

Construction Equipment

AUGUST
2012



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Construction Equipment

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- ❖ Advantage India
- ❖ Market overview and trends
- ❖ Growth drivers
- ❖ Success stories: BEML, JCB India
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Advantage India

Robust demand

- Demand for construction equipment is expected to rise to USD4.1 billion by 2014, a CAGR of 17.9 per cent (from 2009)
- India to be firmly established as the third largest market in the world as number of machines grow to 61,745 in 2012

Opportunities

- Equipment rental and leasing business in India is small relative to developed markets and has a strong growth potential
- The after-sales revenue component in India is currently low and can be increased considerably

2014E

Total sales:
USD4.1
billion*

Advantage India

Increasing investments

- Increasing impetus to develop infrastructure in the country is attracting the major global players
- Cumulative FDI inflows of USD154.4 million have been recorded between April 2000 to March 2012

Policy support

- The material handling equipment industry is de-licensed and 100 per cent FDI is allowed under the direct route
- The government has extended custom duty exemptions on road construction equipments to more projects in recent budget

2009

Total sales:
USD1.8
billion*

Notes: FY – Indian Financial Year (April – March), USD-US Dollar, E – estimates. CAGR- Compound annual growth rate; FDI- Foreign Direct Investment, *Includes road construction and earth moving equipment market sales

Source: Off-Highway Research, Department of Heavy Industries(DHI) Annual Report, Aranca Research

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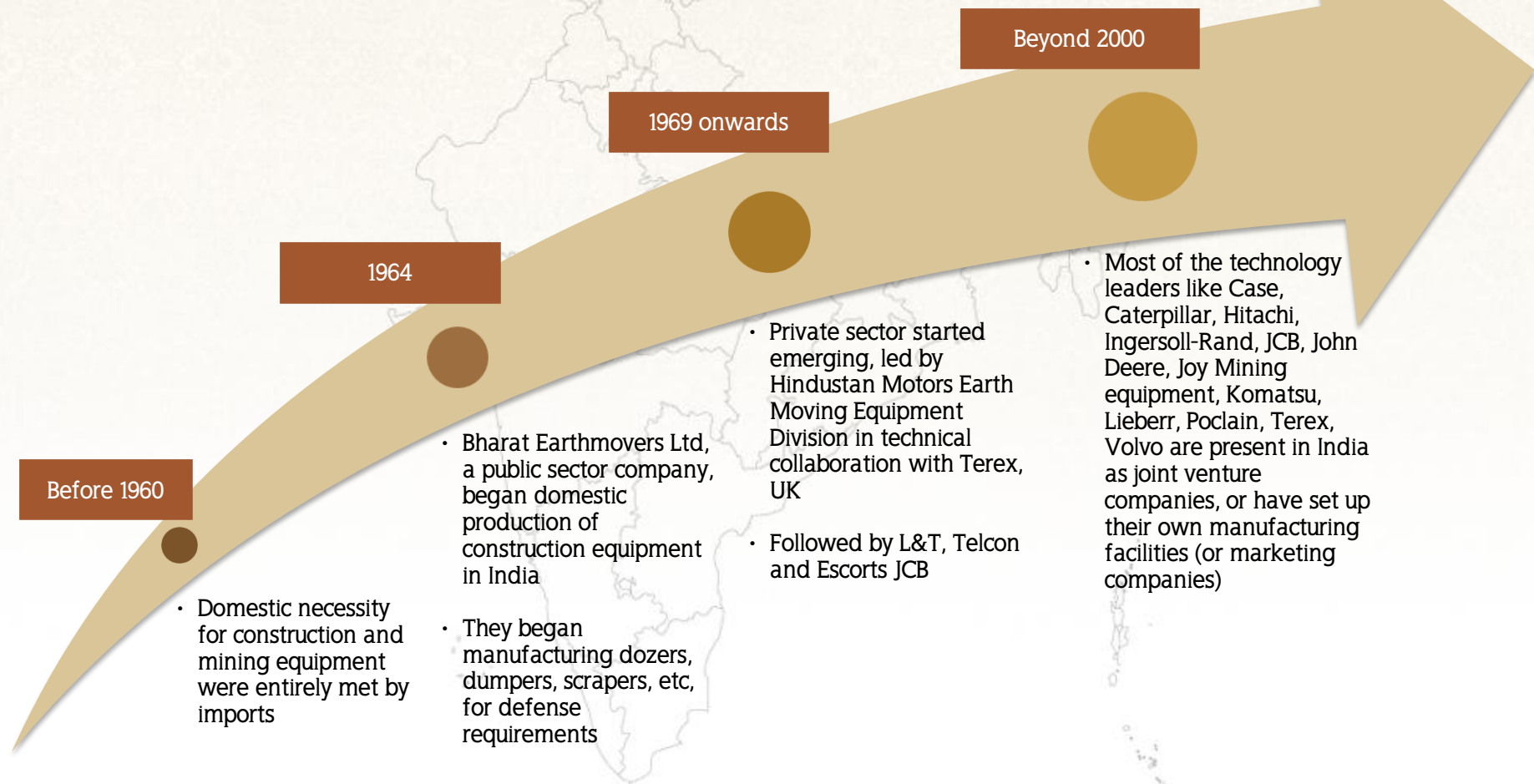
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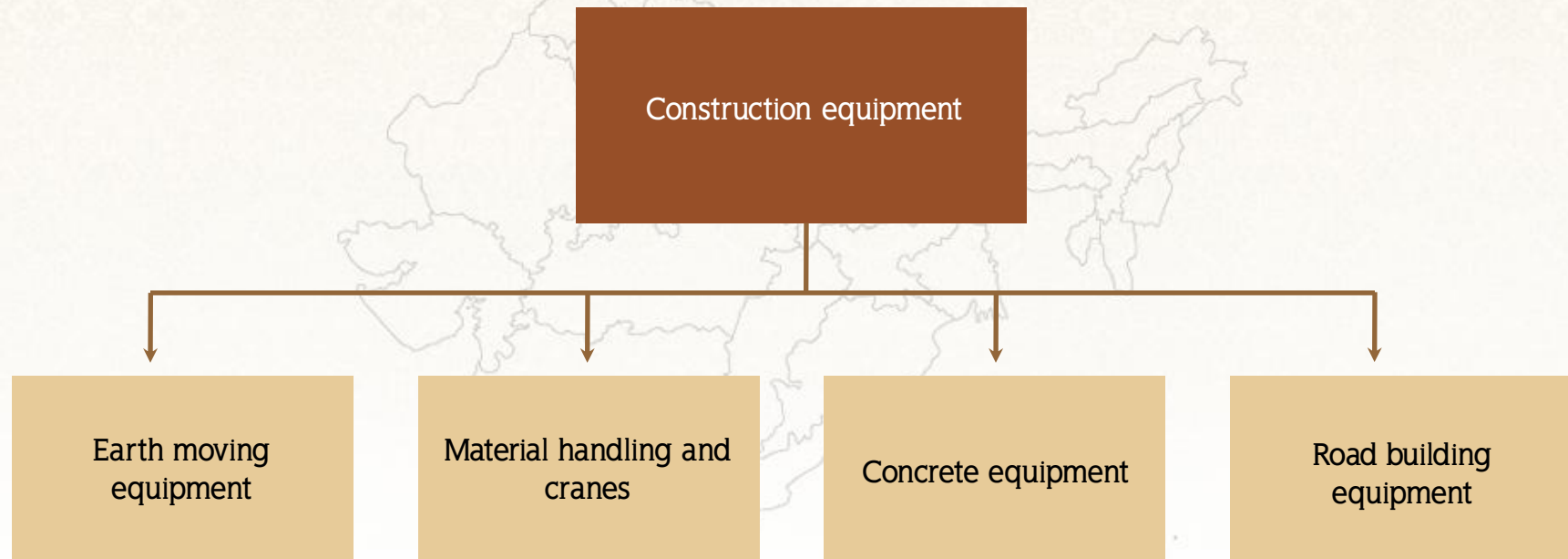
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Evolution of the construction equipment sector in India



