



Mine

Railway

Port



VULCAN MOZAMBIQUE

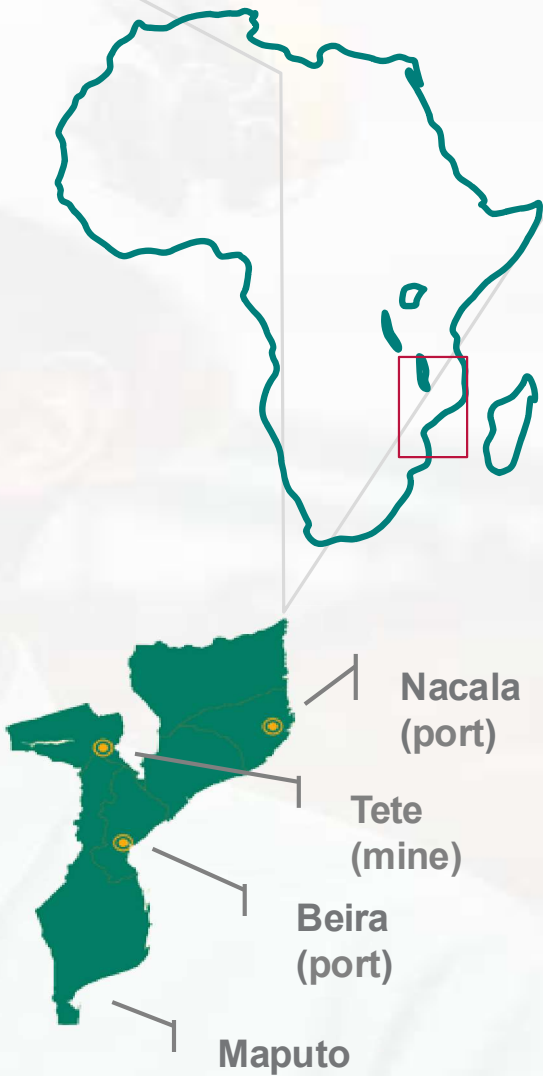
Vulcan 

September 2024

We are Vulcan

Vulcan Mozambique, a global mining company, demonstrates a strong commitment to sustainability and community well-being through one of Africa’s largest coal mines.

- We produce **High Grade Premium Quality Coking Coal** – **Amongst the few mines across the globe**
- We operate World Largest Integrated **pit to port systems**, including **railways, maritime terminals, and ports.**
- Our mining assets have large resources in excess of 2.3 Billion tons – Sufficient for another 25-30 years
- We also have interests in energy and steelmaking assets.



OUR VISION

Trusted and technologically advanced premium quality coking coal preferred supplier across the globe.

VALUE

EXTREME OWNERSHIP

Taking complete responsibility for one's actions, decisions, and outcomes, without making excuses or blaming others.

VALUE

BETTER THAN BEFORE

Constantly striving for improvement, growth, and excellence in all endeavors, surpassing previous achievements and standards.

VALUE

ZERO HARM

Prioritizing safety and well-being above all else, striving to eliminate all forms of harm, whether physical, emotional, or psychological, in every aspect of operations and interactions.

VALUE

SUSTAINABILITY

Commitment to environmental stewardship, ensuring the long-term health and viability of our planet for current and future generations.

VALUE

RESPECT FOR PEOPLE

Valuing the dignity, diversity, and worth of every individual, treating others with kindness, empathy, and fairness.



Our Vision



Our Values

We do more than just
produce coal



16.900
Direct and
Contractors



Largest
Taxpayer
2023



15% of
Mozambique
GDP



Largest Forex
Earner

Vulcan

Sustainability



We are committed to environmental protection and sustainable economic development, therefore, we have several programs based on the environmental management system implemented in accordance with ISO 14001, to guarantee the environmental license and legal requirement with emphasis on:



Air Quality Management Program



Environmental Education Program



Noise and Vibration Management Program



Water Resources Management Program



Degraded Areas Recovery Program



Biotic Environment Management Program



Waste Management Program

Main Investments in Social Projects

Water supply: The program guarantees the water supply to more than **50,000** inhabitants in Moatize and the maintenance of the Cateme water supply system.

