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Win-win Partnerships for Critical Raw Materials

Advancing Europe-West Africa Cooperation

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Summary

Minerals are central to today's societies and economies. The global transition from fossil fuels to a clean energy sector depends on minerals like cobalt, lithium and graphite. The digitalisation of societies can only be achieved using rare earth elements, gallium and germanium. Healthcare, defence and communications are also strongly reliant on these minerals. Those materials that are important for the European economy and have associated supply risks are known as critical raw materials (CRM).

Global mineral supply chains have been driven by cost and time efficiency, but geopolitical tensions have made reliable and responsible sourcing indispensable considerations. China is using oversupply capabilities and export restrictions to pressure and coerce end users in the European Union (EU). This is made possible by its controlling influence over supply chains, which was built over decades. China dominates mining, processing and manufacturing stages of critical supply chains due to significant control over both domestic and foreign assets. To make up for domestic gaps, China has been making significant investments abroad. African countries are a main recipient of Chinese investments in mining and related infrastructures like roads, railways, and port facilities.

Minerals are critical for both resource-rich countries and end users in different ways. For resource-rich countries, the critical minerals sector represents an opportunity for sustainable development. This implies development that balances economic diversification and value addition with social benefits and environmental protection. For end users, the dependence of sectors of national importance on minerals combined with the growing geopolitical tensions, bring urgency to set up more reliable supply chains. In this context, the ambitions of resource-rich countries to develop their economies and those of end users to strengthen supply chain resilience, converge in a shared interest in more sustainable and responsible value chains.

This report contributes to the growing debate on win-win partnerships in CRM supply chains by focusing on the relation between the Netherlands as part of the EU, and West African countries, notably Burkina Faso, Ghana, Côte d'Ivoire, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, and Togo.¹ The report advises the Dutch ministries of Foreign Affairs and Defence on engagement avenues with West African countries in the field of CRM. It does so by (1) developing a methodology for mapping potential partnerships between the Netherlands/ EU and resource-rich countries; (2) conducting an analysis of international affinity x strategic relevance of the different countries in West Africa and individuating the most promising partnerships; and (3) developing case studies for Ghana, Senegal, Nigeria, and Côte d'Ivoire to analyse entry points for cooperation. The report is based on a combination of desk research of primary and secondary literature and data analysis of the challenges and opportunities for collaboration between the Netherlands and Ghana, Senegal, Côte d'Ivoire and Nigeria. This was complemented by eleven interviews with governmental and non-governmental stakeholders and insights from the 2025 Annual General Meeting of the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF).

¹ Benin, Gambia and Cape Verde were excluded from the analysis due to their limited mineral potential.

Ghana, Senegal, Nigeria and Côte d'Ivoire were selected as the four most promising partnerships in West Africa for the Netherlands and the EU. Ghana and Senegal stood out as being the most closely aligned with Dutch and European values, which could ease and increase the effectiveness of potential cooperation. They both possess extensive CRM reserves and growing mining sectors. Moreover, they have a stable security environment, as well as diplomatic and trade ties with the Netherlands and more broadly Europe. The two other selected countries are Nigeria and Côte d'Ivoire, who are notable EU trade partners and have ambitions to develop their mining industry. As such, several entry points can be found for partnerships in the CRM sector.

In line with principles of benefit sharing, the shared ambitions between the country and the Netherlands form the basis for each potential partnership. Shared ambitions are divided into two categories. First, sustainable and responsible value chains are achieved when they minimise harm and maximise benefits for the environment, society and governance systems. Second, the desire to develop mineral supply chains in West African states is accompanied by ambitions to increase the local value added of the sector in the region, in addition to the development of enabling factors such as infrastructure, education and the business environment. This should be achieved through partnerships that ensure that the West African government maintains meaningful control over its mineral industry and does not compromise its autonomy and independence in decision-making. For Europe, this is also meaningful due to the geopolitical risks brought by asymmetric control by a foreign actor over domestic industries, especially when it comes to significant Chinese interference. For producers in West Africa, Chinese ownership over infrastructure and dependence on China to purchase their materials and process them into higher value-added goods is a risk for their autonomy. The case studies are summarised below, focusing on the above-mentioned dimensions.

Ghana

Ghana has a sizable extractive industry. Ghana is Africa's largest gold producer and has large-scale manganese and bauxite mines. Chinese companies have majority stakes in both of these large-scale mines. Moreover, Ghana has a significant artisanal and small-scale mining (ASM) sector focussed on gold, which is particularly important for Ghanaians as it provides livelihoods in response to high unemployment and declining agricultural incomes. At the same time, the government is increasingly concerned about illegal ASM, as transnational criminal networks infiltrate the sector, introducing mechanised equipment and chemicals, which pose risks to the environment, public health, and national security.

Until now, Ghana has not derived sufficient benefits from its extractive sector. The Ghanaian government released its 2023 Green Minerals Policy, seeking to diversify its economy towards CRM. Ghana is expanding towards lithium, in partnership with an Australian company that has yet to be ratified by the Ghanaian parliament as of 2025. Copper, nickel and graphite are also reportedly found in Ghana, but the type and size of recoverable reserves are unclear due to limited geological data. Moreover, shortages in skilled labour and lack of proper infrastructure reduced the country's attractiveness for investors. This is now changing through efforts to build other economic linkages that would help the country develop and improve its mining sector and infrastructure.

Strategic partnerships are necessary to achieve these goals and, so far, China and the United Arab Emirates (UAE) have been Ghana's main partners in the mineral sector. China is not only a majority shareholder in Ghana's only manganese large-scale mines, but also the main

destination of Ghanaian manganese and bauxite. The manganese and bauxite are processed in China, who captures more of the added value compared to Ghana. Chinese companies are also making additional investments into Ghana's mining sector and its enabling environment, including transport and communication infrastructure, clean energy, banking, and digitalisation. The cooperation with the UAE is less far-reaching but nonetheless growing. The UAE is the main destination of Ghana's gold, both when it comes to legal and illicit flows. Emirati-based GIADEC is planning to invest in Ghana's bauxite production and export infrastructure, in addition to broader efforts around technology and innovation.

While the Ghanaian CRM sector is already developing in collaboration with Chinese, Emirati and Australian stakeholders, there are still some entry points for the Netherlands and the EU moving forward. The Netherlands and Ghana have been strengthening bilateral relations over the last years, but so far cooperation has not focussed on the extractive sector or CRM. This fits in the broader European engagement with Ghana, which is one of two countries in West Africa to sign a provisional Economic Partnership Agreement with the EU. A partnership between Ghana and the Netherlands and the EU in the short term could be focussed on the emerging lithium project by Australia. There is a need for investments along the supply chain, towards processing and even manufacturing. This is an opportunity for the Netherlands and the EU. Second, geological exploration for CRM like copper, nickel and graphite would be beneficial supporting not just the Ghanaian government with information but also potential European investors.

Senegal

The mining sector in Senegal consists of industrial mining and ASM. The former is dominated by the extraction of gold, phosphate, heavy minerals (namely zirconium and titanium), and construction materials. ASM is primarily concentrated in the southeast of the country and focuses on gold extraction. The country also holds other unexploited mineral reserves, namely manganese, magnesium, lithium, copper, and iron ore. The limited amount of available geological data does not allow for a clear estimation of the deposit size.

Senegal is committed to ensuring that mining operations not only respect environmental and social standards but also stimulate other economic sectors. While efforts are being made in this direction, large-scale and ASM mining operations are often criticised by local communities for environmental damage, claiming ownership over land that was previously used for agricultural purposes, and committing tax evasion. Moreover, to attract investment, the country is setting infrastructure investment as one of its budget priorities. The Senegalese government is currently investing massively in both transport and digital infrastructure.

The country appears willing to work with all partners, although it has expressed grievances regarding France's strong influence over its economy. France is currently the sole operator in Senegal's heavy minerals sector. Phosphate extraction, by contrast, is primarily conducted by the Singaporean company Indorama, which operates three separate mining sites. Senegal also has a domestic phosphate mining company operating one site, with a fifth phosphate site owned by an Indian company. Large-scale gold extraction is dominated by Western firms, primarily from Australia and the United Kingdom, with Morocco playing a more limited role. China is also becoming an increasingly important partner to Senegal, not yet in the mining sector, but the country has become the second largest economic partner to Senegal after France. Indeed, China invested heavily in the country, particularly in the infrastructure and energy sectors.

While Senegal's mining sector is already relatively well established in phosphate, heavy minerals, and gold, the country is now seeking to expand its activities. The main obstacle it faces is the lack of geological data necessary to attract foreign investors, including Europeans. This represents a first entry point for the Netherlands to collaborate with Senegal. A second entry point is support for monitoring and regulating the mining sector. Although Senegal has established clear laws aligned with international standards, it faces challenges in enforcement and compliance monitoring. A final entry point lies in providing technical assistance for the development of infrastructure projects that support the growth of the mining sector. This is a longer-term priority, provided that more clarity exists over CRM reserves and new projects are being set up.

Nigeria

Since the early 2000s, Nigeria has recognised that the development of its mining sector can play a role in its economic diversification away from oil. Ambitions to develop large-scale mining operations initially focussed on seven priority minerals – coal, lead/zinc, iron ore, gold, bitumen, baryte and limestone. With the government's newly established emphasis on green technology value chains, lithium and nickel are poised to be added to this list. Out of these, baryte, lithium and nickel overlap with the EU's CRM list.

Nigeria's mining sector is dominated by ASM, representing 70-90% of the country's mining output. ASM operations focus on the extraction of gemstones, gold, manganese, baryte, columbite, tantalite, lead/zinc ore, and lithium. Despite government initiatives to formalise the ASM sector, 80% of these operations are believed to operate outside of state control. Without effective governmental support, oversight and regulation, ASM remains plagued by gender inequality, child labour and adverse effects on the environment. Especially in the north of the country, mineral smuggling is a source of revenue for bandit groups and criminal networks.

To revitalise its mining sector, the Nigerian government developed the 2016 *'Roadmap for the Growth & Development of the Nigerian Mining Industry'* that set out to increase the sector's GDP contribution to 3% by 2025. While the mining sector has seen growth in absolute terms in the years that followed, its relative contribution to Nigeria's GDP was less than 0.5% in the first three quarters of 2024. Since then, to increase the country's ability to generate revenue from its mining operations, Nigeria has prohibited the export of minerals with a local value added of less than 30%. The policy mandates that foreign engagement in the mining sector includes investments in processing and refining.

Responding to the Nigerian government's goals, China has positioned itself as the dominant player in Nigeria's mining sector, with approximately \$1.3 billion invested in lithium processing facilities currently operational or under development. Additionally, China has invested in several infrastructure projects – ranging from railway to harbour development – and has been granted approval by the Nigerian government to establish EV-manufacturing facilities.

While the EU and the Netherlands have not been involved in major CRM or mining-related projects in Nigeria, the sector is rapidly growing, and notable opportunities still exist. Recent discussions between the European Ambassador and the Minister of Solid Mineral Development have begun exploring opportunities for mutually beneficial partnerships in the mining sector. Investments in processing and refining could connect Nigeria's dominant ASM sector to global and European supply chains, alongside further ASM formalisation efforts and infrastructure development. This would support ASM as a reliable and productive employment sector for local communities, while also contributing to the development of alternative CRM supply chains.

Côte d'Ivoire

Côte d'Ivoire extracts diamonds and gold through ASM operations, while industrial operations focus on gold, nickel, manganese, and bauxite. Between 2014 and 2023, the domestic gold production has almost quintupled, the number of industrial mines has been multiplied from 4 to 15, and exploration permits grew from 140 to 189. Côte d'Ivoire also holds significant untapped minerals reserves. Some of these, such as lithium, nickel-cobalt, nickel-copper, and chromium, are already under exploration, while others, including uranium and rare earth elements, remain untouched, with no current estimates of their potential.

The Ivorian ASM sector employs around half a million people and represents an important livelihood source, particularly for rural populations who turn to artisanal mining when agricultural incomes decline due to falling global commodity prices and climatic variability. Despite its role in employment and income benefits, the sector poses important health and environmental risks, and it may attract foreign armed groups seeking revenues. As a result, Côte d'Ivoire is actively seeking to formalise the sector to mitigate risks while improving incomes, working conditions, and sustainable economic opportunities.

Côte d'Ivoire is driving the growth of its mining sector both by welcoming foreign companies and establishing state-led operations. The extraction of gold remains primarily dominated by Western actors although the country is pushing for domestic processing and downstream industry through the launch of a state-owned refinery. With regards to CRM, several Ivorian projects are emerging – there is an Ivorian mining company for manganese, bauxite, and nickel with further projects for nickel-copper and nickel-cobalt mines also being led by Ivorian entities. Some of these projects have required foreign fundings such as the manganese one which was funded through cooperation with China. China is also very active in supporting the country in infrastructure developments projects. The UAE also secured a place in the Ivorian mining sector, by running two manganese mining sites.

Although the Netherlands is not involved in the Ivorian mining sector, it has strong economic ties with Côte d'Ivoire and well-established diplomatic relations through which it funded several cooperation initiatives. Building on these projects, the Netherlands can open the path for minerals-related cooperation. As short-term priorities, the Netherlands could (a) to support Côte d'Ivoire in developing the appropriate training program to formalise its ASM sector and increase the availability of skilled labour for large-scale mining; and (b) considering the many exploration permits awarded to different companies, to work together with allies and like-minded countries to support mine development and potentially processing activities. Finally, offering technical assistance with infrastructure, just like in the case of the Port of Abidjan, could be beneficial.

Conclusions and Recommendations

Based on the analysis, this report draws **three main conclusions**:

1. **CRM supply chains offer an opportunity for both resource owners and end users to revise their collaboration and ensure it effectively serves both parties' objectives.**

Geopolitical tensions and the growing demand for CRM are bringing momentum for collaboration between Europe and African countries. In this context, benefit sharing principles are evolving due to the growing governmental involvement in CRM supply chains. While CRM supply chains are a relatively new area of engagement for the EU, extractive industries have existed for centuries and can provide lessons for more sustainable and responsible operations that contribute to local development.

2. **Despite strong foreign engagement by Ghana, Senegal, Nigeria, and Côte d'Ivoire, notably with China, there is significant momentum for cooperation in the CRM space with the Netherlands and the EU in the short term.**

It is not a question of whether the CRM industry in Ghana, Senegal, Nigeria and Côte d'Ivoire will expand – the question is whether the EU will be able to secure partnerships in the sector amid growing competition with other foreign actors while ensuring that benefit sharing is central to these industries. China and other non-European players are already seeking agreements with Ghana, Senegal, Nigeria, and Côte d'Ivoire to support their emerging CRM industries, while Europeans are absent. At the same time, all four countries still have relatively immature CRM mining sectors, so ambitions for benefit sharing should be grounded in the main structural challenges hindering the industry's development.

3. **The Netherlands and the EU are missing out on opportunities to engage in the CRM sector because the foreign policy and development cooperation goals have not been aligned with CRM ambitions abroad.**

While Europe is active in various sectors like security, governance and development cooperation, its presence in the mining and CRM landscape of many countries remains limited. European companies are largely absent from major extraction and processing activities, and European embassies often lack dedicated plans on expanding this presence, reducing their ability to engage strategically and meaningfully with local governments and industry stakeholders. Still, given the centrality of this sector not only to the many countries' development path but also to European goals, it is a noticeable gap that CRM are not an explicit part of Europe's and the Netherlands' engagement plans. A Team Europe that wants to get involved in an emerging CRM producer has to understand its value proposition, as well as plan its engagement so that it adds benefits for both Europe and the resource-rich country.

Based on these conclusions, **three main recommendations** are provided for the Dutch Ministries of Foreign Affairs and Defence. Each of these is split into several subcategories.

1. Strengthen the Dutch approach to CRM partnerships by enhancing coherence, leveraging collective European strengths and responding to African ambitions in emerging CRM value chains.

- 1.1. Become more proactive in identifying new African partners to maximise win-win benefits in CRM supply chains.
- 1.2. For each selected priority country, develop a dedicated CRM strategy at the European level, tailored to the specific opportunities and constraints in each country, and designed to support responsible value-chain development, regional integration and long-term economic resilience.
- 1.3. Increase the coherence of external action by aligning CRM goals with development cooperation, security and governance projects.

2. Partnering with Ghana, Senegal, Nigeria, and Côte d'Ivoire in developing their CRM industries should be sought in the short term, while the Netherlands and the EU can still take on a meaningful role.

- 2.1. **In Ghana**, the short-term priority would be to support its lithium processing and downstream sector, while also identifying European consumers for the processed materials. Additionally, supporting geological exploration for other CRM with the intention of getting involved in the mining sector could be a long-term action.
- 2.2. **In Senegal**, the short-term priority would be conducting geological exploration, with the intention of getting involved in the mining sector, given that CRM mining is limited. Additionally, efforts could be tailored to support the government in strengthening the monitoring and enforcement of sustainability and local content requirements in its mining legislation. Moreover, providing technical assistance in infrastructure development, including transportation and energy, would match the Senegalese government's ambitions and aid in the long term in the development of the country's CRM sector.
- 2.3. **In Nigeria**, the short-term priority would be to invest in processing and refining to connect Nigeria's dominant ASM sector with global and European CRM value chains, while offering professional training programmes to strengthen the formalisation of ASM. Additional activities could focus on supporting infrastructure development to facilitate the transportation of raw and processed materials and address energy grid constraints to enable the development of larger-scale mining operations and processing facilities.
- 2.4. **In Côte d'Ivoire**, the short-term priorities would be (a) to support Côte d'Ivoire in developing the appropriate training program to formalise its ASM sector and increase the availability of skilled labour for large-scale mining; and (b) considering the many exploration permits awarded to different companies, to work together with allies and like-minded countries to support mine development and potentially processing activities. Finally, offering technical assistance with infrastructure, just like in the case of the Port of Abidjan, could be beneficial.

3. Support regional cooperation in West Africa.

Shared geological formations mean that neighbouring states often possess similar mineral deposits. Coordinated approaches can support collective bargaining power, reduce duplication and enable more efficient regional value-chain development. Moreover, joint regulatory enforcement, information-sharing and harmonised standards are central to mitigating these risks. Strengthening regional cooperation, for instance through fora like the Economic Community of West African States (ECOWAS), is not just economically advantageous but also vital for ensuring secure, transparent and responsible CRM supply chains.

1. Introduction

Minerals are central to today's societies and economies. The global transition from fossil fuels to a clean energy sector depends on minerals like cobalt, lithium and graphite. The digitalisation of societies can only be achieved using rare earth elements, gallium and germanium. Healthcare, defence and communications are also strongly reliant on these minerals. The demand for (critical) minerals is expected to grow exponentially. These materials that are important for the European economy and have associated supply risks are known as critical raw materials (CRM).

Minerals have become tools of geopolitical influence. China is strategically using its dominant position to exert influence over the rest of the supply chain. Export restrictions like quotas, tariffs or complete bans are strategically used by China to hurt end users in the European Union (EU) and its allies, whose strategic industries depend on these inputs. This is partly due to domestic capabilities, as 99% of graphite for batteries, 74% of refined germanium for semi-conductors, and 99% of rare earth elements for permanent magnets are produced in China.²

To make up for the capabilities it does not have domestically, China has been making significant investments abroad. African countries are a main recipient of Chinese investments in mining and related infrastructures like roads, railways, and port facilities. About 24% of China's total foreign direct investments in Africa have gone to the mining sector between 2013-2024.³ Extractive industries in low- and middle-income African countries have been exporting raw materials to China but derive little benefits from their extractive industries relative to the negative environmental and social impacts they experience. Control over supply allows Chinese producers to manipulate prices, negatively affecting end users when prices are high, but also hurting the economic feasibility of new mining and processing projects when prices are low.

The growing global demand for critical minerals and their strategic importance for governments worldwide offer opportunities to resource owners and end users to reimagine supply chains in a way that better serves both groups' interests.⁴ For resource-rich countries, the critical minerals sector represents an opportunity for sustainable development. This implies development that balances economic diversification and value addition with social benefits and environmental protection. Efforts to increase the value added from mining and minimise related negative impacts are not new. Decades of mining in the gold, iron, bauxite, nickel and other ores have translated into development models with varying degrees of success for local populations and indigenous communities. For end users, it is an opportunity to strengthen the resilience of mineral supply chains and, in turn, contribute to sustainable development in countries of origin.

² 'RMIS - Raw Materials' Profiles', European Commission, accessed 27 November 2025, <https://rmis.jrc.ec.europa.eu/rmp/>.

³ 'Chinese Investment in Africa', China Africa Research Initiative at Johns Hopkins University's School of Advanced International Studies, 2025, <http://www.sais-cari.org/chinese-investment-in-africa>.

⁴ Isabelle Ramdoo et al., What Makes Minerals and Metals 'Critical'? A Practical Guide for Governments on Building Resilient Supply Chains (The International Institute for Sustainable Development, 2024), <https://www.igfmining.org/resource/what-makes-minerals-and-metals-critical/>.

At the 7th European Union – African Union Summit in 2025, President von der Leyen emphasized the push for cooperation between the two continents for economic development and to “break free from unsustainable dependencies”.⁵ Among others, the Lobito Corridor connecting Zambia and the Democratic Republic of Congo – and their mineral resources – with Angolan Lobito Port was mentioned as a positive example of mutual collaboration. Unlike other investors who “might follow a different playbook”, Europe would invest in local value addition, job creation and infrastructure in Africa, to help local development and, at the same time, “create new markets for European companies and strengthen our European supply chains”.⁶

This report contributes to the growing debate on win-win partnerships in CRM supply chains by considering the relation between the Netherlands as part of the EU, and West African countries Benin, Burkina Faso, Gambia, Ghana, Côte d'Ivoire, Cape Verde, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone and Togo.⁷ Unlike Latin America and Sub-Saharan Africa, which have been at the centre of the EU's engagement with CRM-rich countries since 2023, West Africa has received relatively little attention from the EU. There are several reasons why this has been the case. On the one hand, this is related to the setup of many West African economies, which revolve around gold as the main extractive industry, and that are heavily reliant on agricultural commodities like cocoa. On the other hand, the rapidly developing political instability and security tensions across West Africa have discouraged European policymakers and investors from engaging in the CRM sector.

Yet West African leaders have become increasingly focussed on developing domestic mining industries to drive economic growth. West Africa has a long tradition of both artisanal and small-scale mining (ASM) and industrial operations, yet the benefits derived from these industries have not reached their full potential. To overcome this, the region introduced two regulatory frameworks under the Economic Community of West African States (ECOWAS), one in 2009 and another in 2011. The first sought to harmonise mining regulations across member states, while the second underscored the importance of mining investment for long-term socio-economic developments.⁸ Together, these policies aim to help states capitalise on rising demand and strike a balance between attracting foreign investment and preserving domestic economic sovereignty.

This report calls attention to the West African region as a potential partner for the Netherlands and the EU in the shared pursuit for responsible and sustainable value chains that contribute to socio-economic development. It advises the Dutch ministries of Foreign Affairs and Defence on engagement avenues with West African countries in the field of CRM. It does so by (1) developing a methodology for mapping potential partnerships between the Netherlands/ EU and resource-rich countries; (2) conducting an analysis of *international affinity x strategic relevance* of the different countries in West Africa and individuating the most promising partnerships; and (3) developing four case studies of Ghana, Senegal, Nigeria and Côte d'Ivoire to analyse entry points for cooperation.

⁵ 'Opening Speech by the President: 7th European Union – African Union Summit', European Commission, November 2025, https://ec.europa.eu/commission/presscorner/detail/en/speech_25_2797.

⁶ 'Opening Speech by the President: 7th European Union – African Union Summit', European Commission, November 2025, https://ec.europa.eu/commission/presscorner/detail/en/speech_25_2797.

⁷ 'Handel met West-Afrika: wat zijn de feiten & cijfers?', RVO, 2024, <https://www.rvo.nl/onderwerpen/landen-en-gebieden/zakendoen-afrika/handel-west-afrika-feiten-en-cijfers>.

⁸ Eniola R. Sonuga, 'Harnessing ECOWAS' Mineral Wealth: Building a Trillion-Dollar Industry for West Africa', APRIL, 29 October 2025, <https://africapolit.org/harnessing-ecowas-mineral-wealth-building-a-trillion-dollar-industry-for-west-africa>.

The report is based on a combination of desk research of primary and secondary literature and data analysis of the challenges and opportunities for collaboration between the Netherlands and Ghana, Senegal, Côte d'Ivoire and Nigeria. This was complemented by eleven interviews with the Dutch Embassies in the four countries; the Delegation of the European Union to the Republic of Côte d'Ivoire; the Netherlands Commission for Environmental Assessment (*Commissie Mer*); the European Partnership for Responsible Minerals; the Extractive Industries Transparency Initiative with a focus on Francophone Africa; and three NGOs, including A Rocha Ghana and the Centre for Extractives and Development Africa, based in Ghana; and La Lumière Senegal. Moreover, insights were drawn from the 2025 Annual General Meeting of the Intergovernmental Forum on Mining, Minerals and Sustainable Development (IGF) with the theme 'Value Beyond Extraction: Rethinking Mining for a Resilient Future'.

The rest of the report proceeds as follows. The next section outlines the evolving nature of global supply chains in the face of growing CRM demand in strategic sectors and geopolitical tensions. The third section discusses the rationale behind strengthening cooperation between the EU and West Africa. The fourth section maps the most promising partnerships for the EU in West Africa and individuates Ghana, Senegal, Nigeria and Côte d'Ivoire as important potential partners. The fifth part identifies entry points for collaboration in line with principles of benefit sharing. Finally, conclusions and recommendations are drawn in section six.

2. The evolution of critical raw materials supply chains

The increasing use of minerals for advanced technologies in the clean energy and digital sectors is pushing new producers to enter the market and consumers to pay more attention to the mineral supply chains they are dependent on and reduce their vulnerabilities. Minerals, metals and materials are designated as 'critical' when they are important to an end user country's economy and have high risks of disruption along their supply chains.⁹ Minerals are naturally occurring crystalline substances formed through geological processes – they provide the chemical and structural basis for metals. Materials are a broader category encompassing minerals, metals and other raw materials.

The paragraphs below outline the main characteristics of mineral supply chains today and discuss the ways in which they are changing due to growing demand, geopolitical tensions and a renewed focus on deriving local benefits from extractives.

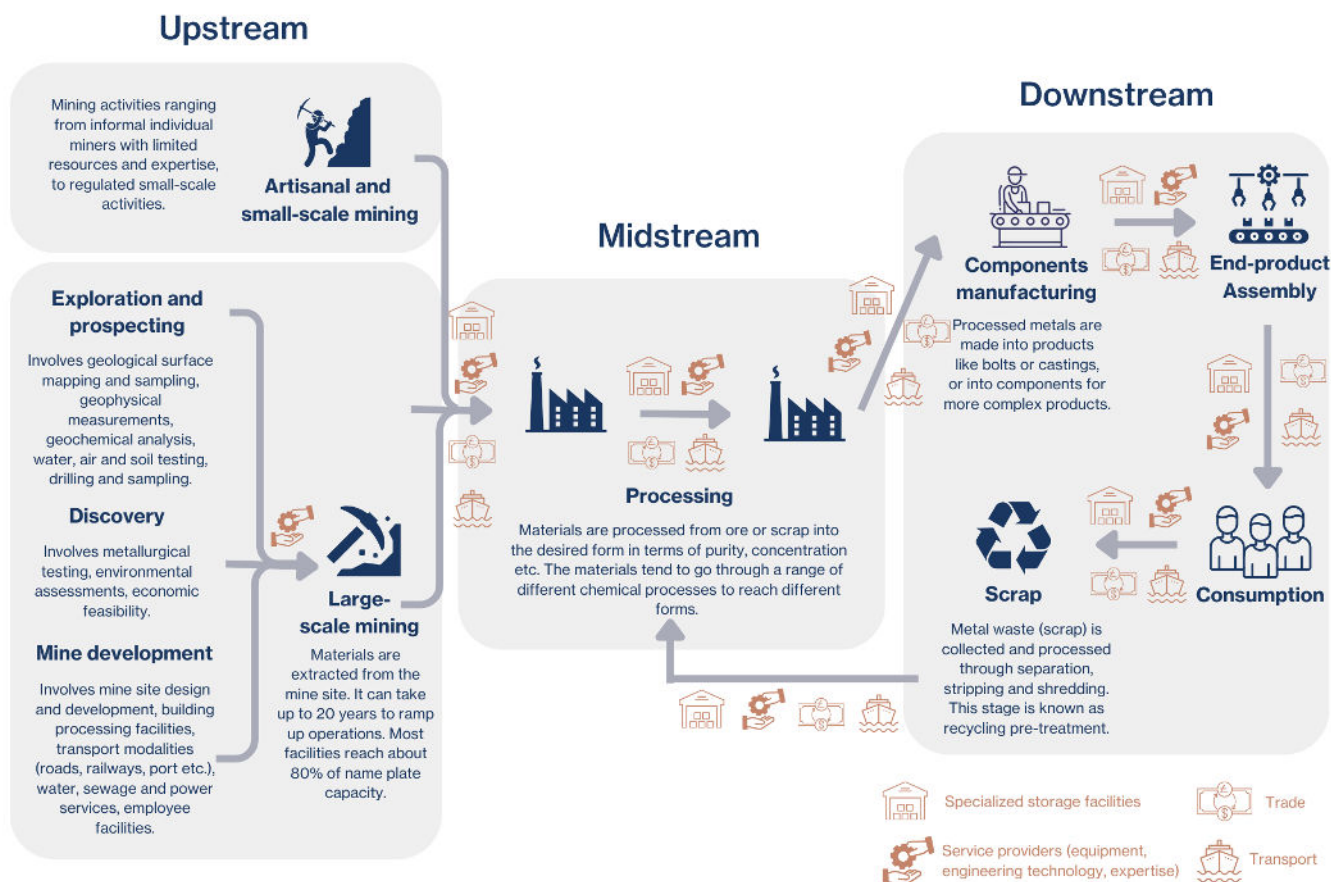
2.1. Setup of mineral supply chains

A mineral supply chain is divided into upstream, midstream and downstream segments (Figure 1).

The upstream consists of exploration and exploitation and is strongly dependent on geology. The presence of rich mineral deposits dictates the economic feasibility of mining and the expected duration of this mine's profitability. In many countries, however, geological data is scarce, meaning that the presence and size of reserves are not fully known. Exploration and prospecting, discovery and mine development can take several years and involve a significant number of service providers with specialised knowledge and expertise.

⁹ European Commission, 'Critical Raw Materials Act'.

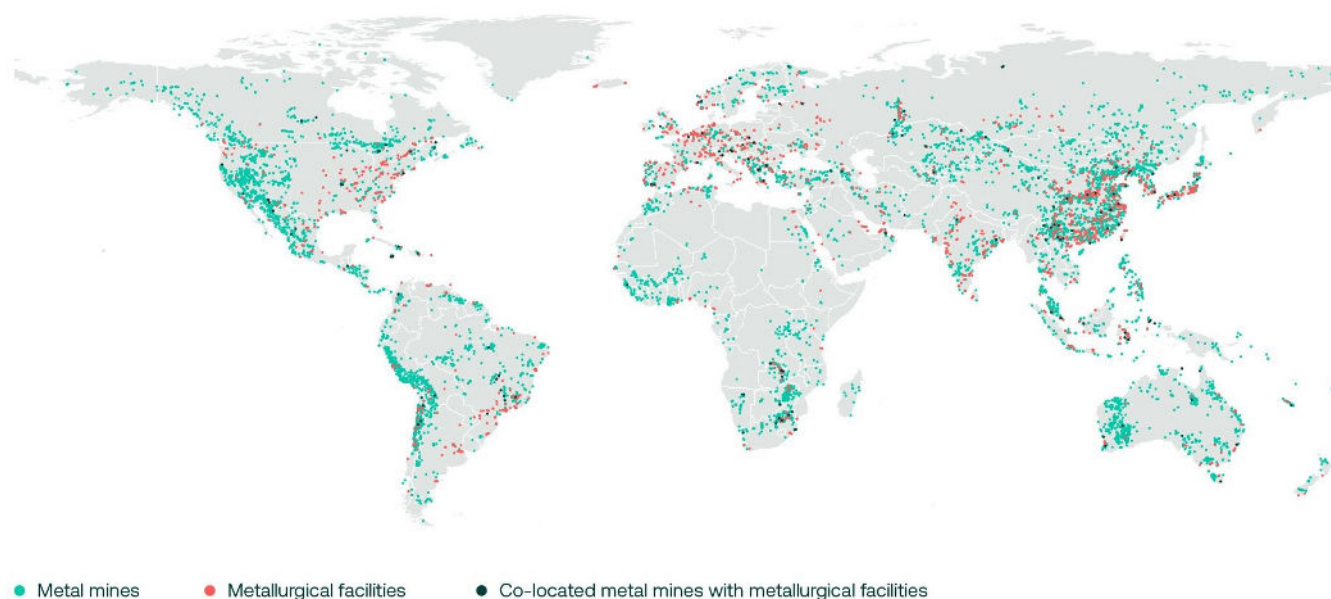
Figure 1. Simplified mineral supply chain



Extraction can either be done at an industrial scale or through ASM. Large-scale industrial mining is inherently more formalised as it concerns significant investments into the construction of the mine site and adjacent infrastructure projects, as well as a long-term commitment to the area by one or more public and private stakeholders. While on a governmental level countries are often in favour of developing the industrial sector, neighbouring communities sometimes find themselves in conflict with the mine because of pollution and failure to provide local employment opportunities. Additionally, large-scale mines often export raw material to third countries where the commodity will be refined, meaning value addition takes place elsewhere.¹⁰ Figure 2 shows the geographical distribution of large-scale mines. While this figure includes several non-critical commodities like coal and gold, it shows a heavy concentration of large-scale mines on the western coast of the Americas and in East Asia.

¹⁰ Trade in Raw Materials (OECD, 2019), <https://doi.org/10.1787/031f6787-en>.

Figure 2. Global distribution of metal mines, metallurgical facilities, and co-located metal mines, including 47 different commodities. Figure from ICMM, 2025.¹¹



ASM involves a wide range of operations, ranging from “informal individual miners earning a subsistence livelihood to formal and regulated small-scale entities producing minerals commercially”.¹² Globally, it is estimated that 40 million people’s livelihoods are directly dependent on ASM, while 150 million individuals are indirectly dependent on it.¹³ ASM is a critical livelihood strategy for many rural communities, particularly when agricultural income declines due to falling crops prices or harsh climatic conditions.¹⁴ ASM encompasses formal and informal mining activities carried out by individuals, groups, or cooperatives without formal training and often using non-mechanised techniques. While ASM frequently operates without formal oversight, it does not necessarily violate the law and is often regarded as both an economic opportunity and a cultural heritage.¹⁵

Illegal mining refers to mining activities conducted by organised criminal groups or syndicates in violation of applicable laws or regulations, including operations in prohibited areas or those using banned equipment or chemicals.¹⁶ It can sometimes occur in an ASM context when these groups take control of certain operations, blurring the line between illegal and informal mining activities. The abundance of gold has been associated with criminal networks and conflict in different parts of Africa, including in West African countries. Gold, together with tungsten, tantalum and tin (3TG) are considered conflict minerals under the EU’s 2017 Conflict Minerals Regulation.¹⁷

¹¹ ICMM, Understanding the Global Distribution of Mining and Metals Facilities (2025), <https://www.icmm.com/en-gb/research/data/2025/global-mining-dataset>.

¹² ‘Artisanal and Small-Scale Mining’, Intergovernmental Forum on Mining, n.d., accessed 30 September 2025, <https://www.igfmining.org/artisanal-and-small-scale-mining/>.

¹³ ‘Artisanal and Small-Scale Mining’.

¹⁴ Franklin W. Schwartz et al., ‘A Review of Health Issues Related to Child Labor and Violence Within Artisanal and Small-Scale Mining’, *GeoHealth* 5, no. 2 (2021): e2020GH000326, <https://doi.org/10.1029/2020GH000326>.

¹⁵ Gold Trafficking in the Sahel (UNODC, 2023), 11, https://www.unodc.org/documents/data-and-analysis/tocta_sahel/TOCTA_Sahel_Gold_v5.pdf.

¹⁶ Gold Trafficking in the Sahel (UNODC, 2023), 11, https://www.unodc.org/documents/data-and-analysis/tocta_sahel/TOCTA_Sahel_Gold_v5.pdf.

¹⁷ ‘Conflict Minerals Regulation’, European Commission, 2017, https://policy.trade.ec.europa.eu/development-and-sustainability/conflict-minerals-regulation_en.

The term conflict mineral typically refers to raw materials extracted in mining sites controlled by non-state armed groups who typically exploit residents and conduct their activities without any regards for social and environmental norms.¹⁸ The high price of gold and abundant occurrence in West Africa makes it a lucrative commodity for illicit networks and non-state armed groups in the region.¹⁹ In Sahel countries, transnational organised crime groups and armed groups, including extremist ones, reportedly control illegal mining sites and associated trading routes from which they turn a profit that funds their operations.²⁰ In some cases, extremist groups have also targeted convoys of industrial mines and stolen their content.²¹ Coastal West African countries standing at the periphery of Sahel-based terror groups fear that their mineral wealth will attract armed groups within their borders. Indeed, terrorist groups are expanding southwards to the sea. As the border regions between Sahel and coastal countries are typically neglected by central governments, they are vulnerable entry points for extremist groups intrusions.²² In northwest Nigeria, terror groups have already taken control over numerous mining sites. These organisations are responsible for funding banditry and cattle rustling around mining communities, inciting violence in ongoing ethnic disputes, and are responsible for millions in lost state revenue.²³

Processing is much less widespread than mining, and it is driven by economic considerations rather than geology. One of the most comprehensive datasets of large-scale mining and processing facilities identifies 12,876 mines and 1,980 processing facilities, in addition to 332 co-processing sites that integrate both operations (Figure 2). The setup of the processing stages in mineral supply chains has been strongly impacted by decades of trade liberalisation and globalisation of value chains. Regions became dominant if they could offer low production costs and high efficiency due to geographical proximity to mining, reducing logistics time and costs, or due to spillover effects in industrial hubs.

This is how China became the world's largest mineral processing hub, with dominant shares in the markets of aluminium, lithium, cobalt, graphite, manganese and rare earths. China has the most mineral processing plants in the world (see Figure 3). Chinese processing companies benefitted from spillover effects from other mineral industries but were also supported by a large domestic demand base. Countries like Chile, South Africa, Malaysia and Indonesia have also been expanding their capabilities, focusing on one or two mineral supply chains each.

¹⁸ Joe Marrone, 'Conflict Minerals in the International Supply Chain', Farm Sahel, 6 July 2022, <https://www.farmsahel.org/conflict-minerals-in-the-international-supply-chain>.

¹⁹ *Gold Trafficking in the Sahel* (UNODC, 2023), 7, https://www.unodc.org/documents/data-and-analysis/tocta_sahel/TOCTA_Sahel_Gold_v5.pdf.

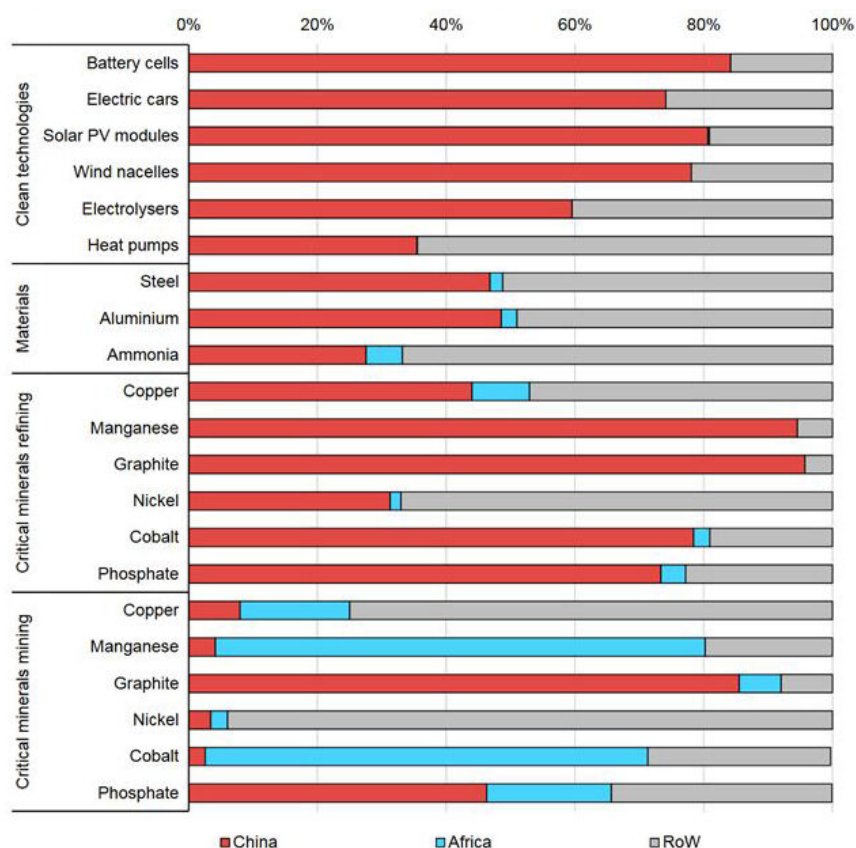
²⁰ *Gold Trafficking in the Sahel*, 18–21.