Source: Department of Heavy Industry (DHI),
Aranca Research

Major segments of the construction equipment industry



Construction equipment – an overview

Earth moving equipment

- Earth moving equipment is the largest segment of the construction equipment sector in India; these equipment primarily find use in mining and construction
- Equipments include backhoe loaders, excavators, wheeled loaders, dumpers/tippers, skid steer loaders

Material handling and cranes

- Material handling equipment have four categories: storage and handling equipment, engineered systems, industrial trucks, and bulk material handling
- There are 50 units in the organised sector for the manufacture of material handling equipment and many units in the small-scale sector as well

Concrete equipment

- Concrete equipments are used to mix and transport concrete
- They include equipments such as concrete pumps, aggregate crushers, transit mixers, asphalt pavers, batching plants

Road building equipment

- Road building equipments are used in the various stages of road construction
- Widely used ones are excavators, diggers, loaders, scrapers, bulldozers. etc

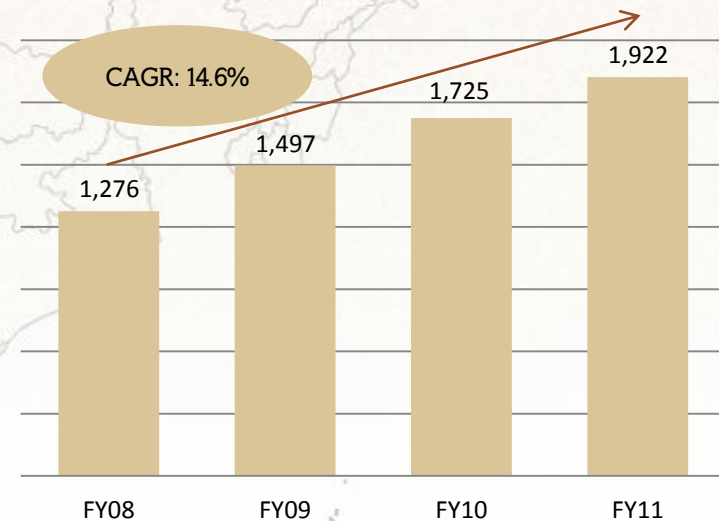
Source: DHI Annual Report 2010-11, Aranca Research

Indian construction equipment companies' revenue on the rise ... (1/2)

- Sales for top six listed construction equipment companies in India rose at a CAGR of 14.6 per cent over the last four years (FY08-11)
- In FY11, revenues grew by 11.4 per cent

Note: CAGR – Compounded Annual Growth Rate, FY – Indian Financial Year (April – March)

Sales of top six listed companies (USD million)

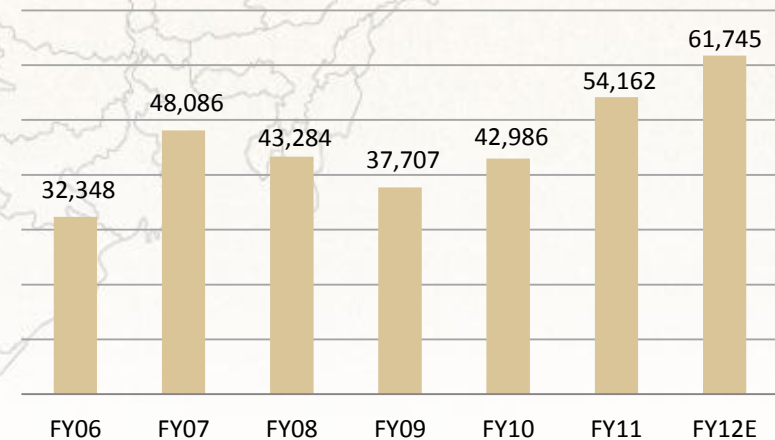


Source: Company annual reports, Aranca Research

Indian construction equipment companies' revenue on the rise ... (2/2)

