

Responding to India's Growing Steelmaking Raw Materials Needs

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Presentation layout

- **Introduction to BHP Billiton**
 - Global Assets
 - Carbon Steel Materials
- **India – Case for Growth**
 - Indian Economy
 - Steel Growth in India
 - Constraints
 - Factors for India to reach full potential
 - BHP Billiton commitment to India
- **BHP Billiton Expansion plans**
 - Coking Coal Expansions
 - Iron Ore Expansions
 - Manganese Expansions
- **BHP Billiton Benefits to India**
- **Concluding remarks**

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The world's largest diversified resources company

Petroleum



Aluminium



Base Metals



Carbon Steel Materials



Diamonds & Spec Prod



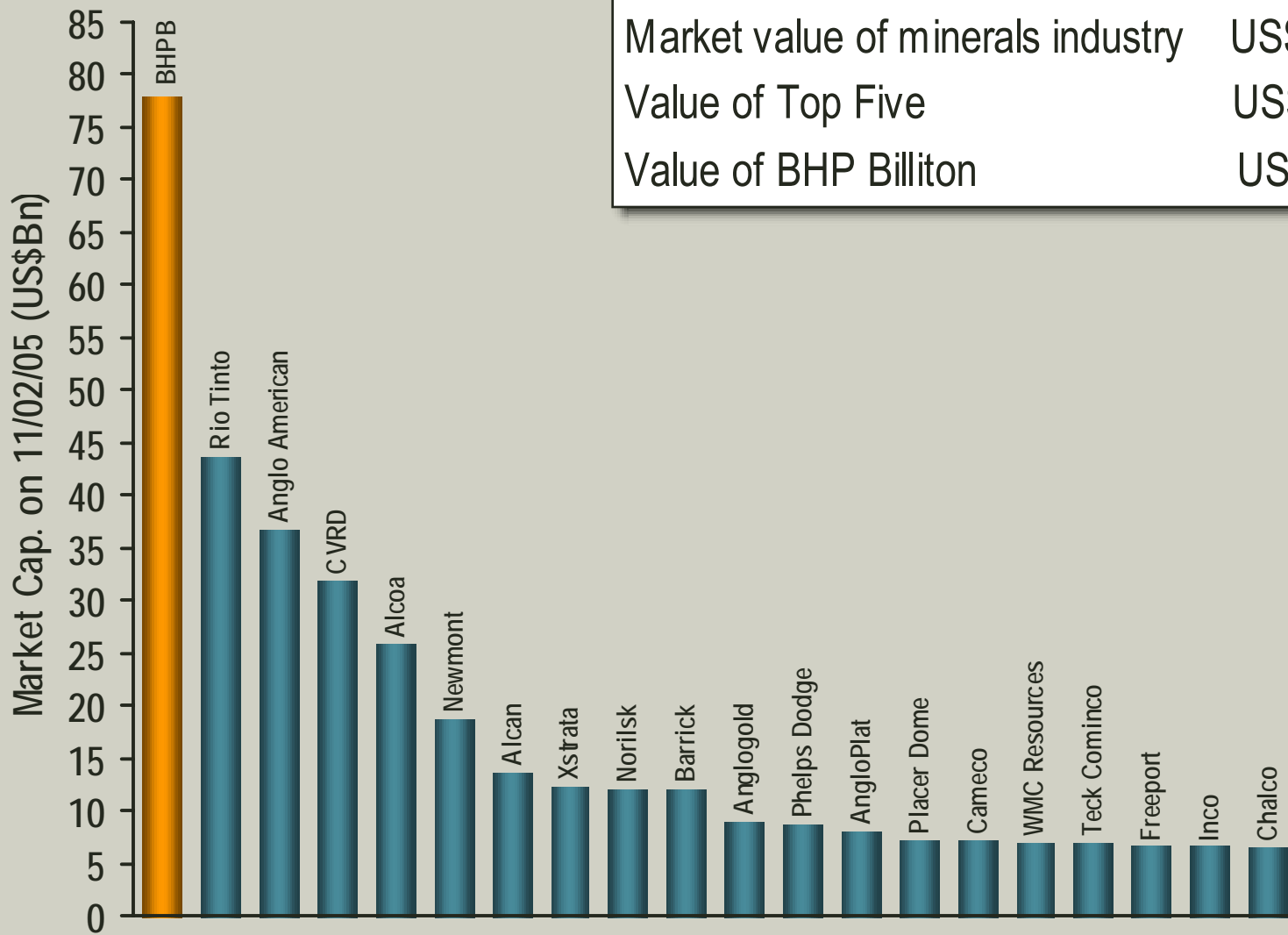
Energy Coal



Stainless Steel Materials



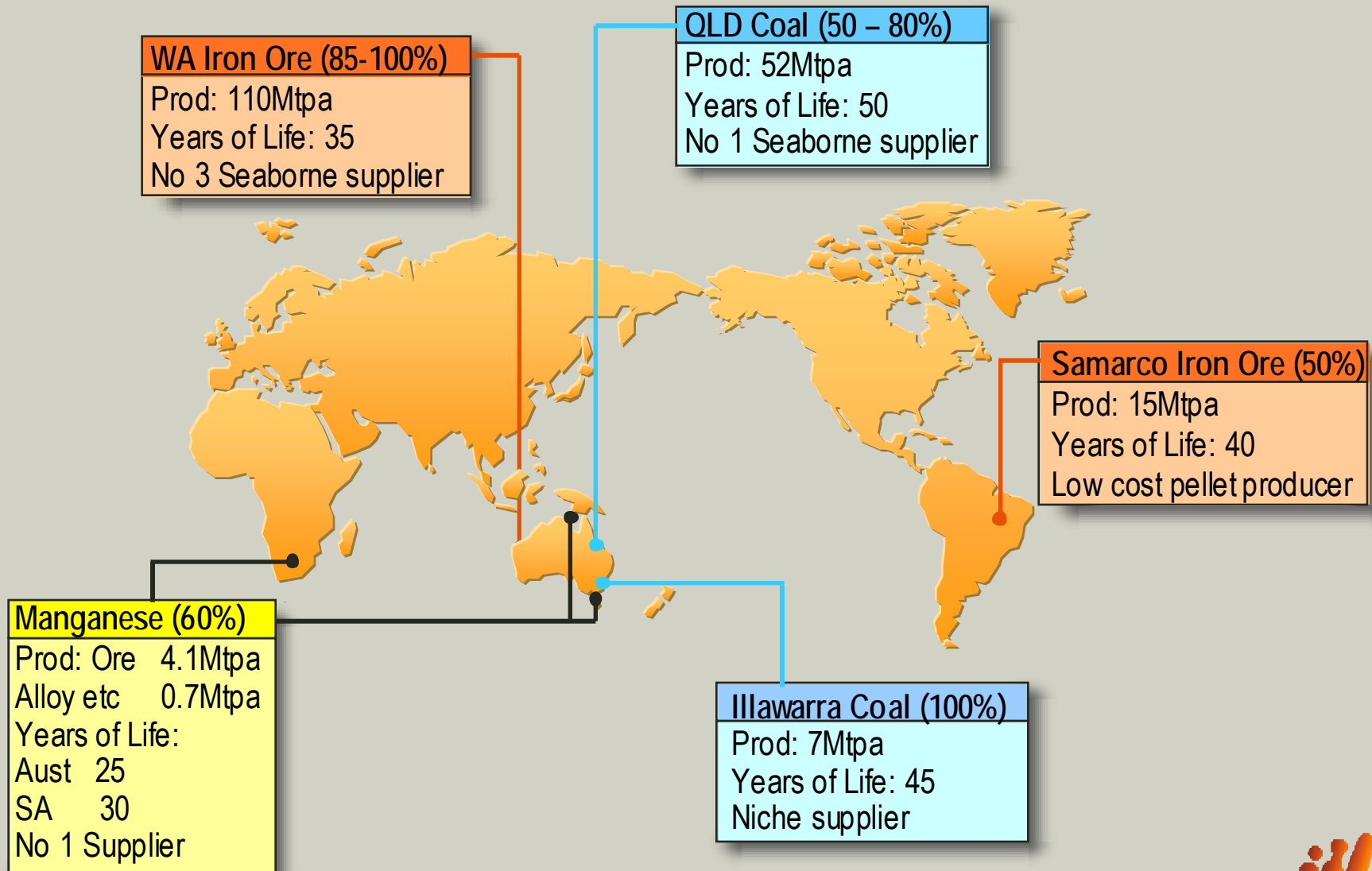
The largest company in a consolidating sector



Market value of minerals industry	US\$523 bn
Value of Top Five	US\$217 bn
Value of BHP Billiton	US\$ 78 bn

