

- Africa new front for the rare earth supply
- De-mystifying the in-situ uranium technology
- Dark Star appoints dealmaker Parnham
- Otjikoto delivers 44,105 ounces in Q3

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What Africans want from COP30

Instead of continuing to wait for aid, Africa is seeking to mobilise investment in its green transition, not because rich countries “owe” Africans – though they do – but because Africa can help the world tackle climate change.



P.01

COVER STORY

Eureka Project expands Namibia's rare earth frontier

EXPLAINER

P.05

Namibia joins Africa's rare earth map

RARE EARTH

P.09

Africa is the new front for the rare earth supply

COP30

P.13

What Africans want from COP30

COLUMN

P.17

De-mystifying the in-situ uranium technology

APPOINTMENT

P.21

Dark Star Minerals appoints dealmaker Duane Parnham

GOLD

P.27

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Eureka Project expands Namibia's rare earth frontier

Namibia hosts two of the most valuable rare-earth elements, neodymium (Nd) and praseodymium (Pr), both of which are driving the global shift toward cleaner energy and advanced technology.

At ReeXploration Inc.'s Eureka Project in the Erongo Region, new geophysical data have revealed that these minerals may occur in far greater quantities than previously thought, strengthening Namibia's position as a key supplier of strategic resources.

The Eureka rare-earth deposit sits within the Eureka Dome, a structural feature

approximately 13 km by 6 km in size, located about 250 km northwest of Windhoek and some 140 km east of the deep-water port at Walvis Bay.

The project's licence ground originally comprised Exclusive Prospecting Licence (EPL) 6762; in 2023, an adjoining licence, EPL 8748, was added to expand the footprint.

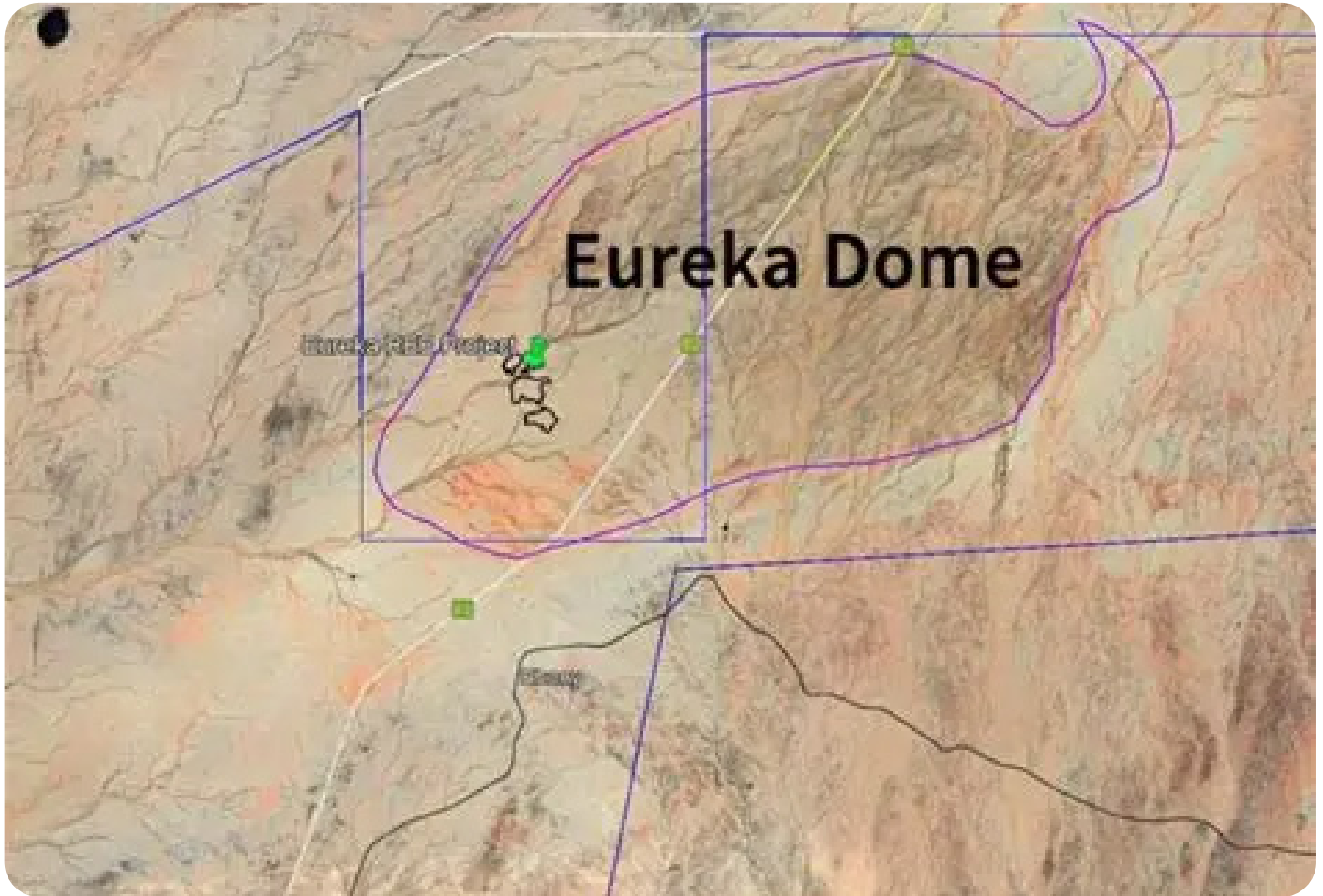
The deposit was first identified in 2017 by Gecko Namibia (Pty) Ltd under EPL 6762. Gecko's geological team conducted mapping, trenching, and sampling that

revealed monazite-bearing carbonatite dykes cutting the bedrock of the Eureka Dome, confirming enrichment in rare-earth elements, dominated by Nd and Pr.

In November 2020, Canadian-listed E-Tech Resources Inc. entered into a definitive agreement to acquire an 85 per cent interest in the Eureka Project from Gecko, through its Namibian subsidiary.

