PERFORMANCE SNAPSHOT
Figures are pertaining to FY’17

FINANCIAL CAPITAL
- **INR 393 crore** Capital Expenditure
- **INR 8,348 crore** Revenue

HUMAN CAPITAL
- **11,343** Talents
- **88,823** Intervention Hours

MANUFACTURED CAPITAL
- **11** Cement Plants
- **186 MW** Captive Power Generation Capacity Including Solar

NATURAL CAPITAL
- **36.4% Reduction** in Net CO₂/ ton of cementitious product compared to base year 1990
- **Zero** Water Discharge

INTELLECTUAL CAPITAL
- **3** Patents filed
- **1** R&D Centre
- **3** Robotics Labs

SOCIAL & RELATIONSHIP CAPITAL
- **8,000+** Dealers & Distributors
- **> 6 Lakh** CSR Beneficiaries
  
  Till date
LET US WALK YOU THROUGH OUR REPORT

This report has been developed to help our stakeholders understand how Dalmia Bharat Limited (DBL) has been creating and sustaining value. The report has been structured in an easy and comprehendible way for stakeholders and brings both financial and non-financial performance at a single platform.

- **Integrated Value Chain**
  Process of sustained value creation at Dalmia Bharat

- **Corporate Governance**
  A review of our governance structure and guiding principles

- **About the Report**
  Details out the scope of work of the report

- **Financial Capital**
  How the Company generates financial capital to aid its day to day operations

- **Letter to Stakeholders**
  Senior management communication to all stakeholders

- **Natural Capital**
  Our renewable and non-renewable environmental stock

- **Vision for the Future**
  Entails our plans and vision for the future

- **Human Capital**
  People’s competencies, capabilities and experience

- **Honours & Awards**
  Awards won by Dalmia Bharat during the FY’16 and FY’17

- **Intellectual Capital**
  An organization’s knowledge pool comprising of intellectual property

- **Company Profile**
  Introduction to the Company, who we are, what we do, our material aspects and strategy

- **Manufactured Capital**
  Tangible assets at the Company’s disposal for production of goods & services

- **Market Trends**
  An assessment of the external operating environment

- **Social & Relationship Capital**
  Shared norms, value and beliefs nurtured through stakeholder engagements

- **Business Operating Model**
  Reflects our strategies and the way in which we work and create value

- **Linkage with Other Reporting Frameworks**
  Mapping the IR with IIRC, UNGC, GRI Standards, CSI and SDG

- **Risk Management**
  Risks and opportunities associated with external as well as internal environment

- **Assurance Statement**
  Independent assurance of the data provided in the Integrated Report
INTEGRATED VALUE CHAIN AT DALMIA BHARAT

<table>
<thead>
<tr>
<th>RESOURCES</th>
<th>INPUTS</th>
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| FINANCIAL CAPITAL | • 2.8 net debt to EBITDA ratio  
• 9.1% Cost of Debt  
• INR 609 crore invested in wages & benefits  
• INR 10.16 crore spent on Corporate Social Responsibility (CSR) activities  
• INR 6.5 crore invested in R&D |
| NATURAL CAPITAL | • 9 MnT Clinker consumed  
• 1,021 GWh electricity consumed  
• 2.9 million m³ water withdrawal |
| HUMAN CAPITAL | • 11,343 Talents  
• 88,823 Intervention hours  
• Talent relations  
• Technical skills & knowledge  
• Health and Safety Management |
| INTELLECTUAL CAPITAL | • 1 R&D centre, 3 Robotics labs and 14 Research labs  
• Knowledge partnerships |
| MANUFACTURED CAPITAL | • 6 integrated cement plant  
• 1 split clinkerisation plant  
• 4 split grinding units  
• 7 Captive Power Plants (186 MW including solar) |
| SOCIAL AND RELATIONSHIP CAPITAL | • Engaging with community  
• Positive supplier relationship  
• Broad customer base  
• Building investor confidence |

All the above figures are pertaining to FY'17
### ACTIVITIES

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<td>Optimising waste</td>
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<td>Shifting to renewable energy</td>
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<td>Achieving compliance</td>
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<td>Promoting diversity</td>
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<td>Ensuring talent wellness and safety</td>
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<td>Cement Production</td>
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<td>Power generation</td>
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<td>Rehabilitation of mines</td>
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<td>Upstream and downstream logistics</td>
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<th>Providing customer need based products</th>
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<td>Ensuring customer satisfaction</td>
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<td>Migration to mobile app</td>
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<td>Engaging with suppliers</td>
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<tr>
<td>Transparent communication with investors</td>
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<tr>
<td>Contribution through CSR activities</td>
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### OUTPUTS & OUTCOMES

- Revenue increased by 15% to INR 8,348 crore in FY'17
- EBITDA increased 20% to INR 1,902 crore
- INR 1,718 crore cash flow from operating activities
- INR 17,488 crore market capitalisation
- INR 345 crore net profit
- Taxes generated
- Generation of employment & income
- 16 hrs. /permanent talent invested in talent training
- 4% female talents in management
- Zero Fatalities
- Growing customer base
- Excellent customer service and satisfaction
- 6 lakh number of overall beneficiaries of CSR
- Income to suppliers & contractors
- Use of waste and industrial by-products
- 8 MW Solar PV power projects
- 9.2 MW waste heat recovery project
- 4% Alternative fuel consumption
- 30% Alternative raw material consumption rate
- Rehabilitation of degraded areas
ABOUT THE REPORT

We, at Dalmia Bharat Limited, believe that unleashing the potential of everyone and everything that we come across while conducting our operations can lead to accelerated value creation. The process of creating sustained value involves developing greener cement to drive the country’s growth, providing value added solutions translating into robust construction, enriching shareholders wealth, becoming a people-friendly employer of talent and enhancing community trust. At Dalmia Bharat, sustained value creation lies at the core of our business, forming part of our strategies as well as the development of our products. We have long been associated with sustainable development and disclosing issues and initiatives related to economic, environmental, and social and governance performance. Our financial results are not exclusive of our socio-environmental outcomes and thus it only makes sense to report both these parameters together reflecting how we integrate the sustainability dimension into our Company’s objectives.

With this view, our first Integrated Report is designed to provide a holistic view of our mission, commitment, strategy, business model and our vision for the future, all of which help us to create a sustained value over time. The report provides an insight into the material risks, opportunities, our goals, as well as the financial and non-financial performance of the company. It has been our endeavour to address all material issues in the report and provide a balanced and fair account of our performance for the reporting period.

This report follows globally accepted guidelines on Integrated Reporting. Since this is our first integrated report, we have also published our annual financial report. Hence, for more details pertaining to financial statements and related auditors’ report, you may refer to our Annual Report available on our website (www.dalmiabl.com/financial-report-presenta). Going forward, we intend to publish an Integrated Report to help inform our stakeholders on financial and non-financial performance.

Boundary and Scope

The data and information presented in the report pertains to the FY’16 and FY’17 and the scope of the reporting boundary includes 11 manufacturing locations with data from mines, cement plants, clinkerisation plants and captive power plants. There are 5 thermal captive power plants: 45 MW Thermal Power Plant, Dalmiapuram, Tamil Nadu; 27 MW Thermal Power Plant, Ariyalur, Tamil Nadu; 2x27 MW Thermal Power Plant, Rajgangpur, Odisha; 25 MW Thermal Power Plant, Thangskai, Meghalaya; 27 MW Thermal Power Plant, Belgaum, Karnataka. There has been a change in the reporting boundary since our last Sustainability Report pertaining to the FY’14 and FY’15. The plants at Belgaum and Umrangshu were commissioned in 2015 and have been included this year along with the captive power plant at Belgaum. Our grinding units are present at all the locations except Umrangshu and active mines are present at Ariyalur, Meghalaya, Belgaum, Rajgangpur, Kadapa, Dalmiapuram and Umrangshu. Our materiality assessment guided the reporting process, which was revisited this year and the issues included in the report are the ones that are of highest importance.
for our operations and are reflected in the materiality matrix.

A robust process is followed for collection, analysis and management of data and the same is strengthened with each passing year. Wherever applicable, for estimation and quantification of data, required assumptions and standard calculation methodologies are used in line with global standards. For calculation of carbon emissions, emission factors provided by Intergovernmental Panel on Climate Change (IPCC) and Central Electricity Authority, Ministry of Power, Government of India have been used.

**Framework**

Our constant endeavour is to present information in an unbiased, comparable, accurate, reliable and comprehensive manner to our stakeholders. In order to arrive at a complete and transparent report, we have followed global reporting frameworks and guidelines like –

1. International Integrated Reporting Council (IIRC)
2. Global Reporting Initiative (GRI) Standards
3. Cement Sustainability Initiative (CSI) of the World Business Council for Sustainable Development (WBCSD)
4. United Nations Global Compact (UNGC)
5. Sustainable Development Goals (SDGs)

**Assurance**

Ernst & Young LLP has provided external assurance for the non-financial data in the Integrated Report. It is an independent organisation that conducted limited assurance and verified the information, data and calculation process for our indicators associated with CO₂ and other emissions, health and safety and environmental parameters disclosed in this report. As for the financial information, the assurance on financial statements has been provided by our independent auditor's viz., S.S. Kothari Mehta & Co. The digital version of the report is available at (www.dalmiabharat.com/sustainability.html).

Apart from current and prospective stakeholders, this report may be of interest to any stakeholder who wishes to make an informed decision regarding our capability to not only create value over time but also to sustain it. It is our constant effort to maintain and enhance the quality of our reporting process and for the same we want to hear your valuable opinion. Send us your feedback, comments or questions at the following address:

**Group Corporate Communications Dalmia Bharat**
Hansalaya Building, 11th & 12th Floor
15, Barakhamba Road, New Delhi – 110001
Ph: 011 – 23310121 / 23 / 24 / 25 | Fax: 23313303
Email: corpcomm@dalmiabharat.com
Website: www.dalmiabharat.com
Dear Fellow Stakeholders,

We live in a fast-paced world that is ever-changing and we, at Dalmia Bharat, see this change as an opportunity through which we can create value. We have become the fastest growing cement company in India achieving capacity increase and revenue growth of 21 times and EBITDA growth of 33 times as compared to FY’06.

We have grown considerably in recent years despite market volatility and economic reforms. However, our achievements are much more than just financial figures. Sustained value creation is rooted in our core values and we have always attempted to integrate needs of our people, customers, community and the environment into our operating and governance model. This year, we are coming out with our first Integrated Report which reflects our efforts towards making our business a sustainable one while creating a better environment for our talents, customers, shareholders, suppliers and communities at large. With the adoption of the Integrated Report, we have incorporated the value created by our organization through six capitals and highlighted our approach to business beyond the usual. Our aim is to be the best version of ourselves while delivering returns to all our stakeholders.

Our people are the bedrock of our success. As our personal brand ambassadors they represent Dalmia Bharat in the communities in which they live and work and form the backbone of our operational success by delivering benchmark performances. We constantly strive to provide a safe, rewarding and a high-performance environment to our talents. Dalmia Bharat has zero tolerance towards fatalities and we are committed to reinforcing our safety practices and systems towards our longer term ambition of zero harm.

Our customers will always be at the heart of our business decisions and our company is designed to provide a world class experience to them.
designed and organized in such a way so as to provide a world class experience to them. Our newly launched mobile app has brought us closer to our customers and have fostered enhanced customer interaction and order management. The app helped us in receiving and delivering orders while transitioning to GST as well.

Interests of our stakeholders are embedded in every aspect of our business helping in reducing risks as well as costs, providing opportunities for growth and strengthening our license to operate. In addition, we assume a conscious and proactive role in effecting a real change in industry dynamics and in advancing the commitments made at the international level on mitigating climate change risks. Becoming a member of WBCSD CSI, enabled us to adopt best practices through enhanced collaboration with the international community. Our other commitments include Caring for Climate, RE100, EP100, performance disclosure to Carbon Disclosure Project (CDP) and WBCSD Pledge for Access to Safe Water, Sanitation and Hygiene (WASH) at the Workplace. Through an added emphasis on resource efficiency and reducing clinker consumption, we realised possibly the lowest carbon footprint in cement sector.

Through our high-impact CSR initiatives, we have been able to benefit over 6 lakh people residing in the communities around our plants. Our prime focus has been to empower the farmers and making them self-sufficient through a myriad of interventions.

At Dalmia Bharat, we commit ourselves to achieving the highest standards of ethical and corporate governance and continue to improve compliance with our Code of Business Conduct. We endeavour to enhance our reputation as a responsible and sustainable company in order to attract as well as retain talents, customers, suppliers, investors and to maintain fulfilling relationships with the communities.

We would like to thank everyone working in the Dalmia Bharat family for their hard work, effort, dedication and commitment to our business. On behalf of the Board of Directors and our entire team at Dalmia Bharat, we would like to thank you for your interest in our Company and assure you regarding our commitment towards building a better future for all our stakeholders.

Gautam Dalmia & Puneet Dalmia
Managing Directors, Dalmia Bharat Group
Dear Readers,

I am proud to announce the publication of our first Integrated Report. Dalmia Bharat has been a vanguard of the industry since 1939, and in the top quartile of cement manufacturers in India.

Our corporate vision – “To be a leader in building materials and evoke pride in all stakeholders through customer-centricity, innovation, sustainability and our values” – is a key differentiator for our organization and integrating this vision into the business model has helped us add value to our Manufactured capital, Social and Relationship capital, Natural capital, Human capital, Intellectual capital and Financial capital. In addition, we showcase a deeply imbued sense of ownership and a desire to excel.

