Coal Development Strategy in Mozambique

“Care about Environment”

Presentation to:
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BACKGROUND

MOZAMBIQUE IS ENDOWED WITH EXTENSIVE MINERAL RESOURCES, STILL TO BE EXPLORED AND EXPLOITED.

GEOCHRONOLOGICALLY, ROCK GEOLOGY SPANS FROM ARCHAEN TO QUATERNARY.
MINERAL WEALTH INCLUDES:

(1) COAL,
(2) NATURAL GAS
(3) BEACH SAND TITANIUM
   MINERALS AND ZIRCON
(4) TANTALITE
(5) PRECIOUS AND SEMI-
   PRECIOUS STONES, RARE
   EARTHS AND GOLD
(6) GOLD, PLATINUM GROUP
   METASL (PGM), BASE METALS
(7) NEPHELINIC SYENITES AND
   BAUXITE
(8) DIMENSION AND ORNAMENTAL
COAL MINES AND PROJECTS

- MOATIZE COAL MINE (VALE Moçambique) (6)
  Production capacity of 26.0 mil tons/year

- BENGAL MINE (Rio Tinto/Riversdale) (7)
  Production capacity of 20.0 mil ton/year

- MINA CHIPANGA XI (Minas Moatize/Beacon Hills) (6)
  Production capacity of 4.5 mil ton/year

- JSPL (JINDAL)
  Production capacity of 2.0 mil ton/year
MOZAMBIQUE QUICKLY BECOMING A MAJOR PLAYER IN MINING BUSINESS IN THE REGION AND THE WORLD
ANCIENT MINING EXTRACTION INCLUDED GOLD AND POSSIBLY SILVER AND COPPER.

EARLY CORPORATE MINING INCLUDED:
(1) COPPER WITH SUB-PRODUCTS SILVER, PGM AND GOLD,
(2) TIN, NIOBIUM-TANTALLUM,
(3) PRECIOUS AND SEMIPRECIOUS STONES FROM PEGMATITES
(4) COAL.

MODERN AND LARGE SCALE GEOLOGICAL AND MINING DEVELOPMENT STARTED IN 1976, AND INCLUDED:

- WIDESPREAD GEOLOGICAL MAPPING AND GEOLOGICAL EXPLORATION AT FULL MINERAL SPECTRUM IN THE COUNTRY,

- MINES REHABILITATION AND MODERNIZATION (COPPER, COAL, NIOBIUM-TANTALUM MINERALS AND SUB-PRODUCTS PRECIOUS AND SEMIPRECIOUS STONES).
THE RESULTS:

✓ MORE ACCURATE GEOLOGICAL COVERAGE OF THE COUNTRY

✓ IDENTIFICATION OF NEW MINERAL OCCURRENCES,

✓ OUTLINE OF NEW MINERAL DEPOSITS

✓ INCREASE IN PRODUCTION VOLUMES IN OPERATING MINES

✓ NEW AND MORE ACCURATE APPRAISAL OF NATURAL GAS DEPOSITS AND OCCURRENCES
OVERALL RESULT:

•AVAILABILITY OF GEOLOGICAL AND MINING DATA AND INFORMATION:
  
  ➢ LAUNCH BY THE GOVERNMENT OF LARGE SCALE PROMOTION ACTIVITY THROUGH INTERNATIONAL AND LOCAL ROAD SHOWS, MINING PROJECTS TENDERING AND GENERALIZED EXPLORATION AND MINING LICENSING PROGRAMS,

•RAISING OF AWARENESS AS TO THE IMPORTANCE OF MOZAMBIQUE AS A POTENTIAL MINING COUNTRY.
THE IMPACT

FAST-TRACK EXPLORATION AND MINING DEVELOPMENT COVERING:

✓ COAL,

✓ GOLD, BASE METALS, NIOBIUM-TANTALUM MINERALS,

✓ GRAPHITE

✓ BEACH SAND TITANIUM MINERALS AND ZIRCON AND

✓ INDUSTRIAL MINERALS IN GENERAL
GOVERNMENT VISION:

✓ CONDUCT SUSTAINABLE MINING ACTIVITY *(Socially, Economically and Environmentally)*.