²¹ Inna Segueda, 'Communiqué sur les événements sécuritaires dans le secteur minier', *Chambres des Mines du Burkina Faso*, 6 September 2021, <https://chambredesmines.bf/nvsite/communique-sur-les-evenements-securitaires-dans-le-secteur-minier/>.

²² Ani Ndubuisi Christian, 'Illegal Mining Digs up Multiple Problems in Ghana', ENACT Africa, 2024, <https://enactafrica.org/enact-observer/illegal-mining-digs-up-multiple-problems-in-ghana>; Paulin Maurice Toupane et al., 'Prévenir l'extrémisme Violent Au Sénégal : Les Menaces Liées à l'exploitation Aurifère', ISS Africa, 16 December 2021, <https://issafrica.org/fr/recherches/rapport-sur-lafrique-de-louest/prevenir-lextrémisme-violent-au-senegal-les-menaces-liees-a-lexploitation-aurifere>.

²³ Oluwale Ojewale, 'Rising Insecurity in Northwest Nigeria: Terrorism Thinly Disguised as Banditry', Brookings, 18 February 2021, <https://www.brookings.edu/articles/rising-insecurity-in-northwest-nigeria-terrorism-thinly-disguised-as-banditry/>; Lami Sadiq, 'How Gold-for-Arms Is Fuelling Terror In North-West', Daily Trust, 25 October 2025, <https://dailytrust.com/how-gold-for-arms-is-fuelling-terror-in-north-west/>.

Figure 3. Geographical distribution of manufacturing capacity.
Figure from IEA, 2025.²⁴



IEA. CC BY 4.0.

Notes: RoW = Rest of World. "Electric cars" values are calculated based on 2024 production numbers, adjusted according to the utilisation rates of car assembly plants in the region.

When it comes to the downstream segment, especially in the clean tech sector, capabilities are also concentrated in China (Figure 3). For a long time, the most lucrative processes would take place in advanced economies like the US, Europe, Korea or Japan. Yet this has shifted, and a significant portion of clean and digital technologies is produced in China. This includes electric vehicles and solar panels, but also technologies in other sectors like robotics and sensors.²⁵ This is due to a wide range of factors like governmental subsidies for these sectors, but also, importantly, the presence of most of the supply chain in the country. This offers cost benefits, reduced logistics times and security of supply relative to producers outside of China.

²⁴ IEA, Stepping Up the Value Chain in Africa (2025), <https://iea.blob.core.windows.net/-41e9-4e5c-9299-81e79c267a27/SteppingUptheValueChaininAfrica.pdf>.

²⁵ Kaiser Kuo, 'Made in China 2025 Set the Tempo of China's Industrial Ambitions', World Economic Forum, 26 June 2025, <https://www.weforum.org/stories/2025/06/how-china-is-reinventing-the-future-of-global-manufacturing/>.

2.2. The geopolitical and economic push for revised supply chains

Mineral supply chains are evolving for two reasons. First, many resource-rich developing countries are extracting minerals – or are planning to do so – and want to ensure that adequate revenues are used for domestic socio-economic development. African countries only generate around 40% of the revenues they could be making from CRM.²⁶ Previous experiences in other dominating mineral markets like gold have showed that companies involved in large-scale mining did not contribute sufficiently to local development, and illegal markets associated with ASM led to environmental and social disasters.²⁷ As such, the expansion of critical minerals mining should be done in a more responsible way, and this is highlighted in documents like the African Union's Africa's Green Minerals Strategy or national mining codes under revision.²⁸

Second, the geographical concentration of mid- and downstream operations in China and a few other countries creates a two-fold challenge: it brings geopolitical risks for both resource owners and end users; and it makes it difficult for new producers to enter the market. Through the Belt and Road Initiative (BRI), the Chinese government has managed to consolidate control over mineral supply chains, which brings geopolitical risks. In resource-rich countries across Africa, Chinese companies have been buying majority shares in large-scale mines, from where they export to Chinese processing plants for further use. The Simandou deposit in Guinea is the world's largest untapped iron ore deposit, and Chinese investments have operationalised the integrated project, including the mine and dedicated railway and port facilities. Most of the ores mined in Simandou will go to China for processing.²⁹ Gaining such overwhelming control over Guinea's mining and transport infrastructure can have consequences for the country's political and economic autonomy. Especially as this pattern can be observed across the African continent, China's influence becomes a geopolitical risk for African governments. Heavy reliance on Chinese capital, technology and offtake agreements may increase African governments' exposure to political pressure and reduce their freedom for action.

Geopolitical risks also affect end users in Europe. Critical technologies and raw materials are used by China, the US and the EU as geopolitical weapons to exert influence and hurt each other's high-tech industries. Export restrictions have already affected dual-use goods that serve both civilian and military purposes, such as semiconductors, batteries, rare earth magnets.³⁰ The trade barriers also affect more than 15 materials needed for their manufacturing – including gallium, germanium, antimony and seven rare earth elements.³¹ This increases costs and leads times for key inputs used by European manufacturers, and forces

²⁶ Akiwumi, Paul. 'How Africa Can Harness Critical Mineral Wealth to Revamp Economies | UN Trade and Development (UNCTAD)', 3 juni 2024. <https://unctad.org/news/how-africa-can-harness-critical-mineral-wealth-revamp-economies>.

²⁷ IEA, Stepping Up the Value Chain in Africa.

²⁸ African Union, Africa's Green Minerals Strategy (2025), https://au.int/sites/default/files/documents/44539-doc-AGMS_Final_doc.pdf.

²⁹ Gemmell, Katharine, and Weilun Soon. 'Iron Ore Shakeup Begins as Simandou's First Boat Heads for China'. Bloomberg, December 2025. <https://www.bloomberg.com/news/articles/2025-12-03/iron-ore-shakeup-begins-as-simandou-s-first-boat-heads-for-china>; Kolisnichenko, Vadim. 'The First Commercial Shipment of Iron Ore from Simandou Has Departed for China'. GMK Center, December 2025. <https://gmk.center/en/news/the-first-commercial-shipment-of-iron-ore-from-simandou-has-departed-for-china/>.

³⁰ De Guzman, Chad. 'A Timeline of the U.S.-China Trade War During Trump's Second Term'. TIME. <https://time.com/7292207/us-china-trade-war-trump-tariffs-timeline/>.

³¹ Shivaprasad, Ashitha, Amy Lv, Lewis Jackson, Ashitha Shivaprasad, and Lewis Jackson. 'Snapshot of China's Critical Mineral Export Controls'. Reuters, 4 June 2025. <https://www.reuters.com/world/china/chinas-curbs-exports-strategic-minerals-2025-02-04/>.

African countries only generate around 40% of the revenues they could be making from CRM.

companies to invest in strategies to secure supplies, like building strategic stockpiles or diversifying suppliers. In turn, this can weaken their competitiveness in sectors like automotives, renewable energy, defence and electronics. It also creates more uncertainty for Europe's ability to achieve its climate neutrality, digital and strategic autonomy ambitions.

Relatedly, China's position in mineral supply chains gives it the ability to manipulate global market prices and impact the competitiveness of newcomers. By flooding the market with additional supplies, global prices are reduced. This makes it difficult for small and new companies to stay competitive. It is especially the case for companies that incur higher production costs due to more sustainable and responsible sourcing practices. Buyers tend to find it more attractive to buy the relatively cheaper Chinese products. This is a structural phenomenon, ultimately driving up-and-coming producers elsewhere out of business.

The opportunity for resource-rich developing countries to gain a larger share of the CRM market, diversifying their economies and moving towards a more autonomous and sustainable development, is converging with the challenge of resource poor countries to build more resilient and robust supply chains. Many resource-rich and resource-poor countries have a third thing in common too – the ambition for more sustainable and responsible supply chains that have the lowest possible negative impact on the environment and societies. This is why the cooperation between West Africa and Europe can be beneficial and yield positive impact for both parties. This is explored further below.

2.3. Principles of benefit sharing

Benefit sharing refers to the way in which “resource extraction companies and stakeholder communities share the economic value created by extractive activities”.³² Benefits can be both monetary, like royalties and financial compensation, and non-monetary, including job opportunities, preferential sub-contracting access for local firms, infrastructure, technical support, scientific cooperation and education.³³ Importantly, benefit sharing should be fair and equitable and involves active agency of all relevant stakeholders, although it is a diffuse concept that can be defined and interpreted depending on each situation.³⁴ According to Elisa Morgera in her article calling for a comprehensive international legal definition of benefit sharing:

*“Benefit sharing differs from the unidirectional (top-down) flows of benefits and, rather, aims at developing a common understanding of what the benefits at stake are and how they should be shared. In this connection, it has been argued that benefit sharing is geared towards consensus building. It entails an iterative process, rather than a one-off exercise, of good-faith engagement among different actors that lays the foundation for a partnership among them”.*³⁵

³² Eric Adebayo and Eric Werker, ‘How Much Are Benefit sharing Agreements Worth to Communities Affected by Mining?’, *Resources Policy* 71 (June 2021): 101970, <https://doi.org/10.1016/j.resourpol.2020.101970>.

³³ Liz Wall and Fiona Haslam McKenzie, ‘Time for an Outcome Evaluation? The Experience of Indigenous Communities with Mining Benefit Sharing Agreements’, *International Development Policy | Revue Internationale de Politique de Développement*, no. 15 (April 2023): 15, <https://doi.org/10.4000/poldev.5365>; Elisa Morgera, ‘The Need for an International Legal Concept of Fair and Equitable Benefit Sharing’, *European Journal of International Law* 27, no. 2 (2016): 353–83, <https://doi.org/10.1093/ejil/chw014>.

³⁴ Morgera, ‘The Need for an International Legal Concept of Fair and Equitable Benefit Sharing’.

³⁵ Morgera, ‘The Need for an International Legal Concept of Fair and Equitable Benefit Sharing’.

Benefit sharing emerged as a more sustainable way of managing resource revenues. Scholars and practitioners had been trying to understand why some resource-rich countries failed to use the revenues from their natural resources for economic development. This was referred to as the 'resource curse' or 'Dutch disease'. Theories around price volatility and economics were replaced in the 1990s–2000s by discussions around good governance and institutional strength.³⁶ Scholars like Sachs and Warner found a negative relationship between natural resource intensity and institutional quality.³⁷ Despite mineral wealth, countries struggled with rent-seeking behaviour, leading to a failure of governments to share the benefits with their population and to a generally negative economic outlook.³⁸ Foreign companies also played a significant role in this dynamic by often extracting natural resources in exchange for limited economic benefits to the host countries. While they bring investment, technology, and expertise, their involvement can exacerbate issues like rent-seeking behaviour, corruption, and resource mismanagement. When foreign firms prioritise profits in collaboration with local elites, the economic benefits do not always reach the broader population, leading to inequality and stagnation. To overcome this challenge and “convert resource wealth into permanent wealth”, benefit sharing became the agreed-upon norm.³⁹

Benefits can be shared between companies and communities; between governments; between the government and local and indigenous communities; and within communities.⁴⁰ In practice, there is a mix between the different models. Benefit sharing used to be a voluntary company-led initiative, but it is increasingly set in national legislation, aiming to ensure the involvement of the resource extraction company, the government of the resource-rich country and relevant communities. In many cases, countries struggle with weak fiscal regimes, which, combined with corruption, can undermine a government's ability to adequately collect taxes from resource extraction companies.⁴¹ The degree of involvement of civil society organisations and indigenous communities is often limited or not meaningful enough to impact the process. When taxes and revenues are effectively collected by the central government, they are not always equitably distributed across communities.⁴² Even in countries where some local employment and local contracting has taken place, like in the Ahafo gold mine in Ghana, the initial targets set in the benefit sharing agreements were never reached, leading to widespread dissatisfaction and protests.⁴³

This is furthermore challenging to achieve in countries with large ASM sectors. In ASM, the stakeholders that should participate in benefit sharing agreements are more difficult to identify than in the case of a large mining company extracting resources from lands owned and/or inhabited by set communities. The ASM sector includes both informal individual miners

³⁶ Roderick Eggert, *Mining and Economic Sustainability: National Economies and Local Communities* (International Institute for Environment and Development, 2001), <https://www.iied.org/sites/default/files/pdfs/migrate/G00952.pdf>; Carolyn Fischer, 'International Experience with Benefit sharing Instruments for Extractive Resources', *Resources for the Future*, 2007, <https://www.rff.org/publications/reports/international-experience-with-benefit-sharing-instruments-for-extractive-resources/>.

³⁷ Jeffrey D. Sachs and Andrew M. Warner, 'Natural Resource Abundance and Economic Growth', Working Paper no. 5398, Working Paper Series (National Bureau of Economic Research, December 1995), <https://doi.org/10.3386/w5398>.

³⁸ Sachs and Warner, 'Natural Resource Abundance and Economic Growth'.

³⁹ Fischer, 'International Experience with Benefit sharing Instruments for Extractive Resources'.

⁴⁰ Morgera, 'The Need for an International Legal Concept of Fair and Equitable Benefit Sharing'.

⁴¹ Written Ekpen Omonbude and Kudzai Mataba, *Financial Benefit sharing Issues for Critical Minerals: Challenges and Opportunities for Producing Countries* (The International Institute for Sustainable Development, 2024), <https://www.iisd.org/publications/report/financial-benefit-sharing-issues-critical-minerals>.

⁴² Emma Wilson, 'What Is Benefit Sharing? Respecting Indigenous Rights and Addressing Inequities in Arctic Resource Projects', *Resources* 8, no. 2 (2019): 74, <https://doi.org/10.3390/resources8020074>.

⁴³ Adebayo and Werker, 'How Much Are Benefit sharing Agreements Worth to Communities Affected by Mining?'

and small-scale commercial mining entities. Estimates suggest that 70-80% of small-scale miners are informal, operating without licenses and permits required by law.⁴⁴ About half of this informal workforce in Africa are women.⁴⁵ Formalisation efforts are taking place across countries, as informal ASM workers are often exposed to dangerous working conditions in exchange for little payment or benefits.⁴⁶ In this case, benefit sharing often translates into formalisation to ensure equitable benefits, including local security, stabilised incomes, community development projects and training for professionalisation.

Benefit sharing principles are not new, but they are evolving due to the growing attention to CRM. There is one key difference between the traditional benefit sharing and the revised concept in the context of CRM: mineral supply chains are no longer governed only by private economic actors, but by governments. This is creating two intertwined effects. First, efforts to fulfil growing CRM demand globally represent an opportunity for development and economic transformation in resource-rich countries. CRM are not just commodities. They are avenues for economic development. This means that CRM industrial development is seen in a more holistic way, looking further than mining toward higher value-added value chain segments like refining, processing and manufacturing, and the education, infrastructure, and other services needed to support these.

Second, resource extraction has gained a political character for end users. There is a push from consumers to move towards sustainably and responsibly sourced materials, so resource extraction companies have to work more closely with governments in consumer states to ensure their social and legal license to operate. In the context of this report, benefit sharing between Europe and West Africa involves European institutions and member state governments, in addition to actors that would typically be involved, like industrial companies along the supply chains and West African governments and communities.

Benefit sharing principles are not new, but they are evolving due to the growing attention to CRM. There is one key difference between the traditional benefit sharing and the revised concept in the context of CRM: mineral supply chains are no longer governed only by private economic actors, but by governments.

⁴⁴ 'Six Key Factors in Formalizing Artisanal and Small-Scale Mining', International Institute for Sustainable Development, 2018, <https://www.iisd.org/articles/insight/six-key-factors-formalizing-artisanal-and-small-scale-mining>.

⁴⁵ International Institute for Sustainable Development, 'Six Key Factors in Formalizing Artisanal and Small-Scale Mining'.

⁴⁶ Laura Much, 'Artisanal and Small-Scale Mining: Addressing Challenges in Global Supply Chains', ARM, 29 January 2020, <https://www.responsiblemines.org/en/2020/01/small-scale-mining-addressing-challenges-in-global-supply-chain2/>.

3. Supply chains connecting the Netherlands and West Africa

While collaboration between the Netherlands and West African countries has not focussed on the mineral sector up to 2025, notable opportunities exist. The EU, its member states, and a group of West African countries have introduced governmental strategies and ambitions to expand global sustainable, resilient, and responsible supply chains. The EU, the Netherlands, and other European countries are active in several West African countries through their development and international cooperation strategies, but these are often not fully coordinated with CRM goals. The paragraphs below explore the governmental interests of the Netherlands as part of Team Europe and West African countries and identify opportunities for cooperation.

3.1. The Netherlands as part of Team Europe

3.1.1. European policies and ambitions

The EU designated 34 minerals as CRM, meaning that they hold high importance for the European economy and there are notable risks associated with their supply. They are shown in Table 1. The 2024 Critical Raw Materials Act (CRMA) was enacted to provide a framework for increased supply chain resilience.⁴⁷ It sets benchmarks for 2030, including a 10% domestic production goal, a 45% domestic processing goal, 25% domestic recycling goal, and no single country supplier dependence of more than 65%. Apart from access to materials, the EU aims to improve the sustainability and responsibility of their supply chains. The improved security of supply should be aligned with increased efforts to address environmental protection, labour rights, and human rights.

⁴⁷ European Commission, 'Critical Raw Materials Act'.

Table 1. Materials in the EU's critical raw materials list of 2023

Bauxite	Copper	Light rare earth elements	Scandium
Antimony	Feldspar	Magnesium	Silicon metal
Arsenic	Fluorspar	Manganese	Strontium
Baryte	Gallium	Natural Graphite	Tantalum
Beryllium	Germanium	Nickel	Titanium metal
Bismuth	Hafnium	Niobium	Tungsten
Boron/Borate	Helium	Platinum group metals	Vanadium
Cobalt	Heavy rare earth elements	Phosphate Rock	
Coking Coal	Lithium	Phosphorus	

Some of these goals can be achieved through the external dimension of the CRMA. The EU is rapidly expanding its network of Memoranda of Understanding (MoU) with resource-rich low- and middle-income countries (for example Argentina, Chile, the Democratic Republic of Congo, Zambia, Namibia and Rwanda), approaching these emerging partnerships from the perspective of mutually beneficial cooperation on sustainable value chains.

Apart from specific CRM policies, the EU and its members are cooperating with different resource-rich low- and middle-income countries through EU Delegations and country embassies. The Global Gateway is Europe's key strategy for advancing connectivity and sustainable development globally.⁴⁸ It focuses on supporting the development of the digital, energy and transport sectors, while also strengthening health, education and research systems around the world. The Global Gateway is partly implemented through the EU's Neighbourhood, Development and International Cooperation Instrument (NDICI), the Union's main instrument for external cooperation, which aims to contribute to sustainable development, peace and stability.⁴⁹ The NDICI has multi-annual programmes across Sub-Saharan Africa, including in West Africa. In addition, the Global Gateway strategy aims to raise additional capital for global investments. The Africa-Europe Investment Package dedicated €150 billion of investment to projects in African countries.⁵⁰

EU countries also have their own foreign policy, which is typically aligned with the European goals, but may differ in terms of prioritised countries and policy areas. To ensure alignment across different levels of government and initiatives, EU Delegations in resource-rich countries coordinate efforts of the member states to ensure that external engagement is aligned and its potential impact is maximised. This is known as the Team Europe approach.⁵¹

Team Europe consists of the EU, member states, national implementing agencies and development banks, the European Investment Bank and the European Bank for Reconstruction

⁴⁸ 'Global Gateway', European Commission, accessed 12 November 2025, https://commission.europa.eu/topics/international-partnerships/global-gateway_en.

⁴⁹ 'Neighbourhood, Development and International Cooperation Instrument – Global Europe', accessed 12 November 2025, https://enlargement.ec.europa.eu/funding-technical-assistance/neighbourhood-development-and-international-cooperation-instrument-global-europe-ndici-global-europe_en.

⁵⁰ European Commission, 'Global Gateway'.

⁵¹ Team Europe Initiatives', European Commission, accessed 12 November 2025, https://international-partnerships.ec.europa.eu/policies/team-europe-initiatives_en.

The European chemical and metallurgical clusters across Germany, the Netherlands and Belgium can contribute to processing capabilities abroad.

and Development.⁵² As no European country hosts all the CRM supply chain stages, cooperation is essential to increase the effectiveness of Europe's external action. The different EU member states can complement each other's capabilities and expertise, and engage with their partners in a coordinated way that maximises impact for all involved parties. Especially if the EU is already investing in different projects for sustainable development under NDICI or the Global Gateway, these could be paired with the needs of building sustainable and responsible value chains.

Some general trends can be identified in terms of the division of responsibility across European countries in their external engagement, even though a comprehensive assessment is still missing. Globally, the European mining industry is small, and most large players are Chinese, Canadian, Australian, British. Still, the EU has expertise in mining in Sweden and France, for instance. For these mining operations, Dutch companies are often equipment and service providers. The European chemical and metallurgical clusters across Germany, the Netherlands and Belgium can contribute to processing capabilities abroad. Manufacturing of clean tech components is also emerging in different parts of Europe. Apart from the supply chain itself, an enabling environment consists of inclusive community engagement, environmental assessments, water management, energy provision and infrastructure, with different EU member states being able to jointly support.

3.1.2. Dutch policies and ambitions

As part of Team Europe, the Netherlands has its own National Raw Materials Strategy that supports the same goals as the EU: the development of sustainable and reliable international supply chains. While the Netherlands imports limited volumes of raw minerals, downstream industries make use of processed materials such as intermediate and semi-finished goods. To satisfy these needs, the Netherlands is developing partnerships with countries that not only mine raw materials but also have the capacity to refine and possibly manufacture them into intermediate goods.⁵³ Dutch international development and trade policies serve to support these efforts.

The turn to strategic autonomy for critical minerals resembles a broader trend in Dutch foreign, trade and development policy. Over the past decades, development policy has transitioned from a primary focus on poverty alleviation to an emphasis on the establishment of equal partnerships. From the 2000s onwards, development cooperation has been increasingly linked to trade, emphasising mutual economic benefits and Dutch business interests. Supply chain dependencies that surfaced during the COVID-19 pandemic and in the wake of Russia's large-scale invasion of Ukraine challenged widespread beliefs in free market principles and just-in-time economic models. To reduce critical dependencies, strategic autonomy and 'just-in-case' economics have consequently emerged as an important pillar of Dutch foreign and development policy. In February 2025, Dutch international development policy

⁵² 'Team Europe Initiatives', European Commission, accessed 12 November 2025, https://international-partnerships.ec.europa.eu/policies/team-europe-initiatives_en.

⁵³ Ministerie van Algemene Zaken, 'Grondstoffen voor de grote transitie', Ministerie van Algemene Zaken, 9 December 2022, <https://www.rijksoverheid.nl/documenten/kamerstukken/2022/12/09/bijlage-nationale-grondstoffenstrategie>; Regulation (EU) 2024/1252 of the European Parliament and of the Council of 11 April 2024 Establishing a Framework for Ensuring a Secure and Sustainable Supply of Critical Raw Materials and Amending Regulations (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1724 and (EU) 2019/1020 (Text with EEA Relevance) (2024), https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L_202401252.

was explicitly reframed to prioritise immediate Dutch interests, including those in the field of trade and economy.⁵⁴

The convergence of development and trade policy is most evident in the Dutch ‘combination country approach’. A select number of countries – including four in West Africa – have been assigned for dual engagement on both development and trade, stimulating local economic development while creating opportunities for Dutch businesses.⁵⁵ Potential CRM partnerships between Europe, the Netherlands, and West African states might follow similar frameworks to establish mutually beneficial, win-win collaborations.

Central to this approach is the notion of ‘equal economic development’, which emphasises equity in trade relations, distribution of economic gains and access to the international trade system.⁵⁶ While doing so, the Dutch government strives to uphold principles of sustainability and responsibility. For the development of critical mineral supply chains, this entails lessening the environmental impact of mining and processing activities, addressing illegal mining and labour practices, and strengthening community engagement and transparency.⁵⁷ Throughout these efforts specific attention is paid to the empowerment of women and youth.⁵⁸

Ambitions on this front resonate with the broader Dutch Africa Strategy 2023-2032, which recognises that African states are increasingly seeking to develop their national mining sectors beyond the export of raw materials. In this context, the Dutch government views the development of refining and processing capabilities both as a way to increase monetary benefits for producing countries and to contribute to the diversification of Dutch and European CRM supply chains.⁵⁹ In line with the combination country approach, the development of enabling factors such as port infrastructures, education and trade might create opportunities for Dutch businesses and knowledge institutes to offer their expertise and services.⁶⁰

3.2. West Africa

Fourteen West African countries are considered in this research: Benin, Burkina Faso, Gambia, Ghana, Côte d'Ivoire, Cape Verde, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone and Togo.⁶¹ As shown in Figure 4, there are notable CRM reserves throughout the region, including bauxite, barytes, manganese, copper, titanium, lithium. Because of the very small size of their mineral reserves, Benin, Gambia and Cape Verde have been excluded from the analysis.

⁵⁴ Minister of Foreign Trade and Development, ‘Policy letter on International development’, kamerstuk, Ministerie van Buitenlandse Zaken, Ministerie van Algemene Zaken, 21 February 2025, <https://www.government.nl/documents/parliamentary-documents/2025/02/21/policy-letter-on-international-development>.

⁵⁵ Dutch Ministry of Foreign Affairs, ‘Policy Document for Foreign Trade and Development: Do what we do best’, Ministerie van Algemene Zaken, 10 October 2022, <https://doi.org/10/10/policy-document-for-foreign-trade-and-development-cooperation-do-what-we-do-best>.

⁵⁶ Ministerie van Buitenlandse Zaken, ‘De Nederlandse Afrikastrategie 2023-2032’, Ministerie van Algemene Zaken, 30 May 2023, 23, <https://www.rijksoverheid.nl/documenten/rapporten/2023/05/30/de-nederlandse-afrikastrategie-2023-2032>; Dutch Ministry of Foreign Affairs, ‘Policy Document for Foreign Trade and Development: Do what we do best’, Ministerie van Algemene Zaken, 10 October 2022, 49, <https://doi.org/10/10/policy-document-for-foreign-trade-and-development-cooperation-do-what-we-do-best>.

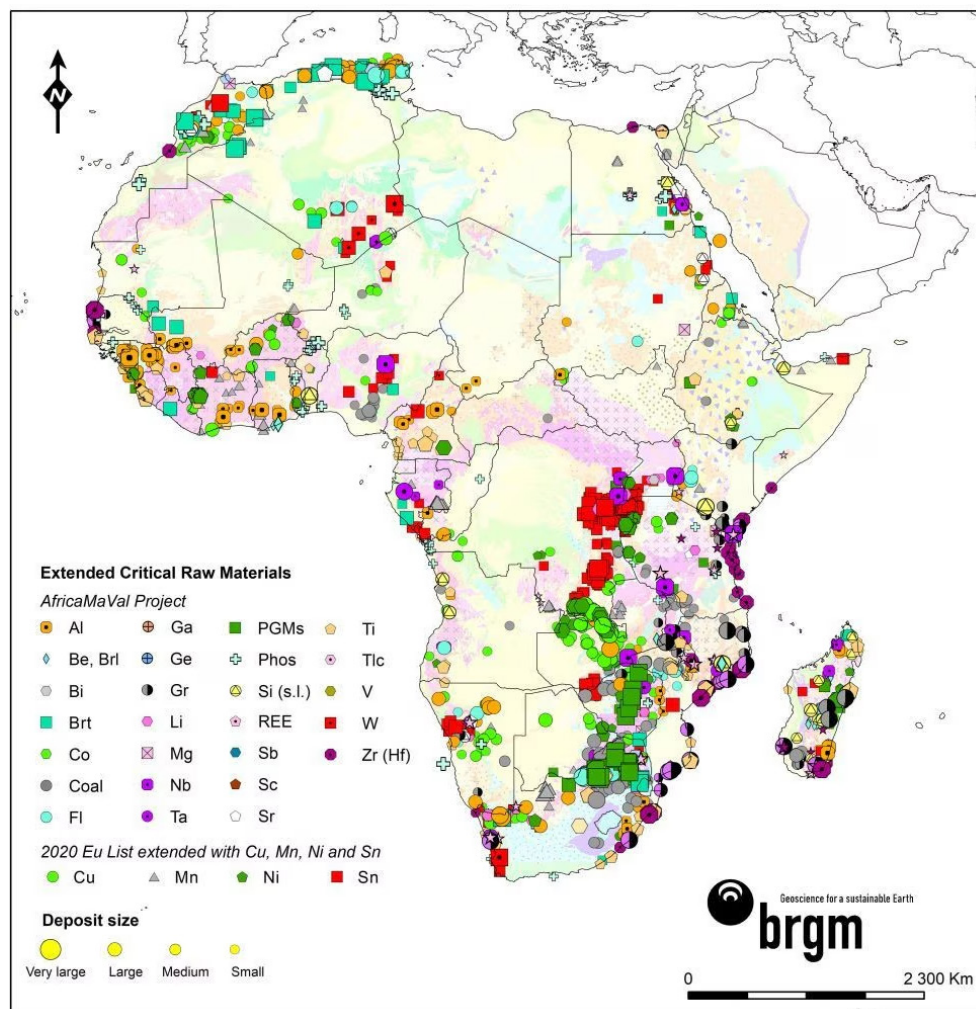
⁵⁷ Ministerie van Algemene Zaken, ‘Grondstoffen voor de grote transities’, 15–18.

⁵⁸ Ministerie van Buitenlandse Zaken, ‘De Nederlandse Afrikastrategie 2023-2032’, 21.

⁵⁹ Ministerie van Buitenlandse Zaken, ‘De Nederlandse Afrikastrategie 2023-2032’, 23–28.

⁶⁰ Dutch Ministry of Foreign Affairs, ‘Policy Document for Foreign Trade and Development’, 59.

⁶¹ RVO, ‘Handel met West-Afrika’.

Figure 4. CRM reserves in Africa. Figure from AfricaMaVal.⁶²

The mineral richness of West Africa is largely concentrated in a same geological formation stretching from Guinea to Nigeria, and passing by Sierra Leone, Liberia, Côte d'Ivoire, Ghana, Burkina Faso, and Mali (see Figure 5).⁶³

This formation is best known for its gold deposits, making Ghana Africa's largest producer of gold in 2024, followed by Mali (2nd), Burkina Faso (4th), Guinea (6th), Côte d'Ivoire (7th), and Senegal (15th).⁶⁴ Many gold deposits in West Africa occur at shallow depths, allowing for extraction with rudimentary, non-mechanised tools similar to those used in agriculture. As a result, rural populations, particularly farming communities, have historically engaged in seasonal artisanal gold mining during periods when their land required less attention.⁶⁵ The long-standing coexistence of agriculture and mining continues today.

⁶² 'A European Challenge: The Need to Secure Access to Critical Raw Materials', AfricaMaVal, n.d., accessed 21 November 2025, <https://africamaval.eu/the-africamaval-project-2/>.

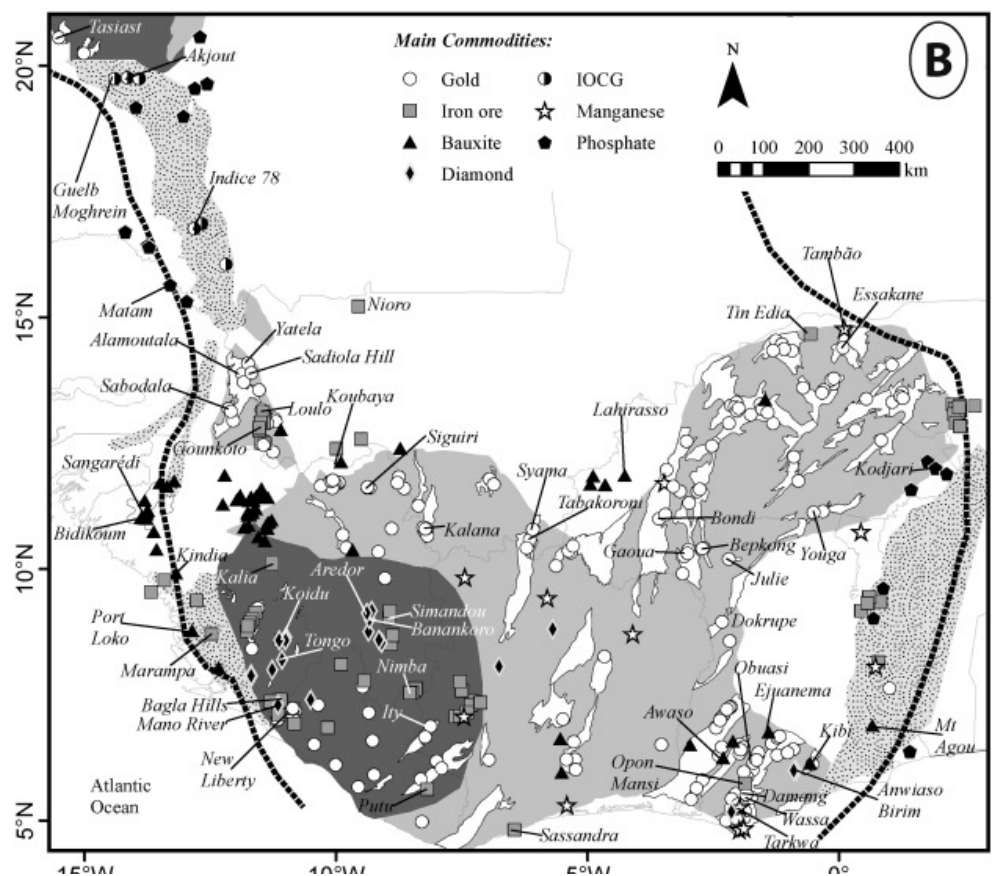
⁶³ Daniel K. Asiedu et al., 'Geochemical Constraints on Provenance and Source Area Weathering of Metasedimentary Rocks from the Paleoproterozoic (2.1 Ga) Wa-Lawra Belt, Southeastern Margin of the West African Craton', *Geodinamica Acta* 31, no. 1 (2019): 2, <https://doi.org/10.1080/09853111.2019.1670414>.

⁶⁴ 'Global Mine Production by Country', World Gold Council, 12 June 2025, <https://www.gold.org/goldhub/data/gold-production-by-country>.

⁶⁵ Jan Bart Gewald, 'Gold The True Motor Of West African History: An Overview Of The Importance Of Gold In West Africa And Its Relations With The Wider World', *Rozenberg Quarterly*, n.d., accessed 19 December 2025, <https://rozenbergquarterly.com/gold-the-true-motor-of-west-african-history-an-overview-of-the-importance-of-gold-in-west-africa-and-its-relations-with-the-wider-world-2/>.

Other minerals are also present in abundance: bauxite is found in Ghana, Côte d'Ivoire, and Guinea, which holds the world's largest bauxite reserves and is a leading exporter globally, mainly to China.⁶⁶ Large diamond deposits are present in Sierra Leone, Guinea, and Liberia with some deposits found in Burkina Faso and Ghana. Mauritania, Guinea, and Côte d'Ivoire also possess significant iron reserves, whereas manganese is found in Burkina Faso, Mali, and Ghana.⁶⁷ Togo and Senegal export phosphates for fertilisers.⁶⁸

Figure 5. Geological and mineral wealth map of West Africa.
Figure from Markwitz et al., 2016⁶⁹



To ensure that countries capture sufficient revenues from their mining operations and mitigate possible security risks, as described in section 2, many West African countries are interested in expanding their mineral industries in a way that supports socio-economic development. In fact, in recent years, many states have revised their mining code to enhance their

⁶⁶ 'Critical Mineral Insights - Bauxite (Aluminium Ore)', Text, African Development Bank Group, African Development Bank Group, 16 October 2025, <https://www.afdb.org/en/documents/critical-mineral-insights-bauxite-aluminium-ore>.

⁶⁷ Vanessa Markwitz et al., 'Metallogenic Portfolio of the West Africa Craton', *Ore Geology Reviews* 78 (October 2016): 561–62, <https://doi.org/10.1016/j.oregeorev.2015.10.024>.

⁶⁸ Vanessa Markwitz et al., 'Metallogenic Portfolio of the West Africa Craton', *Ore Geology Reviews* 78 (October 2016): 562, <https://doi.org/10.1016/j.oregeorev.2015.10.024>.

⁶⁹ Vanessa Markwitz et al., 'Metallogenic Portfolio of the West Africa Craton', *Ore Geology Reviews* 78 (October 2016): 558–63, <https://doi.org/10.1016/j.oregeorev.2015.10.024>.

mining-related revenues, they nationalised certain mining activities and they expanded their processing capacity to take a bigger role along the supply chains. Mali, Burkina Faso, Guinea and Ghana have formally increased their local content requirements.⁷⁰ Ghana went as far as fully prohibiting new and already established foreign actors to take part in the domestic gold market.⁷¹ With regards to expanding processing capacities, it has become a priority on the political agenda of many governments with states like Nigeria even refusing lithium mining projects on the basis that it did not include any local processing plans.⁷² Similarly, the government of Guinea is considering revoking the mining license of Emirates Global Aluminium (EGA), the world's largest bauxite mining company, because of EGA not building a promised aluminium refinery.⁷³

These developments fall under a broader trend which can be observed across Africa where countries seek to localise a large part of the supply chains. Starting in 2009, the African Union (AU) published the African Mining Vision (AMV), a shared political agenda that promotes collaboration among governments and private actors in the mineral sector.⁷⁴ The document calls for better integration of the mining sector into the development strategy of individual countries by understanding how the extractive industry can better serve socio-economic development.⁷⁵ The ambition is echoed in the Africa Green Minerals Strategy, adopted by the AU in February 2025. This new framework serves as a roadmap for African countries to move beyond the mere export of raw material into an active participation in the value-addition processes in the context of growing demands for “green” minerals.⁷⁶

In some cases, the nationalisation of domestic resources has coincided with a political shift marked by an increased Anti-Western sentiment, particularly towards France.⁷⁷ Mali, Burkina Faso and Niger formed the Alliance of Sahel States (AES) and have become much more reluctant to collaborate with European countries.⁷⁸ All three revised their mining code in the last 3 years.⁷⁹ Subsequently, alongside countries like Guinea, they have revoked Western-owned mining licenses in favour of a nationalised mining sector.⁸⁰ The leadership of Burkina Faso revoked licenses of Canadian and British mining companies, Niger revoked a French mining license, while Mali is undergoing a legal battle with a Canadian company, including the arrest of workers, seizure of 3 tons of gold, and blocking exports.

⁷⁰ Kristin Steenkamp, 'West Africa's Mine Nationalisation', African Mining Online, 1 August 2025, <https://www.africanmining.co.za/2025/08/01/west-africas-mine-nationalisation/>; 'Ghana Bolsters Mining Sector Growth Through Local Content Participation', Mining in Motion Summit 2025, 12 March 2025, <https://mininginmotion-summit.com/news/ghana-bolsters-mining-sector-growth-through-local-content-participation>.

⁷¹ Brando, 'Nationalisation, Sovereignty and Geopolitical Realignment in African Mineral Extraction: The Case of West Africa', ISPI, 2025, <https://www.ispionline.it/en/publication/nationalisation-sovereignty-and-geopolitical-realignment-in-african-mineral-extraction-the-case-of-west-africa-210345>.

⁷² Temitayo Lawal, 'China Beats Tesla to Nigeria's Lithium Riches', Rest of World, 20 February 2023, <https://restofworld.org/2023/nigeria-lithium-processing-ev/>.

⁷³ 'Guinea Aims to Pull EGA's Licence over Alumina Refinery Row, Sources Say', Energy, Reuters, 8 May 2025, <https://www.reuters.com/business/energy/guinea-aims-pull-egas-licence-over-alumina-refinery-row-sources-say-2025-05-08/>.

⁷⁴ AMV-Guide-Final (Africa Centre for Energy Policy, 2014), 4, <https://acep.africa/wp-content/uploads/2023/03/AMV-Guide-Final.pdf>.

⁷⁵ 'A Guide To The Africa Mining Vision (AMV)', ACE, 26 May 2015, <https://acep.africa/a-guide-to-the-africa-mining-vision-amv/>.

⁷⁶ 'African Green Minerals Strategy: An Explainer', AMDC, 9 July 2025, <https://www.africangreenminerals.com/news/featured-news/2025/african-green-mineral-strategy>.

⁷⁷ Catherine Nzuki, The Cost of Paternalism: Sahelian Countries Push Back on the West, 21 March 2024, <https://www.csis.org/analysis/cost-paternalism-sahelian-countries-push-back-west>.

⁷⁸ Silvia D'Amato, The End of European Cooperation in the Sahel? (ISPI, 2024), <https://www.ispionline.it/en/publication/the-end-of-european-cooperation-in-the-sahel-179037>.

⁷⁹ Steenkamp, 'West Africa's Mine Nationalisation'.

⁸⁰ Brando, 'Nationalisation, Sovereignty and Geopolitical Realignment in African Mineral Extraction'.

