

## QUARTERLY ACTIVITIES REPORT FOR THE PERIOD ENDING 30 SEPTEMBER 2021

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**Minbos Resources Limited** (ASX:MNB) ("Minbos" or "the Company") is pleased to provide an update on its activities for the September 2021 quarter. The Company's focus during the period was the advancement of the Cabinda Phosphate Project, located in Angola.

### HIGHLIGHTS

- Definitive Feasibility study (**DFS**) progressing key activities completed, including:
  - Location for the Granulation Plant secured<sup>1</sup>.
  - Ordering of long lead items for the FEECO International built Phosphate Granulation Plant<sup>2</sup>.
  - Bulk sample collected from Cabinda deposit and exported to IFDC Alabama, to assist with enhancement and optimisation of Minbos fertilizer product<sup>3</sup>.
  - Completion of dry season environmental survey<sup>4</sup>.
  - Completion of Licence Marking of the Cabinda Phosphate Project<sup>5</sup>.
  - SRK have been appointed to generate an updated Mineral Resource Estimate of the Cácata Phosphate deposit, work is nearing completion with results due Q4 2021.
- Minbos signs to establish a Nitrogen, Phosphate, Potassium (NPK) fertilizer blending plant and distribution business in Angola's Malanje region<sup>6</sup>, with the Government of Angola has allocating the partnership a 20-hectare site in Malange for the NPK plant.
- Minbos has received indicative costings for a 250,000 tonne per annum blending plant, XRF/IR soil farmlab, consulting services to optimise soil and fertilizer chemistry with a tender for the blending shed to be undertaken shortly.
- Minbos participated in a Showcase event in Angola that affirmed the Cabinda Project as one of National Importance to Angola and the wider ECCAS Region<sup>7</sup>.

<sup>1</sup> ASX Announcement - Minbos secures location of Granulation Plant (12 August 2021)

<sup>2</sup> ASX Announcement - Long lead items for FEECO built Phosphate Granulation Plant (1 July 2021)

<sup>3</sup> ASX Announcement - Collection of bulk sample to enhance Minbos Fertilizer Product (13 September 2021)

<sup>4</sup> ASX Announcement - Completion of dry season environmental survey (26 August 2021)

<sup>5</sup> ASX Announcement - Completion of licence marking at Cabinda Phosphate Project (19 July 2021)

<sup>6</sup> ASX Announcement - Minbos signs Agreement to deliver NPK fertilizer to Angola (27 September 2021)

<sup>7</sup> ASX Announcement - Showcase confirms importance of Minbos Fertilizer Project (18 August 2021)

## DECEMBER 2021 QUARTER PLANNED ACTIVITIES

- Progress the Company's plans for Africa's only zero-carbon Green Ammonia plant, utilising some of the cheapest, cleanest energy globally.
- Green ammonia represents a natural progression for Minbos, part of its 'NPK for Angola strategy', targeting the delivery of locally produced NPK fertilizer to be sold into one of the world's most prospective agricultural regions.
- Deliver Definitive Feasibility Study, with significant changes to fertilizer price assumptions given recent surges in gas prices to near record levels in the Northern Hemisphere.

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## QUARTERLY ACTIVITIES REPORT DETAILED

### Definitive Feasibility Study

During the quarter, the Company continued progressing its DFS on its high-grade Cabinda Phosphate Project, with a range of activities undertaken, outlined below.

During the period, the Company appointed experienced Construction Manager, Mr Mauro Lopes. Mauro is an experienced Mechanical Engineer, with over 20 years' experience in the mining industry, delivering a diverse range of projects in excess of USD \$200M. Highly skilled in contracts negotiations and selection of contractors, including fabrication and supplier's development in general, Mr Lopes has a track record of delivering projects within time frames and within budget.