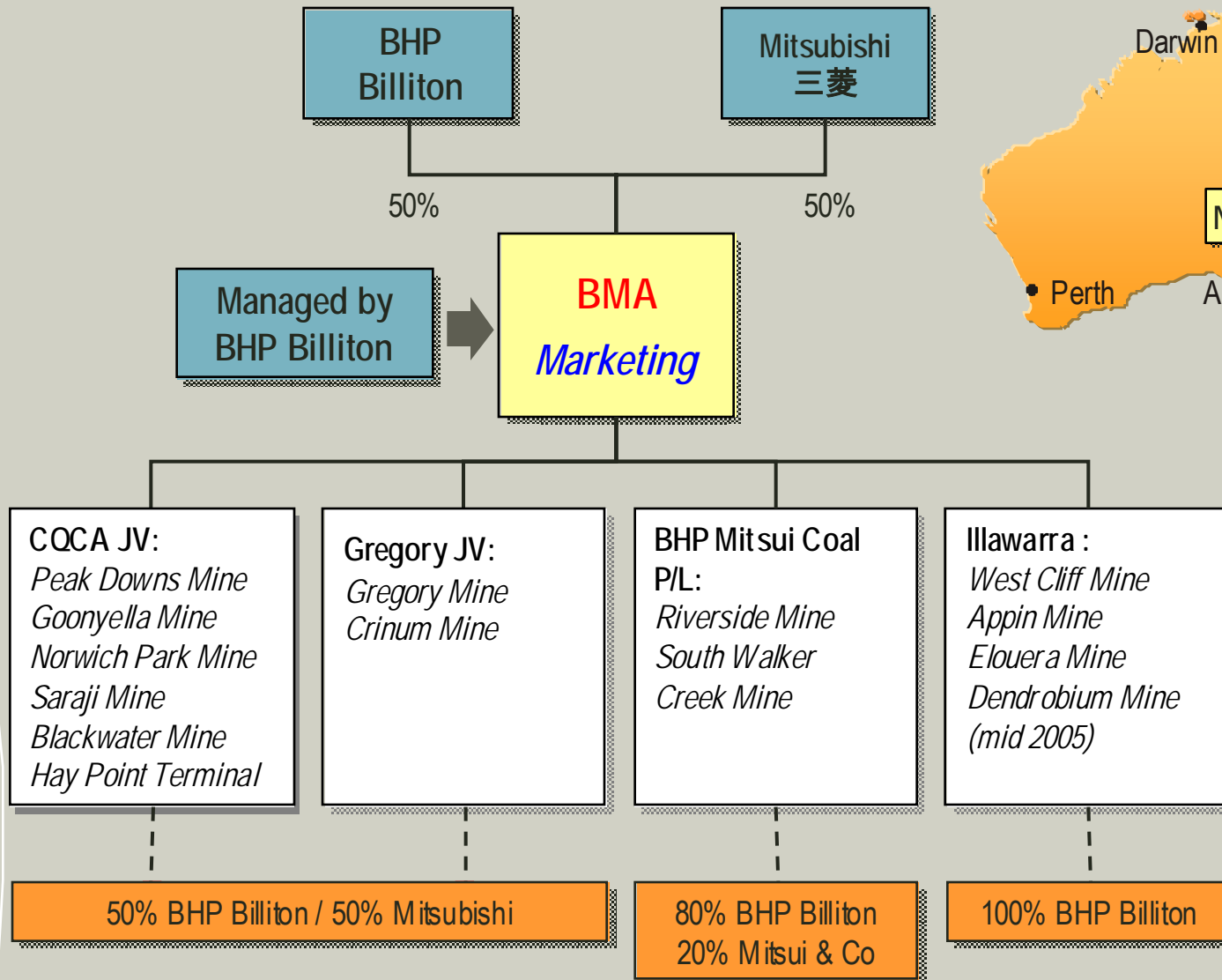
Source: Datastream

BHP Billiton – Carbon Steel Materials assets

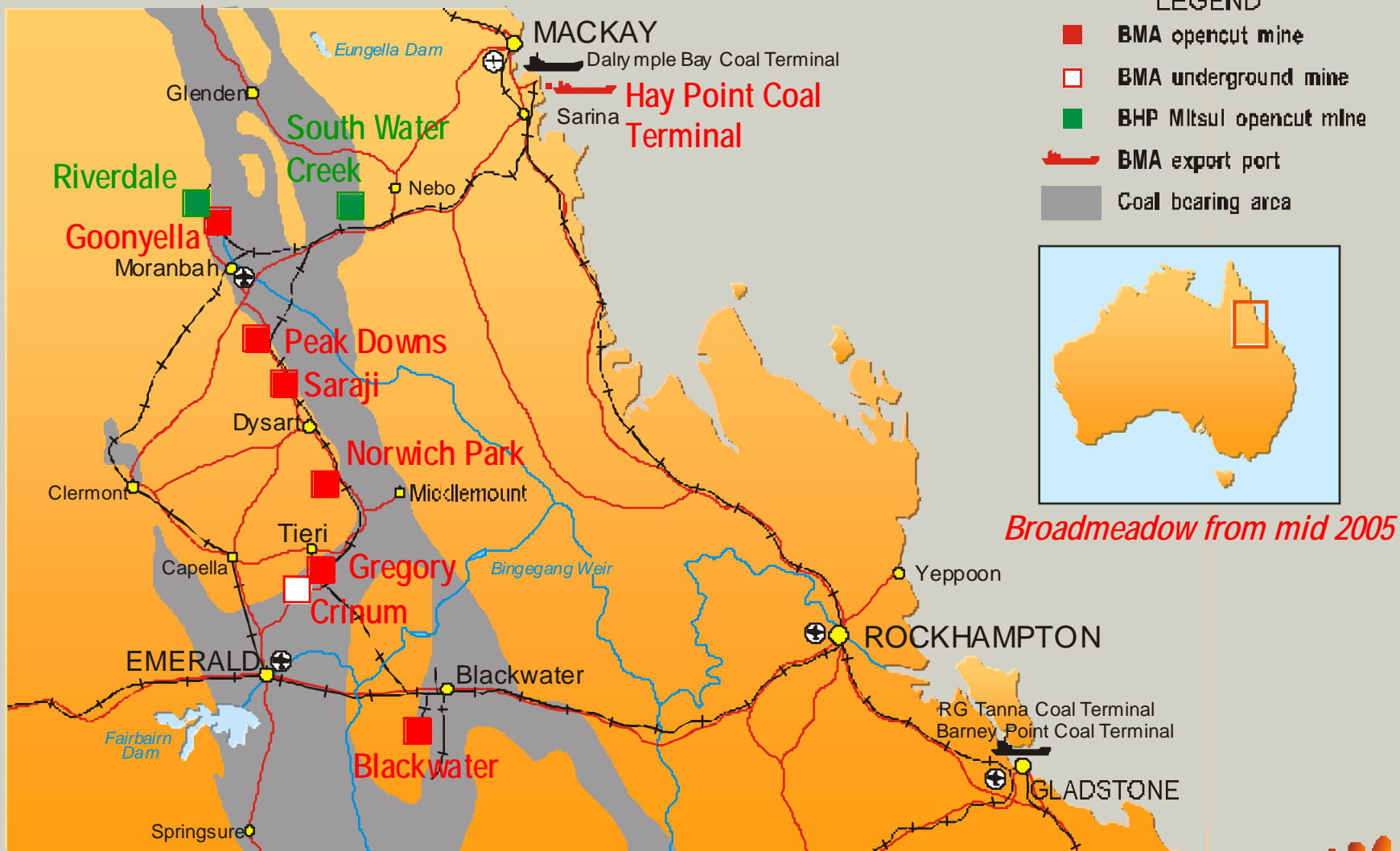


100% nominal production capacity

BHP Billiton has large Met Coal Assets



BHP Billiton Queensland Coal Operations

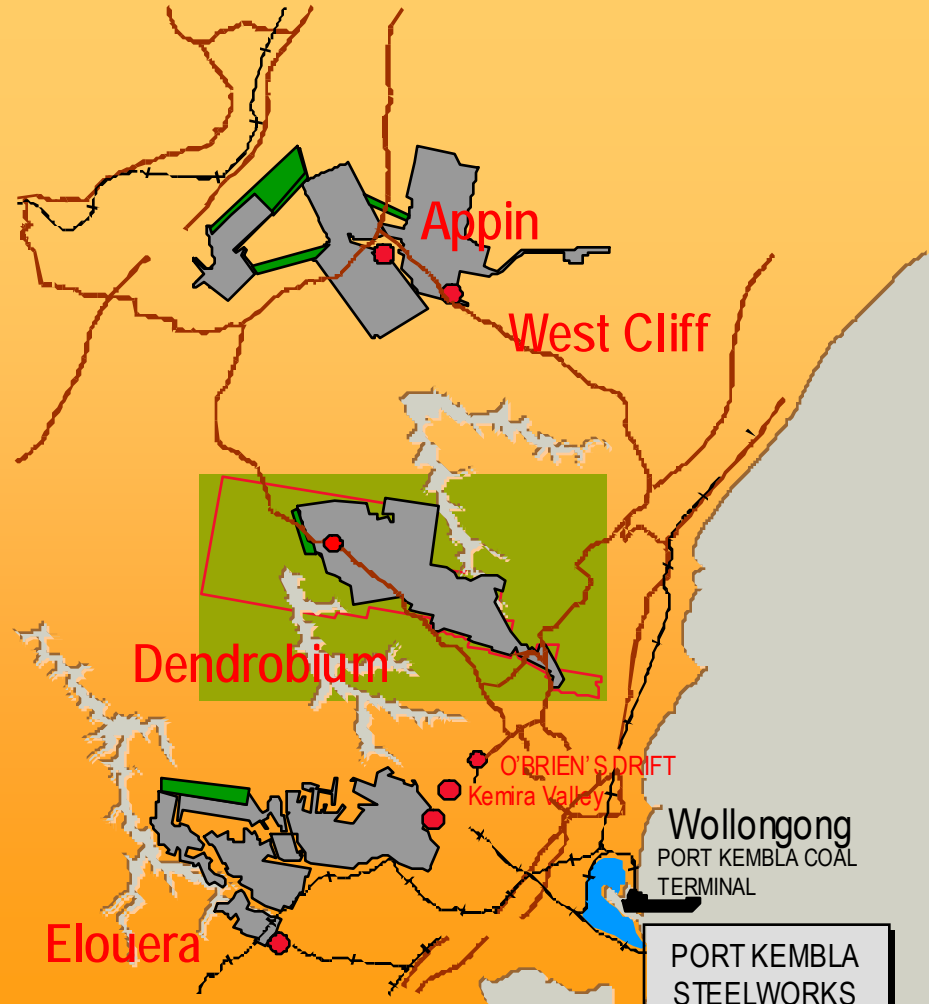
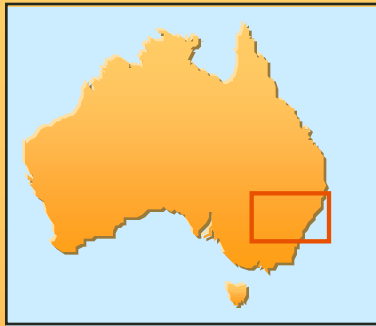


BHP Billiton's Coal Transportation

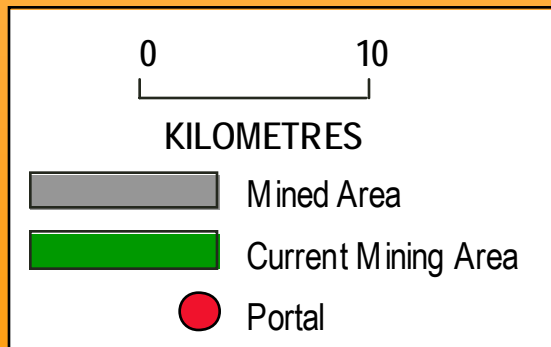
- Coal produced is transported to Hay Point & Dalrymple Bay coal terminals south of Mackay and Clinton & Barney Point terminals in Gladstone by a electric rail system.
- Each train has up to 120 wagons, and carries approx. 9000 tonnes of product coal.
- Ports can handle vessels up to 200,000 tonnes capacity.



BHP Billiton Illawarra Coal Operations



Dendrobium from mid 2005



Location of Iron Ore Mines

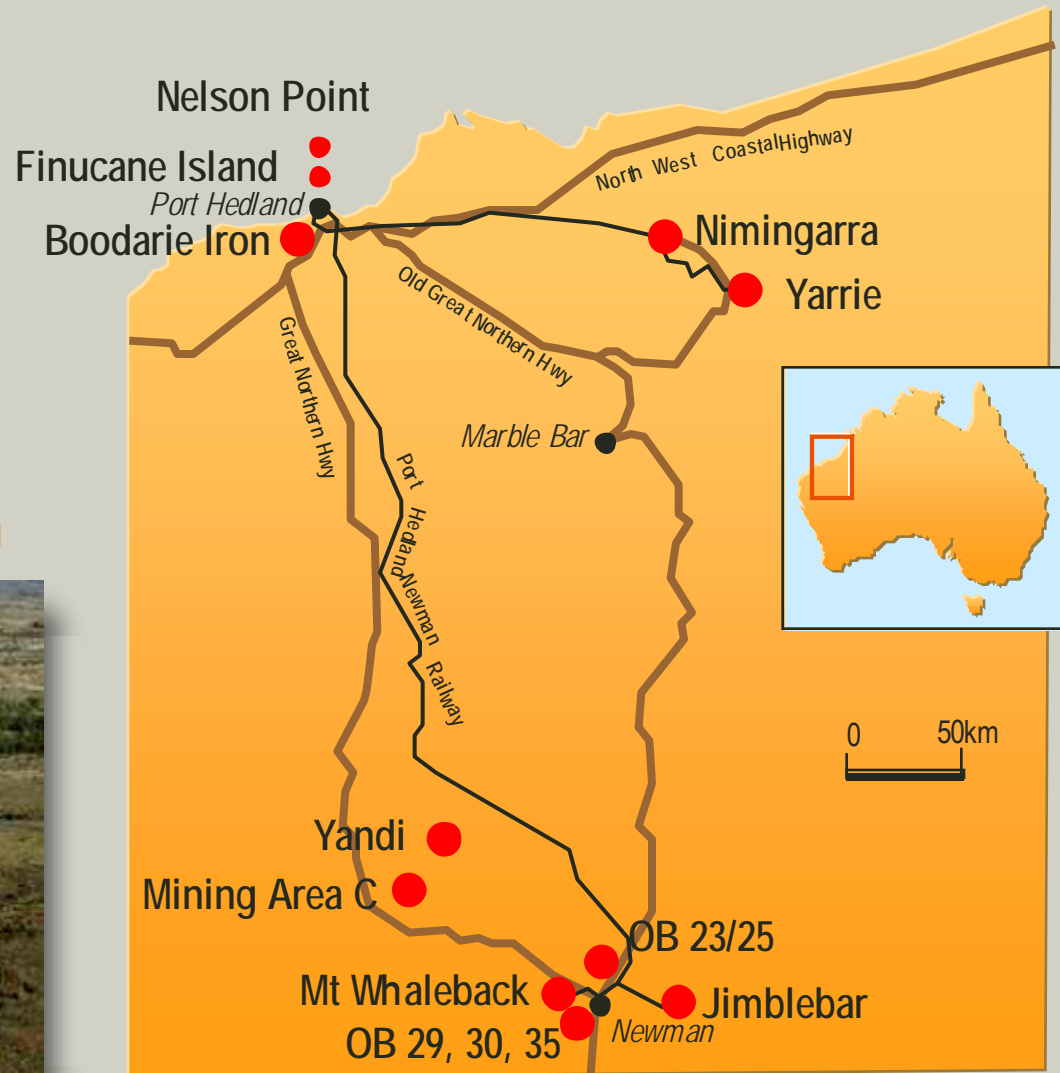
Newman to Nelson Point - 426km

- Jimblebar spur line is 32km

Yandi to Nelson Point - 310 km

- Yandi spur line is 30km
- Area C spur line extension from Yandi is 38km