Despite this trend in some West African countries, many are still continuing collaboration with the EU. The Ghana-European Union Interim Economic Partnership Agreement grants since 2021 Ghana duty-free, quota-free access to the EU market while committing Ghana to gradual liberalisation of around 80% of its import tariffs.⁸¹ Moreover, through the Global Gateway, the EU supports Togo's sustainable infrastructure development under its "Togo 2025" roadmap, focusing on connectivity, green energy and inclusive growth.⁸²

3.3. Momentum for collaboration

Until now, there was limited engagement between European and West African countries in the field of critical raw materials. This can be explained by the Dutch and broader European approach, as structural external engagement in this sector only expanded since 2023-2024. Even so, none of the MoUs or trade agreements that have focussed on materials since then include West African partners. At the same time, most European funding for development and international cooperation in West Africa is focussed on other sectors, including the energy transition, transport infrastructure, agriculture and environmental protection.⁸³ For the EU, new engagements through the country delegations would have to start in 2028 with the new Multiannual Financial Framework, which was first proposed in July 2025.⁸⁴

At the same time, the West African region has historically not been a major player in critical mineral supply chains. The region specialises in gold mining, without major industries in other minerals considered critical by the EU. Mining companies largely headquartered outside of Europe, in Canada, Australia and China, are the main international players involved in West Africa. Moreover, regional instability and conflict, partly related to the illegal gold sector as a major revenue stream for non-state groups, has kept investment risks high and European investors reluctant to get involved.⁸⁵

Opportunities for collaboration between the EU and some West African countries are emerging, although they have not been pursued until now. As discussed above, both European and West African countries are interested in creating revised supply chains for critical raw materials. European states are still working on understanding their true value proposition and engagement strategy in a Team Europe approach, while some West African governments are developing their ambitions and legislation to ensure sustainable and responsible supply chains. In short, both sides still have work to do, but their ambitions align. The next section maps potential bilateral partnerships and makes a selection of engagements to be analysed in section 5.

⁸¹ 'The Economic Partnership Agreement between Ghana and the European Union', European Commission, 2021, <https://international-partnerships.ec.europa.eu/system/files/2021-04/ghana-infographic-v11.pdf>.

⁸² 'Togo', European Commission, accessed 21 November 2025, https://international-partnerships.ec.europa.eu/countries/togo_en.

⁸³ 'Neighbourhood, Development and International Cooperation Instrument – Global Europe'; European Commission, 'Global Gateway'.

⁸⁴ 'EU Budget 2028-2034', European Commission, accessed 12 November 2025, https://commission.europa.eu/strategy-and-policy/eu-budget/long-term-eu-budget/eu-budget-2028-2034_en.

⁸⁵ Marcena Hunter, Gold, Conflict and Criminality in West Africa (Global Initiative Against Transnational Organized Crime, 2022), 15–18, <https://globalinitiative.net/analysis/gold-conflict-criminality-west-africa/>.

4. Mapping the most promising partnerships between Europe and West Africa

To identify the most promising CRM partnerships between West African states and the EU and the Netherlands, a methodology is developed that maps each state according to its *international affinity* and *strategic relevance*. This methodology builds upon HCSS's Dutch Foreign Relations Index that quantifies the relationship between the Netherlands and other countries in terms of ideological convergence and strategic importance on a range of domains.⁸⁶ Similar applications of this method can be found in HCSS reports on the potential of European engagement in maritime security with countries in the Indo-Pacific.⁸⁷

The following sections adapt this *international affinity x strategic relevance* methodology to the specific context of CRM partnerships, present the resulting country scores, and identify four case studies for further analysis.

4.1. *International affinity & strategic relevance* for CRM

Applied to this study, *international affinity* and *strategic relevance* reflect the degree to which different states share values and beliefs with the Netherlands and the EU more broadly and house the potential to strengthen the CRM supply chains. By categorising states along these indicators, those countries can be identified that show the most promising conditions for win-win partnerships on CRM between the Netherlands and West Africa. Considering that cooperation in this field has been absent until now, this represents a first step in identifying high-potential opportunities for both the EU and West African states.

⁸⁶ Hugo van Manen et al., 'Dutch Foreign Relations Index', HCSS, 2022, <https://hcss.nl/dutch-foreign-relations-index/>.

⁸⁷ Benedetta Girardi et al., Getting Them On Board: Partners and Avenues for European Engagement in Indo-Pacific Maritime Security (HCSS, 2024), <https://hcss.nl/report/getting-them-on-board-european-engagement-indo-pacific-maritime-security/>; Paul van Hooft et al., Guarding the Maritime Commons: What Role for Europe in the Indo-Pacific (HCSS, 2022), <https://hcss.nl/report/guarding-the-maritime-commons-europe-in-indo-pacific/>.

As part of this methodology, *international affinity* refers to the shared values and beliefs between West African states and the Netherlands. Aside from CRM reserves, mining, and processing capacities, convergence on core values such as democracy and economic openness increase the potential for successful partnerships. In general, democracies are found to cooperate better with other democracies, because of shared values and similar attitudes towards political accountability.⁸⁸ By ensuring smooth and friendly relations, convergence on these values lowers the cost of cooperation between countries, raising the benefits of potential partnerships.⁸⁹ These principles can also be applied to the success of economic cooperation and development specifically. In the context of international trade, for example, a country's democratic reputation is found to affect its ability to make credible commitments to the rule of law, impacting its potential to be perceived as a favourable business environment.⁹⁰ Thus, efforts to increase economic cooperation in the CRM sector are more likely to attract private sector actors when countries converge on such values. Similarly, cooperation focussed on improving the livelihoods of local communities or reducing the environmental impact of mining operations are expected to be more successful in states with more democratic institutions and practices.⁹¹

Win-win partnerships focussed on developing both sustainable and responsible supply chains, alongside socio-economic opportunities in resource-rich countries, are thus expected to see most promising results when based on shared values and beliefs. In this context, *international affinity* is defined by convergence on states' a) political regime, b) economic openness and c) stance on issues such as environmental protection and human rights.

Strategic relevance refers to the extent to which a state houses the potential to strengthen global CRM supply chains, specifically in relation to Dutch and European security of supply. Promising partnerships are primarily driven by the presence of CRM reserves, and the extraction and processing capabilities that form the backbone of a country's potential to develop its CRM sector. This economic relevance is further strengthened by existing trade flows and metal exports between the country and the EU, reflecting established economic relations and export capabilities and infrastructure. From a political point of view, states that are themselves prioritising the development of CRM mining and processing sectors are a logical entry point for win-win partnerships. Lastly, states are considered strategically relevant when potential CRM operations can operate free from political instability and in a secure environment. Accordingly, *strategic relevance* for CRM is defined along three dimensions: economic, political and security.

Based on these definitions, *international affinity* and *strategic relevance* are operationalised into a set of measurable indicators to assess West African states' potential for win-win partnerships on CRM with the EU and the Netherlands. These concepts, indicators and the data sources used are presented in Table 2 below.

⁸⁸ Edward D. Mansfield et al., 'Why Democracies Cooperate More: Electoral Control and International Trade Agreements', *International Organization* 56, no. 3 (2002): 478.

⁸⁹ Eric Neumayer, 'Distance, Power and Ideology: Diplomatic Representation in a World of Nation-States', *Area* 40, no. 2 (2008): 228–36.

⁹⁰ Frederick R. Chen et al., 'Great Expectations: The Democratic Advantage in Trade Attitudes', *World Politics* 75, no. 2 (2023): 316–52.

⁹¹ Stephen Kosack, 'Effective Aid: How Democracy Allows Development Aid to Improve the Quality of Life', *World Development* 31, no. 1 (2003): 1–22, [https://doi.org/10.1016/S0305-750X\(02\)00177-8](https://doi.org/10.1016/S0305-750X(02)00177-8).

International affinity refers to the shared values and beliefs between West African states and the Netherlands.

Table 2. Summary of concepts, indicators and data sources



Concept	Research question	Indicator	Data
International affinity	Is the country democratic?	Level of democracy (low, medium, high)	V-Dem Electoral Democracy Index (2024)
	Does the country respect principles of rule of law and judicial freedom?	Rule of Law (weak, medium, strong)	V-Dem Rule of Law Index (2024)
	Is the country a champion or significant underminer of human rights?	Human rights record (not free, partly free, free)	Freedom House (2025)
	Does the country have an antagonistic stance towards Europe?	Alliance of Sahel States membership (member, public support, no support)	Manual coding
	Does the country support liberal economic values?	Economic openness (low, medium, high)	Chinn-Ito KAOPEN Index (2022)
	What is the country's environmental performance?	Environmental performance (low, medium, high)	Environmental Performance Index (2024)
Strategic relevance	Political	Does the country prioritise development of the CRM sector?	National CRM or mining strategy (no, vague ambitions, concrete ambitions)
		Does the country comply with international transparency and accountability standards in the extractive sector?	Extractive Industries Transparency Initiative validation (low, moderate, high)
		Does the country have cooperation agreements with the EU on CRM?	Memorandum of Understanding or agreements with EU (low, other topics, on CRM)
	Economic	Does the country house strategic CRM occurrences?	CRM reserves and strategic importance (limited, moderate, high) ⁹²
		Does the country have existing CRM extraction capabilities?	Extraction capabilities (limited, moderate, high)
		Is the country an important trading partner of the EU?	Trade with EU (limited, moderate, high)
		What is the country trade growth trajectory with the EU?	Trade with EU annual growth (negative, limited, high)
		Does the country have existing metal export infrastructure and capabilities?	Metal exports ⁹³ (limited, moderate, high)
	Security	Does the country provide a stable and secure environment for business?	Political stability (low, medium, high)
		Is the state capable of projecting security?	Security apparatus strength (low, medium, high)
			Manual coding
			Validation status EITI (2025)
			Manual coding based on known reserves and EU criticality assessment scores
			Global share of supply (2023)
			Eurostat (2022-2024)
			Eurostat (2020-2040)
			UN Comtrade (2013-2023)
			Political Stability and Absence of Violence Indicator, World Bank (2023)
			Security Apparatus Score, Fragile State Index (2024)

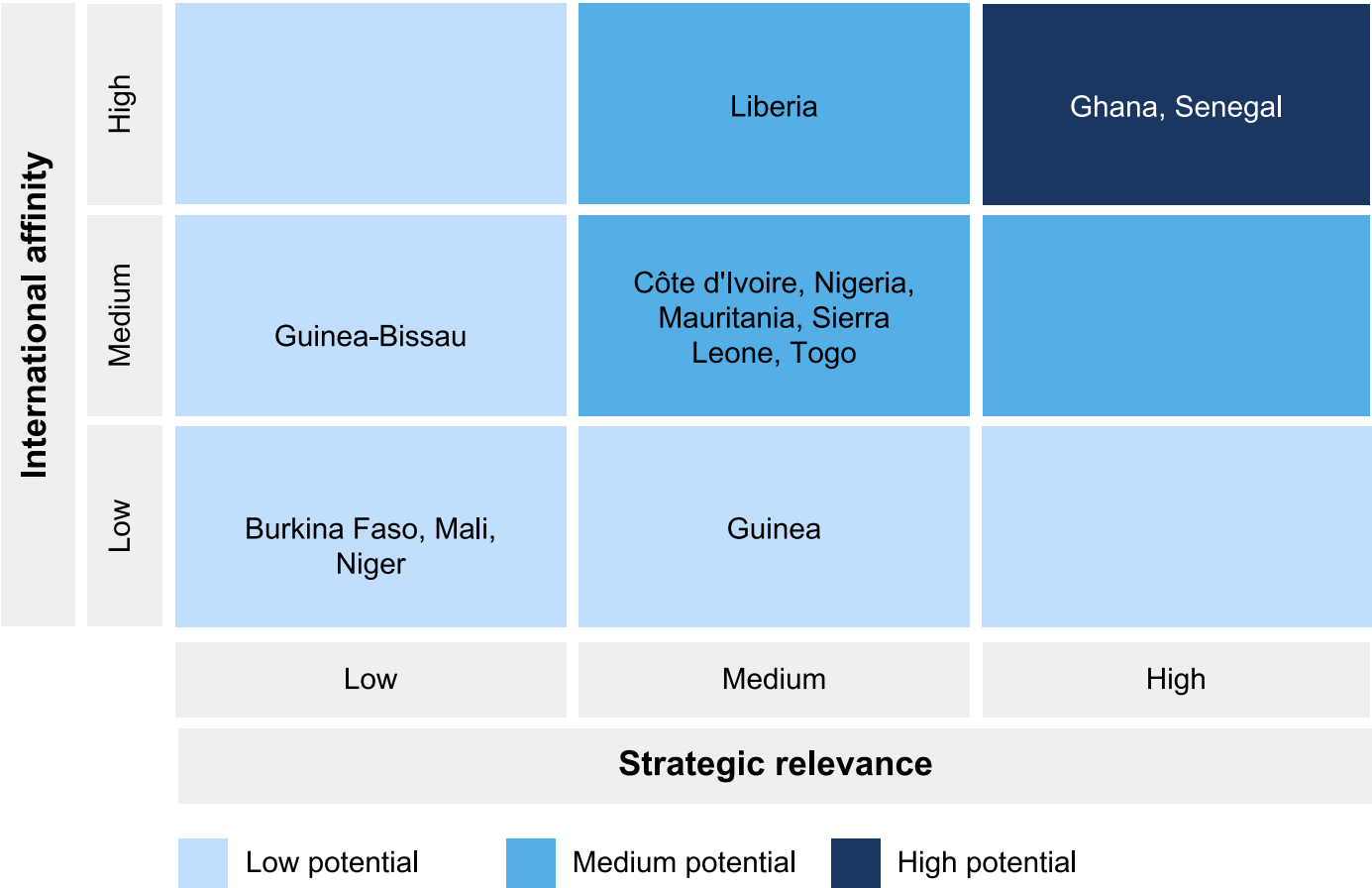
⁹² Due to a lack of available data, the presence of CRM reserves is not scored based on estimated volumes but their combined strategic relevance to the EU (supply risks x economic importance). Milan Grohol and Constanze Veeh, *Study on the Critical Raw Materials for the EU 2023: Final Report* (European Commission: Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, 2023), <https://data.europa.eu/doi/10.2873/725585>.

⁹³ Metal exports include HS codes (Mineral Products) 25, 26, 27, (Base Metals and Articles of Base Metals) 72, 73, 74, 75, 76, 78, 80, 79, 81, 82, 83.

4.2. The most promising partnerships in West Africa

The country scores for *international affinity* and *strategic relevance* divide our selection of West African states into three clusters. High potential states include Ghana and Senegal, scoring high on both *international affinity* as well as *strategic relevance* for CRM. Côte d'Ivoire, Mauritania, Nigeria, Sierra Leone, Togo and Liberia demonstrate medium potential for CRM partnerships, showing varying degrees of alignment with European values alongside moderate opportunities for the development of their CRM mining sector. Low potential is found for Burkina Faso, Guinea, Guinea-Bissau, Mali and Niger. These countries are governed by a variety of autocratic or dictatorial regimes that show little affinity with European liberal and democratic values. Additionally, opportunities to develop CRM mining sectors in these countries are limited. The average country scores and clusters are presented in Figure 6 below. Scoring on all individual indicators for *international affinity* and *strategic relevance* can be found in Annex 1.

Figure 6. Country scores for international affinity and strategic relevance for CRM in West Africa



This assessment was conducted in September 2025 in order to identify the partnerships with highest potential for effective collaboration on CRM. Given the highly dynamic nature of political, economic and security developments in the region and in the EU, this assessment could be replicated at a later stage to maintain relevance and accuracy. The remainder of this section provides an overview of each of the country clusters: high potential, medium potential and low potential.

4.2.1. **High potential: Strategic relevance and close international affinity**

The two countries showing most potential for effective CRM partnerships with the EU and the Netherlands are Ghana and Senegal, scoring high on both *international affinity* and *strategic relevance* (see Figure 7). Both countries are actively seeking to diversify their economies by expanding their mining sectors, including through the extraction and processing of critical minerals. In Ghana, lithium, manganese and bauxite deposits currently pose commercially viable opportunities.⁹⁴ Senegal on its part houses substantial deposits of phosphate and titanium, with numerous occurrences of copper and tin in the east of the country.⁹⁵ Both Ghana and Senegal have stable trade relations with the EU, showing average export growth rates of 13% and 18% respectively between 2022-2024.⁹⁶ Additionally, both countries have some existing extraction capabilities in the CRM sector. Where Ghana contributes 6.4% of the global supply of manganese, Senegal is responsible for 3.7% of titanium metal supplies.⁹⁷ Finally, both countries provide relatively stable security environments compared to other countries in the region, with medium scores for both political instability and the effectiveness of their security apparatus.

In addition to their *strategic relevance* for CRM, both Ghana and Senegal are the most internationally aligned countries of the West African region with the EU and the Netherlands. Both countries have seen peaceful, democratic transfers of power since 1992 in Ghana and 2000 in Senegal. However, discrimination against women and LGBT+ communities, corruption and political violence remain prominent issues.⁹⁸

⁹⁴ US International Trade Administration, 'Ghana - Mining and Critical Minerals', US International Trade Administration, 29 August 2025, <https://www.trade.gov/country-commercial-guides/ghana-mining-and-critical-minerals-2>.

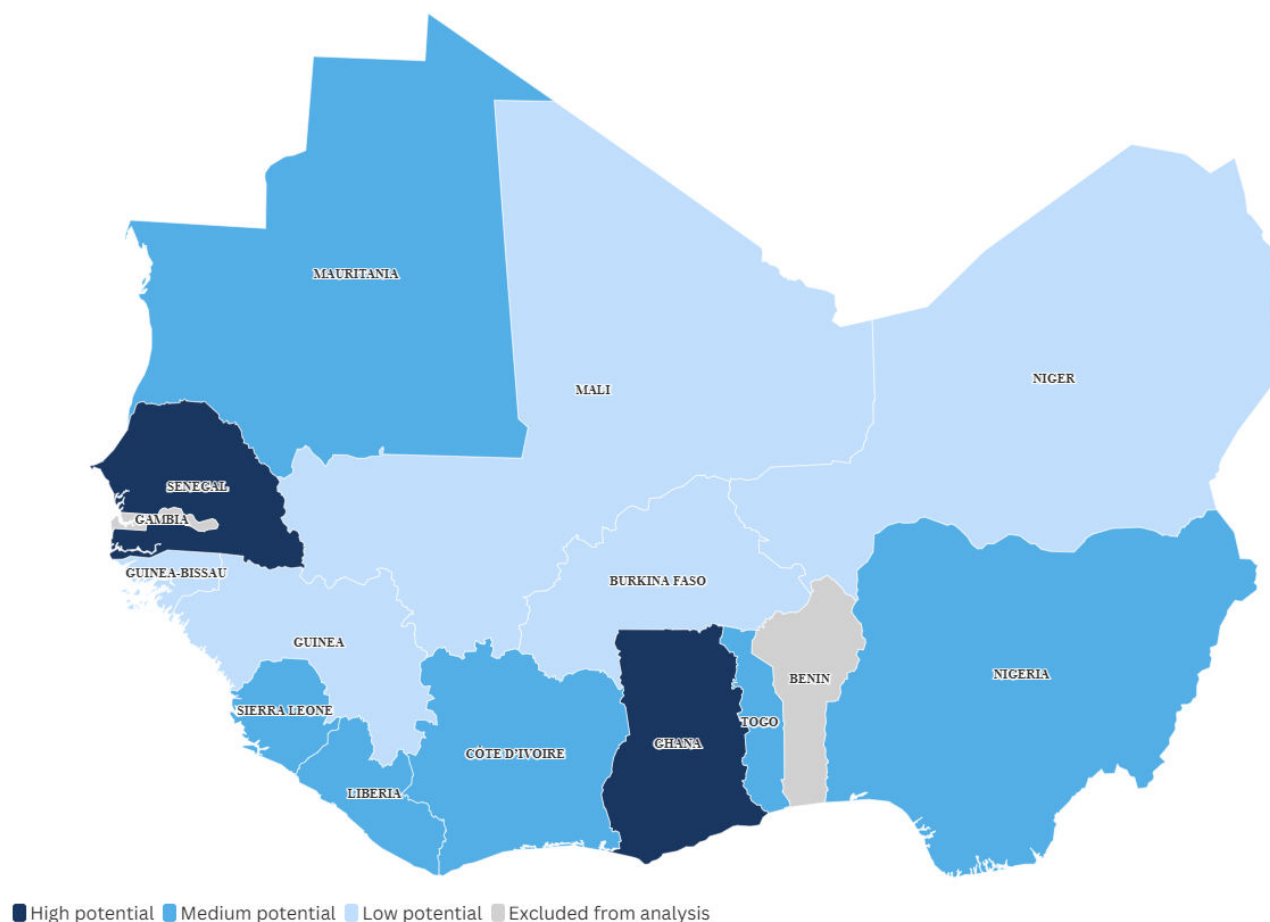
⁹⁵ A Pochon and C Zammit, D9.3 - SENEGAL Case Study (Africa MaVal, 2023), 12, https://africamaval.eu/wp-content/uploads/2024/05/CS_SENEGAL_FINAL_WithAPPENDICES.pdf#page=9.13.

⁹⁶ Directorate General Trade and Economic Security, EU27 Merchandise Trade with Ghana by Product (2024) (2025), https://webgate.ec.europa.eu/isdb_results/factsheets/country/overview_ghana_en.pdf#page=1.00; Directorate General Trade and Economic Security, EU27 Merchandise Trade with Senegal by Product (2024) (2025), https://webgate.ec.europa.eu/isdb_results/factsheets/country/overview_senegal_en.pdf.

⁹⁷ Milan Grohol and Constanze Veeh, Study on the Critical Raw Materials for the EU 2023: Final Report (European Commission: Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, 2023), <https://data.europa.eu/doi/10.2873/725585>.

⁹⁸ Freedom House, 'Senegal: Freedom in the World 2024 Country Report', Freedom House, 2024, <https://freedomhouse.org/country/senegal/freedom-world/2024>; Freedom House, 'Ghana: Freedom in the World 2024 Country Report', Freedom House, 2024, <https://freedomhouse.org/country/ghana/freedom-world/2024>.

Figure 7. Potential for CRM partnerships in West Africa



4.2.2. Medium potential: Moderate strategic relevance and mixed international affinity

Côte d'Ivoire, Mauritania, Nigeria, Sierra Leone and Togo are characterised by medium scores on both *international affinity* and *strategic relevance*. All countries have a democratically elected government, raising their *international affinity* with the EU and the Netherlands. Nonetheless, issues of corruption, political violence and limited freedom of speech persist.⁹⁹ All countries house a variety of CRM reserves with high supply risk and/or economic importance to the EU, including nickel (Côte d'Ivoire, Nigeria), platinum group metals (Mauritania, Sierra Leone) and rare earth elements (all five countries). Additionally, all countries seek to develop their CRM or broader mining sectors through national strategies, although Mauritania remains primarily focussed on increasing its extraction of iron ore.¹⁰⁰

Existing extraction and export capabilities vary among countries with a medium potential for CRM partnerships. Côte d'Ivoire, Nigeria and Sierra Leone are the only states in this cluster that provide more than 1% of the global supply for one of the 34 critical minerals, namely manganese (1.7%), tantalum (10.6%) and titanium metal (3.7%) respectively.¹⁰¹ Similarly,

⁹⁹ Freedom House, 'Freedom House Map', Freedom House, 31 July 2025, <https://freedomhouse.org/explore-the-map>.

¹⁰⁰ African Development Bank, 'Dig Deep to Aim High: How to Use Mining to Unlock Mauritania's Potential', Text, African Development Bank Group, African Development Bank Group, 8 July 2024, <https://www.afdb.org/en/news-and-events/dig-deep-aim-high-how-use-mining-unlock-mauritanias-potential-72501>.

¹⁰¹ Milan Grohol and Constanze Veeh, Study on the Critical Raw Materials for the EU 2023: Final Report (European Commission: Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, 2023), <https://data.europa.eu/doi/10.2873/725585>.

average trade volume with the EU between 2022-2024 is highest for Côte d'Ivoire (€10 billion) and Nigeria (€37 billion), with an average growth rate of more than 21% for Côte d'Ivoire between 2020-2024.¹⁰² Sierra Leone scores significantly lower on average trade volume with the EU (€520 million) but does provide the safest security environment within this cluster of countries.¹⁰³ Finally, Togo's trade with the EU has seen significant yearly growth of 21.5% between 2020-2024, averaging €1.9 billion in volume between 2022-2024.¹⁰⁴ It does not, however, significantly contribute to global CRM supply chains currently and its metal exports remain limited with an average of €355 million between 2013-2023.¹⁰⁵

Like the other countries in this cluster, Liberia houses a variety of CRM reserves, including amongst others nickel, rare earths and copper. While the current extraction and export of CRM are limited, the country has recently established a Mineral Sector Working Group to stimulate the development of its CRM and mining sectors.¹⁰⁶ In contrast to the other countries, Liberia scores high on *international affinity* due to an outlying score on its economic openness, explained by its open legal framework governing international trade and financial flows.

4.2.3. Low potential: Limited strategic relevance and little international affinity

The core of this cluster is comprised of the three countries that show least affinity with the EU and the Netherlands: Burkina Faso, Mali and Niger. As members of the Alliance of Sahel States (AES), these countries share an antagonistic stance towards the West, fuelled by discontent with European influences on the continent and, specifically, the Economic Community of West African States (ECOWAS).¹⁰⁷ The alliance reaffirmed its anti-Western stance when its members withdrew from ECOWAS in January 2024 and declared to withdraw from the International Criminal Court in September 2025.¹⁰⁸ AES was formed after all three states experienced military coups between 2020-2023, overthrowing elected civilian governments and restricting civil liberties.¹⁰⁹ As a result, the countries share little values and beliefs with the EU and the Netherlands, complicating the establishment of win-win partnerships that foster the development of CRM supply chains. Although Burkina Faso contains one of the highest-grade manganese deposits in the world, its limited scoring on extraction and export capabilities reduces its *strategic relevance*. Mali and Niger show similar limitations, further constrained by a minor presence of known CRM reserves.¹¹⁰

¹⁰² Directorate General Trade and Economic Security, EU27 Merchandise Trade with Ivory Coast by Product (2024) (2025), https://webgate.ec.europa.eu/isdb_results/factsheets/country/overview_ivory-coast_en.pdf; Directorate General Trade and Economic Security, EU27 Merchandise Trade with Nigeria by Product (2024) (2025), https://webgate.ec.europa.eu/isdb_results/factsheets/country/overview_nigeria_en.pdf.

¹⁰³ Directorate General Trade and Economic Security, EU27 Merchandise Trade with Sierra Leone by Product (2024) (2025), https://webgate.ec.europa.eu/isdb_results/factsheets/country/overview_sierra-leone_en.pdf.

¹⁰⁴ Directorate General Trade and Economic Security, EU27 Merchandise Trade with Togo by Product (2024) (2025), https://webgate.ec.europa.eu/isdb_results/factsheets/country/overview_togo_en.pdf.

¹⁰⁵ 'UN Comtrade Database', 2025, <https://comtradeplus.un.org/>.

¹⁰⁶ Ministry of Mines & Energy Liberia, 'Liberia Establishes Mineral Sector Working Group', Ministry of Mines & Energy Liberia, 21 October 2024, <https://mme.gov.lr/others.php?e49c7921cb156014099756961908d-03f94e3584c=NzMy>

¹⁰⁷ Romane Dideberg and Paul Melly, Navigating a Path beyond Regional Division Is Essential for West Africa's Security, 24 July 2024, <https://www.chathamhouse.org/2025/04/navigating-path-beyond-regional-division-essential-west-africas-security>.

¹⁰⁸ Ottilia Anna Maunganidze, Unity at Any Cost? AES States Jointly Leave the ICC, ISS Africa, 3 October 2025, <https://issafrica.org/iss-today/unity-at-any-cost-aes-states-jointly-leave-the-icc>.

¹⁰⁹ Freedom House, 'Burkina Faso: Freedom in the World 2023 Country Report', Freedom House, 2023, <https://freedomhouse.org/country/burkina-faso/freedom-world/2023>; Freedom House, 'Mali: Freedom in the World 2021 Country Report', Freedom House, 2021, <https://freedomhouse.org/country/mali/freedom-world/2021>; Freedom House, 'Niger: Freedom in the World 2024 Country Report', Freedom House, 2024, <https://freedomhouse.org/country/niger/freedom-world/2024>.

¹¹⁰ Mali: lithium. Niger: lithium, copper and phosphate.

Guinea-Bissau scored medium for *international affinity* in our initial assessment because of the presence of an, albeit constrained, democratic process.¹¹¹ In November 2025, the country saw a military coup only days after its attempted presidential elections – moving itself further away from European democratic values.¹¹² Additionally, the country does not house any significant mining operation and holds only limited CRM reserves in bauxite and phosphate. Conversely, Guinea scores medium for *strategic relevance* due to a more varied presence of CRMs, housing almost 25% of the world's known bauxite reserves.¹¹³ Although the country is of high interest from a strategic perspective, its *international affinity* with the EU and the Netherlands is constrained by the erosion of democratic principles and human rights since a military coup in 2021.¹¹⁴

4.3. Case study selection

Based on the assessment above, two countries stand out as promising partners for CRM partnerships: Ghana and Senegal. In the region, they are the most closely aligned with European and Dutch values, easing the establishment and implementation of potential cooperation. Additionally, the presence of relevant CRM reserves, existing export and extraction capabilities, and comparatively stable security environments provide more favourable business conditions compared to other analysed countries. Finally, a Dutch embassy presence in both countries lowers barriers to forming new partnerships, while potentially leveraging existing relations and expanding on ongoing engagements. These engagements are currently structured by the Dutch Combination Approach, which combines foreign trade and development to increase the impact of development aid on sustainable growth, while promoting Dutch businesses to invest and trade with these partners.¹¹⁵ Win-win partnerships on CRM with Ghana and Senegal would follow a similar logic.

Six countries follow Ghana and Senegal in the assessment, showing medium *strategic relevance* for CRM and mixed *international affinity* with the EU and the Netherlands: Côte d'Ivoire, Liberia, Mauritania, Nigeria, Sierra Leone and Togo. Côte d'Ivoire and Nigeria represent the biggest economic players within this cluster, both in terms of average export to the EU (2022-2024) and global metal exports (2013-2023). While political instability and the security environment may pose challenges to a favourable business environment, both governments are actively seeking to develop their CRM and broader mining sectors. In addition to their economic importance and CRM ambitions, Côte d'Ivoire and Nigeria – like Ghana and Senegal – are among the four countries in the region that have a Dutch embassy presence and designation as combination country, lowering the barrier for further Dutch engagements.

Given their *strategic relevance* for CRM, affinity with Dutch and European values, and existing diplomatic ties with the Netherlands, Ghana, Senegal, Côte d'Ivoire and Nigeria are selected for further analysis to identify opportunities for win-win partnerships in the CRM sector.

¹¹¹ Freedom House, 'Guinea-Bissau: Freedom in the World 2024 Country Report', Freedom House, 2024, <https://freedomhouse.org/country/guinea-bissau/freedom-world/2025>.

¹¹² Nicolas Negoce et al., 'Guinea-Bissau Army General Named President a Day after Apparent Coup', BBC, 27 November 2025, <https://www.bbc.com/news/articles/cvg164nvj77o>.

¹¹³ U.S. Geological Survey, 'Mineral Commodity Summaries 2024 - Bauxite and Alumina', January 2024, <https://pubs.usgs.gov/periodicals/mcs2024/mcs2024-bauxite-alumina.pdf>.

¹¹⁴ Freedom House, 'Guinea: Freedom in the World 2025 Country Report', Freedom House, accessed 10 October 2025, <https://freedomhouse.org/country/guinea/freedom-world/2025>.

¹¹⁵ Dutch Ministry of Foreign Affairs, 'Policy Document for Foreign Trade and Development', 44–49.

5. Avenues for engagement: Ghana, Senegal, Nigeria, Côte d'Ivoire

5.1. Starting point for CRM cooperation

In line with principles of benefit sharing, each case study takes as a starting point the shared ambitions between the country and the Netherlands.

The case studies identify ways in which the Netherlands as part of the European approach could contribute to win-win partnerships in the field of CRM with Ghana, Senegal, Nigeria, and Côte d'Ivoire, ordered according to the assessment in the previous section. So far, bilateral relations have either focussed on minerals that are outside the scope of the EU's CRM list, and other sectors like cocoa and sustainable horticulture. Now, these four West African countries have been looking to diversify their economic output to include minerals for the clean and digital transitions, which overlaps with the EU's CRM list.

In line with principles of benefit sharing, each case study takes as a starting point the shared ambitions between the country and the Netherlands. Shared ambitions are divided into two categories, defined in Table 3. They were developed using both inductive reasoning through a literature review of relevant sources,¹¹⁶ and deductive reasoning, through an initial scoping of national priorities in the Netherlands/EU and the four countries (see section 3).

¹¹⁶ Emily Nickerson and Jeff Geipel, Local Content Policies in the Mining Sector: Scaling up Local Procurement, 2019, <https://www.iisd.org/system/files/publications/local-content-policies-mining.pdf>; Opinion of the European Economic and Social Committee on 'Sustainable Supply Chains and Decent Work in International Trade' (Exploratory Opinion) (2020), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.C_.2020.429.01.0197.01.ENG&toc=OJ%3AC%3A2020%3A429%3ATOC; International Energy Agency, Sustainable and Responsible Critical Mineral Supply Chains (2023), <https://iea.blob.core.windows.net/assets/7771525c-856f-45ef-911d-43137025aac3/SustainableandResponsibleCriticalMineralSupplyChains.pdf>; OECD, 'Responsible Mineral Supply Chains', accessed 6 October 2025, <https://www.oecd.org/en/topics/sub-issues/due-diligence-guidance-for-responsible-business-conduct/responsible-mineral-supply-chains.html>.

Table 3. High-level shared ambitions between the Netherlands and Ghana, Senegal, Nigeria, and Côte d'Ivoire

Shared ambitions	Explanation	Reasoning
Sustainable and responsible value chains	Mineral supply chains minimise harm and maximise benefits for the environment, society and governance systems.	1. Principles of sustainability and responsibility are central to ensuring that value chains contribute to public goals like sustainable development, climate change mitigation and digitalisation with the least possible negative impacts. 2. Sustainable and responsible value chains are more resilient and secure as they address legal, ethical, environmental and social risks from the get-go. 3. The development of new CRM extraction and processing offers opportunities to diversify and secure CRM value chains for end users like the Netherlands.
Socio-economic benefits and autonomy in CRM value chains	Benefits from mineral supply chains are translated into socio-economic opportunities for resource-rich countries, including monetary and non-monetary benefits, whereby the resource-rich country maintains meaningful control over its mineral industry.	1. Growing CRM industries, from mining to processing and manufacturing, are key opportunities for the sustainable development of resource-rich countries. 2. Growing CRM industries can also bring opportunities to private companies from other countries that are involved in service and technology provision, infrastructure and/or trade. 3. Industrial expansion should be done in line with principles of autonomy and sovereignty, ensuring that no external actor becomes disproportionately dominant in the mineral industry. For resource-rich countries, diversifying their international partnerships is essential to mitigate asymmetric dependencies and external political pressure. For end users, the dominance of China in emerging mineral industries poses a risk for their domestic strategic sectors and climate, digital and geopolitical ambitions.

First, sustainable and responsible value chains are achieved when they minimise harm and maximise benefits for the environment (including soil, air, water, biodiversity), society (including safe and fair working conditions, consultation and engagement with local and indigenous communities) and governance systems (good governance, transparency, crime, security). A range of challenges must be addressed in order to reach this aim. Environmental degradation can be caused by the illegal use of acid mine drainage affecting river systems and arable land. This can be caused both by illegal and informal mining – the former refers to an activity that is directly prohibited by law, while the latter to an unregulated or unregistered activity that is not always criminal. Societal issues include ensuring that artisanal miners work with protective equipment, that child labour and forced labour is combatted, or that rapid project expansion does not create local housing pressures and forced displacement. Governance-related risks may surface when unclear licensing regimes generate disputes over land tenure, or where weak oversight enables illicit mineral trading or extortion by organised groups. These situations can be extremely dangerous for communities in resource-rich countries, and in turn also affect the resilience of CRM supply chains.

Second, the desire to develop mineral supply chains in West African states is accompanied by ambitions to increase the local value added of the sector in the region, in addition to the development of enabling factors such as infrastructure, education and the business environment. Monetary benefits include taxes, revenues, royalties, while non-monetary benefits refer to employment, skills, infrastructure, industrialisation. This should be achieved through partnerships that ensure that the West African government maintains meaningful control over its mineral industry and does not compromise its autonomy and independence in decision-making. For Europe, this is also meaningful due to the geopolitical risks brought by a foreign actor's control over a domestic industry, especially when it comes to significant Chinese interference but also other countries with diverging policy goals.

The case study analysis aims to determine ways in which CRM-related ambitions of Ghana, Senegal, Côte d'Ivoire and Nigeria can be achieved through cooperation with the Netherlands/EU. As such, each case study is divided into four parts:

1. an analysis of the evolution and main characteristics of the country's domestic mining sector;
2. an assessment of the country's progress in enhancing the sustainability and responsibility of its mining sector;
3. an assessment of the extent to which socio-economic benefits from and autonomy over CRM supply chains have been realised in the resource-rich country;
4. an exploration of potential avenues for cooperation with the Netherlands that could support these objectives.

5.2. Ghana

Key Takeaways

The mining sector in Ghana

- Ghana is Africa's largest gold producer. Most industrial activity started in the 2000s and it is predominantly operated by foreign actors, including the US, Australia, South Africa, and China. The ASM sector is also primarily focussed on gold, accounting for about 43% of the country's total gold output and employing 60% of the total mining workforce.
- There are two additional large-scale mines for manganese and bauxite. Both are owned by Chinese companies and their output is exported to China for processing.
- A few projects are underway, the most advanced one being a lithium mine operated by the Australian company Atlantic. The firm is waiting to obtain its extraction license. Simultaneously, the United Arab Emirates aims to develop a bauxite mine in the country.

Sustainable and responsible value chains

- **Environment:** A significant part of Ghana's mineral deposits overlaps with protected areas. Moreover, illegal ASM is responsible for significant environmental damages and poses health risks to surrounding communities, which the government is trying to mitigate.
- **Society:** The minerals exploited through ASM often end up illegally exported, thereby reducing the government revenues and societal benefits. The Ghanaian government is active in formalising the ASM sector and providing more opportunities for small-scale miners to expand their operations within legal frameworks.
- **Governance:** The Ghanaian government is committed to a more sustainable and responsible mining industry. Illegal mining was called 'a national security issue' and a priority for the government. To this end, Ghana is making significant revisions to its mining legislation.

Socio-economic benefits and autonomy in CRM value chains

- **Local value addition:** Ghana is moving away from the export of raw materials towards more local processing through strict legislation. It has opened its first gold refinery in 2024.
- **Infrastructure:** Ghana's infrastructure is overall good. The country has also signed several bilateral agreements with foreign actors to continue expanding it.
- **Employment:** Ghana suffers from high unemployment rates especially among young people. This is partially caused by a mismatch between educational programmes and industry needs creating a lack of skilled labour despite a large available workforce. The government has implemented local content requirements to oblige foreign companies to offer employment opportunities locally.
- **Autonomy:** Many foreign actors are present in Ghana's mining sector, with China and the UAE taking the lead on CRM. China is operating gold, manganese and bauxite mining ventures in Ghana. It is also a significant investor in infrastructure projects in the country. The UAE aspires to open a brand-new bauxite project and also signed an MoU with the Ghanaian government to make Accra a technological and innovation hub.

Avenues for collaboration with the Netherlands

- **The short-term priority** would be to support its lithium processing and downstream sector in collaboration with Australian counterparts, while also identifying European consumers for the processed materials.
- **Additionally**, supporting geological exploration for other CRM with the intention of getting involved in the mining sector could be a long-term action.

5.2.1. The mining sector in Ghana

Evolution of the mining sector

Mining, especially ASM, has had a prominent role in Ghana's social, political and economic development for centuries. Historically, Ghana was known as the 'Gold Coast', and its extractive capacity played a major role in its colonial past. Between 1493 and 1600, Ghana accounted for 35.5% of global gold supply.¹¹⁷ The location of its natural resources significantly shaped the economic development of the different regions. Southern Ghana, comprising the coastal areas and Ashanti, received the largest colonial investments given their centrality in gold supply. This brought economic development but also a high degree of colonial control. The northern part of the country was less rich in mineral resources and therefore less integrated in the colonial apparatus. This also impacted the social set-up of Ghana, with significantly more urbanization and development in the South than in the North.

After a politically volatile period following decolonisation between the 1950s and 1990s, Ghana emerged as one of the fastest developing and most stable countries in Sub-Saharan Africa. Its economy grew on average by 5.8% yearly between 1991 and 2013, compared to an average of 3.7% in the rest of Sub-Saharan Africa. In 2011, its growth rate was 15%.¹¹⁸ This growth was driven by the mining sector including metals and oil, construction, trade and finance, but has not been translated in agriculture and manufacturing, which represent key areas of employment.¹¹⁹

While a significant share of the population was raised from poverty over time, the economic benefits have not been fully distributed nor transformed into sustainable, long-lasting sources of growth. This is related to strong corruption, which follows electoral cycles rather than long-term strategies.¹²⁰ Apart from this, tax exemptions for large private actors and weak credit controls have made it difficult for the Ghanaian government to maintain economic revenues from its mining sector.¹²¹

Ghana has been suffering from significant economic instability since 2020, which pushed the government into reform. The Covid-19 pandemic pushed the country into its worst economic crisis in decades. Inflation skyrocketed and the cost of living led more than 50% of households to reduce their food consumption.¹²² This combines with high youth unemployment and public outrage against the government's failure to address one of the country's primary challenges – illegal mining and its significant environmental impacts.

