

SUMMARY OF THE HIGH-LEVEL STUDY SECTOR MINEIRO EM ANGOLA



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1 Introduction

This document is the synthesis of the high-level study on the mining sector in Angola, with offering an overview of the main points addressed, highlighting aspects that deserve greater attention, without disregarding the importance of the other topics addressed in the study.

The summary consists of eight chapters, namely: (i) the objective and relevance of the study, (ii) the history and current context of the gold sector in Angola, (iii) the levels of production and exports, (iv) the regulatory structure and the licensing process of mining activities, (v) the contribution to the economy, (vi) the environmental risks associated with mining activities and (vii) the prospects of the sector, with an emphasis on the opportunities and challenges.

1.1 Objectives and relevance of the study

This study was commissioned by Confindustria Federorafi, the Italian Federation of jewellery and jewellery companies that aim to understand the Angolan market in terms of exploration and marketing of gold and minerals for use in the jewellery industry. The document was produced based on the request of the Agency for the Internationalization of Italian Companies (ICE), its Office for the promotion of Exchanges at the Italian Embassy in Luanda, Angola, and was developed by the multidisciplinary team of the Geo-strategic Studies Institute, Lda (GSI).

The study examines the complexities and opportunities of the gold sector, highlighting the Government's actions, administrative structure and the impact of economic diversification, in order to convey to investors relevant information about its operation and the resources needed.

The study offers detailed information on the processes that regulate mining activity in the country. Its importance goes beyond the technical approach, it also integrates financial, social, environmental and political aspects of the country, providing an in-depth analysis of the mining sector in Angola, with particular attention to the gold sector.

Likewise, the study also addresses in detail the data on market dynamics, the relationships between the various players (explorers, sellers and processors) and the operating conditions, which allows the players to make more informed decisions and aligned with the reality of the sector in the country.

1.2 Methodology

The study was prepared using a methodology that provided fundamental information of great relevance to the mining sector in Angola. To this end, different research approaches were adopted in order to ensure the veracity and originality of the information, namely:

i. Literature search

The bibliographic research was carried out initially and continuously throughout the development of the work, with the aim of theoretically supporting the study and offering a broad view of the current state of the sector. Academic sources, scientific articles, journals, dissertations, statistical websites, and reports available in digital libraries and specialized databases, such as Google, Google Scholar and other relevant platforms, were consulted.

ii. Field research

The field research aimed to collect information by approaching directly with the sector's stakeholders, such as the Ministry of Mineral Resources, Oil and Gas, National Agency of Mineral Resources, Geological Institute of Angola and referents.

iii. Direct approaches

The direct approach was used as a complement to the field research, allowing a more immediate and direct interaction with individuals who act directly in exploration and jewellery areas.

1.3 Angolan economy

The Angolan economy is dependent on the exploration and commercialisation of oil, activities which contribute most of the country's Gross Domestic Product (GDP). In 2023, the country faced an adverse situation due to the volatility of the oil price, which varied between a high of 95 and a low of 73.55 US dollars, and an increase in international interest rates which had an impact on servicing the government's external debt. These factors negatively affected external accounts and the foreign exchange market, with significant macroeconomic repercussions.

However, it offers great business opportunities in key sectors such as oil and gas, mineral resources, agriculture, industry, and services. In 2023, the oil sector, which accounts for 30.41% of GDP, was the largest contributor to the economy. Excluding oil, the sectors with the highest share of GDP were trade (26.9%), other services (8.3%), agriculture and forestry (7.7%), manufacturing (5.5%) and construction (5.5%).

The diamond sector also performed positively, with revenues increasing by 12% to US\$38 million, driven by a 29% growth in production, which offset the 40% drop in average carat prices.

The industrial sector is expanding, standing out in the areas of mining, petrochemicals, textiles, tobacco and food processing. The agricultural sector is of great importance for the diversification of the economy, providing 85% of the workforce and feeding the population. In 2023, industry and manufacturing accounted for 11.4% of GDP, while the services sector contributed 6,624.5 million Kwanza to the country's economy.

In the Ease of Doing Business Index, according to World Bank data, Angola ranked 177th out of 190 countries in 2019.

In the Business Confidence index, in the first quarter of 2024, Angola obtained 11 points. The average between 2008 and 2024 is 1.70 points, reaching an all-time high of 31 points in the second quarter of 2009 and an all-time low of -34 points in the second quarter of 2016.