### Granulation Plant site secured

During the quarter, the Company announced that it had secured 20ha of commercial land at the Futila Industrial Zone (**Futila**), just 12km to the Port of Cabinda and 25km to the Port of Caio, delivering barge and shipping access to key agricultural growing zones in Angola and the region (Figure 1)<sup>1</sup>.

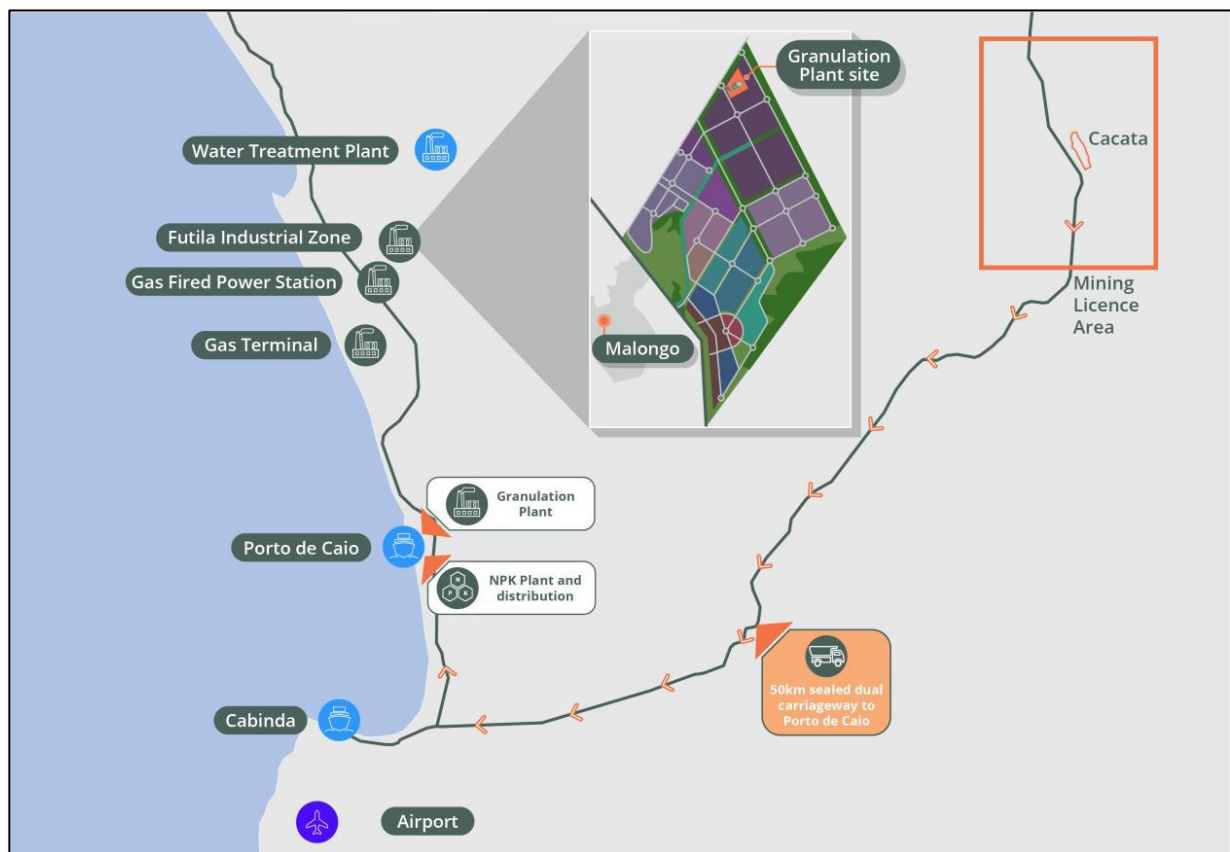
Minbos intends to truck Phosphate Rock from the Cácata Phosphate deposit to Futila, just 120 minutes by dual carriageway.

The Futila Industrial Zone is an emerging economic hub with access to stable grid power, the water network and a new gas pipeline and oil refinery to fuel the fertilizer dryer.