In December 2024, the new president John Mahama was elected with a sweeping majority, due to his promise to address illegal mining and ensure that the mining sector brings more benefits for communities.¹²³ This builds on the Ministry of Lands and Natural Resources'

¹¹⁷ Abdul-Gafaru Abdulai, *Competitive Clientelism and the Political Economy of Mining in Ghana*, ESID Working Paper no. 78 (2017), <https://papers.ssrn.com/abstract=2986754>.

¹¹⁸ Ernest Aryeetey and William Baah-Boateng, *Understanding Ghana's Growth Success Story and Job Creation Challenges* (2016), <https://doi.org/10.35188/UNU-WIDER/2015/029-4>.

¹¹⁹ Aryeetey and Baah-Boateng, *Understanding Ghana's Growth Success Story and Job Creation Challenges*.

¹²⁰ Abdulai, *Competitive Clientelism and the Political Economy of Mining in Ghana*.

¹²¹ Anastasia Strouboulis et al., *Conflict Prevention, Climate Change, and Why Ghana Matters Now* (CSIS, 2023), <https://www.csis.org/analysis/conflict-prevention-climate-change-and-why-ghana-matters-now>.

¹²² UNICEF, 'COVID-19 and Child Poverty: Two out of Three Households Lost Income during the Pandemic: New Global Report', 2022, <https://www.unicef.org/ghana/press-releases/covid-19-and-child-poverty-two-out-three-households-lost-income-during-pandemic-new>.

¹²³ Thomas Naadi, 'John Mahama: Can the President-Elect Meet Ghana's High Expectations?', BBC, 7 January 2025, <https://www.bbc.com/news/articles/c9vkyk3v02xo>.

2023 Green Minerals Policy, which states that Ghana will contribute to the global demand for minerals used in clean energy technologies and ensure that the benefits are equitably distributed.¹²⁴ Three major changes are proposed for Ghana's mining legislation throughout 2025, discussed below.

First, licensing requirements would be reformed.¹²⁵ Mining licenses will be reduced and awarded on a case-by-case basis. The government and mining companies will agree on appropriate timeframes based on project details. Exploration licenses that until now were indefinite will also be limited to accelerate development decisions. To renew licenses, companies will be tested on three criteria, including environmental compliance, social obligations towards communities, and production targets for efficient operations.

Second, communities will be given integral attention by the mining sector.¹²⁶ Centralised development agreements are replaced by direct revenue-sharing agreements with communities. There will be a budget directly allocated to be used for infrastructure, education, health-care, environmental remediation, and alternative livelihoods. At the same time, community engagement will become mandatory throughout the mine lifecycle, revenue allocations and expenditures will be more transparent, grievance resolution procedures will have binding outcomes, and local content provisions will be included.

Third, mining operations at different scales will have to fulfil new requirements.¹²⁷ Large-scale mining will have to fulfil the above-mentioned community involvement standards, while small-scale mining will benefit from technical assistance and financial support. The Ghanaian government is also introducing a medium-scale license category. This aims to provide a pathway for small companies that want to expand from ASM but cannot fulfil the requirements of large-scale operations.

These reforms aim to address deeply rooted challenges in Ghana's existing mining sector and to ensure that new mining activities are developed and conducted responsibly and sustainably.

The mining sector in 2025

The Ghanaian mining sector is divided into large-scale mining and ASM.

Large-scale mining is dominated by gold, manganese, and bauxite, with additional extraction capabilities under development (see Figure 8 and Table 4). Ghana is the largest African producer of gold and among the ten largest global producers.¹²⁸ Most large-scale mines – 14 out of 16 – extract gold.

¹²⁴ 'Mining Policy Reform: Government Pushes for Sustainability & Local Benefits', Ministry of Lands and Natural Resources, 19 July 2025, <https://mlnr.gov.gh/mining-policy-reform-government-pushes-for-sustainability-local-benefits/>, <https://mlnr.gov.gh/mining-policy-reform-government-pushes-for-sustainability-local-benefits/>.

¹²⁵ Emmanuel Bruce and Christian Akorlie, 'New Ghana Mining Laws to Shorten Licence Periods, Boost Community Investment', Mining.Com, 24 July 2025, <https://www.mining.com/web/new-ghana-mining-laws-to-shorten-licence-periods-boost-community-investment/>.

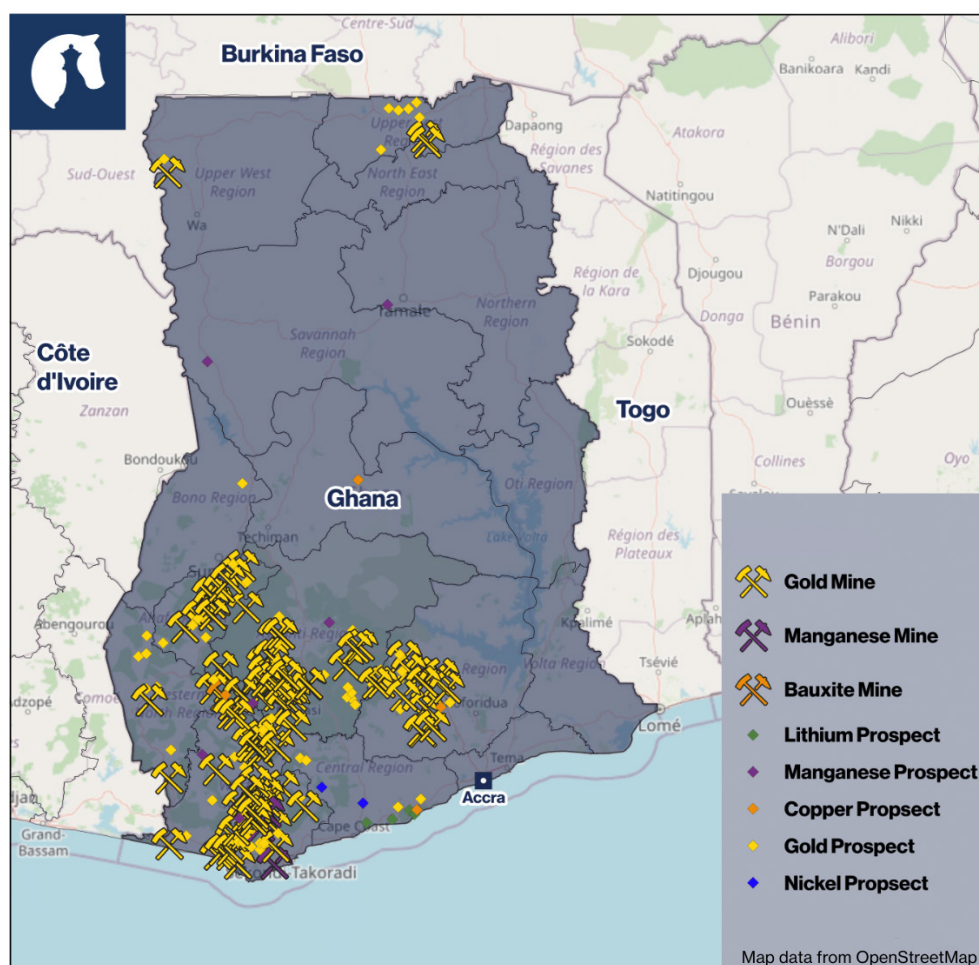
¹²⁶ Emmanuel Bruce and Christian Akorlie, 'New Ghana Mining Laws to Shorten Licence Periods, Boost Community Investment', Mining.Com, 24 July 2025, <https://www.mining.com/web/new-ghana-mining-laws-to-shorten-licence-periods-boost-community-investment/>.

¹²⁷ John Zadeh, 'Ghana's New Mining Laws Revolutionise Community Investment', News, Discovery Alert, 23 July 2025, <https://discoveryalert.com.au/news/ghanas-mining-regulations-2025-reforms-community-benefits/>.

¹²⁸ International Trade Association, 'Ghana Mining Gold Rush', 10 June 2025, <https://www.trade.gov/market-intelligence/ghana-mining-gold-rush>.

Large-scale mining is led by international companies and has historically been focussed on extraction and export, without much value added in the country. The largest international players in this sector are American (AngloGold Ashanti), South African (Goldfields), Canadian (Asante Gold) and Australian (Perseus Mining), see Table 4.¹²⁹ The Ghanaian Government has 10-20% stakes in all the different mines.

Figure 8. Mineral Resources in Ghana



¹²⁹ 'Operating Mines', Minerals Commission, n.d., accessed 12 November 2025, <https://www.mincom.gov.gh/operating-mines/>.

Table 4. Large-scale mines in Ghana 2025. Source: Minerals Commission of Ghana¹³⁰

Material	Mine	Status	Company	Country ¹³¹
Gold	Obuasi	Operational	AngloGold Ashanti	Headquartered in the United States, owned at 15.71% by South African Public Fund ¹³²
	Iduapriem (Tarkwa)	Operational	AngloGold Ashanti	Headquartered in the United States, owned at 15.71% by South African Public Fund ¹³³
	Tarkwa	Operational	Gold Fields	Headquartered in South Africa, owned at 21.18% by South African Public Fund ¹³⁴
	Damang	Operational	Gold Fields	Headquartered in South Africa, owned at 21.18% by South African Public Fund ¹³⁵
	Wassa	Operational	Chifeng Jilong Gold Mining	Headquartered in China
	Kenyasi	Operational	Newmont	Headquartered in the United States
	Akyem	Operational	Zijin Mining Group	Headquartered in China, owned at 29.55% by a Chinese state-owned asset supervision and administration commission ¹³⁶
	Chirano	Operational	Asante Gold	Headquartered in Canada
	Nzema	Operational	BCM Investments	Headquartered in Ghana
	Edikan	Operational	Perseus Mining	Headquartered in Australia
	Asanko	Operational	Galiano Gold Inc.	Headquartered in Canada
	Kibi	Operational	Xtra Gold	Headquartered in the Bahamas
Bauxite	Awaso	Operational	Ghana Bauxite Company	Headquartered in Ghana and member of Ghanaian group IOP
Manganese	Nsuta	Operational	Consolidated Minerals Africa Limited	Headquartered in Jersey, acquired by China Tian Yuan Manganese Limited
Lithium	Ewoyaa	Under Development	Atlantic Lithium	Headquartered in Australia

There has been a clear interest from China to enter the Ghanaian gold sector. Golden Star, a Canadian company operating two large-scale gold mines, was bought by Chinese company Chifeng Jilong Gold Mining in 2022. American company Newmont is in the process of selling its assets to a Chinese company, Zijin Mining Group, in a move to return capital to its shareholders.¹³⁷

¹³⁰ 'Operating Mines'.

¹³¹ The countries shown in this table refer to the jurisdictions where the main shareholding companies operating the mines are headquartered.

¹³² 'AngloGold Ashanti Plc: Shareholders, Shareholding Structure', MarketScreener, accessed 7 January 2026, <https://www.marketscreener.com/quote/stock/ANGLOGOLD-ASHANTI-PLC-11712/>.

¹³³ 'AngloGold Ashanti Plc: Shareholders, Shareholding Structure', MarketScreener, accessed 7 January 2026, <https://www.marketscreener.com/quote/stock/ANGLOGOLD-ASHANTI-PLC-11712/>.

¹³⁴ 'Gold Fields Limited: Shareholders, Shareholding Structure', MarketScreener, accessed 7 January 2026, <https://www.marketscreener.com/quote/stock/GOLD-FIELDS-LIMITED-1413362/company-shareholders/>.

¹³⁵ 'Gold Fields Limited: Shareholders, Shareholding Structure', MarketScreener, accessed 7 January 2026, <https://www.marketscreener.com/quote/stock/GOLD-FIELDS-LIMITED-1413362/company-shareholders/>.

¹³⁶ 'Zijin Mining Group Company Limited: Shareholders, Shareholding Structure', MarketScreener, accessed 7 January 2026, <https://www.marketscreener.com/quote/stock/ZIJIN-MINING-GROUP-COMPAN-6500182/company-shareholders/>.

¹³⁷ Lenox Yieke, 'China's Zijin Acquires \$1bn Ghana Goldfield', African Business, 11 October 2024, <https://african.business/2024/10/resources/chinas-zijin-acquires-1bn-ghana-goldfield>.

Ghana has two large-scale mines of CRM – bauxite and manganese, also owned by Chinese companies. Between 2010–2022, the bauxite mine was co-owned by the Government of Ghana (20%) and by China's Bosai Minerals (80%).¹³⁸ In 2022, the Chinese shareholders were bought back by Ofori-Poku Company Limited (OPCL), a member of the Ghanaian IOP Group, however, the company continues to primarily export to China.¹³⁹ Similarly, the Government of Ghana is a shareholder in the manganese mine (10%) and, since 2018, Chinese Ningxia Tianyuan Manganese Industry Group is the other major shareholder (90%).¹⁴⁰ Both of these mines were acquired to serve China's domestic industries, as bauxite is exported in concentrate form to be made into aluminium in China, and manganese is used in China's production of steel alloys.¹⁴¹ Despite Ghana being the world's fourth largest supplier of raw manganese, 95% of the material is exported to China for processing.¹⁴² Ningxia Tianyuan Manganese Industry Group is building a manganese refinery next to the mine.¹⁴³

Finally, there is a lithium mine under development. After the recent discovery of lithium reserves, the country's first mining project awaits ratification from parliament as of 2025. It is in collaboration with Atlantic Lithium, an Australian producer, who is not only expected to invest in the mine but take a supply chain approach and also provide processing capacity.

Copper, nickel and graphite reserves are also reportedly found in Ghana's subsurface, but given the lack of comprehensive geological data, more exploration is required to understand the type and size of recoverable reserves.¹⁴⁴

Ghana's ASM sector is also significant, especially for gold. The sector was regulated in 1989 and can be a formal livelihood source, but this only applies to Ghanaian nationals, as non-nationals are not legally allowed to engage in ASM.¹⁴⁵ Since the beginning of the 2000s, the ASM sector has skyrocketed primarily driven by a rise in global gold prices coupled with limited employment opportunities in rural communities. ASM was responsible for 43.1% of the country's total gold output in 2018, providing livelihoods to several rural communities and increasing government revenues.¹⁴⁶ The sector also employs about 60% of the total mining workforce therefore representing an important employment opportunity.¹⁴⁷

About 85% of ASM in Ghana is believed to be informal, a large portion of which is conducted by foreign nationals coming from neighbouring countries but also as far as from China or Canada.¹⁴⁸ The gold they extract is often smuggled out of the country illegally annihilating

¹³⁸ Theophilus Acheampong, *The Energy Transition and Critical Minerals in Ghana: Diversification Opportunities and Governance Challenges* (The Extractive Industries Transparency Initiative – EITI, 2022), https://eiti.org/sites/default/files/2022-06/FINAL%20REPORT_Ghana%20Critical%20Minerals_CLEAN_30.05.22.pdf.

¹³⁹ 'History', Ghana Bauxite Company, accessed 7 January 2026, <https://www.ghanabauxite.com/history/>.

¹⁴⁰ 'Our Story', Consmin, accessed 13 November 2025, <https://www.consminerals.com.au/our-story>.

¹⁴¹ Acheampong, *The Energy Transition and Critical Minerals in Ghana: Diversification Opportunities and Governance Challenges*.

¹⁴² Kent Mensah, 'Ghana to Launch First Manganese Refinery in August, Minister Reveals', 7 June 2024, <https://www.intellinews.com/ghana-to-launch-first-manganese-refinery-in-august-minister-reveals-328831/>.

¹⁴³ Mensah, 'Ghana to Launch First Manganese Refinery in August, Minister Reveals'.

¹⁴⁴ Acheampong, *The Energy Transition and Critical Minerals in Ghana: Diversification Opportunities and Governance Challenges*.

¹⁴⁵ 'Minerals and Mining Act 703', Republic of Ghana, 2006, 44–45, <https://resourcegovernance.org/sites/default/files/Minerals%20and%20Mining%20Act%20703%20Ghana.pdf>.

¹⁴⁶ Albert Kobina Mensah and Francis Xavier Tuokuu, 'Polluting Our Rivers in Search of Gold: How Sustainable Are Reforms to Stop Informal Miners from Returning to Mining Sites in Ghana?', *Frontiers in Environmental Science* 11 (October 2023): 2, <https://doi.org/10.3389/fenvs.2023.1154091>.

¹⁴⁷ Francis Xavier Dery Tuokuu et al., 'Criminalization of "Galamsey" and Livelihoods in Ghana: Limits and Consequences', *Natural Resources Forum* 44, no. 1 (2020): 52–65, <https://doi.org/10.1111/1477-8947.12189>.

¹⁴⁸ Ndubuisi Christian, 'Illegal Mining Digs up Multiple Problems in Ghana'.

the government's ability to capture and redistribute the revenues effectively.¹⁴⁹ While ASM often cohabits with agriculture providing complementary revenues for farmers, at times, it also threatens the sector by causing soil and water degradation, as well as competition for land use.¹⁵⁰ More than 4700 hectares of land have been destroyed by informal mining across Ghana, while freshwater supply is diminishing rapidly among others due to mercury and cyanide poisoning, used in the gold-washing process.¹⁵¹ Health issues and deadly accidents in mine worker communities are also regularly reported.¹⁵²

The next two sections zoom in on dimensions of revised supply chains in Ghana – sustainable and responsible value chains, and socio-economic benefits from autonomous CRM value chains. These two dimensions are evaluated with the goal of identifying entry points for collaboration with the Netherlands.

5.2.2. Sustainable and responsible value chains

Both large-scale mining and ASM display challenges and opportunities for development into more sustainable and responsible operations. This section is focussed on critical minerals, informed by the dominant gold sector.

Ensuring that large-scale mining fulfils standards of sustainability and responsibility is heavily dependent on the relationship between the Ghanaian government and the foreign companies involved. The Ghanaian government's efforts to revise mining legislation since the end of 2024 shows the commitment to a more sustainable and responsible mining industry. Moreover, a significant part of Ghana's mineral deposits overlaps with protected areas, and there are efforts being made by civil society organisations to limit the scale of mining operations in such areas.¹⁵³ Still, results remain mixed as the accountability and implementation of rules around permitting and environmental standards is sometimes inadequate and difficult to monitor.

This is illustrated by the bauxite mining project in the Atewa Forest. The project has been a controversial project for years in Ghana, due to the government's openness to build a mine there despite the significant negative environmental effects it would cause. The Atewa Forest, an area of significant biodiversity, was earmarked for opening a bauxite mine by state-owned Ghana Integrated Aluminium Development Corporation (GIADC) together with Chinese partners, under the 2018 \$2 billion Master Project Support Agreement between Chinese Sinohydro and the Ghanaian government.¹⁵⁴ The revenues from the mining operation would be used to repay Chinese investments in infrastructure. In 2019, state-owned GIADC conducted exploration of the area without an Environmental Impact Assessment, which is a

¹⁴⁹ Ani Ndubuisi Christian, 'Illegal Mining Digs up Multiple Problems in Ghana', ENACT Africa, 2024, <https://enactafrica.org/enact-observer/illegal-mining-digs-up-multiple-problems-in-ghana>.

¹⁵⁰ Kouame Joseph Arthur Kouame et al., 'Ivory Coast: The Impacts of Artisanal Gold Mining on Local Livelihoods and the Mining Industry', *International Journal of Service Science, Management, Engineering, and Technology (IJSSMET)* 8, no. 4 (2017): 42–55, <https://doi.org/10.4018/IJSSMET.2017100103>.

¹⁵¹ Wilberforce and Nunoo, 'Galamsey'.

¹⁵² Niladri Basu et al., 'Integrated Assessment of Artisanal and Small-Scale Gold Mining in Ghana—Part 1: Human Health Review', *International Journal of Environmental Research and Public Health* 12, no. 5 (2015): 5155, <https://doi.org/10.3390/ijerph120505143>.

¹⁵³ 'IUCN Members Adopt Motion 104: A Rocha Ghana and Partners Lead Global Call to Safeguard Biodiversity and Human Rights in Energy Transition Minerals Governance', A Rocha Ghana, 27 October 2025, <https://ghana.arocha.org/2025/10/27/iucn-members-adopt-motion-104-a-rocha-ghana-and-partners-lead-global-call-to-safeguard-biodiversity-and-human-rights-in-energy-transition-minerals-governance/>.

¹⁵⁴ Angela Benefo and Michael Addaney, 'Promises and Pitfalls: China's Financing of the Atewa Bauxite Mining Project in Ghana', *Georgetown Journal of International Affairs*, 2021, <https://gjia.georgetown.edu/2021/07/11/promises-and-pitfalls-chinas-financing-of-the-atewa-bauxite-mining-project-in-ghana/>.

legal requirement.¹⁵⁵ A combination of local communities, civil society organisations and international players are opposing the government's decision to allow for this bauxite mine to be developed, which has so far been halted.¹⁵⁶

When it comes to ASM, addressing illegal mining – often referred to as 'galamsey'¹⁵⁷ – is a major concern in Ghana. Illegal mining has different drivers, including the high global gold prices generating relatively quick and high revenues combined with youth unemployment, deteriorating livelihoods for communities involved in the agricultural sector due to climate change and environmental impacts of illegal mining, lengthy and complex permitting procedures discouraging formalisation, the inability of non-Ghanaians to get permits, as well as difficult monitoring and enforcement of the legislation.

Attempts to address it have taken different shapes, but so far none have been fully effective. In 2017, the government banned all small-scale mining in an attempt to curb illegal practices, but its implementation was contentious. 'Operation Vanguard' mobilised security forces to crack down on illegal mining. Allegations of excessive force and indiscriminate arrests and clashes with security forces led to widespread criticism of the approach.¹⁵⁸ Two years later, the ban was lifted for those miners that gained licenses under a stricter regulatory regime.¹⁵⁹ As discussed above, in 2025 illegal mining is targeted through the reforms to Ghana's mining laws, which have introduced more an additional category of licenses to allow small-scale miners to expand into 'middle-scale miners', thus evolving but not having to compete with the significantly more extensive large-scale mines.

The difficulty to address illegal mining is compounded by its connection with criminal activity and foreign involvement. Illegal mining was called 'a national security issue' in Ghana's 2025 Budget Statement and Economic Policy.¹⁶⁰ Illegal mining is increasingly connected to security risks, as non-state armed groups active in neighbouring countries could make use of this market to gain revenues. The Ghanaian government has been on high alert regarding illegal mining and its connections with regional security dynamics. National Security Minister Kan-Dapaah noted in 2022 that illegal mining is an avenue explored by regional terrorist groups to infiltrate Ghana from neighbouring Mali and Burkina Faso.¹⁶¹ Armed groups already exploit the Ghana-Côte d'Ivoire-Burkina Faso border area, which is a key route in arms trafficking.¹⁶² In 2025, Ghanaian Minister for the Interior Mr Mohammed-Mubarak called for

¹⁵⁵ Ibrahim Khalilulahi Usman and Jennifer Ambolley, 'The Long Fight To Protect Ghana's Atewa Forest Goes On', Pulitzer Center, 2025, <https://pulitzercenter.org/stories/long-fight-protect-ghanas-atewa-forest-goes>.

¹⁵⁶ 'Saving Atewa Forest', A Rocha International, n.d., accessed 12 November 2025, <https://arocha.org/en/projects/saving-atewa-forest/>; 'BMW Group, Tetra Pak and Schuco International Express Concerns about Sourcing Aluminium from Ghana's Irreplaceable Atewa Forest', IUCN NL, 2021, <https://www.iucn.nl/en/news/bmw-group-tetra-pak-and-schuco-international-express-concerns-about-sourcing-aluminium-from-ghanas-irreplaceable-atewa-forest/>.

¹⁵⁷ 'Galamsey' is a Ghanaian term derived from the English phrase 'gather them and sell'. It is used to describe unlicensed or illegal artisanal and small-scale mining activities.

¹⁵⁸ Strouboulis et al., Conflict Prevention, Climate Change, and Why Ghana Matters Now.

¹⁵⁹ Oxford Business Group, Ghana Lifts Ban on Small-Scale Mining, 1 March 2019, <https://oxfordbusinessgroup.com/reports/ghana/2019-report/economy/healthier-environment-after-lifting-the-ban-on-small-scale-mining-the-authorities-are-set-to-reform-and-regulate-the-segment>.

¹⁶⁰ The Budget Statement and Economic Policy of the Government of Ghana for the 2025 Financial Year (2025), https://mofep.gov.gh/sites/default/files/budget-statements/2025-Budget-Statement-and-Economic-Policy_v5.pdf.

¹⁶¹ 'Ghana Likely to Be Invaded by Terrorists through Galamsey Activities – National Security Minister', GhanaWeb, 22 November 2022, <https://www.ghanaweb.com/GhanaHomePage/NewsArchive/Ghana-likely-to-be-invaded-by-terrorists-through-galamsey-activities-ndash-National-Security-Minister-1666952>.

¹⁶² Strouboulis et al., Conflict Prevention, Climate Change, and Why Ghana Matters Now.

stronger regional cooperation to combat illegal mining and spill-over effects like terrorist financing and environmental degradation.¹⁶³

Another issue in addressing illegal mining is the involvement of foreign nationals, who are not legally allowed to receive ASM permits. Large groups of Chinese citizens have been found to be involved in illegal mining in Ghana. Since the early 2000s, it is estimated that about 50,000 Chinese gold miners migrated to Ghana and became involved in illegal mining.¹⁶⁴ Chinese people have been arrested on numerous occasions for running entire operations in Ghana.¹⁶⁵ This is not just small-scale mining with simple equipment. Illegal mining operations can be quite complex, involving advanced equipment and large numbers of workers. For instance, Chinese nationals have been arrested due to illegal mining using bulldozers and other mining equipment or running entire illegal networks, like in the case of the infamous 'galamsey queen', Ms Aisha Huang.¹⁶⁶

The strong governmental crackdown on illegal mining together with the different characteristics of CRM, notably the lower price compared to gold and the need for refining to separate the minerals from the bigger ore in order to sell it at a good price, point to an opportunity to prevent this from materialising in emerging supply chains, like lithium. Moreover, the Ghanaian government is active in formalising the ASM sector and providing more opportunities for small-scale miners to expand their operations within legal frameworks. Developing more processing capacity in the country creates an offtaker for ASM miners, who could benefit from selling their minerals to be made into higher value-added goods than to be illegally exported as raw materials. This is discussed further below.

5.2.3. Socio-economic benefits and autonomy in CRM value chains

For the longest time, Ghana has not derived sufficient benefits from its extractive sector. Its processing sector was largely undeveloped, and all the gold, manganese and bauxite were directly exported to other countries, where they would be converted into higher value-added products. Gold bullion is Ghana's largest export, making up about half of total exports in value. In 2024, 177 tonnes of gold bullion were exported for a value of USD 11.3 billion.¹⁶⁷ Manganese and bauxite are exported in much larger quantities, with a much lower value than that of gold. In 2024, 1.3 million tonnes of aluminium ores and concentrates were exported for USD 56 million, and 3.8 million tonnes of manganese ores and concentrates for 237 million.¹⁶⁸ Gold exports go to the United Arab Emirates (36.5%), Switzerland (36.5%), South Africa (18%) and India (8.2%).¹⁶⁹ Manganese and bauxite exports go to China.¹⁷⁰

¹⁶³ 'Interior Minister Calls for Regional Collaboration to Tackle Illegal Mining', Ministry of the Interior Republic of Ghana, 2025, <https://www.mint.gov.gh/interior-minister-calls-for-regional-collaboration-to-tackle-illegal-mining/>.

¹⁶⁴ James Bofo et al., 'Illicit Chinese Small-Scale Mining in Ghana: Beyond Institutional Weakness?', *Sustainability* 11, no. 21 (2019): 5943, <https://doi.org/10.3390/su11215943>.

¹⁶⁵ Ndubuisi Christian, 'Illegal Mining Digs up Multiple Problems in Ghana'.

¹⁶⁶ 'Ghana Crackdown on Illegal Gold Mining Puts Focus on China', *Africa Defense Forum*, 5 August 2025, <https://adf-magazine.com/2025/08/ghana-crackdown-on-illegal-gold-mining-puts-focus-on-china/>.

¹⁶⁷ 'International Merchandise Trade - by Year, Month, Tradeflow, and 10-Digit HS Code', Statsbank Ghana, accessed 14 November 2025, <https://statsbank.statsghana.gov.gh/pxweb/en/Trade/>.

¹⁶⁸ Statsbank Ghana, 'International Merchandise Trade - by Year, Month, Tradeflow, and 10-Digit HS Code'.

¹⁶⁹ Ghana Statistical Service, *Ghana 2024 Trade Report (2025)*, https://www.statsghana.gov.gh/gssmain/fileUpload/Trade/2024_Trade_Full_Year_Report-_25-02-2025_Final_Print.pdf.

¹⁷⁰ Acheampong, *The Energy Transition and Critical Minerals in Ghana: Diversification Opportunities and Governance Challenges*.

Companies operating in Ghana's extractive sector, either mining or exporting, must fulfil local content conditions.

This approach of exporting raw materials is being replaced by efforts to build other economic linkages that would help the country develop. The first gold processing plant in Ghana opened in 2024, with the purpose of maintaining more of the value added in the country.¹⁷¹ The refinery is owned by the Rosy Royal Minerals of India and Ghana's central bank (20%).¹⁷² In the bauxite sector, the Ghana Integrated Aluminium Development Corporation (GIADEC) was established in 2018 in order to ensure value addition in the country and avoid raw material exports.¹⁷³ Moreover, the lithium project developed by Atlantic Lithium and awaiting parliamentary ratification includes a proposal to invest in the broader lithium supply chain, including processing, lithium battery production, partly for exports but also for an electric vehicle industry in Ghana.¹⁷⁴

The investments in processing capacity could stimulate the development of the downstream sector, related services, as well as better export capabilities. Companies operating in Ghana's extractive sector, either mining or exporting, must fulfil local content conditions. They have to develop a 5-year Procurement Plan to ensure that Ghanaians are trained and employed to be part of the industry at all levels (from workers to high-level decision makers) and that local businesses are contracted by the industry.¹⁷⁵

Despite the robust legal frameworks and governmental ambitions, Ghana still struggles with high unemployment. Unemployment is unbalanced towards youth, women and rural communities. Ghana's population is predominantly young, with 55% of the population aged less than 25 at the last census in 2021.¹⁷⁶ About 32% of young people (15-24 years old) were unemployed in 2024.¹⁷⁷ More than 25% of people in this same age group were Not in Employment, Education of Training.¹⁷⁸ Women unemployment is consistently higher than for men. A significant proportion of women in rural areas are considered multidimensionally poor, or deprived of health, education and or essential living standards.¹⁷⁹ Unemployment also affects many young people with university degrees because of the insufficient quality and relevance of education. The Institute of Statistical, Social and Economic Research (ISSER) of the University of Ghana reports that graduate students typically take up to 10 years to secure a job, reflecting a persistent gap between education and industry needs due to outdated curricula, inadequate infrastructure, and lack of technology usage.¹⁸⁰ This results in increased difficulty for the mining industry to secure skilled labour and structural high youth unemployment.

¹⁷¹ Ndubuisi Christian, 'Illegal Mining Digs up Multiple Problems in Ghana'.

¹⁷² Maxwell Akalaare Adombila, 'Ghana Opens New Gold Refinery with 20% Government Stake', Reuters, 11 August 2024, <https://www.reuters.com/markets/commodities/ghana-opens-first-gold-refinery-after-centuries-mining-2024-08-08/>.

¹⁷³ 'GIADEC Will Ensure Value-Addition to Bauxite to Prevent Raw Exports – Akufo-Addo', Ghana Integrated Aluminium Development Corporation, 2023, <https://giadec.com/giadec-will-ensure-value-addition-to-bauxite-to-prevent-raw-exports-akufo-addo/>.

¹⁷⁴ Soulé et al., Can Critical Mineral Deals Benefit Local Communities?

¹⁷⁵ 'Local Content', Minerals Commission, n.d., accessed 14 November 2025, <https://www.mincom.gov.gh/local-content/>.

¹⁷⁶ William Baah-Boateng, Youth Employment in Ghana: Confronting and Addressing the Phenomenon Head-On (University of Ghana, 2021).

¹⁷⁷ Ghana Statistical Service, Quarterly Labour Statistics (July Edition) (2025), [https://statsghana.gov.gh/gssmain/fileUpload/pressrelease/Labour%20Statistics%20Bulletin%20\(2025%20July%20Edition\).pdf](https://statsghana.gov.gh/gssmain/fileUpload/pressrelease/Labour%20Statistics%20Bulletin%20(2025%20July%20Edition).pdf).

¹⁷⁸ Ghana Statistical Service, Quarterly Labour Statistics (July Edition).

¹⁷⁹ 'UNEMPLOYMENT IN Ghana', Gender Portal, 22 February 2024, <https://genderanddigital.org/unemployment-in-ghana/>.

¹⁸⁰ Wai Yie Leong and Francis Kwateng, 'The Urgent Need to Prioritise Engineering Education in Ghana', ASM Science Journal 20, no. 2 (2025): 1–6, <https://doi.org/10.32802/asmscj.2025.2005>.

Although the country lacks skilled labour, it remains attractive for its relatively strong infrastructure. Ghana produces sufficient electricity to meet its needs and has the highest electricity access rates in all Sub-Saharan Africa with a national average rate of 89%, although disparities remain between the north and the south as well as rural and urban areas.¹⁸¹ In terms of transport, the country possesses two major ports and a large network of road infrastructure which allows for regional and national connectivity, although once again disparities remain between the northern and southern regions, as well as rural and urban areas.¹⁸² Still, substantial improvements of both infrastructure types are needed to sustain the ongoing growth of the mining sector. Ghana is therefore actively investing in upgrades. As of November 2025, the Ghanaian Government concluded several bilateral agreements under the G20 Common Framework with the Export-Import Bank of China, France, the UK, Spain, Germany. These are focussed on Ghana's debt restructuring, but the UK agreement also covers significant investments by the three countries in infrastructure projects, including roads and hospitals.¹⁸³

China and the UAE are making significant investments into Ghana's mining sector and beyond. When it comes to China, this is illustrated by the several Chinese companies stepping into the gold sector over the last years, overtaking Canadian and American companies' assets (see 5.2.1. above). In 2024, the Ghanaian Government signed a USD 10 billion MoU with China to develop the domestic bauxite industry through a loan from the Chinese Development Bank.¹⁸⁴ China was already a major player in the manganese and bauxite sectors, and is now looking at expanding its footprint towards other mines and other stages of the supply chains. Moreover, China and Ghana are exploring cooperation in several other sectors. Huawei is upgrading Telecel Ghana's network and facilitating energy storage systems to a solar photovoltaic park in Ghana.¹⁸⁵ There is an upcoming governmental MoU following the Ghana-China Climate Summit 2025.¹⁸⁶ The Guangdong-Hong Kong-Macau Bay Area Chamber of Commerce is working on the entry of a Chinese bank to the Ghanaian market together with the Agboghomefia of the Asogli State.¹⁸⁷

The cooperation with the UAE is less far-reaching, but nonetheless growing. The UAE government has become more active in Ghana's bauxite sector. In 2025, GIADEC signed an agreement with Emirates Global Aluminium to develop bauxite projects in Ghana and expand

¹⁸¹ 'Ghana: Electricity Empowering Rural Communities', Nexans Fondation, accessed 10 December 2025, <https://fondation.nexans.com/en/news/hexans-foundation/2025/07/ghana-electricity-empowering-rural-communities.html>.

¹⁸² Africa Infrastructure Country Diagnostic, Ghana's Infrastructure : A Continental Perspective, Text/HTML (Africa Infrastructure Country Diagnostic, 2011), <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/274681468004216819>.

¹⁸³ Ministry of Finance Ghana, 'Ghana and UK Sign Landmark Debt Restructuring Agreement, Paving Way for Major Infrastructure Projects', 2025, <https://mofep.gov.gh/news-and-events/2025-09-25/ghana-and-uk-sign-landmark-debt-restructuring-agreement-paving-way-for-major-infrastructure-projects>.

¹⁸⁴ AfricaNews, 'Ghana Signs \$10b Bauxite Deal with China', Africanews, 29 June 2017, <https://www.africanews.com/2017/06/29/ghana-signs-10b-bauxite-deal-with-china/>.

¹⁸⁵ 'Meinergy Signs Agreement with Huawei on a 1 GW and 500 MWh Project to Facilitate Green Development of Ghana', Huawei, 2022, <https://solar.huawei.com/en/news/2022/meinergy-signs-agreement-with-huawei-on-a-1gw-and-500mwh-project-of-ghana>; 'Telecel Ghana Launches \$70 Million Network Upgrade with Huawei', Ecofin Agency, 2025, <https://www.ecofinagency.com/news-digital/1311-50447-telecel-ghana-launches-70-million-network-upgrade-with-huawei>.

¹⁸⁶ Sheba Araba Bennin, 'Ghana, China to Formalise Climate Cooperation with MOU', Featured, Citi Newsroom, 17 September 2025, <https://citinewsroom.com/2025/09/ghana-china-to-formalise-climate-cooperation-with-mou/>.

¹⁸⁷ 'Togbe Afede XIV Signs MoU to Introduce Chinese Bank to Ghana - Report', GhanaWeb, 20 October 2025, <https://www.ghanaweb.com/GhanaHomePage/business/Togbe-Afede-XIV-signs-MoU-to-introduce-Chinese-bank-to-Ghana-Report-2006006>.

China and the UAE
are making
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export infrastructure.¹⁸⁸ In the same year, the Ghanaian government signed an MoU with the UAE on establishing a technology and innovation hub in Accra, positioning Ghana as a regional hub and accelerating digitalisation.¹⁸⁹ Still, gold trade remains a contentious bilateral issue. The UAE is Ghana's main export destination for gold, in addition to significant concerns that illegal gold is being smuggled to the UAE.¹⁹⁰

5.2.4. Avenues for collaboration with the Netherlands

Ghanaian-Dutch (CRM) relations

The Netherlands and Ghana have been strengthening bilateral relations over the last years.¹⁹¹ The Netherlands was the largest destination of Ghanaian cocoa beans and products, with 29.3% of total exports in 2024.¹⁹² As such, the Dutch embassy is focussed on helping Ghana improve horticulture and cocoa value chain and encourage Dutch businesses to invest in the country. The Embassy also monitors the increasing instability in the region particularly with regards to violent extremism in the Sahel, it tries to identify the risks but also the opportunities to tackle the root of this issue. Additionally, the two countries share a long history, therefore, the embassy tries to enhance cultural exchanges.

While bilateral relations do not focus on the extractive sector or CRM, the National Committee of the Netherlands of the International Union for Conservation of Nature and Natural Resources (IUCN) works with Ghanaian civil society organisations on various advocacy and community engagement projects, including to support nature conservation, socially and environmentally responsible mineral management, and climate change resilience.¹⁹³

This fits in the broader European engagement with Ghana, which is one of two countries in West Africa to sign a provisional Economic Partnership Agreement with the EU.¹⁹⁴ It has also led to closer cooperation under the EU's Global Gateway initiative, with projects in the sustainable cocoa sector, healthcare, energy transition, private sector development, security in North Ghana, migration, and governance.¹⁹⁵

¹⁸⁸ EGA, 'EGA Signs Agreement with GIADEC to Explore Opportunities to Develop Bauxite-Related Projects and Infrastructure in Ghana', EGA Signs Agreement with GIADEC to Explore Opportunities to Develop Bauxite-Related Projects and Infrastructure in Ghana, 2025, <https://media.ega.ae/ega-signs-agreement-with-gia-dec-to-explore-opportunities-to-develop-bauxite-related-projects-and-infrastructure-in-ghana/>.

¹⁸⁹ Solomon Obi, Ghana And UAE Join Forces To Launch Pioneering Technology And Innovation Hub - African Leadership Magazine, Africa, 4 June 2025, <https://www.africanleadershipmagazine.co.uk/ghana-and-uae-join-forces-to-launch-pioneering-technology-and-innovation-hub/>.

¹⁹⁰ Maxwell Akalaare Adombila, 'Ghana Has Lost \$11 Billion to Gold Smuggling, Links to UAE, Report Finds', Reuters, 2025, <https://www.reuters.com/sustainability/boards-policy-regulation/ghana-has-lost-11-billion-gold-smuggling-links-uae-report-finds-2025-06-16/>.

¹⁹¹ 'Multiannual Country Strategy 2023 to 2026 for Ghana', 2022, <https://www.netherlandsandyou.nl/documents/d/ghana/macs-ghana-2023-2026>.

¹⁹² Ghana Statistical Service, Ghana 2024 Trade Report.

¹⁹³ 'Projects', IUCN NL, accessed 12 January 2026, <https://www.iucn.nl/en/projects/>; 'Nature's Heartbeat', IUCN NL, accessed 12 January 2026, <https://www.iucn.nl/en/project/natures-heartbeat/>; 'Bottom Line! A Fair and Successful Energy Transition', IUCN NL, accessed 12 January 2026, <https://www.iucn.nl/en/project/bottom-line-a-fair-and-successful-energy-transition/>; 'Strengthen the Roots', IUCN NL, accessed 12 January 2026, <https://www.iucn.nl/en/project/strengthen-the-roots/>.

¹⁹⁴ 'EU Trade Relations with West Africa', European Commission, accessed 10 October 2025, https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/west-africa_en.

¹⁹⁵ 'Ghana', European Commission, 30 September 2025, https://international-partnerships.ec.europa.eu/countries/ghana_en.