The transaction included a cash payment of C\$200,000, issue of 3.5 million E-Tech shares, and an exploration expenditure





New geophysical data suggest the Eureka Dome may hold far greater rare-earth potential than previously imagined.



commitment of C\$350,000 within 24 months.

Gecko retained a 15 per cent free-carried interest until completion of a bankable feasibility study, plus a 2 per cent net smelter return royalty on future production.

Following this acquisition, the company rebranded to ReeXploration Inc. in October 2025.

Once under ReeXploration's control, the Eureka Project entered a systematic exploration phase.

Geo-mapping, soil sampling, trenching, and geophysical work (ground magnetics, radiometric surveys) identified shallow, high-quality mineralisation in multiple zones (Zones 1–3).

Fourteen initial carbonatite dykes were identified across these

zones with thicknesses ranging from 0.5 m to 5 m and open both along strike and at depth.

The company completed 19 drill holes totalling 613 metres (a combination of reverse circulation and diamond core) across the three zones, which formed the basis of a maiden resource estimate.

That maiden resource was prepared by independent technical consultant SRK Consulting (UK) Ltd (Mr Martin Pittuck, CEng, MIMMM, FGS) and

is effective 2 August 2021. It was prepared in accordance with both Canada's NI 43-101 standard and Australia's JORC Code (2012). The resource statement reported an Inferred Mineral Resource of 310,000 tonnes at 4.8 per cent Total Rare Earth Oxides (TREO), including 0.7 per cent Nd + Pr oxides.

SRK also provided a "sensitivity" table showing, for example, that at a cut-off grade of 2 per cent TREO, the tonnage would drop to 275 kt at 5.2 per cent TREO, and other sensitivities up to 10.6 per cent TREO at only 5 kt.

The mineralisation at Eureka is hosted in monazite-bearing carbonatite intrusions, a favourable host rock because monazite often contains low impurities, low radioactivity (necessary for licensing and processing) and is compatible with Western

processing standards. Early bench-scale metallurgical testwork produced a concentrate with approximately 60 per cent TREO via simple gravity and magnetic separation, confirming processability and derisking technical uncertainty.

In 2023, ReeXploration further bolstered control of the domain by acquiring an 85 per cent interest in adjoining EPL 8748 from Gecko Namibia and Flightec Namibia, thereby consolidating ownership of the broader structural footprint under the Eureka Dome and increasing the mineralised catchment area.

The transfer of the licence was submitted for approval, and the company also successfully amended EPL 8748 to include nuclear fuels (uranium/thorium) as a designated commodity, thereby broadening its exploration

mandate.

Recent analysis of newly processed high-resolution ground magnetic data revealed multiple significant untested magnetic anomalies (labelled MA-1 to MA-5) over a strike length of about 5 km along the north-western flank of the Eureka Dome.

These anomalies begin at depths of 50–100 metres below the surface and align with structural lineaments, which may have served as feeder zones for carbonatite intrusion and rare-earth mineralisation.

The series of interpreted intrusive bodies converges beneath the surface and aligns with potential feeders to the shallow mineralised dykes.

The company plans to undertake a ground gravity survey to model density variations and refine the geometry of these magnetic bodies before proceeding to targeted drilling of these

feeder zones.

This marks the subsequent “discovery” phase at Eureka: moving beyond the shallow zone into deeper intrusive bodies that may host additional resources.

The logistics of the project contribute to its attractiveness: the Eureka site lies only 2 km from the Trans-Kalahari Highway, is proximate to the national road network, a major powerline, and a rail system immediately south of the project area, and has access to the deep-water port of Walvis Bay.

Namibia's mining jurisdiction is considered stable, with favourable infrastructure and government policy.

From an economic-metals perspective, Nd and Pr are regarded as the “magnet metals” — critical for high-strength permanent magnets used in electric-vehicle motors, wind-turbine generators, industrial automation,

The Eureka rare-earth deposit sits within a 13-by-6-kilometre structural dome — the geological heart of Namibia's NdPr discovery.



defence systems and more.

Their global demand continues to accelerate as supply chains are being restructured toward sustainable, non-China-dominated routes.

The fact that Eureka's resource is already Nd/Pr enriched (0.7 per cent in the inferred resource) enhances its strategic value.

Looking ahead, future work at Eureka includes further trenching and soil sampling to expand the near-surface footprint, infill and step-out drilling of the shallow zones to convert Inferred resources to Indicated, and deeper

drilling targeting the feeder zones defined by magnetic/gravity modelling.

Metallurgical work will continue to optimise recovery, concentrate grade and downstream processing flowsheet.

Technical studies (such as a Preliminary Economic Assessment and Pre-Feasibility Study) are planned once sufficient data coverage is achieved.

Concurrently, the company is positioning Eureka as part of a Western-aligned, low-impurity, low-radioactivity NdPr supply chain rooted in Africa.

Thus, the Eureka Project, once a relatively modest exploration venture, is emerging as a potential district-scale rare-earth system in Namibia, underpinned by favourable geology, recognised resource, demonstrated metallurgy and expanding discovery potential.

