Full_Report.pdf.
- 292 Proactive, Resolute Mining signs agreement to acquire 100% of Toro Gold, revises production and cost guidance, 31 July 2019: https://www.proactiveinvestors.com.au/companies/news/224781/resolute-mining-signs-agreement-to-acquire-100-oftoro-gold-revises-production-and-cost-guidance-224781.html.
- 293 Investopedia, SEC Form 40-F, Will Kenton, 20 August 2022, https://www.investopedia.com/terms/s/sec-form-40-f.asp.

294 "Refining arrangements are provided by Metalor USA Refining Corporation and Metalor Technologies SA", Fortuna Silver Mines, Annual Information Form 2021, 2022, p. 20, https://www.appud.cometa.com/liketedDate/Appud.Paperte/DEC/TEX/EV/L2021.pdf

- https://www.annualreports.com/HostedData/AnnualReports/PDF/TSX_FVI_2021.pdf.
- 295 Gold Fields Limited, Form 20-F, 2022, p. 73, https://www.goldfields.com/pdf/investors/form-20-f/2021/20-f.pdf.
- 296 Gold Fields, South Africa region, accessed 18 February 2023: https://www.goldfields.com/south-africa-region.php.
- 297 Gold Fields' response to SWISSAID, 15 December 2022.
- 298 Gold Fields' response to SWISSAID, 15 December 2022.
- 299 Fortuna Silver Mines' response to SWISSAID, 14 January 2023.
- 300 Prospector, What is the National Instrument (NI) 43-101, 3 August 2022, https://thenugget.prospectorportal.com/what-is-the-national-instrument-ni-43-101.
- 301 Thomson Reuters, National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101), accessed 18 February 2023,

https://ca.practicallaw.thomsonreuters.com/6-575-5104?transitionType=Default&contextData=(sc.Default)&firstPage=true. 302 British Columbia Securities Commission, Mining Disclosure: Cross Country NI 43-101 Check-up, 2021, p. 6,

https://www.bcsc.bc.ca/-/media/PWS/New-Resources/Industry/Issuer-Regulation/Guidance-by-Sector/Mining/AME-Roundup-Short-Course-2021.pdf.

- 303 Prospector, What is the National Instrument (NI) 43-101, 3 August 2022, https://thenugget.prospectorportal.com/what-is-the-national-instrument-ni-43-101.
- 304 911 Metallurgist, National Instruments NI 43-101 Technical Reports, accessed 18 February 2023, https://www.911metallurgist.com/national-instruments-ni-43-101-technical-reports/.
- 305 "Gold sales contract is in-place with Rand Refinery in South Africa", "All gold from Wassa is shipped to a South African gold refinery under a long-term sales contract", Golden Star Resources, Technical Report on the Wassa Gold Mine, 2021, p. 227, http://s1.q4cdn.com/789791377/files/doc_downloads/2021/02/LON-TSX-REP-Wassa-Dec2020-NI43-101-Tech-Report-DRAFT-v20210301-(final)-CONFORMED.pdf.
- 306 "Asanko Gold Mine] currently refines all gold bars produced at Rand Refinery under a two-year contract that commenced on 1 August 2019. The contract was awarded to Rand Refinery after an open tender on competitive terms", Asanko Gold Inc, Technical Report for the Asanko Gold Mine, Ghana, 2020, p. 376, http://d18rn0p25nwr6d.cloudfront.net/CIK-0001377757/b2708099-342b-43a6-a686-027d950fa55a.pdf.
- 307 "Dore alloy (87% Au average) produced by the Nzema process plant is usually shipped to Rand Refinery", Endeavour Mining, Technical Report and Mineral Resource and Reserve Update for the Nzema Gold Mine, 2 April 2013, p. 153, https://s21.q4cdn.com/954147562/files/doc_downloads/technical_report/lan-Hamilton-technical-report-nzema.pdf.
- 308 "Gold output from Agbaou is in the form of doré bars which are shipped to Europe for refining by Metalor, the contract refiner", Endeavour Mining, Technical Report for the Agbaou Gold Mine, 2015, p. 6, https://s21.q4cdn.com/954147562/files/doc_downloads/technical_report/lan-Hamilton-technical-report-agbaou.pdf.
- 309 "The gold is exported to the Rand Refinery in South Africa", B2 Gold, Otjikoto Gold Mine, Namibia, NI 43-101 Technical Report, 31 December 2018, pp. 1-20, https://www.miningnewsfeed.com/reports/Otjikoto_Technical_Report_12312018.pdf.
- 310 "The doré is exported to the Metalor refinery in Switzerland",
 B2 Gold, Technical Report Fekola Gold Mine, 31 December 2019, pp. 1-21, https://minedocs.com/20/Fekola_TR_03202020.pdf.
- 311 "Gold doré produced at the Mine is shipped from site under secured conditions and sold under agreement to Rand Refinery in South Africa", Barrick, Technical Report on the Kibali Gold Mine, DRC, 18 March 2022, p. 21, https://minedocs.com/22/Barrick_Kibali_TR_12312021.pdf.
- 312 "MGBL have entered into a refining and offtake agreement with MKS PAMP SA of Switzerland for the refining and sales of gold doré", Asante Gold Corporation, Technical Report Bibiani Gold Project, 2022, p. 169, https://asantegold.com/operations/bibiani-gold-mine/.
- 313 "CGML entered into a refining contract with Metalor Technologies SA, on 1 March 2015. [...] The original contract was valid for a period of three years and was renewed for a second term expiring on 30 June 2021. The contract was renewed on the 1 February 2021 and is due to expire on 31 December 2023", Asante Gold Corporation, Technical Report Chirano Gold mine, 2022, p. 205, https://asantegold.com/operations/chirano-gold-mine/.
- 314 "Refining contracts are in place with MKS PAMP Group and the Perth Mint Refinery", Perseus Mining, Technical Report Edikan Gold Mine, 6 April 2022, p. 11, https://perseusmining.com/wp-content/uploads/2022/05/Edikan_NI_43_101_Technical_Report_2022.pdf.
- 315 "It has been assumed that the gold produced from the project would be shipped to the Argor Heraeus refinery (Mendrisio, Switzerland) as per the current production from the Kalana Mine", Avnel Gold Mining Limited as Operator of SOMIKA, Technical Report, 2016, p. 251, https://s21.q4cdn.com/954147562/files/doc_downloads/technical_report/TechnicalReport-2016-AvnelGold.pdf.
- "Gold production from the Tasiast Mine is shipped and refined under contract by MKS", Red Back Mining, Technical report on the Tasiast Gold Mine, 2010, https://www.sec.gov/Archives/edgar/data/701818/000110465910044984/a10-15597_4ex99d1.htm.
- 317 First Quantum Minerals, Guelb Moghrein Copper Gold Mine, Inchiri, Mauritania, NI 43-101 Technical Report, March 2016, p. 91, https://www.miningdataonline.com/reports/GuelbMoghrein_Technical_032016.pdf.
- 318 "The Company is also pleased to announce that it has entered into a refining agreement with Argor Heraeus, a leading international gold refiner based in Switzerland, and has successfully completed its first export of gold for refining in February 2022", Tanzanian Gold Corporation, Buckreef Gold Completes First Phase of Mill Expansion and Achieves Record Gold Production, 17 February 2022,
 - https://www.sec.gov/Archives/edgar/data/1173643/000127351122000021/ex991.htm.
- 319 "including 2,841 oz Au delivered to the Argor-Heraeus refinery in Switzerland prior to 31 December 2019", Shanta Gold Limited, Q4 2019 Production & Operational Update, 16 January 2020, p. 3, https://www.shantagold.com/_resources/Q4%202019%20Production%20and%20Operational%20Update.pdf.
- 320 "To date there have been 25 shipments of gold from New Liberty for smelting and refining at the MKS PAMP refinery in Switzerland", Avesoro Resources (former name was Aureus Mining), Commercial production declared: february production exceeds 9'000 ounces, 2 March 2016,

https://avesoro.com/2016/03/02/commercial-production-declared-february-production-exceeds-9000-ounces/.