Yarrie to Finucane Island - 208km



BHP Billiton Western Australian Iron Ore's Joint Ventures

Mt. Newman JV ($\approx 38\text{Mwmt/a}$)

- 85 per cent BHP Billiton Minerals Pty. Ltd.
- 10 per cent Mitsui - Itochu Iron Pty. Ltd.
- 5 per cent CI Minerals Australia Pty. Ltd.

Note : Jimblebar is 100% owned by BHP Billiton Minerals Pty Ltd

- Wheelara Joint Venture (Sub Lease of Jimblebar) (12Mt/a)
 - 51 per cent BHP Billiton Minerals Pty Ltd
 - 10 per cent Maanshan Iron & Steel Co
 - 10 per cent Tangshan Iron & Steel (Group) Co
 - 10 per cent Wuhan Iron & Steel Corporation
 - 10 per cent Jiangsu Shagang
 - 4.8 per cent Itochu Minerals & Energy of Australia
 - 4.2 per cent Mitsui Iron Ore Corporation Pty Ltd

BHPBIO is the operator and marketer for each of the Joint Ventures



BHP Billiton Western Australian Iron Ore's Joint Ventures

Mt. Goldsworthy Mining Associates JV ($\approx 7.5\text{Mwmt/a}$)

- 85 per cent BHP Billiton Minerals Pty. Ltd.
- 7 per cent Mitsui Iron Ore Corporation Pty. Ltd.
- 8 per cent CI Minerals Australia Pty. Ltd.

