



THE LONDON SCHOOL
OF ECONOMICS AND
POLITICAL SCIENCE ■

Sustainability Impact Assessment in Support of Negotiations with Partner Countries in Eastern and Southern Africa in view of Deepening the Existing Interim Economic Partnership Agreement

Case Study: Mining Sector in Zimbabwe and Madagascar • May 2021



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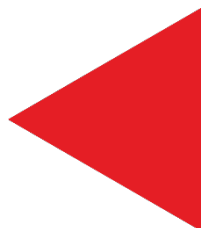


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1. Introduction

Up until recently, mining, along with other so-called extractive industries, has contributed to a country's economy through mainly their contribution to government revenue through taxes and royalties. However, and as is outlined in the Africa Mining Vision, there are other options to be explored that allow governments to rely less on taxes and royalties benefits through more closely integrating the mining sector with local economies. These integration activities could include working closely with artisanal and small-scale miners (ASM) in a mutually beneficial way. For example, industrial mines could allow ASM cooperatives or syndicates to mine ore bodies that are not economic to mine industrially, but which are rich deposits, albeit small. Industrial mining could also be more integrated into the local economy by, where possible, purchasing locally, hiring local staff, training local staff, ensuring that they do not violate human rights, ensuring that they cause as little environmental damage and degradation as possible and support community development by ensuring that the infrastructure they build can also benefit the communities they work with.

The mining sectors in Zimbabwe and Madagascar make significant contributions to the economy and the countries' gross national product but both countries are struggling economically. The economy of Zimbabwe has continued to decline, with a contraction of over 8 per cent in 2019, high inflation and a marked deterioration in social conditions so that, by the end of 2019, about 90 per cent of Zimbabweans were living in poverty and 60 per cent were considered food-insecure, placing Zimbabwe's food insecurity fourth highest in the world. This trajectory has continued into 2020, leading South Africa to spell out its concerns that its neighbour is in a crisis.¹

In this case study, we describe the industrial and ASM mining sectors in Zimbabwe and Madagascar and make recommendations on how the European Union could support the two countries to implement the Africa Mining Vision, which both countries are struggling to implement, and its vision of creating transparent, equitable and optimal exploitation of mineral resources to underpin broad-based sustainable growth and socio-economic development through the Eastern and Southern Africa comprehensive Economic Partnership Agreement.

2. EU and Access to Resources

In September 2020, the European Union (EU) Commission issued a communication (COM(2020) 474 final) on Critical Raw Materials Resilience: Charting a Path towards greater Security and Sustainability. The communication notes that access to resources is a strategic security question for Europe's ambition to deliver the Green Deal. The new industrial strategy for Europe proposes reinforcing Europe's open strategic autonomy, and transition to climate neutrality to replace today's reliance on fossil fuels with one on raw materials, many of which are sourced from outside the EU and for which global competition is becoming fierce. The EU's open strategic autonomy in these sectors will continue to be anchored in diversified and undistorted access to global markets for raw materials. It is assumed that the EU will pursue this policy objective in the EPA negotiations as it will in all its trade negotiations.

The EU's Critical Raw Materials List includes minerals and metals that are mined in Madagascar, these being primarily Rare Earth Metals, Lithium and Platinum Group Metals (PGMs) in Zimbabwe. The communication notes that:

- For electric vehicle batteries and energy storage, the EU would need up to 18 times more lithium and 5 times more cobalt in 2030, and almost 60 times more lithium and 15 times more cobalt in 2050,

¹ <https://www.crisisgroup.org/africa/southern-africa/zimbabwe/294-all-glitters-not-gold-turmoil-zimbabwes-mining-sector>

compared to the current supply to the whole EU economy. If not addressed, this increase in demand may lead to supply issues.

- Demand for rare earths could increase tenfold by 2050.

The EU strategy recognises that future demand for primary critical raw materials will continue to be largely met by imports in the medium to long term. The EU's open strategic autonomy in these sectors, therefore, needs to continue to be anchored in well-diversified and undistorted access to global markets for raw materials. Resilience for critical raw materials supply will also be achieved by reinforcing the use of EU trade policy tools (including Free Trade Agreements and enhanced enforcement efforts) and work with international organisations to ensure undistorted trade and investment in raw materials in a manner that supports the EU's commercial interests. The EU will also continue to be resolute in addressing non-respect of international obligations by third countries, in line with its commitment to enhancing enforcement activities in the area of trade through the new Chief Trade Enforcement Officer (CTEO).

One of the main challenges faced by the EU and other western countries include accessing and processing the raw materials. This can be most clearly seen in the rare earth metals sector. Rare earths, which refers to a group of 17 elements, are essential components in advanced electronic equipment such as smartphones (with 8 rare earth metals needed), electric cars, x-ray systems and defence systems. Although deposits of rare earth metals exist all over the world, most mining and refining occurs in China. Around 70% of China's 2019 rare earth exports went to Japan (36% of China's rare earth exports, mainly Cerium) and the United States (33.4% of China's rare earth exports, mainly Lanthanum).² China's virtual monopoly in rare earth metals not only gives it a strategic advantage over heavily dependent countries, such as the USA, which imports 80% of its rare earths from China but also makes the supply chain unreliable.³ The USA, EU and Japan, in particular, now have introduced policies to diversify their sources of rare earths to other parts of the world. Increasing rare earth mining outside of China has reduced China's global share of mining from 97.7% in 2010 to 62.9% in 2019. But even with this reduction in the supply of the raw material, China is still dominant in the processing of rare earths, with almost all refining of rare earths, wherever they are sourced, being done in China. The challenge with both mining and refining rare earths is that they can, and usually do, cause serious environmental damage. They can also cause damage to the health of the people who are involved in rare earth mining and processing and to the local populations who live adjacent to the mining areas or processing plants.

The demand for rare earths continues to rapidly expand because of the move to "clean technology". If a country, or region, wants to be a part of the clean technology revolution, which includes electric cars, etc., which the EU does, then they need to have access to a steady and reliable supply of refined rare earths. The EU has already stated that it will use its trade agreements, including the ESA EPA countries, particularly Zimbabwe and Madagascar, to gain access to needed raw materials, which includes rare earth metals, and more especially processed rare earths. This could be beneficial to Zimbabwe and Madagascar as well as the EU. However, if the EU is to spearhead the extraction and processing of rare earths, it will need to use the EPA to take an aggressive position to ensure it is the dominant partner.⁴ Also, the EU will have to take full account of the possible effects of mining and processing of rare earths and mitigate environmental damage and social disruption to the local communities. It should be possible to mitigate these effects, but it will be

² *Visualizing China's Dominance in Rare Earth Metals*. 13 January 2021. <https://www.visualcapitalist.com/chinas-dominance-in-rare-earth-metals/#:~:text=Why%20China's%20Dominance%20Matters&text=China's%20virtual%20monopoly%20in%20rare,supply%20chain%20anything%20but%20reliable>.

