AFRICA’S MINERALS AND METALS

A comprehensive commodity-level reference
Resources, geography, industrial uses and development pathways

Royal African Kingdoms Union
Research edition | 6 November 2026

Prepared for RAKU development planning. A desk-based synthesis of authoritative mineral-industry sources, including USGS country profiles, BGS statistics, IEA analysis and GIA gemological research. Country examples are illustrative rather than exhaustive.

Scope: commercially relevant metals, mineral commodities, industrial minerals, gemstones, construction materials and selected energy resources. This is not a claim to enumerate every scientifically recognized mineral species occurring in Africa, nor a reserve audit or a catalogue of available concessions.

No mineral ownership, investment return, extraction right or government endorsement is established by this report. Country mentions refer to national territory, not to RAKU membership or ownership by any kingdom.

Contents & reading guide

1. Executive overview

2. What Africa “has”: definitions and evidence

3. Precious metals and diamonds

4. Ferrous and base metals

5. Battery and technology minerals

6. Industrial minerals and fertilizer inputs

7. Construction materials and dimension stone

8. Gemstones and ornamental minerals

9. Energy minerals and associated resources

10. Rare earths and specialty-metal watchlist

11. Geographic synthesis

12. Development pathways for RAKU

13. Verification framework and research gaps

14. Sources and further reading

How to read the directory

Each entry identifies a commodity or mineral group, examples of African locations, uses, and a practical qualification. Locations can represent production, historical workings or development-stage resources: the qualification column is part of the evidence, not optional small print. The directory is not ranked by tonnage or value.

Most USGS country profiles consulted describe **2024 activity**, although accessed in November 2026. BGS’s World Mineral Production 2020-2024 is another retrospective benchmark. Current mine status must be checked separately. Trade figures, refined output and smelter production cannot automatically be interpreted as domestic mine supply. [1-4]

1. Executive overview

Africa’s mineral economy encompasses far more than precious metals. It supplies industrial feedstocks, construction materials, fertilizer inputs, gemstones and resources important to electricity systems and manufacturing. The commercial opportunity is consequently a portfolio of distinct markets, rather than one uniform “mineral wealth” proposition.

Four useful conclusions

First, distinguish endowment from availability. A mineral occurrence may be scientifically significant yet too small, low-grade, inaccessible or technically difficult to mine profitably. An operating mine may also have all its output committed under existing agreements.

Second, include development minerals. Limestone, clay, aggregates, gypsum, silica and salt can support locally anchored industry. Freight costs and local demand often matter more than global commodity headlines.

Third, identify the actual product. Bauxite is not aluminum metal; chromite is not ferrochrome; graphite concentrate is not finished battery-anode material. Each transformation has its own equipment, energy, specification, environmental and customer requirements.

Fourth, make value addition selective. Processing should follow testwork, power availability, scale and customer demand. The IEA identifies opportunities in graphite, manganese chemicals, copper/cobalt materials and phosphate processing, but its development cases are conditional scenarios, not guaranteed projects. [4]

Priority clusters for initial screening

Cluster	Potential development link
Precious metals and gems	Assay services, traceability, refining where viable, cutting, jewelry and secure trade
Copper, aluminum and steel inputs	Reliable power systems, cable, fabrication, engineering and supplier development
Battery and technology materials	Specialized processing, testing laboratories and customers with precise specifications
Fertilizer and industrial minerals	Agriculture, glass, ceramics, chemicals and infrastructure supply chains
Construction materials	Local procurement, housing, roads, maintenance and formal quarry management

2. Definitions and evidence

Term	Meaning for this report
Element / metal	A chemical constituent such as copper, iron or gold. Not every element has an economic ore deposit.
Mineral species	A naturally formed substance with a defined composition and structure: quartz, calcite, cassiterite and many thousands of others.
Ore	Material from which a useful constituent can be recovered economically under stated conditions.
Occurrence	Evidence of mineralization; not proof of tonnage, grade or profitability.
Resource	An estimated concentration with appropriate geological evidence and reporting assumptions.
Reserve	The economically mineable portion of a resource after relevant modifying factors have been assessed.
Production	Output in a specified year and unit; mine, concentrate, refined metal and finished product are different stages.
Critical mineral	A policy designation linked to economic importance and supply risk; lists vary by jurisdiction and over time.