1.4 Overview of the mining sector in Angola

Mining in Angola began in the sixteenth century with diamond exploration, but as time went on, the country revealed vast mineral potential, including gold, iron, copper, and phosphates. These resources have boosted extraction and exploitation, also benefiting the construction industry and local handicrafts, as well as boosting exports. Iron and copper, in particular, are key to infrastructure and various industrial sectors, with projects underway to increase their refining and Angola's participation in the value chain of these minerals.

The mining sector in Angola is regulated by the Mining Code, which establishes the necessary guidelines for the exploration of mineral resources in the national territory. The Code is a value of the Angolan State in bringing together different pieces of legislation previously scattered, in a single instrument in order to supervise the legal management of mining in the country. However, there are still special legal provisions that can be found in specialty laws, such as the Private Investment Law.

To explore mineral resources, investors must apply for licenses from the State, presenting guarantees about their suitability, technical and financial capacity, as well as a sustainability plan that contemplates social responsibility in local communities. The growing international demand for minerals has driven the expansion of the sector, which already has projects to explore minerals such as iron, manganese, niobium and aluminium, as well as rare earth elements.

During the colonial period, Angola was a major producer of iron ore, gold, and copper. However, after independence in 1975 and the civil war that lasted until 2002, mineral exploration was stopped. During the conflict, diamond mining remained in operation due to its high demand and value. With the end of the war, Angola focused on the recovery of the mining sector as a way to boost its economy, implementing initiatives to attract investment and promote sustainable management. In recent years, the country has sought to diversify its production beyond diamonds, including iron, gold, and copper, investing in infrastructure and technology to modernize its mining operations.

1.5 Major companies

In Angola, the mining sector plays a key role in the country's economy, with several companies operating in the areas of diamond and gold mining. Some of these companies are still in the prospecting phase, while others are already in the process of exploring, extracting and marketing resources.

Among the various companies operating in the country, some stand out for their size, production volume and strategic importance for the sector. Below, we list some of these companies.

- i. **ENDIAMA - E.P:** is a public company dedicated to the prospection, recognition, exploration, cutting and commercialization of diamonds, created on January 15, 1981, as the exclusive concessionaire of mining rights in the field of diamonds.
- ii. **Catoca:** is the largest company in the diamond subsector in Angola, responsible for more than 75% of the country's diamond extraction. Catoca is a partnership between Endiama (Angola), Alrosa (Russia), and Endiama Mining (Angola).
- iii. **De Beers Group:** a world-leading diamond company with expertise in diamond exploration, mining, grading, marketing and retail.
- iv. **Luele Kimberlite Chimney:** located in the northeast of the Republic of Angola, Lunda Sul Province, in the Luele River basin, was discovered in November 2013, as a result of geological surveys carried out by the Catoca Mining Society, in order to strengthen and increase Angola's mineral resource base.
- v. **Mineração Samboto:** is a company that explores gold in the Samboto region, in Huambo, Angola. It is the second largest gold mine in the country.
- vi. **Mineração Buco-Zau:** is a gold mining project located in the province of Cabinda, Angola. In 2019, it obtained the licenses to explore and prospect for gold in the Mayombe Forest Transfrontier Protected Area.

2 History and current context of the gold sector

The territory of Angola has a high potential for gold deposits, located in belts of green stones of ancient geological formations belonging to the Precambrian cratons. Gold exploration in the country dates back to the period from 1950 to 1966, with companies such as SOMIL and CML carrying out artisanal extractions of up to 500 kg. Between 1966 and 1977, the company Colmaroy S.A.R.L carried out operations in Chipindo, but these were interrupted due to the armed conflict.

In 2011, exploration resumed with the granting of titles to the company Lafech Mining Resources. In 2014, the Angolan government launched Angola's National Geology Plan (PLANAGEO) to map mineral reserves. By 2023, the Geological Institute of Angola (IGEO) has advanced in cartography, geological mapping and geochemical studies.

Although still in its early stages, the Angolan gold sector offers investment opportunities, with projects under development in Chipindo, Samboto and Buco Zau. Currently, there are 38 prospecting projects and five in production, valued at US\$120 million. Reserves are estimated at 21,562 tons of gold, valued at \$1.07 trillion at the current price of \$50,000 per kilogram.