• POSMAC JV

(Sublease of Mt. Goldsworthy JV's 'C deposit') ($\sim 15\text{Mt/a}$)

- 65 per cent BHP Billiton Minerals Pty. Ltd.
- 20 per cent POSCO
- 7 per cent Mitsui Iron Ore Corporation Pty. Ltd.
- 8 per cent CI Minerals Australia Pty. Ltd.

Yandi JV ($\approx 42\text{Mwmt/a}$)

- 85 per cent BHP Billiton Minerals Pty. Ltd.
- 7 per cent Mitsui Iron Ore Corporation Pty. Ltd.
- 8 per cent CI Minerals Australia Pty. Ltd.

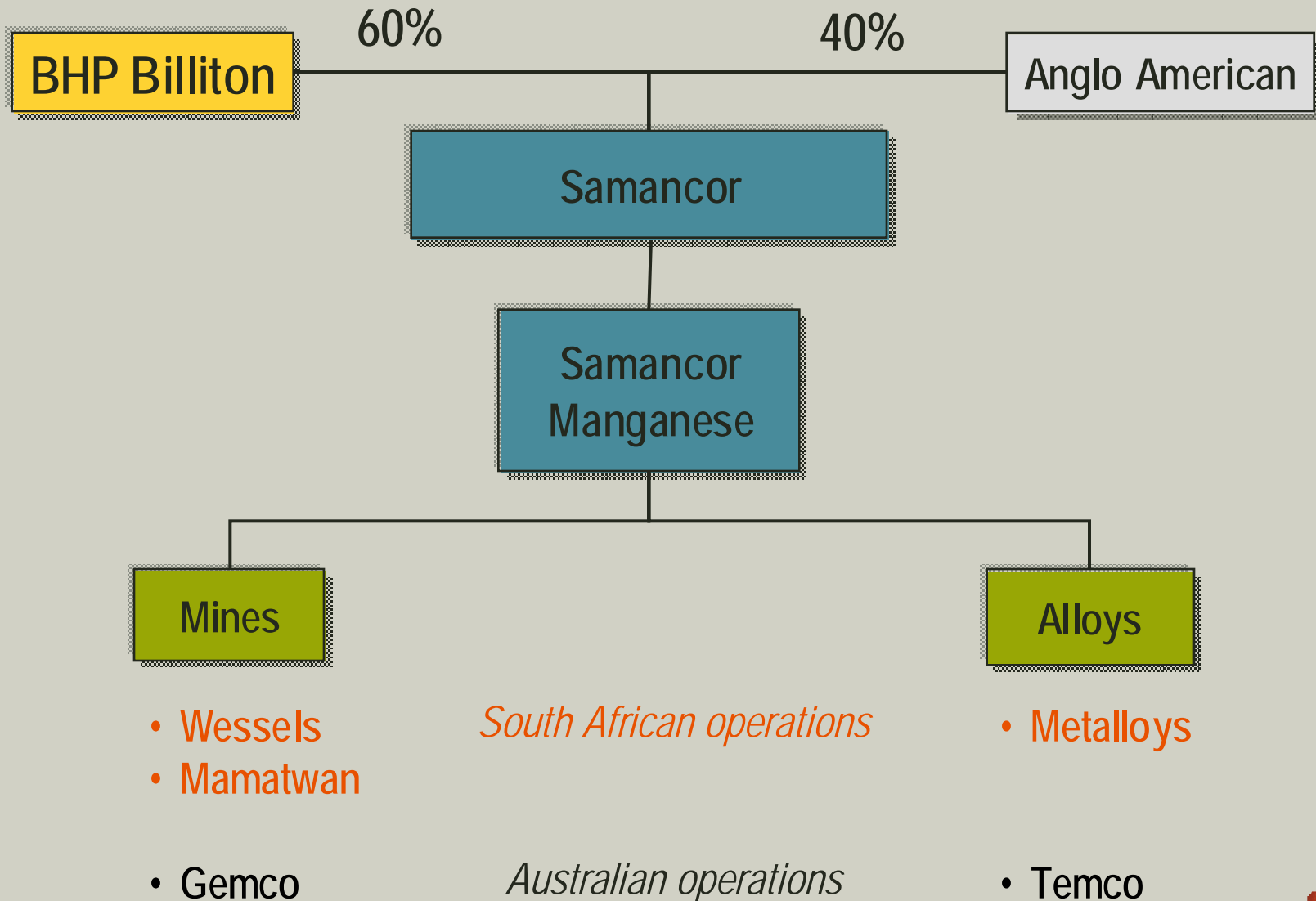
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BHP Billiton Iron Ore Ports