A strong corporate governance, a 'can do' attitude, and a zeal to grow are other attributes which have helped us deliver the best to our customers while augmenting our Financial Capital and delivering value to our stakeholders. We have always been positively cautious about the near term and optimistic about the medium and long term in view of the improved macro indicators for the economy, significant growth in public spending and focused execution plans.

**Manufactured Capital** contributes a significant share in our financial success due to the nature of the industry that we are a part of. From one cement plant in 2006 to 11 plants and about 186 MW captive power generation capacity in a 10 year period is testimony to our exponential growth and strong commitment to our stakeholders.

The entire cement manufacturing process by its very nature can be unsafe, therefore, our goal has always been to minimize the danger as much as possible and ensure that our Human Capital i.e. our people remain safe at all times. Meticulous implementation of safety protocols coupled up with awareness building programs have enabled us to zero down on the number of fatalities in the FY'17. With an aim to 'make our factory an island of prosperity', we constantly work to create better livelihoods for the people who work for us as well as the people who live around us.
While cementing our position in the market, we are always eager to embrace technology and strive for innovation and the same is reflected in 'Craft Beton' – an initiative turning cement, a ubiquitous commodity, into exciting products and bringing it closer to the consumers. Innovation is not new at Dalmia Bharat, from being the first cement company to make cement specially for railway sleepers back in 1974 to coming up with specialised cement for oil wells and air strips, we have always celebrated and played with the attributes and capabilities of cement. In an effort to strengthen our Intellectual Capital, developing quality products and improving service, setting new benchmarks in quality, usability and sustainability, we set up our research and development centre at Padi in Chennai.

In an endeavour to maintain and enhance our Social and Relationship Capital, we continuously work with the local and regional stakeholders to achieve our medium and long term objectives. Our strong commitment towards nation building has been realised by the vital role that we played in the construction of the strategic Dhola-Sadiya Bridge which is the longest river bridge in India. The very significant socio-economic impact of this bridge connecting Arunachal Pradesh to Assam is a literal example of our campaign – *Dil Jode, Desh Jode*. With a firm belief in 'Green is Profitable and Sustainable' philosophy our approach to business has been inclusive and nurturing towards the people and the community that we operate in and strive to create value for them. As an obligation to our social responsibility, we constantly engage and foster relationships with the communities trying to understand their needs and requirements and

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formulating best fit solutions for them. Water and energy being two major challenges that the locals face, are among the major areas of focus. We work closely with the communities on water conservation and clean energy. Skilling people for livelihood is another pillar of our CSR program. Dalmia Bharat Foundation, a not-for-profit, is our CSR program's implementing partner.

Being one of the greenest cement companies in the world, we are committed to preserving the Natural Capital by decarbonising our operations in a way that makes business sense. We aim to further reduce our carbon footprint which is already one of the lowest in the cement industry. As the first step towards our commitment to RE100, we have set a target to increase four-fold the percentage of renewables in our overall electricity consumption by 2030 compared to 2015. Also, we have joined EP100 and pledged to double our energy productivity by 2030, using 2010-11 as baseline. We have taken several steps towards conserving more water than what we consume. To conserve mineral resources, we have adopted the strategy of converting waste to wealth by utilizing waste of other industries as Alternative Fuel and Raw Material (AFR).

Our commitment towards a green and clean environment led us to become a member of CSI, commit to UNGC principles and become a signatory to Caring for Climate initiative. We are also disclosing our performance to Carbon Disclosure Project (CDP). SDGs constitute a bold plan to address socio-economic, environment and societal challenges of our time. We have tried to assimilate the 17 SDGs and associated targets to our humble capacity. Through all these partnerships we are able to share the best practices for sustainability.

Lastly we acknowledge that the path of sustainable development requires commitment, goodwill and passion for which we are relying on everyone's help to create and sustain value for the company as well as all our stakeholders. I am deeply grateful to everyone associated with Dalmia Bharat for their continued commitment to our business.

Mahendra Singhi
Group CEO and Whole Time Director - Dalmia Cement (Bharat) Limited
VISION FOR THE FUTURE

We, at Dalmia Bharat, work persistently to achieve our corporate vision – **“To be a leader in building materials and evoke pride in all stakeholders through customer-centricity, innovation, sustainability and our values”**. With this vision in mind, our constant endeavour is to strengthen our corporate governance and all of our six capitals in order to deliver the best to our customers.

As a responsible business we have intensified our efforts to mitigate climate change by enabling transition to a low carbon economy. Under the aegis of Cement Sustainability Initiative, the India roadmap outlines a low carbon growth pathway for the cement industry, which potentially will lead to a reduction in carbon intensity of cement of 45% by 2050 as compared to the 2010 levels by exploring avenues that are economically and technically feasible.

We envision reforms that would facilitate recycling of concrete and waste utilization as a potential recovery opportunity. We have been interacting with institutions like Development Alternatives (DA), GIZ etc. in promoting research towards sustainable building materials. Different sectors have expressed interest in value added products that meet their needs in a more sustainable way.

Our company takes pride in in being a key contributor to the country’s circular economy and achieving water positivity through proactive measures on matters related to resource efficiency, energy and environment. Going forward we wish to continue consolidating our foundations; nurturing relationship with our talents and other stakeholders; reducing impact on the environment and pursuing research and development to meet the needs of future India.
“Different businesses have different approaches. We, at Dalmia Bharat, believe in a sustainable brand that is built on the faith of all our stakeholders.”

STRATEGIC POSITIONING
Our journey of 78 years has been built on trust, thought leadership and exceptional client service.

- **Customer Centric**
  - Addressing the needs of our consumers through innovative building material at an affordable pricing has been a key focus area for the Company. Progressive changes in the business processes and product portfolio have enabled us reduce our ecological impact while being responsive to the changing customer requirements. Our **future focussed policies and customer centric delivery** have helped us build faith in our stakeholders.

- **Innovation is key**
  - **Innovation** is the corner stone of our business model enabling us to de-clutter the market and capture new opportunities across new and existing sectors. Our Products and solutions are in line with our customer’s demands and in harmony with the environment. We practice continuous consumer engagement, innovation, and capacity building of our people across our value chain to deliver quality products.

- **Smart Strategy**
  - Strategic proximity to markets and raw materials facilitates low-cost manufacture and distribution enabling us to contribute to low-cost housing needs of the country. With one of the lowest lead distances between our units and markets we have one of the lowest freight and transport cost thus giving us a profitable business pricing.

  *We aspire to keep evolving to more sustainable building materials that meets the expectations of the prospering nation.*
HONOURS AND AWARDS

• 5S Platinum Award from ABK-AOTS, 2017
• CSR Excellence Award at the India International CSR Conclave & Awards, 2017
• Best Mental Health Practices in Workplace award by NIMHANS, 2017
• NCB’s National Awards in an Unprecedented Six Categories, 2017
• Winners in Flame Awards Asia in Best Trade Engagement Category, 2017
• 5 Star Award for Mines by Indian Bureau of Mines, 2017
• Best CSR Award by World CSR Congress, 2017
• CII National Award for Excellence in Energy Efficiency, 2017
• 6th Annual Manufacturing Today Awards in four categories, 2017
• Star Award by National Safety Council, 2017
• Digital Transformation Awards 2017 from International Data Corporation, 2017
• Awards at the Annual Mines Safety Week Celebration, 2017
• Rio Tinto Health & Safety Award by FIMI, 2017
• Platinum Award by Indian Green Building Council (IGBC) Green Homes
• National Award in Outstanding Industrial Relations by All India Organization of Employers (AIOE), 2016
• Most Well Planned Business Travel Award by MTM Corporate Star Awards, 2016
• National Energy Conservation Awards, 2016
• Green Award by Tamil Nadu Pollution Control Board (TNPCB), 2016
• CII-ITC Sustainability Award in Corporate Social Responsibility, 2016
Our goal is not just to build a great enterprise for our stakeholders, but to participate in building a great future for our country and the world at large.

COMPANY PROFILE

Overview of the Dalmia Bharat

Dalmia Bharat Limited has been a pioneer in cement manufacturing since 1939. We have grown over time in an extremely competitive market expanding our footprint all over India. In addition to being a multi spectrum player with a double digit market share, Dalmia Bharat is a frontrunner in super speciality cements used for oil wells, railway sleepers, air strips concrete, roofing and construction in harsh conditions like coastal areas. Besides significant presence in the southern and eastern region, the acquisition of Adhunik cement & Calcom cement in the north east has led to an expandable capacity of 25 MnT and an aggregate market share of 11.2% in our operating geographies. Today, Dalmia Bharat caters to the needs of 21 Indian states along the eastern, western, north eastern and southern belt through its portfolio of brands like Dalmia DSP, Dalmia Ultra, Dalmia Vajram, Dalmia Superproof, Konark and Dalmia SRPC among other offerings.

At Dalmia Bharat, creation of shared value is at the core of our business strategy. We aspire to partner in the intrinsic growth and development of our nation and create a positive impact in the lives of all relevant stakeholders - talents, investors, customers, consumers and communities. Our strong focus on operational excellence enables us to run our business in a safe, efficient and cost effective manner. Which in turn leads to sustained profitable growth even under challenging external environment.

Our Values

Our core values act as a guiding principle, leading us through the path of growth and development in the most ethical, professional and transparent manner. We practice strict adherence to the laws of the land and believe in proactive risk management and robust internal systems to enable us to continuously monitor, analyse and ensure compliance.
SUSTAINABLE VALUE CREATION: INTEGRATED REPORT FY 2015-17

GROUP STRUCTURE

DALMIA BHARAT LIMITED

DALMIA CEMENT BHARAT LIMITED

- Inception: 1939
- Installed Capacity: 25 Mn T
- Manufacturing Units: 11

DALMIA BHARAT SUGAR AND INDUSTRIES LIMITED

- Inception: 1994
- Cane Crushing Capacity: 32,500 TCD
- Manufacturing Units: 5

DALMIA REFRACTORIES LIMITED

- Inception: 1960s
- Production Capacity: 1 lakh Ton
- Manufacturing Units: 3
OUR HISTORY

1910-1920
India entered into the Cement Era when the Indian Cement Company Ltd started manufacturing cement in Porbunder, Gujarat.

1920-1930
Increase in domestic demand, reduction in supply from abroad (due to war), availability of Indian capital, ample raw material, cheap labour, support of the Government etc. made cement a leading industry in India in a short period of time. India’s cement production was to the tune of 0.3 Mnt. The ‘Cement Manufacturers Association’ and the ‘Concrete Association of India’ were formed.

1930-1940
Dalmia Bharat Limited forayed into the cement industry with its first cement plant set up at Dalmiapuram with an installed capacity of 1.2 Mnt.

1940-1950
Dalmia established four cement plants in pre-independence years. Before partition, India had 24 factories, out of which India retained 19 with an annual production of 2.1 Mnt.

1950-1980
In 1948, the Government of India adopted the Cement Expansion Scheme which envisaged new factories to increase production. The target of the first five year plan was to raise the installed capacity to 5.4 Mnt. Special cement was launched by Dalmia for airstrips and railway sleepers.
1980-2000
Dalmia was the pioneering organisation to introduce Vertical Roller Mill for Limestone Grinding in India (1981).
Dalmia was the first company to introduce Oil Well Cement (1986).
Dalmia became the first company to install modern Pre-Calcinator Dry Process Kiln (1987).

2010-2015
Dalmia expanded rapidly in the East and South zones of India through organic and inorganic expansion (Calcom, Ahunik in the north-east and Bokaro in the east).
DBL published its first Sustainability Report.
DBL became a member of the Cement Sustainability Initiative.
DBL became a signatory to the WASH Pledge.

2000-2010
Dalmia Bharat Limited established green field projects in Aiyalur and Kadapa.
Organisation’s capacity installed enhanced to 9 MnT.
Dalmia set up captive power plant at Dalmiapuram and Aiyalur.

2015-2017
Dalmia acquired OCL in the east and Belgaum plants in the south.
Organisation’s installed capacity increased to 25 MnT.
DBL became the first company to commit to both EP100 and RE100.
DBL launched Craft Beton thereby redefining cement.
DBL published its first Integrated Report.
WHERE WE OPERATE

Our 11 manufacturing plants distributed across India enable us to serve 21 Indian states. The Company is headquartered in New Delhi and employs 11,343 talents (including contractual). The Company expanded its geographical presence through a range of inorganic and organic expansions raising its installed capacity manifolds. Multiple additions in captive power installation has enabled organization to meet major chunk of its power requirement.

The accelerated capacity enhancement has bolstered our competitiveness through leveraging economies of scale, geographic entry, market leadership, resource linkage and efficient distribution system. Today, we are among the leaders in the regions we operate with a market share of 20% in North-East, 14% in East and 8% in South India.
HOW WE DO BUSINESS
At the core of our business lie our manufacturing units that act as a platform on which our management team executes and delivers value to our stakeholders. Our manufacturing units translate our strategy into results through our supply chain and form the basis for our interactions with the suppliers, distributors and the communities.