Projections indicate an increase in gold production from 3.75 thousand to 4.68 thousand fine ounces between 2023 and 2024, representing an annual growth of 24.8%. ANRM forecasts an annual production of 500 kg by 2027, in line with the National Development Plan (NDP) 2023-2027.

2.1 Main minerals and exploration areas

Angola is considered a country rich in mineral resources and is estimated to have 36 of the 51 critical minerals in world trade, including: aluminium, cobalt, magnesium, zinc, zirconium and manganese. In addition to these minerals, Angola has substantial occurrences of oil, natural gas, diamonds, phosphates, bituminous substances, iron, copper, magnesium, gold, ornamental stones, bauxite, uranium and other minerals

According to MIREMPET data, there are regions that are presented as minerally relevant because they are the areas with the highest occurrence and exploitation of metallic and non-metallic minerals.

- i. Diamonds: the provinces with the largest diamond exploration in Angola are: Lunda Sul and Lunda Norte in the Lucapa graben.
- ii. Ornamental stones: in terms of exploitation, ornamental stones, in particular marble, have a greater occurrence in the provinces of Huíla and Namibe.
- iii. Gold: currently, the provinces of Huíla and Cabinda are marked by the large presence of gold projects, both in the prospecting and exploration phases, followed by the provinces of Bengo, Zaire, Huambo and Cunene.

2.2 Production and market

Between 2019 and the first quarter of 2024, Angola produced about 7,672.51 fine ounces of gold, according to ANRM. From 2020 to 2023, the country raised around US\$3.39 million and more than €6.43 million from the export of 6,563.95 fine ounces, with the United Arab Emirates and Portugal as its main destinations.

In 2022, Portugal imported 484 fine ounces in the first half (US\$726 thousand) and 367 ounces in the second half (US\$542 thousand). The UAE acquired 993 ounces in the first half (\$1 million) and 673 ounces in the second half (\$1.1 million).

The gold jewellery market in Angola is dominated by the informal sector, jewellery shops and some jewellery factories. It is usually imported from Portugal, India and the United Arab Emirates.

Previously, 18-karat gold was preferred due to its quality. Currently, wedding and engagement rings, and necklaces are the most sought after, but due to the economic crisis, consumers prefer cheaper pieces of 9 or 14 carats. However, the lack of knowledge about authenticity increases the risk of buying counterfeit products.

2.3 Regulation

The Constitution of the Republic of Angola in its Article 16 (Natural resources) says that the natural resources, solid, liquid or gaseous existing in the soil, subsoil, territorial sea, exclusive economic zone and continental shelf under the jurisdiction of Angola are property of the State, which in turn determines the conditions for their concession, research and exploitation. under the Constitution, the Law and International Law.

The Mining Code (CM) was enacted in 2011 through Law No. 31/11 of 23 September and its fundamental objective is to regulate geological-mining activity, namely geological research, discovery, characterization, evaluation, exploration, commercialization, use and exploitation of mineral resources existing in the soil, subsoil and territorial sea under the jurisdiction of the Republic of Angola.

The CM defines the main rules and terms used for mining licensing. These terms can be: Mining or Mining Activity, Mining Permit, Mining Certificate and Mining Rights.

Basic Law on the Environment, defines the concepts and basic principles of protection, preservation and conservation of the environment, promotion of quality of life and rational use of natural resources, in accordance with paragraphs 1, 2 and 3 of article 24 and paragraph 2 of article 12 of the Constitutional Law of the Republic of Angola.

The Angolan Penal Code, in its Article 473, determines that the exploration and illicit trafficking of minerals are acts of criminal practice punishable under the terms of this same diploma.

3 Production and export levels

According to data from Angola's National Diamond Trading Company (SODIAM), the country traded around 9.396 million carats of rough diamonds in 2023, with an average price of US\$163 per carat, corresponding to a gross revenue of US\$1.5 billion.

According to the Mineral Resources, Oil and Gas Sector Report, in 2020, Angola produced 1,887.00 fine ounces of gold and in 2022 it increased to 2,541.74 fine ounces.

These data signal not only the revival of the sector, but also a boost towards the country's economic diversification.

