Confederation of Indian Industry

ECE VISION 2015:

Scaling New Heights in the Indian Earthmoving and Construction Equipment Industry

IECIAL

Indian Earthmoving and Construction Equipment Industry Association Ltd.

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Executive Summary

Rapid economic growth in India is creating exponential development in several industries. The infrastructure sector in particular is growing strongly, leading to the expansion of construction-related industries. Between 2004 and 2006, the Indian earthmoving and construction equipment (ECE) industry s revenues and volumes have grown at over 40 per cent per year, reaching US$2.3 billion today.

However, some questions remain about the future: What trends will shape industry evolution in the coming decade? What is the growth potential for the industry in the domestic and export markets? How should industry players respond to emerging opportunities and threats? This research effort seeks to answer these questions. Our findings can be summarised as follows:

- Five key domestic and global trends will determine the growth and evolution of the ECE industry in India. Four of these trends are growth opportunities: the increased investment in infrastructure building; the continued dominance of price- and value-focused customers (and fewer feature-loving customers as compared to global standards); the deeper engagement of global original equipment manufacturers (OEMs) in India; and increasing opportunities for export. One trend increasing competition from product imports from other low-cost countries (LCCs) such as China could potentially challenge industry growth and is a threat that players need to address proactively

- The ECE industry is likely to expand five-fold by 2015, from revenues of US$2.3 billion today to US$12 billion to US$13 billion by 2015.[3] “As usual growth, given the significant infrastructure investment expected, will grow the industry to US$8 billion by 2015. Additional growth of US$4 billion to US$5 billion can be achieved by pursuing “demand accelerators in the domestic market and the exports opportunity

- Fully realising this potential, however, requires a concerted and well-coordinated effort by industry players and the government. Industry players need to launch three transformation initiatives: introduce India-specific product offerings, improve cost competitiveness to face impending competition from LCC imports, and push for exports in areas where India has an advantage (e.g., components such as transmission systems and small engines, engineering and design services). In addition, industry players need to launch four growth-enabling initiatives: (1) enhance the quality, delivery and pricing of after-sales services; (2) address key gaps in financing; (3) expand dealer and channel network coverage and quality; and (4) proactively help build supplier capacities and capabilities. The government needs to support the efforts of industry players through three growth-enabling initiatives: (1) increase the availability of trained manpower; (2) lower

3 This is an assessment of potential, not a forecast or target. Capturing this potential requires several enablers and initiatives by industry players and the government; the potential is estimated at the October 2007 exchange rate of the US$ and the Indian Rupee.

the tax burden and remove current tax anomalies that encourage imports; and (3) introduce policy measures (e.g., encourage domestic value addition through mandatory minimum 30 per cent level of indigenisation, set up an industry-focused R&D institute) to strengthen industry capabilities.

FIVE TRENDS ARE DRIVING CONSTRUCTION EQUIPMENT EVOLUTION

The ECE industry could enjoy a period of strong growth, since domestic and global trends favour industry expansion. However, it faces a potential threat from imports from other LCCs.

First, unprecedented infrastructure-related investment to enable economic development in India will trigger growth. Various estimates indicate planned investment of approximately US$1 trillion over the next eight years in infrastructure.[4] Even after discounting for delays and discontinued projects, the potential investment could be approximately US$750 billion between 2007 and 2015, going by historical trends and the assessment of industry experts. The bulk of this investment will be in areas with highly elastic demand for construction equipment (e.g., roads, irrigation and mining).

Second, growth will be determined by the continued dominance of price-focused and value-focused customers in India. As many as 70 to 80 per cent of customers in India are price- and value-focused compared to less than 40 to 50 per cent of all customers in developed markets. Currently, the market is dominated by comparatively lower cost multi-use backhoe loaders, which have specific features tailored to India (e.g., strengthened body structures for rough use, modified cabin design to accommodate operator and helper). This dominance of price- and value-focused customers is likely to continue even up to 2015. This is due to the growing trend to subcontract earthwork by large construction players, coupled with dispersed infrastructure development, necessitating different subcontractors for different projects. Even in China, despite a decade of continuous growth, customer education and evolution, 60 to 70 per cent of customers remain price- and value-focused. The proportion of customers demanding more sophisticated features, products and services akin to global offerings will also increase, although it will be much smaller in number than price- and value-focused customers. As a result, demand for India-specific products and products with India-specific features will continue to be significant.

The expanding presence and engagement of global OEMs in India is the third trend driving industry evolution and growth. Most global OEMs are expected to strengthen their presence in India, attracted by one of the world s fastest growing construction equipment markets and their need to mitigate cyclicality in developed markets. Nearly all the leading global OEMs have already entered India, while a few such as Doosan and Hyundai are in the process of entering. These players can be expected to increase product variety, introduce new applications and services (e.g., rentals, financing) and hence catalyse growth by increasing supply.