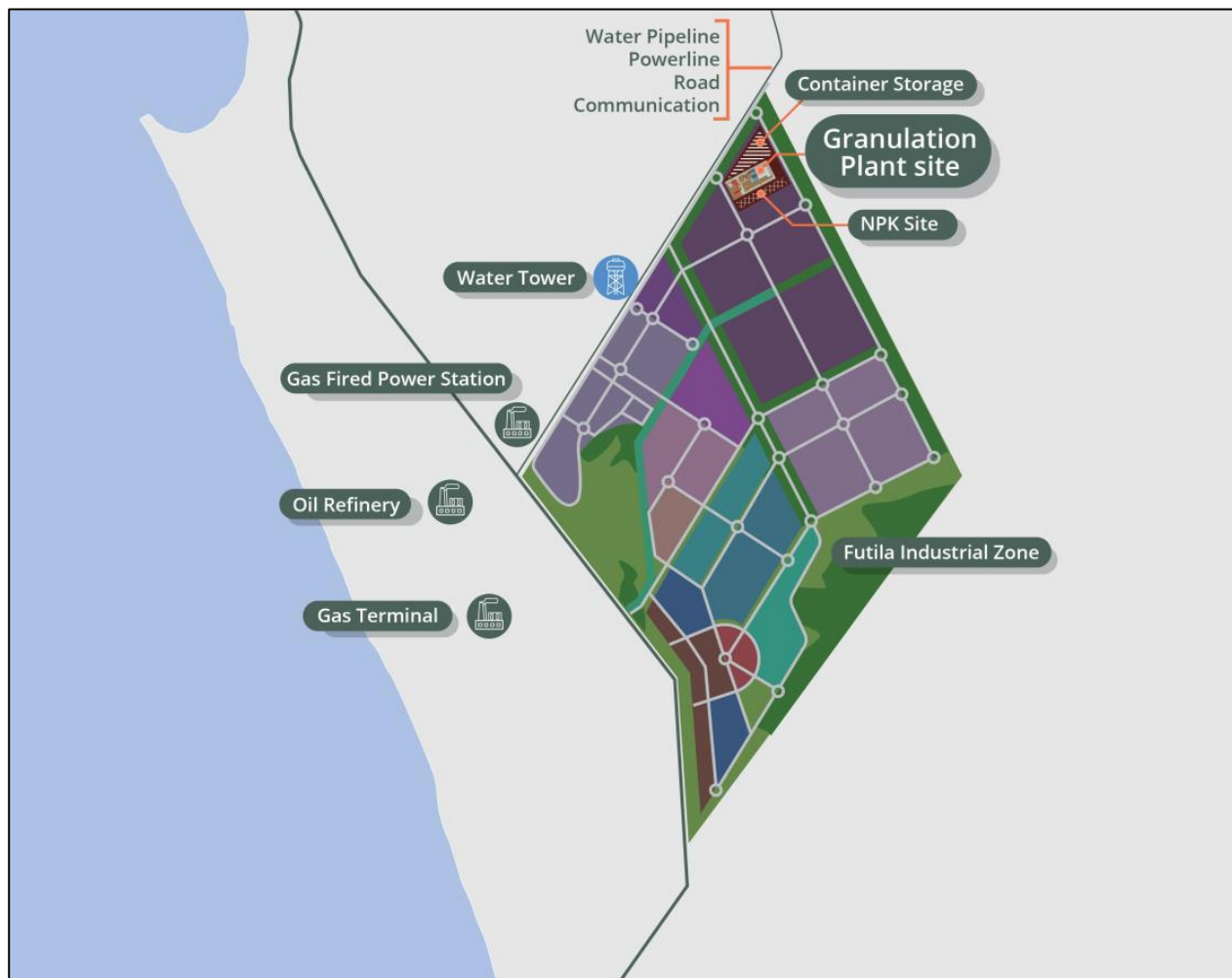
Importantly, the site is approximately three times larger than what is required for a 500,000tpa Granulation Plant (<30% of the total property area), allowing space for the future construction of an NPK blending plant and container storage area (Figure 2).