Evidence hierarchy

Start with national geological surveys, mining cadasters, official production statistics and competent technical reports. Reconcile company disclosures with permit status and independent testwork. A promotional map is useful for screening but does not establish a reserve or mining right. [1-3,29]

This report deliberately avoids a single monetary value for “all Africa’s minerals.” Multiplying unverified geological quantities by spot prices ignores recovery, dilution, capital, operating costs, ownership, taxes, timing and market demand.

3. Precious metals and diamonds

Commodity / form	African examples	Uses and qualification
Gold / native gold and gold-bearing ores	Ghana, Mali, South Africa, Tanzania, Guinea, Sierra Leone	Jewelry, investment products and electronics. Primary mines and artisanal supply require separate traceability; country examples are not availability statements. [5,6,11,16,26,34]
Silver / native and by-product	Morocco, Namibia, Botswana, Mali	Electronics, solar applications and jewelry. Frequently recovered with base metals or gold rather than mined alone. [7,17,20,26]
Platinum (Pt)	South Africa, Zimbabwe, Ethiopia	Catalysts, chemical equipment and jewelry. Mine products commonly contain several platinum-group metals. [5,8,15]
Palladium (Pd)	South Africa, Zimbabwe	Catalysts and electronics; coproduct relationships affect supply response. [5,8]
Rhodium, iridium, ruthenium and osmium	Southern African platinum-group mineral systems	Six PGMs include Pt and Pd. Individual recoveries and sales differ; a PGM orebody does not yield equal quantities of each metal. [5,31]
Diamond / gem quality	Angola, Botswana, Namibia, South Africa, DRC, Sierra Leone	Jewelry; value depends strongly on parcel quality, size and market conditions. [5,7,9,16,20,21]
Diamond / industrial quality	DRC, Botswana, Angola, Zimbabwe	Abrasives and cutting applications; distinguish mined stones from synthetic industrial diamond. [8,9,20,21]

Commercial implications

Gold requires independent assay, lawful sourcing, beneficial-owner checks and secure settlement. Diamond projects need grade and parcel-value evidence rather than reliance on exceptional auction stones. PGM projects must model the entire recoverable metal basket, processing route and payable terms.

4. Ferrous and base metals

Commodity / host	African examples	Main use / qualification
Iron / hematite, magnetite	South Africa, Mauritania, Sierra Leone; Guinea resources	Steelmaking. Undeveloped resources are distinct from producing mines and require transport and product-quality assessment. [5,6,16,19]
Manganese / oxide ores	South Africa, Gabon, Morocco, Namibia	Steel alloys; selected material can feed battery chemicals after demanding purification. [4,5,7,17,22]
Chromium / chromite	South Africa, Zimbabwe, Madagascar	Stainless steel via ferrochrome; energy and ore chemistry are central. [5,8,10]
Vanadium / titanomagnetite and associated systems	South Africa	Alloy steels and some flow batteries; recovery is linked to a specific processing route. [5]
Copper / sulfides and oxides	DRC, Zambia, Namibia, Botswana, Mauritania, Morocco	Electrical conductors, grids and engineering. Refined exports must be distinguished from locally mined ore. [4,7,9,17,19,20,35]
Cobalt / copper and nickel associates	DRC, Madagascar, Morocco	Batteries, superalloys and catalysts; often a coproduct. [9,10,17,30]
Nickel / sulfides and laterites	Madagascar, South Africa, Zimbabwe, Morocco	Stainless steel, alloys and selected batteries. Battery suitability depends on product and purification. [5,8,10,17]
Lead / galena and secondary recovery	Morocco, Namibia; recycling in Uganda and Kenya	Batteries, shielding and industrial uses. Recycling is not evidence of new geological production. [7,12,17,25]
Zinc / sphalerite	Namibia, Morocco, South Africa, Nigeria	Galvanizing, brass and chemicals. Ore grade, deleterious elements and smelter terms matter. [5,7,13,17]
Aluminum / bauxite feedstock	Guinea, Sierra Leone; bauxite also reported in Tanzania	Alumina and aluminum value chains. A smelter using imported alumina does not prove local bauxite endowment. [6,11,16]