³ *In 2010, China reduced its rare earth export quotas by 37%, which resulted in skyrocketing rare earth prices worldwide but also led to an influx of capital in the rare earth mining industry, financing more than 200 projects outside China. The resulting supply chain disruption pushed the EU, USA and Japan to jointly launch a dispute settlement case through the World Trade Organization, which ruled against China in 2014, which resulted in supply increases and prices coming down to 2009 levels in 2015. New investments outside of China declined with the price reduction but many of the original projects are still on-going.*

⁴ *Currently there are other foreign investors, not the EU, involved in the rare earth, lithium and PGM sectors in Madagascar and Zimbabwe.*

difficult, entail high levels of investment and a close dialogue with the local population which will be the communities ultimately affected. The solution must be a win-win for the EU, the local communities and the national fiscus of the EPA country concerned.

3. Mining in Zimbabwe

3.1 Introduction

Mineral exports account for about 60 per cent of Zimbabwe's export earnings and the mining sector contributes around 16 per cent of national GDP.⁵ Table 1 shows production statistics for the main minerals and gemstones mined in Zimbabwe for the first half of 2020.

Table 1: Zimbabwe's 2020 Monthly Mineral Production – January 2020 to July 2020

Mineral/Gemstone	January	February	March	April	May	June	July	Year to date
Gold (kgs)	2,702.43	1,549.41	1,899.83	1,600.16	2,199.59	1,608.33	1,441	13,001
Platinum (kgs)	1,273.42	1,203.68	1,066.64	1,087.38	1,489.41	1,884.14	267	8,272
Palladium (kgs)	1,055.71	1,010.79	890.46	908.27	1,259.84	1,611.51	225	6,961
Rhodium (kgs)	113.04	109.66	94.00	97.01	136.21	165.85	35	751
Iridium (kgs)	81.94	71.61	62.25	72.96	93.90	131.74	25	540
Ruthenium (kgs)	71.01	69.88	64.12	53.67	82.79	87.65	25	454
Diamonds (cts)	147,935.58	197,188.68	195,815.47	229,349.63	405,256.24	4,781,625.50	-	5,957,171
Chrome (MT)	99,322.72	88,004.38	105,345.42	179,243.28	39,661.84	117,571.64	85,027	714,176
Nickel (MT)	1,461.84	1,363.20	1,110.95	748.60	1,040.49	2,029.24	876	8,630
Copper (MT)	761.70	691.64	665.38	591.92	862.55	1,063.28	224	4,860
Cobalt (MT)	30.65	268.89	22.30	16.33	19.95	35.52	21	414
Coal (MT)	153,595.20	2,567.48	8,926.00	330,769.50	326,567.00	313,147.00	306,750	1,442,322

Source: Zimbabwe Chamber of Mines: <https://www.chamberofminesofzimbabwe.com/index.php/en/production-statistics>

As can be seen from Table 1, the top minerals mined in Zimbabwe include gold, platinum, chrome, coal, diamonds, and lithium.

3.2 Artisanal and Small-scale Mining (ASM) of Gold

Gold is Zimbabwe's primary export now and, according to government statistics, the bulk of the gold is extracted by the ASM sector. It is estimated that as many as 1.5 million people in Zimbabwe could be involved in the gold value chain, and ASM produces about 63 per cent of Zimbabwe's recorded gold production. The reasons for Zimbabwe's gold mining sector being dominated by the ASM sector⁶ include the characteristics of the ore bodies, which are small and often not conducive to industrial mining, the poor investment climate in

⁵ <https://www.mining-technology.com/features/mining-in-zimbabwe-time-to-use-it-or-lose-it/>

⁶ However, in an article in Mining Review of 6th April 2021 (<https://www.miningreview.com/gold/caledonia-minings-central-shaft-brought-into-operation/>) Caledonia Mining Corporation announced that its Central Shaft, which is the deepest shaft of any gold mine in Zimbabwe, and which will solve the mine's hoisting constraints and facilitate the planned expansion in mine capacity targeting 80,000 oz of gold production per year, is now fully operational.

Zimbabwe which does not encourage large scale and long-term investments and the political interference that takes place in the gold mining sector.

As the Zimbabwe economy has become more informal, the ASM sector has attracted people from all walks of life, as outlined in a podcast by Piers Pigou,⁷ a Senior Consultant at the International Crisis Group and one of the writers of a study titled "*All That Glitters is Not Gold: Turmoil in Zimbabwe's Mining Sector*."⁸ Artisanal and small-scale miners are mainly men, although there are also some women working as miners or, more usually, running small-scale mining operations, some very successfully, usually working closely with the more organised part of the ASM sector. Small scale and artisanal miners include teachers, students, who are engaged as part-time miners to earn money to pay for their education, and workers from the farming sector, working in the mines during the dry season when there are no farming activities. There are different levels of sophistication within the ASM sector, ranging from cooperatives that are members of the Zimbabwe Miners Federation, who hold "tributes" from license holders allowing them to legally mine a licensed claim as a third party, to individual miners simply trying their luck. Most miners operate in syndicates, comprising small groups of miners, usually numbering between 5 to 20 miners per syndicate, usually with a sponsor who will provide financing for the syndicate to operate in a particular area.

Some ASM syndicates operate illegally (meaning they do not have a license to operate, nor do they have a "tribute" agreement from the owners of the mine) in industrial mines that have been abandoned or put under care and maintenance. In these situations, there could be small groups who go down into the mine through ventilation shafts and spend 3-4 days underground with their provisions, working gold seams that are perhaps as deep as 150 metres below the surface. They bribe their way into the facility and bribe their way out. They also navigate the dangers of more organised, larger and more violent syndicates operating underground. One of the gangs or syndicates mentioned by Pigou operated in the Jumbo Mine, which was a mine under care and maintenance and in the process of being sold by Mettalon. This syndicate had up to 200 members working underground at any one time, sometimes spending up to three weeks underground, with other members of the syndicate carrying supplies to them and bringing the mined ore to the surface. Some ASMs operate above ground in pits.



An artisanal miner displays a small piece of gold collected at a small-scale gold mine in Umguza, Zimbabwe, on Saturday, Nov. 10, 2018. (Cynthia R Matonhodze/Bloomberg via Getty Images)

Gang violence flourishes around gold mining sites where the rule of law is weak. Disputes about mining site ownership are frequent, and police often do not act against intrusions upon mining sites or mining-related violence, particularly when gangs or artisanal miners are politically connected. There was a significant increase in the number of violent incidences during 2019. In January 2020, the police launched an operation against the so-called machete gangs, who are either miners themselves or simply prey on the activities of other miners. In the process, the Police arrested thousands of artisanal miners, most of whom were probably legitimate

⁷ https://www.theafricareport.com/54015/zimbabwes-artisanal-mines-theres-no-real-form-of-law-and-order-piers-pigou/?utm_source=newsletter_tar_daily&utm_campaign=newsletter_tar_daily_18_12_2020&utm_medium=email&utm_content=podcasts.