Just like in the case of bilateral relations with the Netherlands, CRM projects with EU involvement are limited in Ghana. As an example of the few initiatives in this sector, the EU has been supporting since 2024 an A Rocha-led project called BRACE to protect communities against extractive industry.¹⁹⁶

Entry points for collaboration

While CRM are not a priority sector in the cooperation between Ghana and either the Netherlands or the EU as a whole, there are notable overlaps between the ambitions of the two parties. Generally, the wide sweeping reforms in mining legislation still under development by the Ghanaian government and their Green Minerals Policy align with the Dutch perspective towards both sustainable and responsible value chains; and socio-economic benefits from and autonomy over CRM value chains. Increased Dutch support for Ghana's Green Minerals Policy is timely but has to be embedded in a broader European approach that is based on a strategic vision of the EU's role in Ghana's mining sector. Right now, no major European mining firms are active in Ghana.

The most concrete short-term opportunity for the Netherlands would be to support Ghana's lithium processing and downstream sector. As Australian-based Atlantic Lithium is starting up the lithium supply chain in Ghana, there is an opportunity to contribute to a processing facility. Even though similar opportunities may be in the bauxite sector, where the Ghana Integrated Aluminium Development Corporation is looking for partners to expand the bauxite supply chain, discussions have been progressing with both China and the UAE. As such, it would be more effective for the EU to focus on lithium, while also identifying European offtakers for the processed materials. If this is the case, the Netherlands can contribute to equipment provision, a framework for community engagement, as well as investments in port infrastructure for exports.

Second, Europe could support geological exploration, with the intention of getting involved in the mining sector. There are still undiscovered and unprospected reserves of CRM in Ghana, and the lack of data is making it difficult to understand the full potential. For the Ghanaian government, having this data is a strong leverage when engaging with international partners. As such, Dutch exploration companies could support this process. The Netherlands could also look into strategic environmental assessments and nature conservation around proven reserves.

¹⁹⁶ 'BRACE Project Launched to Improve Sustainable Mining to Safeguard the Environment and Protect People', A Rocha Ghana, 16 May 2024, <https://ghana.arocha.org/en/2024/05/16/brace-project-launched-to-improve-sustainable-mining-to-safeguard-the-environment-and-protect-people/>.

5.3. Senegal

Key Takeaways

The mining sector in Senegal

- The large-scale sector has been growing since the 2000s and is primarily focussed on the extraction of gold, phosphate, heavy minerals, and construction materials. It is dominated by foreign actors: Australia, the UK and Morocco in gold; France in heavy minerals; Singapore, Spain and India in phosphate.
- Senegal has a long legacy of artisanal gold mining, concentrated in the southeast region.
- Other CRM (manganese, lithium, and copper) could be present in the subsurface, but their quantity remains uncertain.

Sustainable and responsible value chains

- **Environment:** Small-scale illegal and large-scale mines have been repeatedly accused of leaking chemicals into the environment and/or producing toxic dust which damages arable land, poses health risk to neighbouring communities, and endangers livestock. To reduce the risks of mercury leakages in the ASM sector, one mercury-free gold processing plant was completed, but it remains largely underused by artisanal miners.
- **Society:** Large-scale mining companies are obligated by law to establish a fund in which they place 0.5% of their benefits, the collected funds shall contribute to a local development project decided in collaboration with the neighbouring community.
- **Governance:** The government is committed to sustainable and responsible practices as codified in the 2016 Mining Code yet monitoring and implementation remains a key challenge. Moreover, regular conflicts occur between large-scale mines and local population, the most prominent being disagreements over land rights.

Socio-economic benefits and autonomy in CRM value chains

- **Monetary benefits:** The Mining Code establishes fiscal obligations to ensure the government captures adequate revenues. Despite these provisions, the country loses 1 to 3% in revenues every year due to structural tax evasion.
- **Infrastructure:** Improving transport infrastructure is a priority for the Senegalese government, which made it one of its top areas of spending in the 2026 annual budget. Senegal also wants to increase its renewable energy production, aiming for a 40% share of its total energy mix by 2030.
- **Employment:** In 2022, Senegal passed a law to establish local content requirements including the participation of local companies in all mining ventures, the development of local training programme, and the purchase of domestic goods and services. The bill led to a 21% year-on-year increase in local procurement of mining companies in 2021-2022.
- **Autonomy:** Even though there is not one dominant foreign actor present in Senegal's mining industry, China is increasingly present through the funding of several infrastructure projects.

Avenues for collaboration with the Netherlands

- **The short-term priority** would be conducting geological exploration, with the intention of getting involved in the mining sector, given that CRM mining is limited.
- **Additionally,** efforts could be tailored to support the government in strengthening the monitoring and enforcement of sustainability and local content requirements in its mining legislation. Providing technical assistance in infrastructure development, including transportation and energy, would match the Senegalese government's ambitions and aid in the long term in the development of the country's CRM sector.

5.3.1. The mining sector in Senegal

Evolution of the mining sector

Despite large mineral resources, the Senegalese extractive sector did not develop until the 1950s. Most of the country's mineral wealth lies in the Kédougou-Kenieba Inlier (KKI), in eastern Senegal.¹⁹⁷ In the 9th century, local artisanal miners started exploiting the KKI and exporting gold to the neighbouring empires of Ghana and Mali.¹⁹⁸ However, the Senegalese economy began shifting during the Middle Ages, when Arab merchants started travelling to Senegal to trade enslaved Africans.¹⁹⁹ By the end of the 15th century, Europeans opened trading posts along the coast and started exchanging enslaved Africans for finished goods coming from Europe.²⁰⁰ Senegal's economy became concentrated in the coastal regions and on the export of slaves, gold mining was slowly abandoned as the eastern region became peripheral to the country's economy.²⁰¹

The 300-year long trade had long lasting impacts on Senegal's economy and its sociopolitical structure. It disrupted pre-established political structures, fostered corruption, emptied the country of its population and disproportionally developed its coastal regions with regards to the rest of the country.²⁰² To this day, the European-led slave trade continues to be omnipresent in collective memory and a source of resentment towards Western powers.²⁰³

Following independence in 1960, the government actively attempted to diversify the economy. It invested in cash crops other than the dominant peanuts, and promoted non-agricultural sectors such as fishing, tourism and the extractive industry.²⁰⁴ The latter was, at the time of independence, limited to the industrial extraction of phosphate.

In the 2000s, there was a renewed interest in developing mining projects.²⁰⁵ To attract as many foreign investments as possible, the country drafted a Mining Code, ratified in 2003, which followed the guidelines of the World Bank with respect to administrative procedures and fiscal incentives. Nonetheless, this Mining Code granted many tax exemptions to potential investors, limiting the government's ability to capture significant revenues from the

¹⁹⁷ David M. Lawrence et al., 'The Geology and Mineralogy of the Loulo Mining District, Mali, West Africa: Evidence for Two Distinct Styles of Orogenic Gold Mineralization', ResearchGate 108, no. 2 (2025): 200, <https://doi.org/10.2113/econgeo.108.2.199>; 'Gold in Africa: Exploring West Africa's Birimian Greenstone Belt', Investing News Network, 17 December 2020, <https://investingnews.com/innspired/gold-in-west-africa/>.

¹⁹⁸ Robyn d'Avignon, 'Protest Geologies', Society for Cultural Anthropology, 22 September 2020, <https://www.culanth.org/fieldsights/protest-geologies>.

¹⁹⁹ Thomas A. Wikle and Dale R. Lightfoot, 'Landscapes of the Slave Trade in Senegal and The Gambia', Focus on Geography 57, no. 1 (2014): 14–24, <https://doi.org/10.1111/foge.12025>.

²⁰⁰ J. H. Gritzner, Senegal (Chelsea House Publishers, 2016), 36, <https://sahistory.org.za/archive/senegal-janet-h-gritzner>.

²⁰¹ d'Avignon, 'Protest Geologies'.

²⁰² Nathan Nunn, 'The Long-Term Effects of Africa's Slave Trades', The Quarterly Journal of Economics 123, no. 1 (2008): 139–76, <https://doi.org/10.1162/qjec.2008.123.1.139>.

²⁰³ Jori Lewis, 'How Descendants of African Slaves Are Stigmatised for Life | Aeon Essays', Aeon, accessed 22 October 2025, <https://aeon.co/essays/how-descendants-of-african-slaves-are-stigmatised-for-life>; 'Slave Trade: Senegal Focuses on 'duty to Remember'', Dawn, 28 March 2010, <http://beta.dawn.com/news/816698/slave-trade-senegal-focuses-on-duty-to-remember>.

²⁰⁴ Aikins, *Senegal*, 11.

²⁰⁵ Mouhamadou Lamine Diallo and Géraud Magrin, 'L'enfer est pavé de bonnes intentions : la régulation environnementale et sociale de l'or au Sénégal oriental', in Ressources mondialisées : Essais de géographie politique, ed. Marie Redon et al., Territoires en mouvements (Éditions de la Sorbonne, 2015), <https://doi.org/10.4000/books.psorbonne.101060>.

sector.²⁰⁶ The government restructured the Mining Code in 2016, to ensure the mining sector would benefit its economy better and simplify some former confusing terminologies.²⁰⁷

In the first two decades of the 21st century, Senegal attracted major investments, though not all have been successful. First, in 2005, the UK-based company Endeavour Minerals developed a gold mining project in the southeast of the country.²⁰⁸ The Sabodala mine project first sparked popular protests, due to concerns about inequalities in employment opportunities between residents and migrant workers from the west of the country. These tensions reflected long-standing regional disparities between the country's west and east as the western regions historically received greater investment during the colonial period and after independence, leaving the east poorer and dominated by the informal economic sector such as agriculture and artisanal mining.²⁰⁹ Despite the protest, the Sabodala mine exported its first ounce of gold in 2009 and is still active. Subsequently, other gold mines such as the Mako Gold mine opened.²¹⁰

Second, in 2007, the Luxemburg-based steel company ArcelorMittal signed a deal with Senegal to develop its first industrial-scale iron ore mine in the east of the country. The area was believed to hold about 750 million tons of iron ore. In a \$2.2 billion deal, the mining company promised to develop a mine as well as two major infrastructure projects: a new port and a 750 km railway linking the mine to coastal Senegal.²¹¹ However, due to the economic crisis and studies suggesting that the iron-ore was of lower quality than initially thought, the projects got delayed before being halted in 2009.²¹² Senegal has not yet been able to find other investors to tap into its iron ore deposit.

Third, in 2014, Eramet Grande Côte (EGC), a subsidiary to the French giant Eramet Group, started industrially mineral sands, namely zircon, ilmenite, rutile, and leucoxene. The last three are raw materials from which titanium dioxide can be extracted.²¹³ Their operations turned Senegal into the 3rd largest zirconium ores and concentrates, with the Netherlands being its fifth largest importer that same year, as well as the 6th largest exporter of titanium ore worldwide.²¹⁴ Eramet's dredging in the Lompoul dunes of coastal Dakar has been accused by local communities of environmental damages and forcibly displacing people.²¹⁵

²⁰⁶ Lamine Diallo and Magrin, 'L'enfer est pavé de bonnes intentions'.

²⁰⁷ 'Loi N°2016-32 Du 8 Novembre 2016 Portant Code Minier: Décret N°2017-459 Fixant Les Modalités d'application de La Loi N°2016-32 Portant Code Minier', République du Sénégal, 8 November 2016, 5–7, https://primature.sn/sites/default/files/2022-04/Loi%20n%C2%B02016-32%20du%208%20novembre%202016%20portant%20Code%20Minier_D%C3%A9cret%20n%C2%B02017-459%20fixant%20les%20modalit%C3%A9s%20d%27application%20de%20la%20loi%20n%C2%B02016-32.pdf.

²⁰⁸ Kilian, 'Senegal's Mining Industry'; Lamine Diallo and Magrin, 'L'enfer est pavé de bonnes intentions'.

²⁰⁹ Lamine Diallo and Magrin, 'L'enfer est pavé de bonnes intentions'.

²¹⁰ 'Mines et Carrières'.

²¹¹ 'Senegal Wins Court Case against Arcelor Mittal: Govt', Business Standard, 11 September 2013, https://www.business-standard.com/article/international/senegal-wins-court-case-against-arcelor-mittal-govt-113091100054_1.html.

²¹² 'ArcelorMittal Loses Arbitration Case against Senegal', Luxembourg Times, 11 September 2013, <https://www.luxtimes.lu/luxembourg/arcelormittal-loses-arbitration-case-against-senegal/1258884.html>.

²¹³ 'Eramet Grande Côte', Eramet Grande Côte, accessed 25 November 2025, <https://gco.eramet.com/en/>.

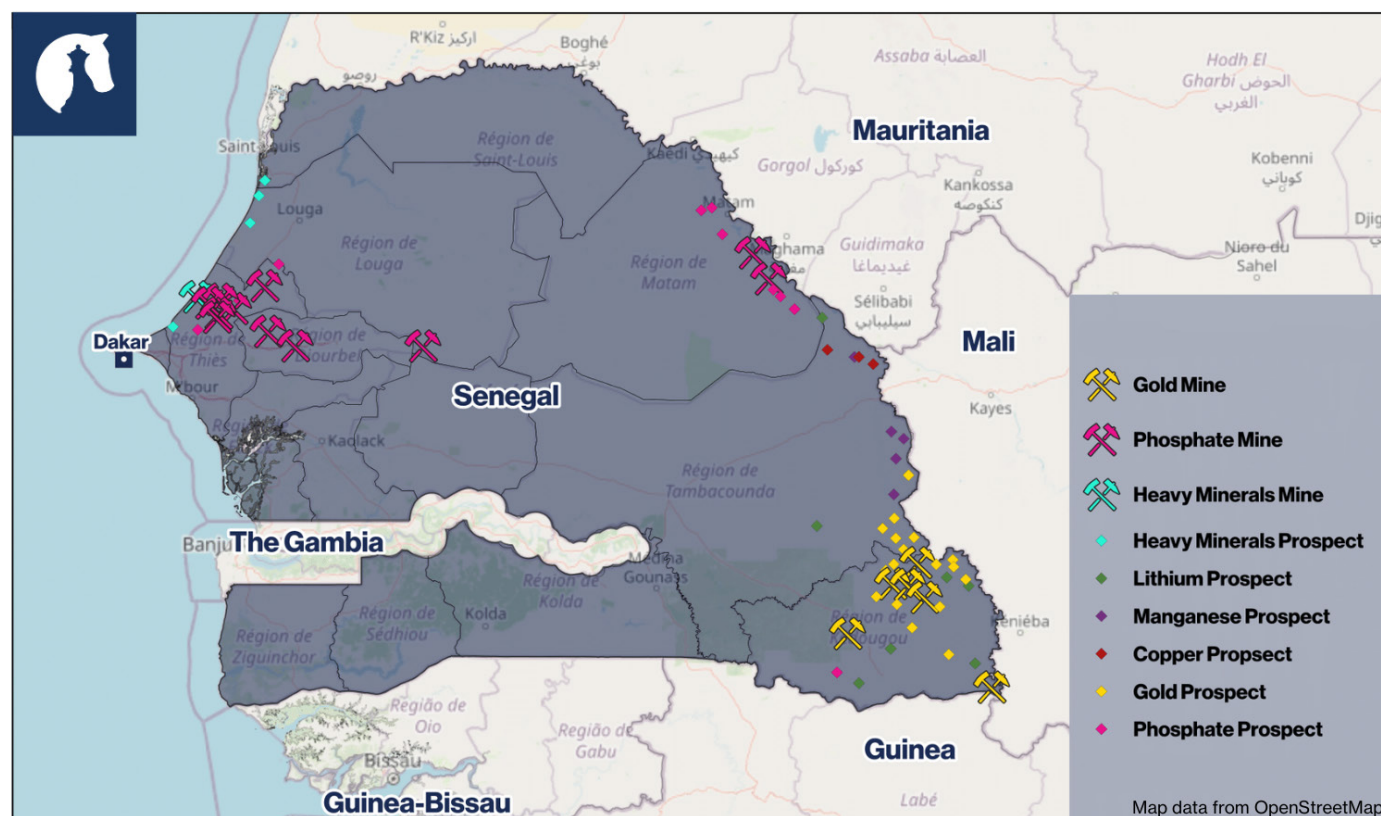
²¹⁴ 'Zirconium Ores and Concentrates Exports by Country', WITS, 2021, <https://wits.worldbank.org/trade/comtrade/en/country/ALL/year/2021/tradeflow/Exports/partner/WLD/product/261510>; 'Titanium Ore in Senegal Trade', The Observatory of Economic Complexity, 2023, <https://oec.world/en/profile/bilateral-product/titanium-ore/reporter/sen>.

²¹⁵ 'Giant Mine Machine Swallowing up Senegal's Fertile Coast', France 24, 17 March 2025, <https://www.france24.com/en/live-news/20250317-giant-mine-machine-swallowing-up-senegal-s-fertile-coast>.

The mining sector in 2025

Compared to other neighbouring countries, the Senegalese mining sector is relatively limited and there is no single country that holds dominant control over it (see Figure 9 and Table 5). The main activities are the industrial extraction of phosphates, which is a CRM, and is controlled by Industries Chimiques du Sénégal under ownership of Singaporean company Indorama. Gold is dominated by the UK, Australia and, to a lesser extent, Morocco. Heavy minerals and construction materials such as clays and limestones are mined by French Eramet, as mentioned above. In 2023, the extractive industry contributed to 4.27% of the GDP and represented about 31.89% of the country's exports, but it only accounted for 0.16% of employment.²¹⁶

Figure 9. Mineral Resources in Senegal



²¹⁶ 'Senegal', EITI, accessed 28 October 2025, <https://eiti.org/countries/senegal>.

Table 5. Large-scale mines in Senegal 2025. Source: Mining Cadastre Portal of the Republic of Senegal²¹⁷

Material	Mine	Status	Company	Country ²¹⁸
Gold	Mako	Operational	Resolute Mining	Headquartered in Australia
	Sabodala	Operational	Endeavour Mining	Headquartered in the United Kingdom
	Sambarabougou	Operational	Bassari Resource	Headquartered in Australia
	Boto	Operational	Managem Group	Headquartered in Morocco, 81.63% of the shares are owned by a Moroccan public fund ²¹⁹
Heavy Minerals	Grande Côte	Operational	Eramet	Headquartered in France
Phosphate	Taiba	Operational	Indorama Corporation	Headquartered in Singapore with majority shareholding owned by the Lohia family
	Tobène Nord	Operational	Indorama Corporation	Headquartered in Singapore with majority shareholding owned by the Lohia family
	Tobène Sud	Operational	Indorama Corporation	Headquartered in Singapore with majority shareholding owned by the Lohia family
	Matam	Operational	Société minière de la vallée du fleuve (SOMIVA)	Headquartered in Senegal, unclear ownership
	Prochimat	Operational	Tolsa Group	Headquartered in Madrid
	Baobab	Operational	Coromandel International	Headquartered in India, majority stakeholder is E.I.D. – Parry (India) Limited with 56.09% holding ²²⁰
	Lam-Lam Thies	Operational	IFCOM	Headquartered in Senegal
Iron	Falémé	Looking for investors	/	/

The sector is expected to grow, with several permits delivered for the exploration of CRM like manganese, magnesium, lithium and copper, as well as the first extraction of oil and gas in 2024.²²¹ Some occurrences of other critical minerals such as copper, barite, tungsten, niobium-tantalum, nickel, and cobalt were discovered in the country, but geological knowledge concerning these deposits is still too limited to establish their economic viability.²²² The sector is therefore still growing and Senegal has made it clear that they are open to partner with all countries in order to develop it as long as the extractive sector benefits the people of Senegal and foreign companies respect environmental norms.²²³

The 2000s renewed interest in Senegal mining potential also led to a boom in ASM, a large part of which is illegal. Miners from across Africa and beyond travelled to Senegal to extract

²¹⁷ 'Senegal Mining Cadastre Map Portal', accessed 5 December 2025, <https://cadastreminiersenegal.sn/EN/>.

²¹⁸ The countries shown in this table refer to the jurisdictions where the main shareholding companies operating the mines are headquartered.

²¹⁹ 'Shareholding', Managem, accessed 7 January 2026, <https://www.managemgroup.com/en/investors/managem/shareholding>.

²²⁰ 'Who Owns Coromandel Int? CORF Shareholders', Investing.Com, 7 January 2026, <https://www.investing.com/equities/coromandel-international-ownership>.

²²¹ Pochon and Zammit, D9.3 - SENEGAL Case Study, 19–21; EITI, 'Senegal'.

²²² Pochon and Zammit, D9.3 - SENEGAL Case Study, 11–12.

²²³ 'Senegal Sets out to Secure Fairer Partnerships in Mining Sector', RFI, 7 July 2024, <https://www.rfi.fr/en/africa/20240707-senegal-sets-out-to-secure-fairer-partnerships-in-mining-sector>.

gold alongside local villagers.²²⁴ Most foreigners come from neighbouring Mali and Guinea, although there are reports of Chinese-led groups also operating in the region.²²⁵ The ASM industry has numerous negative impacts on Senegal. Illegal mining leads to an increase in corruption of local authorities nearby illegal mining sites, as well as millions in lost revenues.²²⁶ Annually, about 4 tonnes of gold is smuggled out of the country illegally, costing the country millions of USD.²²⁷

5.3.2. Sustainable and responsible value chains

Whether it is large-scale or artisanal small-scale mining, the Senegalese extractive sector has long been associated with severe environmental damages. When Senegal formalised the industry in 2003 by ratifying the first mining code, it made sure to lay the foundations for a more sustainable mining sector. This ambition was further re-instated in 2016 with the publication of a renewed mining code and again in 2023 with the ratification of the Environmental Code, a text of law which provides environmental norms for all of Senegal's industry.²²⁸ According to the law, each company that applies for an exploitation permit must in advance submit an environmental impact assessment as well as a rehabilitation plan for when the mine ends its activity.²²⁹ If the government were to audit a company and find that it did not abide by the environmental norms, the government has the power to revoke the mining license.²³⁰ While this provision is stated clearly in the mining code, Senegal has never revoked a license based on environmental degradation despite multiple critique from civil society on companies' practices.

Illegal mining causes important environmental damages, primarily due to the use of heavy chemicals that end up in soil and nearby water bodies.²³¹ To mitigate environmental damages in the southeast of the country, the government halted all mining operations within 500 meters of the Falémé river from 2024 to 2027.²³² The river, which runs across both Senegal and Mali and is an important source of drinking water and fish stocks for local populations, is heavily polluted. Such ban is difficult to enforce, as an estimated 800 illegal mines operate along the riverbeds in Mali and Senegal combined.²³³ Over the past year, authorities have dismantled 66 illegal mining sites, nevertheless, if Mali does not implement similar measures the impacts will be limited.²³⁴

²²⁴ 'Senegal Seeks to Rein in Polluting Illegal Gold Mining along Mali Border', RFI, 30 August 2024, <https://www.rfi.fr/en/africa/20240830-senegal-seeks-to-reign-in-polluting-illegal-gold-mining-along-mali-border>.

²²⁵ Toupane et al., 'Prévenir l'extrémisme Violent Au Sénégal', 22; Mouhamadou Kane, 'How Corruption Is Fuelling Illegal Mining in Senegal', ENACT Africa, 22 August 2019, <https://enactafrica.org/research/trend-reports/how-corruption-is-fuelling-illegal-mining-in-senegal>.

²²⁶ Kane, 'How Corruption Is Fuelling Illegal Mining in Senegal'.

²²⁷ Paulin Maurice Toupane, 'Going for Gold Leaves Senegal's Artisanal Mining Communities Poorer', ISS Africa, 23 February 2022, <https://issafrica.org/iss-today/going-for-gold-leaves-senegals-artisanal-mining-communities-poorer>.

²²⁸ 'Regulation of the Mining Sector in Senegal: A Framework for Sustainable Development', Ugga Africa, 25 November 2024, <https://uggafrica.com/regulation-mining-sector-senegal-sustainable-development/>.

²²⁹ 'Loi N°2016-32 Du 8 Novembre 2016 Portant Code Minier', 21.

²³⁰ 'Loi N°2016-32 Du 8 Novembre 2016 Portant Code Minier', 26.

²³¹ Toupane, 'Going for Gold Leaves Senegal's Artisanal Mining Communities Poorer'.

²³² RFI, 'Senegal Seeks to Rein in Polluting Illegal Gold Mining along Mali Border'.

²³³ RFI, 'Senegal Seeks to Rein in Polluting Illegal Gold Mining along Mali Border'.

²³⁴ 'Senegalese Authorities Dismantles 66 Illegal Gold Mining Sites Amid Growing Security Concerns', *West African Voice Network*, 26 June 2025, <https://www.wavn.org/senegalese-authorities-dismantles-66-illegal-gold-mining-sites-amid-growing-security-concerns/>.

Large-scale mining companies have repeatedly been accused by neighbouring villages of environmental damages.

Moreover, large-scale mining companies have repeatedly been accused by neighbouring villages of environmental damages. The Industries Chimiques du Sénégal, Senegal's largest phosphate producer, was responsible for an acid leakage in 2014. The inhabitants of the village of Gad reported suffering from chest pain, headaches, as well as miscarriages and neonatal deaths.²³⁵ Despite the incident, and years of soil and air contamination causing water shortages and reduced agricultural rents, the neighbouring villages have yet to be compensated.²³⁶ The case is not isolated, the Société minière de la vallée du fleuve (SOMIVA), another large phosphate mining company, has faced similar accusations. Villagers claim that the air is so badly polluted by phosphate dust that it has claimed the lives of several livestock and causes respiratory issues in residents.²³⁷ Finally, the Teranga Gold Corporation which runs the Sabodala gold project has also been accused of dumping heavy minerals and toxic chemicals in the environment, polluting rivers and considerably reducing arable land surface for nearby communities.²³⁸

Another threat to the environment in Senegal is the use of mercury and cyanide in the mining sector. Each year, Senegal uses about 5.2 tonnes of mercury, 3.9 of them solely in the Kédougou region, the southeast gold rich area.²³⁹ In 2017, the country promised the construction of 400 mercury-free processing plants for artisanal miners to use, however, by May 2025, only one seem to have been constructed. The plant which separates gold using gravity remains largely underused because it is insufficient to meet the needs of the whole community. For some miners working in remote areas, the travel time to the plant makes it unattractive. Additionally, local miners report that it is less effective in separating gold than chemical leaching, leading them to lose some of their extraction.²⁴⁰

Senegal also understands that a sustainable mining sector is one that benefits and empowers local communities. For this reason, it demands in the mining code that each company places 0.5% of their benefits, prior to taxes, in a fund destined for local development projects.²⁴¹ The projects in question shall be decided in collaboration with local communities and must be the emancipation of women. In the first half of 2024, 1.77 billion CFA francs were spent by extracting companies to fulfil their social obligations and an additional 797 million was given on voluntary basis.²⁴²

However, in practice, the impact of the mining sector on local communities is not positive. In rural areas, villagers depend mostly on agro-pastoral and artisanal mining activities to make a living.²⁴³ Mining companies have repeatedly been granted land rights over areas previously exploited by residents. In the Kédougou region, about 19.000 out of up to 50.000

²³⁵ Christian Danielewitz, 'Phosphate Mining and the Paradox of Abundance', Edge Effects, 17 September 2019, <https://edgeeffects.net/phosphate-mining/>.

²³⁶ 'Taïba Phosphates Mine in the Fertile Gardening Area of Niayes, Senegal', Ej Atlas, 4 July 2022, <https://ejatlas.org/print/phosphates-mining-in-the-gardening-zone-of-niayes-mboro-senegal>.

²³⁷ 'Phosphate Mining in Matam, Ndiendouri-Ouali Diala Deposits, SOMIVA (SERPM), Senegal', Ej Atlas, 10 June 2022, <https://ejatlas.org/print/phosphates-matam-senegal>.

²³⁸ 'Sabodala Gold Operations Mining, Senegal', Ej Atlas, 10 June 2022, <https://ejatlas.org/print/sabodala-gold-project-senegal>.

²³⁹ Toupane, 'Going for Gold Leaves Senegal's Artisanal Mining Communities Poorer'.

²⁴⁰ Annika Hammerschlag, 'Mercury Fuels Gold Mining in Senegal. And It's Poisoning the People Who Use It | AP News', AP, 13 May 2025, <https://apnews.com/article/senegal-gold-mining-mercury-health-risks-women-b74c3a963b0425d13ef756deb66e50aa>.

²⁴¹ 'Loi N°2016-32 Du 8 Novembre 2016 Portant Code Minier', 55.

²⁴² 'Senegal's Mining Sector Drives CFA236.59 Billion in Extractive Revenue in First Half of 2024', AFFAIRES | AFFAIRES, APAnews - African Press Agency, 5 May 2025, <https://apanews.net/senegals-mining-sector-drives-cfa236-59-billion-in-extractive-revenue-in-first-half-of-2024/>.

²⁴³ Ej Atlas, 'Sabodala Gold Operations Mining, Senegal'.

artisanal miners have been displaced by industrial activities. Some were arrested in 2016, after exploiting an area in the vicinity of the Sabodala mine, leading to popular protests over repeated land grabbing.²⁴⁴ Land in Senegal is often owned based on traditional rules therefore there is regular conflict between customary tenants and formal landowners, especially businesses. The problem is further exacerbated by widespread corruption in Senegalese land administration.²⁴⁵

The gap between Senegal's ambition of a sustainable mining sector and reality may be closing. The newly elected President Bassirou Diomaye Faye, a former tax inspector, has ambitions to improve the mining sector oversight. In his inaugural speech, he stated that the government will audit the gas, oil, and mining sector, and renegotiate contracts when they fail to benefit the people of Senegal.²⁴⁶ Subsequent declarations by Birame Souleye Diop, the Minister of energy and mines, have highlighted that this would include assessing compliance with environmental norms and effectiveness of companies' social spending.²⁴⁷ Faye has also initiated reforms to improve the mining sector's transparency and combat corruption, despite already relatively high score on both the Resources Governance Index (RGI) and the Extractive Industries Transparency Initiative (EITI).²⁴⁸

5.3.3. Socio-economic benefits and autonomy in CRM value chains

Senegal has the ambition to make the mining sector a driver of socio-economic growth and not merely a source of rent. The 2016 Mining Code enforces several fiscal obligations which ensure that Senegal benefits from the mining sector's revenues. Among other things, the Mining Code states that the government of Senegal is entitled to a minimum 10% equity in all mining venture and can negotiate up to a 25% equity.²⁴⁹ Several fixed fees are required upon the obtention of permits and authorisation, for example, companies must pay a 10,000,000 CFA fixed fee to obtain an exploitation permit.²⁵⁰ Similarly, the mining code states that mining companies are obligated to pay annual surface rights fees which are calculated based on the area granted to a certain company. Lastly, mining companies must pay royalties on all extracted minerals. The royalties are calculated based on the types of minerals. Interestingly, minerals which are exported without any local processing are subject to higher royalties, such as raw gold and diamond subjected to 5% royalties, compared with locally processed minerals such as minerals destined to local steel processing (2%), locally refined gold (3.5%) or cut diamond (3%).²⁵¹ These provisions ensure that the Senegalese mining sector contributes to state revenues and already offers fiscal incentives for local processing.

²⁴⁴ Ej Atlas, 'Sabodala Gold Operations Mining, Senegal'.

²⁴⁵ 'Senegal Country Risk Report', GAN Integrity, accessed 11 November 2025, <https://www.ganintegrity.com/country-profiles/senegal/>.

²⁴⁶ RFI, 'Senegal's New Leader Announces Audit of Oil, Gas and Mining Sectors'.

²⁴⁷ RFI, 'Senegal Sets out to Secure Fairer Partnerships in Mining Sector'.

²⁴⁸ 'Senegal: Resource Governance Index', NRGi, 2021, <https://resourcegovernanceindex.org/country-profiles/SEN/mining?years=2021>; EITI, 'Senegal'.

²⁴⁹ 'Loi N°2016-32 Du 8 Novembre 2016 Portant Code Minier', 27.

²⁵⁰ 'Loi N°2016-32 Du 8 Novembre 2016 Portant Code Minier', 39.

²⁵¹ 'Loi N°2016-32 Du 8 Novembre 2016 Portant Code Minier', 41.

Despite a strong tax system, Senegal loses between 1 and 3% in tax revenues every year due to tax avoidances, a large share of which is attributed to the mining sector.²⁵² The main weakness in Senegal's fiscal regime is the lack of sufficient personnel to investigate tax evasion. In 2020, the country ranked 134th out of 150 in number of tax official per head of population and second lowest out of 139 in share of personnel assigned to auditing compliance with tax regulations.²⁵³ Subsequently, the country called on the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF) and the African Tax Administration Forum (ATAF) to support the country in addressing persistent tax avoidance. With the help of the IGF and ATAF, the country was able to conduct numerous royalties audit which improved year-on-year mining revenues by 7%. Additionally, Senegal trained dozens of officers now able to conduct in-depth tax payments analysis. On top of this, IGF and ATAF promoted inter-agency communication to better share information and foster collaboration between tax and royalties' auditors.²⁵⁴

Senegal's ambition goes beyond increased fiscal revenues; the country hopes that the development of the mining sector will stimulate other economic sectors. Senegal's population is young and growing at a steady rate, it is therefore imperative for the country to increase job opportunities to satisfy the growing employment demand.²⁵⁵ Until now, many Senegalese have lived under the poverty line and youth unemployment is high.²⁵⁶ In 2022, it passed a law to promote local content by imposing the participation of local companies in all mining ventures, the development of local training, and the purchase of domestic goods and services.²⁵⁷ This bill had an immediate impact with a 21% year-on-year increase in local procurement of mining companies between 2021 and 2022.²⁵⁸ In the first half of 2024, 39.64% of the extractive sector's purchases were from local suppliers. While the gap remains important between the presence of foreign versus local suppliers in the mining sector, it is narrowing.²⁵⁹

Senegal is also investing in its infrastructure, with transport-related projects being one of the top areas of spending in its 2026 budget.²⁶⁰ While many current infrastructure projects are linked to the development of oil and gas exports, improving connectivity to rural areas, especially those with agricultural and mining activities, remains a priority.²⁶¹ Because most of Senegal's population is concentrated in the Dakar region, infrastructure coverage across the country is uneven.²⁶² This also applies for energy infrastructure with electricity access

²⁵² William Davis, 'Tax Avoidance, Tax Evasion and Trade Misinvoicing: Risks to Senegal's Mining Sector', Natural Resource Governance Institute, August 2024, https://resourcegovernance.org/sites/default/files/2024-09/Tax_Avoidance_Tax_Evasion_and_Trade_Misinvoicing_Risks_to_Senegal_Mining_Sector.pdf.pdf.

²⁵³ Davis, 'Tax Avoidance, Tax Evasion and Trade Misinvoicing: Risks to Senegal's Mining Sector', 15.

²⁵⁴ 'Empowering Officials to Realize the Financial Benefits of Mining in Senegal', Intergovernmental Forum on Mining, 13 January 2022, <https://www.igfmining.org/impactstory/financial-benefits-mining-senegal/>.

²⁵⁵ BTI 2024, 'BTI 2024 Senegal Country Report'.

²⁵⁶ 'BTI 2024 Senegal Country Report', BTI 2024, accessed 28 October 2025, <https://bti-project.org/en/reports/country-report?isocode=SEN&cHash=fb30a314a710c13bd240b2441c24ce13>.

²⁵⁷ EITI, 'Senegal'.

²⁵⁸ EITI, 'Senegal'.

²⁵⁹ 'Senegal's Mining Sector Drives CFA236.59 Billion in Extractive Revenue in First Half of 2024'.

²⁶⁰ 'Senegal Allocates \$837 Million to Transport Infrastructure in 2026 Finance Bill', Ecofin Agency, 29 October 2025, <https://www.ecofinagency.com/news-infrastructures/2910-49950-senegal-allocates-837-million-to-transport-infrastructure-in-2026-finance-bill>.

²⁶¹ Ecofin Agency, 'Senegal Allocates \$837 Million to Transport Infrastructure in 2026 Finance Bill'.

²⁶² Cecilia M. Briceño-Garmendia et al., 'Senegal's Infrastructure: A Continental Perspective', World Bank, 16 June 2017, 4, <https://openknowledge.worldbank.org/entities/publication/f6832eaa-e197-500a-97c7-7c084b80520a>.

Despite a strong tax system, Senegal loses between 1 and 3% in tax revenues every year due to tax avoidances, a large share of which is attributed to the mining sector.

reaching 84% at the national level, yet more than 30% of rural households are still disconnected from the grid.²⁶³

The development of mining projects in remote areas could help drive additional infrastructure projects. However, these projects sometimes fall short of expectations. In 2016, the Industries Chimiques du Sénégal (ICS) inaugurated a new power station in Darou Khoudoss. While the company now benefits from a continuous energy supply, neighbouring villages still experience daily power outages, as power from the station is prioritised for the mine.²⁶⁴

To improve national energy coverage, the state is betting on renewable energy. Senegal, in its national strategy wishes to increase the share of renewable energy, especially solar power, to 40% of its total energy mix by 2030.²⁶⁵ The country's mineral potential could directly support these ambitions by allowing for domestic manufacturing of solar panels. Minerals like zirconium, copper, phosphorus, lithium, nickel, and cobalt, which are or could be found in substantial quantities on Senegalese land, are all used in the manufacturing of solar panels.

For both transport and energy infrastructure projects, the country can also count on the assistance of its second-largest economic partner, China. Although China is not yet present in the Senegalese mining sector, it has significantly increased its investments, primarily in infrastructure projects carried out under the BRI framework. For instance, China played a major role in the expansion of the Safra railway project in Touba. Sino-Senegalese relations are also built on cooperation in the energy agricultural, and digital sector.²⁶⁶

5.3.4. Avenues for collaboration with the Netherlands

Senegal-Dutch relations

The Netherlands does not have a multiannual strategy specific to Senegal. However, under its Africa strategy, the Netherlands designated Senegal as a combination country: a state where the Dutch government hopes to establish long-term trade and development partnerships, especially in sectors where Dutch expertise can advance Senegal's green and digital transitions.²⁶⁷ Such partnerships are facilitated by the presence of a Dutch embassy in Dakar, who informs Dutch firms on business opportunities and connects them to Senegalese stakeholders.²⁶⁸ Through Invest International, The Netherlands has supported projects in Senegal focussed, among others, on coastal protection and horticulture.²⁶⁹ The Netherlands Commission for Environmental Assessment, also known as *Commissie Mer*, has also been quite active in Senegal for the past five years. It has directly supported Senegal in the development of its extractive industry, most recently by taking part in a strategic environmental

²⁶³ 'Senegal Closing on Universal Electricity Access', World Bank, 24 January 2025, <https://www.worldbank.org/en/news/feature/2025/01/21/senegal-closing-on-universal-electricity-access>.

²⁶⁴ Ej Atlas, 'Taïba Phosphates Mine in the Fertile Gardening Area of Niayes, Senegal'.

²⁶⁵ World Bank, 'Senegal Closing on Universal Electricity Access'.

²⁶⁶ Anne-Laure Klein, Senegal: Chinese Investors Eye Energy Sector Opportunities, News Articles, 14 June 2024, <https://energycapitalpower.com/senegal-chinese-investors-energy-prospects/>.

²⁶⁷ The Africa Strategy of the Netherlands 2023-2032 (Ministerie van Algemene Zaken, 2023), 41, <https://www.rijksoverheid.nl/documenten/publicaties/2023/08/23/the-africa-strategy-of-the-netherlands-2023-2032>.

²⁶⁸ 'Embassy of the Kingdom of the Netherlands in Senegal: About', LinkedIn, accessed 29 October 2025, <https://www.linkedin.com/company/nlinsenegal/about/>.

²⁶⁹ 'Senegal, Côte d'Ivoire and the Netherlands: How to Conserve and Rehabilitate Biodiversity Together', Ministerie van Landbouw, Natuur En Voedselkwaliteit, 2024, <https://magazines.rijksoverheid.nl/Inv/agrospectals/2024/04/senegal--cote-divoire>.

assessment for the development of the offshore Oil & Gas sector. On the minerals side, it participated in drafting plans for rehabilitations of old quarries but did not take part in any CRM-related projects.²⁷⁰

Some Dutch companies also directly contribute to the development of the Senegalese extractive sector. Dutch dredging giants, Boskalis and Van Oord, worked in Senegal. The former did maintenance work in the Casamance river, ensuring that vessels would be able to travel to the in-land city of Ziguinchor.²⁷¹ The latter participated in a coastal restoration project and, most recently, assisted the company Subsea in the development of the Sangomar Oil & Gas field near Dakar.²⁷² Similarly, Allseas and Fugro were granted contract to work on Senegalese offshore projects.²⁷³

The European Union's partnership with Senegal is rather similar to the Dutch one. The EU is committed to supporting Senegal in their pursuit of a green and inclusive economic growth, as laid out in Senegal's national strategy. Within the Global Gateway program, the EU wishes to assist Senegal in achieving its ambitions regarding the development of its agricultural sector, pharmaceutical industry, universal energy access, urbanisation and digital revolution.²⁷⁴ Officially, the EU does not partner with Senegal regarding CRMs. Senegal does not have any selected strategic projects under the European CRMA nor is there a EU-Senegal MoU on this topic. Still, in the context of the EU-funded horizon project, known as the "Building EU-Africa Partnerships on Sustainable Raw Materials Value Chain" (AfricaMaVal), the European Commission funded in 2024 a report on Senegal's mining potential.²⁷⁵

Entry points for collaboration

While in their written cooperation strategies no parties mention collaborating on CRM related issues, the ambitions of the Netherlands, and more broadly Europe, and Senegal align. In practice, there is interest from both parties to develop the mining industry. For the Netherlands it is primarily driven by a wish to diversify its supply chains while promoting responsible value chains as well as socio-economic benefits from CRM value chains. Senegal is most interested in ensuring the mining sector benefits the people of Senegal and contributes to making its economy more prosperous and sovereign. There is a clear opportunity for the Netherlands and the EU to engage with Senegal's government in achieving their overlapping ambitions.

