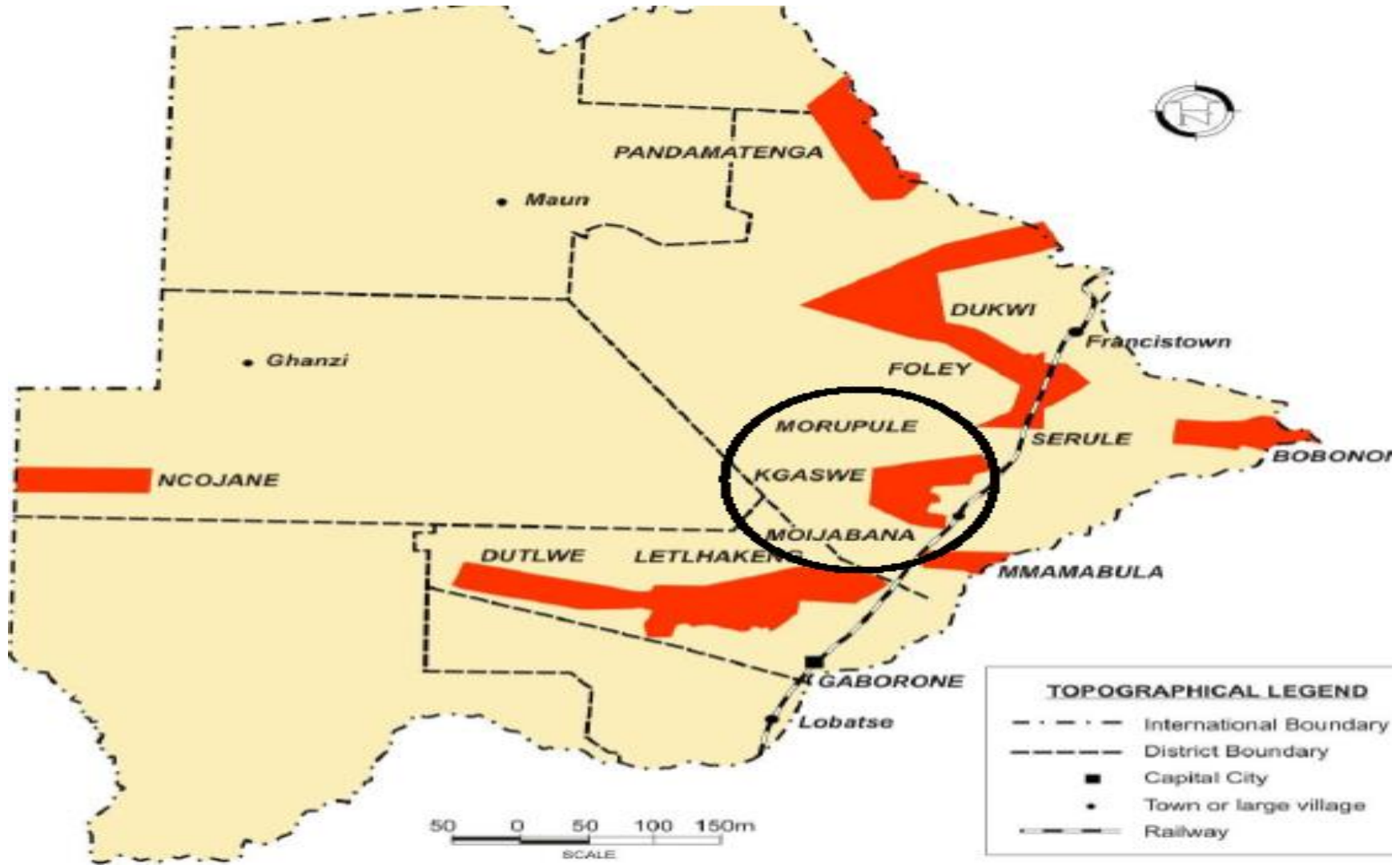


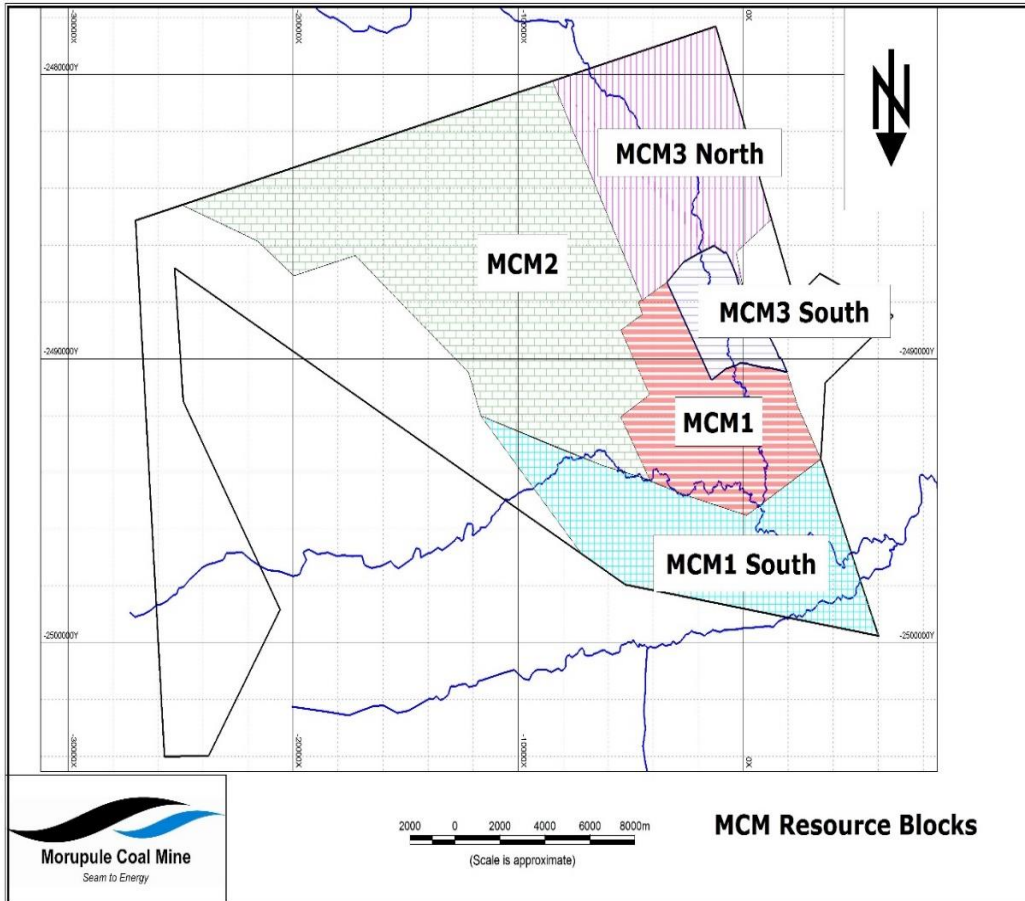
# **Downstream Coal Beneficiation Opportunities in Botswana: Alternative uses of Coal**

**BOTSWANA'S COAL PIONEER**  
**Keneilwe Orapeleng**

# Botswana Coalfields (Kgaswe coal fields)



# MCM COAL RESOURCES & RESERVES



## MCM Coal Resources

Resource Block	Measured GTIS Mt	Indicated GTIS Mt	Inferred GTIS Mt	Total GTIS Mt	Competent Person
MCM1	185	212	26	424	Mindset 2014
MCM1 South	0	0	695	695	SRK 2009
MCM 2	0	0	1444	1444	WAI 2010
MCM3 South	234	121	14	369	CCIC Coal 2016
MCM3 North	24	0	107	131	CCIC Coal 2016
<b>Total</b>	<b>443</b>	<b>333</b>	<b>2286</b>	<b>3062</b>	

\*MCM1, MCM1 South, MCM2 - MORU Seam Only

\* MCM3 South & MCM3 North - LOTSa, LOTSc, NO2Z, MARM & MORU Seams

## MCM Coal Reserves

Reserves Block	Proven ROM Mt	Probable ROM Mt	Total ROM Mt	Competent Person
MCM1	40	37	77	Mindset 2014
MCM3 South	32	31	64	DRA 2015
<b>Total</b>	<b>72</b>	<b>68</b>	<b>141</b>	