⁸ <https://www.crisisgroup.org/africa/southern-africa/zimbabwe/294-all-glitters-not-gold-turmoil-zimbabwes-mining-sector>

artisanal miners not involved in machete gang activities but arrested by not having legal permits to operate. In December 2020, the Herald newspaper⁹ reported that the Zimbabwe Police had arrested 56,764 people in the 'Operation Chikorokoza Ngachipere/Isitsheketsa Kasiphele' and 'No to Machete Gangs'. Offences ranged from failure to comply with Covid-19 regulations, criminal trespass and others. The Assistant Commissioner of Police said the operation was ongoing. The Police had covered all provinces and those that resisted risked being arrested and facing deterrent sentences. The article claimed that "*Police had restored order in mining areas after taking on the machete gangs head-on, arresting large numbers of people and thwarting a wave of violence that threatened to disturb gold mining and consequently deliveries to Fidelity Printers and Refiners*". Most of those arrested were fined because there was no evidence that they had committed other criminal offences.

These dynamics make things especially difficult for women artisanal and small-scale miners. Women are easier targets for gangs that rob artisanal miners of their ore. They also typically have fewer of the resources and connections needed to operate on sites, including industrial mines, with higher ore grades. Whereas men might be able to access working capital through patronage, women miners consistently stress that they have trouble gaining access to funds. Women typically own too little collateral to allow them to receive loans; married women's collateral is often in the husband's name. Even a credit facility earmarked to provide women artisanal miners loans so that they can invest to improve their operations is hard to qualify for, given prohibitively strict eligibility criteria. Women are thus typically relegated to activities with poor earnings potential, such as illegal panning for alluvial gold in rivers.

3.3 Industrial Gold Mining

Although the gold mining sector is dominated by the ASM sector, there is still industrial-scale gold mining taking place in Zimbabwe such as operations at Eureka, Shamva, Blanket (Caledonia Mining Corporation), Freda Rebecca and Bubi mines. Recent reports suggest that the government has created a new mining group called Kuvimba Mining House, in which the government has 65 per cent shareholding, and which has an asset portfolio of USD1.5 billion worth of minerals such as gold, nickel and chrome.¹⁰ This is described as a "game-changer towards achieving a middle-income economy by 2030" for Zimbabwe and could assist to establish industrial mining in the gold mining sector in Zimbabwe.¹¹

Part of the reason why Zimbabwe is considered to be a country of small gold deposits not suitable for large-scale, industrial gold mining is simply because Zimbabwe is under-explored and similar geologies (the well-explored Archaean Cratons such as the Superior Province in Canada and Yilgarn in Australia) suggest that Zimbabwe also has small deposits not suitable for large-scale mining. Eureka mine in Guruve and Freda-Rebecca near Bindura were small mines exploiting narrow quartz veins through conventional underground methods. However, a new interest in low grade, high tonnage gold deposits saw the reinvestigation of the two mines resulting in them being developed into large open pit mines. There are opportunities to investigate many other small deposits for the potential for large mines. Studies in the Zimbabwe Craton show that most large deposits do not occur in isolation but include apparent small mines with potential for development into larger mines if investigated inclusively.¹² Well known areas such as the Termite- Khanye trend in Silobela, the Dalny-Lily Fault zone in the Midlands Greenstone Belt, the Surprise Fault near Shurugwi and the environs of Motapa Mines, and several other areas in the Zimbabwe Craton, have the potential to host several million-ounce gold deposits. Part of the challenge is that small-scale miners lack the necessary financial and technical skills to explore and exploit larger ore bodies, preferring narrow quartz veins that are easier to exploit with rudimentary tools. As a result, several potential large ore bodies remain sterilised by small-scale mining.

⁹ <https://www.herald.co.zw/57-000-gold-panners-arrested/>

¹⁰ <https://www.zbcnews.co.zw/government-owns-65-of-kuvimba-mining-house-group/>

¹¹ *Ibid.*

¹² See, for example, <https://www.miningreview.com/top-stories/zimbabwe-s-gold-potential/>

3.4 Challenges to Address in the Gold Mining Sector

According to the government, Zimbabwe is losing about US\$1.8 billion of total mineral revenues, mainly gold, to smuggling and externalisation. According to the Zimbabwe Environmental Law Association (ZELA)¹³ corruption and gold smuggling, among other issues, have crippled the country's efforts to leverage mineral resources and deliver basic services such as education, health and water. ZELA report that the system of gold leakages in Zimbabwe is linked to criminality within the ASM sector which is, in turn, dominated by powerful political actors and senior officials within the security sector. The lack of formalisation of artisanal mining mirrors a captured policy process that allows a few to benefit and accumulate wealth. There is a similar narrative from Moeletsi Mbeki, who, in his book "Architects of Poverty: Why African Capitalism Needs Changing" describes a "minerals-energy complex" run by oligarchs who have major influence over key aspects of economic and political policy and how these illicit, high-level networks have become central to Zimbabwe's economy. Zimbabwe's Prosecutor-General, Kumbirai Hodzi, has also noted that the state has been captured by organised crime networks, including gold smugglers.¹⁴ Tendai Biti, the chairperson of Parliament's Public Accounts Committee and a former finance minister, notes that "the regime turns a blind eye to the illegality in the quest for foreign currency. Artisan miners are producing more gold than companies. They receive a greater incentive from the government. Many of the big miners are now going through them. There is so much corruption everywhere. As a Parliament, we are overwhelmed."¹⁵

To some, this is a case of history repeating itself. Between 2009 and 2015 government elites facilitated mostly criminal foreign entities to plunder alluvial diamonds in Marange. An estimated US\$15 billion of potential diamond revenue was lost through smuggling and externalisation. A Parliamentary Portfolio Committee on Mines and Energy inquest into the diamond loss was aborted in 2018 after the responsible government authorities refused to appear before the committee. The plunder of Marange diamonds was made possible through violent mining practices that uprooted communities in Marange. Government elites provided immunity to mining entities for human rights abuses on villagers, artisanal miners and mining workers and other impacts of previous diamond mining operations, such as pollution and contamination of water bodies, have still to be addressed and resolved.

3.5 Lithium Mining

According to the US Department of Commerce,¹⁶ Zimbabwe's lithium deposits are the largest in Africa and the country will become one of the world's largest lithium exporters, with continued high international demand because of its importance to the battery industry. The government claims the country will meet 20 per cent of the world's total demand for lithium when it fully exploits its known lithium resources.