BHP Billiton Manganese



BHP Billiton Manganese Operations



Mamatwan (open pit)
ROM 2.3 million tpa
Sinter plant +800 Ktpa



Metalloys - Capacity
397,000tpa FeMn
104,000tpa SiMn
75,000tpa MCFeMn



Wessels (underground)
ROM 1.2 million tpa
Beneficiation plant 900 Ktpa



Temco - Capacity
130,000tpa FeMn
120,000tpa SiMn
330,000tpa Sinter



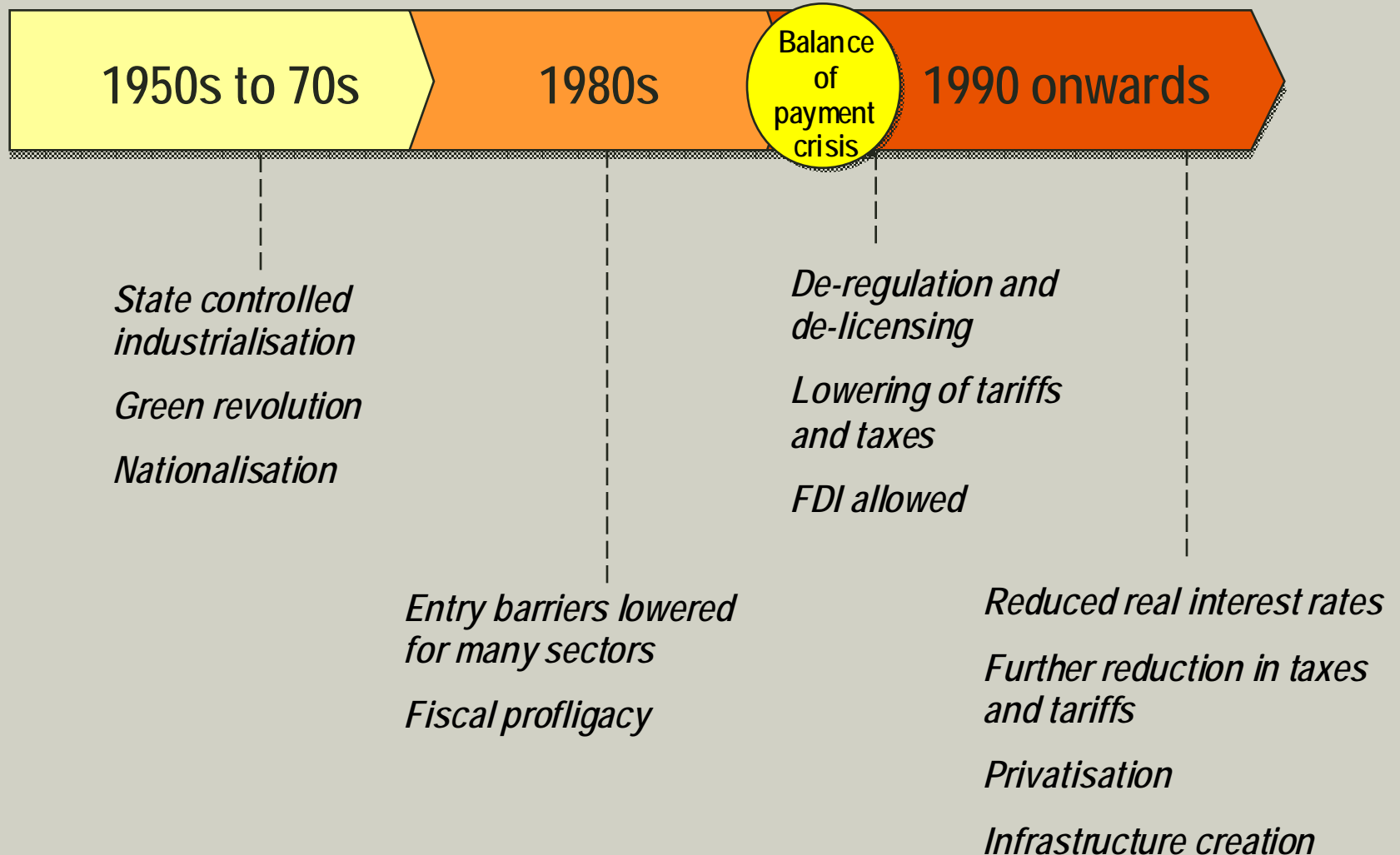
Gemco - Capacity
ROM >6.5 million tpa

TEMCO
Bell Bay

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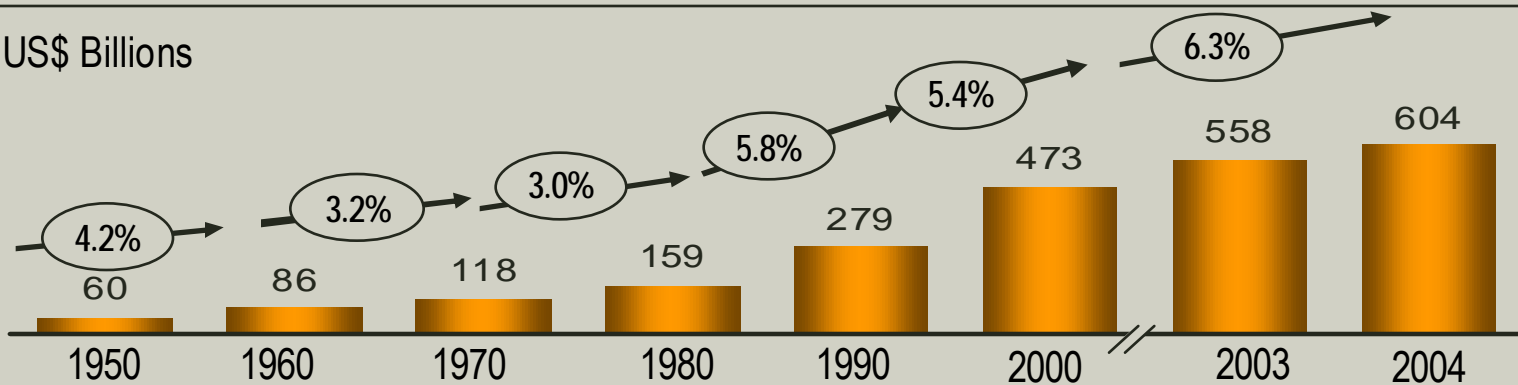
Over time, India's traditionally controlled economy has been reformed to give way to liberalisation



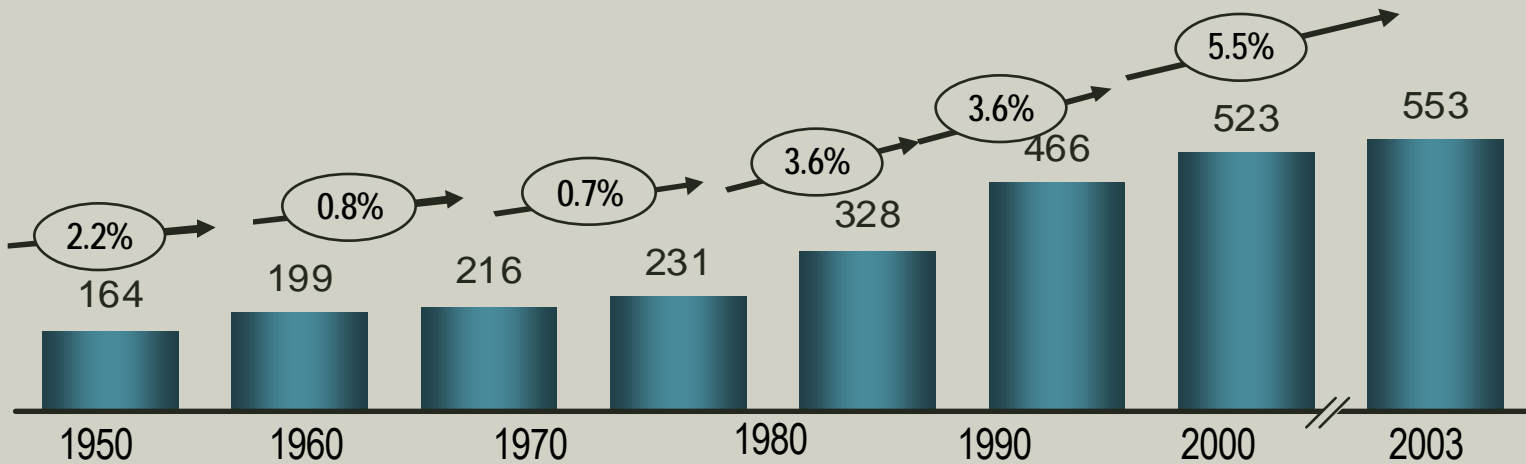
As a result India's GDP growth has been accelerating

