

MANAGEMENT DISCUSSION & ANALYSIS REPORT

(i) Industry structure and developments:

The Company is Schedule-A Public Sector Enterprise under the administrative control of Department of Defence Production, Ministry of Defence, operating in three distinct business verticals namely Mining & Construction, Defence & Aerospace and Rail & Metro.

Organization

The three major Business verticals viz., Mining & Construction, Defence & Aerospace and Rail & Metro are headed each by a Business Group Director. The International Business Division exports equipment & spares and also provide services to all the three verticals. The Company's manpower strength stood at 6,602 as on 31.03.2020.

Production Units

The Company has four manufacturing complexes located at Bengaluru, Kolar Gold Fields (KGF), Mysuru and Palakkad.

Bengaluru Complex: Bengaluru Complex manufactures various types of railway products such as rail coaches, AC Electrical Multiple Units (ACEMUs), Diesel Electric Multiple Units (DEMUs), Main Line Electric Multiple Units (MEMUs), Stainless Steel Electrical Multiple Units (SSEMUs), Overhead Equipment Inspection Cars (OHE Cars) / Diesel Electric Tower Cars (DETC), Treasury Vans, etc., for the Indian Railways. The Company also manufactures Stainless Steel Metro Cars for the Delhi Metro, Bengaluru Metro, Jaipur Metro and Kolkata Metro. The Bengaluru Complex also manufactures defence products such as Military Rail coaches, Ejector and Air Cleaner assemblies and Military Wagons.

KGF Complex: KGF Complex encompasses *Earth Movers Division*, *Hydraulics and Powerline Division*, *Rail Unit-II* and *Heavy Fabrication Unit*. *Earth Movers Division* produces a wide range of equipment such as Bulldozers, Electrical & Hydraulic Excavators, Wheel Loaders and Dozers, Pipe Layers, Tyre Handlers, C-Cranes, Engineering Mine Ploughs, Hulls for Battle Tanks and Armoured Recovery Vehicles. Also the *Earth Movers Division* has infrastructure to manufacture Electric Rope Shovels and Walking Draglines. *Hydraulic & Powerline Division* produces Transmissions, Axles, Hydraulic aggregates and allied assemblies required for the manufacturing units of BEML, Transmissions for Infantry Combat Vehicles and aggregates for battle tanks to the OFB. *Rail Unit -II* manufactures Rail Coaches, aggregates for Railway EMUs and structures for Aero-bridges. *Heavy Fabrication Unit* manufactures fabrication of structures, assembly of equipment and manufacture of components for Mining & Construction and Defence business verticals.

Mysuru Complex: Mysuru Complex encompasses *Truck Division*, *Engine Division* and *Aerospace Manufacturing Division*. The *Truck Division* manufactures off-highway Rear Dump Trucks, Motor Graders and Water Sprinklers. The *Engine Division* manufactures a wide range of Diesel Engines powering BEML's product range and air cooled engines for High Mobility Heavy Duty Trucks for Defence applications. The *Aerospace Manufacturing Division* produces Aircraft Towing Tractors, Ground Handling & Support Equipment, Weapon Loaders and aggregates for Missiles & Airborne structures.

Palakkad Complex: Palakkad Complex manufactures ground support equipment

such as High Mobility Heavy Duty Trucks of various combinations 12X12, 10X10, 8x8 & 6x6 as transport equipment and as Platform for Bridge Systems, Missile Carriers, Missile Launchers, Warhead Carriers, MAST System and Surveillance Radars. Also, the Company manufactures and supplies Mechanical and Pontoon Bridge Systems and aggregates for Rail & Metro Products.

Marketing: BEML's products are sold and serviced through its wide marketing network comprising 12 Regional Offices, 15 District Offices, and 5 Service Centres across the country. The Company also establishes temporary activity centres at customer locations to support and service equipment. Further, the Company has established full-fledged 'Service Training Centres' at KGF Complex and Mysuru Complex for offering variety of programs, scheduled round-the-year.

International Business Division: Company exports its products through its International Business Division. The major markets are Middle East countries, African countries and South East Asian countries. As part of the globalization strategy, Company's products have been exported to about 68 countries over the years.

Developments & Performance during 2019-20:

As per the 2nd advance estimates of Central Statistical Organization, the Indian economy is likely to post 5% growth in GDP for the year 2019-20.

The Company achieved important landmarks during the year and some of them are mentioned here under:

Mining & Construction

- Bagged order for supply of 5 nos. of India's biggest 180T Electrical Excavator from M/s. SECL. 2 nos. supplied during the year 2019-20.