The Bikita mine is one of the largest lithium mines in Zimbabwe, with reserves of 10.8 million tons of lithium ore, with a lithium content of 1.4%, or 150,000 tons. The Arcadia Lithium Mine is expected to reach an annual production of 2.5 million tons of lithium ore after the mine is deployed, which would roughly equate to US\$3 billion in exports. The production of lithium minerals in Zimbabwe increased drastically between 2005 and 2010, from just 1,100 metric tons to around 50,000 metric tons in 2020. This production volume remained from around 2014 to 2020 and is expected to increase slightly by 2021, to about 65,000 metric tons.¹⁷

¹³ <http://www.zela.org/illicit-gold-trade-and-smuggling-vulnerabilities-exposed-by-rushwaya-case/>

¹⁴ <https://mq.co.za/africa/2020-09-18-inside-zims-illicit-gold-mine-trade/>

¹⁵ <https://mq.co.za/africa/2020-09-18-inside-zims-illicit-gold-mine-trade/>

¹⁶ <https://www.trade.gov/country-commercial-guides/zimbabwe-mining-and-minerals>

¹⁷ [https://www.statista.com/statistics/1051511/zimbabwe-lithium-](https://www.statista.com/statistics/1051511/zimbabwe-lithium-production/#:~:text=The%20production%20of%20lithium%20minerals,reaching%20some%2065%2C000%20metric%20tons.)

[production/#:~:text=The%20production%20of%20lithium%20minerals,reaching%20some%2065%2C000%20metric%20tons.](https://www.statista.com/statistics/1051511/zimbabwe-lithium-production/#:~:text=The%20production%20of%20lithium%20minerals,reaching%20some%2065%2C000%20metric%20tons.)

However, Zimbabwean civil society organisations are concerned about the upcoming lithium mining industry. In a recent online event on the future of lithium mining in Zimbabwe,¹⁸ one Zimbabwean activist was worried that 'lithium would rather become a curse and only benefit few people'. As is mentioned in this case study, the country has been struggling with transparency and natural resource governance, especially in the mining sector, and this may well continue to be the case when mining lithium.

3.6 Diamond Mining

Most of Zimbabwe's diamond fields are in Marange, in the eastern part of the country. From the early 1980s, De Beers held an Exclusive Prospecting Order (EPO) over Marange via their subsidiary Kimberlitic Searches Ltd. Their EPO expired in 2006 and exploration rights were taken up by British-registered African Consolidated Resources. In December 2006, the company was readying trial mining operations when the government of Zimbabwe took over the rights via the Zimbabwe Mining Development Corporation, despite African Consolidated Resources winning a court case allowing them to continue mining.

In April 2010, the High Court of Zimbabwe ruled that the government could sell diamonds from Marange as it dismissed an application from African Consolidated Resources to stop diamond sales from the disputed fields. In September 2010, the Zimbabwe High Court formally revoked a ruling from a year earlier that restored mining rights to African Consolidated Resources Plc. As of February 2014, the diamond fields were operated by seven private entities all of which were partnered with the Zimbabwe government under the affiliate Zimbabwe Mining Development Corporation (ZMDC). All seven of the private companies were allegedly affiliated with Zimbabwe ex-military or political officials. However, in 2015, all diamond mining companies in Zimbabwe were forced to quit mining or merge into the newly created Zimbabwe Consolidated Diamond Company (ZCDC) which replaced the ZMDC. In December 2018, the Zimbabwe Cabinet approved a new "Zimbabwe National Diamond Policy" (ZNDP) which allowed four companies to participate in diamond exploration and mining at Marange. One of these was Anjin Industries, which had been one of the seven companies that partnered with ZMDC in 2014. Anjin began operations at Marange on 1 March 2019, subsequently taking over the highly profitable "Portal B" at Marange from ZCDC. Anjin is a joint venture between the Chinese firm Anhui Foreign Economic Construction Group (AFECC) and the Zimbabwe Defence Industries.¹⁹

Diamond mining in Marange has been controversial not only in terms of ownership, operations, and governance but also in terms of basic human rights. In 2008 hundreds of artisanal miners were killed and thousands had to leave their homes as the military, under the former government of Robert Mugabe, forced them to leave Marange. International advocacy groups accused Mugabe of looting about US\$2 billion from the diamond-rich fields.

3.7 Platinum Group Metals (PGM) Mining

The six platinum-group metals are ruthenium, rhodium, palladium, osmium, iridium, and platinum. They have similar physical and chemical properties and tend to occur together in the same mineral deposits. In Zimbabwe, PGMs are found in the Great Dyke, a geological feature running through the heart of Zimbabwe for about 550 kilometres in a roughly north-south direction. The PGM occur in a layer known as the Main Sulphide Zone, which is typically about 3 metres thick. However, the economic mining width may be as little as one metre, depending on grade, metal prices and the chosen mining method. The PGM content is lower than that of South African ores, with head grades generally below 4 grams per tonne, of which about 55 per cent is platinum. Nickel and copper values are typically higher than those found in South African platinum ores.

¹⁸ <https://blogs.prio.org/2021/01/lithium-in-zimbabwe-a-future-boom-of-doom/>

¹⁹ https://en.wikipedia.org/wiki/Marange_diamond_fields

Zimbabwe's oldest platinum mine is the Mimosa operation,²⁰ located in the southern part of the Great Dyke on the Wedza Geological Complex. Ownership is currently split 50:50 between Impala Platinum and Aquarius Platinum. Since 2002, output at Mimosa has gradually been expanded, and the mine - which has been among the lowest-cost platinum producers in the world - extracts around 100,000 oz of platinum annually.

During the early 1990s, a second mine, the Hartley Platinum Project, was developed by a joint venture between the Australian companies BHP and Delta Gold. It opened in 1995, but following a string of geological and metallurgical problems, underground operations were suspended in June 1999. BHP's interest in Hartley Platinum was sold to Zimbabwe Platinum Mines (Zimplats), a spin-off of Delta Gold's platinum assets, which began to develop a new open cast mine further south, at Ngezi. Operations here began in 2001, following the acquisition of a share of the project by Impala Platinum and the South African bank Absa. Over the next two years, Impala increased its holding in Zimplats. In 2011, Ngezi produced about 185,000 oz of platinum from a series of underground "portals" (declines), and an expansion programme is underway which will see output rise to 270,000 oz of platinum annually.

A third platinum mine, Anglo American's Unki project, was commissioned in late 2010 and produced around 50,000 oz of platinum in 2011. The mine is designed to extract and process 120,000 tonnes of ore per month, which should yield around 70,000 oz of platinum annually at full capacity.

3.8 Chrome Mining

Zimbabwe has the world's second-largest chrome reserves, estimated around 10 billion tonnes, and behind South Africa, and most of this mining occurs along the Great Dyke.

Chinese investors are major shareholders in the Zimbabwe Mining and Alloy Smelting Company,²¹ known as ZIMASCO, one of the country's largest chrome-mining companies. Chinese miners' partner with ASM chrome miners, with the Chinese providing equipment, such as diggers, and buying the ore.