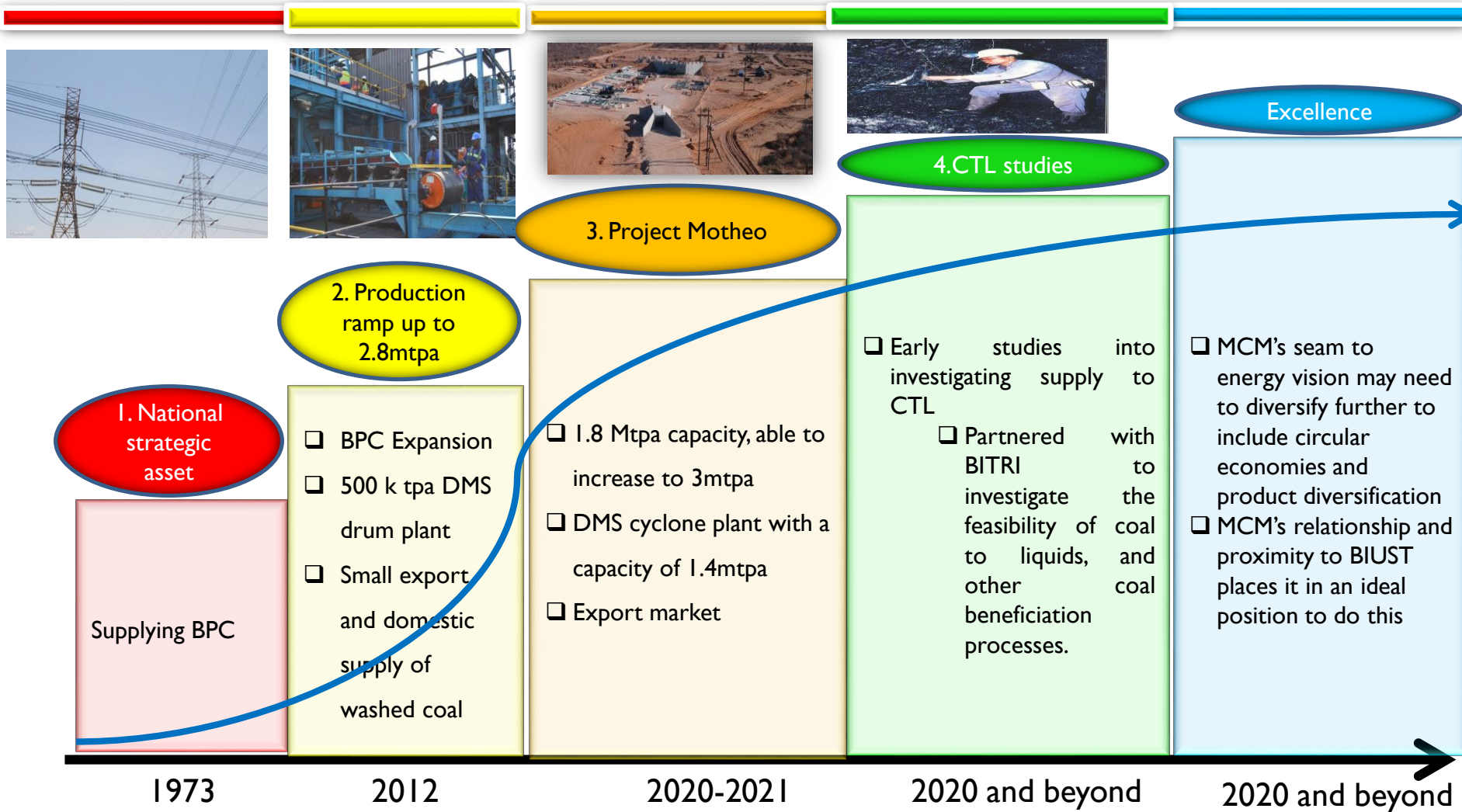
\*MCM1 - 7Mt in the Probable category from inferred Resources,

\* MCM3 South - NO2Z, MARM & MORU Seams

\* Reserves are prepared on JORC 2012 Standards

Coal reserves at approximately 141 million tons and total coal resources estimated to be 3 billion tons.

# MCM Growth roadmap



## Specification and market

Parameter	RoM	Washed
Calorific Value (Mj/kg)	20.94 - 23	24.5 – 25.5
Ash Content (%)	20.5 – 26.5	13.5 – 16.5
Total Sulphur (%)	0.5 - 2	0.2 - 1
Phosphorus (%)	0.02 – 0.06	0.02 – 0.06
Volatile Matter (%)	20 - 25	22.5 - 25
Total moisture (%)	4 - 8	4 - 8

### MCM Current market

- Power generation
  - Botswana and Namibia
- Domestic Use
  - Poultry farming
- Brick manufacturing
  - Cement
- Metallurgical
  - Ferrochrome industries
  - Iron industries

	Power Generation	Domestic Use	Cement	Metallurgical
Calorific Value Mg/m <sup>3</sup> )	●	●	●	
Ash (%)				
Total sulphur (%)	●	●	●	●
Total Moisture (%)	●	●		
Phosphorus (%)				●
Volatile matter (%)			●	

Ideal ●

Detrimental ●

# THANK YOU



**SAFETY**



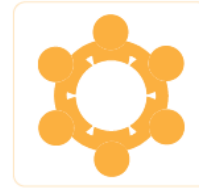
**PASSION**



**CARING**



**GROWTH**



**WORKING  
TOGETHER**



**EXCELLENCE**