- 321 "At the Syama Gold Mine, gold is smelted onsite as dore bars. The bars are shipped offsite by armoured transport to gold refineries in Switzerland and Perth where refining is completed under routine commercial terms. Gold credits are transferred to the Perth Mint in Australia after subtraction of the refining costs", Prospectus Resolute Mining Limited, June 2020, https://www.rml.com.au/wp-content/uploads/2022/08/Prospectus-Final-June-2020.pdf.
- 322 "The gold dore was transported to the Rand Refinery in South Africa and refined", Papillon Holdings PLC (formerly Caracal Gold), Prospectus, 2021, p. 42, https://caracalgold.com/wp-content/uploads/2021/07/Prospectus-Final-19.07.21.pdf.
- 323 "All of our gold bars are processed by Rand Refinery", Heaven-Sent Gold Group Company Limited, Prospectus, 2019, p. 9 https://minedocs.com/22/HSG-Global-Offering-2019.pdf.
- 324 "Metalor supplied their refinery terms and conditions which provided cost and payment terms for doré product used in working capital calculations", Hummingbird Resources, Optimization Study Report for the Yanfolila Gold Project, Mali, 2015, p. 151, https://www.miningdataonline.com/reports/Yanfolila%20Gold%20Project_TR_2015.pdf.
- 325 "In early 2022, at the request of one of our refiners, PAMP, third party observers undertook a follow up visit to North Mara", Barrick, Sustainability Report 2021, p. 84,

https://s25.q4cdn.com/322814910/files/doc_downloads/sustainability/Barrick_Sustainability_Report_2021.pdf.

- 326 Barrick's response to SWISSAID, 8 December 2022.
- 327 Hummingbird Resources' response to SWISSAID, 12 January 2023, "No particular reason".
- 328 B2 Gold's response to SWISSAID, 14 December 2022, "No particular reason".
- 329 Shanta Gold's response to SWISSAID, 16 January 2023, "There is no reason in particular"
- 330 B2 Gold's response to SWISSAID, 14 December 2022.
- 331 Resolute Mining's response to SWISSAID, 20 January 2023.
- 332 Barrick Gold's response to SWISSAID, 8 December 2022.
- 333 Managem's response to SWISSAID, 8 December 2022, "Nous ne publions pas le nom de nos clients en général. Mais nous fournissons toutes les informations nécessaires pour la traçabilité de nos métaux aux organismes qui le demandent."
- 334 AngloGold Ashanti's response to SWISSAID, 11 November 2022.
- 335 IAMGOLD's response to SWISSAID, 20 December 2022.
- 336 First Quantum Minerals' response to SWISSAID, 6 February 2023.
- 337 Shanta Gold's response to SWISSAID, 16 January 2023.
- 338 Caracal Gold's response to SWISSAID, 2 February 2023.
- 339 Blue Gold International (FGR)'s response to SWISSAID, 25 January 2023.
- 340 Newmont, Sustainability Reporting, accessed on 2 February 2023,
- https://www.newmont.com/sustainability/sustainability-reporting/default.aspx.
- 341 Ibid.
- 342 Newmont's response to SWISSAID, 19 December 2022.
- 343 Newmont's response to SWISSAID, 19 December 2022.
- 344 Newmont's response to SWISSAID, 22 December.
- 345 Newmont's response to SWISSAID, 19 January 2023.
- 346 Newmont's response to SWISSAID, 19 January 2023.
- 347 Kinross, 2021 Annual Report, p. 49, https://s2.q4cdn.com/496390694/files/doc_financials/annual/2022/Kinross-Gold-2021-Annual-Report-FINAL.pdf.
- 348 Kinross, 2021 Sustainability Report, p. 30, https://s2.q4cdn.com/496390694/files/doc_downloads/sustainability/2022/6838_Kinross_SR-2021_AODA_June_20_FINAL.pdf.
- 349 $\,$ Kinross' response to SWISSAID, 14 December 2022.
- 350 EITI Report 2019 Mauritania, 24 October 2021, p. 63, https://eiti.org/sites/default/files/2022-04/rapport_itie_2019_mauritanie.pdf.
- 351 Perseus Mining's response to SWISSAID, 12 December 2022.
- 352 Perseus Mining's response to SWISSAID, 12 December 2022.
- 353 Allied Gold Corp's response to SWISSAID, 25 January 2023.
- 354 EITI Report 2018 Guinea, December 2020, p. 86, https://eiti.org/sites/default/files/attachments/rapport_itie-guinee_2018_version_finale_signe_30122020.pdf.
- 355 EITI Report 2016 Mali, December 2018, p. 114, https://eiti.org/sites/default/files/attachments/rapport-itie-mali-2016-version-finale-03.12.2018.pdf.
- 356 EITI Report 2012 Burkina Faso, 2014, p. 64, https://eiti.org/sites/default/files/attachments/2012_burkina_faso_eiti_report_final.pdf.
 357 EITI Report 2013 Mauritania, April 2015, p. 63,
- https://eiti.org/sites/default/files/attachments/2013_mauritania_eiti_report_fr.pdf.