In 2018 the Zimbabwean Ministry of Mines and Mining Development introduced new regulations that oblige Chrome miners to rehabilitate land damaged by operations once mines have been exhausted, and mining companies will have to employ managers on permanent contracts to monitor and control mining activities. These managers will also be responsible for educating miners about responsible and sustainable mining practices. The Ministry also introduced new regulations requiring mining companies to hold 'certificates, grants or tributes' as a prerequisite for conducting chrome mining operations. Prospective miners must complete a four-step application process, including obtaining a prospecting licence and separate mining lease, before being allowed to operate in the province.

However, these new regulations appear not to be effective. In June 2020, a video on social media showed a Chinese manager of a mining company in central Zimbabwe shooting two local employees in a wage dispute. The ZELA called it "part of a systematic and widespread pattern of labour rights violations by Chinese companies and investors in the extractive sector." This incident also highlighted the continuation of environmental practices and labour abuses that have long shadowed the Chinese involved in Zimbabwe's minerals industry.

²⁰ <http://www.platinum.matthey.com/about-pgm/production/zimbabwe#:~:text=Zimbabwe's%20oldest%20platinum%20mine%20is,Impala%20Platinum%20and%20Aquarius%20Platinum.>

²¹ <https://globalpressjournal.com/africa/zimbabwe/tensions-flare-zimbabwe-chrome-miners-chinese-investors#:~:text=Zimbabwe%20boasts%20the%20world's%20second,used%20to%20produce%20stainless%20steel.>

4. Mining Sector in Madagascar

4.1 Introduction

The total value of production of the mining industry in Madagascar is about USD650 million per year.²² The 2016 Extractive Industries Transparency Initiative (EITI) Report revealed that Madagascar received USD 44.7 million from extractive industry taxation and contributed 4.6 per cent of the country's GDP, almost a quarter of total exports and a fifth of total employment.²³ Ilmenite, nickel and cobalt are produced at an industrial scale by the Ambatovy and the QMM mines. The artisanal and small-scale mining sector represents an important source of employment, mining mainly gold, and precious and semi-precious stones, such as rubies and sapphire.

However, despite President Andry Rajoelina making reform of the mining sector one of his top priorities since assuming office in January 2019, the contribution of the mining sector to the economy shrank in 2020. The combination of outdated tax policies, commodity prices fluctuations and governance shortcomings have all contributed to the relatively poor performance of the sector, which has been compounded by poor public perceptions towards the industry in Madagascar.²⁴ Ambatovy, the country's largest mine, which accounts for 32 per cent of Madagascar's foreign exchange earnings, has been placed on care and maintenance since March 2020 and several large-scale projects, including the Base Resources' Toliara mineral sands project, remain on hold following a decision by the government to temporarily suspend on-the-ground activities. There has been no new mining permit issued since 2011. According to the World Bank, governance of the mining sector will largely determine whether the sector will either bring about sustainable development in Madagascar or further destabilise an already fragile economy.²⁵

4.2 Characteristics of the Malagasy ASM Sector

Artisanal mining has a long history in Madagascar with an estimated 500 000 miners involved in ASM of whom 350 000 are working specifically in gold mining. Madagascar's ASM sector accounts for around one million jobs in a country of roughly 25 million inhabitants and is one of the largest sources of employment, with income from ASM complementing earnings from agricultural and other seasonal activities in many rural communities.²⁶ The use of child labour is widespread, especially for gemstones mining.²⁷

Most artisanal mining focuses on gold and precious stones, mainly sapphires, rubies and emeralds. At its peak, Madagascar produced about 40 per cent of the world's sapphires and its annual gold production is reckoned to be about 15 tonnes, worth about \$450m, but virtually all of it remains unregulated.²⁸

Artisanal mining, especially gold panning, is often a seasonal, family activity, one that complements a miner's main activity and adds a level of resilience to their livelihood. It is slow and steady work, with an average day's

²² <https://eiti.org/madagascar>

²³ http://eitimadagascar.org/wp-content/uploads/2018/12/Madagascar_Annexes-Rapport-de-reconciliation-EITI-Exercice-2016.pdf

²⁴ <https://www.miningreview.com/base-metals/how-madagascar-is-rebooting-its-mining-sector/>

²⁵ <http://documents1.worldbank.org/curated/en/263731468179369566/pdf/100345-WP-P131522-mining-research-summary-Box393222B-PUBLIC-ENG.pdf>

²⁶ [https://www.iied.org/improving-governance-madagascars-artisanal-small-scale-mining-sector-ground#:~:text=Madagascar's%20artisanal%20and%20small%2Dscale%20mining%20\(ASM\)%20sector%20accounts,employment%20i%20the%20island%20nation.&text=Artisanal%20and%20small%2Dscale%20miners,poor%20health%20and%20safety%20practices](https://www.iied.org/improving-governance-madagascars-artisanal-small-scale-mining-sector-ground#:~:text=Madagascar's%20artisanal%20and%20small%2Dscale%20mining%20(ASM)%20sector%20accounts,employment%20i%20the%20island%20nation.&text=Artisanal%20and%20small%2Dscale%20miners,poor%20health%20and%20safety%20practices)

²⁷ <https://knowledge.uneca.org/ASM/Madagascar>

²⁸ <https://www.theguardian.com/sustainable-business/2016/nov/15/gold-rush-madagascars-artisanal-miners-could-benefit-from-global-downturn>

work producing about US\$2-US\$2.50 worth of gold, whereas gemstone mining is all about striking lucky with an exceptional stone.²⁹

Madagascar is considered a biodiversity hotspot, hosting a remarkable number of endemic animal and plant species. ASM can, and often does, harm the environment and a detrimental effect on the country's rich biodiversity and artisanal gold mining is one of the most important sources of mercury contamination. Poverty and a lack of alternative employment push informal and illegal miners to exploit deposits in protected areas and one of the challenges with the activity result from the location of most of the mines which overlap with protected areas posing a major biodiversity challenge. The rise in ASM coincided with a series of three major political crises, over the last two decades making any form of control or monitoring even more challenging.³⁰

Donors and NGOs are actively supporting artisanal mining in Madagascar with grants of about US\$1.8m as part of its public sector performance project.

4.3 Rare Earth Metals Mining

The ISR project Tantalum Rare Earth Malagasy (TREM) has been awarded a 300-square kilometre concession on the Ampasindava peninsula, a highly biodiverse area jutting out into the Mozambique Channel, several hundred miles east of the coast of mainland Africa. Ampasindava is home to threatened lemur species that could be further imperilled if the mining project goes forward. The peninsula is also just across the water from the island of Nosy Be, Madagascar's main tourist destination, where business owners worry that mining pollution could turn visitors away. Rare earth mining can have severe environmental and health impacts.³¹

According to Reuters News Agency,³² a unit of China Nonferrous Metal Mining Group (CNMC) signed a non-binding memorandum with Singapore-listed ISR Capital that could see the Chinese firm work as a contractor on a rare earths project in Madagascar with rights to purchase products. CNMC is also reported to have priority rights to be the engineering, procurement, and construction (EPC) contractor for ISR's Tantalum Rare Earth Malagasy (TREM) project, which contains 562,000 tonnes of rare earth oxides. The Chinese company will also have the right to purchase 3,000 tonnes of rare earth products from the project within three years of the start of production and the opportunity to make an equity investment in future.