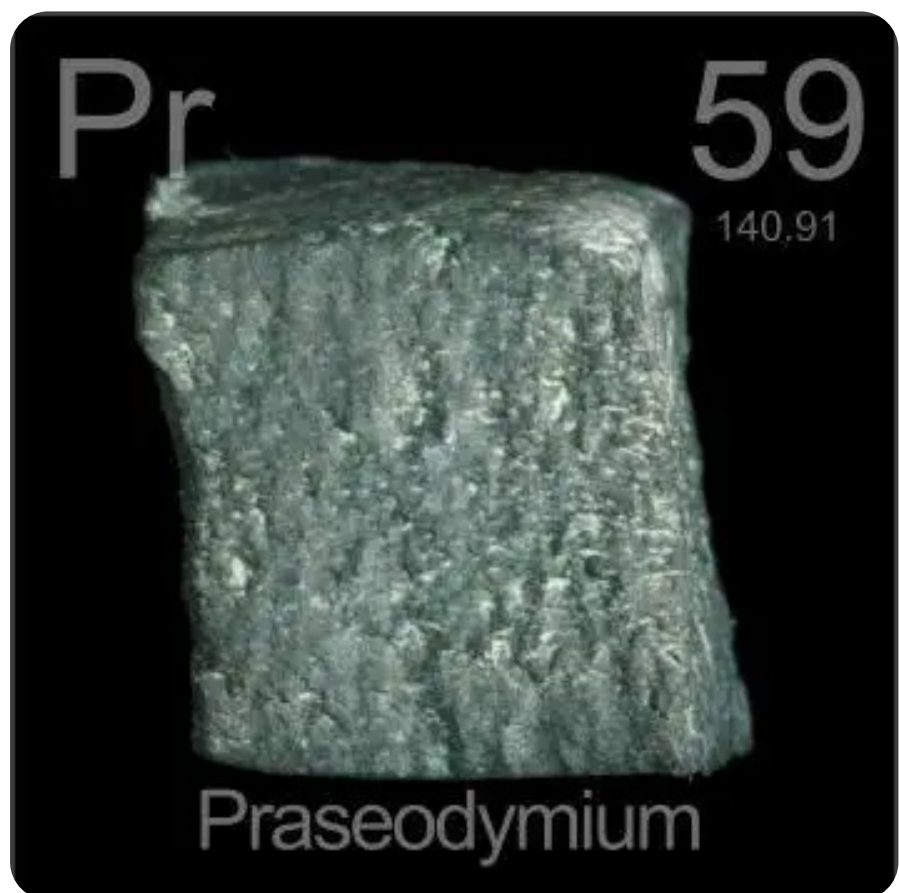
Namibia joins Africa's rare earth map

Across Africa, a quiet but strategic race is unfolding for control of the metals that power the world's clean energy revolution.

Chief among these are neodymium (Nd) and praseodymium (Pr) — the twin rare earth elements used to manufacture high-strength permanent magnets for electric vehicles, wind turbines and advanced electronics.

From Tanzania to Angola and now Namibia, countries are exploring and developing NdPr deposits as demand for green technology materials grows.

In Tanzania, Peak Rare Earths' Ngualla Project in the southern highlands stands as one of the continent's



largest, with 214 million tonnes at 2.15% total rare earth oxides (TREO), of which about 22% comprises neodymium and praseodymium. The company has finalised agreements

with the government and is preparing for construction.

Angola's Longonjo Project, being developed by Pensana Plc near Huambo, holds 313 million tonnes at 1.43%

TREO with roughly 23% NdPr content. It is backed by plans for a downstream separation plant, making Angola a frontrunner in Africa's rare earth value chain.

In Malawi, Mkango Resources' Songwe Hill deposit near Phalombe contains 21 million tonnes at 1.41% TREO, with NdPr accounting for about 20%. The project has completed a feasibility study and awaits environmental clearance.

Closer to home, Namibia is steadily emerging in this new critical minerals frontier through two projects — E-Tech Resources' Eureka Project in the Erongo Region and Namibia Critical Metals' Lofdal Project in Kunene.

Eureka, near Usakos,

hosts monazite-bearing carbonatite veins rich in light rare-earth elements, particularly Nd and Pr. A 2024 technical report defined a measured and indicated resource of 310,000 tonnes grading 4.8% TREO, with NdPr oxides accounting for approximately 21%, equivalent to roughly 15,000 tonnes of contained NdPr. The mineralisation remains open along strike and at depth, with further drilling planned.

In Kunene, the Lofdal Heavy Rare Earth Project, a joint venture between Namibia Critical Metals and Japan Oil, Gas and Metals National Corporation (JOGMEC), is primarily a heavy rare earth deposit dominated by dysprosium and

Across Africa, a quiet but strategic race is unfolding for control of the metals that power the clean energy revolution.



terbium, but it also records trace NdPr values.

The Japanese partnership is viewed as a strategic foothold for securing a diversified supply of rare earths outside China.

Lofdal's mineralisation occurs within a swarm of carbonatite dykes and hydrothermal breccias stretching across 50 kilometres of the

Epembe–Lofdal belt, near the village of Sesfontein.

The deposit contains exceptionally high proportions of heavy rare earth elements (HREEs), notably dysprosium (Dy) and terbium (Tb), which are vital for high-temperature magnets used in electric vehicles, offshore wind turbines and defence systems.

Under the joint venture, first signed in 2020 and expanded in 2022, JOGMEC committed up to US\$20 million (about N\$374 million) to exploration, feasibility studies, and pilot processing to earn a 50% stake.

A 2024 resource update defined 2.2 million tonnes at 0.17% TREO, of which nearly 90% comprises heavy rare earths.

Within that, small but measurable quantities of NdPr enhance the deposit's value and align it with the full suite of rare earth demand.

The ongoing Phase 2 programme, launched in mid-2025, includes advanced metallurgical testing and a demonstration-scale pilot plant to validate recoveries of Dy, Tb and NdPr at commercial scale.

Beyond its technical scope, the Lofdal partnership carries geopolitical significance. Japan relies on China for over 60% of its rare earth imports and has sought alternative suppliers since 2010.

The Namibian venture, supported by JOGMEC and Japan's Ministry

Eureka's high grades rival the giants of Tanzania and Angola, placing Namibia firmly on the critical-minerals map.



of Economy, Trade and Industry, marks one of the most tangible efforts to establish a non-Chinese supply corridor linking Africa and Asia.

The Namibian government recognises the project as central to its Green Industrialisation Blueprint, ensuring local training, procurement and environmental safeguards form part of the development framework.

If fully realised, Lofdal could make Namibia the first African nation to

export heavy rare earth concentrates directly to Japan, establishing a bilateral pathway for critical minerals trade.

While Namibia's NdPr tonnages are modest compared to the giants of Tanzania and Angola, its ore grades are considerably higher. Eureka's 4.8% TREO grade surpasses the average for most African light rare earth deposits, and its NdPr ratio of about 21% places it within the same range as leading projects across the continent.

The Namibian government has included both Eureka and Lofdal in its Green Industrialisation Blueprint (2024–2040), which prioritises the development of rare earths alongside uranium,

lithium and green hydrogen.