Agriculture: We supported around **1200** beneficiaries, through training and the provision of seeds that allowed an increase of 40 Ton (50%) in the tomato production capacity in Cateme.

Poultry farming: **330** families in the Moatize region and Cateme, engaged in the production of chickens for income generation. Producers benefit from 2 lots with 250 chicks each.

Livestock: we provide technical assistance to cattle breeders, facilitate sanitary treatment, cattle marking and support in the supply of veterinary supplies for the pharmacy.

Mão Amiga Project – Support for orphanages

Project that consists of supporting orphanages and shelters for the elderly to promote health and well-being, which benefits around **354** children and elderly people.

The main actions carried out:

- Rehabilitation of orphanages and shelters;
- Monthly delivery of food and hygiene and cleaning kits;
- Medical assistance and medication for the elderly and children.

Us with the Community

Pillars: Income generation | Training | Social responsibility



Local Labor Development initiative

Goal :
Training young people to improve their professional qualifications.

Number of beneficiaries :
2 thousand young people in Moatize and the Nacala Corridor.

Agriculture Support initiative

Goal :
Increase production, guarantee food security and income for families.

Number of beneficiaries:
17.300 beneficiaries.

School lunch initiative

Goal :
Reducing the drop-out rate and low educational achievement in schools.

Number of beneficiaries:
51 thousand children and **51 thousand** daily lunches

Beneficiary schools :
32 schools in the districts of Nacala-à-Velha, Ribaué, Malema and Meconta.

Water Supply initiative (Madzi Ndi Moyo)

Goal :
Ensuring the supply of drinkable water in Moatize through tanker lorries, the drilling of more than 30 boreholes, the construction of independent water supply systems and the maintenance of the Cateme water supply system.

Number of beneficiaries:
More than 50 thousand habitants.

Education Support initiative

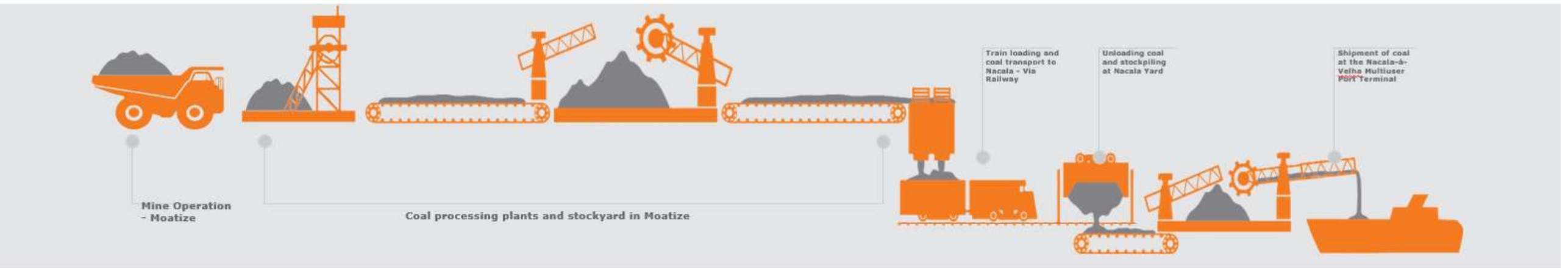
Objective:
To remove children who study in conventional schools from the ground up, to improve the quality of teaching and learning.

Number of beneficiaries:
1,500 desks for children in Tete province

Others

- Sports Support initiative
- Fisheries Support initiative
- Female Entrepreneurship Support initiative

Moatize Pit to Port: One Integrated Business



Mine

Site overview:

- Total concession area - 25.000 hectares
- Complex of five Operational Pits.
- Conventional Truck and Shovel open pit.
- Total Mine Movement 300 Mt/year.