Real GDP*

US\$ Billions



Real GDP*/capita



* Base year = 2002

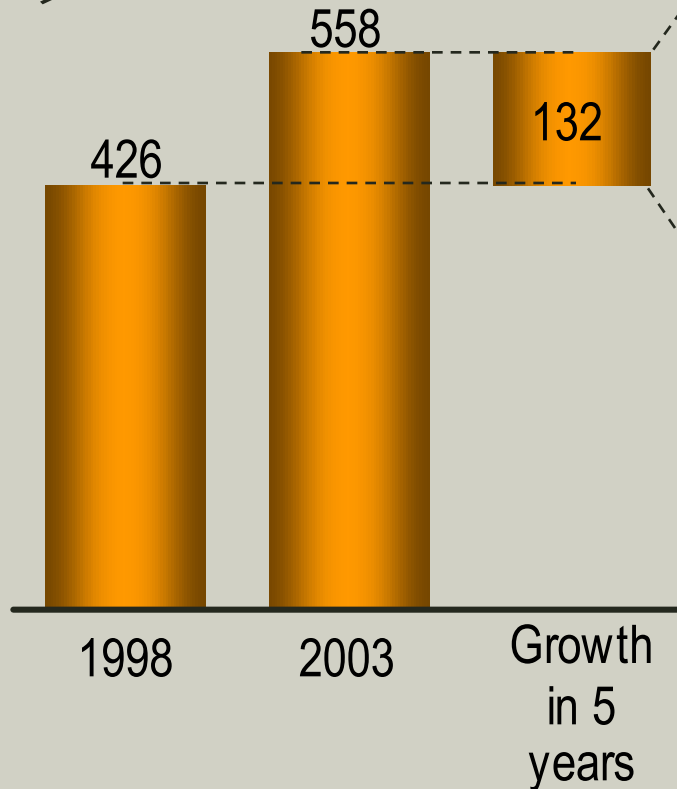
Source: WEFA-WMM

India's GDP growth has been consumption driven

India real GDP growth

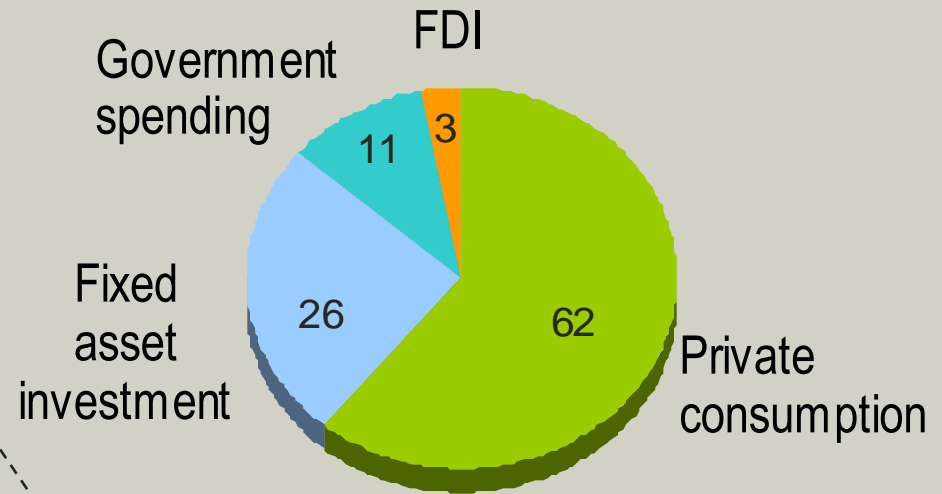
US\$ Billions

CAGR
= 5.6%



Sources of GDP Growth

Percent



* Net trade contribution -2%

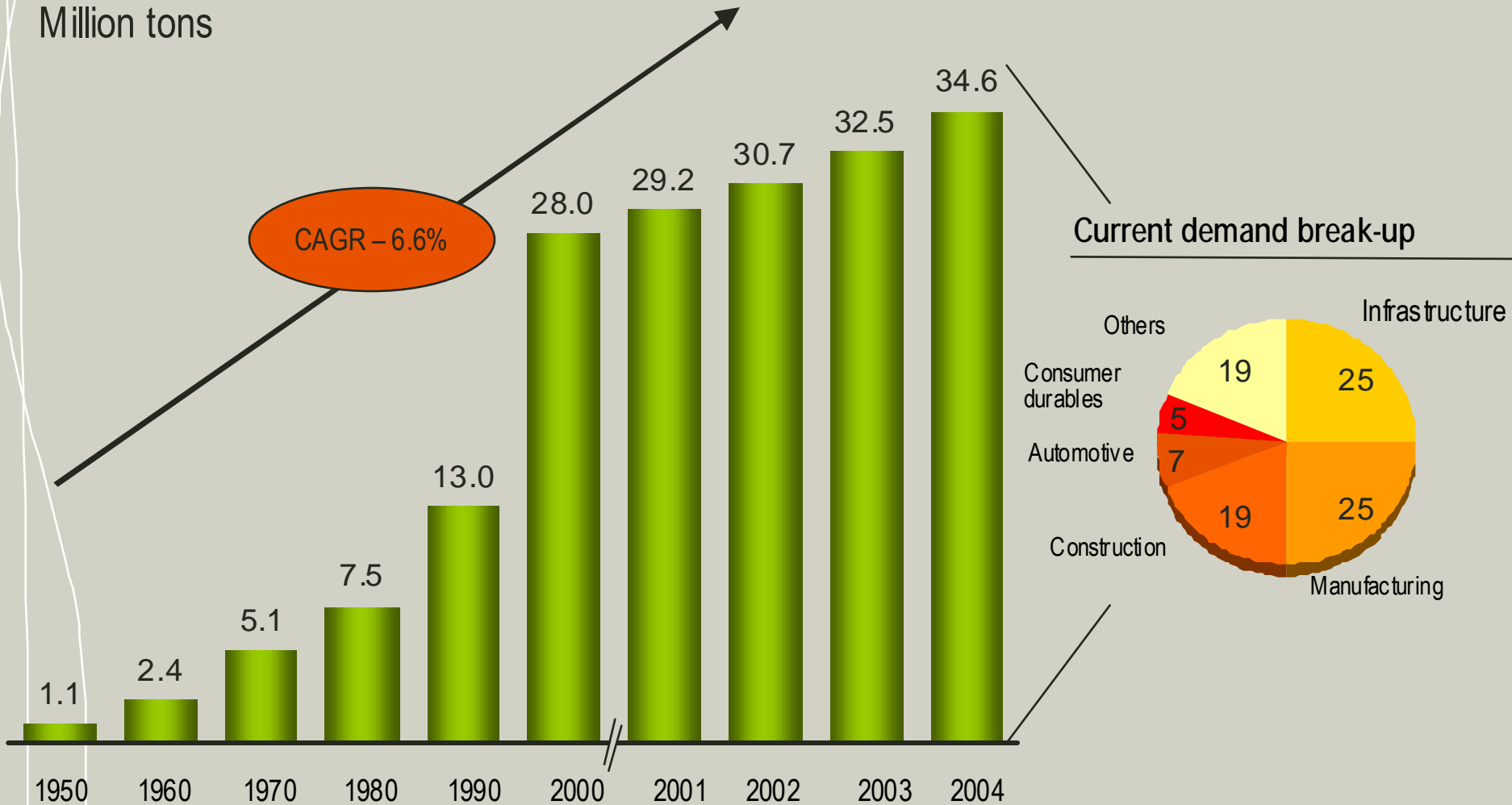
Critical measures that could enhance economic growth

There are 4 major areas for boosting economic growth

- Encourage FDI (adopt some of China's techniques)
 - e.g. establish Special Economic Zones
- Development of infrastructure
 - Roads, rail, ports, airports
- Free up the Private sector
 - especially in Mining and Resources
- Streamline bureaucracy and procedures
 - Permitting, resource allocation

India's domestic steel demand has shown moderate growth

Million tons

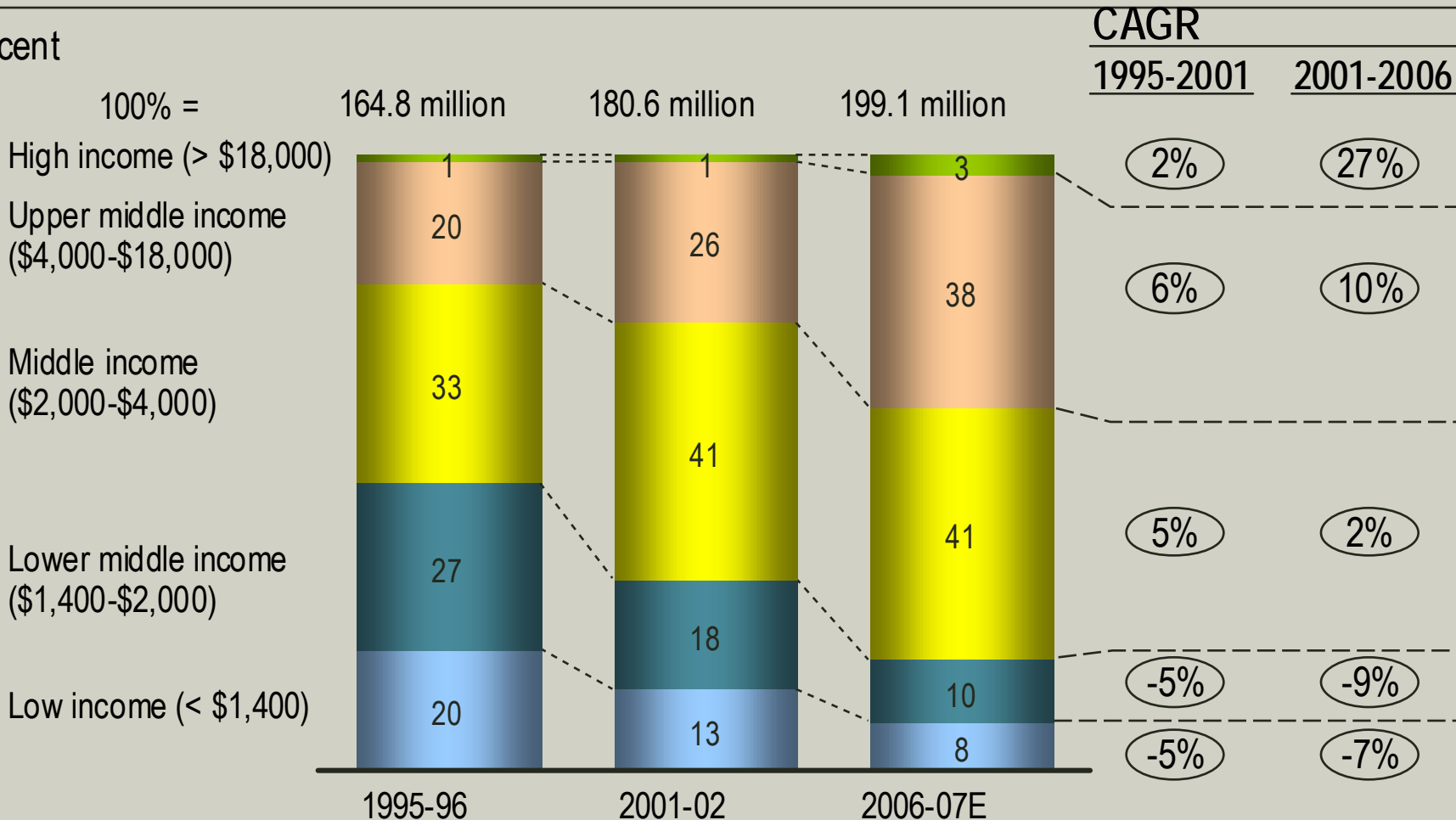


Source: Ministry of Steel

Supported by a growing middle class

Household income* distribution

Per cent



* Annual Income at PPP levels (PPP = Purchasing Power Parity); Average size of a household 5.8 people

Source: NCAER

But the Indian steel industry faces barriers to fulfil potential

Key issues	Description	Impact on industry
Logistics infrastructure	<ul style="list-style-type: none">• High rail freight tariffs• Port/Shipping bottlenecks	<ul style="list-style-type: none">• Higher costs• Reduced steel exports competitiveness
Coking coal and coke availability and cost	<ul style="list-style-type: none">• Indian coal has high ash• Exposure to availability and prices of coking coal in international markets• Competition for seaborne hard coking coal	<ul style="list-style-type: none">• Higher costs• Lower quality coke negatively impacting steel production• Coal shortages could impact industry growth• Need to develop import facilities
Iron ore availability	<ul style="list-style-type: none">• Huge in country reserves• Captive resource policy• Sub-optimal mining• Insufficient investment and development	<ul style="list-style-type: none">• Tight iron ore supply situation for domestic steel makers• Higher domestic prices• Possible Iron Ore Imports?