Under the EU–Namibia Critical Minerals and Green Hydrogen Roadmap, the country has also committed to fostering responsible supply chains for strategic materials such as neodymium and praseodymium.

By late 2025, NdPr oxide prices were averaging between US\$65 and US\$70 per kilogram (N\$1,200–1,300/kg), steadying after earlier volatility.

Each wind turbine uses about 600 kilograms of NdPr, and an electric vehicle requires around 1.5 kilograms, underscoring the market's long-term pull.

As E-Tech Resources advances metallurgical

testing and mine design work, and as Namibia Critical Metals deepens its partnership with Japan, the country is quietly joining the small circle of African nations with defined NdPr resources.

The emerging picture places Namibia in an advantageous position — a high-grade newcomer in a market dominated by Tanzania, Angola and Malawi, with clear policy backing and growing European and Asian interest. For now, the quantities are smaller, but the potential is significant: a new chapter in Namibia's mining narrative, written in the symbols Nd and Pr.

Africa is the new front for the rare earth supply

Geopolitical risk has become the dominant variable in rare earths supply, making Africa, one of the few regions offering ample undeveloped resources and political neutrality, a logical target

for diversification.

ASX companies are entering African jurisdictions early to align with future non-China supply requirements rather than competing for mature assets later.

The surge in ASX rare-

earth names after the Trump-Albanese pledge illustrates the new policy reality that Western governments will pay to gain control of their critical minerals supply chain.

The US\$8.5bn



A low-capex project with high integrity—Swanson represents the new model of critical-mineral mining.



framework, EXIM/EFA letters, and Pentagon price-floor mechanisms have made Australia the test case for underwriting non-Chinese supply. Still, if the intent is to wrest control away from China, Australia alone cannot carry the tonnage or the diversity of feed needed.

Faster permitting for resources to hit this decade

Africa hosts multiple Mrima-, Kameelburg-, and Kangankunde-style systems and remains non-aligned, mainly in the tech-minerals rivalry.

That neutrality gives US, EU and Japanese buyers a supply that can be qualified as “politically safe” under emerging IRA/CRMA rules.

Namibia, Malawi, Tanzania, Kenya and Botswana can move projects through approvals faster than the US or EU, lifting the probability that African tonnes will hit the market this decade rather than the next.

With export credit banks demonstrating in Australia that price floors, concessional debt and strategic offtakes can change project economics, they are poised to rinse and repeat wherever neutral tonnes exist.

China, of course, is looking to stake its own claim on projects on the African continent, with major producer Shenghe Resources completing

a takeover this year of Tanzanian developer Peak Rare Earths.

That geopolitical tension could put a premium on the next generation of development stories. Let’s take a look at some of the key movements by ASX companies to build new rare earth projects in Africa.

RareX secures US\$50m facility

RareX is a case in point, having secured a US\$50m discretionary facility with GEM Global Yield to accelerate development of the Mrima Hill REE-niobium system in Kenya, should its consortium with Iluka Resources be awarded the project.

The asset has a non-JORC, NI43-101 resource of 150Mt grading just under 4% total rare earth oxides with 0.7% niobium along with other metals.

It sits in the top tier globally for undeveloped rare earth tonnage, just 15km from a central port corridor and could feed directly into Iluka's Eneabba refinery in WA under the proposed SPV structure.

Its strategic location contrasts sharply with many rare-earth projects, which are typically inland and landlocked.

Should the consortium succeed in acquiring the project, it could become a significant project for Kenya and represent the initiation of a critical minerals hub in Mombasa.

Aldoro drills deeper at Kameelburg

Alsoro Resources' Kameelburg REE play sits in Namibia, arguably the most financeable mining jurisdiction in Africa.

Kameelburg is advancing in a Fraser-ranked country with a

demonstrated history of critical minerals permitting, positioning Aldoro to tap the same style of Western funding and offtake mechanics already seen in Australia, but in a geography closer to European buyers.

The company is zeroing in on the same high-grade niobium zones that returned up to 4.14% in earlier hits, with phase 2 drilling underway.

The 14-hole for ~9000m campaign is the first to use the new Nock 800 rig, which can punch holes down to 750m, opening up deeper parts of the system along the western margin of the intrusion.

Aldoro recently lifted Kameelburg's inventory by 85% to 520.61Mt at 2.49% TREO-equivalent, including a core of 271Mt at 2.90% TREO-equivalent and a further 231.59Mt at 0.24% niobium, placing

Every capacitor, every implant, every jet engine connects back to minerals like those of southern Namibia.



the asset in the same conversation as Canada's Saint-Honoré.

Lindian's site is now build-ready

Lindian Resources represents the development-maturity end of the African stack in Malawi.

The company recently hit another milestone at its Kangankunde asset, confirming that the early works package has finished on time and on budget.

That phase, led by Mota-Engil, delivered

what was needed to convert a drill camp into a construction-ready mine site, including a 5.5km access road, cleared administration areas, security infrastructure, utilities and laydown facilities.

Mota-Engil plans to demobilise this month ahead of site handover for the next build phase.

At the same time, the team is finalising the process-plant build tenders to ensure the project stays aligned with the DFS capital envelope and a 2026 first-product target.

To keep schedule risk low, Lindian has also pre-ordered its owner-operator mining fleet, all of which are due to be on site for a January 2026 mining start.

DY6 checks options while suitors circle

DY6 Metals, which is primarily focused on its mineral sands assets in

Cameroon, is positioned earlier in the curve and has begun a strategic review of its Malawian rare-earth portfolio after fielding unsolicited interest from multiple industry groups.

The company has hired a rare-earth specialist to map the best way to monetise Tundulu and Machinga – whether that's a JV, a farm-in, a sale or a dedicated REE spin-out.

Tundulu has returned thick TREO hits with gallium credits from surface, while Machinga has delivered heavy-REE and niobium at mineable widths within 40km of Lindian's Kangankunde.

Fieldwork is continuing with soil and rock chip programs across high-priority targets at Machinga, with samples now heading to the lab in the coming weeks.