Wash Plant

Site overview:

- feed, wash plants, train loading, rail loop
- Two wash plants (8x 1000t/h)
 - Two train loaders (2x 4500t/h)
 - Five stockyards (5 x 215kt)

Railway

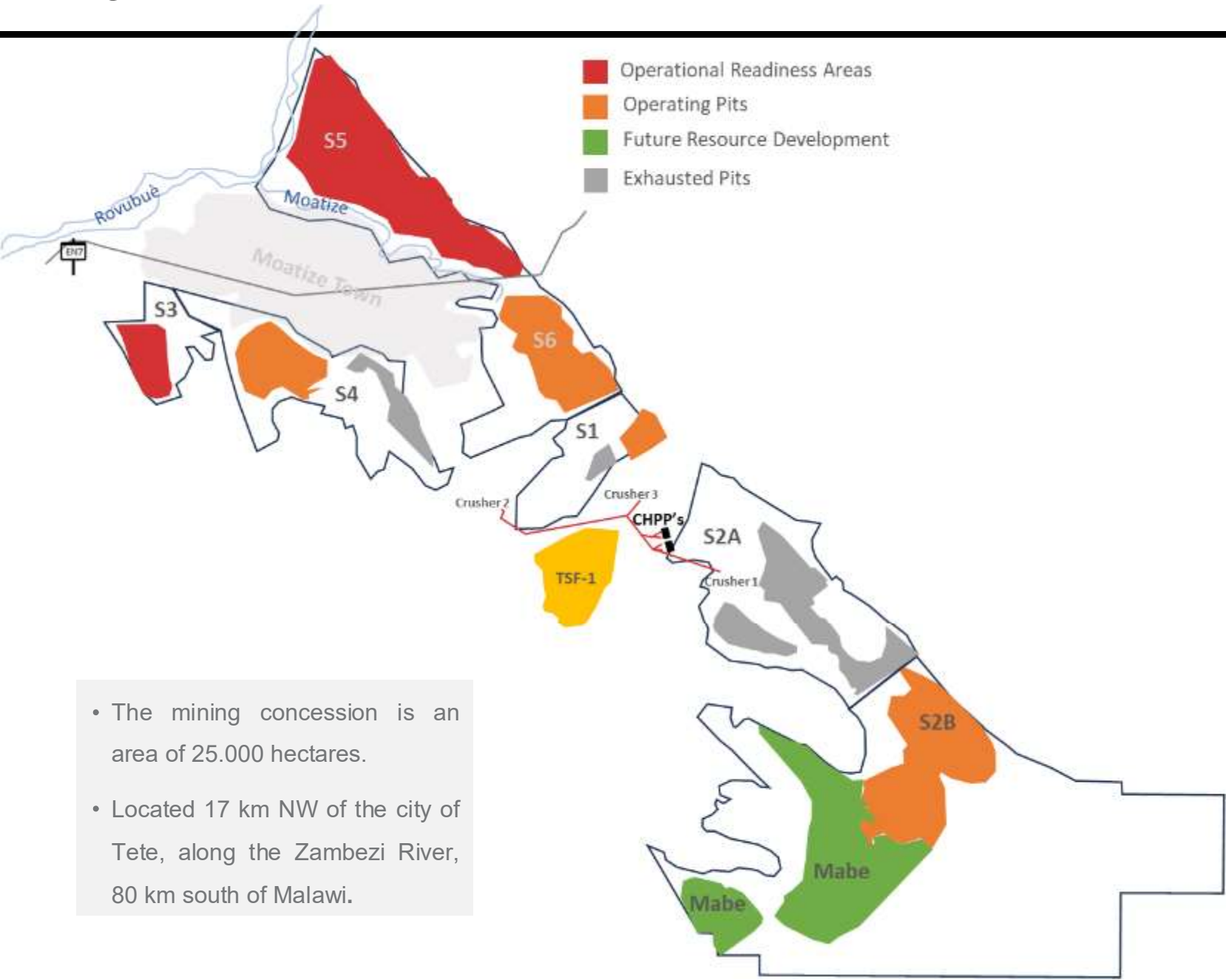
Nacala corridor rail overview

Length (from Moatize Mine up to Nacala A Velha Port)
912 km crossing Mozambique and Malawi(47 crossing yards)

Port

Nacala is the deepest port in Southern Africa

Because of its natural deep water (60m) and sheltered position, Nacala has no restrictions on ship movement or size. The quay has a >20m draft



- The mining concession is an area of 25.000 hectares.
- Located 17 km NW of the city of Tete, along the Zambezi River, 80 km south of Malawi.