- Designed, Developed and Supplied India's biggest 750 HP Bulldozer to M/s. NALCO.
- Design & Development of 21 Ton Hydraulic Excavator.
- AI Product - Sleep / Fatigued operator alert system on Dump Trucks was developed and supplied.
- "International Quality Gold Award - 2019" for 'Cost Reduction in BH60M Dump Truck components by process improvements & Cycle Time Reduction'.
- "International Quality Gold Award - 2019" for 'Performance Improvement in BG605 - Motor Grader Transmission'.
- MoU signed with Syndicate Bank for financing Earth Moving & Construction Equipment manufactured by the Company.

Defence

- 1st set of Sarvatra Bridge System was handed over to Indian Army after receiving Bulk Production Clearance.
- Designed and Developed Medium Bullet Proof Vehicle 'Gaur'
- Designed and Developed Mobile Standby Command Post Vehicle (MSCPV)
- AI Powered Medical Health Diagnostic Systems was developed.
- "SKOCH Order of Merit" Award for design & development of Armoured Repair & Recovery Vehicle.
- MoU was signed with M/s Wipro Infrastructure Engineering for working together mainly for Hydraulic System Engineering for Military Equipment, Aerospace and AI based projects.

Rail & Metro

- Hon'ble Prime Minister of India unveiled Unmanned Train Operation - Driverless Metro Car for Mumbai Metro, designed and supplied by BEML Limited.
- Hon'ble Railway Minister inaugurated Metro cars manufactured and supplied by BEML Limited for Kolkata East West corridor.
- Designed and developed Standard gauge Catenary Maintenance Vehicle (SG-CMV) for DMRC.

- Indigenously developed Bogie Run Test Machine was set up at Bengaluru Complex.
- "International Quality Gold Award – 2019" for 'Elimination of Auto Obstruction Detection Error in Metro Passenger Saloon Door'.
- "SKOCH Order of Merit" Award for design & development of Metro Cars for KMRC.
- Memorandum of Understanding (MoU) with M/s. IRCON International Limited was signed to explore and address opportunities in the overseas market by synergizing each other's strengths for large infrastructure projects in the transportation sector.

(ii) Strength and Weakness:

(a) Strength

- Established manufacturing infrastructure and knowledge base.
- Established R&D base with dedicated test facilities. Over 65% of Sales is thru R&D developed products.
- Capability to design & manufacture of high-end Mining equipment.
- Expertise in Heavy Fabrication and Machining manufacturing Stainless Steel Coaches, Metro Cars, EMUs, etc.
- More than 85% of Sales is achieved on Competition mode.
- Extensive Sales and Service infrastructure – Established Regional, District Office & Activity centers across India.
- Major Market Share in High Capacity Dozers and Metro Cars in India.
- Strong relationship with Services, Defence Labs and Government agencies
- Green Company – Use of Renewable energy sources.
- Good Brand value, large customer base and work ethics culture.

(b) Weakness

- Depletion of Skilled Manpower & Ageing Workforce
- No assured business from GoI unlike some of the other DPSUs.
- Uncertainty in orders for Rolling stock.

- Low Exports
- Low Market Share in Construction Equipment

(iii) Opportunities and Threats:

(a) Opportunities

Mining & Construction:

- Coal India Limited has earmarked Capex of ₹ 9,500 Crore during 2020-21.
- Increased thrust by Government in infrastructure development and reforms in coal sector.

Rail & Metro:

- Capex of ₹ 1,61,042 Crore earmarked by Indian Railways during 2020-21 towards capacity augmentation and Maintenance.
- Metro Rail extending to Tier-II cities in the Country. Light Rail Metro is also catching up as a revenue line which is expected to emerge from Tier-II & Tier-III cities.
- Indian Railways is graduating to LHB Coaches and Stainless-Steel EMUs.
- Thrust on GoI Public Procurement (Preference to Make in India), Order 2017.

Defence:

- 'Make in India' policy of Government is a boon to Indian industry and focus is on for Indigenous production.
- Growing opportunities in Maintenance, Repair, Overhaul and Upgrade programs.
- Thrust on Exports through LoC for Defence Products.
- Increased impetus on modernisation of central paramilitary forces.

New Areas:

- Demand for high end Electric Drive Dump Trucks, Excavators and Bull-Dozers.
- AI and Robotics enabled systems
- Unmanned ground vehicles.
- Manufacture of Fixed wing aircraft and Helicopter Aggregates.
- Unmanned Aerial Vehicles (UAVs)

- New Opportunities in Aerospace Business and ISRO.
- Medium speed EMUs and High-speed trains.
- Emerging business opportunity for Light Rail.
- New opportunities in Maintenance equipment viz. Rail Grinding machines, Track Cleaning Machine, etc.
- AI based products

(b) Threats

- Technology leaders operating directly than parting technology to Indian counterparts.
- Mergers & Acquisitions in Mining and Construction equipment industry.
- Project delay, especially in Mining sector due to delay in resolving environmental and social issues.
- Increasing pressure on reducing Life Cycle costs.
- Increased FDI caps in Coal & Defence sector.
- Manifold increase in competition from Indian Private industry and foreign OEMs including their JVs in Defence sector
- Policy interventions favouring Private sector.