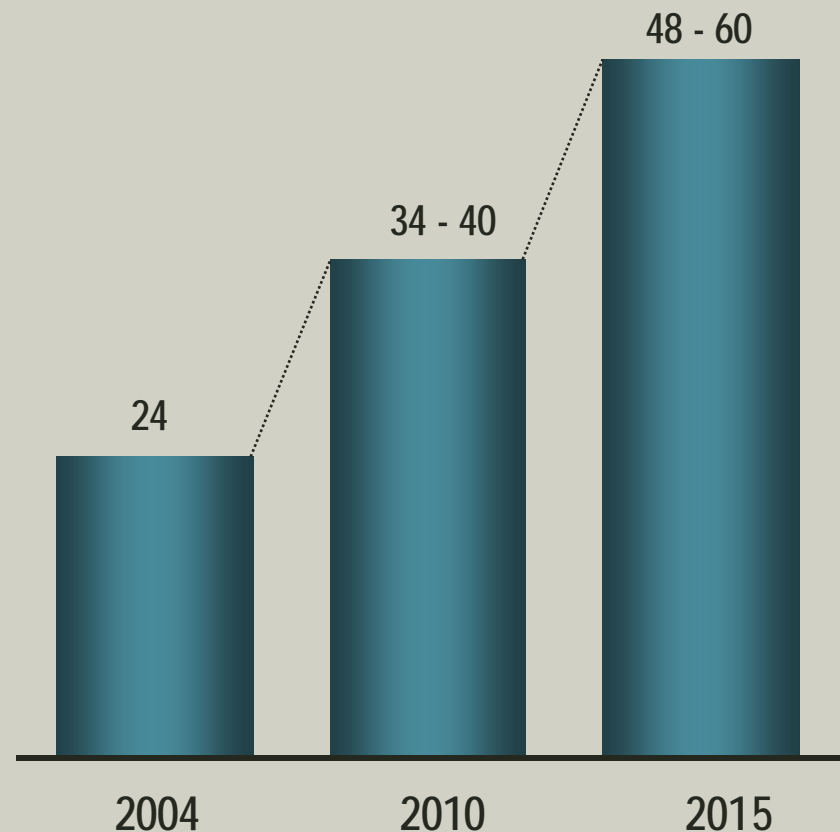
Existing barriers/constraints faced by the Indian iron ore industry

Key issues	Description	Impact on industry
Sub-scale mining	<ul style="list-style-type: none"> • 225 mines with only 10 producing more than 2 million tons annually • High grading of reserves • Environmental degradation 	<ul style="list-style-type: none"> • Higher costs on <ul style="list-style-type: none"> – Mining/processing – Shipping • Lack of investment and technology • Sterilization of low grade resources
Lack of logistics infrastructure	<ul style="list-style-type: none"> • Railway network shared with passengers leading to congestion and delays • High rail freight tariffs • Lack of availability of rakes • Ports have insufficient capacity to handle increasing volume of exports 	<ul style="list-style-type: none"> • Higher inland/port handling cost reducing competitiveness of exports • Longer lead times and uncertainty on delivery dates
Regulatory hurdles/ delays	<ul style="list-style-type: none"> • Delays in obtaining approvals for mining i.e., PLs, MLs, forest and environment clearances etc • However, encouraging signs of change in the air 	<ul style="list-style-type: none"> • Potential to create shortfall
Absence of merchant iron ore market	<ul style="list-style-type: none"> • Captive mining • Spot sales where surplus available 	<ul style="list-style-type: none"> • Uncertainty of supply and prices • Need for structured merchant mining

And there is shortage of Coking Coal in India

- Indian coking coal requirement is likely to grow going forward driven by increasing production of finished steel by the BF-BOF route.
- However domestic supply likely to remain static at 8 million tones making India heavily dependent on imports

Estimated Demand for Coking coal
Million tonnes



Summary - Factors for India to reach full potential

- Indian steel demand has great potential for strong growth
- India has significant iron ore reserves
- India needs significant improvements to reach its potential
 - Accelerated infrastructure developments
 - Rail:- further upgrading and improved connectivity
 - Ports:- development of new ports, expansions of existing ports
 - Continued expansion and development of domestic steel industry
 - Improved BF operations – lower fuel rates, higher PCI rates and high productivity
 - Higher coke quality via improved technology and superior hard coking coals
 - Increased imports and use of imported high quality, low ash coking coals
 - Mining improvements – iron ore
 - Accelerated exploration and resource development
 - Adoption of state of the art mining and beneficiation methods and techniques
 - Resource optimization

BHP Billiton's commitment to India

1. Major supplier to steel industry; coking coal, >6 million tonnes pa and growing, new supplier of high grade manganese ore
2. Expansion of Corporate presence Delhi office to 25+, new office in Orissa
3. Various exploration activities, iron ore, diamonds, bauxite etc