- 358 EITI Report 2019 Niger, November 2021, p. 84, https://eiti.org/sites/default/files/attachments/rapport-itie-niger-2019-version-finale-301121.pdf.
- 359 EITI, The EITI Standard 2019, 15 October 2019, p. 21, https://eiti.org/sites/default/files/2022-03/EITI%20Standard%202019%20EN.pdf.
- 360 "Navachab gold mine is an open pit mine, producing gold bullion which is refined for onward sales at the Rand Refinery in South Africa", Chamber of Mines of Namibia, 2020 Annual Review, 2021, p. 48
- https://chamberofmines.org.na/wp-content/uploads/2021/07/2020-Chamber-Annual-Review.pdf.
 Telquel, Pourquoi l'hélicoptère MANAGEM transportait-il un excédent d'or au Soudan, 14 May 2019, https://telquel.ma/2019/05/14/pourquoi-managem-transportait-un-excedent-dor-au-soudan_1638323; New Business Ethiopia, Ethiopia revokes gold mining license of MIDROC Gold, 10 May 2018, https://newbusinessethiopia.com/mining/ethiopia-revokes-gold-mining-license-of-midroc-gold/.
- 362 IMPACT, Alan Martin, A Golden Web, 2019, p. 18, https://impacttransform.org/wp-content/uploads/2019/11/IMPACT_A-Golden-Web_EN-Nov-2019_web.pdf; Action de Carême and Pain pour le Prochain, Doro Winkler and Anja Straumann, Le profit plus important que les droits humains ? L'extraction de l'or au Burkina Faso et la responsabilité de la Suisse, 2016, https://voir-et-agir.ch/content/uploads/2016/02/160215_Etude_Or_Burkina-Faso.pdf.
- 363 International Cyanide Management Institute, AngloGold Ashanti Geita Gold Mine Tanzania, 2016, p. 5, https://cyanidecode.org/wp-content/uploads/2021/04/AngloGoldGeitaSAR2016_0.pdf.
- 364 "Rand Refinery refine Banro's gold production the Twangiza and Namoya mines", Tetra Tech, Capacity building for a responsible minerals trade, USAID, 2015, p. 8, https://pdf.usaid.gov/pdf_docs/PA00TFS4.pdf.
- 365 "Banro refines its Twangiza gold onsite to 92% purity, and the resulting bullion is flown out to Rand Refinery in Johannesburg (South Africa)", Gregory Mthembu-Salter, Baseline study two: Mukungwe artisanal mine, South Kivu, Democratic Republic of Congo, OECD, 2014, p. 16, https://www.oecd.org/daf/inv/mne/Gold-Baseline-Study-2.pdf.
 200 EITI Parent 2012 Mauritania, April 2015, p. 02
- 366 EITI Report 2013 Mauritania, April 2015, p. 63, https://eiti.org/sites/default/files/attachments/2013_mauritania_eiti_report_fr.pdf.
- 367 EITI Report 2016 Mali, December 2018, p. 114, https://eiti.org/sites/default/files/attachments/rapport-itie-mali-2016-version-finale-03.12.2018.pdf.
- 368 EITI Report 2018 Guinea, December 2020, p. 86, https://eiti.org/sites/default/files/attachments/rapport_itie-guinee_2018_version_finale_signe_30122020.pdf.
- 369 Customs statistics for Côte d'Ivoire (2021), Tanzania (2015 and 2016), Botswana (2021) and Ghana (2018, 2018 and 2021), obtained via a paid database.
- 370 MKS PAMP's response to SWISSAID, 6 October 2023,"Nous ne pouvons pas nous prononcer sur la publication des importations en Inde".
- 371 Hummingbird Resources' response to SWISSAID, 12 January 2023.
- 372 Metalor's response to SWISSAID, 18 January 2023.
- 373 The Perth Mint's response to SWISSAID, 25 October 2022.
- 374 Perseus Mining's response to SWISSAID, 13 December 2022.
- 375 Argor-Heraeus' response to SWISSAID, 13 February 2023, "Pls see answers in the document we provided before"
- 376 Rand Refinery's response to SWISSAID, 15 February 2023.
- 377 Asahi Refining Canada's response to SWISSAID, 5 February 2023.
- 378 "Gold production from the Tasiast Mine is shipped and refined under contract by MKS", Red Back Mining, Technical report on the Tasiast Gold Mine, 2010, https://www.sec.gov/Archives/edgar/data/701818/000110465910044984/a10-15597_4ex99d1.htm;
 "Gold output from Agbaou is in the form of doré bars which are shipped to Europe for refining by Metalor, the contract refiner", Endeavour Mining, Technical Report for the Agbaou Gold Mine, 2015, p. 6, https://s21.q4cdn.com/954147562/files/doc_downloads/technical_report/lan-Hamilton-technical-report-agbaou.pdf.
- 379 Asahi Refining Canada's response to SWISSAID, 5 February 2023.380 Asahi Refining Canada's response to SWISSAID, 5 February 2023.
- 381 "All gold and silver sales during the year were made to a single customer in North America, Asahi Refining Canada Ltd", Centamin, Annual Report 2021, 5 April 2022, p. 186, https://www.centamin.com/media/2529/cent-ar21-full-web-secure.pdf.
- 382 Confirmed by Centamin to SWISSAID, 24 January 2023.

"Gold bullion represents the marketable product held in a metal account at Argor-Heraeus ready for sale" Robex, Annual Report 2021, June 2022, p. 60, https://robexgold.com/wp-content/uploads/2022/06/rapport-annuel.pdf;
"including 2,841 oz Au delivered to the Argor-Heraeus refinery in Switzerland prior to 31 December 2019", Shanta Gold Limited, Q4 2019 Production & Operational Update, 16 January 2020, p. 3, https://www.shantagold.com/_resources/Q4%202019%20Production%20and%200perational%20Update.pdf;
"The Company is also pleased to announce that it has entered into a refining agreement with Argor Heraeus, a leading international gold refiner based in Switzerland, and has successfully completed its first export of dorè for refining in February 2022", Tanzanian Gold Corporation, Buckreef Gold Completes First Phase of Mill Expansion and Achieves Record Gold Production, 17 February 2022
https://www.sec.gov/Archives/edgar/data/1173643/000127351122000021/ex991.htm.

384 Robex's response to SWISSAID, 26 January 2023; Shanta Gold's response to SWISSAID, 16 January 2023.

- 385 Argor-Heraeus' response to SWISSAID, 13 February 2023, "We do not share the observation outlined in your statement saying: "...the majority of the mining companies you work with in Africa (e.g. Robex, Shanta Gold, TRX Gold Corp.) disclose or acknowledge publicly their business relationship with you."
- 386 Argor-Heraeus' response to SWISSAID, 13 February 2023.
- 387 Argor-Heraeus' response to SWISSAID, 6 October 2022.
- 388 Rand Refinery's response to SWISSAID, 15 February 2023.
- AngloGold Ashanti's response to SWISSAID, 11 November 2022; Barrick's response to SWISSAID, 8 December 2022;
 B2 Gold, Otjikoto Gold Mine, Namibia, NI 43-101 Technical Report, 31 December 2018, pp. 1-20,

https://www.miningnewsfeed.com/reports/Otjikoto_Technical_Report_12312018.pdf;

"Walleye produced at Sibanye-Stillwater and other SA gold mining companies, is further refined at Rand Refinery", Sibanye-Stillwater, accessed 11 January 2023,

https://www.sibanyestillwater.com/business/southern-africa/gold-operations/rand-refinery/;

"Rand Refinery smelts, evaluates, refines and fabricates the gold we produce for investment and retail clients", Harmony, 2022 ESG report, 2022, p. 42, https://www.har.co.za/22/download/HAR-ESG22.pdf;

"Final product from the gravity and CIP circuits is smelted into gold bars for refining at Rand Refinery",

Gold Fields, accessed 11 January 2023, https://www.goldfields.com/south-africa-region.php;

"Delivery of the gold to Rand Refinery", Pan African Resources, Integrated Annual Report, 2022, p. 172,

https://www.panafricanresources.com/wp-content/uploads/Integrated-annual-report-2022.pdf.

- 390 Rand Refinery's response to SWISSAID, 15 February 2023, "these are listed on various stock exchanges and are required to disclose contracts of a 'material nature' in their securities filings for the benefit of investors".
- Rand Refinery's response to SWISSAID, 15 February 2023,"hence these entities may disclose that they have a contractual relationship with Rand Refinery".
- 392 Rand Refinery's response to SWISSAID, 15 February 2023.
- 393 MKS PAMP's response to SWISSAID, 19 January 2023, "Notre contrat type prévoit une obligation mutuelle de confidentialité. Le contrat avec chaque mine est le résultat de négociations au cas par cas et peut par conséquent faire l'objet d'adaptations de notre contrat type".
- "MKS collects the gold from either the Tarkwa or Damang mine and transports it either to its Switzerland refinery or to its Indian refinery where the gold is then refined", SEC report Form 20-F, Gold Fields Limited, 2022, p. 73, https://www.goldfields.com/pdf/investors/form-20-f/2021/20-f.pdf;
 Barrick's response to SWISSAID, 8 December 2022; Avesoro's response to SWISSAID, 13 December 2022;
 "All metal sales in the year were made to MKS PAMP SA", West African Resources, Annual Report 2021, p. 61, https://wcsecure.weblink.com.au/pdf/WAF/02504670.pdf.
- 395 Perseus Mining's response to SWISSAID, 12 December 2022; Newmont's response to SWISSAID, 19 January 2023, Kinross' response to SWISSAID, 14 December 2022.
- 396 Perseus Mining's response to SWISSAID, 12 December 2022; Newmont's response to SWISSAID, 22 December 2022 and 19 January 2023.
- 397 MKS PAMP's response to SWISSAID, 18 January 2023,
- "engagé par contrat à ne pas divulguer l'existence ou le contenu d'une relation commerciale".
- 398 Metalor's response to SWISSAID, 18 January 2023.
- 399 Perseus Mining's response to SWISSAID, 12 December 2022.
- 400 Perseus Mining, Technical Report Edikan Gold Mine, 6 April 2022, p. 11, https://perseusmining.com/wp-content/uploads/2022/05/Edikan_NI_43_101_Technical_Report_2022.pdf.
- 401 Rand Refinery's response to SWISSAID, 21 November 2022.
- 402 Argor-Heraeus' response to SWISSAID, 6 October 2022.