There are, however, many challenges facing the project promoters. Also quoted in the 2017 Carver article,³³ in 2016, ISR Capital bought a major stake in TREM but ISR Capital was in 2017, under investigation for a violation of Singapore's Securities and Futures Act, which covers crimes such as market rigging and stock manipulation. TREM now has no active permits of any kind since its exploration permit ran out in January 2017. No Environmental Impact Assessment (EIA) study has been done and TREM has dug several thousand exploratory pits of about 10m deep that remain uncovered. These have resulted in the deaths of many of the local communities' highly prized zebu cattle, although this is denied by TREM. The future of the project is not clear and this could be an opportunity for the EU, through the EPA, to become involved in the rare earth metals sector in Madagascar.

²⁹ *Ibid.*

³⁰ <https://knowledge.uneca.org/ASM/Madagascar>

³¹ <https://news.mongabay.com/2017/08/troubled-firm-aims-to-mine-madagascar-forest-for-rare-earth-elements/>

³² <https://www.reuters.com/article/us-china-rareearths-madagascar-idUSKCN1TP1H3>

³³ <https://news.mongabay.com/2017/08/troubled-firm-aims-to-mine-madagascar-forest-for-rare-earth-elements/>

5. Mining Policy

In Madagascar, the Mining Code is being revised by the Ministry of Mines and Strategic Resources. A reflection committee - including representatives of the ministry, experts, professionals from the mining sector and representatives from civil society - has been set up to work on a draft law. In regulating the mining sector, special attention has been given to maximising state revenues; community development; proper management and rehabilitation of the environment; promotion of the supply of local goods and services; creation of jobs and valorisation of national skills; proper governance of the mining sector; and a policy of first come, first served concerning the grant of mining permits. Malagasy law provides for a small-scale mining permit, which is available only to nationals using artisanal exploration and exploitation methods.³⁴ However, since 2010, the granting of new mining permits was suspended and this suspension is likely to continue until the publication of the revised Mining Code. The current international and national context relating to COVID-19 could delay such publication.³⁵

The 1961 Zimbabwe's Mines and Minerals Act (MMA) is no longer considered fit for purpose for Zimbabwe for many reasons, including it not being aligned with the environmental rights enshrined in the Constitution, which provides for the right to sustainable development out of the use of natural resources. It is also not compatible with other Acts and is not aligned to best practices such as the EITI.

In their paper analysing Zimbabwe's Mines and Minerals Amendment Bill (2015),³⁶ James Mupfumi and Tyani Masiya note that the lack of a robust MMA law has resulted in reduced revenue flows to the government, lost economic development and has increased the vulnerability of communities living in resource-rich areas. The Mines and Minerals Bill (MMAB, 2015) included provisions intended to prevent mineral revenue leakages, opaque mining licensing, poor flows of taxes and royalties to the fiscus and corruption and human rights violations against host communities, among other issues. The Amendment Bill was gazetted in August 2016 but is still not law as it has not gone through the parliamentary approval process. The Bill was supposed to have been resubmitted to Parliament in October 2019 after being modified to take account of sections that President Mnangagwa felt violated the national supreme law.³⁷

There have, however, been some reforms introduced. In March 2019, the 51 per cent ownership requirement was scrapped, meaning that companies operating in Zimbabwe no longer need to have 51 per cent Zimbabwean ownership, and later in the year, the 'use it or lose it' scheme was extended to all the country's mines, creating a hybrid system of laws and pressures that aimed to encourage foreign investment and subsequent increased production, while maintaining local ownership. These policy changes have had an effect in that since the decriminalisation of artisanal mining in 2013, the country's total gold production jumped from under 15,000kg in 2012 to nearly 25,000kg by 2016. The government has also implemented other 'use it or lose it' programmes, aiming to remove inefficiencies in the mining sector.

Despite these reforms, Zimbabwe remains without a robust legal framework that addresses exploration, production, beneficiation, marketing, and management in the gold sector. The absence of clear policies still allows illicit financial flows to take place and the policy changes that have taken place, such as the "No Questions Asked Policy" are not based on a clear policy framework.

³⁴ <https://www.mondaq.com/energy-and-natural-resources/975736/mining-comparative-guide>

³⁵ <https://www.mondaq.com/energy-and-natural-resources/975736/mining-comparative-guide>

³⁶ https://media.africaportal.org/documents/CRD_Policy_Analysis_Vol_1.No._1.pdf

³⁷ <https://www.herald.co.zw/parly-sets-october-for-mines-amendment-bill-resubmission/>

6. Marketing and Sale of Gold

Both Madagascar and Zimbabwe have made efforts to control the sale of gold and have established a central, government controlled, buying agent which has the monopoly on buying locally produced gold.

In 2015 Madagascar set up Anor, the national gold agency and, officially, through Anor, 2016 was the first year Madagascar exported gold. However, in 2011, the United Arab Emirates (and some other countries) reported importing US\$250m worth of gold and gemstones from Madagascar.³⁸

In theory, the artisanal gold panners/prospectors, or “orpailleurs”, should possess a permit. This is annually renewable and issued by the commune. Issuance is conditional on the panner committing to observe the commune’s environmental, and health and safety regulations. Adherence to these is monitored by the commune. Collectors, who buy from the panners or the “Epicière” are also obliged to have an annually renewable permit, which they must purchase from the commune. The collectors pay the royalty tax – the redevance/ristorne, totalling 2 per cent, of which 0.6 per cent goes to the state, and 1.4 per cent as ristorne is retained by the decentralized local authorities, region, and commune.