4 Includes roads, urban infrastructure, commercial and residential construction, ports, power generation, mining, irrigation, railways, oil and gas, and airports.

Increasing export opportunities is the fourth growth trend. Sourcing of components, aggregates and equipment is likely to accelerate due to increasing cost pressures in developed markets, the emergence of skilled cost-competitive suppliers and OEM operations in LCCs such as Brazil, China, India and Thailand and the success of automotive OEMs in sourcing components from LCCs. By 2015, the export opportunity for all LCCs could be US$24 billion in components and US$10 billion in equipment. The offshoring of engineering and design (E&D) services to LCCs will also accelerate, reaching around US$3 billion in value by 2015.

These growth opportunities are accompanied by the threat of increasing competition to "Made in India products from other LCC exporters such as China. In the domestic market, imports from LCCs doubled between 2005 and 2006 (from approximately US$47 million to US$108 million). In key product categories, e.g., wheeled loaders, Chinese imports have cornered a 12 per cent share of the market. Competition is likely to intensify as many Chinese players set up better distribution and after-sales networks in India. Companies from China and Korea are also expected to provide competition to India-based construction equipment exports to developed markets.

THE INDIAN ECE INDUSTRY COULD GROW TO US$13 BILLION IN SIZE BY 2015

The industry has the potential to expand five-fold, from revenues of US$2.3 billion in 2007 to US$12 billion to US$13 billion by 2015, based on four sources of demand growth. While growth up to US$8 billion by 2015 is achievable through normal industry evolution, new sets of proactive initiatives are needed to achieve the full potential of US$12 billion to US$13 billion.

- **Base case domestic market potential.** Analysis of macroeconomic trends and a detailed study of end-user sector growth show that, in the base case, domestic market spending on earthmoving and construction equipment is likely to be a cumulative US$40 billion between 2007 and 2015. This implies annual growth of about 17 per cent a year for the next eight years and would create an annual domestic market of US$8 billion in 2015. Key sectors driving demand are likely to be roads (US$8 billion cumulative demand), irrigation (US$8 billion cumulative demand), urban and residential construction (US$5 billion cumulative demand), and mining (US$5 billion cumulative demand). While the timing of this demand may be a bit uncertain, as it depends on the actual pace of infrastructure spending, certainty about this level of demand is high
- **Additional domestic market potential.** The above domestic market potential does not take into account the additional annual demand of US$2 billion (by 2015) that can be achieved if the industry catalyses this demand in three ways: (1) introducing new products and applications to help new customer segments use mechanised products (e.g., low-cost multi-use equipment, demolition attachments, primary rock breakers); (2) catalysing new services to increase equipment sales (e.g., rentals, leasing) to capture latent demand; and (3) shaping regulation to support product demand creation by laying down product standards (e.g., road quality norms) and equipment replacement norms (e.g., permissible equipment usage)

- **Domestic after-sales revenue potential.** Revenue from after-sales services can be increased from the current 2 per cent of sales to the global average of 8 per cent through a series of initiatives aimed at improving the pricing and execution of annual and full maintenance contracts (e.g., reducing response time, enhancing support for smaller breakdowns). The annual potential is US$0.5 billion by 2015. While these services contribute only modestly to revenues, they provide an important counter-cyclical source of revenue and can boost spare part sales
- **Export market potential.** Additionally, the India-based ECE industry could capture US$2 billion to US$3 billion through exports in three areas:
  - *Components and aggregates*. India-based suppliers could capture 5 per cent of the total market and an even higher share of engineering-intensive, basic material-based parts. This could be a US$1 billion opportunity
  - *E&D services.* India has a strong initial advantage here and should aspire to capture about 25 to 30 per cent of demand (a potential of US$1 billion)
  - *Equipment exports.* India-based manufacturers should aspire to capture 5 per cent of the market based on their competitive advantage and by mirroring the success achieved by Indian manufacturers in exports of automotive products (an opportunity of approximately US$0.5 billion).

A CONCERTED EFFORT IS REQUIRED TO REALISE THE OPPORTUNITY

Fully capturing the growth potential described above requires a concerted and well-coordinated effort by industry players, the government and IECIAL.