- 403 MKS PAMP's response to SWISSAID, 6 October 2022.
- 404 "During the reporting period, we have sourced gold from the North Mara Gold Mine in Tanzania (NMGM)", MMTC-PAMP, Compliance Report 2021, 14 March 2022, p. 10, https://cdn.lbma.org.uk/gdl-downloads/MMTC-PAMP-FY2021-RGG-and-RSG-audit-for-website.pdf.
- 405 Argor-Heraeus' response to SWISSAID, 13 February 2023.
- 406 Rand Refinery's response to SWISSAID, 15 February 2023.

 407 MKS PAMP's response to SWISSAID, 6 October 2022 and 27 February 2023,
 "Cette publication est nécessaire selon les règles applicables de la LBMA et nous avons dès lors dû obtenir spécifiquement l'accord de la mine pour publier ces informations".

- 408 "Refiners do not have to disclose the names of their counterparties", LBMA, Responsible Sourcing Program, Disclosure Guidance, November 2022, p. 24, https://cdn.lbma.org.uk/downloads/Disclosure-Guidance-GDL-RGG-v3-FINAL.pdf.
- 409 LBMA, Responsible Gold Guidance Version 9, November 2021, p. 38, https://cdn.lbma.org.uk/downloads/Publications/2021/Responsible-Gold-Guidance-Version-9-Final.pdf.
- Forbidden Stories, Silence is golden for a Tanzanian mine, Marion Guégan and Cécile Schilis-Gallego, 2019, https://forbiddenstories.org/silence-is-golden-for-a-tanzanian-mine/;
 The Guardian, Murder, rape and claims of contamination at a Tanzanian goldmine, Jonathan Watts, 18 June 2019, https://www.theguardian.com/environment/2019/jun/18/murder-rape-claims-of-contamination-tanzanian-goldmine.
- RAID, Police Violence at the North Mara Gold Mine, March 2022, https://www.raid-uk.org/sites/default/files/barrick-north-mara-police-violence-briefing-march-2022.pdf;
 RAID, RAID's Research on Barrick's North Mara Gold Mine, accessed 14 February 2023, https://www.raid-uk.org/barrick-north-mara-gold-mine.
- 412 RAID, LBMA should suspend gold refiner MMTC-PAMP, 9 July 2020, https://www.raid-uk.org/blog/lbma-should-suspend-gold-refiner-mmtc-pamp.
- 413 LBMA, MMTC-PAMP Pvt. Ltd Remains a Good Delivery List Refiner, November 4, 2022, https://www.lbma.org.uk/articles/mmtc-pamp-pvt-ltd-remains-a-good-delivery-list-refiner.
- 414 MKS PAMP, Compliance Report 2021, 14 March 2022, https://www.mkspamp.com/sites/mksandpamp/files/inline-files/MKS%20PAMP%2021%20LBMA%20Report%20
 Reasonable%20Assurance%2031.12.2021%20SANS%20ANNEXE%20eSigned.pdf.
- 415 International Crisis Group, All That Glitters is Not Gold: Turmoil in Zimbabwe's Mining Sector, 24 November 2020, https://www.crisisgroup.org/africa/southern-africa/zimbabwe/294-all-glitters-not-gold-turmoil-zimbabwes-mining-sector; Reuters, Homes, land destroyed as desperate Zimbabweans turn to illegal gold mining, 20 November 2019, https://www.reuters.com/article/us-zimbabwe-mining-land-trfn-idUSKBN1XU04E.
- 416 FGR made it clear to SWISSAID that its gold purchase policy is primarily based on a document entitled Bullion Acceptance Conditions. FGR's response to SWISSAID, 28 February 2023.
- 417 United Nations Industrial Development Organization, The Global Initiative Against Transnational Organized Crime, Follow The Money: Zimbabwe, Marcena Hunter, April 2018, p. 13, https://www.unido.org/sites/default/files/files/2019-02/Zimbabwe%20ASGM_28.04.18_0.pdf.
- 418 Rand Refinery's response to SWISSAID, 15 February 2023.
- 419 Rand Refinery's response to SWISSAID, 15 February 2023.
- 420 Responsible Mining Foundation, The Harmful Effects of Mining, when mining harms people, environments and economies, 2021, https://www.responsibleminingfoundation.org/app/uploads/RMF_Harmful_Impacts_Report_EN.pdf.
- 421 Mark Pieth, Gold Laundering: the dirty secrets of the gold trade and how to clean up, 2019, p. 30.
- 422 Federal Council, Trade in Gold Produced in Violation of Human Rights, 14 November 2018, p. 6 of the version in French, https://www.admin.ch/gov/en/start/documentation/media-releases.msg-id-72914.html.
- 423 OECD, OECD Guidance on Due Diligence for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, 2016, https://www.oecd.org/daf/inv/mne/OECD-Due-Diligence-Guidance-Minerals-Edition3.pdf.
- 424 LBMA, Responsible Gold Guidance, Version 9, November 2021, https://cdn.lbma.org.uk/downloads/Publications/2021/Responsible-Gold-Guidance-Version-9-Final.pdf.
- 425 LBMA, Responsible Sourcing Programme, Disclosure Guidance, November 2022, https://cdn.lbma.org.uk/downloads/Disclosure-Guidance-GDL-RGG-v3-FINAL.pdf.
- 426 Ibid. p. 24.
- 427 Ibid. p. 18.
- 428 LBMA, Sustainability and Responsible Sourcing Report 2022, p. 19, https://cdn.lbma.org.uk/downloads/Publications/2022/LBMA_Sustainability-and-Responsible-Sourcing-Report_2022_Final.pdf.
- 429 OECD, OECD Guide on Due Diligence for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, Step 5, footnote number 59, 2016, p. 111,

https://www.oecd.org/daf/inv/mne/OECD-Due-Diligence-Guidance-Minerals-Edition3.pdf.

- 430 SWISSAID interview with the OECD Secretariat, 4 November 2019.
- 431 LBMA, Responsible Gold Guidance, Version 9, November 2021, p. 38, https://cdn.lbma.org.uk/downloads/Publications/2021/Responsible-Gold-Guidance-Version-9-Final.pdf.
- 432 LBMA, Responsible Gold Guidance Version 9: Second Consultation, 24 September 2021, https://www.lbma.org.uk/articles/second-consultation-period-for-responsible-gold-guidance-version-9.
- 433 LBMA, Responsible Sourcing Newsletter, January 2023, https://www.lbma.org.uk/articles/responsible-sourcing-newsletter-january-2023.
 434 LBMA, Responsible Gold Guidance, Version 9, November 2021, p. 2,
- https://cdn.lbma.org.uk/downloads/Publications/2021/Responsible-Gold-Guidance-Version-9-Final.pdf.

12. APPENDIX

Please note that this list is not exhaustive.

New Business Ethiopia, Ethiopia revokes gold mining license of MIDROC Gold, 10.05.2018, https://newbusinessethiopia.com/mining/ethiopia-revokes-gold-mining-license-of-midroc-gold/.

Roxanne Léouzon, Un homme tué sur le site d'une minière québécoise au Mali, Le Devoir, 15.12.2022, https://www.ledevoir.com/monde/afrique/774843/un-homme-tue-sur-le-site-d-une-miniere-quebecoise-au-mali.