Key site advantages include:

- Container storage area is an important site feature with limited container storage at the Port of Cabinda and Minbos set to use 20 tonne containers to ship its fertilizer product.
- The container storage area can hold up to 4 months product (50,000 tonnes or approximately 2500 containers).
- 20 tonne containers used to bring goods to Cabinda and usually return empty, Minbos will utilize the containers to ship fertilizer back to Luanda and Lobito – key agricultural markets.



**Figure 1 - Minbos Resources proposed site for Phosphate Granulation Plant, including phosphate deposit, energy port and airport infrastructure.**



*Figure 2 - Futila Industrial Zone, with location of Minbos Granulation Plant in proximity to water, power, gas and oil infrastructure.*

### Components Purchased for Granulation Plant

During the quarter, Minbos approved the purchase of two long lead items for the Cabinda Phosphate Plant (Figure 1)<sup>2</sup>. The Company made deposits of A\$1.89 million towards the purchase the US\$6.4 million granulation plant from North American-based FEECO International, a fertilizer industry leader in plant engineering and manufacturing.

The expedited forward order is to assist in delivering positive project outcomes, including:

- **Capitalising on rising fertilizer prices**, with the price of Monoammonium Phosphate (**MAP**) currently US\$780/t, more than US\$300 higher than the Scoping Study benchmark

price, which delivered the \$US247M pre-tax NPV.

- **De-risking the project schedule**, by bringing forward FEECO's third party equipment and material orders leaving FEECO as the critical path OEM supplier.
- **Locking in equipment pricing** protects against rising CAPEX costs with the price of steel and other plant inputs rising rapidly with further price rises expected in the supply pipeline.



*Figure 3 - Cabinda Phosphate Project, Granulation Plant design and site layout.*

### Bulk Sample

During the quarter, the Company collected a 14-tonne bulk sample, targeting Phosphate Rock material from the high-grade zone (+29% P<sub>2</sub>O<sub>5</sub>).

Following collection, the bulk sample was shipped to the International Fertilizer Development Centre (**IFDC**) headquarters in Muscle Shoals Alabama for blend and granulation optimisation, field, and greenhouse trials.

Field and greenhouse trials are important for the Company, providing the technology and research for sustainable, profitable and ethical food production.

Results from the IFDC trials are expected during the December quarter.





*Figure 4 - Cabinda Phosphate Project, work being undertaken to complete a bulk sample.*

### **Dry Season Environmental Survey**

Environmental consultant HCV Africa has completed a dry season environmental survey for the Cácata Deposit and the Futila Granulation Plant.

The dry season survey complements the wet season survey completed in May this year, with both surveys critical for the completion of the Environmental and Social Impact Assessments (ESIAs).

The surveys underpin the preliminary impact assessment, mitigation measures, monitoring requirements and a review of QA/QC processes. Flora, fauna, water and soil samples were also analysed during the quarter enabling HCV Africa to compile all the information and complete the EISA reports by the end of 2021.

The baseline studies are integral to completing the fully funded Cabinda Phosphate Project DFS, which is now due Q1 2022.

### **Licence Marking**

In accordance with Angola's National Mining Agency, Article 147 of the Mining Code, the Company marked out the corners of the Cabinda Phosphate Project licence area during the quarter<sup>5</sup>.

Four concrete posts were surveyed and installed, marking the corners of the Cabinda Phosphate Project licence area (Figure 5).



*Figure 5 - Cabinda Phosphate Project, licence marker installation.*

### **NPK for Angola Agreement**

In September, Minbos executed a Memorandum of Understanding (**MoU**) with Angolan agribusiness Sociedade Agroquímica Industrial, S.A. (Sagrind) to establish a Nitrogen, Phosphate, Potassium (NPK) fertilizer blending plant and distribution business in Angola's Malanje region.