5. Battery and technology minerals

Commodity / host	African examples	Use and qualification
Lithium / pegmatite minerals	Zimbabwe, Namibia, Mali; Nigeria resources	Battery chemicals, glass and ceramics. Spodumene, petalite and lithium micas need different processing. [7,8,13,26]
Graphite / natural carbon	Madagascar, Mozambique, Tanzania	Refractories, lubricants and anode materials. Flake concentrate requires further purification and shaping for batteries. [4,10,11,14]
Tantalum / tantalite-columbite	DRC, Nigeria, Mozambique, Ethiopia, Namibia	Capacitors and heat-resistant equipment. “Coltan” is a trade term, not one mineral species. [7,9,13-15]
Niobium / columbite and related ores	DRC, Nigeria, Ethiopia	High-strength steels and specialty alloys; niobium is not interchangeable with tantalum. [9,13,15]
Tin / cassiterite	DRC, Nigeria, Namibia, Tanzania	Solder, tinplate and chemicals; distinguish ore output from refined tin. [7,9,11,13]
Tungsten / wolframite, scheelite	Nigeria, Uganda	Hardmetals, cutting tools and specialist alloys. Recovery depends on ore mineralogy. [13,25,32]
Beryllium / beryl and associated ores	Nigeria, Mozambique, Madagascar	Specialist alloys and ceramics. Ore occurrence, gem beryl and refined metal are separate markets. [10,13,14]
Titanium / ilmenite, rutile, leucoxene	Mozambique, South Africa, Kenya, Sierra Leone, Madagascar	Mainly titanium-dioxide pigment feedstocks; only a subset enters metal production. [5,10-12,14,16]
Zirconium / zircon	South Africa, Mozambique, Madagascar, Kenya, Sierra Leone	Ceramics, refractories and specialty chemicals. Zircon sand is not zirconium metal. [5,10-12,14,16]
Rare-earth-bearing concentrates	Reported in Madagascar and Nigeria; projects elsewhere need individual verification	Magnets, catalysts, polishing and specialist materials. Element separation and radioactive associates are decisive. [10,13]

6. Industrial minerals and fertilizer inputs

Material	African examples	Use / evidence qualification
Phosphate rock / apatite-group feedstocks	Morocco, Egypt, Tunisia, Algeria, Tanzania, Mali	Fertilizer and phosphoric acid. Deposit quality and contaminants affect processing. [11,17,18,23,24,26]
Salt / halite and brines	Namibia, Egypt, Kenya, Tanzania, Morocco, Mauritania	Food, water treatment and chemicals; solar salt and mined salt are distinct routes. [7,11,12,17,19,24]
Soda ash / trona and alkaline brines	Botswana, Kenya, Ethiopia	Glass and chemicals; natural sources differ from synthetic soda ash. [12,15,20]
Fluorspar / fluorite	South Africa, Morocco	Steel flux and fluorochemicals; acid-grade purity is a specific product requirement. [5,17]
Barite / baryte	Morocco, Nigeria	Drilling fluids and industrial fillers; density and contamination determine specification. [17,29]
Gypsum / anhydrite feedstocks	Algeria, Egypt, Tunisia, Mauritania, Angola, Kenya	Plaster, wallboard and cement control; distinguish natural rock from synthetic gypsum. [12,18,19,21,23,24]
Kaolin / china clay	Egypt, Tanzania, Uganda, Nigeria	Ceramics, paper and fillers; whiteness and particle size matter. [11,24,25,29]
Bentonite / smectite-rich clay	Morocco, Egypt, Nigeria	Drilling, foundry and sealing uses; swelling and chemistry are product-specific. [17,24,29]
Other clays / fuller’s earth, ghassoul	Morocco; widespread brick-clay operations	Adsorbents, ceramics and local construction. Geological names do not guarantee product performance. [17]
Feldspar / nepheline-syenite feedstocks	Morocco; Nigerian occurrences	Glass and ceramics; alkali chemistry and iron content matter. [17,29]
Quartz / silica sand	Egypt, Mali, Nigeria; many other jurisdictions	Glass, foundry and industrial silicon feedstocks. Ordinary quartz is not automatically high-purity quartz. [24,26,29]