Geology / Formation



Resource and reserve



Mining Method



Mine equipment



Operational Main Pits Overview

Section 2B



Section 4



Section 6&1





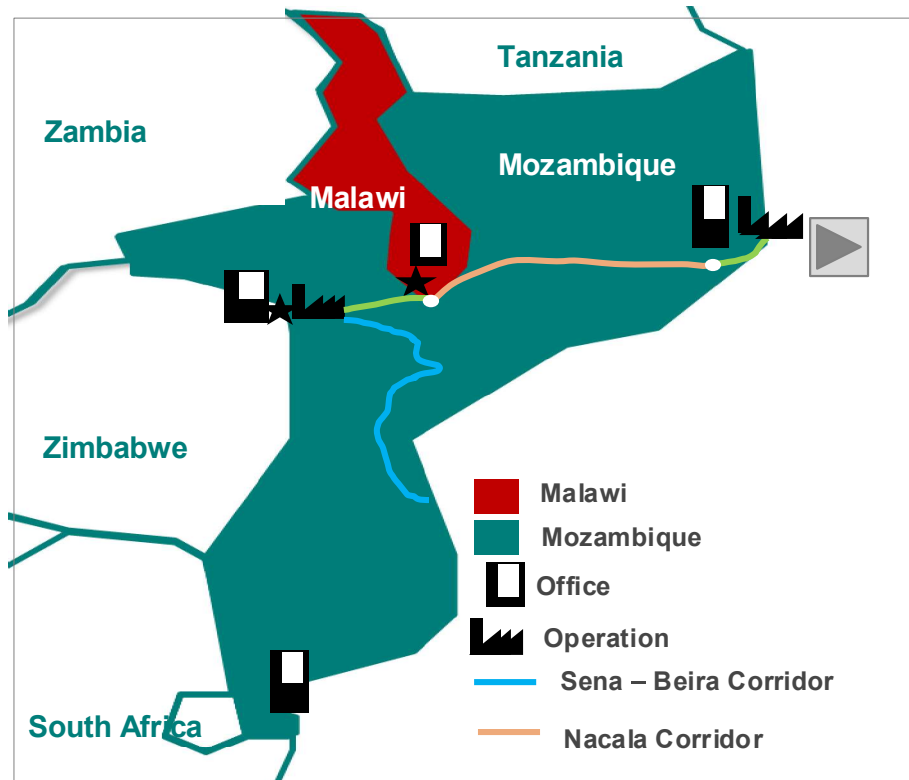
Overview



Flowsheet



Nacala is a dedicated logistics corridor, including world class railway and port, to ensure reliable export capacity from Moatize to the market



- 912 km rail to Nacala
- 3 x 600kt stock capacity at Nacala
- 20m draft to accept capsizes, nominal loading to capacity 55ktpd
- 100th vessel in March 2017
- 18.5 Mtpa capacity without further investment or domestic sales



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Nacala is the deepest port in Southern Africa

Because of its natural deep water (60m) and sheltered position, Nacala has no restrictions on ship movement or size. The quay has a >20m draft.



Nacala port is connected to Moatize by 912km of new or upgraded rail through Mozambique and Malawi



Upgraded section in Malawi



Bridge and realigned section in Malawi



New bridge



Sophisticated control systems

Nacala rail operations



Nacala corridor rail overview	
Length (from Moatize Mine up to Nacala A Velha Port)	912 km crossing Mozambique and Malawi (47 crossing yards)
Width	1,067 mm
Train type	4 locos + 120 wagons (2+60+2+60)
Locomotives fleet	85 locos GE-Dash9 (+ 16 C30 Thelo rented)
Wagons fleet	2,86 wagons with 63 tons capacity each wagon
Total cycle	Approx 100h
Train maximum speed	70 km/h
Maintenance	Dedicated locos workshop