Our supply chain consists of raw material procurement, limestone being procured from our captive mines; manufacturing, storage and packaging of cement; and, finally, distribution to contractors, builders, concrete companies etc. Sustainability practices form an integral part of our supply chain and we place a high degree of importance on health and safety compliance, environmental legislation compliance, prevention of bribery and corruption, respect for human rights and local legal compliance. Our focus has always been on maintaining a cost effective supply chain while managing and minimising the negatives impacts associated with it. We also act to maximize the positive effects of efficiency, good labour practices, performance, injury and risk reduction, and environmental protection.

We constantly seek opportunities to improve our capabilities for meeting sustainability standards across our value chain. As a step forward, we have aligned our initiatives with the SDGs and identified areas where we can meaningfully contribute to their achievement. We believe that they offer us a unique opportunity to strengthen collaborative action, deepen stakeholder engagement and increase the value we create at local level.
DBL AND SUSTAINABLE DEVELOPMENT GOALS

1. **No Poverty**
   - Significant employer in the regions of operation by creating direct and indirect jobs.

2. **Zero Hunger**
   - Supporting farmers in increasing agricultural productivity.
   - Helping in soil and water conservation to improve yield.

3. **Good Health and Well-being**
   - Providing preventive health services.
   - Providing clean drinking water.
   - Driver safety programmes to enable safe transportation.

4. **Quality Education**
   - Ensuring quality education through schools, technical institutions and skill development programmes for local communities.

5. **Gender Equality**
   - Ensuring equal opportunity employment.
   - Policy frameworks for protection of women at workplace.
   - Promoting Self-help groups.

6. **Clean Water and Sanitation**
   - Committed to safe water, sanitation and hygiene at the workplace through WASH pledge of WBCSD.
   - Regular check on drinking water quality and construction of sanitation blocks, toilets etc for the local communities.

7. **Affordable and Clean Energy**
   - Providing clean energy solutions.
   - Installed 8MW solar power generation capacity and 9.2 MW of waste heat recovery.

8. **Decent Work and Economic Growth**
   - Significant thrust to local sourcing.
   - Providing wages in accordance to the rules and regulation of the Government of India.

9. **Industry, Innovation and Infrastructure**
   - Dedicated research and development lab to develop next generation green cements.
   - Collaborating with international organisations to access the feasibility of implementation of new low carbon technology.
**Reduced Inequalities**

- Significant employer in remote areas of India, providing employment regardless of age, sex, ethnicity, religion or other affiliations.
- Member of United Nations Global Compact and adopted 10 principles of UNGC.

**Sustainable Cities and Communities**

- Conducting awareness activities near plant premises on road safety.
- Training truck drivers on road safety for safe transport.
- Harvesting rain water and providing fuel efficient cooking and solar lighting in homes.

**Responsible Consumption and Production**

- Increase use of alternative raw materials (slag and fly ash) which are nothing but waste from other industries.
- Supports ‘Polluter to Pay’ principle for the greater utilisation of industrial waste in an efficient manner.

**Climate Action**

- Probably the least carbon footprint cement company globally with continued effort to further reduce emissions.

**Life Below Water**

- No cement plant operations near any marine resource.
- Major raw materials locally sourced for minimum impact on marine biodiversity.
- Zero liquid discharge cement plants.

**Life on Land**

- Member of India Business and Biodiversity Initiative (IBBI).
- Facilitating rain water harvesting and biodiversity conservation.
- Plantation of native species in cement plants and mining areas.

**Peace, Justice and Strong Institutions**

- Code of Conduct Policy implemented to ensure honest and ethical conduct, no conflict of interest and compliance laws, rules and regulations.

**Partnerships for the Goals**

- Raising our voice in international platforms in support of Low Carbon Technologies.
- Developing partnerships at the local and global level to understand, share and promote the best operating practices on sustainability.
OUR PRODUCTS AND SERVICES
Dalmia Cements has been catering to the Indian market since 1939 through a range of basic and value added products as per customer requirements. Through extensive research, Dalmia Bharat has created a reputation of being responsive to the needs of the market and playing an intrinsic role in India's infrastructure growth.

Dalmia PPC/ Vajram
Dalmia PPC is highly impermeable and is a perfect recipe to prevent corrosion of steel reinforcement used in construction. Standard fly ash is employed in manufacturing Dalmia Vajram, protecting the buildings from harmful effects of chemicals such as sulphates and chlorides. Although the 28-day compressive strength as per BIS specifications are 330 kg/cm² but we at DBL have developed Vajram with a 28-day compressive strength of 480 kg/cm², about 46% higher than ordinary cement standards.

Dalmia SUPEROOF
Dalmia SUPEROOF is specifically designed for house roofs and other building roofs, with the aim of providing extra strength and protection compared to ordinary cements. This is due to the optimal particle size distribution in the cement, making the concrete denser and enabling protection of roofs against cracks and water leaks, ensuring longer durability of the roofs.

Dalmia Sulphate Resisting Portland Cement (SRPC)
Sulphate resisting Portland cement was developed by DBL for the purpose of providing its customers with a unique cement that can withstand adverse environments. The proportion of sulphate in the SRPC has been limited to 3%. This makes it chemically resistant as sulphate infested soil conditions can cause disintegration of concrete structures, reducing the life of the construction by 5-7 years. Dalmia SRPC also has the distinction of achieving twice the specification of the BIS standards for all age’s viz. 3 days, 7 days and 28 days strength.

Konark Portland Slag Cement (PSC)
It is manufactured by inter-grinding clinker, gypsum and blast furnace granulated slag from steel industry. It is also manufactured by blending OPC with ground granulated blast furnace slag using mechanical blenders. It is used in general civil engineering construction works but mainly preferred for construction of marine structures and in coastal areas where excessive amount of chloride and sulphate are present. It is ideal for mass concrete works like dams and embankments.
**Konark Portland Pozzolana Cement (PPC)**

It is an ideal input for denser and more durable concrete. It is manufactured by inter-grinding clinker, gypsum and fly ash (a waste from thermal power plants). It is useful for general construction works and especially suitable for works in aggressive environmental conditions, employed for water retaining structures, marine works, mass concreting such as dams, retaining walls and sewage pipes.

All the product related information is displayed as per the standards prescribed by the Bureau of Indian Standards. No cases were filed towards unfair trade practices, irresponsible advertising and/or anti-competitive behaviour during the last five years.

**Dalmia Magic Premium Skimcoat**

It is a versatile, unique natural tone, surface finish solution that is suitable for diverse surfaces. Unlike other surface finish products, Dalmia Magic can be applied internally and externally, both on walls and ceilings to get matt or glossy finish. Dalmia Magic has ZERO-chalking post drying and also has high surface "coverage" compared to anything available in the market and is hence cost-effective too.

**Dalmia Infra Green**

Dalmia Infra Green is a propriety solution for the infrastructure segment with enhanced performance. The cement perfectly meets the requirements of infrastructure development and delivers large constructions with fast and improved productivity. This product usually needs no other performance enhancers except water in lesser quantity while applying in the concrete.

**Dalmia Duro Plast**

Dalmia Duro Plast is finely engineered cement plastering solution that works best for both externally and internally. It is highly durable plastering solution with properties of water resistant, excellent workability, anti-cracks development and more. The tensile strength of Duro Plast is remarkable and reliable for every type of construction.
CUSTOMER SEGMENTS

Our consumers can be classified into broadly two categories viz. individual and institutional. While the institutional buyers make up to 40% of our sales volume, we lay equal focus on both the segments.

Our technical services team ensures that the consumers are made aware of the products most suitable for their requirement. The team also assists on construction practices, safety measures, usage of right materials, among others.

For institutional consumers we undertake additional interactions with respect to product delivery, concrete mix design, third party testing, sales and administration policies – like pricing and credit. Customers are encouraged to visit the factory and R&D centres that instils in them a confidence on our capability to support big projects across the country. Influencers like masons, contractors, engineers and architects play a major role in terms of promoting and recommending a brand and hence we have dedicated channels and engagements for them in the form of knowledge meets, conference and lecture series.
MATERIALITY

Methodology to determine material issues

We had conducted first materiality assessment FY’14 which included identification and prioritization of issues that present a potential risk or opportunity for the business and our stakeholders in the short and long term. The assessment was a collaborative effort of our management and our stakeholders thus ensuring that everyone is heard of and accounted for in our business. Further re-assessments reaffirmed the existing material aspects and helped us identify a few more.

As a starting point we identified a list of aspects based on common issues in cement sector, Cement Sustainability Initiative guidelines, risk assessment (regulatory, social and environmental) and stakeholder needs and expectations.

In the next step we conducted a series of cross functional workshops to get a better understanding of the material aspects and how to mitigate the risks and capitalize on the opportunities to create a sustainable competitive advantage.

In the final step we engaged with our stakeholders through multiple channels to incorporate their needs and interests. These sessions coupled with multiple formal and informal interactions with the senior management led to the formulation of the following material matrix with 11 aspects being identified as material to the organisation.

![Materiality Matrix](image-url)
MARKET TRENDS

Global Panorama
Cement, steel and oil are the basic elements of the world economy. The global cement industry is expected to grow at a rate of 9% CAGR* on account of the emerging economies of the world like India and China. The rise in purchasing power coupled with the growing urban population has led to an augmented demand for cement in residential projects.

At the global economic front, FY’16 was rather bland; nevertheless the growth rate is expected to pick up pace and accelerate from 3.1% in FY’16 to 3.5% in FY’17 to possibly 3.6% in FY’18. The second half of FY’16 experienced gain in momentum in economic activity, especially in the advanced economies while performance across emerging markets and developing countries remained mixed.

Industry Players
The global cement market can be segmented into 4 geographical areas namely Americas, Asia-Pacific, Europe and MEA with the Asia-Pacific accounting for 55% of the overall market share. The emerging markets contribute to 95% of the global cement consumption. The past 18 months have seen mega-mergers and takeovers of big players leading to a change in the industry landscape. Such activities lead to increase in customer base thus enhancing the revenue generating capacity of the global players.

The global cement industry is expected to grow at a rate of 9% CAGR on account of the emerging economies of the world like India and China.

* Source: Global Cement Industry Outlook 2016-2020
Cement Industry
With around 450 MnT of cement production capacity and production of 280 MnT, India is the second largest cement producer in the world and contributes to 6.7% of the world's cement output. Even though the FY'17 saw a decline in cement demand which fell by 1.2% to 280 MnT, the production capacity has been on a rise and expected to reach 550 MnT by FY'20.

Economy
The advent of GST is expected to create a common Indian market, improve tax compliance and governance thus leading to enhancement in investment and growth. The Central Government’s ‘Make in India’ initiative is expected to attract both domestic and foreign investments and the ‘Housing for All’ policy will sustain India’s housing and infrastructural growth. There has been a significant increase in budget allocation for roads, highways and railways. The Central Government plans to invest INR 3.96 lakh crore in the infrastructure sector in the coming years.

Political Scenario
The Government’s demonetization policy decreased sales volumes by as much as 9% during December’16, 14% in January’17, 16% in Februray’17 and 7% during March’17 as the construction activity fell. However, since then the sales have picked up reaching 17% in April’17 and the demand is expected to increase by 5% year-on-year in the FY’18 due to increase in infrastructure and residential housing which forms 67% of the total cement consumption in India. A decline in cement prices was observed post demonetisation from November’16 to March’17 but the same surged in April’17 backed with stable demand. Decreasing fuel costs, diesel, coal as well as pet coke, is expected to provide respite to the industry.

Legislative and Regulatory Environment
The horizon for India remains optimistic in the light of key governmental reform measures: the implementation of Insolvency and Bankruptcy Code, the liberalisation of FDI norms across sectors, the operationalization of the Goods and Services (GST) Amendment Bill and agreement between the Central Government and the Reserve Bank of India on a monetary policy framework and flexible inflation target.
In May 2016, MOEF&CC introduced new pollution norms asking the Indian cement industry to meet the same by the end of FY’17. The new norms have revised emission limits of sulphur dioxide and nitrogen oxide as compared to the August 2014 norms. Also, the limit of particulate matter was reduced from 50-150 mg/m³ to 30 mg/Nm³ subject to the location and age of the plant.

**Sustainability and the Cement Industry**

The critical sustainability issues identified by the WBCSD CSI, are: improving talent health and safety and eliminating fatalities; reducing CO₂ emissions and other airborne pollutants; efficient use of raw materials and fuels; minimizing environmental and social impacts and expanding relationships with stakeholders. Global companies throughout the industry are managing their own sustainability issues while coordinating with the governments to face and mitigate the environmental and social challenges of economies.

**Social**

Sustainable construction, employment, education and health are just some of the positive impacts of the cement industry. It is known that one job in the cement plant creates around 10-12 times more indirect jobs upstream and downstream economic sectors thus having a real impact on employment of a region. It also supports in enhancing skills and technical know-how of its talents that may even be useful in establishing other industries and in the development of schools or higher education establishments. The cement companies, like any responsible corporate, also contribute by opening health centres for its talents, their families and the local community.