République du Mali, Le Vérificateur Général, Rapport Annuel 2019, http://www.bvg-mali.org/images/Rapports/annuels/RAPPORT_ANNUEL_2019_RED.pdf.

Danioko Yaya, Impacts environnementaux et socio-économiques de l'exploitation minière au Mali : cas de la société des mines d'or de Syama (Somisy-Sa), commune rurale de Fourou, cercle de Kadiolo, Ecole Normale Supérieure de Bamako, 2019, https://www.memoireonline.com/11/22/13447/Impacts-environnementaux-etsocio-conomiques-de-l-exploitation-minire-au-Mali--cas-de-la-so.html.

Ahmed Abdelaal et al., Integrated studies to identify site-specific parameters for environmentally benign mining operations: A case study from the Sukari Gold Mine, Egypt, Science of The Total Environment 750, 2021, https://www.sciencedirect.com/science/article/pii/S0048969720351834.

Maligana Mathe & Anthony Phiri, The Impact of Mining on the Environment in Gwanda District Zimbabwe: A Case Study of Blanket Mine, Imperial Journal of Interdisciplinary Research 2(5), 2016, https://www.researchgate.net/publication/312200254_The_Impact_of_Mining_on_the_Environment_in_Gwanda_District_ Zimbabwe_A_Case_Study_of_Blanket_Mine.

Byron Adonis Mutingwende, Redwing Mine: Hungry workers mining what is not theirs, Spiked, 11.2022, https://spikedmedia.co.zw/redwing-mine-hungry-workers-mining-what-is-not-theirs/.

Tatenda Mutsvanga et al., Gold Ore Waste Management Challenges at Renco Mine, Zimbabwe, European Journal of Social Sciences Studies 3(3), 2018, https://zenodo.org/record/1419529#.ZBWvQ3bMl2w.

Norbert Njini & Jemitias Mapira, Challenges of Waste Management at Jena Mine, Kwekwe, Zimbabwe, and Their Possible Solutions, European Journal of Social Sciences Studies 2 (10), 2018, https://zenodo.org/record/1165478#.ZBg_p3bMI2w.

Gaston Bonheur Sawadogo, Burkina Faso : Le projet aurifère de Bomboré et le calvaire des populations, Cenozo, 12.10.2020, https://cenozo.org/burkina-faso-le-projet-aurifere-de-bombore-et-le-calvaire-des-populations/.

Mahamady Porgo & Orhan Gokyay, Environmental impacts of gold mining in Essakane site of Burkina Faso, Human and Ecological Risk Assessment 23(3), 2017, https://www.tandfonline.com/doi/abs/10.1080/10807039.2016.1263930.

Doro Winkler & Anja Straumann, Le profit plus important que les droits humains ? L'extraction de l'or au Burkina Faso et la responsabilité de la Suisse, Pain pour le Prochain, Action de Carême, 2016, https://voir-et-agir.ch/content/uploads/2016/02/160215_Etude_Or_Burkina-Faso.pdf.

Tiga Cheick Sawadogo, Charbon fin de IAMGOLD Essakane SA : Il y a bel et bien eu fraude de l'or, enfonce le REN-LAC, Lefaso.net, 28.05.2019, https://lefaso.net/spip.php?article89911.

Bettina Engels, Gold is not for Eating: Conflicts Related to Gold Mining in Burkina Faso. Commodity Frontiers 1 (1-6), 2020, https://www.researchgate.net/publication/344433770_Gold_is_not_for_Eating_Conflicts_Related_to_Gold_Mining_in_Burkina_Faso.

Africanews, Burkina Faso : 2 morts dans des heurts après l'arrestation d'orpailleurs, 26.05.2022, https://fr.africanews.com/2022/05/26/burkina-faso-2-morts-dans-des-heurts-apres-l-arrestation-d-orpailleurs/.

Netafrique.net, Burkina – Bagassi : Manifestation contre la société minière Roxgold Mining, 9.10.2018, https://netafrique.net/burkina-bagassi-manifestation-contre-la-societe-miniere-roxgold-mining/?amp=1.

Jeremy Allouche & Janet Adama Mohammed, Comment l'exploitation minière en Côte d'Ivoire peut-elle mieux bénéficier aux communautés locales sans exacerber les conflits ?, Institute of Development Studies, 10.2017, https://opendocs.ids.ac.uk/opendocs/bitstream/handle/20.500.12413/13368/PB_MiningCoteDIvoire_FRENCH_Online.pdf?sequence=1&isAllowed=y.

Eburnie Today, Deux morts à la mine d'or d'Ity à Zouanhounien, 8.05.2019, https://eburnietoday.com/deux-morts-a-la-mine-dor-dity-a-zouanhounien/.

Nesta Devinci, Hiré - Les populations riveraines de la mine d'or d'Agbahou exigent relocalisation et dédommagements, Minutes Eco, 11.11.2017, https://www.minutes-eco.com/news/912-hire-les-populations-riveraines-de-la-mine-d-or-d-agbahouexigent-relocalisation-et-dedommagements.

Agence Ecofin, Côte d'Ivoire : la compagnie minière Endeavour va « réparer » les conséquences liées aux expropriations des populations d'Agbaou, 15.02.2018, https://www.agenceecofin.com/or/1502-54389-cote-d-ivoire-la-compagnie-miniere-endeavour-va-reparer-les-consequences-liees-aux-expropriations-des-populations-d-agbaou.

Le Judik, Hiré : mine d'or ou mine de malheur (1) !!!, 17.01.2018, https://lejudik.mondoblog.org/2018/01/17/hire-mine-dor-ou-mine-de-malheur-1/.

Le Judik, Hiré mine d'or ou de malheur 2 (suite), 17.02.2019, https://lejudik.mondoblog.org/2019/02/17/hire-mine-dor-ou-de-malheur-2/.

MaliActu.net, Mali: Société BCM Investments: Morts d'hommes à la mine de Tabakoto et violation flagrante des normes environnementales, 21.10.2021, https://maliactu.net/mali-societe-bcm-investments-morts-dhommes-a-la-mine-de-tabakoto-et-violation-flagrante-des-normes-environnementales/.

Collectif des anciens travailleurs de la Semico Tabakoto c. Mali (compétence) (2020) 4 RJCA 839, African Court Law Report 4, 2020, https://www.pulp.up.ac.za/edocman/legal_compilations/2020_aclr_french/cases/ Collectif%20v%20Mali%20(jurisdiction%20and%20admissibility)%20(2020)%204%20AfCLR%20764.pdf.

Le reporter.ma, Polémique autour de la mine de Tiouit. Les villageois, menacés par le cyanure, attendent la Commission des mines, 10.12.2021, https://www.lereporter.ma/polemique-autour-de-la-mine-de-tiouit-les-villageois-menaces-par-le-cyanure-attendent-la-commission-des-mines/.

Land Portal, Gold and the goddess: How mining polluted Nigeria's sacred Osun river, 2.09.2022, https://landportal.org/news/2022/09/gold-and-goddesshow-mining-polluted-nigeria%E2%80%99s-sacred-osun-river.

Le Quotidien, Exploitation de l'or à Sabodala : Mauvaise mine des impactés, 30.04.2019, https://lequotidien.sn/enquete-exploitation-de-lor-a-sabodala-mauvaise-mine-des-impactes/.

Boubacar Tamba, Mouvement d'humeur des populations de Sabodala - SGO arrête les opérations et sécurise son personnel, Sud Quotidien, 17.02.2016, https://www.business-humanrights.org/fr/derni%C3%A8res-actualit%C3%A9s/mouvement-dhumeur-des-populations-de-sabodala-sgo-arr%C3%AAte-les-op%C3%A9rations-et-s%C3%A9curise-son-personnel/.