- Total sales of the construction equipment industry stood at 54,162 units in FY11
- With infrastructure investment set to go up, demand for construction equipment will rise further
- Machine sales are expected to grow 14% in FY12, on the back of a 26% growth previous year

Total no of units of construction equipment sold

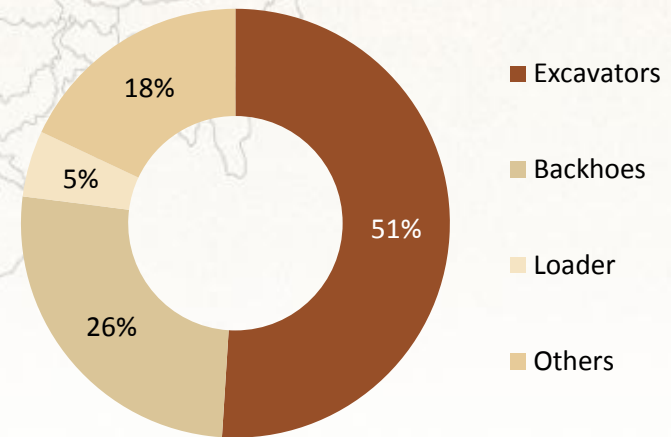


Source: Off-Highway Research,
Aranca Research

'Earth Moving' and 'Material Handling' are the major segments ... (1/2)

- Excavators make up for 51 per cent of the earth moving equipment, followed by backhoes at 26 per cent
- Excavators come in a range of capacities with different uses

Earth moving equipment segmentation by market size (FY10)

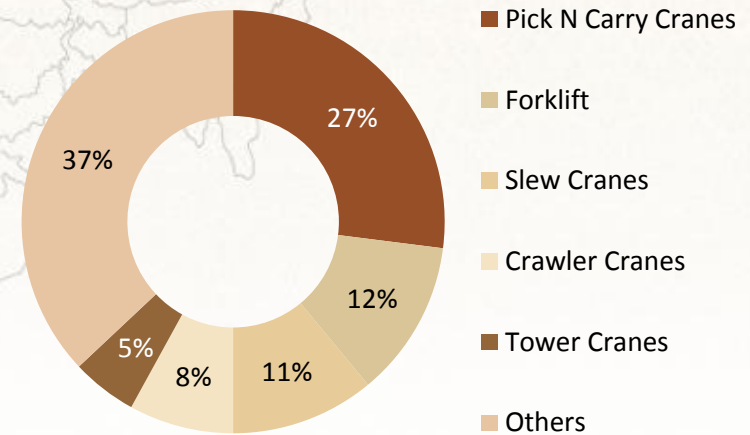


Source: Escorts Annual Report FY10,
Aranca Research

'Earth Moving' and 'Material Handling' are the major segments ... (2/2)

- Material handling equipment is dominated by Pick N Carry cranes segment with weightage of 27 per cent
- Pick N Carry cranes provide wide range of applications in material handling and other types of cranes are typically used for heavy duty work

Material handling equipment segmentation for FY10



Source: Escorts Annual Report FY10,
Aranca Research

Notable trends in the construction equipment industry

Increasing imports from China

- Chinese equipment manufacturers have a strong presence in some segments like wheel loaders (market share: 12 per cent), dozers (market share: 13 per cent)
- Chinese equipments tend to be price competitive, thereby putting downward pressure on prices of domestic equipment manufacturers

Imports of used items







- The global downturn of 2008-09 resulted in a sharp increase in imports of equipments from idle global capacities, and used and obsolete machines
- Imports of used crawler and mobile cranes made up 50-80 per cent of total consumption in that segment during FY08-FY11;

Increased R&D

- Increased presence of international companies/products has forced Indian manufacturers to invest in R&D in order to match international quality standards
- Deeper understanding of the market and the requirement to produce India-specific products has further raised the need of increased R&D

Sources: DHI Annual report 2010-11, Aranca Research
Notes: R&D: Research and Development

Key players

	Company	Revenue in USD million	Products
	BEML Ltd	657 (FY12)	Crawler dozers, wheel dozers, excavators, dump trucks, loaders, backhoe loaders, pipe layers, walking draglines, rope shovels and sprinklers
	JCB India Ltd	1,031 (FY11)	Excavators, compactors and tele-handling equipment, skid steers, wheeled and backhoe loaders, telescopic handlers, engines
	McNally Bharat Engineering Co Ltd	432 (FY12)	Crushing, screening and milling equipment, pressure vessels, material-handling equipment, steel plant equipment
	L&T Komatsu	311 (FY11)	Hydraulic excavators, components and hydraulic systems
	Greaves Cotton Ltd	365 (FY12)	Transit mixers, concrete pumps, heavy tandem rollers, soil compactors
	Elecon Engineering Co Ltd	277 (FY12)	Elevators, conveyors and moving machines, gears and crushers

Sources: Company Annual reports, Company websites, Aranca Research
Note: Revenues of the parent companies