**Environment**

The most vital issue is carbon emissions from cement manufacturing, which forms approximately 5% of the total emissions due to human activities. Approximately 60% of the CO₂ released is emitted from the raw materials while de-carbonation of limestone into lime and the rest 40% is emitted while fulfilling the energy requirements of the manufacturing process. As a step towards combatting climate change, Dalmia Bharat is committed to 100% renewable power. Other environmental initiatives taken by the cement industry leading to economic returns include use of bioenergy through burning of coffee husk and cashew nut shells, use of Low Sulphur Heavy Stock sludge as alternative fuel, use of tyre chips and rubber dust as alternative fuel by and substitution of coal in kilns with rice husk.
Technological Change
The cement sector provides one of the toughest environmental challenges as there is no good substitute to the product so far. In order to make the industry sustainable, CSI recommends that plants and transportation of raw materials be made more efficient, alternative organic fuels to be burnt in kilns leading to lower CO₂ emissions, use of alternative raw materials like fly ash and slag including use of special additives like magnesium oxide, use of supplementary cementitious materials and finding a way to co-process cement with other processes in order to reduce both energy use and CO₂ emissions.
BUSINESS OPERATING MODEL

Management Approach

Dalmia Bharat has been an advocate and practitioner of sustainable development since its inception.

We have implemented efficient manufacturing, clean production and comprehensive utilization of industrial wastes and alternative resources to boost our productivity while reducing our ecological impact. We are committed to providing the society with green and environment-friendly building materials with reliable quality at affordable costs. We actively promote localization of sourcing needs, adherence to national laws and regulations and collaboration with stakeholders towards creating mutually benefitting opportunities.

We strongly believe that strong, smart and healthy organizations are built by talents who feel valued. Our people are the most valuable asset that have propelled our organization into a successful business entity. Our efforts are centered on synergizing efforts among our workforce and make a meaningful contribution in the lives of people. At DBL, we foster an environment of communication, fairness, respect, and trust - while creating opportunities for people to grow as talents, and as individuals.

Through our strengthened research and development labs together with winning collaboration with our partners we wish to realise low cost housing solutions through improved resource utilisation and production efficiency.

Strategic Objectives

Our prime objective is to enhance the value of our capitals through better understanding of inter-linkages between the capitals and meaningful collaboration with our stakeholders. We endeavour to minimise the negative environmental and social impacts and to strengthen our competitive position, relationships, brand image and reputation.
## STRATEGIC OBJECTIVES

<table>
<thead>
<tr>
<th>Capital</th>
<th>Short Term</th>
<th>Medium Term</th>
<th>Long Term</th>
</tr>
</thead>
</table>
| **Financial** | • Reducing cost of debt  
• Strengthening profit margins above industry average  
• Leaner, efficient organization  
• Regular benchmarking with the peer group to improvise on the financial parameters. | • Reduce average acquisition costs  
• Reduce replacement costs  
• Unlocking the value of cash in working capital and leveraging the incentives from the Government of India. | • Achieving the highest EBITDA /tonne of cement in the territories we operate.  
• Mitigate financial risks to business. |

<table>
<thead>
<tr>
<th>Manufactured</th>
<th>Short Term</th>
<th>Medium Term</th>
<th>Long Term</th>
</tr>
</thead>
</table>
| **Manufactured** | • Restructuring of the corporate entity as one cement business entity.  
• Enhance kiln productivity. | • Expansion in East India through organic and inorganic Expansion  
• ISO 14001, OHSAS 18001, ISO 50001 certification for all our plants. | • Increasing regional market share in operating territories |

<table>
<thead>
<tr>
<th>Intellectual</th>
<th>Short Term</th>
<th>Medium Term</th>
<th>Long Term</th>
</tr>
</thead>
</table>
| **Intellectual** | • Increase market share for value added products.  
• Increasing the use of alternative and economical fuels. | • New products to address sectorial needs.  
• Reorienting the raw mix design.  
• Increasing fly ash and slag absorption. | • Improving quality through high performance chemicals.  
• Collaborate with institutions to reduce gestation time for new developments.  
• Digitalization of value chain. |

<table>
<thead>
<tr>
<th>Human</th>
<th>Short Term</th>
<th>Medium Term</th>
<th>Long Term</th>
</tr>
</thead>
</table>
| **Human** | • Zero harm – no fatalities.  
• Minimizing LTIFR rate. | • Innovate ways to measure employee satisfaction and happiness.  
• Reducing attrition rate. | • Enhancing the skills of manpower.  
• Unleash and harness complete potential of workforce. |

<table>
<thead>
<tr>
<th>Social and Relationship</th>
<th>Short Term</th>
<th>Medium Term</th>
<th>Long Term</th>
</tr>
</thead>
</table>
| **Social and Relationship** | • Resolving stakeholder grievances and concerns at the earliest.  
• Enhance brand recommendation score.  
• Boost local sourcing of raw materials and fuels. | • Strengthening network of suppliers and dealers.  
• Incorporate EHS parameters in Supply chain performance. | • Enhance brand recommendation score. |

<table>
<thead>
<tr>
<th>Natural</th>
<th>Short Term</th>
<th>Medium Term</th>
<th>Long Term</th>
</tr>
</thead>
</table>
| **Natural** | • Being fully compliant with the existing environmental laws and regulations. | • Attaining water positivity.  
• Attaining raw material sufficiency. | • Doubling energy productivity by 2030 (EP 100).  
• Increasing RE by four times by 2030. |
**STRATEGIC DRIVERS**

*Rapid Urbanisation*

India is second largest cement market globally with a low per capita consumption with respect to developing countries in the world. Demand is set to rise due to various commercial and industrial investments, improved focus on infra-structure across sectors and growth in affordable housing. In India, DBL has strategic well balanced network of plant sites distributed over eastern and southern India. The proximity to the raw material sources and the consumer market enable us to reduce our logistics and transportation cost and thus effectively deliver quality building materials at affordable prices.

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**Value Added Products**

The market for cement is set to be competitive with a plethora of new players entering into the Indian market. The advent of stricter norms, rising green consumerism and fierce competition have swayed the growth potential towards sector specific solutions. Our bouquet of speciality cement for airstrip, oil well and railway sleepers have been widely successful and have enabled us to capture a significant market share.
We envision to grow at a higher rate than our comparable peer group through cost optimization, product supremacy and operational efficiency.

**Fragmentation to Consolidation**
Recent years have witnessed consolidation in the cement industry with the top 5 players accounting for a higher market share than the rest of the industry. The objective has been to achieve better pricing power from scale. We envision to grow at a higher rate than our comparable peer group through cost optimization, product supremacy and operational efficiency. Our flexible usage of multiple category of fuels have reduced our specific variable cost of producing Cement.
STRATEGIC PLANNING

1. Product Leadership
We strive to increase our competitiveness and will continue to focus on development of value added products. Through continuous innovation and product breakthroughs we wish to emerge as the market leader for sectorial needs. We are currently leaders in Portland Slag Cement (PSC) and Oil Well Cement and envision to replicate the success across product line. Our vast scale of operation and responsive R&D wing enable us to quickly address sector specific demands. Our range of premium products accounts for 8% of our total overall trade sales.

2. Operational Efficiency
Economic volatility, soaring energy prices and the intensifying competition in the Indian market have shifted the trend in the cement industry from capacity addition to effective resource utilization. Through technological interventions and fuel mix optimization we are constantly evolving our processes to be competitive and provide cost effective infrastructure solutions. Our proximity to markets and resources provide for low lead distances and enable us to differentially price our products than our competitors. Our teams review project execution on a continuous basis to avoid time and cost overrun.

3. Going Green
Sustainability in Dalmia Bharat is a long term association. Being one of the greenest cement companies in the world, we are actively working to decarbonize our operations. A participatory approach with the stakeholders ensures that our business model is tuned towards addressing the material aspects on priority. Our collaboration with the industry experts and long term commitments enable us to incorporate best practices and set ourselves superordinate goals for a sustainable future. As much as 80% of our production is blended with either slag (a waste from steel plant) or fly ash (a waste from power plant waste). Having achieved water positive status we have been working towards increasing the share of renewable energy in our power consumption.

4. Disciplined Capital Management
Over the past years we have doubled our capacity through a balanced series of low cost organic and inorganic expansion. Our replacement and average acquisition costs are well below the industry standards. Our market capitalisation rose to INR 17,488 crore on Mar’17, at a compounded annual growth rate of 72% over the past five years. Hedging our long-term
and short term foreign exchange exposure and exposure between exports and imports enables us to mitigate any risk due to currency fluctuation.

5. Market Expansion
We are the 4th largest cement producer by capacity and 2nd and 3rd largest player in the north eastern and eastern India respectively. However northern and southern markets in India comprise a lion’s share of the total demand and we look forward to strengthening our footprint. We also see a huge potential in exporting cement to the Middle East, Africa, and other developing nations of the world.

6. Talent Development
We have fostered a strong culture of performance quality, innovation and lateral thinking. Through continuous learning and development interventions we wish to facilitate talent wellbeing and a pool of qualified professionals to propel Dalmia Bharat through a fast track to growth and prosperity.

7. Creating Brand Value
Sustainability is a superordinate goal inspiring us to continue to innovate and add value to the life of all our stakeholders. Besides manufacturing high quality value added products, the marketing and corporate branding team ensures the crafting of the brand Dalmia Bharat and that the right message reaches the right people at the right time. A three tier team monitors internal and external communications ensuring compliance to statutory and voluntary codes of marketing communication. The team plays an important role of aligning the stakeholders by magnifying the bigger picture of long term sustainability on one hand and building confidence in the consumers towards product supremacy.

The exercise starts with crafting of Dalmia Brand which is encapsulated in the 'Brand Manual'. The manual is thereafter circulated across all business verticals to keep the brand perception consistent and realistic.

The inception of Dalmia Bharat Group was propagated in resonance with the ambitious dream of building the new India with the campaign 'Mera Bharat Bada Ho Raha hai'. Dalmia Bharat's commitment to innovation and green products for building the future generation infrastructures was synced into our product launch of a new product with the campaign 'Dil jode Desh Jode'. Various other campaigns targeted at the end consumer aim at building awareness on attributes of various cement solutions and product attributes.

The team partners with experts in creative, media, outdoor, marketing research and digital agencies to ensure compliance to statutory and voluntary codes of business communication thus reducing liability and boosting the constructive
The essence of each communication with the stakeholders. The commercial and the legal team works in collaboration with the marketing team to ensure that the contracts and the interests of the organization are well aligned in all its business dealings.

The leadership team at Dalmia Bharat regularly interacts with the talents and other stakeholder groups addressing their needs and inspiring them with new goals to a sustainable future. It’s time to rethink cement – *Not as a commodity but an integral block in nation building.*
Our business model draws onto the following inputs towards manufacturing cement. Identification of key inputs enable us to manage their availability, quality and affordability in the long run thus making our business model robust and resilient to changes in the external environment. We produce a range of generic and speciality cements while drawing on the various capitals. We aspire to produce affordable, greener solutions for our clients through continuous innovation and collaboration with the industry experts.
The above table highlights the positive and negative impact of our business activities on our capitals.

### Inputs

<table>
<thead>
<tr>
<th>Financial Capital</th>
<th>Manufacturing Costs: 74% of revenue R&amp;D: 6.5 crores Wages &amp; Benefits: 609 crores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Capital</td>
<td>Raw Material: Limestone, Fuel, Fly Ash, Slag, Gypsum, Packaging Bags &amp; Spares</td>
</tr>
<tr>
<td>Human Capital</td>
<td>Regular Employees: 4,779 Contract Employees: 6,564 Training Hours / Permanent Employees: 16 Training Hours / Contractual Employees: 2 Sourcing of Local Manpower: 100%</td>
</tr>
<tr>
<td>Intellectual Capital</td>
<td>R&amp;D Center: 1 Research Labs: 14 Robotics Labs: 3 Standards: ISO 14001, 50001, OHSAS 18001</td>
</tr>
<tr>
<td>Manufactured Capital</td>
<td>Manufacturing Sites: 11 Captive Power Plants: 7 Installed Capacity: 25 MnT Captive Power Installation: 186 MW</td>
</tr>
<tr>
<td>Social &amp; Relationship Capital</td>
<td>CSR Expenditure: 10.16 crores Dealers &amp; Distributors: 8000+</td>
</tr>
</tbody>
</table>

### Outputs

<table>
<thead>
<tr>
<th>Manufactured Capital</th>
<th>Cement Sold (including clinker): 15.3 MnT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy</td>
<td>Power Consumed by Cement Plant: 1.02 TWh Alternate Fuel: 936 TJ Biomass Fuels: 212 TJ</td>
</tr>
<tr>
<td>Water</td>
<td>Water Withdrawal: 2.9 million m³ Water Recycled: 0.78 million m³</td>
</tr>
</tbody>
</table>

### Outcome

<table>
<thead>
<tr>
<th>Financial Capital</th>
<th>Market Capitalisation: 17,488 crores as on 31st Mar 2017 Revenue: 8,348 crores EBITDA: 1,902 crores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Capital</td>
<td>Net Specific Emission CO₂: 526 kg / ton of cementitious product Specific Emission SO₂: 0.47 kg / ton of clinker Specific Emission NOₓ: 0.84 kg / ton of clinker Specific Emission Dust: 77.4 gms / ton of clinker Water Harvested: 6.2 million m³ GHG Intensity: Down 36.4% (w.r.t 1990)</td>
</tr>
<tr>
<td>Human Capital</td>
<td>Passion &amp; Happiness Quotient: 85% Cases of Child/Forced Labour: 0 Complaints of Sexual Harassment: 2 Cases of Discriminatory Employment: 3 Fatality: 0 LTIFR: 0.1</td>
</tr>
<tr>
<td>Intellectual Capital</td>
<td>Patents Filed: 3 New Products in Portfolio: 1 (Dalmia DSP)</td>
</tr>
<tr>
<td>Manufactured Capital</td>
<td>Capacity Installation: 4th largest Market Share: 11.2% Alternative Raw Material Used: 30%</td>
</tr>
<tr>
<td>Social &amp; Relationship Capital</td>
<td>CSR Beneficiaries: 6 lakh + SHGs Promoted: 580+ Brand Recommendation Score: 61% East, 47% South Consumer Grievances: 100% resolved</td>
</tr>
</tbody>
</table>
VALUE CREATION MODEL

**RAW MATERIAL PROCUREMENT**
Limestone, Fuel, Fly Ash, Slag, Gypsum, Packaging Bags & Spares

**MANUFACTURING, STORAGE, PACKAGING**

- Business Intelligence towards Process Optimisation
- Employee Engagement and Welfare
- Employee capacity building through professional training
- Minimising air emissions through adequate pollution control measures
- Utilisation of AFR
- Utilisation of low-grade limestone
- Reduction in GHG emissions through route optimisation techniques; increased spending on local suppliers thereby contributing to the local economy,
- Enhanced Convenience and Traceability through digitisation of processes and use of smart apps such as SM@RT-D for sales force to place and track orders; Suvidha for customers to place orders; Driversathi for tracking delivery and managing billing

**DISTRIBUTION TO CUSTOMERS**
Large Infrastructure Projects, Concrete Companies, Wholesalers & Retailers

Value Creation for Community
- Soil and Water Conservation
- Energy Conservation and Climate Change Mitigation
- Livelihood Skill Intervention
- Social Development
RISK MANAGEMENT

For the continuity and sustainability of any business, it is crucial for the organisation to have a risk management strategy in place. The Risk Management committee is responsible for identifying and addressing key risks that the Company may face. A strategic approach, as highlighted below, is followed in which risks are prioritized based on their impact and probability of materialisation and then a mitigation strategy is formulated. National as well as regional risks mitigation strategies are devised considering all types of risks and emerging concerns that could impact the Company over short, medium and long term.