Radio Environnement Guinée, Mandiana : l'ONG Association mines sans pauvreté (AMSP) publie le rapport de suivi des obligations environnementales et sociales de la société minière de Mandiana (SMM), 19.08.2022, http://radioenvironementguinee. org/rapport-final-dactivites-suivi-citoyen-comme-moyen-de-controle-des-obligations-contractuelles-de-la-societe-desmines-de-mandiana-smm-dans-la-localite-de-kodiaran-prefecture-de-mandian/.

Niger Diaspora, Exploitation de l'or au Niger : La SML plongée dans une mafia par Angela List, 24.12.2022, https://www.nigerdiaspora.com/les-nouvelles-du-pays/34-economie/17700-exploitation-de-l-or-au-niger-la-sml-plongee-dans-une-mafia-par-angela-list.

La génération citoyenne et patriotique, Pétition contre l'utilisation du cyanure à Bakudou, 30.12.2015, https://www.petitionenligne.com/petition_contre_lutilisation_du_cyanure_a_bakudou.

Korlah W.D. Dorko, Environmental Impacts of Gold Mining in Liberia: A Case Study of New Liberty and MNG Kokaya Gold Mines, Liberia Macroeconomic Policy Analysis Center, 8.12.2018, https://limpac.org/wp-content/uploads/2019/03/Korlah-WD-Dorko-Environmental-Impacts-of-Gold-Mining-in-Liberia-.pdf.

Joseph Titus Yekeryan, Liberia: Kokoya residents demand compensation from MNG-Gold for destruction of their houses caused by activities of the mine, The New Dawn, 22.01.2018, https://www.business-humanrights.org/en/latest-news/liberia-kokoya-residents-demand-compensation-from-mng-gold-for-destruction-of-their-houses-caused-by-activities-of-the-mine/

Désiré Boniface Some, Burkina Faso : exploitation minière et sécurité alimentaire autour de Bissa Gold a Sabce, Journal de la recherche scientifique de l'Université de Lomé 22(3), 2020, https://www.ajol.info/index.php/jrsul/article/view/205034.

Radio France International, Burkina Faso: huit orpailleurs trouvent la mort sur le site minier de Bissa Gold à Sabcè, 3.09.2021, https://www.rfi.fr/fr/afrique/20210902-burkina-faso-huit-orpailleurs-trouvent-la-mort-sur-le-site-minier-de-bissa-gold-%C3%A0-sabc%C3%A8.

Marcellinus Essah, Gold mining in Ghana and the UN Sustainable Development Goals: Exploring community perspectives on social and environmental injustices, Sustainable Development 30(1), 2022, https://onlinelibrary.wiley.com/doi/epdf/10.1002/sd.2233.

Esther Ayaaba et al., Occupational Respiratory Diseases of Miners from Two Gold Mines in Ghana, International Journal of Environmental Research and Public Health 14(3), 2017, https://doi.org/10.3390/ijerph14030337.

Asaah Sumaila Mohammed et al., Extractivism and community development in Ghana: Local actors' perspectives from gold mining in Tarkwa and Obuasi, International Journal of Development and Sustainability 8 (5), 2019, https://isdsnet.com/ijds-v8n5-01.pdf.

Christophe Châtelot, En Guinée, la mine d'or de Nordgold empoisonne la vie des habitants, Le Monde, 13.10.2018, https://www.lemonde.fr/long-format/article/2018/10/13/en-guinee-la-mine-d-or-de-nordgold-empoisonne-la-vie-des-habitants_5368992_5345421.html.

Environmental Justice Atlas, Lefa Gold mine, cyanide lakes poisoning villagers' water and animals, by Nordgold, Guinea, 22.01.2019, https://ejatlas.org/conflict/lefa-gold-mine.

Liselotte Mas, Attaquée et critiquée, une mine d'or turque dans la tourmente au Burkina Faso, France 24 (Les Observateurs), 13.08.2019, https://observers.france24.com/fr/20190813-burkina-faso-mine-or-youga-turque-attaque-colere-habitants-code-minier.

L'Economiste du Faso, Mine d'or de Youga: un mépris envers l'autorité ?, 28.03.2022, https://www.leconomistedufaso.com/2022/03/28/mine-dor-de-youga-un-mepris-envers-lautorite/.

Impact International, Without fair working conditions in mines, Mauritania's gold will not shine, 15.05.2020, https://impactpolicies.org/en/news/129/without-fair-working-conditions-in-mines-mauritanias-gold-will-not-shine.

Joan Tilouine & Xavier Monnier, Kinross en Mauritanie : « Le niveau de corruption devenait ubuesque », Le Monde, 10.12.2015, https://www.lemonde.fr/afrique/article/2015/12/10/kinross-en-mauritanie-le-niveau-de-corruption-devenait-ubuesque_4828893_3212.html.

U.S. Securities and Exchange Commission, Kinross Gold Charged with FCPA Violations, 26.03.2018, https://www.sec.gov/news/press-release/2018-47.

Emmanuel Freudenthal, Etre libérien, vivre pauvre et mourir empoisonné près d'une montagne d'or, Le Monde, 21.03.2017, https://www.lemonde.fr/afrique/article/2017/03/21/etre-liberien-vivre-pauvre-et-mourir-empoisonne-a-cote-d-une-montagne-d-or_5098492_3212.html.

Inclusive Development International, Victims of Liberian gold mine disaster see groundbreaking complaint against development banks accepted, 9.08.2021, https://www.inclusivedevelopment.net/mining/victims-of-liberian-gold-mine-disaster-see-groundbreaking-complaint-against-development-banks-accepted/.

Marion Guégan & Cécile Schilis-Gallego, Silence is Golden for a Tanzanian Mine, Forbidden Stories, 2019, https://forbiddenstories.org/silence-is-golden-for-a-tanzanian-mine/.

Jonathan Watts, Murder, rape and claims of contamination at a Tanzanian goldmine, The Guardian, 18.06.2019, https://www.theguardian.com/environment/2019/jun/18/murder-rape-claims-of-contamination-tanzanian-goldmine.

RAID, Police Violence at the North Mara Gold Mine, 03.2022, https://www.raid-uk.org/sites/default/files/barrick-north-mara-police-violence-briefing-march-2022.pdf.

RAID, RAID's Research on Barrick's North Mara Gold Mine, accédé le 14.02.2023, https://www.raid-uk.org/barrick-north-mara-gold-mine.

Edwin Gomezulu et al., Heavy metals and cyanide distribution in the villages surrounding Buzwagi gold mine in Tanzania, Tanzania Journal of Science 44(1), 2018, https://www.ajol.info/index.php/tjs/article/view/171313.

Gadiosa Lamtey, Tanzania: Environment agency fines Bulyanhulu Gold Mine after toxic water from mine flow to nearby residences, The Guardian(Tanzania), 2.03.2015, https://www.business-humanrights.org/en/latest-news/tanzania-environment-agency-fines-bulyanhulu-gold-mine-after-toxic-water-from-mine-flow-to-nearby-residences/.

Dakar Actu, Or de Khossanto / Destruction de l'environnement, utilisation du cyanure à ciel ouvert, lac artificiel non sécurisé : SORED MINES, un pillage organisé..., 28.04.2022, https://www.dakaractu.com/Or-de-Khossanto-Destruction-de-l-environnement-utilisation-du-cyanure-a-ciel-ouvert-lac-artificiel-non-securise-SORED_a217919.html.

Antoine Sehi Bi Tape et al., Production des déchets et santé des travailleurs: cas de la mine d'or de Tongon (Côte d'Ivoire), European Scientific Journal 15(32), 2019, https://eujournal.org/index.php/esj/article/view/12512.