Nacala port operations



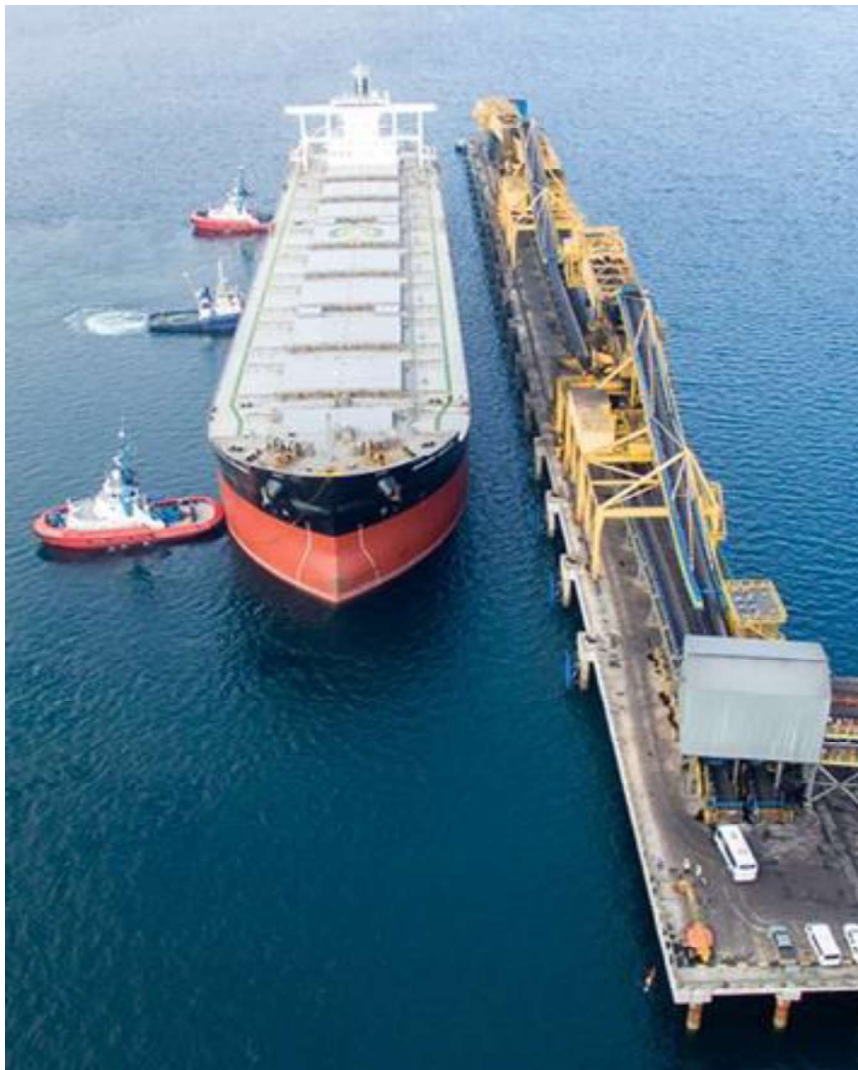
Nacala à Velha Coal terminal – pier and ship loaders

Port facilities overview	
Annual Capacity	18 Mtpy
Wagons dumper ⁽¹⁾	4.800 ton/h 2 wagons per cycle 90sec cycle
2x Stackers ⁽¹⁾	4.800 ton/h each
2x Reclaimers ⁽¹⁾	5.100 ton/h each
2x Shiploaders ⁽¹⁾	5.100 ton/h each
Conveyorbelts	13 Km
3x Stockyards	600,000 ton (windrow stockpiles)



⁽¹⁾ Nominal capacity. Shiploader (left), Stacker (middle), Reclaimer (right)

Nacala port operations



First capesize berthing – mv Shining Dragon (May-2016)

Port overview	
Deep water port	20m draft
Range of vessels (DWT)	Handymax (30kt) up to Capesize (210kt)
Overall lenght	From 180m up to 302m
Beam	From 30m up to 51m
Channel access	5.5 nautical miles. Min natural depth 22m.
Number of Tugs	3 (required for capesize manouvering – berthing and sailing)
2x Shiploaders ⁽¹⁾	5.100 ton/h each
Shiploading commercial rates (SHINC)	Hmx 30,000 ton/day Pmx 45,000 ton/day Cape 55,000 ton/day

Green Initiatives-Upcoming Projects



300 MW Waste to Energy Project to make business self-sufficient (By utilizing coal rejects)



Electrification of Mining and Railways to reduce CO2 emissions and reduce costs



Green Cement to move towards Zero Waste and minimize water consumption



Renewable Power to support green development



**Vulcan's investment allows supply of cost competitive coal to global markets...
Excepting Asia, Mozambique is closer to all markets relative to Australia and
Canada**