RISK MANAGEMENT MODEL

CONTEXT MANIFESTATION
A review of Dalmia’s internal and external environment as well as assessing the business processes from a risk point of view.

DISCERNING RISKS
Risk areas pertaining to the different business aspects that threaten the Company’s chances at achieving its goals are identified. These risks are further classified into various categories relating them to the capitals.

ANALYSING RISKS
The probability of occurrence of risk is evaluated and the magnitude of its impact qualified. This involves identifying the sources as well as positive and negative impact of the risks which act as a guiding plan for drafting mitigating measures.

EVALUATING RISKS
Subsequent to identifying and analysing risks, there is a need to prioritise them and determine how each risk will be handled.

MANAGING RISK
Assessing how the risks have been handled in the past and if there are any new interventions required. In case of new risks and challenges, the way forward is formulated in order to handle the risks effectively.

MONITORING RISKS
Involves the continuous monitoring of risks including the identification of new risk areas while keeping a close eye on old ones and reporting the same to the higher decision bodies.
## EXPOSED RISK AND MITIGATION STRATEGIES

<table>
<thead>
<tr>
<th>DOMAIN</th>
<th>EXPOSED RISKS</th>
<th>MITIGATION STRATEGIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FINANCIAL CAPITAL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal</td>
<td>• Legal and Regulatory Compliance</td>
<td>• Policies in place to address such changes are reviewed periodically to align them with the present day scenario.</td>
</tr>
<tr>
<td>Volatility in markets</td>
<td>• Any volatility in currency market can impact performance and profitability.</td>
<td>• Hedging long-term and short-term foreign exchange exposure.</td>
</tr>
<tr>
<td></td>
<td>• Volatility in price of raw material and AFR.</td>
<td>• Long term contracts and bulk procurement of standardized resources in adjacent sites.</td>
</tr>
<tr>
<td>Credit and Collection Risk</td>
<td>• Unsecured sales on credit beyond security deposits.</td>
<td>• Minimize unsecured sales, through SAP enabled controls which restricts sales to overdue and beyond credit limits.</td>
</tr>
<tr>
<td><strong>NATURAL CAPITAL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air Emissions</td>
<td>• Stricter legal and regulatory norms leading to financial and operational risk.</td>
<td>• Reassessment of raw materials and increasing use of AFR.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Investment in new technology to reduce emissions.</td>
</tr>
<tr>
<td>Raw Material</td>
<td>• Stricter legal and regulatory norms leading to financial and operational risk.</td>
<td>• Research and development to recycle and reutilize waste and increase use of alternative raw materials.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Acquisition and exploration of virgin mining lease area.</td>
</tr>
<tr>
<td>Fuel Availability</td>
<td>• Continued availability of quality fuel within reasonable prices.</td>
<td>• Implement multi-fuel kiln and power plants to optimize fuel mix to experiment with new and alternative fuels.</td>
</tr>
<tr>
<td><strong>HUMAN CAPITAL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupational Health and Safety</td>
<td>• Fatalities and LTIFR in the Cement Plants and across value chain.</td>
<td>• Implementing regular training and awareness programs to ensure employee health and well-being.</td>
</tr>
<tr>
<td>Human Rights</td>
<td>• Implementation of Human Rights across the business value chain including third party contractors, suppliers and other vendors.</td>
<td>• Implementing regular awareness programs to align with universal labour norms.</td>
</tr>
<tr>
<td><strong>INTELLECTUAL CAPITAL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value added Products</td>
<td>• Sectorial companies transitioning to value added products.</td>
<td>• Strengthened R&amp;D and employee training to boost innovation at workplace.</td>
</tr>
<tr>
<td>Product Quality</td>
<td>• Product failure/quality issue.</td>
<td>• Extensive quality control and product assessments at our research centres.</td>
</tr>
</tbody>
</table>
## EXPOSED RISK AND MITIGATION STRATEGIES (Contd.)

<table>
<thead>
<tr>
<th>DOMAIN</th>
<th>EXPOSED RISKS</th>
<th>MITIGATION STRATEGIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SOCIAL &amp; RELATIONSHIP CAPITAL</strong></td>
<td></td>
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</tr>
<tr>
<td>Upstream and Downstream</td>
<td>• Environment and social risks across value chain.</td>
<td>• Regular assessments and screening of associated partners to ensure adherence to regulations and norms.</td>
</tr>
<tr>
<td></td>
<td>• Financial implication of dependence on selected suppliers/vendors.</td>
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<tr>
<td>Stakeholder Engagement</td>
<td>• Community grievance management.</td>
<td>• Facilitating community engagement programs and establish proper channels of communication.</td>
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<td></td>
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<tr>
<td><strong>MANUFACTURED CAPITAL</strong></td>
<td></td>
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</tr>
<tr>
<td>Allocation of Resources</td>
<td>• Rising competition in the market leading to reduced availability of resources.</td>
<td>• Ensuring full utilization of available resources and evaluating new sources for meeting business needs.</td>
</tr>
<tr>
<td>Biodiversity Management</td>
<td>• Land use affected due to establishment of business operations.</td>
<td>• Implementing biodiversity management plans at the respective sites.</td>
</tr>
</tbody>
</table>
Government Initiatives

• Increased allocation to infrastructure projects YoY in the Union Budget to drive demand.
• Initiative to build 100 smart cities.
• Metro rail projects already underway in most major cities.
• Projects like dedicated freight corridors and ports development under Government initiatives like Bharat Mala and Sagar Mala.

Rise in Population and Urbanisation

• Migration of people into cities has spurred rapid growth and development.
• Investments are made in affordable housing, upgraded highways, bridges, roads and other infrastructure.

Consolidation

• Industry may provide more opportunities for further consolidation of industry.

Dalmia’s Action

• Dalmia would benefit the maximum owing to higher operating leverage available.
• Dalmia, through mergers and acquisitions and brown field expansion, has expanded capacity to cater to the rising market.

• Offers building products that meet the benchmarks for both the construction activities as well as sustainable performance criteria.
• Provides affordable and sustainable housing.
• Higher utilisation of alternative raw material and waste from other industries.

• Extensive brown field project experience and capacity building exercises extrapolates the organisation’s capacity to cater to varying demands.

Driving growth through maximising opportunities.
CORPORATE GOVERNANCE

Effective governance structures and systems at all of our business verticals as well as at corporate level ensures continual process improvement in accordance with the Company’s long term vision.

We, at Dalmia Bharat, are committed to maintaining a high standard of Corporate Governance based on the principle of effective implementation of internal control measures, adherence to the law of land, transparency of the Board and accountability to all stakeholders. The Company is in compliance with the provisions of Corporate Governance mentioned in the Securities and Exchange Board of India (SEBI) Listing Obligation and Disclosure Requirements Regulations, 2015 and made disclosures of all information listed out in Schedule-V of the said regulations.
OUR BOARD

The Board is the apex collective body for the management of the Company and is vested with all decision making powers regarding management and administration of the Company. It is responsible for formulating the development strategy, achieving the corporate said goals, regularly reviewing the organizational structure, and monitoring the business activities and management performance so as to protect and enhance the interests of the Company, its shareholders and other stakeholders. Our board, at Dalmia Bharat, comes from diverse backgrounds and consists of lawyers, CAs and engineers. This diversification leads to effective decision making and better utilisation of talent pool as there are a wide range of perspectives due to diverse knowledge and experiences.

The Board currently (as on 31st March, 2017) comprises of nine members, including three Executive Directors and six Non-executive Directors out of which three are Independent Directors and one Women Director. Mr. Pradeep Kumar Khaitan, a Non-executive Independent Director is the Chairman of the Board. The Board meets on a regular basis to discuss and decide on the overall strategy, reviews the operational and financial performance of the group. The Board met six times in FY’16 and five times in the FY’17 with the maximum gap between any two meetings being less than 120 days.
MR. YADU HARI DALMIA | Managing Director
B.Com (Hon) degree
Fellow Member of the Institute of Chartered Accountants of India

Mr. Y.H. Dalmia, holds a B.Com (Hon) degree from Delhi University and is a Fellow Member of the Institute of Chartered Accountants of India. He was co-opted as a Director and Managing Director of the Company on 11.2.2011. He has more than 43 years of experience in the cement industry. Mr. Y.H. Dalmia has served as the President of the Cement Manufacturers Association and is a known figure in the cement industry.

MR. JAI HARI DALMIA | Managing Director
B.E. degree: Electrical Engineering
Master's degree: Electrical Engineering

Mr. J.H Dalmia, holds a B.E. degree in Electrical Engineering from Jadavpur University and a Master's degree in Electrical Engineering from the University of Illinois, Urbana Champagne. He was co-opted as Director of the Company on 11.2.2011 and elevated as Managing Director with effect from 1.4.2011. He has more than 44 years of experience cutting across various industries which includes wide knowledge and experience of refractory, sugar and cement businesses. Mr. J.H. Dalmia is deeply involved in research and development having personally received several patents.
Mr. Puneet Yadu Dalmia, holds a B.Tech degree from the Indian Institute of Technology, Delhi and is a gold medallist from the Indian Institute of Management, Bangalore, in Strategy and Marketing. He was co-opted as a Director of the Company on 11.2.2011. He has over 18 years of experience in the cement and sugar industries. He was co-opted as a Director of the Company on 11.2.2011. He provides leadership to the commercial functions for the group.

Mr. Jayesh Doshi is a Chartered Accountant and a Law graduate from Bombay University having a total work experience of around 30 years. He brings with him knowledge of Corporate and Structured Finance, Mergers and Acquisitions and Investments and his experience of having worked in divergent industries such as cement, shipping, offshore oil services, real estate, hospitality and pharma. He was co-opted as a Whole-time Director of the company on 30.3.2015.

Mr. Puneet Yadu Dalmia, holds a B.Tech degree from the Indian Institute of Technology, Delhi and is a gold medallist from the Indian Institute of Management, Bangalore, in Strategy and Marketing. He was co-opted as a Director of the Company on 11.2.2011. He has over 18 years of experience in the cement industry having started his career as the co-founder and Chairman of one of the most profitable e-recruitment websites in India, which was later acquired by Monster.com, a NASDAQ listed multinational company. Mr. Puneet Yadu Dalmia conceptualised the growth strategy and governance architecture of the Group to focus on its core businesses and is spearheading the growth plans for the Group.
Mr. V.S. Jain is a fellow member of the Institute of Chartered Accountants of India and the Institute of Cost and Works Accountant of India. He superannuated in July 2006 as Chairman of Steel Authority of India. Mr. V.S. Jain completed his assignment as a Member, Public Enterprises Selection Board (PSEB) in July 2011.

Mr. N. Gopalaswamy holds a B.Sc Degree in Chemistry from Madras University and a B.E. degree in Chemical Engineering from Annamalai University. He was co-opted as a Director of the company on 10.2.2006. He is a member of the Institute of Industrial Engineers, USA, the Indian Institution of Industrial Engineering, the Indian Institute of Chemical Engineering and the Institution of Engineers (India). Having held the position of President for 25 years, since 2007, he is a Council Member of the Tiruchirapalli Productivity Council. He has over 43 years of experience in the cement industry.

Mr. Pradeep Kumar Khaitan has over 48 years of experience in various industries. He was co-opted as a Director of the company on 11.2.2011. He holds an LL.B degree from the University of Calcutta. As a partner of Khaitan & Co., Solicitors and Advocates, he has extensive experience in legal and commercial matters.