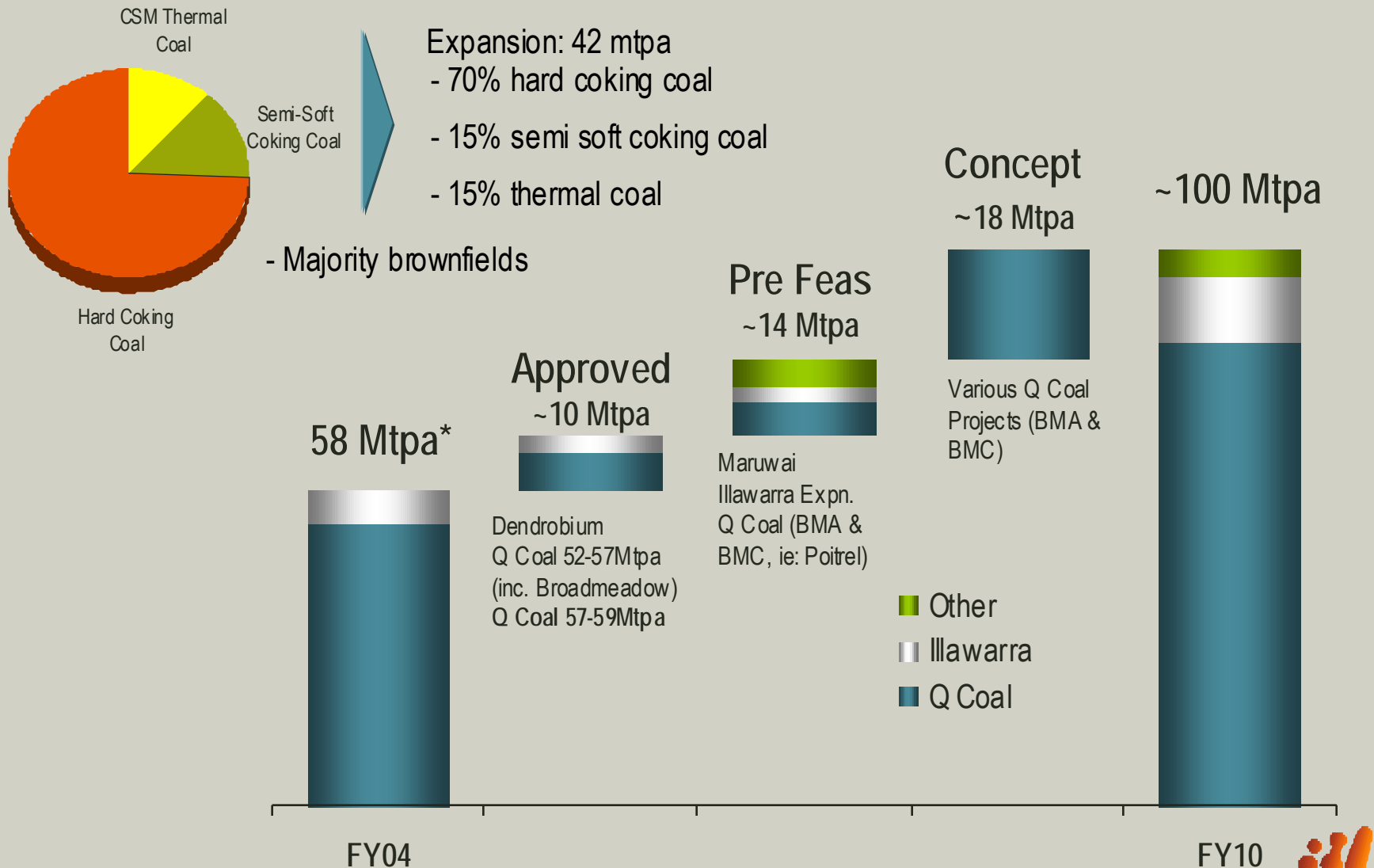
Potential future developments:-

- **SAIL – BHP Billiton Strategic Alliance**
 - MOU with Steel Authority of India (SAIL) for potential joint development of Iron Ore Mines in India and Coking coal mines in other countries
 - Strategic alliance to maximize resource utilization while exploiting the finite natural resources in an economic and environment-friendly manner
- **POSCO India steel plant**
 - Assessing involvement in possible JV with Posco for proposed 10mtpa steel plant in Orissa, where BHP Billiton would supply raw materials and infrastructure to the project and the local steel industry
- **Assessing other opportunities**

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High value incremental growth to ~100Mtpa capacity



*All production figures are quoted on a 100% equity basis

Queensland Coal: 52Mtpa to 57Mtpa expansion for mid 2005

- Capital cost US\$94 million (100%)
- 132Mbcm of contract stripping – additional operating cost over ~ 2 years
- Additional mobile mining equipment - Norwich Park, Peak Downs, Saraji and Goonyella
- Improvements to Saraji, Peak Downs Prep plants
- Broadmeadow (3.6mtpa) - start-up mid 2005, capex further US\$68M (100%)
- Queensland Rail - +8Mtpa capacity contracted + a further 8Mtpa for continued growth

Producing coal at Broadmeadow June 2004



Peak Downs mobile mining equipment



Note: All numbers are 100% equity basis, unless otherwise specified

Further expansions underway

Queensland Coal: 57Mtpa to 59Mtpa for 2nd half 2006

- Hay Point Coal Terminal Expansion + 6Mtpa (34Mtpa - 40Mtpa)
- 32Mbcm contract stripping at Saraji –
- Capital cost US\$175M (100%)
- ~US\$100 million of the capital cost to allow further expansions of the Hay Point port



Illawarra Coal: 7Mtpa to 14Mtpa

- Dendrobium – Start up mid 2005 (3.6Mtpa). Considering incremental expansion + 0.6Mtpa
- New West Cliff longwall in production
- Future growth will focus initially on de-bottlenecking at Appin & West Cliff
- Possible investment in an additional longwall unit



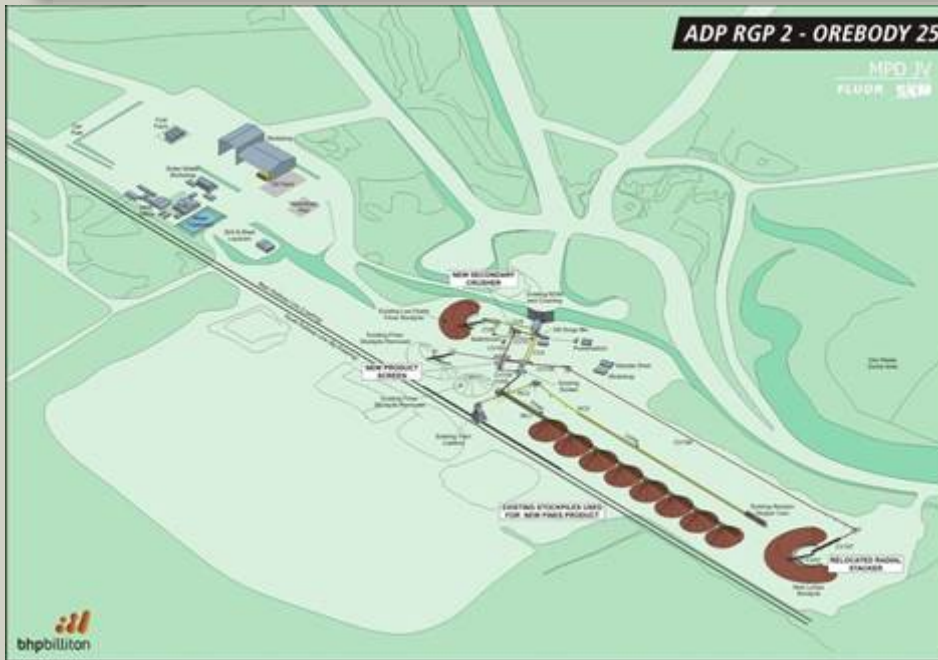
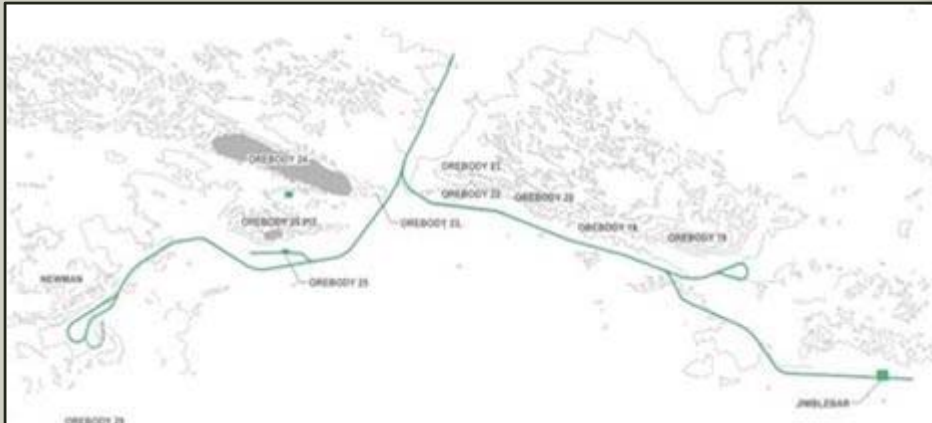
Note: All numbers are 100% equity basis, unless otherwise specified

Maruwai discovery: potential coking coal province

- The Maruwai discovery is located in Central/East Kalimantan and contains a range of coals
- Our vision is for a long term integrated basin development
- Expect to start with high quality HCC development of up to 5Mtpa and grow
- River barging likely transport option
- Contractor operation likely
- Pre-Feasibility Study near completion
- Expect to complete Feasibility Study end 2005



BHP Billiton iron ore expansions to 118Mt; studying further expansion to beyond 150Mt



- Expansion to 118 million tonnes total cost US\$575M (100%)
- 118 million tonnes by H2 2006
- Mining
 - Newman to 45 Mtpa
 - Development of OB18 for blending
 - Plant modifications at OB 25
- Rail
 - Procurement of more rolling stock
 - Increased rail flexibility
 - Additional track
- Port
 - New car dumper

BHP Billiton Manganese – Capturing market opportunities

Producing to meet unprecedented demand

- Operations running at record rates to capture market opportunities especially in China
- Reliable supplier of choice
- Operating Excellence continuing to deliver benefits
- Good HSEC progress



Low cost, low risk expansions

- Increased mine output at no/low additional capital cost

Challenges

- BEE in RSA

BHP Billiton's value to India

- BHP Billiton can offer:-
 - Complete suite of steelmaking raw materials, esp. coking coal
 - Long term proven resources of high quality coking coal in demand by global steelmakers
 - Demonstrated willingness to invest in major mine and infrastructure developments
 - Proven ability to manage high capacity ports and rail infrastructure
 - Ability to manage complex joint ventures for mutual benefits
 - Full commitment and “partnership” to expanding business to meet the future needs of India and the growing Indian steel industry
 - Excellent track record of supporting local communities and the highest standards of environmental and safety performance

Summary

- **The outlook for future India steel demand is very robust**
 - With high demand for raw materials, coking coal, manganese even iron ore
- **India has potential to meet this growth if constraints can be overcome**
 - Infrastructure, streamline complex development processes
 - Critical to promote mining development and resource utilisation
- **BHP Billiton and its partners are very well placed to meet India's needs**
 - Only supplier with complete suite of steelmaking raw materials
- **Coal expansions to 100Mtpa will be brought on line incrementally – in line with customer demand**
- **Expansions in other businesses actively advanced to meet global need**
- **New steel capacity in India can benefit from utilising BHP Billiton raw materials and expertise in coking coal, iron ore and manganese ore**