Senegal positions itself as an attractive economic partner for foreign investors due to its historically stable political situation and lower import and export costs with respect to the rest

²⁷⁰ 'Senegal', NCEA - EN, n.d., accessed 29 October 2025, <https://www.eia.nl/en/countries/senegal/>.

²⁷¹ 'Boskalis Wins EUR 75 Million Worth of Dredging Contracts in Africa', Royal Boskalis Westminster NV, 25 June 2015, <https://boskalis.com/press/press-releases-and-company-news/boskalis-wins-eur-75-million-worth-of-dredging-contracts-in-africa>.

²⁷² 'Empowering Local Communities in Saly', 14 October 2025, <https://www.vanoord.com/en/updates/empowering-local-communities-saly/>; Gora LÔ, 'Sénégal : Van Oord entre dans l'histoire avec une installation record de roches sous-marines', Or Noir Africa, 19 May 2023, <https://ornoirafrica.com/senegal-van-oord-entre-dans-lhistoire-avec-une-installation-record-de-roches-sous-marines/amp/>.

²⁷³ 'Saipem Selects Fugro's InclinoCam® for Precise Pile Positioning Contract Offshore Senegal', Fugro, 11 October 2021, <https://www.fugro.com/news/business-news/2021/saipem-selects-fugros-inclino-cam-for-precise-pile-positioning-contract-offshore-senegal-fugro/>; 'Sénégal/Mauritanie : Allseas décroche un marché d'ingénierie sur le projet pétrogazier Greater Tortue Ahmeyim (GTA)', Agence Ecofin, accessed 29 October 2025, <https://www.agenceecofin.com/hydrocarbures/0610-112483-senegal/mauritanie-allseas-decroche-un-marche-d-ingenierie-sur-le-projet-petrogazier-greater-tortue-ahmeyim-gta>.

²⁷⁴ 'Sénégal - Partenariats internationaux - Commission européenne', European Commission, 21 May 2025, https://international-partnerships.ec.europa.eu/countries/senegal_fr.

²⁷⁵ Pochon and Zammit, D9.3 - SENEGAL Case Study, 8.

Some Dutch companies also directly contribute to the development of the Senegalese extractive sector.

of the region.²⁷⁶ Additionally, the country currency, the West Africa CFA franc, is shared with 8 neighbouring countries and pledged to the euro.²⁷⁷

For the Netherlands to support Senegal in their mining-related ambitions, the country should act relatively quickly while there are still many open doors for entering the sectors. At the moment, the gold and phosphorous rock mining sectors are already quite established, however, the CRM sector is to be developed, and the country is open to engaging with several international actors.

One of the key entry points for the Netherlands and Europe is the assistance in geological data collection. The country has been rather critical of foreign companies not being transparent about their knowledge of Senegal's subsurface. Moreover, Senegal has pointed out that the lack of available up-to-date and comprehensive geological data is one of the main obstacles to attract foreign investment as well as properly negotiate permits.²⁷⁸ Europe possesses the necessary technical knowledge to support the Senegalese government in collecting geological data especially with respect to currently understudied potential CRM reserves.

Moreover, the Netherlands and Europe could support the government in strengthening the monitoring and enforcement of sustainability and local content requirements in its mining legislation. As mentioned above, there are notable gaps between the behaviour of companies in the extractive sector and the legal requirements in terms of sustainable and responsible practices, as well as local employment and procurement. To ensure that the Senegalese government maximises the benefits it can draw from its mining industry, it might need capacity building, technology or other types of support on monitoring and enforcement.

A third entry point is technical assistance in infrastructure development. While the country has a relatively well-developed infrastructure compared to its neighbours, investors still point to infrastructure as one of the main concerns.²⁷⁹ Strengthening the Senegalese infrastructure network would not only benefit the mining sector but also every other sector. The country has already called on foreign investment for numerous infrastructure projects. However, it seems so far, they have mostly attracted non-European investment, apart from France which remains an important player in the country. For example, The UAE has been very active in developing Senegal's port infrastructure whereas China has been a key player in road infrastructure projects.²⁸⁰ Moreover, Senegal has pledged to increase their share of renewable energy in their total energy production, an ambition which is mirrored in the Dutch and EU energy strategy. Enhancing Senegal's energy sovereignty and supporting the country to develop a reliable and strong energy grid can in turn serve the mining sector by reducing operational cost associated with power outages.

²⁷⁶ '2025 Investment Climate Statements: Senegal', U.S. Department of State, 2025, <https://www.state.gov/reports/2025-investment-climate-statements/senegal/>.

²⁷⁷ '2025 Investment Climate Statements: Senegal'.

²⁷⁸ RFI, 'Senegal Sets out to Secure Fairer Partnerships in Mining Sector'.

²⁷⁹ Pochon and Zammit, D9.3 - SENEGAL Case Study, 25–26.s push for economic diversification, the contribution o

²⁸⁰ 'Le Port Du Futur: A USD 1 Billion Investment by DP World in Senegal', ACS Africa Container Shipping | Specialized Logistic Solutions Provider, 7 April 2022, <https://africa-container-shipping.com/en/le-port-du-futur-senegal-dakar/>; 'China Road and Bridge Corporation Signs Senegal MK Expressway Operation Contract--Seetao', Seetao, 11 November 2025, <https://www.facebook.com/sharer/sharer.php?u=https%3A%2F%2Fwww.seetaoe.com%2Fdetails%2F252013.html>.

5.4. Nigeria

Key Takeaways

The mining sector in Nigeria

- Large-scale mining has for a long time been sidelined compared to the dominant oil and gas sectors. It is limited to the extraction of gold, lithium, and barite, despite mineral potential.
- ASM represents 70-90% of the total mining output, including gemstones, gold, manganese, baryte, columbite, tantalite, lead/zinc ore and lithium. More than 80% of ASM operations occur outside of state control and cost the government up to \$9 billion per year in revenue.
- Notable developments are ongoing. First, several Chinese companies are in the process of establishing lithium processing plants in the country. Second, the Nigerian government endorsed a \$400 million investment of Nigerian company Hasetins Commodities Ltd. to establish a rare earth element processing facility in Nasarawa State. Third, the Dubai Investment Fund has been linked to potential investments in rare earth element projects.

Sustainable and responsible value chains

- **Environment:** Both informal and formalised ASM operations continue to have major impacts on the environment, including deforestation, poor soil fertility, risks of landslides and health risks for local communities when harmful chemicals and heavy minerals are released into drinking water sources and pollute the air.
- **Society:** ASM operations are plagued by gender inequalities, child labour, and security dynamics. The government is attempting to formalise the sector by offering small-scale mining licences and incentivising artisanal miners to organise as collectives. Miners struggle to meet legal requirement because they lack the financial means or knowledge to complete administrative procedures.
- **Governance:** While regulations for sustainable and responsible mining exist, implementation and enforcement vary. The allocation of mining licenses, revenue collection and awarding of mining concessions have been characterised by a lack of transparency and corruption.

Socio-economic benefits and autonomy in CRM value chains

- **Local value addition:** Nigeria prohibited the export of raw mineral unless at least 30% of the value addition is done domestically and wishes to establish domestic electric vehicle manufacturing. The government also wants to improve its baryte production capability.
- **Infrastructure:** The transport and energy infrastructure of Nigeria remains an obstacle to the development of the mining sector.
- **Employment:** There is a structural shortage in the availability of skilled labour.
- **Autonomy:** China's involvement in Nigeria's CRM sector is increasingly evident. China has been granted the right to establish an EV manufacturing in Nigeria and is already the main importer of Nigerian lithium, while also in the process of establishing a local processing plant. Additionally, in July 2025, the two countries launched a new partnership under the auspices of a \$20 billion Chinese investment covering Nigeria's agriculture, mining, automotive, steel, and energy sectors. This comes after China has already participated in several transport infrastructure projects.

Avenues for collaboration with the Netherlands

- **The short-term priority** would be to invest in processing and refining to connect Nigeria's dominant ASM sector with global and European CRM value chains, while offering professional training programmes to strengthen the formalisation of ASM.
- **Additionally,** activities could focus on supporting infrastructure development to facilitate the transportation of raw and processed materials and address energy grid constraints to enable the development of larger-scale mining operations and processing facilities.

5.4.1. The mining sector in Nigeria and CRM ambitions

Evolution of the mining sector

From the start of large-scale mining operations in the late 19th century up until the 1960s, Nigeria developed itself as a major exporter of tin, columbite and coal. At the time of Nigeria's independence from British colonial rule in 1960, the mining sector contributed approximately 4-5% to the country's GDP.²⁸¹

The discovery of crude oil and gas in the 1960s, however, prompted a shift away from the mining of solid minerals. By the mid-1970s, crude oil exports had become the dominant source of income for the country, representing more than 90% of Nigerian foreign exchange earnings.²⁸² Meanwhile, the new emphasis on oil and gas extraction, political instability and civil war (1967-1970), resulted in an abandonment of operations by both foreign mining companies as well as indigenous miners. Oil became the backbone of Nigeria's economy, with the mining sector's contribution to Nigerian GDP falling to less than 1% throughout the period 1970-1990.²⁸³

When international oil prices began to dwindle in the mid-1980s, it became clear that Nigeria's oil-dependency posed a major risk to the stability of the country's economy and government revenues. The country went through a major economic downturn throughout the 1980s. While austerity measures – stimulated by the international community – improved the country's economic performance, its citizens were hit hard by cutbacks on public service provision and sharp declines in purchasing power.²⁸⁴

The economic downturns of the 1980s prompted ambitions for economic diversification into the agricultural and manufacturing sectors but also reignited interest into the development of the mining sector. In 1999, the newly established Ministry of Solid Minerals (1995) introduced the Minerals and Mining Law that replaced the fragmented legal regime stemming back to 1946.²⁸⁵ In the decade that followed, more reforms and initiatives aimed to liberalise the solid mining sector in order to attract foreign investment and boost the sectors contribution to the country's national GDP. With the introduction of the 2007 Minerals and Mining Act, the government tried to consolidate these efforts with further liberalisations, tax exemptions and security guarantees for foreign mining companies. Despite these efforts, the sector's contribution to national GDP remained at 0.33% in 2015.²⁸⁶

In 2016, the government developed a new *'Roadmap for the Growth & Development of the Nigerian Mining Industry'* that set out to increase the sector's GDP contribution to 3% by 2025. To achieve this goal, the roadmap identified a range of barriers and ambitions including improving the quality and breath of geoscientific data, streamlining regulatory frameworks and enforcement, and developing enabling infrastructure that could accelerate the growth of

²⁸¹ PwC, 'Nigerian Mining – Progress, but Still a Long Way to Go', July 2023, 3, <https://www.pwc.com/ng/en/publications/nigerian-mining-progress-but-still-a-long-way-to-go.html>.

²⁸² Ayomide Adekilekun, 'Nigeria's 1970s Oil Boom and Its Lasting Impact', Historical Nigeria, 9 October 2025, <https://historicalnigeria.com/nigerias-oil-boom-of-the-1970s-economic-transformation-and-consequences/>.

²⁸³ M.A. Olade, 'Solid Mineral Deposits and Mining in Nigeria: A Sector in Transitional Change', *ACHIEVERS JOURNAL OF SCIENTIFIC RESEARCH* 2, no. 1 (2019): 2.

²⁸⁴ World Bank, 'Nigeria - Structural Adjustment Program : Policies, Implementation, and Impact', 13 May 1994, <https://documents.worldbank.org/en/publication/documents-reports/documentdetail>.

²⁸⁵ O A Odiase-Alegimenlen, 'New Regime for Solid Mineral Development in Nigeria', *Journal of Energy & Natural Resources Law* 19, no. 4 (2001): 344–63, <https://doi.org/10.1080/02646811.2001.11433243>.

²⁸⁶ Ministry of Mines and Steel Development, *Roadmap for the Growth and Development of the Nigerian Mining Industry*, Working Paper (Ministry of Mines and Steel Development, 2016), 12, <http://ngfrepository.org.ng:8080/jspui/handle/123456789/6739>.

the sector. Additionally, the roadmap set out to improve the environmental sustainability of the sector, to build technical and managerial skills of local workers, and to tackle the exploitation of women and children in mining operations.²⁸⁷ While the mining sector has seen growth in absolute terms in the years that followed, its relative contribution to Nigeria's GDP remains less than 0,5% in the first three quarters of 2024.²⁸⁸

With the original 2016 roadmap for the development of the mining sector coming to an end, the Minister of Solid Minerals Development has announced that a new roadmap is under development. This strategy – the Solid Minerals Development Roadmap (2025-2035) – will emphasise the development of extraction and processing of minerals that contribute to renewable energy and green technology value chains such as lithium and nickel.²⁸⁹

Like other countries in the region, Nigeria is also seeking to increase the local value-added of its mineral sector. In 2021, the government approved the Mineral Value Chain Regulations that aims to boost the country's midstream subsector by mandating local processing and refining of solid minerals such as gold and lithium.²⁹⁰ In 2025, this regulation was followed by the so-called '30% value-addition bill' that prohibits the export of raw materials with a local value-added of less than 30%.²⁹¹

Additionally, the roadmap will remain focussed on the development of enabling factors such as improved infrastructure and human capital, strengthening governance and environmental compliance, supporting the formalisation of ASM and increasing the local value-added of the sector.²⁹²

The mining sector in 2025

Nigeria is often described as a mineral-rich country that houses over 40+ different minerals spread out over the country, and it is dominated by ASM. ASM is reported to represent 70-90% of the mining sector's output, primarily when it comes to the extraction of gemstones, gold, manganese, baryte, columbite, tantalite, lead/zinc ore and lithium.²⁹³ At least 80% of these activities operate outside of state control, resulting in a loss of government revenues of \$9 billion every year.²⁹⁴ Furthermore, ASM activities are linked to funding of armed groups,

²⁸⁷ Ministry of Mines and Steel Development, Roadmap for the Growth and Development of the Nigerian Mining Industry, 13–15.

²⁸⁸ National Bureau of Statistics, 'National Gross Domestic Product Q3 2024', November 2024, <https://www.nigerianstat.gov.ng/elibrary/read/1241593>; 'Mining and Quarrying' excluding the extraction of Crude Petroleum and Natural Gas.

²⁸⁹ Kazeem Biriwo, 'Nigeria's Mining Sector Records 4.85% Growth in 2024', Zawya, 16 October 2025, <https://www.zawya.com/en/economy/africa/nigerias-mining-sector-records-485-growth-in-2024-n3n6jcoe>.

²⁹⁰ KPMG, 'Nigerian Mining Sector Brief: Fourth Edition', 7 June 2024, 5–6, <https://kpmg.com/ng/en/home/insights/2024/06/nigerian-mining-sector-brief.html>; Energy Capital & Power, 'Nigeria's Mining Reforms: Unlocking Investment and Growth', 13 March 2025, <https://energycapitalandpower.africa-newsroom.com/press/nigerias-mining-reforms-unlocking-investment-and-growth>.

²⁹¹ Sodiq Omolayo, 'Reps Pass Bill to Ensure 30% Local Value Addition before Raw Material Export', The Guardian Nigeria News - Nigeria and World News, 30 October 2025, <https://guardian.ng/news/nigeria/national/reps-pass-bill-to-ensure-30-local-value-addition-before-raw-material-export/>.

²⁹² Samuel Anyanwu, 'FG Plots New Roadmap for Solid Minerals Development', Federal Ministry of Information and National Orientation, 15 August 2025, <https://fmino.gov.ng/fg-plots-new-roadmap-for-solid-minerals-development/>.

²⁹³ United Nations Development Programme, 'Transforming Nigeria's Artisanal and Small-Scale Mining Sector for Resource Mobilization and Sustainable Development', 14 August 2025, <https://www.undp.org/nigeria/publications/transforming-nigerias-artisanal-and-small-scale-mining-sector-resource-mobilization-and-sustainable-development>; Quintessence Environmental Consult, Reforming Nigeria's Artisanal and Small-Scale Mining Sector: A Path to Sustainable Livelihoods, Life on Land, 6 October 2025, <https://www.consultqe.com/reforming-nigerias-artisanal-and-small-scale-mining-sector-a-path-to-sustainable-livelihoods/>.

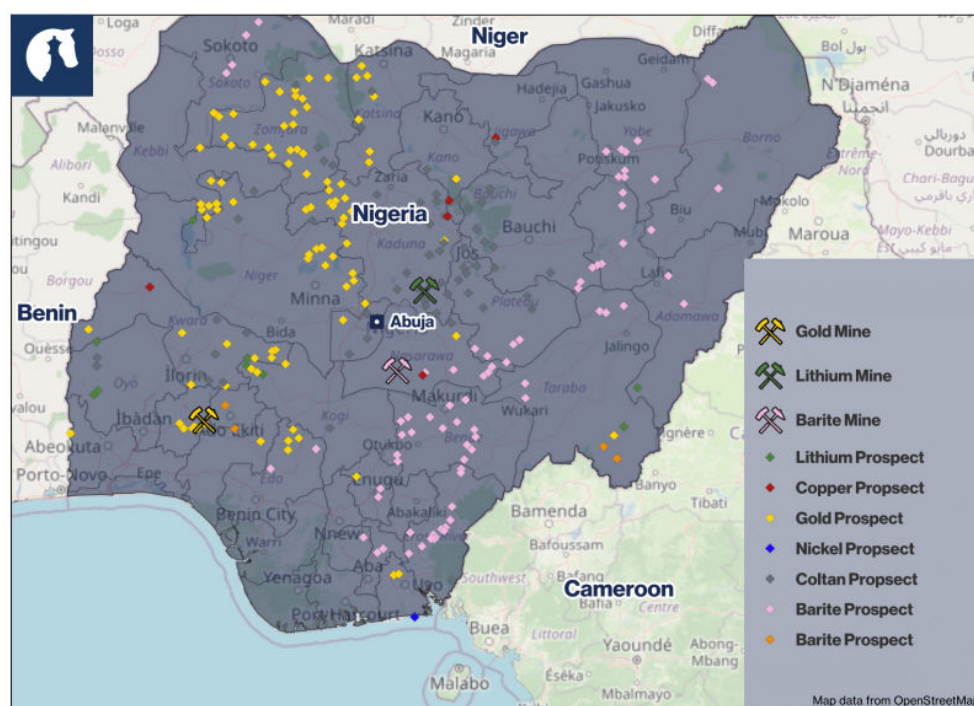
²⁹⁴ Dirisu Yakubu, 'Nigeria Losing \$9bn Yearly to Illegal Mining- Reps C'ttee', Punch Newspapers, 15 July 2024, <https://punchng.com/nigeria-losing-9bn-yearly-to-illegal-mining-reps-cttee/>; Aisha Mohammed, Unlearning the Colonial Roots of Illegal Mining, Illegal Mining, 29 November 2024, <https://nigerianmining.com/unlearning-the-colonial-roots-of-illegal-mining/>.

ASM is reported to represent 70-90% of the mining sector's output.

intercommunal tensions, exploitation of children and women, and negative environmental impacts.²⁹⁵ The government's formalisation efforts aim to counter these negative effects, focussing on the introduction of cooperative models and registration, government backed low-interest loans, capacity building and environmental training, and the establishment of mineral buying centres across regions.²⁹⁶ The latter ambition is supported by the Presidential Artisanal Gold Mining Initiative (PAGMI), established in 2022, that purchases gold directly from artisanal miners, selling it on the international market after processing.²⁹⁷

While Nigeria's mining sector is dominated by ASM, large-scale mining operations have been in development of the past decade (see Figure 10 and Table 6). As part of the government's efforts to revitalise the mining sector, these developments initially focussed on seven priority minerals: coal, lead/zinc, iron ore, gold, bitumen, baryte and limestone.²⁹⁸ With the government's newly established emphasis on green technology value chains, lithium and nickel are poised to be added to this list.²⁹⁹

Figure 10. Mineral Resources in Nigeria



²⁹⁵ Quintessence Environmental Consult, Reforming Nigeria's Artisanal and Small-Scale Mining Sector.

²⁹⁶ Nigeria Sovereign Investment Authority, '(PAGMI) Presidential Artisanal Gold Mining Initiative', Nigeria Sovereign Investment Authority, accessed 18 November 2025, <https://nsia.com.ng/portfolio/presidential-artisanal-gold-mining-initiative-pagmi/>.

²⁹⁷ Nigeria Sovereign Investment Authority, '(PAGMI) Presidential Artisanal Gold Mining Initiative'.

²⁹⁸ Ministry of Mines and Steel Development, Roadmap for the Growth and Development of the Nigerian Mining Industry, 19.

²⁹⁹ KPMG, 'Nigerian Mining Sector Brief', 9.

Table 6. Large-scale mines in Nigeria 2025. Source: Ministry of Solid Minerals Development of Nigeria³⁰⁰

Material	Mine	Status	Company	Country ³⁰¹
Gold	Segilola Gold Project	Operational	Thor Explorations Ltd.	Headquartered in Canada
Barite	Azara	Operational	Nigerian Mining Corporation (NMC)	Headquartered in Nigeria
Lithium	Jupiter Minerals Project	Operational	Jupiter Lithium & ReElement Technologies	Headquartered in the United Kingdom and the United States respectively

The gold sector is a prime example of the development of large-scale operations across the value chain, ranging from extraction to processing. In 2022, Canadian-listed mining company Thor Explorations Ltd. commenced the first large-scale gold mining operation in the country with the Segilola Gold Project. By 2024, the mine had established an average output of 2.6 tons of gold per year.³⁰² Similarly, the Nigerian owned Kian Smith Gold Refinery was the first company to ever receive a gold refinery licence in Nigeria, with an initial processing capacity of 3 tons per month that could be expanded to 10 tons within five years of operation.³⁰³ While large-scale mining operations have commenced, artisanal and small-scale gold mining remains a major factor in the sector's activity with an estimated extraction (declared and non-declared) of 17 tons per year.³⁰⁴

With the global demand for lithium rising, opportunities may arise to introduce larger-scale operations that tap into Nigeria's lithium belt, that houses significant high-grade deposits reaching 13% lithium oxide.³⁰⁵ Similar to the gold sector, current extraction of lithium is concentrated in the informal ASM sector. UK-based Jupiter Lithium and US-owned ReElement Technologies are the first to establish large-scale lithium mining operations in the country, with an expected production of lithium spodumene concentrate of 167.000 tons annually in two years.³⁰⁶

Several Chinese companies have been in the process of establishing lithium processing facilities in recent years. In 2023, the Nigerian government approved the Chinese Ming Xin Mineral Separation Ltd. to establish the country's first lithium processing plant in Kaduna state. A decision that came only five months after the government rejected a proposal by Tesla to import raw lithium from the country, clearly signalling Nigeria's strategic focus on the local value-added of mining operations.³⁰⁷ Since then, several other Chinese companies have opened or

³⁰⁰ 'Mine Sites in Nigeria', accessed 5 December 2025, <https://www-tltest.arcgis.com/apps/dashboards/b5007db3c0134a47a99d41e998b04d7b>.

³⁰¹ The countries shown in this table refer to the jurisdictions where the main shareholding companies operating the mines are headquartered.

³⁰² 'Segilola Gold Project', Thor Explorations Ltd., accessed 18 November 2025, <https://thorexpl.com/projects/segilola-gold-project/>.

³⁰³ 'Kian Smith Gold Refinery (Nigeria)', Expedite Africa, 1 November 2025, <https://www.expediteafrica.com/gold-market-updates/kian-smith-gold-refinery-nigeria/>.

³⁰⁴ SWISSAID, 'Nigeria', African Gold Report, accessed 18 November 2025, <https://africangoldreport.org/nigeria>.

³⁰⁵ 'China Secures Lithium Foothold in Nigeria amid Beneficiation Push', NTU-SBF Centre for African Studies (CAS), 29 July 2025, <https://www.ntu.edu.sg/cas/news-events/news/details/china-secures-lithium-foothold-in-nigeria-amid-beneficiation-push>.

³⁰⁶ Batteries Batteries International, Nigeria Welcomes First Large-Scale Lithium Mining, 24 July 2024, <https://www.batteriesinternational.com/2024/07/24/nigeria-welcomes-first-large-scale-lithium-mining/>.

³⁰⁷ Temitayo Lawal, 'China Beats Tesla to Nigeria's Lithium Riches', Rest of World, 20 February 2023, <https://restofworld.org/2023/nigeria-lithium-processing-ev/>.

announced the development of lithium processing facilities representing \$1.3 billion in investments since 2023 according to the Nigerian government.³⁰⁸

In 2016, Australian mining firm Comet Mining – owned by Hugh Morgan – discovered high-grade nickel in Kaduna state.³⁰⁹ Likewise, the National Geological Survey Agency has confirmed the presence of 5 million tons of nickel deposits, concentrated in the north of the country. Despite these discoveries, a lack of infrastructure development and investments is said to have hindered the growth of the nickel sector.³¹⁰

Similarly, the growth of industrial-scale extraction of baryte has been challenged by poor infrastructural development, environmental and security concerns, and outdated geological data. As a result, Nigeria's yearly baryte production has peaked at 20,000 tons per year in 2010, with lower or unknown production numbers in the years that followed.³¹¹ These modest production numbers stand in stark contrast with Nigeria's substantial baryte reserves, that are estimated at 23 million tons. The underdevelopment of Nigeria's baryte sector is especially remarkable given the mineral's crucial function as weighting agent in the country's oil industry. Despite holding major deposits, the country imports 13,000 tons of baryte annually to fulfil domestic demand for this sector.³¹²

In addition to the critical minerals discussed above, occurrences of other critical minerals such as manganese, copper and rare earth elements have been reported. It remains unclear, however, whether these occurrences represent commercially viable deposits. Although geological surveying across the country is incomplete, the absence of major mineral deposits could be attributed to Nigeria's geological structure that has been less favourable to the development of large-scale deposits compared to other West-African states.³¹³ Finally, Nigeria's ASM sector is reported to contribute around 13% of global tantalum production.³¹⁴

Even though the exact size of some mineral occurrences remain unclear, in 2025 the Nigerian government endorsed a \$400 million investment of Hasetins Commodities Ltd. to establish a rare earth element processing facility in Nasarawa State, doubling its processing capacity to 12,000 tons annually.³¹⁵ Similarly, the Dubai Investment Fund has been linked to potential investments in the country's rare earth element and niobium mining operations, though exact details of the investment are unknown.³¹⁶

³⁰⁸ Mary Izuaka, 'Chinese Companies Inject \$1.3 Billion into Nigeria's Lithium Processing in Two Years', 27 October 2025, <https://www.premiumtimesng.com/business/business-news/831069-chinese-companies-inject-1-3-billion-into-nigerias-lithium-processing-in-two-years-minister.html>.

³⁰⁹ Ben Ezeamalu, 'Nickel Discovery in Nigeria "Extraordinary" – Australian Mining Firm', Premium Times Nigeria, 13-09-20216, <https://www.premiumtimesng.com/news/headlines/210345-nickel-discovery-nigeria-extraordinary-australian-mining-firm.html?tztc=1>.

³¹⁰ Skyline University Nigeria, 'Overview of the Occurrence of Nickel in Nigeria', 11 April 2023, <https://sun.edu.ng/overview-of-the-occurrence-of-nickel-in-nigeria/>.

³¹¹ Abraham Ighoro Ebunu et al., 'Barite as an Industrial Mineral in Nigeria: Occurrence, Utilization, Challenges and Future Prospects', *Heliyon* 7, no. 6 (2021): 4, 10, <https://doi.org/10.1016/j.heliyon.2021.e07365>.

³¹² Nkechi Isaac, 'Time To Commence Barite Production In Nigeria', *Science Nigeria*, 24 May 2021, <https://sciencenigeria.com/time-to-commence-barite-production-in-nigeria/>.

³¹³ Olade, 'Solid Mineral Deposits and Mining in Nigeria: A Sector in Transitional Change', 7–9.

³¹⁴ Kathryn Sturman et al., *Mission Critical* (EITI, 2022), 99, <https://eiti.org/documents/mission-critical>.

³¹⁵ Hauwa Abubakar Anaja, 'Rare Earth Minerals Project to Launch in Nigeria with \$400m Investment', *Voice of Nigeria Broadcasting Service*, 22 June 2025, <https://von.gov.ng/rare-earth-minerals-project-to-launch-in-nigeria-with-400m-investment/>.

³¹⁶ 'Investment Giant DIF Backs Niobium Mining Projects in Nigeria and Brazil', *The Nation Newspaper*, 17 October 2022, <https://thenationonlineng.net/investment-giant-dif-backs-niobium-mining-projects-in-nigeria-and-brazil/>.

The next two sections zoom in on dimensions of revised supply chains in Nigeria – sustainable and responsible value chains, and socio-economic benefits and autonomy in CRM value chains. These two dimensions are evaluated with the goal of identifying entry points for collaboration with the Netherlands.

5.4.2. Sustainable and responsible value chains

Nigeria's mining sector is dominated by ASM, although large-scale mining and refining operations are starting to develop and are becoming operational. The growth of Nigeria's critical mineral sector is likely to consist of a two-pronged approach in which formalisation efforts of ASM are combined with the development of industrial-scale mining and refining operations. The following section will discuss the challenges for the development of sustainable and responsible value chains in both respects.

With the introduction of the 2007 Minerals and Mining Act, the Nigerian government introduced the legal requirement for ASM miners to obtain a Small-Scale Mining Lease (SSML) from the government. These 5-year leases allow for mining operations with low-level technology or expenditures in areas smaller than 3 km².³¹⁷ Efforts to formalise the sector gained momentum with the introduction of the earlier discussed Presidential Artisanal Gold Mining Initiative (PAGMI), that is reported to have enrolled 11,500+ ASMs over the past years.³¹⁸ Similarly, the EITI reports that 393 ASM cooperatives – representing 4663 miners – were identified in 2023 alone.³¹⁹ These numbers stand in stark contrast, however, with the estimated 400,000 individuals that are active in the ASM sector.³²⁰

The disparity between these numbers points to persistent barriers to the formalisation of ASM in Nigeria, some of which can be found in the country's legal and regulatory framework.³²¹ While individual artisanal miners are legally able to apply for a SSML, steep registration fees and administrative burdens prevent many – especially those from poor communities – to initiate a formalisation process. This dynamic is further exacerbated by the government's emphasis on the formation of cooperative models between artisanal miners. These cooperatives have easier access to SSMLs and are offered additional services by the ministry's ASM department in relation to exploration, mineral processing, capacity building and environmental management. However, many artisanal miners lack awareness of the requirements and benefits of cooperatives, face significant registration costs, or are already organised in informal collectives unrecognised by the state. Addressing these challenges could require awareness campaigns promoting the benefits of cooperative models and the introduction of an Artisanal Mining License.³²²

³¹⁷ KPMG, 'Nigerian Mining Sector Brief', 18.

³¹⁸ Amos, '11,547 Artisanal Miners Registered to Formalise Gold Mining', The Guardian Nigeria News - Nigeria and World News, 4 January 2024, <https://guardian.ng/business-services/11547-artisanal-miners-registered-to-formalise-gold-mining/>.

³¹⁹ EITI, 'Nigeria 2023 EITI Report - Mining', EITI, 30 October 2024, 112, <https://eiti.org/documents/nigeria-2023-eiti-report-mining>.

³²⁰ Delve, 'Nigeria', Delve, accessed 19 November 2025, <https://www.delvedatabase.org/data/countries/nigeria>.

³²¹ United Nations Development Programme, 'Transforming Nigeria's Artisanal and Small-Scale Mining Sector for Resource Mobilization and Sustainable Development', 3–4.

³²² Environmental Law Institute, Artisanal and Small-Scale Gold Mining in Nigeria: Recommendations to Address Mercury and Lead Exposure (Environmental Law Institute, 2014), 29–40, <https://www.eli.org/research-report/artisanal-and-small-scale-gold-mining-nigeria-recommendations-address-mercury-and-lead-exposure>.

The growth of Nigeria's critical mineral sector is likely to consist of a two-pronged approach in which formalisation efforts of ASM are combined with the development of industrial scale mining and refining operations.

ASM remains deeply intertwined with criminal activities in Nigeria, especially in the north-west of the country.

The continued dominance of informal ASM poses a threefold challenge to the development of sustainable and responsible supply chains. First, ASM remains deeply intertwined with criminal activities in Nigeria, especially in the north-west of the country. Illegal (gold) mining has become a source of revenue for banditry groups and criminal networks, while armed groups have been reported to tax artisanal miners in exchange for protection.³²³ These networks expand beyond Nigeria, as illicit gold and lithium is smuggled across borders through Niger, Benin and Togo to, among others, Dubai and China.³²⁴ Boko Haram has played a major role in this respect, having financed its operations in northern Nigeria with gold trade alongside other sources of revenue.³²⁵ Local communities are hit hardest by these activities, as banditry groups engage in village raids, highway robbery, kidnapping and cattle rustling.³²⁶ Additionally, the absence of state oversight and enforcement allows foreign individuals – most notably Chinese – to establish illegal mining operations.³²⁷

Second, ASM operations are still plagued by gender inequalities and child labour. In general, women participate in the less lucrative aspects of mining operations, including ore processing through crushing or washing, food provision and transport.³²⁸ While such activities offer women otherwise absent employment opportunities, participation in the mining sector alone is often not enough to provide economic security and sustain a livelihood. A study on the involvement of women in Nasarawa and Benue States' artisanal mining sector reveals several barriers to deeper integration of women in the mining sector, including traditional landownership of men, limited access to financial resources and low literacy.³²⁹

In addition to the marginalisation of women, children remain involved in the mining sector, for example in digging operations, accessing tight spaces and processing of minerals. A recent study found that across lithium mining sites in three states, on average 36.7% of active miners were under-age. According to the authors, these children face the consequences of community dependence on mineral extraction, weak regulatory frameworks and a lack of educational opportunities.³³⁰ Additionally, child labour in artisanal mining is closely intertwined with the instability of agricultural livelihoods. According to the International Labour Organization, most children active in the sector originate from poor families that are faced with increasingly lower agricultural outputs.³³¹

³²³ Tobi Tunji, 'How Illegal Mining Threatens Nigeria's Economic Diversification Dream', *verivAfrica*, 12 May 2025, <https://www.verivafrika.com/insights/how-illegal-mining-threatens-nigerias-economic-diversification-dream>.

³²⁴ John Sunday Ojo et al., 'Forces of Terror: Armed Banditry and Insecurity in North-West Nigeria', *Democracy and Security* 19, no. 4 (2023): 331–32, <https://doi.org/10.1080/17419166.2023.2164924>.

³²⁵ Waziri Adisa, 'TRANSNATIONAL ORGANIZED CRIME, TERRORIST FINANCING AND BOKO HARAM INSURGENCY IN NIGERIA', *Journal of Terrorism Studies* 3, no. 1 (2021): 14–19, <https://doi.org/10.7454/jts.v3i1.1028>.

³²⁶ Maurice Ogbonnaya, *Illegal Mining and Rural Banditry in North West Nigeria: Responses, Successes and Challenges* (Enact, 2020), <https://enactafrica.org/research/policy-briefs/illegal-mining-and-rural-banditry-in-north-west-nigeria-responses-successes-and-challenges>.

³²⁷ Freedom Onuoha and Oluwale Ojewale, 'Illegal Mining by Chinese Actors Complicates Nigeria's Criminal Landscape', *ENACT Africa*, 13 December 2023, <https://enactafrica.org/enact-observer/illegal-mining-by-chinese-actors-complicates-nigeria-s-criminal-landscape>.

³²⁸ Delve, 'Nigeria'.

³²⁹ A. Ebele Udeoji et al., 'AN EXPLORATORY STUDY OF THE SOCIO-ECONOMIC DYNAMICS OF WOMEN'S PARTICIPATION IN THE MINING INDUSTRY IN NASARAWA AND BENUE STATES, NIGERIA', *Advance Journal Of Arts, Humanities and Social Sciences* 7, no. 5 (2024): 135–37.

³³⁰ Uchenna Evelyn Abunike and Ibe Rosemary Chinyere, 'THE NEXUS OF ILLEGAL MINING AND CHILD LABOR IN NIGERIA'S LITHIUM INDUSTRY: SOCIOECONOMIC AND ENVIRONMENTAL CONSEQUENCES', *ESTAGA: JOURNAL OF INTERDISCIPLINARY PERSPECTIVES* 2, no. 1 (2025): 38, <https://acjol.org/index.php/estaga/article/view/6744>.

³³¹ International Labour Organization, *Child Labour in the Artisanal and Small-Scale Gold Mining (ASGM) Sector in Nigeria: A Situational Analysis* (International Labour Organization, 2023), 30, <https://www.ilo.org/publications/child-labour-artisanal-and-small-scale-gold-mining-asgm-sector-nigeria>.

Third, both informal and formalised ASM operations continue to have major impacts on the environment. Deforestation and soil erosion lead to poor soil fertility and reduce the availability of arable land, while simultaneously increasing the risk of landslides and flooding. Furthermore, improper waste management leads to health risks for local communities when harmful chemicals and heavy minerals are released into drinking water sources and pollute the air.³³² The consequences of similar mining practices from the past are still being felt in Plateau State decades later, where farmers are faced with lower crop yields, loss of biodiversity and continued erosion of the landscape.³³³

A particular problem faced by ASM is the lack of access to official buying centres, resulting in artisanal miners selling their ores at a fraction of international market prices to private Mineral Buying Centres.³³⁴ With the Presidential Artisanal Gold Mining Initiative, the government has already started an effort to address these inequities in the gold sector. Similar initiatives could improve revenue retention and traceability in the lithium sector. Official buying centres could also form a legitimate link between the – increasingly formalised – ASM sector and larger-scale processing and refining facilities.

While few large-scale mining and processing operations are active to inform the sustainability and responsibility of large-scale operations in Nigeria, the earlier discussed Chinese lithium processing plant in Kaduna state provides an example. According to local residents, the processing facility has not established legally mandated community development agreements with neighbouring communities and has not delivered on verbal promises of local job creation, renovation of school and health facilities, and infrastructural development. Additionally, the facility's washing pits overflow during heavy rainfalls, polluting nearby dam waters with harmful chemicals.³³⁵ This example demonstrates that while regulations for sustainable and responsible mining exist, implementation and enforcement may vary.

In addition to the underdevelopment of enabling factors discussed in the following section, the growth of larger-scale mining operations has been hindered by the sector's regulatory framework. The allocation of mining licenses, revenue collection and awarding of mining concessions have been characterised by a lack of transparency, serving as a breeding ground for corruption. These unstandardised and opaque procedures erode potential investor's trust in the country's mining sector.³³⁶ Potential investors are also faced by a fragmented fiscal framework for the taxation of mining operations, creating unclarity about the precise tax incentives that may apply.³³⁷ Finally, the execution of mining rights remains scattered across federal, state and local governments. Although the federal government awards mining licenses, state governments are responsible for issuing a certificate of occupancy for site access, while community-level approval may also be required for land use.³³⁸

³³² EITI, 'Nigeria 2023 EITI Report - Mining', 172–73.

³³³ Justice Nwafor, 'Decades After Mining Ceased, Communities in Plateau State, Nigeria, Still Suffer Environmental Impacts—Part 1', Earth Journalism Network, 3 July 2023, <https://earthjournalism.net/stories/decades-after-mining-ceased-communities-in-plateau-state-nigeria-still-suffer-environmental>.

³³⁴ United Nations Development Programme, 'Transforming Nigeria's Artisanal and Small-Scale Mining Sector for Resource Mobilization and Sustainable Development', 3.

³³⁵ Vivian Chime and Yakubu Mohammed, 'Nigeria's Push to Cash in on Lithium Rush Gets off to a Rocky Start', Climate Home News, 8 July 2025, <https://www.climatechangenews.com/2025/07/08/nigerias-push-to-cash-in-on-lithium-rush-gets-off-to-a-rocky-start/>.

³³⁶ Chisom F. Onuoha et al., 'Regulatory Frameworks and Enforcement Mechanisms in Nigerian Mining Laws: Challenges and Solutions', 2024 International Conference on Science, Engineering and Business for Driving Sustainable Development Goals (SEB4SDG), April 2024, 1–6, <https://doi.org/10.1109/SEB4SDG60871.2024.10630027>.

³³⁷ KPMG, 'Nigerian Mining Sector Brief', 8.

³³⁸ PwC, 'Nigerian Mining – Progress, but Still a Long Way to Go', 26.