Mrs. Sudha Pillai has a Masters' degree in Psychology from Punjab University and in Public Administration from the Kennedy School of Government, Harvard University. She is a retired bureaucrat who has served as Secretary, Kerala Finance Corporation; Under Secretary, Department of Supply, Government of India; Joint Secretary, Department of Company Affairs. She has made a special contribution id drafting the Companies Bill, 1993, liberalising the industrial licensing regime, processing historic amendment of the MRTP Act, formulation and implementation of the New Land Use Policy for Mizoram, 2009-2012 and the implementation of the Integrated Action Plan for the Naxal affected districts, 2010-2012, etc.

Remuneration of Directors
The Company has established a Nomination and Remuneration Committee comprising of the Board of Directors which is responsible for the remuneration payable to the Executive Directors and Non-executive Directors.
COMMITTEES OF THE BOARD
The eight Board-level Committees have been provided with sufficient resources to discharge their duties and all decisions pertaining to the constitution of committees, appointment of members and fixing of terms of service for committee members.

Audit Committee
The responsibilities of the Audit Committee are to assist the Board in performing its fiduciary duties relating to accounting, auditing, financial reporting, risk management and internal control of the Company and the Group's compliance with the relevant laws and regulations. All members of the Audit Committee have requisite accounting and financial management expertise. As on 31st March, 2017, the Audit Committee comprised of three members, Mr. Nagarajan Gopalaswamy, Mr. Virendra Singh Jain and Mr. Pradeep Kumar Khaitan, all being Independent Directors with Mr. Nagarajan Gopalaswamy acting as the Chairman of the Audit Committee.
The Audit Committee met five times during the FY'16 and five times during the FY'17.

Nomination and Remuneration Committee
The responsibilities of the Nomination and Remuneration Committee are twofold:
1. to assess the independence of the independent non-executive Directors, review the effectiveness of the Board diversification policy and its execution, assist the Board in dealing with the nomination of members and composition of the Board and to make recommendations on appointment and removal of Directors to the Board,
2. to make recommendations to the Board as to the overall remuneration policy and structure of all Directors and senior management of the Group, to review individual performance-based remuneration and to ensure no Director participates in the determination of his own remuneration.

As on 31st March, 2017, the Nomination and Remuneration Committee comprised of Mr. Nagarajan Gopalaswamy as its Chairman, Mr. Pradeep Kumar Khaitan and Mr. Virendra Singh Jain, Directors as its members. The Committee met thrice times during the FY’16 and thrice times during the FY’17.
**Stakeholders’ Relationship Committee**
While providing an opportunity for communication between the stakeholders and the Board, the terms of reference of this committee is to look into and redress the unresolved complaints received from investors, in coordination with the Company’s Registrars and Share Transfer Agent. As on 31st March 2017, the committee comprised of four members namely Mr. Virendra Sing Jain, Mr. Nagarajan Gopalaswamy, Mr. Yadu Hari Dalmia and Mr. Gautam Dalmia with Mr. Virendra Singh Jain acting as the chairman of the Committee. The Committee met three times during the FY’16 and four times during the FY’17.

**Corporate Social Responsibility Committee**
This committee has been constituted as per section 135 of the Companies Act, 2013. As on 31st March 2017, the Committee comprised of Mr. V.S. Jain as its Chairman, Mr. Y.H. Dalmia and Mr. Gautam Dalmia as its members. The CSR Committee has formulated and recommended to the Board, a Corporate Social Responsibility Policy, indicating the activities to be undertaken by the Company in compliance with the provisions of the Companies Act, 2013. The committee met twice during the FY’16 and twice during the FY’17.

**Risk Management Committee**
The purpose of this committee is to ensure effective operation of systems, manage the risk of failing to achieve business objectives and to make reasonable assurance for no material misstatement or loss. The terms of reference to this Committee is to develop and implement a Risk Management Policy for the Company, including identification of elements of risks, if any, which may threaten the existence of the Company. As on 31st March 2017, the Risk Management Committee comprised of Mr. Virendra Singh Jain as its Chairman, Mr. Nagarajan Gopalaswamy and Mr. Gautam Dalmia, as its members. The Committee met once during the FY’16 and three times during the FY’17.

**Investment Committee**
The Committee has been vested with the powers of making investments in securities quoted on the stock exchanges up to a total limit of 110 crore. The committee, formed in 2011, comprises Mr. J.H. Dalmia, Mr. Y.H. Dalmia, Mr. Gautam Dalmia, and Mr. Puneet Yadu Dalmia as its members.

**Finance Committee**
Delegated with the powers to avail of and secure borrowings made/ proposed to be made within the overall powers sanctioned by the shareholders, this committee was formed by the Board. The committee comprises of Mr. Y. H. Dalmia, Mr. Gautam Dalmia, and Mr. Jayesh Doshi as its members.

**Business Responsibility Committee**
As on March 31, 2017, the Business Responsibility Committee comprised of four members namely Mrs. Sudha Pillai as its Chairperson, Mr. V.S. Jain, Mr. N. Gopalaswamy and Mr. Jayesh Doshi. The committee has formulated the 'Business Responsibility Policy' and addresses stakeholder grievances in scope of the policy.
INTERNAL CONTROLS AND RISK MANAGEMENT

The management system not only caters to limiting accounting errors and improve internal processes but also includes other aspects of the business like the protection of resources, operational efficiency and effectiveness as well as compliance with laws, regulations and the policies of Dalmia Bharat.

Various business processes are categorized as Tier 1, 2, 3 and subsequently monitored at regular pre-determined intervals. The entire system is complemented by external auditing of selected functions such as the SAP – IT ERP system and IT general controls (ITGC).

The internal auditor of the Company conducts regular internal audits as per Board approved plan and the Audit Committee conducts periodic reviews to adjudge the adequacy and effectiveness of internal control systems and undertakes corrective measures whenever required. There are established Cause-Effect-Action (CEA) systems and escalation matrices to ensure that all critical aspects are addressed well in time. Further, the tracking systems ensure that the leadership has access to real time data and any discrepancies are closed/addressed as soon as possible.

Many of the EHS related standards recognized globally have been internalised in the business processes and practices. Performance related to such parameters are monitored on periodic-basis.

The roles and responsibilities of all talents and functions have been clearly laid out through a number of detailed standard operating procedure & delegation of authority document. The risks identified in the audits are immediately accounted for in the processes and often gets replicated in the Standard operating procedures.

Code of Conduct

The Code of Conduct forms the most important aspect of internal control and risk management and establishes the principles that all employees at Dalmia Bharat must respect in facing and overcoming ethical and legal challenges. Our Company has laid down and adopted a code of conduct for all the Board members as well as the employees at all levels. All the members of the Board and the senior management are required to affirm compliance with the code of conduct and the same had been done by them as of 31st March 2017. The Code of Conduct is available at the website of the Company www.dalmiabl.com. The Code along with the No Gift Policy provides clarity on Dalmia Bharat’s stand against corruption and bribery. The policy lists tenets on ethical business conduct and the framework for reporting concerns. The Group has set correct tone at the top and ensure that anti-corruption is on the agenda of senior executives.

Anti-Competitive Behaviour

We are a customer focussed organisation and believe in fair competitive practices in the marketplace. Even though we are part of an industry that is often alleged with anti-
competitive behaviour, it is our constant endeavour to conduct business in a fair manner, upholding the interest of the consumers. A reflection of this commitment is evident from the fact that no cases were filed towards unfair trade practices, irresponsible advertising and/or anti-competitive behaviour during the last five years.

**Internal Policies**

The Code of Conduct, Whistle Blower Policy and Vigil Mechanism, Related Party Transactions Policy, Code of Conduct for Insider Trading and Dalmia Way of Life serve as a roadmap for all talents of the Group and other stakeholders, wherever applicable. The Whistle Blower Policy set by Dalmia Bharat provides a platform to stakeholders for raising their voice about any breach of the Dalmia Bharat Code of Conduct or of Company’s Policy. In line with the requirements of The Sexual Harassment of Women at the Workplace (Prevention, Prohibition & Redressal) Act, 2013, an Anti-Sexual Harassment Policy has been put in place and an Internal Complaints Committee (ICC) has been set up to redress complaints received regarding sexual harassment. Our quality policy helps us maintain legal compliance, meet our customer’s expectations and develop our engagement with our stakeholders in supply chain. In addition, our CSR policy focusses on issues material to our business and stakeholders with the objective to make significant and sustainable improvement in the lives of beneficiaries. As part of ISO/OHSAS management systems, we have also implemented environmental and safety policies at unit level to ensure safe workplace for our talents and mitigate the environmental impact due to our operations.

**Ethics Helpline**

We have adequate control measures in place to address issues related to ethics, bribery and corruption. Dalmia Ethics Helpline is a third party managed service that serves as an avenue for the talents to 'Blow the Whistle' if they come across any unethical or fraudulent activity happening in the organisation. Each instance is treated in perfect confidentiality and redressal mechanism is quick.

**Anti-corruption**

We have set correct tone at the top and ensure that anti-corruption is on the agenda of senior executives. We have also set-up ethics helpline service to encourage our talents to report any illegal or unethical issues they might come across. We regularly review our existing communication and intervention programmes to help ensure that the desired corporate culture is achieved on the ground, especially in more remote and higher-risk locations. During the reporting period, there were no cases registered with regard to anti-corruption at our DBL units.

**Prevention of Insider-Trading**

In compliance with the SEBI regulations 2015 (Prohibition of insider trading), the Company has instituted a comprehensive code of conduct for its management and staff. The code lays down guidelines, which advises them on procedures to be followed and disclosures to be
made, while dealing with shares of Company, and cautioning them of the consequences of violations. All the Board of Directors, talents and connected people have to affirm compliance to the Code.

REGULATORY ENVIRONMENT AND COMPLIANCE

Dalmia Bharat has built and protected its reputation by being compliant and conducting business with integrity and in a fair manner. Being a responsible organisation we consider it our duty to be compliant with all applicable laws and regulations including those pertaining to environmental, labour, market communications, product liability, health & safety and competition law matters.

Cement, though essential for socioeconomic growth of mankind, unfortunately has an ecological footprint. While we have incorporated one of the best environmental standards, we feel it is our responsibility to go beyond mere compliance to law and mitigate the climate change risks. All our cement plants, mines, captive power plants and organisation as a whole are required to meet compliance parameters.

No penalties / strictures were imposed on the Company by the Stock Exchanges or SEBI or any statutory or regulatory authority on any matter during the reporting period. There were no significant orders passed by Regulators or Courts which would adversely impact the Company and its future operations. There were no incidences of significant fines levied or non-compliance with respect to the regulations concerning aspects related to environment, labour, health and safety impacts of products and services, marketing communications, and product information disclosure and labelling. All emissions and waste generated were within the limits defined by the Pollution Control Board.
FINANCIAL CAPITAL

Financial Capital indicates how a company procures finances to aid its day to day operations while generating profit for its stakeholders.
MANAGEMENT APPROACH

The primary purpose of an Integrated Report is to explain to providers of financial capital how an organization creates value over time. At DBL, we have adopted a holistic approach to lower our operating costs through improved capacity utilization, prudent fuel substitution and transitioning to greener alternatives. The backbone of our business has been our strategic investments in efficient and environmentally sustainable practices, forward and backward integration, as well as the flexibility that we have built into our operations. Our responsive business culture enables us to adapt to the prevailing market conditions, anticipate risks and invest in mitigation and adaptation initiatives. We see a remarkable growth in the near future on account of rising infrastructure projects and initiatives by the government and allied sectors. Our robust balance sheet with low financing costs and high EBITDA highlights the trust and confidence of our stakeholders. Our acquisitions in the eastern India have enabled us to enhance our market presence and enter new markets like Uttar Pradesh, Madhya Pradesh and Maharashtra.

During the FY’17 when the cement industry overall declined by 1% and cement companies reported incremental sales, our volumes went up by a whopping 20%. In the light of subdued realisations we have reduced our net debt-to-EBITDA from 3.8x to 2.8x. Our people have collaborated into multiple initiatives on process optimization and digitization leading us to one of the lowest cost of production in the industry. New additions to our bouquet of value added products like Dalmia DSP showcases our commitment to providing our customers with innovative and path breaking solutions. In the FY’17 Dalmia Bharat generated an EBITDA per ton of INR 1,258 and strengthened PAT by 81% to INR 345 crore.