Sagrind is an Angolan agribusiness established to supply fertilizers, herbicides, pesticides and seeds for farmers in the Malanje growing corridor.

The MoU reinforces Minbos' commitment to establishing a strategic foothold and capability in one of the world's most prospective growing regions. The MoU outlines the partnership of the two companies working together to evaluate and implement a NPK blending plant, establish NKP distribution channels, establishing a soil analysis laboratory and national database, and to explore and develop local Lime deposits as part of its fertilizer product mix.

Minbos is expected to provide the scientific and technical knowledge and perform the feasibility studies. Any project partnership company that is formed shall apportion equity ownership at incorporation of 60% Minbos - 40% Sagrind. The Company anticipates that its financial contribution to the joint venture will not exceed USD \$1 million in the first 12 months.

The Malanje Corridor is home to more than 6 million hectares of arable and uncultivated land that shares the same latitude, rainfall (1-1.5 meters) and growing potential to Brazil's Cerrado region. The Malanje growing corridor is considered analogous to the Cerrado but is located 1,500km closer to port (the Port of Luanda is ~350km from the main growing corridor) and much closer to key Asian and European export markets.

While the MoU is a binding agreement, it is relatively high-level and the parties will need to negotiate and agree a more full form agreement to replace the MoU in due course. Further, the MoU may be terminated by either party by giving 60 days' notice.

## **CORPORATE**

### **Luanda Stakeholder Colloquium**

During the quarter, the Company hosted in a successful multi-stakeholder event, which showcased the Company's fertilizer plans for Angola and the Economic Community of Central African States (**ECCAS**).

The high-level stakeholder information session was held in Luanda, Angola's Capital, in partnership with the IFDC, with the assistance of the Ministry of Agriculture.

Following the colloquium the IFDC has been invited to submit a proposal for and MOU with Angola for a five year AFFPP specifically targeting 3 million smallholder farmers. The objective of the program is to double the productivity of the smallholder farmers. The successful rollout of this program alone would absorb the entire output of the itphase 1 Granulation Plant.

Angola has the potential to showcase agricultural sector development based on exploitation of locally available phosphate resources and in-country fertilizer production, to double agricultural productivity and to move from a food importer to an exporter. Angola can also become a regional hub for fertilizer production and use.



Average fertilizer use in Angola is 3 kg (nutrients) per hectare, against 50 kg/ha, the target set at the Africa Fertilizer Summit in 2006. Most of the rural population practices subsistence farming, small volumes of agricultural products reach the market which keeps rural poverty high. However, climate and soils are well suited for agriculture, while there is a market for agricultural products. The expansion of the economy over the last 2 decades combined with rapid population growth, has increased rural and urban food demand. This food demand is only partly met by local production, currently half of the country's food requirement is imported.

Smallholder productivity in Angola (in Mt/ha) can easily double, and potentially increase 3-4-fold through use of good agricultural practices and by linking farmers to input (fertilizer, seed) and output markets. The major constraint to increase productivity is the low level of soil fertility and the low use of mineral fertilizer. All fertilizers are imported and farmgate fertilizer prices are high and subject to the volatility of global fertilizer markets. Fertilizer sector development is a national priority.

The Cabinda Phosphate Project was affirmed as a Project of National Importance to Angola and the wider ECCAS Region.

### **Africa Down Under Conference**

In September, MD Lindsay Reed, presented to the Africa Down Under conference that was held in Perth<sup>8</sup>. In the presentation, the Company highlighted the potential for green ammonia to form part of the Company's NPK product mix going forward.

Lindsay's presentation can be viewed via the following link:

<https://www.youtube.com/watch?v=G3KEoIYionQ>

### **International Fertilizer Association Conference - Lisbon 2021**

In September, MD Lindsay Reed, attended the IFA2021 conference in Lisbon and was able to meet with technical and commercial representatives of the IFDC, as well as potential fertilizer and technology suppliers to support our NPK for Angola strategy. Sustainable nutrients and soil carbon and health were persistent themes consistent with the opportunities ahead of Angola.