✓ THE NEED FOR LOCAL EMPOWERMENT,

✓ THE NEED FOR THE STATE TO PLAY A POWERFUL ROLE IN PROMOTION, AND MONITORING,

✓ THE NEED FOR EVER INCREASED REVENUES FLOW THROUGH TAX, EMPLOYMENT OF MOZAMBIKANS, DEVELOPMENT OF LINKAGES PROJECTS (LOCAL CONTENT IN SUPPLIES) AND

✓ THE NEED FOR STRONG STATE PARTICIPATION IN MINING PROJECTS.
EMEM GENESIS:


EMEM’s MAIN OBJECTS:

(A) GEOLOGICAL EXPLORATION, MINING DEVELOPMENT AND MINERAL EXTRACTION, COMMERCIALIZATION OF RAW MATERIALS FOR MINING ACTIVITY, TECHNICAL ASSISTANCE AND UNDERTAKING OF MINING PROJECT DEVELOPMENT IN PARTNERSHIP WITH NATIONAL AND FOREIGN COMPANIES AND/or ENTITIES.

(B) MANAGEMENT OF STATE PARTICIPATION IN MINING PROJECTS

(C) COMMERCIALIZATION (TRADE) OF MINERAL PRODUCTS,

(D) ESTABLISHMENT OF DOWN STREAM INDUSTRIES FOR VALUE ADDITION
EMEM’S CURRENT PORTFOLIUM:

(A) EXPLORATION LICENSES IN GOLD, COAL, NEPHELINITIC SYENITE, LIMESTONES, GLASS SAND

(B) MANAGEMENT OF STATE PARTICIPATION IN COAL PROJECTS:

1. MOATIZE COAL PROJECT (VALE MOÇAMBIQUE) 5% (+10% PRIVATE ENTITIES)
2. BENDGA COAL PROJECT (RIVERSDALE/RIO TINTO) 5%.
3. CHANGARA COAL PROJECT (JSPL, INDIA) 10% – 20%
4. MINAS DE MOATIZE (BEACON HILLS)  
10%

5. MINAS REVÙBUÈ COAL PROJECT, N’CONDEZI COAL PROJEC AND ZAMBEZI COAL PROJECT, SOON TO MATERIALIZE.
EMEM INTENDS AND IS WILLING TO SET UP JOINT VENTURE PROJECTS WITH ITS COUNTERPARTS FOR EXPLORATION AND MINING DEVELOPMENT

EMEM MAY CONSIDER, IF APPROPRIATE, SIGNING OF OFF-TAKER AGREEMENTS AS PART OF ITS PARTICIPATION IN THE PROJECTS,

EMEM CAN FACILITATE RAW MATERIAL SUPPLY AND COMMERCIAL AND INDUSTRIAL LICENSING FOR THE ESTABLISHMENT OF VALUE ADDITION PROJECTS. (EG: COKE MANUFACTURE).
CONCLUSIONS AND FINAL REMARKS

- Mozambique possesses large resources of metallurgical (major fraction) and thermal coal in Tete Province.
- The volumes and quality of these resources still has to be evaluated.
- Current mining is just a fraction and is being carried out by VALE, Rio Tinto, Minas de Moatize (Beacon Hills Resources and JINDAL).
- In Moatize and Mucanha Vuzi regions, coal tend to be of low to medium volatile, considerable but washable ash content, high in vitrinite and (generally) a wide range of favourable metallurgical and thermal parameters.
- The coal is in general low in detrimental substances such as sulphur and thus can, applied proper environmental measures, be used in both metallurgical processes and power generation.
- Current mined and processed coal is all exported to overseas markets.
- With the propose of attaching local content to the industry, the Government is promoting Mozambican participation as well as is calling for value addition projects that can consume both metallurgical and thermal as well as low value coal.
- To enhance the local participation the government created EMEM, a vehicle through which the State participate in mining and related industries.
- Finally but not least, the Government of Mozambique wishes to take advantage of the strong bilateral cooperation relation between Mozambique and Japan to promote partnership between EMEM and Japanese organizations such as JCOAL.
THANK YOU FOR ATTENTION