Ionic's clay-hosted rare earth play in Uganda

And Ionic Rare Earths brings a different flavour to the African pipeline with its Makuutu ionic clay rare-earth project in Uganda, one of the very few clay-hosted systems outside China advancing toward development scale.

The company was granted a Large Scale Mining Licence for the project in early 2024 and targets first production in 2026.

Makuutu comprises nine licences covering around 300 km², located 120km east of Kampala, with defined mineralisation stretching over 37km.

Its MREC product basket has one of the highest identified heavy rare-earth contents to date, with ~45% of medium and heavy rare earths. – Stockhead

What Africans want from COP30

CARLOS LOPES



Instead of continuing to wait for aid, Africa is seeking to mobilise investment in its green transition, not because rich countries “owe” Africans – though they do – but because Africa can help the world tackle climate change. Success will require progress on four fronts, all of which will be addressed at COP30.

CAPE TOWN – The upcoming United Nations Climate Change

Reform must recognise African financial institutions and build a new, Africa-led financial architecture.

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Conference (COP30) will be the first to take place in the Amazon, sending a powerful symbolic message about the central role developing economies must play in the global response to the climate crisis.

But at a time of geopolitical fragmentation and low trust in multilateralism, symbolism is not enough. Developing economies must plan and propel the green transition. Africa is no exception.

So far, Africa’s climate narrative has been one of victimhood: the continent contributes less than 4%

of global greenhouse gas emissions, yet it is highly vulnerable to the effects of climate change.

This disparity fueled calls for “climate justice” that helped produce ambitious climate-financing pledges from industrialised economies at past COPs. But with those pledges going unfulfilled, and Africa’s climate-finance needs rising fast, moral appeals are clearly not enough.

A shift to a more strategy-oriented discourse is already underway. The Second Africa Climate Summit (ACS2), held in Addis

Ababa last month, positioned the continent as a unified actor capable of shaping global climate negotiations.

It also produced several initiatives, such as the Africa Climate Innovation Compact and the African Climate Facility, that promise to strengthen Africa's position in efforts to ensure a sustainable future.

Instead of continuing to wait for aid, Africa is now seeking to attract investment in its green transition, not because rich countries "owe" Africans – though they do – but rather because Africa can help the world tackle climate change. But success will require progress on four fronts, all of which will be addressed at COP30.

The first is the cost of capital. Because systemic bias is embedded in credit-rating methodologies and global prudential rules, African countries face the world's highest borrowing costs.

This deters private capital, without which climate finance cannot flow at scale. While multilateral development banks (MDBs) can help bridge the gap, they typically favour loans, which increase African countries' already formidable debt burdens, rather than grants.

At COP29, developed economies agreed to raise "at least" \$300 billion per year for developing-country climate action by 2035, as part of a broader goal for all actors to mobilise

An integrated, African-regulated carbon market is vital to ensure fair prices and community benefits.



at least \$1.3 trillion per year. If these targets are to be reached, however, systemic reform is essential.

This includes changes to MDB governance to give African countries a greater voice and increased grant-based financing. Reform must also include recognition of African financial institutions with preferred creditor status and the cultivation of a new Africa-led financial architecture that lowers

the cost of capital.

The second area where progress is essential is carbon markets. Despite its vast potential for nature-based climate solutions, Africa captures only 16% of the global carbon-credit market. Moreover, the projects are largely underregulated and poorly priced, with limited community involvement.

Africa is now at risk of falling into a familiar trap: supplying cheap offsets for external actors' emissions, while reaping few benefits for its people.

While some African countries are developing their own carbon market regulations, a fragmented system will have a limited impact. What Africa needs is an integrated carbon market, regulated by Africans, to ensure project quality, set fair

The extractive logic of the past must give way to a just, balanced relationship between humans and nature.



prices, and channel revenues toward local development priorities, including conservation, renewable energy, and resilient agriculture. This system should be linked to Article 6 of the Paris Climate Agreement, which aims to facilitate the voluntary trading of carbon credits among countries.

The third imperative for Africa at COP30 is to redefine adaptation. Rather than treating it primarily as a humanitarian project, governments must

integrate adaptation into their industrial policies.

After all, investment in climate-resilient agriculture, infrastructure, and water systems generates jobs, fosters innovation, and spurs market integration.

By linking adaptation to industrialisation, Africa can continue what it started at ACS2, shifting the narrative from vulnerability to value creation. Africa should push for this approach to be reflected in the indicators for the Global Goal on Adaptation, which are set to be finalised at COP30.

The continent's leaders should also call for adaptation finance to be integrated into broader trade and technology frameworks.

The final priority area for Africa at COP30 is

critical minerals. Africa possesses roughly 85% of the world's manganese, 80% of its platinum and chromium, 47% of its cobalt, 21% of its graphite, and 6% of its copper.

In 2022, the Democratic Republic of the Congo alone accounted for over 70% of global cobalt production.

But Africa knows all too well that natural-resource wealth does not necessarily translate into economic growth and development. Only by building value chains on the continent can Africa avoid the "resource curse" and ensure that its critical mineral wealth generates local jobs and industries. This imperative must be reflected in discussions within the Just Transition Work Programme at COP30.

A deeper philosophical

imperative links these four priorities. The extractive logic of the past – in which industrialisation depended on exploitation and destruction – must give way to a more holistic, just, and balanced approach that recognises that humans belong to nature, not the other way around.

Africa can help to lead this shift, beginning at COP30.

The barriers to progress are formidable. China likes to tout South-South solidarity, but it does not necessarily put its money where its mouth is.

The European Union is struggling to reconcile competing priorities and cope with political volatility. The United States will not attend COP30 at all, potentially emboldening others to resist ambitious action. If

consensus proves elusive, parties might pursue "mini-lateral" deals, which sideline Africa.

When it comes to the green transition, Africa's interests are everyone's interests. If the continent is locked into poverty and fossil-fuel dependency, global temperatures will continue to rise rapidly. But if Africa is empowered to achieve green industrialisation, the rest of the world will gain a critical ally in the fight for a sustainable future.