6. Industrial minerals - continued

Material	African examples	Use / qualification
Mica / muscovite and related species	Madagascar, Egypt, Morocco	Insulation, fillers and specialty products; sheet and scrap mica are distinct markets. [10,17,24]
Vermiculite	South Africa, Zimbabwe, Uganda	Horticulture, lightweight products and insulation; expansion behavior requires testing. [5,8,25]
Andalusite / aluminosilicate	South Africa	High-temperature refractories. Treat other aluminosilicates as separate mineral products. [5]
Talc and pyrophyllite	South Africa, Egypt	Fillers, ceramics and related industrial uses. Purity and absence of hazardous fibers are essential. [5,24]
Diatomite	Kenya; Nigerian occurrences	Filtration, absorbents and lightweight applications. Processing and dust controls affect suitability. [12,29]
Pumice and pumicite	Tanzania, Ethiopia, Uganda	Lightweight aggregates, abrasives and cementitious applications. [11,15,25]
Pozzolanic volcanic materials	Uganda and other volcanic terrains	Cement blending; chemical reactivity must be demonstrated, not assumed from appearance. [25]
Industrial garnet	South Africa	Abrasives and waterjet cutting; abrasive quality differs from gem quality. [5]
Sulfur / sulfide-derived feedstocks	Associated with metal processing and reported sulfur output in Kenya	Sulfuric acid and fertilizer chemistry. Sulfuric acid output does not prove a native sulfur deposit. [12]
Potash / potassium-bearing evaporites	Development and resource category requiring project-level verification	Fertilizer. Distinguish sylvite/carnallite resources from current commercial potash output. [1-3]
Magnesite and dolomite	Mineral-occurrence screening category, including Nigeria	Refractories, magnesium feedstocks and industrial lime; deposit quality and recovery route require verification. [29]
Zeolites / natural zeolitic rocks	Possible South African output; not reliably quantified in consulted profile	Water treatment, adsorbents and additives; exchange capacity and market access determine value. [5]

7. Construction and dimension stone

These commodities deserve equal attention in community development planning. Their economics often depend on distance to customers, quarry management and consistency rather than on export prices. Country lists below illustrate reported activity; they do not imply exclusivity.

Material / group	African examples	Development role
Limestone / calcite-rich rock	Namibia, Tanzania, Egypt, Niger; widespread elsewhere	Cement and lime feedstocks; chemistry and kiln performance must be assessed. [7,11,24,27]
Granite	Namibia; Nigerian occurrences	Dimension stone, kerbs and aggregates; block size, fracture pattern and finishing yield matter. [7,29]
Marble	Namibia, Tanzania; Nigerian occurrences	Architectural stone and carbonate products; aesthetic grade differs from filler quality. [7,11,29]
Crushed stone / aggregate	Angola, Kenya, Ethiopia, Uganda	Roads, concrete and drainage. A local quarry needs physical testing and permitted extraction. [12,15,21,25]
Sand and gravel	Madagascar, Kenya, Tanzania, Uganda and many others	Concrete and civil works; manage river impacts and verify grading and contaminants. [10-12,25]
Laterite and weathered construction material	Nigeria occurrence mapping and regional surveys	Road base and local earth materials; geotechnical behavior varies. [29]
Slate, sandstone, basalt and quartzite	Broader geological screening categories	Potential stone or aggregate feedstocks; this report does not establish a specific producing site for each rock type. [1-3]
Cement and lime	Widely reported across consulted country profiles	Manufactured products, not mineral species. Include them in value-chain planning, not in a tally of geological deposits. [6,7,12,18,21,23-25]

Local processing logic

Evaluate quarry-to-market freight, water, electricity, consumables, laboratory certification and rehabilitation obligations. A smaller local materials project may be more practical for a participating community than an export mine requiring a new railway. This is a planning inference, not an investment recommendation.