We acquired shareholding of Kohlberg Kravis Roberts (KKR) in Dalmia Bharat Limited and brought KKR in as a shareholder in Dalmia (8.5%), making it the largest foreign institutional investor. The divestment of KKR from the cement operations and investment in the holding Company reinforced a sense of trust and partnership, enhancing structural clarity.
### Economic Value Generated

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<tr>
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<th>FY'15</th>
<th>FY'16</th>
<th>FY'17</th>
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<tbody>
<tr>
<td>6,178</td>
<td>CR</td>
<td>7,262</td>
<td>CR</td>
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<tr>
<td>8,348</td>
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### Manufacturing Costs (Proportion of Revenues)

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<tr>
<th></th>
<th>FY'15</th>
<th>FY'17</th>
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<tbody>
<tr>
<td>83%</td>
<td></td>
<td>74%</td>
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### Market Capitalisation

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<tr>
<th></th>
<th>FY'15</th>
<th>FY'16</th>
<th>FY'17</th>
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<tr>
<td>3,448</td>
<td>CR</td>
<td>7,096</td>
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<tr>
<td>17,488</td>
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### EBITDA / Tonne (INR)

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<th></th>
<th>FY'15</th>
<th>FY'16</th>
<th>FY'17</th>
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<td>861</td>
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<td>1265</td>
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<td>1258</td>
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### CSR Expenditure (FY'17)

- **37%**: Soil, Water & Energy Conservation
- **12%**: Education, Livelihood
- **51%**: Women’s Empowerment, Health, Sanitation, Rural Development
AVERAGE ACQUISITION COST: USD 91/T

- Calcom (NE): USD 138/T
- Adhunik (NE): USD 106/T
- Jaypee Bokaro: USD 89/T
- OCL (East): USD 74/T

REGIONAL MARKET SHARE

- South: FY'15 - 16%, FY'16 - 14%, FY'17 - 8%
- East: FY'15 - 11%, FY'16 - 14%, FY'17 - 14%
- North East: FY'15 - 7%, FY'16 - 7%, FY'17 - 20%

COST OF DEBT

- FY'15: 10%
- FY'16: 9.6%
- FY'17: 9.1%

NET DEBT EBITDA (number)

- FY'15: 6.8
- FY'16: 3.8
- FY'17: 2.8

POWER & FUEL COST (Per tonne of cement)

- FY'16: 649
- FY'17: 608
With a positive outlook on the future cement demand in the country we aspire to further expand our business footprint while maintaining leadership position.

FINANCIAL PERFORMANCE
With a positive outlook on the future cement demand in the country we aspire to further expand our business footprint while maintaining leadership position. The growth is expected to be funded by a combination of internal accruals as well as additional capital from the market. With new green field projects almost taking 24-26 months towards development, it’s the right time to add on to the existing capacity.

Government interventions in the form of GST and demonetization is expected to cascade into higher public spending in the form of various infrastructural projects as the smart city, industrial corridors etc. Apart from the economic growth, falling interest rate regime and correction in real estate prices, is a positive indication hinting growth in the cement industry. The implementation of GST has streamlined the logistics and have reduced the turnaround time for the business. Export to nearby countries (Sri Lanka, Nepal, Bhutan and Maldives) is yet another opportunity but currently presents a challenge in the form of inverted duty structure.

Restructuring of the corporate entity as one cement business entity is set to make management of taxes easier through writing off losses, and accounting of intangibles good will and technical know-how. The assimilation of all cement businesses into one corporate entity has a series of benefits in the form of concessional agreements towards purchase of raw material, fuel and intangible assets. Effective knowledge sharing among different sites, facilitated by the corporate head office has created multiple pockets of cost optimization.

The finance team at Dalmia Bharat looks into the various functions such as investor relations, fund raising (debt & equity), leveraging additional funds, tax planning, day to day accounting, cash flow management, new product development and mergers and acquisition. New project development and associated resource allocation is often inspired by cost reduction, productivity enhancement and compliance management. Social and environmental parameters are blended into the business decision making as it translates directly into sustainable business growth. Switch to alternative fuels has not only optimized the fuel costs for the Company but also served as a solution towards waste management for other supplementary industries.
### Financial Highlights

- Gross revenue increased 15% from INR 7,262 crore (FY'16) to INR 8,348 crore (FY'17)
- EBITDA increased 19.5% from INR 1,592 crore (FY'16) to INR 1,902 crore (FY'17)
- Sales volume increased by 20%
- Cash profit of INR 1,311 crore (20% higher than FY'16)
- Cash and cash equivalents worth INR 2,816 crore (31 Mar'17) is 1% higher than FY'16
- During FY'17, Dalmia Bharat repaid INR 722 crore of gross debt (higher than the scheduled repayments)
- Interest cover strengthened from 1.7x to 1.8x in FY'17
- Financing cost and depreciation increased due to commissioning of new units at Belgaum and Umrangshu
- Net worth of the Company increased by 9% from INR 5,115 crore (FY'16) to INR 5,578 crore (FY'17)

### Objectives

- Achieving the highest EBITDA /ton of cement in the territories we operate
- Deleveraging (Net Debt/EBITDA Ratio)
- Leaner, efficient organization
- Unlocking the value of cash in ‘working capital’ and leveraging the incentives from the Government of India.
- Regular benchmarking with the peer group to improvise on the financial parameters

In our bid to serve our customers at the most cost effective price we have plans to expand our business footprint in the states of Andhra Pradesh, Telangana, Bhopal, Chhattisgarh and Rajasthan.

**POTENTIAL BROWNFIELD EXPANSION IN ANDHRA PRADESH, TELEGANA, ODISHA AND ASSAM.**

**POTENTIAL GREENFIELD EXPANSION IN RAJASTHAN, TELENGANA, MADHYA PRADESH AND CHHATTISGARH.**

Our talent group regularly engages in brainstorming meets to address the challenges faced in day-to-day operations:

1. **Optimization of fuel procurement and usage**

The main fuel currently being used in our cement plant and CPP is Coke, the price of which is highly volatile and often indexed. In our bid to bring down the overall cost of fuel procurement we have been exploring new avenues towards fuel sourcing. We recently explored liquid pet coke from US markets which on one hand is difficult to assimilate in the existing process but on the other hand is more cost effective (approximately 10%
cheaper). We have also explored sourcing from Indian Oil Corporation at Paradip and from Saudi Arabia.

Optimizing our fuel mix has led to increase in the use of pet coke from 39% to 76% in the span of few years which in turn has moderated organization's power and fuel cost. However we have also been exploring multiple sources as well as forms (fluid pet coke and domestic pet coke) in fuel procurement to mitigate any risk that may rise out of our reliance on a particular fuel type.

2. Diversifying resource dependence
Slag waste generated from the steel industry serves as an input for our cement plants. Lately the reduced performance of the steel industry has led to a rise in the price of slag and have also affected its availability. Our high dependence on slag has been to some extent compensated through the manufacturing of composite cements utilizing a combination of fly ash and slag.

3. FOREX and interest rate management
To manage the forex and interest rate risks we have been exploring the option for recalibrated open contracts that enable us to hedge the costs. The organization has mobilized most of its debt in the rupee currency and hedged most of its foreign currency borrowings. This has enabled the Company to remain foreign exchange-neutral and completely protect from currency swings largely outside the Company's control.

4. Litigation
We have been strengthening our contract management to mitigate financial risks arising out of foreign arbitration and litigation related to fuel and raw material procurement or related to joint venture or partnerships. We have always attempted to resolve the issues in an amicable way without affecting our day to day business operations. Our proactive addressing of the direct and indirect litigations have brought down the contingent liabilities in the last year and has also led to considerable tax refunds through accruals.

The legal department serves as a business horizontal and aids financial risk management through a series of services on litigation, compliance, licenses, approvals, policy management, documentation and day to day advisory. The legal framework is incrementally revised to address the dynamism of the market in the form of evolving legal fabric and landmark judgements that serve as precedents. Awareness programs on necessary check and balances in various facet of operations eases day to day administration.
Talents are trained on specific aspects of the legal framework like competition laws, insider trading etc. through workshops, circulars and department meets. These interventions form an essential part of the key responsibility areas for talents. The functional teams are encouraged to seek advisory from the legal team in all relevant matters of business activity.

To strengthen the system, legal team has brought about standardization of documents and process formalization across the organization when dealing with global contracts and cross border transactions.

Neither the Company nor its material subsidiaries have received any show cause/ legal notices from Central or State Pollution Control Board. The Company has not been subjected to any significant fines or non-monetary sanctions for non-compliance with laws and/or regulations in the social and economic area.

“With a positive outlook on the future cement demand in the country we aspire to further expand our business footprint while maintaining leadership position.”
NATURAL CAPITAL

Natural capital comprises of all renewable and non-renewable environmental resources that feed into the organization's production system such as air, water, land, minerals and forests, biodiversity and eco-system health.
Dalmia Bharat invests and innovates in order to create value in a profitable, environment friendly and sustainable manner.

MANAGEMENT APPROACH
Our products contribute in the development of sustainable cities and we ensure that all our actions are responsible with minimum impact on the environment. By joining initiatives such as the RE100, EP100 and Carbon Pricing Leadership Coalition (CPLC), we strengthen our commitment to a cleaner world. We have strengthened our environmental commitment and aim to reduce our carbon footprint to the level that it is among the lowest in the global cement industry. While moving from green to greener inputs, we have attained group level water positivity and are also thriving to attain water positivity at individual plant level.

As a core industry manufacturer, there are certain risks that our operations experience pertaining to the natural capital. Our approach is to anticipate such risks, prepare the mitigation policies keeping in mind the long term vision and attain success and prosperity through sustainable value creation. Keeping inclusive growth in mind, we acknowledge the fact that only environmental preservation can lead to a cleaner world. Over the years, the Company’s manufacturing units have reconciled diverse initiatives: best practices in resource and energy efficiency through alternative raw material and fuel use, adoption of low carbon technologies, water conservation and taking rain water harvesting measures in plants and beyond plant premises.

We understand that sustainability starts at the Board level and then rolls down into the entire organisation. Our commitment towards responsible growth is embedded in each and every talent of the Company. We work with all our stakeholders throughout the supply chain to minimize our environmental impact.
The figures given above are for the FY'17.
RESPONSIBLE UTILISATION

Energy Efficiency

Using energy efficiently leads to declining power consumption ultimately reducing input costs. Some of our newly commissioned plants are one of the best performers in energy efficiency. Adoption of the EP100 programme showcases our commitment towards achieving energy efficiency and gaining higher economic output per unit of energy consumed. Our Energy productivity has increased over the last decade. Almost 65% of our electric energy requirements were met by our captive power plants. A collective effort of instilling best practices in the culture of the organisation has helped us in reducing the consumption of electricity throughout our locations. Also, we replaced old kiln burners with new energy efficient kiln burners in cement kilns to reduce thermal energy consumption.

With the implementation of the Perform Achieve Trade (PAT) scheme, we are even more encouraged to make our operations more energy efficient. We met our PAT targets in the first PAT cycle and we achieved energy efficiency enhancement targets in the range of 4.5 to 6.5%. The PAT mechanism is an implicit mechanism which supports a low carbon growth through reduction in energy intensity per unit of output.

Specific Power Consumption, in KWh/ ton cementitious product

<table>
<thead>
<tr>
<th>FY’14</th>
<th>FY’15</th>
<th>FY’16</th>
<th>FY’17</th>
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<tr>
<td>74.1</td>
<td>75.6</td>
<td>73.2</td>
<td>71.8</td>
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EP 100 DOUBLING ENERGY PRODUCTIVITY

The concept of Energy Productivity (EP) is different from that of Energy Efficiency (EE) as EE only covers the efficiency of the energy consuming equipment or system while EP captures the total value delivered from the energy employed. EP100 is another ambitious campaign that aims doubling the Energy Productivity by 2030. Dalmia Cement (Bharat) Limited, being first company from cement sector, became signatory to EP100 and voluntarily committed to doubling the energy productivity by 2030.
We aim to make a long term transition to 100% renewable power, achieving a four-fold increase in the percentage of renewable energy in our electricity consumption by 2030 as compared to 2015.

Clinker factor improvement in cement
Clinker being a key energy and carbon intensive material, is the main source of the CO₂ emissions in cement manufacturing process. Reducing the clinker factor in cement is top enabler for the overall carbon footprint reduction from cement. Hence our efforts are in place, through engagement of internal and external knowledge pool, to increase the blended cement in our product mix along with incremental addition of blending materials per ton of cement. Today, our clinker factor is one of the best across the world. Considering the outcome of this process, as compared to the roadmap target for 2050 (which is 0.58 Clinker Factor), in our reporting year FY’17, we achieved a clinker factor of 0.61.

Dalmia Cement (Bharat) Ltd. became the first cement company to join RE100 – a global collaborative initiative involving commitment to 100% renewable power, led by The Climate Group in partnership with CDP. We aim to make a long term transition to 100% renewable power, achieving a fourfold increase in the percentage of renewable energy in our electricity consumption by 2030 as compared to 2015. Under the initiative, we have identified 34.3 MW green power generation potential in our integrated cement plants. A 9.2 MW green power project is commissioned and two more projects have been approved. In a significant thrust to renewable electricity generation, Dalmia Bharat has commissioned 8 MW captive solar PV projects at its eastern India operations.
ALTERNATIVE FUELS AND RAW MATERIALS

Our operations not only focus on minimising waste from our plants but also invests in utilizing waste from other industries. Slag, a waste produced by steel plants and fly ash, a waste produced by coal based power plants are utilized in producing blended cement and act as cost-effective additives and reduce the burden on limestone thus enhancing the life of our mines. While considering mineral components consumed to produce cement, our alternative raw material consumption rate is approximately 30% in FY’17.

We have moderated the consumption of finite fossil fuels by substituting them with alternative fuels spawning from industrial wastes such as RDF, plastic waste, resin, footwear waste, mixed solid hazardous waste, tyre industry waste etc. Our alternative fuel consumption rate is about 4% for FY’17. Our strategy remains to engage with policy makers on creating enabling environment for increasing the alternative fuel utilisation in the country.

WATER

Water requirements for process, domestic and other use at Dalmia Bharat are fed by a variety of sources including surface water, underground water, municipal networks, and rain water and recycled water. Our commitment towards protecting our water bodies is evident from initiatives taken within manufactured capital and under social responsibility in our CSR initiatives such as rainwater harvesting, watershed management, drip irrigation, construction of village ponds etc. (more information on CSR initiatives can be found in the ‘Social and Relationship Capital’).