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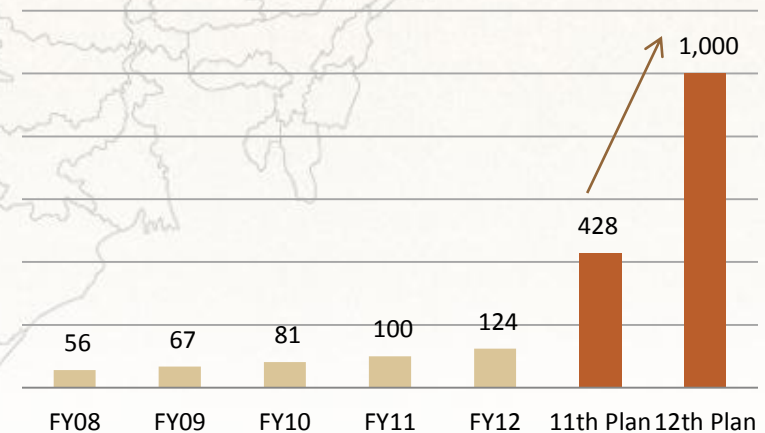
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Investments in infrastructure driving growth in the sector ... (1/2)

- Infrastructure investments are the main growth drivers of the construction equipment industry
- The Planning Commission estimates total infrastructure spending of about USD428 billion during the 11th Five Year Plan (2007-12)
- The Commission plans to double India's infrastructure investments to about USD1 trillion for the 12th Plan (2012-17) – raising its share to GDP from 7.8 per cent in FY12E to 10.8 per cent by FY17.
- According to the World Bank, India is second only to China with respect to the number of PPP projects. Encouragingly, the government is set to continue promoting public private partnership (PPP) models to help achieve its investment targets

Projected infrastructure investment (USD billion)

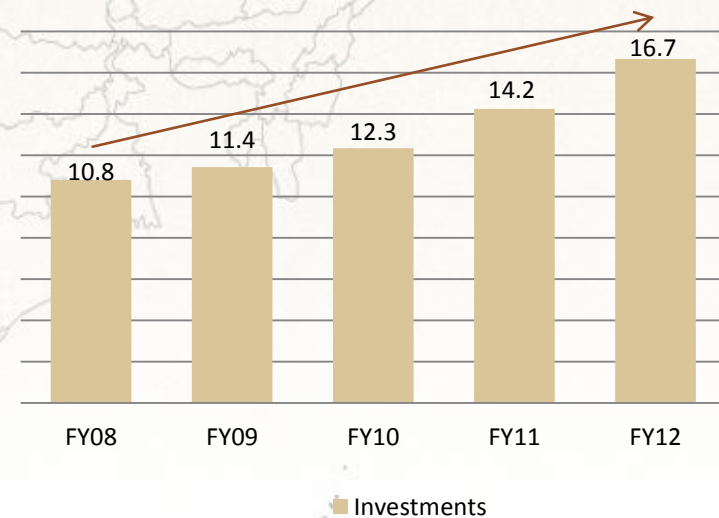


Source: Planning Commission, Aranca Research

Investments in infrastructure driving growth in the sector ... (2/2)

- India has the world's second largest road network – spanning 4.2 million kilometers. The Government intends to increase the paved road to total road ratio and build more national highways
- Hence, roadways in particular is a key focus area of Government policy and investments in the sector will drive demand for road building and construction equipment
- The corresponding investment figure during the 11th Five year plan (2007-2012) for roads is USD65.4 billion
- The NHAI plans to increase road project being awarded from 5,059 kms and 6,491 kms in FY11 and FY12, respectively to 8,800 kms in FY13

Investment on roads and bridges (USD billion)

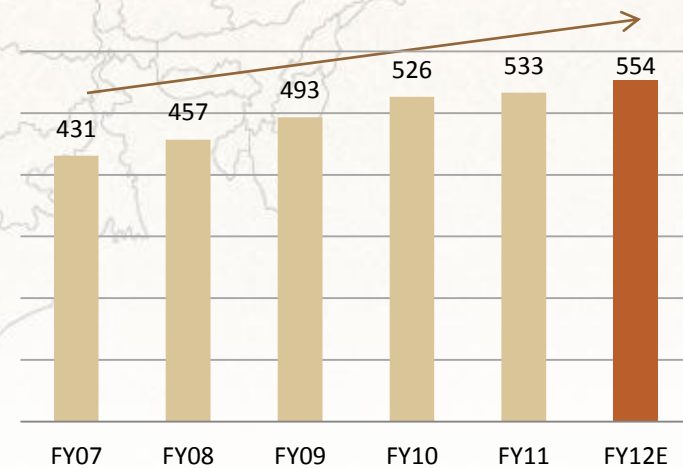


Source: Planning Commission, Aranca Research
Note: NHAI: National Highway Authority of India;
kms: Kilometers;

Increased mining activity also contributing to higher demand ... (1/2)

- India is world's third largest coal producer with about 570 million tonnes produced in 2010, according to Statistical Review of World Energy published by BP
- Coal production in India rose at a CAGR of 5.7 per cent to 537 million tonnes during FY07-FY11
- Mechanisation of mining operations, a key ingredient behind rising production, has led to increased demand for mining equipment
- Government expects coal production to increase to 795 million tonnes by FY17

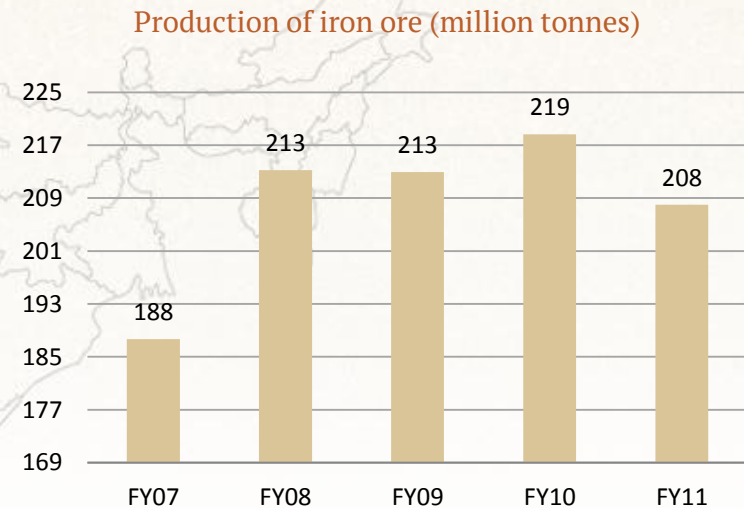
Production of coal and targets (million tonnes)