8. Gemstones and ornamental minerals

Gemstone names can denote species, varieties or commercial descriptions. Ruby and sapphire are varieties of corundum; emerald and aquamarine are varieties of beryl. Color, clarity, treatments, origin evidence and cutting yield influence value. GIA laboratory findings should not be replaced by visual inspection or seller claims. [28]

Group / variety	African examples or context	Qualification
Tanzanite / blue-violet zoisite	Tanzania, Manyara Region	A geographically distinctive gem; verify identity and treatment. [11]
Ruby and sapphire / corundum	East African gem belts; Madagascar and Mozambique gem sectors	Same mineral species with different varieties; origin and treatment require specialist testing. [10,11,28]
Emerald, aquamarine and other beryl varieties	Zambia and wider African colored-stone sector; Nigerian mapped occurrences	Gem beryl is distinct from industrial beryllium ore. Do not infer gem quality from beryl presence alone. [13,28,29]
Tourmaline group	Nigerian occurrences and African gem-sector references	Multiple mineral species and colors; “Paraiba-type” requires appropriate compositional and laboratory context. [28,29]
Garnet group	Mali; East African colored-stone belt	Multiple species and varieties. Industrial abrasive garnet is a separate product stream. [26,28]
Quartz varieties / amethyst, rock crystal and related gems	Mali; Nigerian occurrences	Value depends on quality and market; common mineral abundance does not imply valuable parcels. [26,29]
Epidote, prehnite	Mali	Reported gemstone production; parcel quality and demand must be established. [26]
Topaz	Nigerian occurrences	Verify natural identity, color treatment and usable cutting yield. [29]
Spinel, chrysoberyl / alexandrite and other colored stones	African gem-belt screening category	Include in a specialist gem survey, but no country-specific production claim is made here. [28]
Agate, jasper, chalcedony, malachite and other ornamental stones	Continental mineralogical screening category	Some are mineral varieties or rocks, not distinct species; commercial source and quality need locality evidence. [1,28]

9. Energy minerals and associated resources

Resource	African context	Important distinction
Uranium / uranium-bearing ores	Namibia, Niger; South African mineral systems	Nuclear fuel feedstock; licensing and radiological controls are essential. Historic supply and current operations can differ. [5,7,27]
Thorium / monazite-associated material	Rare-earth and mineral-sands screening category	Often a regulated constituent rather than a marketable product. No continent-wide reserve estimate is established here. [1,3]
Coal / hard coal and lignite	Niger and wider African coal provinces	Energy or metallurgical feedstock depending on quality. Coal is a sedimentary rock, not one mineral species. [27,29]
Bitumen / tar sands	Nigerian occurrences	Development-stage evidence must not be described as producing reserves without verification. [29]
Petroleum and natural gas	Algeria, Angola, Nigeria and other African basins	Included for completeness of extractive resources; these mixtures are not minerals in the strict mineralogical sense. [13,18,21]
Helium / gas-associated resource	Algeria	Industrial gas used in cooling and specialist applications; not a metal or ore mineral. [18]

Energy and mineral processing

Electricity supply is both an enabling service for mineral value addition and a development objective in its own right. Smelting, refining and chemical conversion require reliable supply at an economically viable cost. Capacity and power studies must precede assumptions about downstream manufacturing. [4]

10. Rare earths and specialty metals

Rare earths comprise the 15 lanthanides plus yttrium and scandium in common policy usage. They are not interchangeable: a deposit’s element distribution, mineralogy and separation costs determine its significance. Copper, cobalt, lithium and graphite are not rare earth elements.