Organisation congolaise des écologistes et des amis de la nature, Surveillance des impacts se référant aux principes socioenvironnementaux globaux de gouvernance liés aux activités d'exploitation aurifère de KGM (Octobre 2017 - Octobre 2018), 2018, https://ocean-rdc.org/gallery/Livre.pdf.

Elodie Toto, RDC : Les SDF d'une des plus grandes mines d'or d'Afrique, Mongabay, 24.02.2023, https://fr.mongabay.com/2023/02/rdc-les-sdf-dune-des-plus-grandes-mines-dor-dafrique/.

Legrand Cirimwami et al., Exploitation minière et biodiversité : cas de Twangiza Mining dans l'Est de la RDC, Conjonctures de l'Afrique centrale, 2021, https://www.eca-creac.eu/sites/default/files/pictures/exploitation_miniere_et_biodiversite_cas_de_twangiza_mining.pdf.

Occupational Safety, Two workers dead at Canadian company's gold mine in Ghana, 7.02.2023, https://www.thesafetymag.com/ca/topics/energy-and-resources/two-workers-dead-at-canadian-companys-gold-mine-in-ghana/435465.

Modern Ghana, Two shot during protest against mining company at Dumasi, 27.07.2021, https://www.modernghana.com/news/1095292/two-shot-during-protest-against-mining-company.html.

OtecFM, Obuasi residents protest over 'worsening' unemployment rate, 06.2022, https://otecfmghana.com/2022/06/obuasi-residents-protest-over-worsening-unemployment-rate/.

Emmanuel Kwaning & Evans Atteh, Review on Effects of Mining in Ghana: The Case of Obuasi Municipality, Asian Research Journal of Arts & Social Sciences 18(4), 2022, https://www.researchgate.net/publication/365013543_Review_on_Effects_of_Mining_in_Ghana_The_Case_of_Obuasi_Municipality.

Inclusive Development International, Guinea: Victims file a criminal complaint against Guinean security forces for crackdown on AngloGold Ashanti protesters, 11.03.2019, https://www.business-humanrights.org/en/latest-news/guinea-victims-file-a-criminal-complaint-against-guinean-security-forces-for-crackdown-on-anglogold-ashanti-protesters/.

Andrew Wasike, Illegal mining killed 3 in Kenya gold mine blast, police confirm, Anadolu Agency, 24.01.2023, https://www.aa.com.tr/en/africa/illegal-mining-killed-3-in-kenya-gold-mine-blast-police-confirm/2796165.

Abamako.com, De la pollution à ciel ouvert dans les mines de Gounkoto et Loulo, 9.11.2020, http://news.abamako.com/h/243255.html.

Le Malien, Manifestation devant la mine d'or de Morila-SA : des manifestants tirés à balles réelles, Le Malien, 29.11.20215, https://www.maliweb.net/economie/mines-dor-societes/manifestation-devant-la-mine-dor-de-morila-sa-des-manifestants-tires-a-balles-reelles-2954566.html.

H. Bokar et al., Geogenic influence and impact of mining activities on water soil and plants in surrounding areas of Morila Mine, Mali, Journal of Geochemical Exploration 209, 2020,

https://www.sciencedirect.com/science/article/abs/pii/S0375674218305375?via%3Dihub.

Jean Pierre James, SEMOS-SA : Violation flagrante des normes environnementales et paiement illégal de 1,215 milliard de FCFA d'intérêts à ANGLOGOLD et IAMGOLD, Nouveau Réveil, 21.11.2019, https://www.maliweb.net/economie/mines-dor-societes/semos-sa-violation-flagrante-des-normes-environnementales-et-paiement-illegal-de-1215-milliard-de-fcfa-dinterets-a-anglogold-et-iamgold-2848752.html.

Mining Technology, Harmony Gold reports two fatalities at Tshepong mine in South Africa, 12.10.2020, https://www.mining-technology.com/news/harmony-gold-reports-two-fatalities-at-tshepong-mine-in-south-africa/.

Mining Technology, Harmony reports fatality at Moab Khotsong mine in South Africa, 4.06.2020, https://www.mining-technology.com/news/harmony-reports-fatality-at-moab-khotsong-mine-in-south-africa/.

Polity, COSATU statement on the death of four miners at Harmony Gold's Kusasalethu mine, 10.05.2022, https://www.polity.org.za/article/cosatu-statement-on-the-death-of-four-miners-at-harmony-golds-kusasalethu-mine-2022-05-10.

IndustriALL Global Union, South Africa: Five miners killed in goldmine, 31.08.2017, https://www.industriall-union.org/south-africa-five-miners-killed-in-goldmine.

Reuters, Four dead after rock collapse at South African gold mine, 8.12.2019, https://www.reuters.com/article/safrica-mining-idINL8N28I07K.

Baboloki Meekwane, Union may sue Moagi for unsafe miners' conditions: Wants Mupane gold mine closed, 9.11.2021, https://businessweekly.co.bw/news/union-may-sue-moagi-for-unsafe-miners-conditions.

Chakalisa Dube, Man dies in a freak accident, 20.04.2022, https://www.mmegi.bw/news/man-dies-in-a-freak-accident/news.

Richard Kofi Boahen, NGOs call for stringent measures to control water pollution, Modern Ghana, 26.03.2018, https://www.modernghana.com/news/843766/ngos-call-for-stringent-measures-to-control-water.html.

Bukola Adebayo, Ghana to probe mine workers death as company suspends operations, CNN 9.04.2018 https://edition.cnn.com/2018/04/09/africa/ghana-gold-mine-collapse/index.html.

News Ghana, Ghana penalizes mining giants Newmont Gold, contractors over fatal accident, 6.06.2018, https://newsghana.com.gh/ghana-penalizes-mining-giants-newmont-gold-contractors-over-fatal-accident/.

Environmental Justice Atlas, Newmont's Ahafo gold mine, Ghana: IFC supported exploitation of Ahafo Gold mine by Newmont. Communities suffer from displacement, loss of livelihoods and recurring cyanide pollution, 14.05.2018, https://ejatlas.org/conflict/gold-min.

John Tiah Bugri & Samuel Kumi, Dynamics of community perceptions, common resources and compensation practices in mining: The case of Newmont Ghana Gold Ltd at Ahafo, International Journal of the Commons 12(1), 2018, https://www.thecommonsjournal.org/articles/10.18352/ijc.757/.

Ghana Business News, Aggrieved farmers in Newmont Ahafo North Mine's enclave besiege Sunyani High Court, 23.05.2022, https://www.ghanabusinessnews.com/2022/05/23/aggrieved-farmers-in-newmont-ahafo-north-mines-enclave-besiege-sunyani-high-court/.

David McKay, Pressure grows on Sibanye-Stillwater as four miners killed at gold, PGM operations, MiningMX, 3.12.2021, https://www.miningmx.com/news/gold/48308-pressure-grows-on-sibanye-stillwater-as-four-miners-killed-at-gold-pgm-operations/.

Usman Kaku, D. et al., An Integrated Approach to Assess the Environmental Impacts of Large-Scale Gold Mining: The Nzema-Gold Mines in the Ellembelle District of Ghana as a Case Study, International journal of environmental research and public health 18(13), 2021, https://doi.org/10.3390/ijerph18137044.

Prosper Kay, Land Owners in Akyem Threaten Demo Against Newmont, News Ghana, 19.08.2021. https://newsghana.com.gh/land-owners-in-akyem-threaten-demo-against-newmont/.

Emmanuel Dartey et al., Occupational Health Hazards among Large-Scale Gold Mineworkers in Ghana, Occupational Diseases and Environmental Medicine 10, 2022, https://www.scirp.org/pdf/odem_2022061611522951.pdf.