4 Regulatory framework and licensing

The regulation and licensing structure of the Angolan mining sector is composed of ministerial departments, specialized government bodies and companies in the public domain.

Illustration 1 Regulatory and supervisory bodies



Source: ANRM

Table 1 Institutions, certifications and legal diplomas

Main Institutions	Mining Certifications	Legal Diplomas
MIREMPET/ ANRM	Prospecting License	Constitution of the Republic of Angola
MINFIN	Exploration and Processing License	Mining Code
MINDCOM	Commercialization License	Penal Code
MINAMB	-	Basic Environmental Law

4.1 Conflicts and legal challenges

The informal exploration of minerals in Angola, especially diamonds, has attracted nationals and foreigners, being a central theme in the country's economic and social development. Despite providing livelihood to many families, especially in regions such as Lunda Norte and Lunda Sul where young people resort to mining due to lack of employment, this activity raises concerns related to environmental impact, crime, territorial invasion and poor working conditions.

This activity raises critical questions about the environmental impact, crime, territorial encroachment and the social conditions of workers. It is practiced by autonomous individuals, organized in groups, who use artisanal methods to carry out mining in remote areas, trying to escape the authorities.

One of the challenges of informal mineral exploration in Angola is related to the origin of the artisans. According to data from the Military House of the President of the Republic of Angola, most of the 3,000 foreigners of various nationalities in an illegal migratory situation and involved in the illicit exploitation of diamonds and gold in mining areas were from the Democratic Republic of Congo (DRC). According to PanAfgeo, the DRC is considered an unstable country in the region. Meanwhile, Angola shares 2,511 km with its northern neighbour, making border management a huge problem.

According to the CM in Article 8, one of the strategic objectives of the mining sector is to combat mining and other illegal mining practices. As an example, Operation Transparency, which took place in 2018, in areas of high levels of mining, which aimed to combat illegal exploitation.

4.2 Economic and social impacts

According to the BNA's Economic and Financial Outlook Analysis Report, the mining sector showed growth in the second quarter of this year of 1.37 compared to the same period of the previous year, which was 0.04.

As an example, the diamond sector showed a solid performance in the first half of 2024, with a significant increase in production and revenues. The sale of 5.66 million carats of rough diamonds generated total revenues of US\$608.84 million, representing a growth of 36% compared to the same period of the previous year.

5 Contribution to the economy

The Angolan mining sector is one of the main strategic areas of the national economy, capable of making a crucial contribution to the country's economic development and diversification. According to the newspaper O País, the mining sector intends to increase its contribution with more than 2% of GDP in the national economy in 2024.

5.1 Risks and opportunities

The Angolan gold sector presents risks for investors, such as difficulty in accessing credit, due to the high risk of default by companies. Gold price volatility is also a risk to be aware of, which can result in losses, variation in extraction and production costs, which affect profitability, especially when the price of gold is low.

However, investors benefit from tax exemptions for mining operations, as per Article 269 of the Mining Code, including exemption from import duties for specific equipment, with the exception of some fees. The sector, still under development, offers opportunities in segments such as jewellery, with emphasis on the transformation of gold into jewellery, which opens doors to the local and international market.

5.2 Growth potential and investments

In recent years, Angola has sought to diversify its mineral production, exploiting not only diamonds but also minerals such as iron, gold, and copper. The country has invested in infrastructure and technology to modernize its mining operations and increase production capacity. Due to its natural potential, the Angolan mining sector is one of the main strategic areas of the national economy, capable of making a crucial contribution to the country's development and economic diversification.

Since the sector, especially gold, is developing, it presents other opportunities for Angolan and foreign investors in other segments of the chain, such as refining and jewellery. Therefore, the transformation of the gold miner into jewellery and its application in local and foreign jewellery constitutes an important window of opportunity.

In summary, the Angolan gold sector presents several investment opportunities, namely:

- i. **Prospecting:** investment in prospecting for new gold deposits, which involves geological research and testing to identify potential extraction areas.
- ii. **Industrial mining:** large mining operations, which require high initial investments and advanced technology.
- iii. **Gold processing:** investment in processing plans to transform mined ore into refined gold.