### **Appendix 5B disclosures:**

The Company has provided an Appendix 5B in the Quarterly Cashflow Report that is released on the same day as this Activity Report. As outlined in the Appendix 5B, during the quarter the Company spent approximately:

<sup>8</sup> ASX Announcement 1 September 2021 - Investor Presentation - Africa Down Under 2021

- \$449k on exploration and evaluation activities, predominately in relation to the DFS work.
- \$47k in payments were made to related parties and their associates for director fees and legal fees; and
- \$213k on administration and corporate costs.

The Company held cash and cash equivalents of \$4.2 million at the end of the quarter.

This included \$50k received for the exercise of 1 million options, exercisable at \$0.05 before 26 November 2022, for which shares were issued in the following quarter on 8 October 2021<sup>9</sup>.

### Our commitment to ESG

Minbos is committed to building Environmental, Social, and Governance (ESG) credentials. We are making ESG disclosures against the World Economic Forum (WEF) Stakeholder Capitalism Framework. The WEF framework is a set of common metrics for sustainable value creation captured in 21 core ESG disclosures. Hundreds of companies worldwide are disclosing against this core ESG framework.

We use this universal ESG framework to align our mainstream reporting on performance against ESG indicators. By integrating ESG metrics into our governance, business strategy, and performance management process, we diligently consider all pertinent risks and opportunities in running our business.

### Interest in Mining Licences

Below is a list of the Company's interest in licences, where they are situated and the percentage of interest held.

Licence Number	Type	Interest	Location
314/03/03/T.E/ANG - MIREMPET/2021	Mining Licence	100%	Angola
No. 10868 (awaiting renewal)	Exploration (Option to Purchase)	Earning 90%	Madagascar
No. 12013 (awaiting renewal)	Exploration (Option to Purchase)	Earning 90%	Madagascar

<sup>9</sup> ASX Announcement – Cleansing Notice (8 October 2021)

## ESG disclosure progress

Our progress toward making disclosures under the four pillars of the WEF ESG framework (Governance, Planet, People, and Prosperity) is captured our quarterly ESG Go dashboard.

Minbos Quarterly ESG activity summary:

### Governance

- We introduced, commenced and implemented ESG values and guidelines and structuring at Board level.
- Sustainability integrated in company strategy and values: the Environment, Social and Governance (ESG) framework has been implemented.
- key disclosures on Board composition, including Mr Valentine Chitalu's Phatisa Group, which is a proud signatory of the Principles on Responsible Investment which is implemented through a comprehensive ESG framework.
- Anti-corruption practices with the Governance Disclosure listed on website.
- Mechanisms to protect ethical behaviour and whistle blower policy listed on website.

### Planet

- GHG emissions - Baseline Environmental studies completed as part of the Mining license requirements.
- Land use and ecological sensitivity- Baseline Environmental studies completed as part of the Mining license requirements.
- Water consumption - Baseline Environmental studies completed as part of the Mining license requirements.

- ENDS -

This announcement is authorised for release by Minbos Chief Executive Officer, Lindsay Reed.

**For further information, please contact**

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# Grow to eat. Grow to sell and grow to export.

Minbos is an exploration and development company with a vision to build a nutrient supply and distribution business that stimulates agricultural production and promotes food security in Angola and the broader Middle Africa region, through development of its world-class phosphate ore project within the Cabinda Province



## Compliance Statement

With reference to previously reported Scoping Study Results, the Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

## Forward Looking Statements

Statements contained in this release, particularly those regarding possible or assumed future performance, revenue, costs, dividends, production levels or rates, prices or potential growth of Minbos Limited, are, or may be, forward looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. Actual results and developments may differ materially from those expressed or implied by these forward-looking statements depending on a variety of factors.