The gold comptoir is the theoretical interface between the panners, permit holders, collectors and the gold traders or gold users. This formal value chain is largely academic as most gold passes through an informal value chain, without formal payment of the redevance/ristorne to the state or commune.³⁹

Over the past two years, gold has become Zimbabwe’s biggest export and formal sales are valued at about US\$1.4bn per year but the value of the smuggled gold could be worth more than this. Kazembe Kazembe, the Minister of Home Affairs, said Zimbabwe has been losing about US\$100m worth of gold every month through international smuggling rings and the country’s porous borders. The International Crisis Group, based on research done by others, estimate that the value of smuggled gold is worth about US\$1.5 billion. The Ministry of Finance says it has been losing about US\$1.8bn of mineral revenues; especially from gold smuggling and externalisation. Finance Minister Mthuli Ncube said that, in 2019, an estimated 34 tons of gold had been smuggled across the border to South Africa, where criminal gangs can sell it to refineries. After that, it can end up in the reserves of South Africa.⁴⁰

The Government, through the Reserve Bank of Zimbabwe, has appointed a sole buyer of gold, Fidelity Printers and Refiners, which has a monopoly on buying gold. According to the Zimbabwe Miners Federation, and others, this has contributed towards losses and non-performance in the sector. In an interview quoted in *The Africa Report*, Desmond Mangisi, the Zimbabwe Miners Federation spokesperson is quoted as saying: “Government should not monopolise the buying of gold in the country. The market should be open to allow other stakeholders, [and] bankers to compete. It has been recording losses from the beginning of the year because its payment system is not favourable to miners and that [has] resulted in miners opting for the black-market”.⁴¹ In the same article in *The Africa Report*, Christopher Komberai, a small-scale miner, notes that “the government through Fidelity Printers and Refiners inconveniences gold miners and for that reason, small-scale miners have failed to expand. It takes more than two weeks for Fidelity to process our payments which come part of the local currency (45%) and (55%) in USD”. The result is that most artisanal miners operate illegally and do not sell the mineral to Fidelity Printers and Refiners who, until July 2020, was buying gold from the

³⁸ <https://www.theguardian.com/sustainable-business/2016/nov/15/gold-rush-madagascars-artisanal-miners-could-benefit-from-global-downturn>

³⁹ <https://portals.iucn.org/library/sites/library/files/documents/Bios-Cons-Nat-Pro-691-008.pdf>

⁴⁰ <https://www.theafricareport.com/49246/mining-in-africa-and-beyond-tracking-the-great-gold-rush/>

⁴¹ <https://www.theafricareport.com/53429/zimbabwe-losing-millions-from-illicit-gold-mining-trade/>

ASM sector at prices that were below international market prices, creating opportunities for arbitrage and smuggling of gold outside the country.

A report published by the ZELA, entitled *Illicit Gold Trade and Smuggling-Vulnerabilities exposed by the Rushwaya case*,⁴² outlines how the government is using illegal artisanal miners to promote revenue leakages. The Centre for Research and Development in Zimbabwe (CRDZ) reports how the exploitation of gold is being controlled by the ruling party ZANU PF elites and securocrats whose actions have become a source of violence, destroying the environment and contaminating bodies of water with toxic substances.

A common factor in Africa's illicit gold trade is how much of the metal transit through Dubai. Figures from the UN's Comtrade database show that Africa's share of Dubai's gold imports rose to 50 per cent from 16 per cent between 2006 and 2016. Non-oil trade between Dubai and African states was valued at US\$252 billion between 2011 and 2018, making the Emirate one of the continent's most important trading partners. The United Arab Emirates is among the 10 biggest sources of investment in Africa, much of it in the mining sector, with Dubai-based investors financing mini-refineries. Trading in gold accounts for about 20 per cent of the United Arab Emirates' economy. Although its main trading platform, the Dubai Multi Commodities Centre, says it meets "international benchmarks" for responsible sourcing set out by the OECD and demands comprehensive export documentation, this has been questioned. According to the ZELA, research released by IMPACT Transform in 2019 implicates Dubai and India as the two main recipients of smuggled gold.⁴³ Due diligence on gold imports by Indian customs officials and industry actions was found to be negligible and Dubai is said to be an intermediary between illicit or conflict gold, especially from the Great Lakes Region and exported to India. In April, the US-based Financial Action Task Force put Dubai on its watchlist, complaining about the limited number of prosecutions for money laundering. *The Africa Report* quotes a report on Dubai's financial and trading sector by the US-based Carnegie Foundation that concluded that the Emirate's "highly personalised institution" and the "lack of domestic and international pressure" meant that "Emirati elites are free to resist reforms that endanger their vested interests or preferred political vision for Dubai and the UAE overall". Attempts by western governments to put pressure on Dubai to restrict its aiding of illicit financial flows such as gold smuggling can clash with the need for these same western governments to have a dependable ally in the Gulf. According to *The Africa Report*,⁴⁴ UAE's recognition of Israel, in a deal brokered by US Secretary of State, Mike Pompeo, will make international pressure on the Emirates over financial flows even less likely.

⁴² <http://www.zela.org/illicit-gold-trade-and-smuggling-vulnerabilities-exposed-by-rushwaya-case/>

⁴³ <http://www.zela.org/illicit-gold-trade-and-smuggling-vulnerabilities-exposed-by-rushwaya-case/>

⁴⁴ <https://www.theafricareport.com/49246/mining-in-africa-and-beyond-tracking-the-great-gold-rush/>

7. Summary and Conclusions

The Africa Union’s Africa Mining Vision has a goal of “transparent, equitable and optimal exploitation of mineral resources to underpin broad-based sustainable growth and socio-economic development.”⁴⁵ Under the Africa Mining Vision, countries are encouraged to establish a Country Mining Vision the table below gives a summary of the Country Mining Vision for Madagascar⁴⁶ and Zimbabwe.⁴⁷

CVM components	Madagascar	Zimbabwe
Policy environment	<p>Recently emerged from an extended political crisis. Mining policy strives for more value-added and linkages in the mining sector. Attention is particularly given to environmental impacts from mining activities. Land ownership and customary land ownership pose some challenges in ASM. Recent Mining Code changes aim to increase ASM formalisation through reductions in license and permit fees.</p> <p>Children perform dangerous tasks although Madagascar has ratified all key international conventions concerning child labour. However, gaps exist in Madagascar’s legal framework to effectively reduce and eradicate child labour.</p>	<p>A new minerals regime will be configured to enhance the participation of indigenous Zimbabweans in mining and related linkage industries and facilitate equitable access to the sector by all Zimbabweans with the requisite capabilities, irrespective of gender or ethnicity.</p> <p>Support systems to facilitate the entry of female entrepreneurs into the ASM sector will be configured.</p> <p>Extension Services are provided to ASM through, particularly, the Shamva Mining Centre (SMC) which also provides tool hire (compressors) and advice on a range of subjects including geology, finance, mining, explosive and the environment.</p>
CVM Status	Processes underway	Processes underway
Policies, laws and regulations	Mining code 2005, (Revised 2015)	Mines and Minerals Act 1961
Artisanal mining licensing	Yes	No
Small scale mining licensing	Yes	Yes
Provisions for women in ASM	None	Draft Mineral Policy of 2013 but this is not in effect

Both Madagascar and Zimbabwe face challenges in managing the ASM sector to ensure human rights are observed, mining processes reduce the level of environmental degradation and the buying process is equitable and seen to be fair by all parties.