(iv) Segment-wise or Product-wise performance:

SEBI vide its letter dated 21.07.2003 granted exemption to the Company from publishing segment-wise information in quarterly / half yearly and annual audit financial results. Further, the Ministry of Corporate Affairs vide Notification dated 23.02.2018 granted exemption to the Companies engaged in defence production to the extent of application of relevant Accounting Standard on segment reporting. Hence, the Segment-wise or Product-wise performance is not appended to this report.

(v) Outlook:

Mining & Construction:

Due to ongoing pandemic Covid-19, the forecast for Mining & Construction business is expected to grow only in the last quarter of current fiscal year. However, to boost GDP, GoI has announced various Policy reforms. Also, Coal India mandated to replace at least 100 MT of imports with domestic coal in FY21. Further, GoI has also given approval for opening up of commercial Coal Mining with Revenue Share Arrangement to boost domestic production. Capex has also been earmarked towards procurement of High Capacity Mining equipment in order to meet the target.

This augurs well for the Company and plans are afoot to grasp the business within its product portfolio.

Defence & Aerospace:

The move towards 'Aatmanirbhar Bharat' and reforms in MSME Sector will give impetus for indigenous manufacture and Self-Reliance in Defence sector. Also new areas of Business viz. overhauling of Recovery / High Mobility Vehicles will also add numbers in top-line.

BELM is making all efforts to pick up business in the areas related to its product portfolio and in overhauling business. The Company is also working with other DPSUs / Private Sectors for supply of High Mobility Vehicles and aggregates for various Missile Programmes and Aerospace components.

Rail & Metro:

With increased Capex earmarked by Indian Railways and upcoming Kerala Semi High-Speed Rail, Coach manufacturing is graduating to Medium / High speed Coaches / LHB Coaches. BELM is pursuing tie-ups to address this requirement.

Supply of first set of Main Line Electric

Multiple Units is commencing during current year. Maintenance equipment requirements are also increasing for Overhead Inspection Cars, Track Laying, Rail Grinding & Track Cleaning Machines.

Further, Metro Rail is extending to Tier-II cities in the Country. Light Rail Metro is also catching up as a revenue line which is expected to emerge from tier-II & tier-III cities. BEML is optimistic about getting orders for upcoming Metro Car projects. Supply of Driverless Metro Car for Mumbai Metro will start from current year.

Exports:

In order to increase exports BEML has drawn strategies to export Defence and Rolling stocks equipment in addition to Mining & Construction equipment by widening BEML's Distributor Network, setting up offices abroad, Joint Ventures in India or with local firms in abroad, EXIM bank opportunities – Through Indian Lines of Credit and Exploring opportunities through Chambers of Commerce / Embassies / Defence Attaches.

With the above strategy, in addition to export of Mining & Construction equipment, High Mobility Vehicles, Aircraft towing tractor, Armoured Personnel Carrier vehicles in the area of Defence and Rail coaches, EMUs, Metro Cars, Maintenance vehicles in the area of Rail & Metro business.

(vi) Challenges, Risks and Concerns:

The major challenges to the Company are:

- Resumption of Supply Chain post Covid-19.
- Bridging the technology gap and meeting the emerging demand for higher capacity equipment in line with global market trend.
- Maintaining cost competitiveness.
- Sustaining the market share in view of entry of more MNCs.

- Support in terms of Orders from Indian Railways.
- Long process in release of Defence sale orders & clearances
- Defence business opening up to private sector.

(vii) Internal control systems and their adequacy:

The Company has an internal control system designed to provide high degree of assurance regarding optimization and safeguarding of resources, quality and reliability of financial and operational information, compliance with applicable statutes and corporate policies.

It is the Company's endeavour to align all its processes and controls with global best practices.

The internal audit process is designed to review the adequacy of internal control checks in the system and covers all significant areas of the company's operations. The internal audit department performs risk-based audits, based on an internal audit plan, which is reviewed each year in consultation with the statutory auditors and the audit committee.

The Audit Committee reviews audit reports submitted by the internal auditors and follow up on the implementation of corrective actions periodically.

The Statutory Auditors submit a report on internal financial controls over financial reporting along with their Audit Report on the financial statement every year.

BEML being a Government Company, it is subject to audit by Comptroller and Auditor General of India also.

A comprehensive delegation of power exists for smooth decision making which is being periodically reviewed to align it with changing business environment and

for speedier decision making.