Efforts to enhance efficiency and transparency are underway, including the development of eMC+ – an automated cadastral system for mineral title administration – and proposed reforms of the mining code designed to strengthen transparency, investor confidence and local content requirements.³³⁹

A final challenge facing the development of large-scale mining operations is a sense of the commercial viability of mineral occurrences in Nigeria. The sector still faces a lack of adequate, accessible and up-to-date geological data.³⁴⁰ While the Nigerian Geological Survey Agency introduced an online tool for investors to access geoscientific and economic data in 2024, this Nigerian Mineral Resources Decision Support System was not accessible over the course of this research (November 2025).³⁴¹ With an annual spending of \$2.5 million on exploration, it is estimated that an additional \$70 million of yearly investments is needed to conduct adequate geological surveys and exploratory drilling.³⁴²

5.4.3. Socio-economic benefits and autonomy in CRM value chains

In recent years, the Nigerian government has increasingly prioritised expanding the local value-added of the mining sector. As previously mentioned, its latest efforts include the prohibition of raw mineral export unless 30% of value is added through domestic processing. The export of raw minerals remains dominant, however, with China representing Nigeria's largest export market valued at \$111.8 million in 2023, followed by Malaysia (\$59.1 million), and neighbouring countries Niger (\$23.5 million) and Togo (\$16.2 million).³⁴³ Export to China includes among others gold, lithium and manganese. Smaller amounts of lithium are also exported to Malaysia, Niger and Spain. Export statistics are not fully complete, however, due to illegal smuggling of gold and lithium cross the country's borders, and a lack of collaboration between the Nigerian Customs Service and the Ministry of Solid Mineral Development.³⁴⁴

When it comes to the development of broader downstream supply chains, one of Nigeria's focal points is the establishment of domestic electric vehicle manufacturing. In November 2025, the Senate approved the Electric Vehicle Transition and Green Mobility Bill that combines ambitions for a sustainable future with opportunities for economic growth and job creation in EV manufacturing. The bill provides incentives for EV adoption and mandates foreign EV manufactures to collaborate with local manufactures, stipulating that 30% of EV components must be sourced locally.³⁴⁵ In doing so, the country aims to leverage its lithium, nickel and manganese reserves that play a crucial role in battery supply chains.

³³⁹ 'Nigeria's Mining Reforms: Unlocking Investment and Growth', African Business, 13 March 2025, <https://african.business/2025/03/apo-newsfeed/nigerias-mining-reforms-unlocking-investment-and-growth>.

³⁴⁰ KPMG, 'Nigerian Mining Sector Brief', 6.

³⁴¹ 'Nigerian Mineral Resources Decision Support System', Ministry of Mines and Steel, accessed 18 November 2025, <https://miningdecision.minesandsteel.gov.ng/nmrds/>.

³⁴² Oluwatola, 'Developing Nigeria's Critical Minerals Industry to Support Global Energy Transition', African Policy Research Institute, 25 September 2025, <https://afripoli.org/developing-nigerias-critical-minerals-industry-to-support-global-energy-transition>.

³⁴³ 'Nigeria Minerals Exports by Country 2023', World Integrated Trade Solution, accessed 20 November 2025, https://wits.worldbank.org/CountryProfile/en/Country/NGA/Year/2023/TradeFlow/Export/Partner/by-country/Product/25-26_Minerals.

³⁴⁴ EITI, 'Nigeria 2023 EITI Report - Mining', 106–11.

³⁴⁵ Grace Ashiru, 'Nigerian Senate Approves Bill for Electric Vehicle Transition, Paving the Way for Green Mobility', Tech In Africa, 10 November 2025, <https://www.techinafrica.com/nigerian-senate-approves-bill-for-electric-vehicle-transition-paving-the-way-for-green-mobility/>.

Development of the baryte supply chain is recognised as another priority by the Nigerian government. As one of its strategic minerals, processed baryte is crucial as a weighting agent in the country's oil industry.³⁴⁶ With the 'made-in-Nigeria baryte' initiative launched in 2021, the government aimed to boost local extraction and processing of the abundant mineral, reducing its dependency on imports from China and Morocco.³⁴⁷ As part of its efforts to grow the industry and formalise artisanal and small-scale baryte mining, the government commissioned a baryte processing plant in Cross River State in 2023.³⁴⁸ Beyond its use in the oil industry, baryte feeds into medical supply chains with applications in diagnostic imaging and radiation shielding.³⁴⁹

It is in the beforementioned field of green mobility that China's involvement in Nigeria's mineral sector becomes apparent. Just weeks before the passing of the bill, the Federal Government granted China approval to establish EV manufacturing plants in the country.³⁵⁰ Although the announcement was not accompanied by concrete initiatives or plans, it reflects China's broader ambitions to secure global EV supply chains, including in Nigeria. For several years, China has been Nigeria's largest export market for lithium and, as previously discussed, several Chinese companies have been in the process of establishing lithium processing plants in the country. In July 2025, the Nigeria-China Partnership announced an additional \$20 billion of investments pledged by Chinese companies for agriculture, mining, automotive, steel and energy sectors.³⁵¹ Finally, Nigeria has seen multiple Belt and Road Initiatives (BRI) including the construction of several railways linking up economic and administrative centres and the development of international airport terminals in Abuja and Kano.³⁵² As a result, Nigeria's total debt to China has now reached over \$5 billion, representing roughly 5% of the country's total domestic and foreign debt.³⁵³

Although major infrastructural projects have been completed, Nigeria's transport and energy infrastructure remains a bottleneck for the further development of its mining sector.³⁵⁴

In 2014, the government introduced the National Integrated Infrastructure Masterplan to address these constraints. However, the country's economic volatility, spurred by its oil dependency, has resulted in inadequate and inconsistent funding for infrastructural development. The energy sector remains a specific bottleneck, with outdated facilities and limited capacity for energy generation and distribution.³⁵⁵ Additionally, the country's port infrastructure is plagued by port congestions and ship waiting times of up to a month.³⁵⁶

The Lekki Deep Sea Port, a BRI initiative between China, France and Nigeria, the first phase

³⁴⁶ PwC, 'Nigerian Mining – Progress, but Still a Long Way to Go', 20.

³⁴⁷ Felicia Dairo, 'Nigeria Launches Locally-Made Barite', Premium Times (Nigeria), 30 October 2021, <https://www.premiumtimesng.com/news/more-news/492402-nigeria-launches-locally-made-barite.html?tztc=1>.

³⁴⁸ 'BARITE PROCESSING PLANT WILL ENSURE THE DEVELOPMENT OF DOWNSTREAM BARITE MINING INDUSTRIES... Adegbite –', Ministry of Solid Minerals Development, 12 May 2023, <http://msmd.gov.ng/barite-processing-plant-will-ensure-the-development-of-downstream-barite-mining-industries-adegbite/>.

³⁴⁹ 'Barite: The Versatile Mineral Powering Industries from Oilfields to Hospitals', Industrial Mineral, Baretico, 14 August 2025, <https://bariteco.com/barite-versatile-mineral-oilfields-hospitals/>.

³⁵⁰ Damilola Aina, 'FG Grants China Approval to Establish Electric Vehicle Factories', Punch Newspapers, 19 May 2025, <https://punchng.com/govt-grants-china-approval-to-establish-electric-vehicle-factories/>.

³⁵¹ 'Nigeria Secures \$20 Billion in Chinese Investment to Drive Industrial Growth', Ecofin Agency, 23 July 2025, <https://www.ecofinagency.com/news/2307-47799-nigeria-secures-20-billion-in-chinese-investment-to-drive-industrial-growth>.

³⁵² Goddy Uwa Osimen and Exekiel Elton Mike Micah, 'Nigeria-China Economic Relations: Matters Arising', Global Journal of Political Science and Administration 10, no. 3 (2022): 48.

³⁵³ 'Nigeria Domestic and Foreign Debt Q2 2024', National Bureau of Statistics, accessed 20 November 2025, <https://www.nigerianstat.gov.ng/elibrary/read/1241590>.

³⁵⁴ KPMG, 'Nigerian Mining Sector Brief', 7; PwC, 'Nigerian Mining – Progress, but Still a Long Way to Go', 28.

³⁵⁵ Muhammad Onoruiza Audu and Otu Muhammed Adeiza, 'Overview of Nigeria's Infrastructural Development', CSID Journal of Infrastructure Development 7, no. 3 (2024): 527, <https://doi.org/10.7454/jid.v7.i3.1148>.

³⁵⁶ Olakunle Mohammed, 'Effects of the Lekki Deep Seaport on Nigeria's International Trade', Free Trade Nigeria, 25 November 2022, <https://freetradenigeria.com/effects-of-the-lekki-deep-seaport-on-nigerias-international-trade/>.

of which became operational in 2023, is set to address these constraints.³⁵⁷ Finally, Nigeria's extensive inland waterways – spanning over 10.000km – remain underutilised as a transport corridor that could alleviate pressures on road and rail infrastructure.³⁵⁸

A final constraint on the development of Nigeria's mining sector is the structural shortage of skilled labour that is needed to operate large-scale mining facilities.³⁵⁹ While Nigeria houses four of the top-10 mining engineering departments on the continent, the skilled labour these institutes develop is at risks of leaving the country as insecurity and unemployment loom.³⁶⁰ The shortage of skilled labour is a symptom of broader educational deficits in the country. Only 51-59% (female-male) of the country's population has completed primary education, with tertiary educational enrolment reaching 10-14%.³⁶¹ Government initiatives to address these challenges include the Universal Basic Education programme aimed at increasing primary education completion and the Tertiary Education Trust Fund that strengthens higher education institutions. Despite these efforts, the educational sector still faces underfunding, untrained teachers and poor educational infrastructure.³⁶²

Nigeria's educational deficits stand in a broader context of poverty and unemployment. 107 million citizens – representing over 46% of the population – are believed to live below the poverty line.³⁶³ 21% of the population was unemployed and looking for a job in 2024, while 92% of the working population had a job in the informal economy.³⁶⁴ These numbers are not expected to improve in the near term, as Nigeria witnessed an economic decline of 64% in GDP over the period of 2022-2024, with GDP per capita dropping from \$2139 in 2022 to \$806 in 2024.³⁶⁵

5.4.4. Avenues for collaboration with the Netherlands

Nigerian-Dutch (CRM) relations

In February 2024, Nigeria and the Netherlands signed a renewed MoU aiming to deepen collaboration in the fields of politics, economics and migration.³⁶⁶ The understanding built upon strong economic ties, as the Netherlands was Nigeria's biggest export partner in

³⁵⁷ 'African Infrastructure: Nigeria's Lekki Deep Water Port', The Business Year, 25 March 2025, <https://thebusinessyear.com/article/african-infrastructure-nigerias-lekki-deep-water-port/>.

³⁵⁸ '2.5 Nigeria Waterways Assessment', Digital Logistics Capacity Assessments, accessed 20 November 2025, <https://lca.logcluster.org/25-nigeria-waterways-assessment>.

³⁵⁹ Obinna Ede, Top 10 Challenges of Mining in Nigeria (And How to Overcome Them) - Nigerian Mineral Exchange, 16 September 2025, <https://nigerianmineralexchange.com/top-10-challenges-of-mining-in-nigeria-and-how-to-overcome-them/>.

³⁶⁰ PwC, 'Nigerian Mining – Progress, but Still a Long Way to Go', 24; 'Africa's 72 Best Mining Engineering Universities', EduRank, 11 August 2021, <https://edurank.org/engineering/mining/af/>.

³⁶¹ 'Nigeria: Education Country Brief', UNESCO International Institute for Capacity Building in Africa, January 2024, <https://www.iicba.unesco.org/en/nigeria>.

³⁶² Obeza E Luise, 'The Quality of Educational Development in Nigeria', International Research Journal of Educational Research 14, no. 2 (2023): 1–3.

³⁶³ 'The World Bank in Nigeria', Text/HTML, World Bank, 13 October 2025, <https://www.worldbank.org/en/country/nigeria/overview>.

³⁶⁴ Raphael Mbaegbu, AD998: Facing Lack of Economic Opportunity, Nigerian Youth Want Government Action on Jobs and Cost of Living (Afrobarometer, 2025), 4, <https://www.afrobarometer.org/publication/ad998-facing-lack-of-economic-opportunity-nigerian-youth-want-government-action-on-jobs-and-cost-of-living/>; Thomas Morgan and Kee Beom Kim, Navigating Nigeria's Economic and Labour Market Challenges: Pathways to Inclusive Growth and Structural Transformation (International Labour Organization, 2024), 7, <https://www.ilo.org/sites/default/files/2024-11/Nigeria%20policy%20brief%207%20Nov.pdf>.

³⁶⁵ 'Nigeria', World Bank Open Data, accessed 14 November 2025, <https://data.worldbank.org>.

³⁶⁶ 'Netherlands' Ministers Visit Nigeria to Strengthen Bilateral Ties', Africa, Diplomat, 6 February 2024, <https://diplomat.ng/netherlands-ministers-visit-nigeria-to-strengthen-bilateral-ties/>.

2023, with total exports worth \$8.1 billion. 95% of these exports consisted of crude petroleum, followed at a distance by cocoa beans representing 3.6% of total exports.³⁶⁷ Similar to other Dutch embassies in the region, programming focuses on the latter agricultural sector. Through the Netherlands-Nigeria Seed partnership, for example, the Netherlands aims to increase agricultural productivity with access to quality seeds and its HortiNigeria programme targets over 60.000 small farmers focussing on productivity, income and sector coordination.³⁶⁸

Other programmes include awareness raising and cooperation in addressing human trafficking and irregular migration, and the support of Dutch companies that seek to invest in Nigeria's renewable energy sector.³⁶⁹ In November 2022, Invest International opened its first 'Dutch Desk' in Lagos with a €20 million facility available to finance Dutch companies' projects and ease access to other financing options in the country.³⁷⁰ No direct engagement with the CRM or mining sector more broadly was identified.

The EU's engagement with Nigeria follows similar priorities with key initiatives focussing on agricultural development, clean energy, digital technologies, security and migration. A notable project in infrastructural development is the EU's collaboration with the European Investment Bank and African Development Bank to develop Inland Waterways Transport corridors that foster regional integration and connectivity.³⁷¹ In September 2025, Nigeria and the EU held an inaugural Trade and Investment Dialogue set to be continued in Brussels in 2026.³⁷²

Similar to Dutch bilateral relations, the EU has not been involved in major CRM or mining-related projects in Nigeria. It has, however, intensified diplomatic engagements on the matter. In April 2025, the European Ambassador to Nigeria and ECOWAS met with the Minister of Solid Minerals Development, noting that the country's solid mineral sector presents mutually beneficial opportunities for Europe and Nigeria.³⁷³

Entry points for collaboration

Nigeria's push for economic diversification through the development of its mining sector offers opportunities for the Netherlands and Europe to diversify CRM supply chains. In turn, European investments in mineral processing and refining can contribute to Nigerian ambitions to increase the local value-added of its mining sector. In this regard, the recent dialogue between the European Ambassador and the Minister of Solid Minerals Development might prove to be a first stepping stone to increase European and Dutch engagement in Nigeria's CRM sector. Common perspectives on the development of sustainable and responsible

³⁶⁷ 'Nigeria Product Exports to Netherlands 2023', WITS Data, accessed 20 November 2025, <https://wits.worldbank.org/CountryProfile/en/Country/NGA/Year/2023/TradeFlow/Export/Partner/NLD/Product/all-groups>.

³⁶⁸ 'Agriculture and Food Security - Nigeria', Nigeria, accessed 20 November 2025, <https://www.netherlandsandyou.nl/web/nigeria/about-us/projects/agriculture-and-food-security>.

³⁶⁹ 'The Netherlands in Nigeria - Renewable Energy', Kingdom of the Netherlands, accessed 20 November 2025, <https://www.netherlandsandyou.nl/web/nigeria/about-us/projects/renewable-energy>.

³⁷⁰ Lianne de Vries, 'Dutch Desk Nigeria with Access Bank', Invest International, 3 June 2023, <https://investinternational.nl/article/how-the-dutch-desk-in-nigeria-helps-dutch-entrepreneurs-move-forward/>.

³⁷¹ 'Nigeria - International Partnerships -', European Commission, accessed 20 November 2025, https://international-partnerships.ec.europa.eu/countries/nigeria_en.

³⁷² 'Nigeria and European Union Hold Inaugural Trade and Investment Dialogue', European External Action Service, accessed 20 November 2025, https://www.eeas.europa.eu/delegations/nigeria/nigeria-and-european-union-hold-inaugural-trade-and-investment-dialogue_en?s=114.

³⁷³ Samuel Anyanwu, 'EU Eyes Nigeria's Solid Minerals To Diversify Trade', Federal Ministry of Information and National Orientation, 15 April 2025, <https://fmino.gov.ng/eu-eyes-nigerias-solid-minerals-to-diversify-trade/>.

value chains – laid out in Nigeria's 2016 mining roadmap and the Dutch combination country approach – provide a basis for potential partnerships. Although, whether these ambitions are translated into effective regulation and enforcement remains uncertain.

Dutch involvement in Nigeria's CRM sector – as part of a broader Team Europe approach – could focus on the development of two value chains. First, Nigeria's deposits of lithium, nickel and manganese offer opportunities to strengthen global and European clean energy supply chains. While Chinese involvement in Nigeria's lithium mining and processing sector is growing, European investments in processing and refining might offer alternatives to local communities, especially when combined with broader development and infrastructural programming.

Second, engagement in the baryte value chain offers less obvious, but equally strategic opportunities. Aside from its primary use in oil and gas extraction, baryte can be used for diagnostic imaging and radiation shielding in medical and nuclear applications. Temporary shortages of medical imaging dye sourced from China during the COVID-19 pandemic revealed the fragility of global medical supply chains.³⁷⁴ In this context, securing baryte for medical applications aligns with broader Dutch objectives to diversify and derisk critical supply chains in its health sector.³⁷⁵

Immediate entry points for European and Dutch engagement in these value chains present themselves in Nigeria's dominant ASM sector, rather than the development of large-scale mining operations. While opportunities for large-scale extraction are thought to exist, the full potential and economic viability of many critical mineral occurrences remain unclear.

Investments in processing and refining could connect Nigeria's dominant ASM sector with global and European CRM value chains. To ensure sustainable and responsible value chain development, this should be combined with European support for the formalisation of ASM. A Dutch approach could leverage a specific entry point at the intersection of Nigeria's mining and agricultural sector. Low agricultural productivity has pushed many – including children – to the ASM sector, driving child labour and limited education development. Potential CRM partnerships could integrate Dutch agricultural expertise to address these issues, improving combined agricultural and mining livelihoods.

To enable larger-scale mining and processing operations, investments could be combined with infrastructural developments that offer opportunities for European and Dutch businesses. Dutch contributions could complement existing European efforts to develop Nigeria's inland waterways through dredging and inland port construction, thereby facilitating the transportation of raw and processed critical minerals. Shortages in Nigeria's energy grid offer additional opportunities for the Dutch clean energy sector to deliver microgrid and solar solutions to mining operations and processing facilities. These efforts could build on the embassy's existing clean energy programming.

³⁷⁴ Gabrielle Abrahamson, 'Shanghai Lockdown Causing Global Medical Imaging Supply Shortage', *Breitbart*, 12 May 2022, <https://www.breitbart.com/asia/2022/05/12/shanghai-lockdown-causing-global-medical-imaging-supply-shortage/>.

³⁷⁵ Minister van Volksgezondheid, Welzijn en Sport, 'Kamerbrief Voortgang beschikbaarheid en leveringszekerheid', 26 June 2025, <https://www.tweedekamer.nl/downloads/document?id=2025D30212>.

5.5. Côte d'Ivoire

Key Takeaways

The mining sector in Côte d'Ivoire

- The country has a long legacy of ASM, primarily for commodities such as gold and diamonds. Nowadays, half a million people continue to depend on ASM, which contributes to income generation and provides an alternative to traditional agricultural livelihoods. Still, about 40 million tons of gold leave the country illegally each year. Also, between 2005-2014, the UN put an embargo on diamond exports as they served as source of revenue for armed groups.
- Côte d'Ivoire is the 7th largest gold producer in Africa. It also produces bauxite, nickel, and manganese. Between 2014-2023, the number of industrial mines has increased from 4 to 15, and exploration permits grew from 140 to 189.
- Both foreign and Ivorian actors are active in the mining sector. Active foreign actors include Australia, Canada, UK, China in gold; the UAE in manganese, and Turkey and the Netherlands in nickel. Ivorian SODEMI is developing two projects that are in advanced stage of development, a copper-nickel and a coltan mine. Another Ivorian company has obtained an exploration permit for a cobalt-nickel project.

Sustainable and responsible value chains

- **Environment:** The use of mercury in ASM is a major environmental concern. Miners often handle mercury without protecting gears causing several health issues. Additionally, mercury also occasionally leaks into the environment causing important damages including to cocoa plantations.
- **Society:** The 2014 Mining Code obliges all large-scale mining company operating in Côte d'Ivoire to set up a fund where they place 0.5% of their profit. This fund will finance local development projects designed in collaboration with local communities. Still, large-scale mining offers limited job opportunities, and their financial compensations are perceived as insufficient by communities.
- **Governance:** Côte d'Ivoire seeks to formalise the ASM sector to better capture the revenues from it and to create an alternative to cocoa, especially impacted by climatic changes. The country launched several initiatives to this end including with the EU, the World Bank, and the World Gold Council. These initiatives aim to allow artisanal miners to get access to formal markets to sell their gold.

Socio-economic benefits and autonomy in CRM value chains

- **Local value addition:** Developing the mining sector would allow for Côte d'Ivoire to diversify its economy, which is now mostly focussed on agricultural exports. In its 2021-2025 National Development Strategy, Côte d'Ivoire pledges for increased value addition to its exports.
- **Infrastructure:** Côte d'Ivoire is investing in infrastructure projects and the creation of Special Economic Zones to facilitate the trade in minerals. Nevertheless, the transport and energy infrastructure continue to constrain the development and profitability of the mining sector.
- **Employment:** The Mining Code encourages mining companies to hire local workforce and services, although skilled labour is scarce.
- **Autonomy:** China is increasingly investing in Côte d'Ivoire. In 2022, it loaned \$900 billion to the country to fund a new terminal at the Port of Abidjan. This new terminal is now operated by a French Dutch consortium. China is now looking at financing a second terminal dedicated to mineral exports in the same port.

Avenues for collaboration with the Netherlands

- **Two short-term priorities** would be (a) to support Côte d'Ivoire in developing the appropriate training program to formalise its ASM sector and increase the availability of skilled labour for large-scale mining; and (b) considering the many exploration permits awarded to different companies, to work together with allies and like-minded countries to support mine development and potentially processing activities.
- **Additionally**, offering technical assistance with infrastructure, just like in the case of the Port of Abidjan, could be beneficial.

5.5.1. The mining sector in Côte d'Ivoire

Evolution of the mining sector

Côte d'Ivoire's natural resources have always been coveted by foreign powers. In the 17th century, ivory became very popular in Europe leading European powers to turn to Africa to sustain their domestic demand. Côte d'Ivoire, which had a large population of African elephants became one of the main sources of ivory imports, giving it its name; "Côte d'Ivoire" (in English: "Ivory Coast"). After wiping out the whole elephant population within a century, settlers looked for other valuable goods in the country and found cocoa, coffee, bananas, palm oil, and minerals.

French colonisers attempted to exploit the country's mineral wealth without success.³⁷⁶ Instead, they turned Côte d'Ivoire into a cash crop economy focussed on the export of raw low-cost cash crops while mineral extraction remained comparatively underdeveloped.³⁷⁷ In the 1940s, The French started commercially mining diamonds under the *Société Anonyme de Recherche et d'Exploitation Minière en Côte D'Ivoire* (SAREMCI).³⁷⁸ At the height of production, the company extracted up to 175,000 carats annually.

In the 1960s, Côte d'Ivoire gained independence and artisanal miners rushed to the diamond rich region to turn a profit from the country's mineral wealth. In an attempt to control the large and rapid influx of miners, artisanal mining was banned altogether in 1962 leading to sharp decline in yearly domestic output.³⁷⁹ Instead, the newly formed government led by President Félix Houphouët-Boigny promoted the development of cocoa and coffee production.³⁸⁰ The state adopted favourable migration and land ownership policies to attract foreign workers and ensure cheap labour in plantations to maximise their profit in the export of crops. This policy allowed for two decades of steady economic growth, about 8% annually.³⁸¹ It also transformed the country's population, fostering large migration waves in the North of the country.³⁸²

In the 1980s, the global market prices of crops like cocoa and coffee dropped drastically sending the country into an unprecedented economic crisis.³⁸³ Job opportunities became scarce, and many Ivorians turned to the informal sector. They found that many jobs and land were occupied by immigrant workers, creating frustrations and social unrest.³⁸⁴ The following decades were marked by successive political crisis symptomatic of North-South and Ivorians-migrant divisions over resource control.

³⁷⁶ Steven Van Bockstael, 'Land Grabbing "from below"? Illicit Artisanal Gold Mining and Access to Land in Post-Conflict Côte d'Ivoire', *Land Use Policy* 81 (February 2019): 906, <https://doi.org/10.1016/j.landuse-pol.2018.04.045>.

³⁷⁷ Jean-Claude Meledje, 'Côte D'Ivoire: From Pre-Colonisation to Colonial Legacy', *Social Evolution & History* 17, no. 1 (2018): 20–23, <https://doi.org/10.30884/seh/2018.01.02>.

³⁷⁸ 'Ivory Coast Diamonds', *Langerman Diamonds*, accessed 17 November 2025, <https://www.langerman-diamonds.com/blogs/encyclopedia/ivory-coast>.

³⁷⁹ 'Cote d'Ivoire', *ECA*, accessed 17 November 2025, <https://knowledge.uneca.org/asm/cotedivore>.

³⁸⁰ Tom Ogwang, 'The Root Causes of the Conflict in Ivory Coast', *Africa Portal* 5 (April 2011): 2, https://www.researchgate.net/publication/334391635_The_Root_Causes_of_the_Conflict_in_Ivory_Coast.

³⁸¹ Côte d'Ivoire's Binding Constraints to Economic Growth (Government of Côte d'Ivoire & Millenium Challenge Corporation, 2015), 4.

³⁸² Irene Sackey and Guo Dexia, 'The Politics of Ethnicity and Religion in Africa: A Comparative Study of Ghana and Cote D'Ivoire', *International Journal of Education and Religion* 3, no. 2 (2021): 116, https://www.researchgate.net/publication/351058411_The_Politics_of_Ethnicity_and_Religion_in_Africa_A_Comparative_Study_of_Ghana_and_Cote_D'Ivoire.

³⁸³ Côte d'Ivoire's Binding Constraints to Economic Growth, 4.

³⁸⁴ Ogwang, 'The Root Causes of the Conflict in Ivory Coast', 3.

During the war, rebel groups in the North exploited diamond deposits to finance their operations.

The tensions peaked in 2002 when a civil war broke out between the Northern and Southern part of the country after a failed coup in 2001.³⁸⁵ During the war, rebel groups in the North exploited diamond deposits to finance their operations. In response, the United Nations imposed an embargo on diamonds from Côte d'Ivoire, which became known as “blood” or “conflict” diamonds.³⁸⁶ The war came to an end in 2007, but the political truce was short-lived.³⁸⁷ In 2010, the country was sent back into turmoil after contested election results, leading once again to north versus south confrontation.³⁸⁸ Ultimately, peace was restored in 2011, and the country has been relatively stable ever since.

Ever since the return to political stability, the country has witnessed steady economic growth. Between 2012 and 2019, GDP growth amounted 8.2% annually, and even during the COVID-19 pandemic Côte d'Ivoire maintained a positive rate of about 2%.³⁸⁹ After 2020, the growth has slowed down to an average of 6.5%, but still well above the Sub-Saharan Africa average.³⁹⁰ Similarly, inflation rates in 2024 were around 3.8% versus 21.6% in West Africa. The fiscal deficit is high but, on the decline, and youth unemployment, which is widespread all over the continent, stands only at 5%.³⁹¹

The main contributing sector to the country's economy is services, representing about 54.6% of GDP, followed by industry, with about 23.9%. However, the latter employs only 10.4% of the population versus 44.4% for the service sector and 45.2% for the agricultural sector.³⁹² Extractive products make up for 14.4% of the country's exports, the second largest category behind agricultural goods (37.8%).³⁹³

The economic development of Côte d'Ivoire can partially be attributed by the effort of President Ouattara³⁹⁴ to promote the country abroad and foster investment. In 2018, the government reformed their investment code to offer fiscal incentives to foreign investors spending large sums of money while primarily hiring locally.³⁹⁵ Simultaneously, infrastructure projects have been a priority in state's spending: many bridges and roads have been constructed, and the energy grid now reaches about 94% of the population versus only 34% in 2013.³⁹⁶

³⁸⁵ Federico Battera, 'Burkina Faso, Ghana, Ivory Coast: An Overview of 2020 Elections', *Poliarchie / Polyarchies*, ahead of print, EUT Edizioni Università di Trieste, 2021, 11, <https://doi.org/10.13137/2611-2914/32360>.

³⁸⁶ 'Côte d'Ivoire: passer du «diamant du sang» au «diamant de développement»', *Afrique, La Presse*, 21 July 2014, <https://www.lapresse.ca/international/afrique/201407/21/01-4785551-cote-divoire-passer-du-diamant-du-sang-au-diamant-de-developpement.php>.

³⁸⁷ Ogwang, 'The Root Causes of the Conflict in Ivory Coast', 6.

³⁸⁸ Denis Adesina Daniel and David Uchena Enweremadu, 'Identity Politics, Citizenship and the 2010 Post-Election Conflict in Côte d'Ivoire', *Open Journal of Political Science* 10, no. 2 (2020): 217, <https://doi.org/10.4236/ojps.2020.102015>.

³⁸⁹ 'Economic and Political Overview in the Ivory Coast', *Crédit Agricole Group*, accessed 18 November 2025, <https://international.groupecreditagricole.com/en/international-support/ivory-coast/economic-overview>.

³⁹⁰ 'The World Bank in Côte d'Ivoire', Text/HTML, *World Bank*, 2025, <https://www.worldbank.org/en/country/cotedivoire/overview>.

³⁹¹ 'The Success of Ivory Coast Is Africa's Best-Kept Secret', 20 March 2025, https://www.economist.com/middle-east-and-africa/2025/03/20/the-success-of-ivory-coast-is-africas-best-kept-secret?utm_medium=cpc.adword.pd&utm_source=google&ppccampaignID=18151738051&ppcadID=&utm_campaign=a.22brand_pmax-&utm_content=conversion.direct-response.anonymous&gclid=aw.ds&gad_source=1&gad_campaignid=18151761343&gbraid=0AAAAADBq3l0rnWhytWrE3g4lwUjsM8GE&gclid=Cj0KCQiArOvIBhDLARIs-APwJXObrjQe80lJfwYXIsopZeV_j9UpSsVnDs38NylIDsJnzGgVo0mdVKqlaAkWIEALw_wcB.

³⁹² *Crédit Agricole Group*, 'Economic and Political Overview in the Ivory Coast'.

³⁹³ *Crédit Agricole Group*, 'Economic and Political Overview in the Ivory Coast'.

³⁹⁴ Fifteen years after his elections, President Alassane Ouattara is still head of Côte d'Ivoire after a controversial third and fourth re-election in 2020 and 2025 respectively. See Wedaeli Chibelushi and Thomas Naadi, 'Ivory Coast Election: President Alassane Ouattara Wins Fourth Term after Main Rivals Barred', *BBC*, 27 October 2025, <https://www.bbc.com/news/articles/cddrzl9nmm2o>.

³⁹⁵ 'Investment Code, Ordinance N° 646 of 2018', *UN Trade and Development*, 2018, <https://investmentpolicy.unctad.org/investment-laws/laws/394/c-te-d-ivoire-ivory-coast-investment-code-2018->.

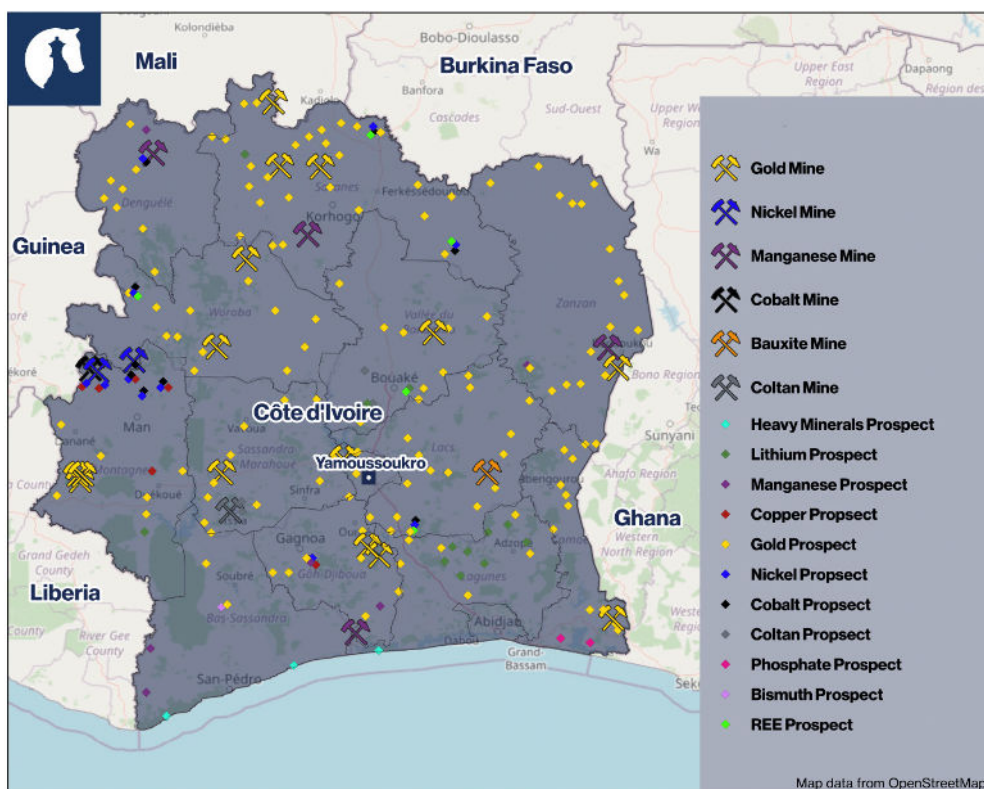
³⁹⁶ 'The Success of Ivory Coast Is Africa's Best-Kept Secret'.

The mining sector in 2025

The mining sector in Côte d'Ivoire is both large and small scale.

In the artisanal and semi-industrial sector, the country produces both gold and diamonds, whereas in the large-scale one, it produces gold and three CRM: nickel, bauxite, and manganese (see Figure 11 and Table 7). Since the return of political stability in 2011 and the increase in global gold prices, both the formal and informal mining sector are undergoing significant growth.³⁹⁷ Between 2014 and 2023, the domestic formal gold production has almost quintupled, going from 12 tonnes annually to 51, making the country the 7th largest African gold producer. The number of industrial mines has been multiplied by 3, going from 4 to 15, and exploration permits grew from 140 to 189.³⁹⁸

Figure 11. Mineral Resources in Côte d'Ivoire



³⁹⁷ Jeremy Allouche, 'Gold Mining, Conflict, and Post-War Governmentality in Côte d'Ivoire', World Development 192 (August 2025): 107048, <https://doi.org/10.1016/j.worlddev.2025.107049>.

³⁹⁸ The Revolution of the Ivorian Mining Sector, no. 3 (O'Mine Mag, 2024), 6, https://chambremines.org/backend/uploads/loi-reglement/Magazine_Omine_003_version_anglaise.pdf.

Table 7. Large-scale mines in Côte d'Ivoire 2025. Source: Côte d'Ivoire Mining Cadastre Map Portal³⁹⁹

Material	Mine	Status	Company	Country ⁴⁰⁰
Gold	Fimbiasso	Renewal in process	Perseus Mining	Headquartered in Australia
	Sissingué	Operational	Perseus Mining	Headquartered in Australia
	Bagoé	Operational	Perseus Mining	Headquartered in Australia
	Yaouré	Operational	Perseus Mining	Headquartered in Australia
	Tongon	Operational	Barrick Mining Corporation (currently being acquired by Atlantic Group)	Headquartered in Canada
	3G Mining (3GM)	Operational	3G Mining	Anonymous company of Ivorian rights
	Ity	Operational	Endeavour Mining	Headquartered in the United Kingdom
	Lafigué	Operational	Endeavour Mining	Headquartered in the United Kingdom
	Séguéla	Operational	Fortuna Mining Corp.	Headquartered in the Canada
	Koné Gold Project	Operational	Montage Gold Corp.	Headquartered in Canada
	Bonikro	Operational	Allied Gold	Headquartered in Canada
	Hiré	Operational	Allied Gold	Headquartered in Canada
	Agbaou	Operational	Allied Gold	Headquartered in Canada
	Afema	Operational	Turaco Gold Limited	Headquartered in Australia
	Abujar Gild Project	Operational	Tietto Minerals	Headquartered in Australia, majority stakes held by Chinese-company Zhaojin Mining Industry CO LTD. which acquired 90.72% voting power ⁴⁰¹
Bauxite	Benene	Operational	Lagune Exploitation Bongouanou	Headquartered in Côte d'Ivoire
Manganese	IMMSA	Operational	Navodaya DMCC	Headquartered in United Arab Emirates
	BMSA	Operational	Navodaya DMCC	Headquartered in United Arab Emirates
	Shiloh manganese	Operational	Orison Minerals & Resources LTD	Headquartered in the United Kingdom
	Lauzouza	Operational	Compagnie Minière du Littoral	Headquartered in Côte d'Ivoire, founded as part of a cooperation with China
Nickel	Foungbesso	Operational	CoreX Resources B.V.	Headquartered in both the Netherlands and Turkey
Cobalt, Nickel	Sipilou	Exploitation permit obtained	Company Nickel de l'Ouest Côte d'Ivoire (NOCI)	Anonymous company of Ivorian rights
Copper-Nickel	Samapleu-Grata	Exploration	SODEMI	Headquartered in Côte d'Ivoire
Coltan	Issia	Exploitation permit obtained	SODEMI	Headquartered in Côte d'Ivoire

³⁹⁹ 'Ivory Coast Mining Cadastre Map Portal', Landfolio, accessed 4 December 2025, <https://portals.landfolio.com/CoteDIvoire/en/>.

⁴⁰⁰ The countries shown in this table refer to the jurisdictions where the main shareholding companies operating the mines are headquartered.

⁴⁰¹ 'Solactive | Acquisition | TIETTO MINERALS LTD | 20th May 2024', Solactive, 15 May 2024, <https://www.solactive.com/acquisition-tietto-minerals-ltd-20th-may-2024/>.

There are two main known nickel deposits, adjacent to one another, both of which are currently mined by the Compagnie Minière du Bafing (CMB), an Ivorian company whose majority shares were acquired by CoreX Holding in 2024, a multinational that headquarters in both the Netherlands and Turkey.⁴⁰² Two additional nickel mining projects are underway and currently awaiting their extraction permit: the Sipilou project, a nickel-cobalt mine, and the Samapleu-Grata project, a nickel-copper mine.⁴⁰³

Bauxite is currently mined in a single location, in the Moronou region, by an Ivorian-owned business. The deposits exploited is believed to hold about 35 MT of bauxite reserves from which 12.5MT has 51% alumina grade.⁴⁰⁴

Manganese is present in large quantities in Côte d'Ivoire and currently mined in 4 separate locations. The primary operators are from the UAE, the UK, and Côte d'Ivoire itself. The latter is operated by la Compagnie Minière du Littoral (CML) which was founded based on a collaboration between Côte d'Ivoire and the Chinese Geological Survey.⁴⁰⁵ The production started in 2015 and grew steadily until reaching a peak production of 1.3 MT in 2020. The rapid increase in extraction can attributed to attractive international price coupled with the opening of several mining projects. However, after a decrease in global prices in 2020, production decreased by 27.5% and 3.3% year-on-year in 2021 and 2022, until picking up again in 2023.⁴⁰⁶

Côte d'Ivoire still has substantial untapped mineral wealth and could become an exporter of lithium, coltan, copper, chromium, uranium and rare earths elements. The country hosts Lithium-Cesium-Tantalum (LCT) pegmatites, a geological formation known to be rich in several CRM such as lithium, tantalum, and beryllium.⁴⁰⁷ Many companies are currently exploring the potential of these pegmatites and other lithium deposits, but no exploitation permit has been issued yet. Coltan exploration is also underway. Two CRM, tantalum and niobium, can be derived from coltan. Currently, the largest two producers of this commodity are the Democratic Republic of Congo (DRC) and Rwanda; however, extraction in both countries has been linked to the financing of armed conflicts and rising insecurity in the region. As a result, international actors are seeking new, more stable sources. Many stakeholders now view Côte d'Ivoire as a potential future leader in coltan production.⁴⁰⁸

About half a million people depend on ASM in Côte d'Ivoire, particularly in the gold and diamond sectors, where it constitutes an important source of livelihoods for rural

⁴⁰² 'Compagnie Minière du Bafing', CMB, accessed 18 November 2025, <https://www.cmbafing.com>; 'CoreX Holding Acquires Majority Shares In CMB In Côte d'Ivoire', CoreX Holding, accessed 18 November 2025, <https://www.corexholding.com/corex-holding-acquires-majority-shares-in-cmb-in-cote-d-ivoire>.

⁴⁰³ 'Ministère Mines, Pétroles et Energies: Politique Minière', Ministère Des Mines, Du Pétrole Et De L'Énergie, accessed 18 November 2025, <https://www.energie.gouv.ci/mines/politiques>.

⁴⁰⁴ 'À Propos | LEB', Lagune Exploitation Bongouanou, accessed 18 November 2025, <https://www.leb-ci.com/en/leb/>.