This commentary features in Project Syndicate's coverage of South Africa's G20 Presidency, with support in part from the African Climate Foundation.

De-mystifying the in-situ uranium technology

BY KUIRI F U TJIPANGANDJARA

On Friday, 10 October 2025, the Namibia Newspaper published an article titled “Stop Dancing around and say No to in-situ leaching – Schlettwein”.

This article, a follow-up to some postings on Facebook,

extensively quoted former minister Calle Schlettwein, was published after former mines minister Natangue Ithete presented a report to Parliament on the in-situ uranium project.

Speaking in Gobabis, President Netumbo Nandi Ndaitwah emphasised the need for stakeholders to learn from other countries’ experiences and to be guided at all times by scientific principles.



Having studied the article by Schlettwein several times, it is evident that Schlettwein's views have been influenced by the Namibia Chamber of Environment (NCE), which I do not consider balanced.

Further, I need to be convinced of NCE's expertise in in-situ uranium mining.

Mining and mineral

development, as well as water security, are based on solid scientific, applied, and engineering principles.

It will be irresponsible for the government to decide on in situ uranium recovery based on emotions, unproven science, politics, and religious beliefs.

Whilst, as a principle, I refrain from being entangled in political exchanges, the views expressed by Schlettwein cannot remain unchallenged.

Many water scientists believe the Stampriet Aquifer recharges from the Kavango Delta. It is worth noting that waters from the Kavango Delta that recharge the Stampriet Aquifer are constantly in motion,

albeit slowly. The Wings Project by Headspring Investments is not the only mining Project in this aquifer.

There are the Cobre Mining Project, which has identified the In-Situ processing method for extraction; the Motheo Copper Mine near Ghanzi; and the Khoemacau Copper Mine in north-west Botswana. There are many prospective license holders for projects south of Mamuno in Botswana.

If an individual is concerned about the potential negative impacts of mining activities on the water quality, then the discussion must go beyond the Wings Project.

Aquifer contamination during exploration activities

The Ministry of Agriculture refused to grant exploration permission to Headspring Investments for the Aminius Area. Possible water contamination during the mineral exploration stage was cited as the reason.

Everyone who has been doing exploration work is

aware that mineral drilling is done with a diameter of about 270mm, whereas water-borehole drilling uses a diameter of 700mm.

After the mineral core samples are removed, the cavity is sealed to prevent the intrusion of any material. This action is taken to preserve the integrity of the ore body and to avoid any intrusion of foreign objects. The hypothesis of aquifer contamination during exploration is new and must be proven.

Schlettwein has raised concerns about contamination of the aquifer due to the in-situ process.

However, he is ignoring the fact that in a water-rich environment, minerals tend to dissolve and leach from the orebodies into the aquifers.

The Water Resources Act of 2013 provides clear guidelines on the maximum concentrations of radioactive nuclides permitted in water for animal and human consumption.

During the period 30 April 2021 – 13 May 2022, Headsprings

It would be irresponsible for the government to decide on in-situ uranium recovery based on emotions, unproven science, or politics.



Investments, as part of the Wings Project, collected 217 samples within the eight EPL Areas for water quality analyses—covering around 32 chemical constituents and radio nuclides.

Under the Namibia Resources Act of 2013, the maximum concentration of Alpha nuclides must not exceed 0.5 Bq/l, and the Beta nuclides must be below 1.0 Bq/l.

The results from Headsprings show that 28% of the samples recorded a concentration of 15.4 Bq/l (31 times above the limit), and 38% recorded a concentration of 2.9 Bq/l (3 times above the limit).

If Schlettwein is really concerned about the health of the local communities, he

should have organised for comprehensive water sampling of all the boreholes in the Stampriet Aquifer in Namibia to establish the concentration of the alpha and beta radionuclides.

In the absence of such comprehensive water analysis for radio nuclides, it will be difficult for Schlettwein to convince the public about the safety of the water currently used by animals and people.

Contribution of ISL to global uranium production

With the uranium price nearing \$80/lb. Namibia, a country with vast proven uranium deposits, that is facing economic challenges and high unemployment rates, "cannot be seen seated and the banks of a river and washes her face with saliva".

In-situ uranium recovery technology must be exploited to benefit the

vast majority of the population.

On several occasions, Schlettwein has mentioned "corrosive chemicals" that will be pumped into the ground, and, according to him, they would contaminate the aquifer.

In conventional uranium leaching processes, concentrated sulfuric acid (+95%) combined with high temperatures is used to leach the pulp; in the case of the in-situ process, diluted sulfuric acid (4% concentration) is used, and subsequently the depleted mineral chamber is flushed out with barren solution (chemicals free from dissolved uranium).

This measure is taken to minimise environmental harm. Is Schlettwein referring to the diluted sulfuric acid and the barren solutions as the "corrosive chemicals"?

"From exploration to mining stage"

Here, Schlettwein argues

that once the exploration works are completed, the Headsprings will proceed to the mining stage.

The importance of some critical stages in mineral extraction is not understood or appreciated. As a practice, exploration works are followed by mining, mineral extraction, piloting, comprehensive environmental impact studies, and commissioning.

With only 50% of the targeted exploration works completed, it will be unrealistic for any respected geologist, metallurgist, project owner, financier and/or the government to have a buy-in in such a "half-baked" project.

Prospecting and exploration phases

Definitely, this statement needs some elaboration. The Former Minister owes the stakeholders some explanation regarding

this statement. To cite some examples of this new practice.

As a norm, no mining activities commence without pilot works and the presentation and approval of the comprehensive environmental assessment.

Close to 50% of uranium is produced through the in situ process because of the benefits it has over the conventional methods (underground and open pit). This 50% global share is expected to grow in the next 5 to 10 years.

The in-situ Uranium process offers the following benefits: short project completion time; reduced investment in mining and mineral infrastructure; small footprint; minimal air pollution; absence of tailings dams; healthy returns on investment; minimal environmental damage, etc. It is rather

In-situ uranium recovery uses diluted, not concentrated, acid — its environmental impact is minimal when managed properly



unfortunate that the former minister chose not to look into these factors.