Source: Ministry of Mines, Aranca Research
Note : E stands for target for FY12;

Increased mining activity also contributing to higher demand ... (2/2)

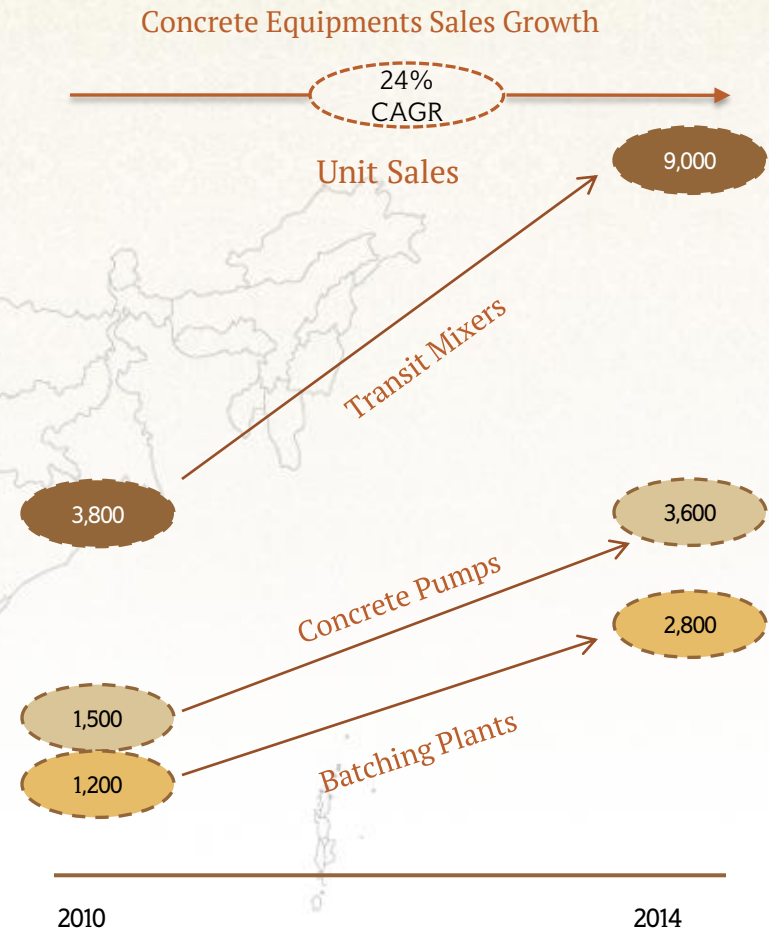
- Rising iron ore production is yet another reason behind rising demand for mining equipment
- A surge in steel production in the country is expected to boost iron ore demand. India's steel consumption is expected to rise from about 70 million tonnes to 122 million tonnes by 2015
- Production of iron ore in India expected to rise to 212.6 million tonnes in FY11 from 187.7 million tonnes in FY07



Source: Ministry of Mines, Aranca Research

Growing housing and construction market to further add demand

- The burgeoning real estate industry in India gives a fillip to the demand for concrete and building construction equipments
 - The residential real estate demand is driven by rising population and growing urbanisation
 - Rising income levels leading to higher demand for luxury projects
 - Growing demand for affordable housing to meet the demand from lower income groups
- Commercial real estate demand will be driven by growth in IT/ITeS sector and organised retail
- Increasingly construction is becoming more oriented toward mechanisation to reduce project time and control costs – leading to higher demand for advanced construction equipments



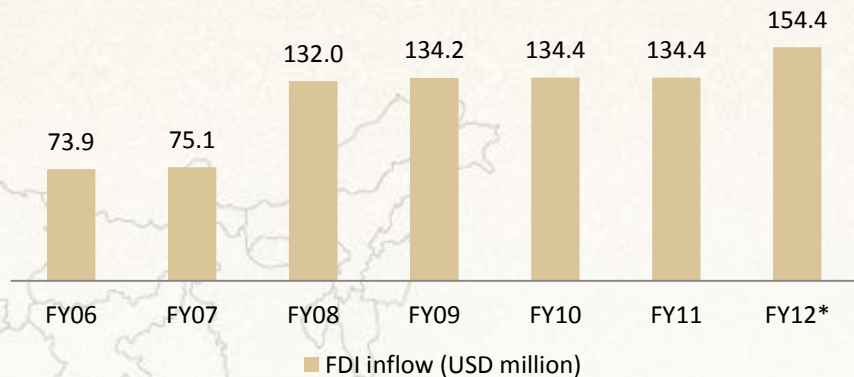
Source: Article from a key construction equipment website (<http://www.nbmcw.com/articles/equipment-a-machinery/23335-construction-equipment-demand-forecast-2014.html>)

Aranca Research

Strong demand prospects are attracting global players

- Fundamentals for the sector are set to remain strong on the back of increasing infrastructure investments
- Almost all global technology leaders in the construction equipment sector have a presence in India – either as joint ventures or with their own manufacturing or marketing companies
- Cumulative FDI inflows (since April 2000) into earth moving equipment reached USD154.4 million as of Feb-2012
- Joint ventures with global majors have provided domestic companies access to advanced technology and a whole gamut of project management experience

FDI inflows in earth moving equipment (since FY00)



Source: Department of Industrial Policy & Promotion (DIPP), Aranca Research

Notes: FDI – Foreign Direct Investment; FY11: Cumulative from April 2000 to March 2011 and so on.