⁴⁵ <https://www.extractiveshub.org/servefile/getFile/id/79>

⁴⁶ <https://knowledge.uneca.org/ASM/Madagascar>

⁴⁷ <https://knowledge.uneca.org/ASM/Zimbabwe>

In Zimbabwe, the gold sector is compromised on many fronts. The centralised gold buying system underpays producers, a practice that encourages smuggling and erodes industrial mining profits, leading companies to close mines. Idle industrial mines become targets for intrusion by artisanal miners, often with the connivance of actors linked to the ruling elite. This feeds an elaborate patronage economy, found in many African resource-rich countries, which can give politicians an incentive to protect the status quo. There is little or no recourse to the legal system as artisanal miners have no collective rights under the law and in case of disputes authorities often apply the law unevenly, failing to hold politically connected parties to account.

In Madagascar, the challenges are more on the environmental degradation of protected areas especially and on the use of children, especially in the gemstone mining sector, to carry out what are often dangerous mining tasks. There is also a serious threat to the environment with the proposed mining of rare earth metals in Madagascar.

The comprehensive EPA could be used to help Zimbabwe and Madagascar to address some of the challenges faced in their mining sectors, and especially the ASM sector, through strengthening the provisions of Article 43 of the ESA interim EPA and so build on the provisions of the interim EPA. Article 43 on Mining and Minerals recognises the importance of cooperation in the development and management of the mining and minerals sector (Article 43.1). The objectives in this area are to establish a conducive environment for attracting investment in the sector; promote value addition and environmentally friendly technologies in the mining productive processes; and ensure participation of local communities.

The Parties agree to cooperate (Article 43.2), including by facilitating support, in:

- capacity building and institutional support for the exploration, exploitation and marketing of minerals;
- information exchange;
- encourage EU-ESA partnerships, linkages and joint ventures between economic operators;
- improve health and safety standards in the mining industry;
- transfer of technology, knowledge, innovation and Research and Development; and
- address the vulnerability of mineral export dependency.

The Commission Communication COM (2020) 474 final notes that the EU can help its partner countries to develop their mineral resources sustainably through supporting improved local governance and dissemination of responsible mining practices. This in turn creates value-added in the mining sector and drivers for economic and social development. In the case of Madagascar and Zimbabwe, it would be mutually beneficial to the ESA – EPA countries and the EU if support could be provided to Madagascar to ensure that environmental standards and human rights are respected in the mining of rare earth metals and if support could be provided to Zimbabwe to ensure improved governance, accountability and the rule of law is applied, especially in the PGMs and lithium mining sectors.

The governments of Madagascar and Zimbabwe could take immediate measures to support the artisanal and small-scale miners, and this could show the commitment of the government to open the way for donors and international financing institutions to support the sector. Some of the issues the government could address could include the following:

- Improve the gold buying system so that ASM get a fair price for the gold they sell and are paid immediately for this gold. In Zimbabwe, this could include abolishing minimum delivery quantities, which de facto exclude artisanal miners from selling their products legally.
- Establish a reporting system that distinguishes between purchases from artisanal miners, small-scale miners and industrial miners to get a better insight into the relative contributions from both sectors.

- Give artisanal mining cooperatives and groupings legal standing and recognise artisanal and small-scale miners as separate entities.
- In Zimbabwe, allow Parliament to resume its enquiry into gold-related violence.
- In Madagascar, improve the legal framework to effectively reduce and eradicate child labour.
- Strengthen extension and training programmes for the ASM sector.
- Provide financial support to the ASM sector.

Some of the programmes that could be supported through the development component of the comprehensive EPA could include the following:

7.1 Support to Civil Society

Through the ESA EPA development component, the EU could support appropriate civil society organisations engaging with artisanal miners to continue their work aimed at increasing the miners' capacity to advocate for their interests with the government and the industrial mining sector. They should make a special effort to ensure that women miners are welcomed into artisanal miners' organisations.

Civil society organisations could also be supported to monitor the activities taking place in the mining sector and to be able to quickly highlight and bring to attention such issues as violence and abuse taking place, both in cases where artisanal and small-scale miners are the victims or the perpetrators. Also, they could monitor corrupt practices; the use of child labour and the breaking of the law.

7.2 Digital Cadastre Survey

The EU, through the ESA EPA development component, could assist both Zimbabwe and Madagascar to complete the digital cadastre system that demarcates mining claims. This would go a long way to settle disputes and also to make some mining operations legal.

7.3 Support the formation of Mining Cooperatives

The EU, through the ESA EPA's development component, could assist an organisation such as the Chamber of Mines to support the creation of artisanal and small-scale mining cooperatives and to then:

- Work with the industrial mines to grant access to ore deposits that are not economical to mine industrially to the ASM cooperatives. This could provide companies with a strategy to both profit from sections of their mine that are industrially non-viable and decrease tensions and could also assist the sector to be compliant with basic health, safety and labour standards, and offer opportunities for women.
- Support training and capacity building of the ASM sector.
- Provide small grants or loans to ASM cooperatives so that they can buy basic tools and equipment.

7.4 Providing Support to the Legal Reform of the Mining Sector

The EU, through its ESA EPA development component, could support the reform of the legal framework governing the mining sector through providing technical assistance, support for advocacy and information dissemination through civil society organisations. The objectives would be to ensure that there is a legal framework in place in which:

- It is mandatory for mining companies to undertake a Human Rights Impact Assessment and an Environmental Impact Assessments before a mining licence is issued.
- Companies requesting exploration or mining licenses would need to demonstrate financial and technical capacity before being allowed to bid for licences and after full disclosure of ownership details.
- Rights and obligations of the Artisanal and Small-Scale Mining sector are fully recognised.
- The Extractives Industries Transparency Initiative Principles are fully recognised and considered.
- The Africa Mining Vision is fully recognised and taken account of and both countries are supported in completing their Country mining Visions.

Consideration could also be given to the adoption of the OECD Due Diligence on Responsible Mineral Supply Chains and incorporate them into the local legislative framework to ensure responsible and conflict-sensitive due diligence in the gold supply chain. Of particular importance is the need to ensure gold traceability. Corruption and smuggling of gold can be further curbed through the introduction of traceability measures within the gold mining sector whereby minerals are traced from their origin up to the end-user.

7.5 Provide Financial Support to ASM Sector

One of the critical inputs to increasing the sectors' operational capacity lies in widening access to financial resources and services within the sector. Whilst the sector represents the largest component of the mining industry in terms of participants, it largely remains unable to access adequate capital or debt which is critical for its growth.

There are significant impediments to achieving comprehensive financial inclusion and widening financial options in the ASM sector such as the informal nature of the sector, poor liquidity and difficulties in conducting due diligence and risk assessment on the entities and persons requiring the services. Consequently, the sector has remained an unattractive stakeholder to traditional financial systems that have traditionally supported the mining industry. Yet the proliferation of the ASM sector shows that it is a viable economic activity.

The ability to access a wide range of financial services in a simple and relatable format is a key catalyst for the sectors' formalisation and improved economic integration and ASM sector host governments need to improve their focus on policies that promote and empower partners that already exist within the ASM sector.