⁴⁰⁵ The Worldfolio, 'Explosive Growth', Theworldfolio, accessed 7 January 2026, <https://www.theworldfolio.com/interviews/carlos-aguincha-dire/1034/>.

⁴⁰⁶ 'Manganese Production', Information and Promotion Portal for the Economy of Côte d'Ivoire, accessed 18 November 2025, <https://www.economie-ivoirienne.ci/en/activites-sectorielles/manganese-production.html>.

⁴⁰⁷ Proposed Acquisition of Switch Metals, no. 5477Z (London Stock Exchange, 2025), 23, https://oneiro.energy/wp-content/uploads/2025/03/Proposed-Acquisition-of-Switch-Metals-07_00_09-06-Mar-2025-ONE-News-article--London-Stock-Exchange.pdf.

⁴⁰⁸ 'Coltan : la Côte d'Ivoire émerge comme potentiel futur fournisseur en Afrique', Agence Ecofin, 20 May 2025, <https://www.agenceecofin.com/actualites-industries/2005-128494-coltan-la-cote-d-ivoire-emerge-comm-potentiel-futur-fournisseur-en-afrique>.

About half a million people depend on ASM in Côte d'Ivoire, particularly in the gold and diamond sectors, where it constitutes an important source of livelihoods for rural populations.

populations.⁴⁰⁹ While ASM contributes to income generation and provides an alternative to traditional agricultural livelihoods, a significant share of production leaves the country illegally, about 40 million tonnes in 2022, thereby limiting the benefits for the national economy.⁴¹⁰ The sector also poses environmental and public health risks, including deforestation, land degradation, and water pollution, which can undermine agricultural productivity.⁴¹¹ Moreover, ASM is evolving as organised groups introduce greater mechanisation and chemical use, increasing environmental impacts and raising security concerns, including the potential infiltration of Sahel-based extremist groups, particularly from neighbouring Burkina Faso.⁴¹² In response, Côte d'Ivoire is actively seeking to formalise the ASM sector through partnerships with international institutions and local companies to improve revenue capture and enhance the sector's contribution to sustainable development, as discussed below.

5.5.2. Sustainable and responsible value chains

The Ivorian mining sector, both large-scale and artisanal scale, offers many opportunities for the development of sustainable and responsible value chains but it also poses important risks.

The 2014 Mining Code allows nationals to apply for small-scale 2-year mining permits which allows them to mine in a given area.⁴¹³ Within this framework, artisanal miners are forbidden from using any type of chemicals or explosives, a restriction reinforced by the 2023 Environmental Code, however, mercury remains widely used in ASM.⁴¹⁴ Estimates indicate that artisanal miners alone use about 550kg of mercury every year.⁴¹⁵

Miners often handle mercury without protecting gears exposing themselves to serious health problems, including damages to the lungs, skin, and eyes. Beyond direct exposure, the heavy chemical is often washed away in soil and nearby water bodies eventually entering crops, fish stocks, and drinking water thereby affecting surrounding communities.⁴¹⁶ Soil degradation caused by mercury reduces agricultural productivity, harming rural households that rely on farming and more broadly the agricultural sector, a key sector in Côte d'Ivoire's economy.⁴¹⁷

⁴⁰⁹ Jason Mitchell, 'Transforming Ivory Coast's Economy through Mining', BNE Intellinews, 16 January 2025, <https://www.intellinews.com/transforming-ivory-coast-s-economy-through-mining-361836/>; Kouame Joseph Arthur Kouame et al., 'Ivory Coast: The Impacts of Artisanal Gold Mining on Local Livelihoods and the Mining Industry', International Journal of Service Science, Management, Engineering, and Technology (IJSSMET) 8, no. 4 (2017): 1, <https://doi.org/10.4018/IJSSMET.2017100103>.

⁴¹⁰ 'Côte d'Ivoire Moves to Formalize Its Vast Informal Gold Mining Sector', World Bank, 11 July 2025, <https://www.worldbank.org/en/news/press-release/2025/07/11/c-te-d-ivoire-moves-to-formalize-its-vast-informal-gold-mining-sector>.

⁴¹¹ Roger Assia Konan et al., 'Environmental Implications of Artisanal and Small-Scale Gold Mining Activity within the Kokumbo Department (Central Côte d'Ivoire) and Its Impact on the Local Population', International Journal of Current Research 16, no. 10 (2025): 30246, <https://doi.org/10.24941/ijcr.47909.09.2024>.

⁴¹² 'Keeping Jihadists Out of Northern Côte d'Ivoire', 11 August 2023, <https://www.crisisgroup.org/africa/west-africa/cote-divoire/b192-keeping-jihadists-out-northern-cote-divoire>.

⁴¹³ 'Loi N° 2014-138 DU 24 Mars 2014 Portant Code Minier', République de Côte d'Ivoire, 2014, 19–20, <https://www.a-mla.org/en/country/law/40>.

⁴¹⁴ 'Loi N° 2014-138 DU 24 Mars 2014 Portant Code Minier', République de Côte d'Ivoire, 2014, 19, <https://www.a-mla.org/en/country/law/40>; 'Loi N° 2023-900 du 23 Novembre 2023 Portant Code De L'Environnement', République de Côte d'Ivoire, 2023, 40, <https://loidici.biz/2024/01/08/le-code-de-l'environnement-2023/lois-article-par-article/codes/48770/naty/>.

⁴¹⁵ 'Côte d'Ivoire Takes Action to Combat Mercury Use in Artisanal and Small-Scale Gold Mining', UNEP GEF, 25 April 2023, <http://www.unep.org/gef/news-and-stories/press-release/cote-divoire-takes-action-combat-mercury-use-artisanal-and-small>.

⁴¹⁶ UNEP GEF, 'Côte d'Ivoire Takes Action to Combat Mercury Use in Artisanal and Small-Scale Gold Mining'.

⁴¹⁷ Moussa Soumahoro, 'Côte d'Ivoire's Mines Risk Degrading Its Fragile Environment', ISS Africa, 6 June 2023, <https://issafrika.org/iss-today/cote-divoires-mines-risk-degrading-its-fragile-environment>.

Large cocoa plantations, of which the country is the world's largest producer, are being destroyed by miners inadequately handling mercury in their search for gold.⁴¹⁸

Côte d'Ivoire is seeking to formalise ASM to mitigate environmental, health, and security risks, but also to professionalise the sector, improve revenue capture, enhance livelihoods, and promote more sustainable local economic development. Several initiatives have been launched to meet this end. For example, with the help of the European Union, the government funded three infrastructure projects in the region of Tengréla to formalise ASM and prevent armed groups from instrumentalising it.⁴¹⁹ In 2025, the country partnered up with the World Bank, the World Gold Council, and private actors to foster cooperation between large-scale and legal small-scale mines, and promote socially and environmentally sustainable practices. The new partnership, titled the Multistakeholder Partnership for Sustainable and Responsible Small-Scale Mining (MSPI), will encourage voluntary industrial mines to offer training and access to the gold's legal supply chain so that artisanal miners work more responsibly and their production enters the supply chain transparently.⁴²⁰ This initiative is one of a kind in West Africa and could potentially lead the path for other countries to replicate and turn their extractive sector into a more responsible one.

In the 2014 Mining Code, Côte d'Ivoire also formalises the relationship between industrial mines and local communities to avoid social unrest and local grievances. The country compels operating firms to place 0.5% of their profit in a fund managed by the Local Mining and Development Committee (CDLM).⁴²¹ This committee must be set up by the mining company in collaboration with local representatives, together they will decide what socio-economic development projects will the money be allocated to.⁴²² Simultaneously, the Code mandates that all mining companies applying for exploitation permits provide an environmental and social impact assessment.⁴²³

Despite these provisions, conflicts between large-scale mines and residents are common occurrence. In the Divo prefecture, at the mining site of Agbaoua, tensions between local villagers and an industrial gold mine arose when former artisanal miners, deprived of their jobs because the mine secured access to the area they were previously exploiting, were denied jobs in the mining company because of their lack of qualifications.⁴²⁴ Residents also contest the financial compensation strategy which is typically only offered to landowners and fails to take into account all actors who use and profit from the exploitation of the land.⁴²⁵ Around the Ity gold mine, local communities declared that they believe the negative consequences posed by the mining activities outweigh the benefits: residents report not seeing an improved

⁴¹⁸ 'Ivory Coast: Illegal Gold Digging Destroying Cocoa Plantations', Africanews, 4 September 2016, <https://www.africanews.com/2016/09/04/ivory-coast-illegal-gold-digging-destroying-cocoa-plantations/>.

⁴¹⁹ AWA DIABY, 'Lutte contre l'orpaillage illégal : des infrastructures sécuritaires en construction à Tengréla', AIP, 14 November 2024, <https://www.aip.ci/124705/cote-divoire-aip-lutte-contre-lorpaillage-illegal-des-infra-structures-securitaires-en-construction-a-tengrela/>.

⁴²⁰ 'Côte d'Ivoire Moves to Formalize Its Vast Informal Gold Mining Sector', World Bank, 11 July 2025, <https://www.worldbank.org/en/news/press-release/2025/07/11/c-te-d-ivoire-moves-to-formalize-its-vast-informal-gold-mining-sector>.

⁴²¹ 'Côte d'Ivoire', EITI, 2023, <https://eiti.org/countries/cote-divoire>.

⁴²² 'Loi N° 2023-900 du 23 Novembre 2023 Portant Code De L'Environnement', République de Côte d'Ivoire, 2023, 27, <https://loidici.biz/2024/01/08/le-code-de-lenvironnement-2023/lois-article-par-article/codes/48770/naty/>.

⁴²³ 'Loi N° 2014-138 DU 24 Mars 2014 Portant Code Minier', République de Côte d'Ivoire, 2014, 32, <https://www.a-mla.org/en/country/law/40>.

⁴²⁴ Jeremy Allouche, 'Gold Mining, Conflict, and Post-War Governmentality in Côte d'Ivoire', World Development 192 (August 2025): 107049, <https://doi.org/10.1016/j.worlddev.2025.107049>.

⁴²⁵ Jeremy Allouche, 'Gold Mining, Conflict, and Post-War Governmentality in Côte d'Ivoire', World Development 192 (August 2025): 6–7, <https://doi.org/10.1016/j.worlddev.2025.107049>.

purchasing power and experiencing decreased food security because arable land is granted to mining companies.⁴²⁶ These failures can partially be explained by the fact that the country omits to establish a strong framework for overseeing companies' compliance with the regulations it sets out.⁴²⁷

5.5.3. Socio-economic benefits and autonomy in CRM value chains

The Ivorian economy has long been dominated by the export of cash crops like cocoa, cashew, coffee, and palm oil.⁴²⁸ However, the future of the agricultural sector, which still employs a large share of the population and contributes greatly to the state's revenues, is increasingly uncertain. Water quality is rapidly decreasing due to several factors such as chemical spills, poor sanitation infrastructure, and unfit waste management practices.⁴²⁹ On top of it, weather patterns have become increasingly unpredictable causing long periods of droughts followed by times of floods. These recurrent floods have had a devastating impact on public health and the economy. Stagnant water has facilitated the spread of waterborne disease, triggered multiple murderous landslides, and the heavy flooding of roads has made them impassable, delaying the export of raw materials such as cocoa.⁴³⁰

Côte d'Ivoire is therefore seeking ways to diversify its economy, making it more future proof to the changing climate. In this context, the country is pushing for the expansion of its mining sector. In October 2025 alone, the government granted 11 new exploration permits, these allowed for both local and foreign companies to explore the country's mineral potential whether for gold, copper, chromium, or cobalt.⁴³¹ Simultaneously, Côte d'Ivoire is investing massively in infrastructure projects and the creation of Special Economic Zones to enhance its competitiveness.⁴³² So far, the sector, although it is expanding, is still constrained by infrastructure shortcomings. Railway infrastructure is rather limited; therefore, many companies favour road transport, which are in poor conditions and vulnerable to heavy rainfalls.⁴³³ Regular congestion in the Abidjan Port causes additional delays to trade exports, reducing the

⁴²⁶ Jeremy Allouche and Janet Adama Mohammed, 'How Can Mining in Côte d'Ivoire Better Serve Local Communities Without Exacerbating Conflict', Institute of Development Studies, 2017, 2, <https://www.gov.uk/research-for-development-outputs/how-can-mining-in-cote-d-ivoire-better-serve-local-communities-without-exacerbating-conflict>.

⁴²⁷ Jeremy Allouche and Janet Adama Mohammed, 'How Can Mining in Côte d'Ivoire Better Serve Local Communities Without Exacerbating Conflict', Institute of Development Studies, 2017, 2, <https://www.gov.uk/research-for-development-outputs/how-can-mining-in-cote-d-ivoire-better-serve-local-communities-without-exacerbating-conflict>.

⁴²⁸ 'Economic and Political Overview in the Ivory Coast', Crédit Agricole Group, accessed 18 November 2025, <https://international.groupecreditagricole.com/en/international-support/ivory-coast/economic-overview>.

⁴²⁹ Victory Osoba Awom, 'What's Behind Côte d'Ivoire's Water Crisis and Can It Be Fixed?', AquaMaya, 23 August 2025, <https://aquamaya.org/whats-behind-cote-divoires-water-crisis-and-can-it-be-fixed/>.

⁴³⁰ M Tacconi, 'Ivory Coast Cities Make Covenant', Global Covenant of Mayors for Climate and Energy, 31 May 2023, <https://www.globalcovenantofmayors.org/press/ivory-coast-cities-make-covenant/>; 'At Least 24 Killed by Flooding, Landslides after Heavy Rains in Ivory Coast', Africanews, 13 August 2024, <https://www.africanews.com/2024/06/25/at-least-24-killed-by-flooding-landslides-after-heavy-rains-in-ivory-coast/>; Ange Aboa, 'Rain-Affected Roads Slow Cocoa Arrivals at Ivory Coast Ports', Commodities, Reuters, 9 October 2024, <https://www.reuters.com/markets/commodities/rain-affected-roads-slow-cocoa-arrivals-ivory-coast-ports-2024-10-09/>.

⁴³¹ 'Ivory Coast Grants 11 New Mining Permits to Boost Exploration', Africa, Reuters, 2 October 2025, <https://www.reuters.com/world/africa/ivory-coast-grants-11-new-mining-permits-boost-exploration-2025-10-02/>.

⁴³² Proposed Acquisition of Switch Metals, no. 5477Z (London Stock Exchange, 2025), 34, https://oneiro.energy/wp-content/uploads/2025/03/Proposed-Acquisition-of-Switch-Metals-07_00_09-06-Mar-2025-ONE-News-article-_London-Stock-Exchange.pdf.

⁴³³ Jason Mtchell, 'Transforming Ivory Coast's Economy through Mining', BNE Intellinews, 16 January 2025, <https://www.intellinews.com/transforming-ivory-coast-s-economy-through-mining-361836/>.

profits of the mining sector.⁴³⁴ Another major infrastructural obstacle is the unreliability of the energy grid. Power outages are frequent in Côte d'Ivoire, and they can suddenly halt a whole mining operation. The gold producing company Allied Gold reported losing \$20.9 million in Q2 2024 due to power cuts.⁴³⁵ Other firms, like Endeavour Mining, report being constrained to produce their own electricity which significantly increased their operational costs.⁴³⁶ Although infrastructure remains an obstacle to the development of the mining sector, the country is still in many regards doing better than its neighbours and the ongoing development projects should increase its competitiveness.

In 2022, the country inaugurated a new terminal at the Port of Abidjan which is operated by a French-Dutch consortium.⁴³⁷ The infrastructure project, which cost more than \$900 million, was funded in majority through a loan provided by the Chinese Eximbank.⁴³⁸ More recently, in 2025, China announced a new partnership with the Port of Abidjan through which it will finance the construction of a second mineral terminal in the Port.⁴³⁹ Côte d'Ivoire is also continuing its long-term cooperation with the World Bank to improve its electricity rates.⁴⁴⁰

The country struggles to provide skilled professionals in the extractive sector.⁴⁴¹ The expansion of the education sector was hampered by the political turmoil of 2002-2011, however, ever since the return of political stability, the country has been increasing its spendings in the sector. Enrolments in all educational levels are increasing but the quality of the offered programmes remains an issue due to the lack proper infrastructure and human resources.⁴⁴²

To attract new investors, the country also introduced a revised Mining Code in 2014. The Code ensures that the state financially benefits from the mining sector by formalising financial obligations such as taxes and royalties, but also by encouraging mining companies to hire local workforce and services.⁴⁴³ Simultaneously, it offers fiscal incentives and attractive procedures for companies looking to invest domestically.⁴⁴⁴

⁴³⁴ 'Lutte Contre La Congestion Au Sein Du Port d'Abidjan: Le PAA, La Douane et l'Office Ivoirien Des Chargeurs En Quête de Solutions Durables', Port Autonome d'Abidjan, 29 July 2025, <https://www.portabidjan.ci/fr/actualites/lutte-contre-la-congestion-au-sein-du-port-dabidjan-le-paa-la-douane-et-loffice-ivoirien>.

⁴³⁵ 'Power Outages Impact Gold Production in Côte d'Ivoire, Companies Seek Alternative Energy Solutions', Ecofin Agency, 12 August 2024, <https://www.ecofinagency.com/mining/1208-45780-power-outages-impact-gold-production-in-cote-divoire-companies-look-alternative-energy-solutions>.

⁴³⁶ 'Power Outages Impact Gold Production in Côte d'Ivoire, Companies Seek Alternative Energy Solutions', Ecofin Agency, 12 August 2024, <https://www.ecofinagency.com/mining/1208-45780-power-outages-impact-gold-production-in-cote-divoire-companies-look-alternative-energy-solutions>.

⁴³⁷ 'Côte d'Ivoire Terminal Officially Launches Operations', PortNews, 7 November 2024, <https://en.portnews.ru/news/338167/>.

⁴³⁸ 'Ivory Coast Starts USD 962 Million Port Abidjan Upgrade', Offshore Energy, 7 October 2025, <https://www.offshore-energy.biz/ivory-coast-starts-usd-962-million-port-abidjan-upgrade/>.

⁴³⁹ 'Ivory Coast: A Second Mineral Terminal Worth 250 Million USD to Establish Abidjan as a Regional Mining Logistics Hub. | Information and Promotion Portal for the Economy of Côte d'Ivoire', Web Portal for Informations and Promotion of the Economy of Côte d'Ivoire, 24 June 2025, <https://www.economie-ivoirienne.ci/en/actualites/ivory-coast-second-mineral-terminal-worth-250-million-usd-establish-abidjan-regional>.

⁴⁴⁰ Alison Buckholtz et al., 'Côte d'Ivoire Nears Universal Access to Electricity', Text/HTML, IFC, accessed 25 November 2025, <https://www.ifc.org/en/stories/2025/cote-divoire-nears-universal-access-to-electricity>.

⁴⁴¹ Jason Mitchell, 'Transforming Ivory Coast's Economy through Mining', BNE Intellinews, 16 January 2025, <https://www.intellinews.com/transforming-ivory-coast-s-economy-through-mining-361836/>.

⁴⁴² 'Focus of Cote d'Ivoire's Education Sector Is on Universal Access, Enhancing Quality and Governance and Strengthening Links to Labour Market', Oxford Business Group, 2 March 2017, <https://oxfordbusinessgroup.com/reports/cote-divoire/2017-report/economy/vital-efforts-sector-focus-is-on-universal-access-enhancing-quality-and-governance-and-strengthening-links-to-the-labour-market>.

⁴⁴³ 'Loi N° 2014-138 DU 24 Mars 2014 Portant Code Minier', République de Côte d'Ivoire, 2014, 28–30, <https://www.a-mla.org/en/country/law/40>.

⁴⁴⁴ 'Loi N° 2014-138 DU 24 Mars 2014 Portant Code Minier', République de Côte d'Ivoire, 2014, 35–38, <https://www.a-mla.org/en/country/law/40>.

While traditionally the country was focussed on the extraction of raw material with limited ambitions to take part in refining activities, it is now moving towards the improvement of its value addition. In the 2021-2025 National Development Strategy, Côte d'Ivoire stresses the importance of enhancing the value of its export with a focus on agricultural products and manufactured goods. While there is no clear mention of added value in the extractive sector, the country does talk about expanding its electronics and automobiles industries both of which can be served by locally extracted minerals.⁴⁴⁵ Additionally, the Minister of Mines and Petroleum Energy recently announced the ambition to open the first state-owned gold refinery by end 2025.⁴⁴⁶ With proper traceability mechanisms in place, locally processed gold could help the country develop its jewellery industry and derive more benefits from its extractive sector.

5.5.4. Avenues for collaboration with the Netherlands

Côte d'Ivoire-Dutch relations

Côte d'Ivoire and the Netherlands have strong bilateral relations. By 2030, Côte d'Ivoire in accordance with its National Development Plan 2021-2025, would like to domestically process all cocoa beans before export.⁴⁴⁷ The Netherlands has been actively involved in supporting this ambition, as the country is the largest importer of Ivorian cocoa. Together with Ivorian partners, the Netherlands has created the Orange CocoaPro Programme, an initiative which launched three bilateral cocoa-related partnership. For example, the Dutch company Kumasi together with other Dutch and Ivorian stakeholders opened the first ever cocoa juice industrial production plant in the country.⁴⁴⁸ Aside from cocoa, the Netherlands is an important exporter of potatoes and onions to Côte d'Ivoire and is currently assisting the country in increasing its domestic production.⁴⁴⁹

Othe than agriculture, the Netherlands recently signed two MoUs with Côte d'Ivoire. First, in 2023, Invest International, on behalf of the Dutch Ministry of Foreign Affairs, signed a €300 million deal. The money, which is loaned, will fund several public infrastructure projects notably for coastal protection, increased drinking water supply, and expanding the San Pedro fishing port.⁴⁵⁰ Cooperation in infrastructure had been ongoing, as shown by the French-Dutch consortium that opened the new Terminal in Abidjan port.

⁴⁴⁵ Plan National de Développement PND 2021-2025 (République de Côte d'Ivoire, 2021), 5, <https://cepici.gouv.ci/public/frontend/assets/document/strategie/2.5.OrientationsStrategiquesPND2021-2025.pdf>.

⁴⁴⁶ Mapathé Sow, 'Côte d'Ivoire Plans to Create a Gold Refinery to Strengthen Its Gold Industry', Or Noir Africa, 6 May 2025, <https://ornoirafrica.com/en/cote-divoire-plans-to-create-a-gold-refinery-to-strengthen-its-gold-industry/amp/>.

⁴⁴⁷ Visserij Ministerie van Landbouw, 'Cocoa at the Core: Côte d'Ivoire's Path to a Thriving Bioeconomy', nieuwsbericht, Ministerie van Landbouw, Visserij, Voedselzekerheid En Natuur, Ministerie van Landbouw, Visserij, Voedselzekerheid en Natuur, 20 October 2025, <https://doi.org/10/20/as15-cocoa-at-the-core-cote-divoires-path-to-a-thriving-bioeconomy>.

⁴⁴⁸ Visserij Ministerie van Landbouw, 'Cocoa at the Core: Côte d'Ivoire's Path to a Thriving Bioeconomy', nieuwsbericht, Ministerie van Landbouw, Visserij, Voedselzekerheid En Natuur, Ministerie van Landbouw, Visserij, Voedselzekerheid en Natuur, 20 October 2025, <https://doi.org/10/20/as15-cocoa-at-the-core-cote-divoires-path-to-a-thriving-bioeconomy>.

⁴⁴⁹ 'Côte d'Ivoire: Opportunities for Collaboration for Dutch Companies in the potatoe and onion sector.', nieuwsbericht, Ministerie van Landbouw, Visserij, Voedselzekerheid en Natuur, Ministerie van Landbouw, Visserij, Voedselzekerheid en Natuur, 19 February 2025, <https://www.agroberichtenbuitenland.nl/actueel/nieuws/2025/02/14/potatoes-and-onions-in-cote-divoire-a-need-for-local-production-offering-opportunities-for-dutch-companies>.

⁴⁵⁰ Lianne de Vries, 'MoU of €300 Million for Public Infrastructure Ivory Coast', Invest International, 2 October 2023, <https://investinternational.nl/news-items/ivory-coast-and-invest-international-sign-e300-million-public-infrastructure-mou/>.

While traditionally the country was focussed on the extraction of raw material with limited ambitions to take part in refining activities, it is now moving towards the improvement of its value addition.

Second, in 2025, the Dutch embassy in Abidjan and the Ministry for the Promotion of Youth, Professional Integration and Civic Service signed an MoU to collaborate on implementing training programmes for the Ivorian youth especially in the agricultural sectors.⁴⁵¹

The EU is also active in Côte d'Ivoire in similar sectors. Their cooperation in the country is guided by a set of 3 priority areas defined in the multi-annual indicative programme for 2021-2027: investing in human capital, accompanying Côte d'Ivoire sustainable development ambitions, and promoting peace, security, as well as democratic values. In accordance with these three key areas, the EU is active in Côte d'Ivoire via the intermediary of its Global Gateway Strategy. Its projects are focussed on supporting the Ivorian cocoa production, assisting in the clean energy transition, and promoting peace and stability.⁴⁵²

Entry points for collaboration

Collaborating on CRM-related projects does not appear on the Dutch nor the European strategy for cooperation with Côte d'Ivoire. Still, in 2022, a pilot project was launched in Côte d'Ivoire as part of the broader framework of the European Partnership for Responsible Minerals (EPRM). The initiative aims to work with local gold traders and encourage them to responsibly source their gold.⁴⁵³ This shared programme could serve as an opportunity for enhanced cooperation between the EU and Côte d'Ivoire on formalising the ASM sector, something the country seems rather eager to do given its recent partnerships also with the EU in the Tengréla region and the World Bank.

In the large-scale sector, CRM partnerships need to be established rather fast as Côte d'Ivoire is already moving forward with the expansion of the sector and granting permits to several foreign actors whether North American, Chinese, Australian, or British. However, there are several manners in which the Union could pose itself as a competitive trade partner in the extractive industry given that their ambitions match those of the Ivorian government.

Côte d'Ivoire is emphasizing the importance of prioritising local firms and labour in the mining industry, but the country struggles to provide the necessary skilled labour. An entry point for Côte d'Ivoire-EU collaboration would therefore be to assist the country in developing the appropriate training programmes to form the young professionals of the future mining industry. These programmes should target not only the large-scale mining sector but also the artisanal and semi-industrial sectors, as these employ a substantial portion of the population and are critical source of livelihoods and local economic development. The Netherlands already has experience in developing this kind of professional formation, primarily in the agriculture sector. Given the numerous mining engineering and geology university programmes across Europe and the number of already trained professionals in the field, the EU could count on countries like the Netherlands to provide and develop such professional trainings in Côte d'Ivoire.

Moreover, developing the capacity to manufacture electronics and automotive components, according to the national ambition, could differentiate the country as a regional manufacturing

⁴⁵¹ 'Côte d'Ivoire & the Netherlands: A Partnership for Youth Employment', Orange Corners, 4 June 2025, <https://www.orangecorners.com/cote-divoire-the-netherlands-a-partnership-for-youth-employment/>.

⁴⁵² 'Côte d'Ivoire - International Partnerships', European Commission, 8 October 2025, https://international-partnerships.ec.europa.eu/countries/cote-divoire_en.

⁴⁵³ 'Scaling Up: Enabling Traders to Build and Sustain a Responsible Artisanal Gold Sector in Cote d'Ivoire', The European Partnership for Responsible Minerals, 8 November 2022, <https://europeanpartnership-responsibleminerals.eu/page/view/671aee87-c2da-4dfc-a8f3-91c973537a2b/scaling-up-enabling-traders-to-build-and-sustain-a-responsible-artisanal-gold-sector-in-cote-divoire>.

hub. The Netherlands has already assisted Côte d'Ivoire in achieving similar goals with the cocoa industry. Together with either Dutch or other European private actors, the Netherlands, and more broadly the EU would be able to assist Côte d'Ivoire in achieving ambitions in the CRM sector.

A final entry point for the Netherlands in Côte d'Ivoire is to support the country in expanding its energy grid. Assisting Côte d'Ivoire in its green energy transition is already part of the European agenda. Strengthening the country's renewable energy production would also help create a more reliable energy grid, which in turn would benefit the mining sector. Offering technical assistance for optimising and enhancing energy production and transmission capacity could be a way of creating the enabling environment for a more sustainable mining industry.

6. Conclusions and recommendations

6.1. Conclusions

1. **CRM supply chains offer an opportunity for both resource owners and end users to revise their collaboration and ensure it effectively serves both parties' objectives.** The opportunities for resource-rich developing countries to gain a larger share of the CRM market, diversifying their economies and moving towards sustainable development are converging with the challenge of resource poor countries to build more resilient and robust supply chains. For end users, it is an opportunity to strengthen the resilience of mineral supply chains and, in turn, contribute to sustainable development in countries of origin.
 - 1.1. **Geopolitical tensions and the growing demand for CRM are bringing momentum for collaboration between European and African countries.** As both regions seek greater supply chain resilience and sustainable development, mutually beneficial partnerships grounded in transparency, shared technological capabilities, and responsible resource management are becoming increasingly viable. By aligning Europe's need for secure, diversified CRM sources with Africa's goals for economic transformation and value addition, this emerging momentum can foster long-term stability, boost regional growth, and support global sustainability objectives.
 - 1.2. **Benefit sharing principles are evolving due to the growing governmental involvement in CRM supply chains.** There is one key difference between the traditional concept of benefit sharing and its revised application in the context of CRM: mineral supply chains are no longer governed only by private economic actors, but by governments. Resource extraction companies have to work more closely with end user governments in addition to other private actors down the supply chain to ensure their social and legal license to operate. This brings opportunities to move towards sustainably and responsibly sourced materials.
 - 1.3. **While CRM supply chains are a relatively new area of engagement for the EU, extractive industries have existed for centuries and can provide lessons learnt for more sustainable, responsible operations that contribute to local development.** Past mining sectors illustrate the consequences of weak regulation, limited local value addition, insufficient environmental safeguards and inadequate community engagement, as well as the benefits of transparent governance, stable regulatory frameworks and sustained investment in human capital. European countries' colonial legacy is closely related to extractive industries, and this awareness should also inform new engagement strategies. These insights provide a foundation for designing contemporary CRM strategies that support more sustainable and responsible operations and enhance prospects for local development.

2. **Despite strong foreign engagement by Ghana, Senegal, Nigeria, and Côte d'Ivoire, notably with China, there is significant momentum for cooperation in the CRM space with the Netherlands and the EU in the short term.** Both European and West African countries are interested in creating revised supply chains for critical raw materials. European states are still working on understanding their true value proposition and engagement strategy in a Team Europe approach, while West African governments are developing their ambitions and legislation to ensure sustainable and responsible supply chains. In short, both sides still have work to do, but their ambitions align.
 - 2.1. **It is not a question of whether the CRM industry in Ghana, Senegal, Nigeria and Côte d'Ivoire will expand – the question is whether the EU will be able to secure partnerships in the sector amid growing competition with other foreign actors while ensuring that benefit sharing is central to these industries.** National-level strategies and regional documents like the African Union's Africa's Green Minerals Strategy point to ambitions to develop new CRM mining, processing and manufacturing capabilities, positively feeding into the rest of the economy too. Still, emerging CRM industries cannot be separated from other mining activities and their social, economic and political interlinkages. Effectively implementing legislative frameworks and upholding monitoring is essential to ensure that these emerging industries are beneficial for the resource-rich countries' socio-economic development, that their autonomy is respected, and that negative impacts on communities are minimised.
 - 2.2. **China and other non-European players are already seeking agreements with Ghana, Senegal, Nigeria and Côte d'Ivoire to support their emerging CRM industries, while Europeans are absent.** The four countries are already developing agreements with primarily China, but also the UAE and Australia, who have pledged to support the expansion of CRM supply chains. Apart from Senegal, where there is not one international player that dominates involvement in CRM, all three countries are concluding sizable and comprehensive agreements with Chinese players. The agreements are not just focussed on expanding the mining sector, but also on processing and infrastructure, and, to a lesser extent, on manufacturing. Conversely, European countries are not considering CRM as a priority in their engagement with Ghana, Senegal, Nigeria and Côte d'Ivoire.
 - 2.3. **All four countries still have relatively immature CRM mining sectors and ambitions for benefit sharing should be grounded in the main structural challenges hindering the industry's development.** ASM continues to dominate the West African mining industry while the industrial sector remains tied with colonial legacy, environmental degradation, and local grievances. Although downstream processing and value addition could generate broader economic benefits, structural challenges to the establishment of a sustainable mining sector must be addressed with priority to ensure strong and responsible legislative and institutional foundations. All four countries are still strengthening regulatory frameworks, improving oversight and working to secure adequate revenues from extraction. In addition, limited skilled labour and geological data constrain domestically led industrial expansion. Finally, persistent gaps in energy supply and transport infrastructure hinder the creation of reliable CRM supply chains. Addressing these systemic issues is essential for sustainable sector growth and mutually beneficial partnerships.

3. **The Netherlands and the EU are missing out on opportunities to engage in the CRM sector because the foreign policy and development cooperation goals have not been aligned with CRM ambitions abroad.**

While Europe is active in various sectors like security, governance and development cooperation, its presence in the mining and CRM landscape of many countries remains limited. European companies are largely absent from major extraction and processing activities, and European embassies often lack dedicated plans on expanding this presence, reducing their ability to engage strategically and meaningfully with local governments and industry stakeholders. Still, given the centrality of this sector not only to the many countries' development path but also to European goals, it is a noticeable gap that CRM are not an explicit part of Europe's and the Netherlands' engagement plans. A Team Europe that wants to get involved in an emerging CRM producer has to understand its value proposition, as well as plan its engagement so that it adds benefits for both Europe and the resource-rich country.

6.2. Recommendations for the Netherlands

1. **Strengthen the Dutch approach to CRM partnerships by enhancing the coherence of external action, leveraging collective European strengths and responding to African ambitions in emerging CRM value chains.**
 - 1.1. **Become more proactive in identifying African partners and strategically engaging via Team Europe to maximise win-win benefits in CRM supply chains.** Across Africa, and especially in West Africa, there is a trend of upgrading mining codes as well as ambitions to take on larger roles in CRM supply chains. The Dutch government and its European partners should be more proactive in following these developments and identify potential opportunities for collaboration. The HCSS *international affinity x strategic relevance* methodology developed and used in this report can help prioritise collaboration opportunities and assess feasibility.
 - 1.2. **For each selected priority country, develop a dedicated CRM strategy for the region at European level,** tailored to the specific opportunities and constraints in each of the four countries, and designed to support responsible value-chain development, regional integration and long-term economic resilience. This includes three points. First, better understanding the Team Europe value proposition in the country and wider region, based on EU and member states' available funds and capabilities. Second, cooperating with international likeminded countries like Australia, Canada and the UK that are already active in the mining sector by providing additional services and expertise as well as investments along the emerging value chains to reinforce existing efforts. Third, considering the mining sector in its entirety meaning acknowledging both the large-scale and ASM sector, the latter of which plays a significant role as cultural heritage, local economic opportunity, and source of livelihoods. ASM should not be overlooked but considered a potential entry point for engagement and collaboration with local communities.

- 1.3. Increase the coherence of external action by aligning CRM goals with development cooperation, security and governance projects.** It is essential to gain a better understanding of how critical minerals intersect with wider external action and development objectives, including governance, economic diversification, climate mitigation and adaptation, private-sector development and regional stability. CRM dynamics influence land use, labour markets, infrastructure planning and environmental management, and can interact with existing policy aims in both positive and adverse ways. A more systematic assessment of these linkages across the development cooperation portfolio would help ensure policy coherence, avoid unintended consequences and identify opportunities where CRM-related initiatives can reinforce broader Dutch priorities.
- 2. Partnering with Ghana, Senegal, Nigeria, and Côte d'Ivoire in developing their CRM industries should be sought in the short term, while the Netherlands and the EU can still take on a meaningful role.**

 - 2.1. In Ghana,** the short-term priority would be to support its lithium processing and downstream sector, while also identifying European consumers for the processed materials. Additionally, supporting geological exploration for other CRM with the intention of getting involved in the mining sector could be a long-term action.
 - 2.2. In Senegal,** the short-term priority would be conducting geological exploration, with the intention of getting involved in the mining sector, given that CRM mining is limited. Additionally, efforts could be tailored to support the government in strengthening the monitoring and enforcement of sustainability and local content requirements in its mining legislation. Moreover, providing technical assistance in infrastructure development, including transportation and energy, would match the Senegalese government's ambitions and aid in the long term in the development of the country's CRM sector.
 - 2.3. In Nigeria,** the short-term priority would be to invest in processing and refining to connect Nigeria's dominant ASM sector with global and European CRM value chains, while offering professional training programmes to strengthen the formalisation of ASM. Additional activities could focus on supporting infrastructure development to facilitate the transportation of raw and processed materials and address energy grid constraints to enable the development of larger-scale mining operations and processing facilities.
 - 2.4. In Côte d'Ivoire,** the short-term priorities would be (a) to support Côte d'Ivoire in developing the appropriate training program to formalise its ASM sector and increase the availability of skilled labour for large-scale mining; and (b) considering the many exploration permits awarded to different companies, to work together with allies and like-minded countries to support mine development and potentially processing activities. Finally, offering technical assistance with infrastructure, just like in the case of the Port of Abidjan, could be beneficial.
- 3. Support regional cooperation in West Africa.** Shared geological formations mean that neighbouring states often possess similar mineral deposits, creating natural complementarities in exploration, processing and infrastructure. No single country can establish a complete CRM value chain alone, given the capital requirements, technological demands and market scale involved. Coordinated approaches can therefore support

collective bargaining power, reduce duplication and enable more efficient regional value-chain development. Moreover, transboundary challenges such as illicit trafficking, informal cross-border flows, and the activities of organised criminal networks cannot be addressed effectively by individual states acting in isolation. Joint regulatory enforcement, information-sharing and harmonised standards are central to mitigating these risks. Strengthening regional cooperation is thus not only economically advantageous but also vital for ensuring secure, transparent and responsible CRM supply chains.

Annex 1.

Summary of results – international affinity x strategic relevance

Table A1 and Table A2 offer the results across all West African states and indicators for *international affinity* and *strategic relevance*, as well as the states' overall score for both.

Table A1. Summary of results for international affinity per country, across all indicators



	International affinity						Total international affinity score
	Democracy	Rule of Law	Human rights	AES support	Economic openness	Environmental performance	
Burkina Faso	Low	Medium	Not free	Member	Low	Medium	Low
Ghana	High	Medium	Free	No support	Low	Medium	High
Guinea	Low	Weak	Not free	Public support	Low	Medium	Low
Guinea-Bissau	Low	Weak	Partly free	No support	Low	Medium	Medium
Côte d'Ivoire	Medium	Medium	Partly free	No support	Low	Medium	Medium
Liberia	Medium	Medium	Partly free	No support	High	Medium	High
Mali	Low	Medium	Not free	Member	Low	Medium	Low
Niger	Low	Medium	Not free	Member	Low	Medium	Low
Nigeria	Medium	Weak	Partly free	No support	Low	Medium	Medium
Mauritania	Low	Weak	Partly free	No support	Low	Medium	Medium
Senegal	Medium	Strong	Free	No support	Low	Medium	High
Sierra Leone	Medium	Medium	Partly free	No support	Low	Medium	Medium
Togo	Medium	Weak	Partly free	Public support	Low	Medium	Medium

Table A2. Summary of results for strategic relevance per country, across all indicators



	Strategic relevance										Total strategic relevance score
	Political			Economic					Security		
	CRM strategy	EITI validation	EU cooperation	CRM occurrences	Extraction capabilities	EU trade volume	EU trade growth	Metal exports	Political stability	Security apparatus	
Burkina Faso	Vague ambitions	Moderate	Low	High	Limited	Limited	Negative	Limited	Low	Low	Low
Ghana	Concrete ambitions	Moderate	On CRM	High	Moderate	High	Limited	Moderate	Medium	Medium	High
Guinea	Concrete ambitions	High	Other topics	High	High	Moderate	Negative	Limited	Low	Low	Medium
Guinea-Bissau	No	N/A	Other topics	Limited	Limited	Limited	Negative	Limited	Medium	Low	Low
Côte d'Ivoire	Concrete ambitions	Moderate	Other topics	Moderate	Moderate	High	High	Moderate	Low	Medium	Medium
Liberia	Vague ambitions	Moderate	Other topics	High	Limited	Moderate	Limited	Limited	Medium	Medium	Medium
Mali	Concrete ambitions	Low	Low	Limited	Limited	Moderate	Negative	Limited	Low	Low	Low
Niger	No	N/A	Low	Limited	Limited	Limited	High	Limited	Low	Low	Low
Nigeria	Concrete ambitions	Moderate	Other topics	High	Moderate	High	Limited	High	Low	Low	Medium
Mauritania	Vague ambitions	Moderate	Other topics	High	Limited	Moderate	Limited	Moderate	Low	Medium	Medium
Senegal	Concrete ambitions	High	Other topics	High	Moderate	Moderate	High	Moderate	Medium	Medium	High
Sierra Leone	Concrete ambitions	High	Other topics	Moderate	Moderate	Limited	Limited	Limited	Medium	Medium	Medium
Togo	Vague ambitions	Moderate	Low	Moderate	Limited	Moderate	High	Limited	Low	Medium	Medium



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