Elements / grouping	Typical demand context	Evidence caution
Lanthanum, cerium	Catalysts, polishing, glass and alloys	Presence can be substantial without strong project economics.
Praseodymium, neodymium	Permanent magnets and alloys	Magnet-market suitability requires separated products and specifications.
Samarium, europium, gadolinium	Magnets, phosphors and specialist technologies	Demand and prices differ greatly by element.
Terbium, dysprosium	Selected high-performance magnets and other uses	Do not assume a light-rare-earth deposit contains valuable heavy elements in economic quantities.
Holmium, erbium, thulium, ytterbium, lutetium	Optical, laser, specialist and research uses	Often small markets; measurable concentration is not proof of a viable sales stream.
Yttrium, scandium	Ceramics, alloys and other specialist uses	Recovery can be linked to other commodities and processing residues.
Promethium	Radioactive research and niche applications	No ordinary commercial African ore-supply claim is made; included to complete the lanthanide list.

Specialty-metal screening list - not confirmed commercial supply

Antimony, arsenic and mercury are reported or mapped in some consulted African sources; toxicity and permitted handling materially affect development. Morocco’s profile identifies arsenic and mercury production, while South African locality and production references warrant antimony screening. [5,17,33]

Bismuth, cadmium, gallium, germanium, indium, hafnium, molybdenum, rhenium, selenium, tellurium, thallium, cesium and rubidium belong in a detailed African resource-screening program. Some may occur as accessory constituents, by-products or historical resources. This desk review does **not** verify a commercially recoverable African deposit or current output for every item on this list. Hafnium commonly follows zirconium; cesium and rubidium warrant pegmatite-specific study. [1,3,31]

11. Geographic synthesis

The following is a selected geography guide, not a complete list of Africa’s countries or deposits. National production statistics do not establish that resources lie within a particular traditional kingdom.

Geography	Documented themes in consulted sources
North Africa	Morocco: phosphate, barite and varied base/industrial minerals. Algeria: helium, gypsum and phosphate. Egypt: phosphate, iron-related industry, gold and industrial materials. Tunisia: phosphate, gypsum and salt. [17,18,23,24]
West Africa	Guinea: bauxite, gold, diamond and iron resources. Sierra Leone: rutile, bauxite, iron, diamond and gold. Mali: gold, silver, lithium and gem/industrial materials. Mauritania: iron, copper, gold, gypsum and salt. [6,16,19,26]
Central Africa	DRC: cobalt, copper, tantalum, tin, niobium and diamonds. Gabon: manganese and silicomanganese. These commodity associations point toward different processing and infrastructure requirements. [9,22]
Eastern Africa	Tanzania: graphite, gold, tanzanite and industrial minerals. Kenya: mineral sands, soda ash and industrial materials. Ethiopia: tantalum, soda ash, gemstones and volcanic materials. Uganda: vermiculite, pumice and tungsten among reported products. [11,12,15,25]
Southern Africa	South Africa: PGMs, chromium, manganese, vanadium and diversified minerals. Zimbabwe: PGMs, lithium, chromium and vermiculite. Namibia: diamonds, uranium and varied metals. Botswana: diamonds, copper and soda ash. Angola: diamonds and construction materials. [5,7,8,20,21]
Indian Ocean island economies	Madagascar: graphite, mica, nickel/cobalt, mineral sands and gems. Island geology and logistics require separate assessment; this summary does not infer equivalent deposits across neighboring islands. [10]

12. Development pathways for RAKU

The recommendations in this section are the report’s planning synthesis. They are not source-agency endorsements, funded RAKU commitments or investment guarantees.

Build a verified mineral opportunity register

Invite participating kingdoms to submit locations, commodity descriptions, lawful rights holders and existing technical evidence. Record who supplied each assertion and whether it is an occurrence, exploration target, resource, reserve, historical mine or operating business. Keep unverified opportunities out of investor-ready catalogues.