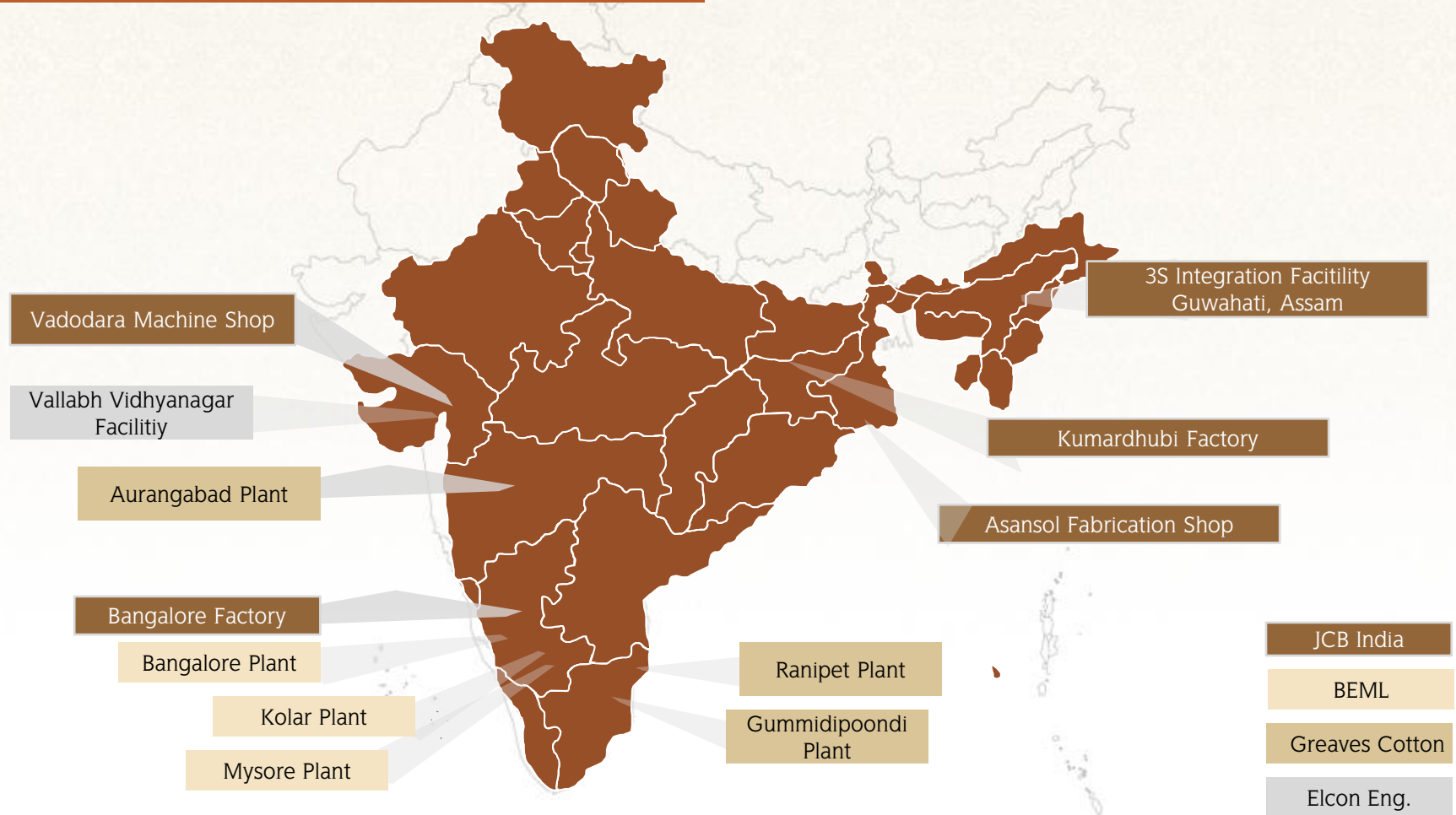
* Till Feb-2012

Global majors entering through JV

Joint venture	Indian partner	Foreign partner
L&T-Komatsu	L&T 50%	Komatsu 50%
Ashok Leyland -John Deere	Ashok Leyland 50%	John Deere 50%
Telco Construction Equipment	Tata Motors 40%	Hitachi 60%

Notes: JV -Joint Venture

Key production facilities of some major players



Source: Company websites

Favourable policies have aided the sector

Delicensing

- The material handling equipment industry is de-licensed and Foreign Direct Investment (FDI) of up to 100 per cent under the automatic route as well as technology collaboration is allowed freely

Policy initiatives related to infrastructure

- Government of India's focus on infrastructure development is the biggest driver for the construction equipment industry
- The Union Budget (2011-12) has allocated USD44.6 billion to the infrastructure sector

Special Economic Zones (SEZs)

- The government has granted sops, including a large number of SEZs, to the capital goods industry of which construction equipment is a part; especially with an impetus to increase exports

Tariffs and custom duties

- The government has removed tariff protection on capital goods
- Custom duties on a range of goods that are used in the manufacturing process have also been lowered
- Custom duty exemption on road construction equipments extended to projects awarded by MDA in the Union Budget of FY13

Source: DHI Annual report, Union Budget 2011-12 and 2012-13, Aranca Research
Notes: SEZ: Special Economic Zone; MDA: Metropolitan Development Authority