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Concluding remarks

Ramping up to deliver volume

- All the major infrastructure is in place
- World class port

Effective Planning and management systems

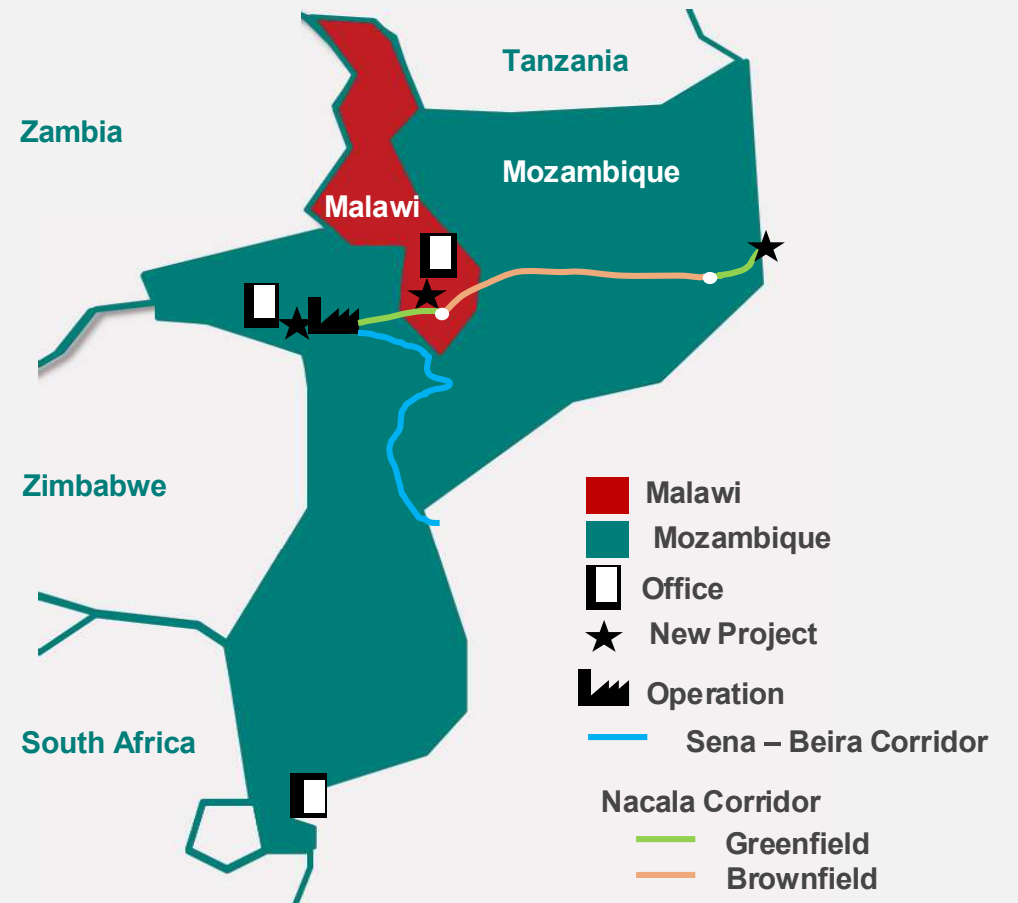
- Experienced senior management team driving performance
- Maturing knowledge of geology and operational systems

Top Quality Coking Coal

- Moatize offers genuine hard coking coals,
- MLV is established as a premium low-vol.
- Mabu is proving to be competitive MV64 substitute,
- New second tier products to come as Vulcan strategy to supply the market

Favourable location

- Competitive Freight Costs to Europe, Brazil and India, relative to Main Competitors
- Provides Geographical and Supplier Diversification
- Natural deep-water port, sheltered from cyclones



We are proud to be consecutive awarded as one of the Largest exporter for Mozambique Major projects during 2022, 2023 and 2024 at FACIM*



**FACIM (Feira Internacional de Maputo) is an international trade fair held annually in Maputo, Mozambique. It is one of the largest and most important trade events in the country, bringing together businesses from various sectors, both from Mozambique and abroad.*



Mine recovery

All depleted areas are being revegetated



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