Develop services before assuming ownership

Laboratory access, geological mapping, traceability, equipment maintenance, technical training and supplier development can create local value without RAKU owning a mineral deposit. Link opportunities to the actual national licensing framework and the rights holder’s mandate.

Match processing to customers

For each candidate project, identify a buyer’s required composition, purity, moisture, particle size and delivery profile. Commission independent sampling and metallurgical testwork. Then compare beneficiation, refining, fabrication or simple local supply against realistic capital and operating costs.

Use distinct opportunity tracks

Track	Initial deliverable
Local development minerals	Quarry inventory, materials tests, market radius and rehabilitation plan
Operating mines	Verified ownership, production records, permits and uncommitted supply
Exploration projects	Geological data room and independent resource-assessment plan
Technology materials	Metallurgical flowsheet, customer specification and qualified technical partner
Gems and precious metals	Chain of custody, independent identification/assay and lawful trading route

Measure local outcomes

Track sustained employment, training applied on the job, local procurement, tax and royalty compliance, environmental performance and supplier survival. Export revenue alone does not describe community benefit.

13. Verification framework & research gaps

Question	Evidence to request
What exactly is present?	Coordinates, geology, representative samples, laboratory certificates and mineralogical analysis.
How much and at what confidence?	Competent resource statement, methodology, drilling or sampling coverage, density and uncertainty.
Who may lawfully develop it?	Current cadastral record, title, beneficial owners, surface access and necessary authorizations.
Can it become a saleable product?	Recovery tests, contaminant limits, waste characterization and an independently reviewed flowsheet.
Can it operate competitively?	Power, water, transport, labor, security, capital, operating costs and realistic financing assumptions.
Who buys it?	Specifications, credible customers, pricing basis, penalties, payable terms and delivery obligations.
What must be protected?	Community engagement, worker safety, biodiversity, water, tailings, closure and rehabilitation plans.
Is it truly available?	Existing offtake, security interests, litigation, export restrictions and contractual commitments.

What remains to produce a literal “every mineral” inventory

A species-level catalogue would require national mineralogical databases, type-locality records, museum collections, geological maps, academic literature and systematic checking against accepted mineral nomenclature. Trace minerals and new discoveries continually expand that catalogue. It would need a separate row for each verified species and locality, rather than one row for each commercial commodity.

This report also does not provide a complete country-by-country reserve table, current mine-status database, concession list or investment valuation. The next research phase should prioritize national sources for countries not individually covered here and obtain project-level evidence for specialty-metal entries. Absence from this selected directory is not evidence that a country lacks a mineral.

14. Sources & further reading

[1] **USGS** - Minerals Yearbook: Africa and the Middle East.
https://pubs.usgs.gov/publication/70178240

[2] **USGS** - 2024 international Minerals Yearbook data release, published 2026.
https://www.usgs.gov/data/2024-minerals-yearbook-volume-iii-area-reports-international-country-reports-global-production

[3] **BGS** - World mineral statistics: World Mineral Production 2020-2024.
https://www.bgs.ac.uk/mineralsuk/statistics/world-mineral-statistics/

[4] **IEA** - Stepping Up the Value Chain in Africa (2025).
https://www.iea.org/reports/stepping-up-the-value-chain-in-africa

[5] **USGS** - South Africa mineral industry profile (2024 reporting context).
https://www.usgs.gov/centers/national-minerals-information-center/south-africa

[6] **USGS** - Guinea mineral industry profile (2024 reporting context).
https://www.usgs.gov/centers/national-minerals-information-center/guinea

[7] **USGS** - Namibia mineral industry profile (2024 reporting context).
https://www.usgs.gov/centers/national-minerals-information-center/namibia

[8] **USGS** - Zimbabwe mineral industry profile (2024 reporting context).
https://www.usgs.gov/centers/national-minerals-information-center/zimbabwe

[9] **USGS** - Congo (Kinshasa) mineral industry profile (2024 reporting context).
https://www.usgs.gov/centers/national-minerals-information-center/congo-kinshasa

[10] **USGS** - Madagascar mineral industry profile (2024 reporting context).
https://www.usgs.gov/centers/national-minerals-information-center/madagascar