Industry players need to undertake three transformational initiatives:

- **Strengthen India-specific product offerings.** Industry players need to move away from the usual practice of introducing marginally modified developed market products in India to developing India-specific product offerings. This will help attract new customers, increase mechanisation and usage in key areas, and deliver superior value to existing customers. Players need to adopt a three-pronged approach:
  - *Design India-specific products.* Introduce low-priced multi-purpose equipment (e.g., mini excavator, modified skid steer/backhoe loader at US$25,000) to attract new customers and increase mechanisation in important key areas (e.g., site cleaning, road maintenance, rural road construction, debris pick up)
  - *Introduce new applications and products.* Introduce appropriately priced new attachments/products for missing applications that will substitute manual alternatives (e.g., primary rock breakers for re-development work in cities, demolition cutters)
  - *Add India-specific features to existing products.* Continuously add features that make products suited to Indian conditions (e.g., better fuel filters, automatic or single point greasing) to deliver superior customer value.
- **Raise cost competitiveness vis-à-vis other LCC players.** The success of products from other LCCs in a number of other sectors in India (e.g., cycles, toys, textiles)

and the success of imported Chinese wheeled loaders in the domestic market (market share of 12 per cent already) indicate the risk of possible share loss for uncompetitive domestic manufacturers. Indian ECE players will need to significantly increase price competitiveness in products such as wheeled loaders and mini excavators. These two products cost up to 65 per cent and 20 per cent more respectively (landed cost basis) than corresponding equipment from LCCs such as China. Prices can be made competitive by increasing the level of indigenisation in current products (e.g., transmission, axles, hydraulics) and modifying select product specifications (e.g., machine dimensions) to reduce overall costs, yet delivering the demanded customer value

- **Smartly capture the exports opportunity.** Indian ECE players should move quickly to capture export opportunities in areas where India has an advantage based on global OEM partner relationships, cost competitiveness and level of product similarity. The first priority should be to focus on the export of basic material-based, simpler components to developed markets (e.g., transmission gears, small engines, hydraulics and cylinders). Prioritising component exports is critical not only to capturing the immediate export opportunity but also as it allows building scale in the domestic ECE supplier industry. Engineering and design (E&D) offshoring and export of equipment (e.g., backhoe loaders, midi excavators) could be pursued in the medium term, when domestic supplier and OEM capacities are raised sufficiently.

Additionally, industry players need to undertake four growth-enabling initiatives to capture the full potential:

- **Enhance the quality, delivery and pricing of after-sales services** to increase share of services revenue from the current 2 per cent of total revenues to the global average of approximately 8 per cent
- **Introduce newer services such as rentals and financing** to catalyse latent demand particularly from rural areas and small towns. This will require improving existing offerings (e.g., introducing innovative financing options such as co-borrowing, establishing longer term tie-ups especially with local banks, setting up OEM financing arms)
- **Strengthen dealer and channel network** to address buyer fragmentation following the trend of subcontracting and geographic expansion of demand
- **Help tier I and II suppliers gear up for impending growth** through sharing of expansion plans, informal or formal buying agreements, guidance in technology and machine choice.

Further, the government should support industry efforts through the following initiatives to remove growth bottlenecks:

- **Help boost the availability of skilled manpower.** In collaboration with the industry, the government should help boost the number of trained operators. The industry could be short of approximately 0.3 million trained operators by 2015. Addressing this gap will require setting up more industrial training institutes, introducing shorter but more targeted courses in these institutes, broadening the intake base of apprentices, improving the practical training quality, providing training stipends and setting up driving schools

- **Encourage sales and manufacturing by reducing the tax burden and tax anomalies.** In the interim, while the industry builds scale, the government should reduce the overall tax burden and undertake taxation reform to stimulate domestic manufacturing.

  India has one of the highest levels of indirect taxes on construction equipment. These range between 21 and 38 per cent, based on interstate differences, compared to 20 per cent in France and Germany and between 12 and 17 per cent in Indonesia. The government should reduce this tax burden by eventually replacing all indirect taxes such as excise, sales tax, octroi, and entry tax with a single tax. Until that is introduced, indirect tax levels should be made comparable to those in other LCCs. Further, import duty on components and raw materials should be brought down to levels prevailing in other LCCs to reduce overall prices.

  In addition, the government should remove tax-related anomalies, which encourage imports at the cost of domestic manufacturing, to create a level playing field

- **Introduce policy measures to boost the competitiveness of India-based players.** The government should enable sector growth by extending policy support in four areas:

  - Encouraging R&D through initiatives such as providing tax benefits, setting up an industry-focused R&D centre, establishing a technology upgrade fund, and improving TIFAC[5] scheme coverage
  - Encouraging domestic economy value addition through explicit mandates requiring a minimum level of domestic value addition
  - Providing export incentives through policies such as exempting deemed exports from excise and local levies
  - Discouraging used equipment imports as is done in other emerging economies through policies on homologation, certification and age.

To complement the initiatives of industry players and the government, the Indian Earthmoving and Construction Equipment Association (IECIAL) should focus on building support for the required regulatory changes, create international awareness of the “Made in India brand and create a stronger platform to cross-share industry learning and trends.

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The ECE industry has a critical role to play in making India one of the world’s top five economies by 2025. Construction equipment players have a unique opportunity to help realise the potential of this sector and, in doing so, garner their share of the US$12 billion to US$13 billion revenue potential.

5 Technology Information Forecasting and Assessment Council.