Positive impacts of ISL uranium leaching on the aquifer As pointed out earlier in #3 above, the presence of radio nuclides in aquifer water is caused by the dissolved uranium ore bodies.

If uranium is extracted through the ISL process, the risk of radioactive nuclides leaching into and depositing in aquifers is reduced.

Subsequently, the water quality in the aquifer improves. Here, again, one cannot ignore the

positive impacts of the ISL process, which were not mentioned by either Schlettwein or the Namibia Chamber of Environment (NCE).

Schlettwein argues that ISL mining is possible in Australia, the US, and Kazakhstan, where aquifers contain water unsuitable for human or animal consumption.

Here, Schlettwein failed to identify the specific aquifers with poor water earmarked for the ISL Technology.

Thus, the onus is on the minister to elaborate and cite examples of aquifers with poor-quality water. And to elaborate on the water constituents and their respective concentrations that classify these water bodies as of poor quality.

Co-existence of ISL mining methods and agricultural activities

Schlettwein argues that if ISL Operations are allowed in Namibia, water will be polluted,

agricultural activities will cease, and there will be substantial job losses.

In the discussion below, an attempt will be made to highlight some ISL Projects being executed alongside agricultural activities.

Currently, there are 21 ISL projects at various stages in these States. Also, the agricultural activities in the concerned States are indicated.

The majority of these projects are in the early development or licensing stages.

The increase in ISL uranium mining in the State is aided by the US Administration's policy to increase domestic production, to "meet the goal of quadrupling nuclear energy capacity by 2050".

From my experience, the US has always been stringent on environmental protection; hence, the US will never permit any mining

operation that could threaten the environment and/or food security.

All ISL projects are in South Australia.

Compared to the US, the majority of these ISL projects are in the developmental stage.

However, it is worth noting that Australia has put in place measures to prevent uranium extraction at the expense of the environment and agriculture.

Australia has the world's largest uranium deposit, with 1,684,100 metric tons, and was ranked 4th among producers in 2024.

Given the country's rich and responsible history of uranium mining, combined with the economic benefits of ISL technologies, it is not surprising that it will develop some of the identified projects.

Kazakhstan has the world's largest uranium deposit (815,200 Metric

tons) and is the world's leading producer of uranium (21,227 metric tons in 2024).

In-situ leaching technology is used for uranium extraction.

In most projects, ISL technology is favoured due to the presence of uranium in the sandstone aquifers. It is worth noting that Kazakhstan's share of global uranium production rose from 15% in 2001 to 35% in 2021.

The Regions of Kyzylorda and Tortkuduk are considered to be the major uranium producers.

In the interview with Schlettwein, the focus was on aquifer contamination and the subsequent cessation of agricultural activities.

No attempt was made in the ongoing research to examine what developed countries are doing to restore aquifers and/or improve water quality in these bodies. There is a wealth of

information on aquifer restoration after in situ uranium recovery; shockingly, Schlettwein opted not to consult these literature sources.

Here, again, it is evident that the views expressed in the interview are unbalanced. These views are not made in furtherance of the principles of sciences, applied sciences and engineering.

Concluding observations

Mining and mineral development projects entail certain risks. Therefore, it is the responsibility of the various stakeholders to identify and prioritise these risks, and to develop mechanisms to reduce their impacts.

It must be admitted that there is an immense lack of knowledge about the ISL technology, and these aspects are being exploited to the detriment of the government's initiatives or the project

promoters.

The water-rich environment, the population in the project areas, and the communities' dependence on agricultural activities must be considered at all times when embarking on ISL Project developments in the Omaheke-Karas-Hardap Regions.

For Namibia to realise tangible benefits from its mineral resources, and in this case uranium, the country must pay attention to the following strategies:

It is essential to establish a coordination unit to oversee all ISL activities, as the current, scattered approach is not yielding satisfactory results.

To ensure buy-in from the locals where uranium deposits are located, policy directives must ensure their participation.

At the National level, the government must speak with one voice,

as conflicting positions undermine its good intentions.

Given the limited knowledge of the population about ISL Technology and the inaccurate and false information being peddled, this must be avoided.

The government must embark on an aggressive programme to educate policy-makers, concerned stakeholders, and the public about ISL technology: Knowledge is the Best Weapon Against Fear and Apprehension.

Where local knowledge of ISL Technology is lacking, Namibia must not reinvent the wheel; international institutions can assist with knowledge transfer.

About the author

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Dark Star Minerals appoints dealmaker Duane Parnham

Dark Star Minerals Inc. has announced the appointment of Duane B. Parnham to its advisory board, a move aimed at strengthening the company's capital markets strategy and advancing its Namibian uranium portfolio.

Parnham will provide strategic guidance on financing and development as the company prepares to advance its projects in Namibia's Erongo uranium province.

According to the announcement, Parnham's appointment reflects Dark Star's growing focus on



establishing itself as a credible player in the global uranium sector. The company is currently working with Critical One Energy Inc. on the acquisition and advancement of two Namibian uranium assets, the Cobra North and Khan West projects.

Chief executive officer Marc Branson said

Parnham's involvement brings significant value to Dark Star's next phase of growth. "We're excited to welcome Duane to the team. His proven track record in leading successful public companies enhances our strategic capabilities and underscores our continued commitment to working with Critical One to develop world-class uranium assets in Namibia," Branson said.

Duane Parnham is a Canadian mining executive and entrepreneur with more than 35 years of experience building and financing public

companies across the mining and energy sectors. He is currently the chief executive officer of Critical One Energy Inc., the private company whose Namibian uranium assets are being acquired by Dark Star. Over his career, Parnham has founded and led several companies in a range of commodities, including gold, uranium, antimony, and oil.

He is best known for founding Forsys Metals Corp. in the late 2000s, which he grew from a C\$45,000 start-up to a peak market capitalisation of approximately C\$860

million. He later founded UNX Energy Corp., which was sold for C\$730 million in 2011. Combined, these ventures and others have created more than C\$1.5 billion in shareholder value.