[11] **USGS** - Tanzania mineral industry profile (2024 reporting context).
https://www.usgs.gov/centers/national-minerals-information-center/tanzania

[12] **USGS** - Kenya mineral industry profile (2024 reporting context).
https://www.usgs.gov/centers/national-minerals-information-center/kenya

[13] **USGS** - Nigeria mineral industry profile (2024 reporting context).
https://www.usgs.gov/centers/national-minerals-information-center/nigeria

[14] **USGS** - Mozambique mineral industry profile (2024 reporting context).
https://www.usgs.gov/centers/national-minerals-information-center/mozambique

[15] **USGS** - Ethiopia mineral industry profile (2024 reporting context).
https://www.usgs.gov/centers/national-minerals-information-center/ethiopia

[16] **USGS** - Sierra Leone mineral industry profile (2024 reporting context).
https://www.usgs.gov/centers/national-minerals-information-center/sierra-leone

[17] **USGS** - Morocco mineral industry profile (2024 reporting context).
https://www.usgs.gov/centers/national-minerals-information-center/morocco

[18] **USGS** - Algeria mineral industry profile (2024 reporting context).
https://www.usgs.gov/centers/national-minerals-information-center/algeria

[19] **USGS** - Mauritania mineral industry profile (2024 reporting context).
https://www.usgs.gov/centers/national-minerals-information-center/mauritania

[20] **USGS** - Botswana mineral industry profile (2024 reporting context).
https://www.usgs.gov/centers/national-minerals-information-center/botswana

[21] **USGS** - Angola mineral industry profile (2024 reporting context).
https://www.usgs.gov/centers/national-minerals-information-center/angola

[22] **USGS** - Gabon mineral industry profile (2024 reporting context).
https://www.usgs.gov/centers/national-minerals-information-center/gabon

[23] **USGS** - Tunisia mineral industry profile (2024 reporting context).
https://www.usgs.gov/centers/national-minerals-information-center/tunisia

[24] **USGS** - Egypt mineral industry profile (2024 reporting context).
https://www.usgs.gov/centers/national-minerals-information-center/egypt

[25] **USGS** - Uganda mineral industry profile (2024 reporting context).
https://www.usgs.gov/centers/national-minerals-information-center/uganda

[26] **USGS** - Mali mineral industry profile (2024 reporting context).
https://www.usgs.gov/centers/national-minerals-information-center/mali

[27] **USGS** - Niger mineral industry profile (2024 reporting context).
https://www.usgs.gov/centers/national-minerals-information-center/niger

[28] **GIA** - Colored stone research and mineral/gem identification.
https://www.gia.edu/colored-stone-research

[29] **NGSA** - Mineral Resources Map of Nigeria (2023).
https://ngsa.gov.ng/wp-content/uploads/2023/08/Mineral_Resources_Map_of_Nigeria_2023.pdf

[30] **USGS** - Cobalt statistics and information.
https://www.usgs.gov/centers/national-minerals-information-center/cobalt-statistics-and-information

[31] **USGS** - Commodity statistics and information directory.
https://www.usgs.gov/centers/national-minerals-information-center/commodity-statistics-and-information

[32] **USGS** - Critical minerals: commodity uses.
https://www.usgs.gov/programs/mineral-resources-program/science/about-2025-list-critical-minerals

[33] **Council for Geoscience** - Mineral locality maps and downloadable material.
https://www.geoscience.org.za/cgs/systems/publications/downloadable-material/

[34] **Ghana Minerals Commission** - Minerals in Ghana.
https://www.mincom.gov.gh/minerals-in-ghana/

[35] **USGS** - Zambia mineral industry profile.
https://www.usgs.gov/centers/national-minerals-information-center/zambia

Sources accessed 6 November 2026. Country statistics can be revised; the cited reporting year is not an assertion of current operating status. Failed or inaccessible sources were not used as evidence for specific claims. No website publication or amendment to RAKU’s live pages has been made as part of preparing this report.