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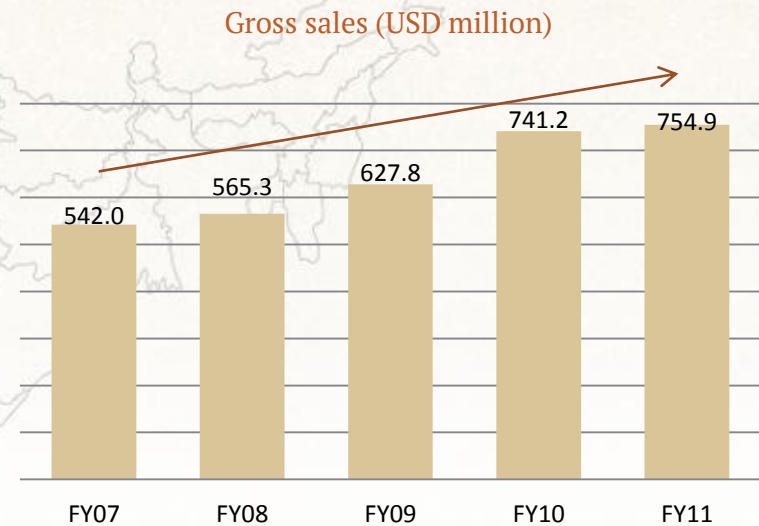
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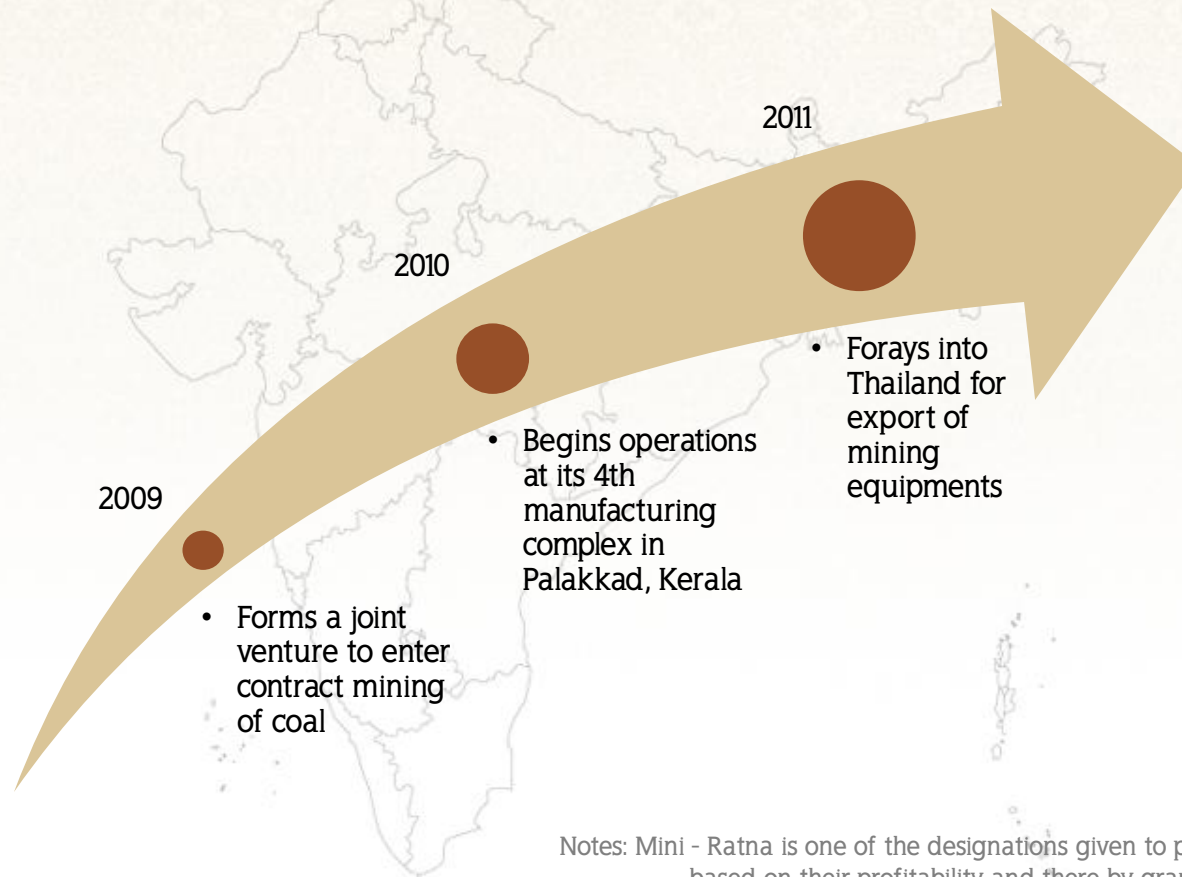
BEML Limited: Largest manufacturer of earth moving equipment ... (1/2)

- BEML Limited is the first Indian company to start manufacturing construction equipment in 1964
- It is the largest manufacturer of earth moving equipment in India and the second largest in Asia; it has a (global) presence in about 56 countries
- The company has facilities in Kolar gold fields, Bengaluru, Mysore and Palakkad
- The company is a Mini-Ratna (Category 1) company under the Ministry of Defence; it was listed on Indian bourses in 2003 and raised further funds by a follow on offer in 2007



Source: Company annual report, Aranca Research

BEML Limited: Largest manufacturer of earth moving equipment ... (2/2)