6 Environmental risks and sustainability

The main environmental impacts of gold mining in Angola include increased turbidity and variation in water quality (such as pH acidification), soil and water contamination with heavy metals, reduced oxygen in aquatic ecosystems, silting of rivers, air pollution, and the extinction of local species of flora and fauna. Improper disposal of mining waste pollutes the surrounding areas, making them unsuitable for agriculture and other subsistence activities.

This impact has serious consequences for the health of populations, with the increase in diseases such as cholera, scabies, yellow fever, malaria and even loss of vision in many cases, due to the consumption of contaminated water. Deforestation, soil contamination and pollution of water resources result in the loss of biodiversity, affecting both fauna, which migrates to other areas, and flora, with the destruction of plant species.

In addition, illegal mining affects important rivers, such as the Kussava and Kakuluvale, in the province of Huila, and the Luali River, in Cabinda, compromising the water consumed by thousands of people. To mitigate these damages, environmental recovery measures are necessary, such as soil replacement, creation of nurseries for reforestation, and construction of settling basins to filter water. In addition, riverbeds must be restored to return to their original course, reducing the environmental impact of mining.

According to the studies of PanAfGeo (Pan-African Geosciences Support) and the Africa-EU partnership, the development of the mining industry, although it can bring economic benefits, also generates environmental impacts, which can be positive or negative, depending on the responsibility in the exploration. Gold exploration in Angola, due to its nature, has caused environmental imbalances in the areas of intervention.

To start any activity in the mining sector, such as gold mining, those responsible must submit environmental pre-feasibility reports, environmental impact studies and waste management plans to obtain the environmental license. The Directorate of Mining, Safety and Environment Supervision of ANRM is responsible for the surveillance and inspection of these activities, ensuring that measures to protect the environment, people's safety and economic sustainability are complied with, promoting more sustainable and responsible mining.

7 Conclusions and perspectives

In conclusion, it can be said that although Angola has enormous potential in the gold sector, it must be admitted that the country faces substantial challenges that must be addressed effectively, such as poor infrastructure and limited tax incentives.

To respond to these challenges, over the past two decades, the Angolan government has made efforts to overcome limitations. The 2018-2022 NDP is a reflection of this commitment, with overarching goals for the modernization and expansion of transport, energy, and telecommunications infrastructure.

For new investors, involvement in partnerships with local entities that already have licenses to explore gold proves to be a promising strategy for those willing to invest in the country. Ongoing economic diversification and government incentives, while still modest, offer fertile ground for medium and long-term return on investment.

However, challenges persist. The volatility of mineral prices, the environmental risks of informal mining are issues that require sustainable solutions. The search for responsible mining, which considers the social and environmental impact, will be decisive to ensure that the benefits of mineral exploration are widely shared, respecting local communities and the environment.

Therefore, it is reasonable to say that Angola has the conditions to overcome the existing challenges, and assert itself as a mining power on the African continent, maximizing its vast potential and consolidating itself as a destination for strategic investments in the mineral sector.

8 Recommendations

In view of all these issues raised, the GSI recommends the following:

Establish local partnerships: Engaging in partnerships with local entities, especially those that already have exploration licenses, is a highly recommended strategy. This facilitates market entry and allows faster adaptation to the particularities of the local regulatory and business environment. Such collaboration can prevent risks associated with inexperience in the Angolan market and facilitate access to distribution networks and knowledge about the dynamics of the mining sector.

Identify incentives implemented by the government: although the tax incentives offered by the government are still modest, investors should closely monitor any updates in policies and incentive programs for the mining sector. Since the sector is in an embryonic phase, its growth will certainly impose new adjustments and legal incentives that should be taken advantage of by investors.

Consider risks related to price variation: Variations in mineral prices, especially gold, continue to be a concern. Investors should adopt risk mitigation strategies, such as long-term contracts and financial hedging. Constant analysis of global market trends and adaptation to price fluctuations are essential to ensure the economic viability of any venture.

Pay attention to regulatory reforms: The regulatory environment in Angola is evolving with improved infrastructure and increased public investments in various areas. Investors should stay up-to-date on legal reforms that may affect mining, including licensing issues, mining rights, and environmental regulations.

Exploiting the potential for community development: local communities play a crucial role in the viability of mining projects. Investors should consider implementing programs that benefit neighbouring communities by creating a cycle of mutual development. Promoting education, job training, and direct economic benefits for local populations can help prevent conflict and ensure a more stable and positive business environment in the long term.



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