Parnham's career spans multiple leadership and technical roles, including geological and environmental consulting, exploration management, and corporate finance.

He has guided exploration and development projects across Canada and internationally, overseeing activities from land acquisition and permitting to capital

Dark Star Minerals is strengthening its capital markets strategy with the appointment of veteran mining executive Duane B. Parnham.



raising and exchange listings, including the TSX, OTCQB, and the Frankfurt Stock Exchange.

His previous companies include Temex Resources Corp., Forsys Metals Corp., UNX Energy Corp., Giyani Metals Corp., Canoe Mining Ventures Corp., Broadway

Strategic Metals Inc., Broadway Gold Mining Ltd., and Nevada Zinc Corporation.

Outside the mining sector, Parnham is also recognised for his philanthropy. In 2011, he launched the Parnham Foundation to promote access to education for disadvantaged students.

The following year, he donated C\$1 million to Fleming College, which remains the largest alumni contribution in Ontario's community college history. In 2017, he received the Ontario Premier's Award for Business, recognising his

Parnham has founded and led multiple public companies, creating more than C\$1.5 billion in shareholder value.



contributions to Canadian entrepreneurship and his impact on the global mining industry.

In connection with his appointment to the advisory board, Dark Star granted Parnham 500,000 stock options, each exercisable into one common share at an

exercise price of \$0.07 per share.

The options vested immediately upon grant, are exercisable for three years, and are subject to a standard four-month exchange hold period.

The option grant remains subject to final approval by the Canadian Securities Exchange (CSE).

Dark Star Minerals is a mineral exploration company focused on the strategic development of uranium and critical mineral resources.

It has the option to acquire a 100 per cent interest in the Ghost

From Canada to Namibia, Dark Star is building a diversified portfolio across the world's most promising uranium belts.



Lake claims located in the Central Mineral Belt of Labrador, covering 28,575 hectares of contiguous claim blocks. The company also owns the Bleasdell Project, which spans over 515 hectares in northern Saskatchewan.

In addition, Dark Star

has entered into a definitive agreement to acquire 100 per cent of Critical One Energy Inc.'s interest in the Cobra North and Khan West uranium projects situated in Namibia's Erongo uranium province—one of the most established uranium mining regions in the world. The Erongo region hosts several globally recognised uranium mines and projects, including Rössing, Husab, Langer Heinrich, and Etango-8.

Through this acquisition, Dark Star aims to expand its footprint beyond Canada and position

itself within Namibia's emerging uranium resurgence, supported by increasing global demand for nuclear fuel.

With Parnham's appointment, the company said it will continue to develop its growth strategy in line with the strengthening uranium market, leveraging his extensive background in exploration, project finance, and capital markets to unlock the value of its Namibian and Canadian assets.

Otjikoto delivers 44,105 ounces in Q3

B2Gold's Namibian operations continued to deliver strong results in the third quarter of 2025, with the Otjikoto Mine producing 44,105 ounces of gold, exceeding expectations and reinforcing the mine's role as a key contributor to the group's African portfolio.

The company, which holds a 90 per cent interest in Otjikoto, also announced the formal development decision for the Antelope

underground deposit, a project expected to extend the mine's life and sustain production well into the next decade.

For the quarter ended 30 September 2025, Otjikoto achieved a mill feed grade of 1.59 grams per tonne, with mill throughput of 873,435 tonnes and a recovery rate of 98.6 per cent. Gold revenue from the Namibian operation rose to US\$143.1 million (about N\$2.6 billion) compared to US\$133.1 million in the same period last year, driven by an average realised gold price

of US\$3,503 (N\$65,600) per ounce.

Cash operating costs were US\$781 (N\$14,600) per ounce produced, while all-in sustaining costs reached US\$1,089 (N\$20,400) per ounce sold. Capital expenditure for the quarter stood at US\$4.4 million (N\$82.5 million), mainly allocated to Wolfshag underground development and mobile equipment rebuilds.

B2Gold said Otjikoto's performance benefited from better-than-expected ore grades and throughput as the mine transitions from



open-pit to underground operations. Open-pit mining is expected to conclude soon, but the company noted that final-phase ore grades exceeded forecasts, resulting in more robust stockpiles for processing.

On 15 September 2025, B2Gold approved the development of the Antelope underground deposit, following optimisation work on a small-scale, low-cost mine that is expected to require US\$105 million (N\$1.96 billion) in pre-production capital—reduced from earlier estimates of US\$129 million.

The Antelope deposit has an initial mine life of five years, with total production estimated at 327,000 ounces, averaging 65,000 ounces annually.

From 2029 through 2032, combined output from Antelope and existing low-grade stockpiles could lift Otjikoto's production to around 110,000 ounces per year. The Antelope

deposit currently holds an Inferred Mineral Resource of 1.75 million tonnes at 6.91 g/t gold, totalling about 390,000 ounces, most of which lies within the Springbok Zone, which remains open along strike for further exploration.

For 2025, B2Gold maintains its gold production guidance for Otjikoto at 185,000–205,000 ounces, sourced from the Otjikoto open pit, the Wolfshag underground mine, and existing stockpiles. Wolfshag underground operations are expected to continue into 2028, with exploration indicating potential to extend the mine's underground life even further.

Cash operating cost guidance for the year remains between US\$635 and US\$695 (N\$11,800–N\$12,900) per ounce produced, while all-in sustaining costs are forecast at US\$965 to US\$1,025 (N\$17,900–N\$19,000) per ounce sold.

Otjikoto produced 44,105 ounces of gold in Q3 2025 — exceeding expectations and reinforcing its role in B2Gold's African portfolio.



B2Gold said the company remains focused on ensuring Otjikoto remains a stable and profitable operation, highlighting its strong Namibian workforce, consistent mill performance, and ongoing exploration success in the region.

The new Antelope development decision, coupled with Wolfshag's continued output, signals that the Otjikoto Mine will remain one of Namibia's most productive gold assets well into the 2030s, supporting local employment, infrastructure investment, and fiscal contributions to the national economy.



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