Your Company has implemented an enterprise-wide ERP. This will accompany

by re-engineering and simplification of business processes to improve agility and customer service. Further, it has end-to-end SAP platform that provide a robust

(viii) Discussion on financial performance with respect to operational performance:

(₹ in Crores)		
Particulars	2019-20	2018-19
a. Gross Revenue	3029	3481
b. Revenue from Operations	3029	3481
c. Value of Production	3321	3467
d. Profit before Depreciation, Interest and Tax	136	260
e. Finance costs	41	59
f. Depreciation and amortization expense	71	70
g. Profit Before Tax	24	131
h. Tax Expense	(44)	67
i. Profit after Tax	68	63
j. Other Comprehensive Income	43	13
k. Total Comprehensive Income	25	50
l. Networth	2257	2187
m. Inventory	2003	1702
n. Trade Receivables (Net)	1510	1613
Total Inventory in no. of days of VoP (m/c)	220	179
Trade Receivables / Revenue from Operations in days (n/b)	154	149
Profit before Tax to Revenue from Operations (g/b) (%)	0.79%	3.76%
Profit after Tax to Networth (i/l) (%)	3.01%	2.88%

Your Company achieved revenue from operations of ₹3029 crores as against ₹3481 crores in the previous year, reduction by 13%.

The Value of Production is ₹3321 crores as against ₹3467 crores in the previous year, reduction by 4%. The Profit before Tax was ₹24 crores as against Profit before Tax of ₹131 crores recorded in the previous financial year.

The spread of COVID-19 Pandemic and subsequent lockdown in the last week of March 2020, has impacted the Company's turnover and production due to the closure of Company's manufacturing facilities, disruption in spares & service business, non-receipt of items on account of supply chain disruptions, restrictive movements /non-availability of required trailers, etc.

Based on the information available (internal as well as external) upto the date of approval of these financial results, Company expects to recover the carrying amounts of intangible assets, trade receivables, inventory and other financial Assets. Efforts are being made to minimize the impact and Company will continue to closely monitor the developments & future economic & business outlook and its impact on Company's future financial statements.

There was no change in the nature of business of the Company during the year. Further, there was no material change / commitment occurred affecting the financial position of the Company subsequent to the financial year ended 31.03.2020 till the date of this report.

(ix) Details of significant changes (i.e. change of 25% or more as compared to the immediately previous financial year) in key financial ratios, along with detailed explanations therefore, including:

Key Financial ratio	2019-20	2018-19	%age Change	Explanation
(i) Debtors Turnover	2.01 times	2.16 times	(6.94)	--
(ii) Inventory Turnover	1.51 times	2.04 times	(25.98)	Increase in inventory and decrease in turnover.
(iii) Interest Coverage Ratio	1.59	3.21	(50.47)	Decrease in turnover with consequential decrease in profits.
(iv) Current Ratio	2.89	2.08	38.94	Decrease in other current liabilities
(v) Debt Equity Ratio	0.15	0.18	(16.67)	--
(vi) Operating Profit Margin (%)	4.49	7.47	(39.89)	Decrease in Turnover
(vii) Net Profit Margin (%)	2.26	1.82	24.18	--

(x) Details of any change in Return on Net Worth as compared to the immediately previous financial year along with a detailed explanation thereof.

Key Financial ratio	2019-20	2018-19	%age Change	Explanation
Return on net worth	134%	159%	(15.72)	--

(xi) Material developments in Human Resources, Industrial Relations front, including number of people employed:

The Company intensified focus on training and development of manpower. Training and development at middle management levels were in focus during the year. The Company installation of competence management by way of a structured approach in major locations. A company-wide associate survey was undertaken to obtain feedback on various aspects, covering all employees. The Company intensified its communication with all levels and categories of employees by way of different internal forums. The Company also continued to excel in the field of training apprentices and workmen.

The industrial relations have been harmonious and cordial. The manpower strength as of 31.03.2020 stood at

6,602. During the year, 19,443 man-days of training were imparted to sharpen their skills and update their knowledge of employees.

(xii) Environmental Protection and Conservation, Technological conservation, Renewable energy developments, Foreign Exchange conservation:

Relevant information in this regard is disclosed in the Board's Report.

(xiii) Corporate Social Responsibility and Sustainability (CSR):

Relevant information in this regard is disclosed in Annexure –VI of the Board's Report.

Cautionary Statement - Certain statements made in the Management Discussion and Analysis Report related to the Company's

objectives, projections, outlook, expectations, estimates and others may constitute 'forward looking statements' within the meaning of applicable laws and regulations. Actual results may differ from such expectations, projections and so on whether expressed or implied. Several factors could make significant difference to the Company's operations. These include climatic conditions and economic conditions affecting demand and supply,

government regulations and taxation, natural calamities and so on over which the Company does not have any direct control.

For and on behalf of the Board of Directors

Bengaluru

27.06.2020

D K Hota

Chairman & Managing Director