Lynda Kanguha Wamere, Assessment of Heavy Metal Pollution Using XRF Spectometry—A Case Study of Kilimapesa Hill Gold Mines Processing Plant Area, Narok County, University of Nairobi, 2020, https://inis.iaea.org/collection/NCLCollectionStore/_Public/52/007/52007071.pdf.

Tyndale Muchiya, Complaints of pollution by FQM's Kansanshi mine escalate, Zambian Business Times, 6.10.2022, https://zambianbusinesstimes.com/complaints-of-pollution-from-fqms-kansanshi-mine-escalate/.

Edward Lange, Poverty, toxic water and disease as Zambian mine offers no hope of social transformation, Daily Maverick, 19.02.2019, https://www.dailymaverick.co.za/article/2019-02-19-poverty-toxic-water-and-disease-as-mine-offers-no-hope-of-social-transformation/.

The Citizen, Geita Gold Mine fined Sh10m over pollution, 15.12.2017, https://www.thecitizen.co.tz/tanzania/news/national/geita-gold-mine-fined-sh10m-over-pollution-2617152.

Emmanuel Zephania Malimu Factors Affecting the Implementation of Human Rights Protection Programmes in Tanzanian Mining Companies: The Case of Geita Gold Mining Ltd, The Open University Of Tanzania, 2020, http://repository.out.ac.tz/2868/1/DISSERTATION%20%20-EMMANUEL%20MALIMU%20-%20FINAL.pdf.

Siphelele Dludla, Department of Mineral Resources urge greater safety after deaths at Sibanye, IOL, 7.02.2018, https://www.iol. co.za/business-report/companies/department-of-mineral-resources-urge-greater-safety-after-deaths-at-sibanye-13152960.

Mining Technology, AngloGold halts production at Mponeng mine following three fatalities, 9.03.2020, https://www.mining-technology.com/news/anglogold-halt-production-at-mponeng-following-fatalities/#:~:text=South%20 African%20miner%20AngloGold%20Ashanti,claimed%20lives%20of%20three%20miners.

Laura Cornish, Fatalities at Harmony Gold's Joel mine, Mining Review Africa, 27.03.2018, https://www.miningreview.com/gold/fatalities-at-harmony-golds-joel-mine/.

News24, Harmony Gold worker killed in mine near Soweto, 02.11.2021, https://www.news24.com/news24/southafrica/news/harmony-gold-worker-killed-in-mine-near-soweto-20211102.

Energia Africa, Côte d'Ivoire : Perseus annonce le décès d'un employé à sa mine d'or Yaouré, 27.06.2022, https://energia-africa.com/cote-divoire-perseus-annonce-le-deces-dun-employe-a-sa-mine-dor-yaoure/.

Responsible Mining Foundation, Harmful Impacts of Mining, 2021, https://www.responsibleminingfoundation.org/harmful-impacts-mining/.

Magambo Isaiah et al., Gold-Mining Pollution Exposure, Health Effects and Private Healthcare Expenditure in Tanzania, MPRA Paper 108800, University Library of Munich, 2021, https://mpra.ub.uni-muenchen.de/108800/1/MPRA_paper_108800.pdf.

Hans Merket & Elise Foubert, Dissecting the social license to operate: Local community perceptions of industrial mining in northwest Tanzania, International Peace Information Service, 08.2019, https://ipisresearch.be/wp-content/uploads/2019/08/1908-DGD-TZ-LSM_web3.pdf.

Bettina Engels & Franza Drechsel, Country Report No 2 - « Les mines nous rendent pauvres » : L'exploitation minière industrielle au Burkina Faso, Glocon, décembre 2018, https://www.land-conflicts.fu-berlin.de/en/publikationen/Country-Report/Country-Report-No-2/index.html. Leuenberger A. et al., Health impacts of industrial mining on surrounding communities: Local perspectives from three sub-Saharan African countries, PLoS ONE 16(6), 2021, https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0252433.

Guy-Assane Yapy, Cote d'Ivoire: Litiges dans les mines - Y-a-t-il vraiment un recours pour soulager les communautés impactées ?, Fratmat.info (Abidjan), 10.08.2018, https://fr.allafrica.com/stories/201808100660.html.

Stephen Doso Jnr et al., Effects of Loss of Agricultural Land Due to Large-Scale Gold Mining on Agriculture in Ghana: The Case of the Western Region, British Journal of Research 2(6), 2015, https://www.primescholars.com/articles/effects-ofloss-of-agricultural-land-due-to-largescale-gold-mining-on-agriculture-in-ghana-the-case-of-the-western-regio-92833.html.

Mustapha Okyere et al., Large scale mining in Ghana: a review of the implications on the host communities, Journal of Degraded and Mining Lands Management 9 (1), 2021, https://jdmlm.ub.ac.id/index.php/jdmlm/article/view/974/pdf.

Y. K. Amoako, Carbon Footprint of the Large Scale Gold Mining Industry of Ghana 26, 2018, https://www.ajol.info/index.php/wajae/article/view/182523.

Mirjam A.F. Ros–Tonen et al., Human insecurities in gold mining: A systematic review of evidence from Ghana, The Extractive Industries and Society 8(4), 2021, https://www.sciencedirect.com/science/article/pii/S2214790X21001131#bib0037.

Harvard Law School International Human Rights Clinic, The Cost of Gold: Environmental, Health and Human Rights Consequences of Gold Mining in South Africa's West and Central Rand, 2016, https://hrp.law.harvard.edu/wp-content/uploads/2016/11/The-Cost-of-Gold-Full-Report-Final.pdf.

Shaeen Chettyl et al., Gold mining's toxic legacy: Pollutant transport and accumulation in the Klip River catchment, Johannesburg, South African Journal of Science 117 (7-8), 2021, http://www.scielo.org.za/scielo.php?script=sci_arttext&pid=S0038-23532021000400020.

Songa Wa Songa, Inspection spots risks in large scale mining sites, IPPMedia, 30.04.2022, https://www.ippmedia.com/en/news/inspection-spots-risks-large-scale-mining-sites.

Kimon de Greef, The Dystopian Underworld of South Africa's Illegal Gold Mines, 20.02.2023, https://www.newyorker.com/magazine/2023/02/27/the-dystopian-underworld-of-south-africas-illegal-gold-mines.

The Mine Tailings Working Group of South Africa & MiningWatch Canada, Mine Waste Leaves Toxic Legacies in South Africa - And International Launch of Tailings Report, 24.05.2022, https://miningwatch.ca/news/2022/5/24/mine-waste-leaves-toxic-legacies-south-africa-and-international-launch-tailings.

Mike Mwenda, South Africa, gold mines continue poisoning communities, Lifegate, 8.11.2018, https://www.lifegate.com/gold-mines-poison-south-africa.

Remi Bazillier & Victoire Girard, The gold digger and the machine. Evidence on the distributive effect of the artisanal and industrial gold rushes in Burkina Faso, Journal of Development Economics 143, 2020, https://www.sciencedirect.com/science/article/abs/pii/S0304387819300586.

IndustriALL Global Union, Union calls for ratification of ILO Convention 176 after explosion kills 13 and destroys Ghana village, 28.01.2022,

https://www.industriall-union.org/union-calls-for-ratification-of-ilo-convention-176-after-explosion-kills-13-and-destroys-ghana.

Alhassan Atta-Quayson, Ghana's Mining Sector Regime: A Bad Deal for Affected Local Communities, WRM Bulletin 215, 10.07.2015, https://www.wrm.org.uy/bulletin-articles/ghanas-mining-sector-regime-a-bad-deal-for-affected-local-communities.