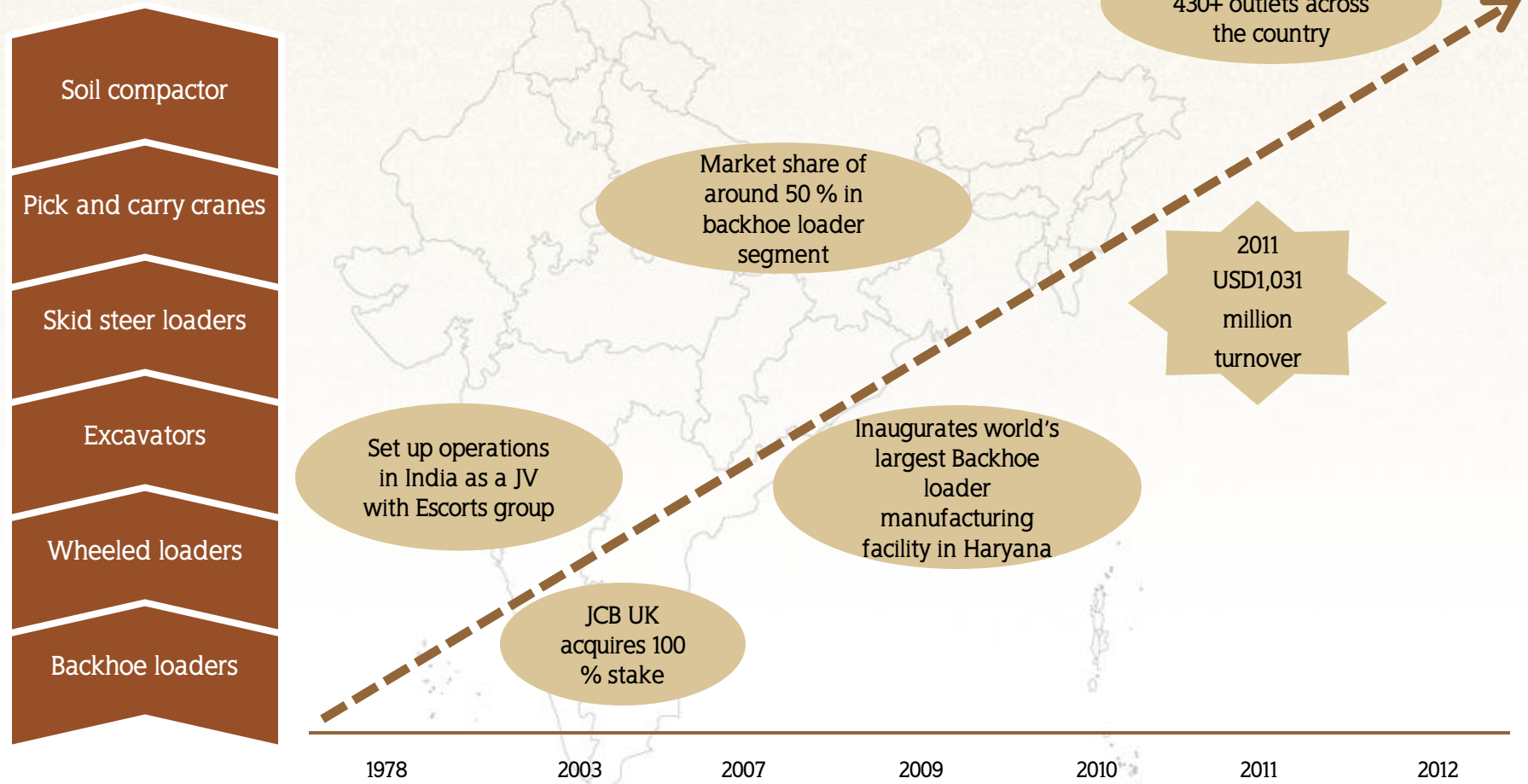


Notes: Mini - Ratna is one of the designations given to public sector enterprises based on their profitability and there by granted certain autonomy,

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JCB India – Leading player in the sector



Source: Company website, Aranca Research
Notes : JV: Joint Venture

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Opportunities in the construction equipment sector

Renting and leasing of equipment

- The equipment rental and leasing business in India is smaller compared to Japan, USA and China
- Demand for rental equipment is set to witness strong growth in the medium term due to large investments in infrastructure
- New players can also explore opportunities in the equipment finance business

After-sales services

- The global average of revenues from after-sales service is 12-20 per cent; in India it is 2-8 per cent
- After-sales market is set to expand to USD0.5 billion by 2015; players can offer maintenance contracts with improved pricing and execution
- While these services contribute only modestly to revenues, they are counter-cyclical and can also boost spare part sales

Exports

- Export opportunities are abound – both in developed and emerging economies
- Components and aggregates export is a USD 1 billion opportunity; local suppliers can gain a decent share of this by exporting engineering-intensive and basic material based components
- Opportunities in engineering and design off shoring and equipment exports may arise in the future

Source :Indian Earthmoving & Construction Industry Association Ltd (IECIAL), Indian Brand Equity Foundation (IBEF), Aranca Research

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Industry Associations

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C/O Confederation of Indian Industry

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Phone: 91-33-22890651, 22890652

E-mail: eepc@eepcindia.org

Glossary

- FY: Indian Financial Year (April to March)– So FY11 implies April 2010 to March 2011
- USD: US Dollar– Conversion rate used: USD1= INR48
- FDI: Foreign Direct Investment
- CAGR: Compounded Annual Growth Rate
- GOI: Government of India
- IECIAL: Indian Earthmoving & Construction Industry Association Ltd
- DHI: Department of Heavy Industries
- R&D: Research and Development
- JV: Joint Venture
- SEZ: Special Economic Zone
- IBEF: Indian brand Equity Foundation
- Wherever applicable, numbers have been rounded off to the nearest whole number
- List of top six listed companies used in slide No 8 : BEML, McNally Bharat , Greaves Cotton(for FY11, considered only first nine months), Elecon Engineering , ACE, TRF

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