We have taken many technological interventions to minimise water consumption which include installation of air cooled condensers in the captive power plants, automated float valve, provisions to avoid water overflow from tanks and air cooling instead of water cooling of gas. Our aim is to keep maintaining zero water discharge systems at all our cement plants and to reuse the treated water in cement mills, coal mill water sprays, green belt development and dust suppression activities in mines and internal roads. We have developed roof top Water Harvesting structures in our plants. In addition, we have created Enviro-Parks with rainwater harvesting ponds leading to enhanced aesthetic beauty as well as conservation of water near various plants. Water bodies in these Enviro-Parks also serve as drinking water source for many native and migratory birds throughout the year including extreme summers.
Dalmia Bharat: A Water Positive Company

As a step towards attaining water-positivity, we embarked on the mission to moderate the water consumption at all our plants and accelerated development of rain water harvesting structures. We achieved water positive status at group level in FY’17. The rain water harvested in our plants, mines and through community initiatives is more than the annual water consumption at our cement plants, captive power plants and domestic water consumption in our colonies, thus leading to water positivity.

Our next step is to make each plant a water positive operation and make significant quantities of water available to the local communities by creating more rain water harvesting structures thereby reducing futuristic water availability risks for business and local communities. Currently, we have been able to make eight of our cement plants a water positive operation. Our CSR function has various ongoing water conservation projects that have helped the local communities combat water scarcity by developing a cumulative water harvesting capacity of ~35 lakh m³ by the end of FY’17. Additionally, our rain water harvesting capacity developed in plants and mines have aggregate potential of 2.7 million m³.
**CO₂ AND CLIMATE PROTECTION**

The cement operations of Dalmia Bharat have emerged as one of the global benchmarks for lowest carbon footprint with the group carbon footprint of 526 kg CO₂/ton of cementitious product in FY'17 and about 493 kg CO₂/ton of cementitious material for FY'16. In the reporting year, our eastern operations achieved one of the lowest carbon footprint amongst all our plants.

These achievements have been possible as a result of investments in energy efficiency initiatives, replacement of fossil fuels with alternative fuels and clinker substitution with use of fly ash/slag as blending materials. Currently, we are capturing and monitoring emissions data of all our cement plants, captive power plants and mines under Scope-1 and Scope-2 emissions, GHG emissions associated with purchased clinker are counted under indirect emissions based on Cement CO₂ and Energy Protocol of Cement Sustainability Initiative. We are also estimating the CO₂ emissions for 9 categories of Scope 3 and reporting them annually to CDP. The Scope 3 CO₂e emissions reported for 9 categories for Dalmia Bharat are 1.1 MnT for FY'17.

**ONE OF THE LOWEST CO₂ FOOTPRINT**

At Dalmia Bharat, the overall carbon footprint of the group for FY'17 (scope 1) was 526 kg CO₂/ton of cementitious product. Carbon footprint of the blended cements produced at our eastern operations was just 342 kg CO₂/ton of cementitious product in FY’17. Considering the scale of production, such low carbon intensity cement positions us as one of the lowest carbon footprint cement producer globally.

**LOW CARBON TECHNOLOGY ROADMAP - CSI**

Under this roadmap, we have defined short, medium and long term targets to reduce carbon emissions. Our long term ambition is to reduce the carbon intensity of cement to 45% in 2050 as compared to the 2010 levels. Compared to the baseline year 1990, we have reduced our carbon footprint by 36.4%.
**Air Emissions**

Key air emissions from a cement plant include particulate matter (dust), SO₂ and NOx. All our plants are equipped with Continuous Emission Monitoring System (CEMS) in all process stacks. These CEMS provide real-time emission status. Other than CEMS, we have also installed Ambient Air Quality Monitoring System (AAQMS) in our plant premises. We are using latest technology to control NOx emissions. Optimisation of pyro-processing, control of burning zone temperature, homogenisation of raw material and fuel mix and using low NOx calciner are among them. SOx emissions, to a very large extent, get absorbed in the material during the pyro-processing. To reduce the particulate matter (dust), we have covered the conveyer belts at all the plants and closed sheds for limestone stacking and other raw material storage; in addition, we use pollutant emission controls such as Electrostatic Precipitators (ESP) and bag filters to contain the dust emissions. Measures to control fugitive dust include use of silos for raw and finished products, concrete haul roads, sweeping machines and crushed ramp with tyre washer and cattle trap to avoid fugitive emissions. Regular ambient air quality monitoring is done at the plants as per National Ambient Air Quality Standards (NAAQMS) through external accredited labs.

**BUSINESS AND BIODIVERSITY**

*As a responsible Group, it is our endeavour to develop, implement and disseminate good practices leading to conservation of biodiversity and protection of natural capital.*

As a step towards driving environmental conservation, we plant indigenous species as recommended by the forest department. Identification process of protected areas near our locations revealed that none of our current operations are located near areas of high biodiversity value.

In order to increase the native plantation and biodiversity, Dalmia Bharat regularly undertakes plantation activities in and around plants. We have changed the old concept of ‘Garden in Cement Plant’ to ‘Cement Plant in a Garden’. Plantation carried out in and around our plants adds to carbon sinks (tree plantations) and helps in protecting local flora and fauna.
INNOVATION FROM SCRAP STEEL
We have various best out-of-waste activities going on in our plant premises wherein we encourage our talents to find innovative ways to use scrap. Some of these initiatives include using scrap for building structures of aesthetic appearance such as water fountains etc.

ENVIRONMENTAL STEWARDSHIP
*We believe that Clean and Green is Profitable and Sustainable.*

Our progress on this philosophy makes us more competitive. Hence, we have subscribed to various voluntary measures beyond compliance to ensure that all our plants are not only compliant with the existing government norms but also evolve to meet the futuristic regulations. Our plants follow Plan-Do-Check-Act cycle of Management System Certification for quality, environment, energy and occupational health and safety.

Understanding our accountability as a responsible corporate citizen, we are associated with a multitude of forums representing Indian business and cement sector. Our commitment towards environment protection is enshrined in our association with various international organisations that helps in peer-to-peer information exchange and benchmarking the performance with universally accepted indicators.

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**EP 100**

EP100 is a global campaign that encourages the worlds most influential businesses to pledge to double their energy productivity, in order to maximize the economic benefits from every unit of energy they consume.

*Dalmia is the first Indian cement company to join the initiative, taking a bold commitment to double energy productivity by 2030.*

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**United Nations Global Compact**

The worlds largest corporate sustainability initiative. A call to companies to align strategies and operations with universal principles on human rights, labour, environment and anti-corruption, and take actions that advance societal goals.

*Dalmia Cement is a participant to UN Global Compact and a leading industry voice in High level meeting organized by UN Global Compact.*

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**LCTPi**

With a solid framework and clear agenda, LCTPi is a unique, action-oriented programme that brings together companies and partners to accelerate the development of low-carbon technology solutions to stay below the 2°C ceiling.

*We added 8 MW Solar PV capacity to our existing renewable energy portfolio. We commissioned a 9.2 MW Waste Heat Recovery project. We are banking on Low Carbon Technology Partnerships initiative (LCTPi) in a big way to ensure that we remain one of the lowest carbon footprint cement producer and sustainability champion in the global cement world.*

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SUSTAINABLE VALUE CREATION: INTEGRATED REPORT FY 2015 -17
Caring for Climate was launched by UN Secretary-General Ban Ki-moon in July 2007. The initiative is jointly convened by the United Nations Global Compact, the secretariat of the United Nations Framework Convention on Climate Change (UNFCCC) and the United Nations Environment Programme (UNEP).

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Dalmia Bharat is among the few cement companies globally to join the Caring for Climate Initiative of the United Nations.

By signing this pledge companies commit to: implementing Access to Safe Water, Sanitation and Hygiene at the workplace at an appropriate level of standard for all talents in all premises under their control within three years after signature.

Dalmia Bharat extended the WASH Pledge provisions not only for our talents but also for the local communities.

CDP is the only global disclosure system for companies, cities, states and regions to manage their environmental impacts and for investors or purchasers to access environmental information for use in financial decisions.

*Dalmia Bharat has been recognized in the CDP India report as being a leader in furthering accountability and transparency on climate change issues in the Indian industry.*

This business-led initiative serves as a national platform for business, to promote sharing and learning, and will ultimately lead to mainstreaming sustainable management of biological diversity by business.

*Being an IBBI member company, various initiatives are taken to help in biodiversity conservation:*  
- Eco-friendly mining practices  
- Creation of water bodies in plants and mines  
- Native tree plantations  
- Taking up 8500 Ha. watershed development programme through CSR.

The Cement Sustainability Initiative (CSI) is a global effort by 25 major cement producers with operations in more than 100 countries who believe that there is a strong business case for the pursuit of sustainable development.

*Dalmia Bharat is one of the Lowest Carbon Footprint cement producers amongst the CSI member companies and the global cement industry.*

TERI CBS is a guide to India corporate diaspora encouraging businesses to develop a vision of a sustainable company, translate that vision into a management action plan and turn sustainability into a management action plan and turning sustainability into business advantage.

*Dalmia Bharat represents Energy, Water, Sustainability Reporting and Sustainable Habitat in TERI CBS.*
We have to get to the point where each individual, each corporation, each community chooses low carbon, because it makes fundamental sense. It should become a no-brainer.

Christiana Figueres
Former Executive Secretary of the United Nations Framework Convention on Climate Change
HUMAN CAPITAL

Human Capital at Dalmia Bharat is all about 'Relationships'. Relationships that help unleash the potential of everyone we touch. A capital built on a strong foundation of rich Indian culture and strong timeless family values.
Integrity, Trust & Respect, Humility and Commitment are the basic guidelines and our timeless values that define our approach towards managing our human capital.

**MANAGEMENT APPROACH**

Building a strong and 'Sustainable' business foundation so that the organization sits firm is our top priority. It is closely followed by a sharp strategy on 'Growth' for tomorrow. These are the two pillars of HR strategy at Dalmia. We acquire the best fit for a specific role and nurture them till they blossom into their true potential. Our acquisitions happen keeping in mind the roles that the candidates can fulfil, not only in the present but in the future as well. We believe that our talent help us flourish as an organisation and thus we engage with them in an open dialogue. All our talent work in line with our values and core purpose and we strive to provide them the best professional experience possible. Providing a healthy and safe working environment to our talents is our top priority.

With a Human Capital base of 11,343 (including contractual), our constant endeavour is to offer programs, benefits and a work environment that attracts and retains them by choice and not through any incentive program. In order to help them achieve their goals, we acquire the right talent for the said role and empower them to explore their talent without the fear of failure. It is their passion that drives our results and not dictated KRAs or targets.

Promoting a safe and ethical workplace, we build and develop the capabilities of our Human Capital in order to deliver excellence. By facilitating our talents in meeting their own career development expectations, we not only prepare them for key roles and challenges but also improve their commitment towards our organisation.

Integrity, Trust & Respect, Humility and Commitment are the basic guidelines and our timeless values that define our approach towards managing our human capital and are reflected in our behaviour and relationships built with people, both internally and externally. We foster a dynamic and high-performing environment in which open dialogue forms the basis of communication. It is important for us to hear our talents' needs and expectations and make them feel engaged and understood.

In line with the above vision, we identify, assess and manage our talent and their issues within operations amicably. We are constantly working towards increasing the pride of our talent to ensure a long lasting working relationship.
Innovations in technology reduce human involvement thus leading to fewer accidents.

SAFETY

Every action and decision taken at Dalmia Bharat is guided by our commitment of providing a safe and healthy work environment. Our constant endeavour is to create a workplace with no harm and where safety is considered a collective responsibility. We are constantly working towards our target of zero injuries and maintain accountability for health and safety practices.

A safety committee headed by our senior management personnel reviews the safety plans action points every month in the review meeting. To ensure equal representation from everyone, a formal joint manager-worker health and safety committee operates at each unit level. Monthly meetings are held to review sustainability and health and safety performance with are attended by all the plant heads, sustainability as well as safety head. The same is communicated to the higher executives on a quarterly basis. With a define roadmap leading us to safety, we intend to replicate our best practices such as line manager responsibility for safety, driver and contractor safety initiatives along with implementation of DuPont Model in all our plants.

We continuously work towards identifying and mitigating risks and determine the root cause of all accidents in order to prevent them in future. Continuous monitoring and reporting of all accidents is done through our Incident Management System which also maintains the count of the incidents investigated, statistics maintained, compared and the improvement projects taken up thereafter.

An important step towards ensuring safety is to ensure that our talents have the correct knowledge, skills and experience to perform their jobs safely at both our production plants as well as the corporate office. We encourage our talents to take initiative and warn their colleagues and plant personnel in case of any potential risks and hazardous situations. Everyone is responsible for the safety of others and our workmen as well as site supervisors are trained to ensure the same. Not being confined to our internal talent, our health and safety values are extended to our business partners and vendors including contractors as well.
Health and safety is considered through the entire value chain, starting from raw material extraction to production to delivery of the end product. We abide by all applicable legislations and safety standards and are proud to have achieved a strong health and safety culture and continue to promote the same.

ROAD SAFETY
In order to ensure road safety, we conduct awareness camps for truck drivers on safety practices in vernacular languages. They are also imparted interventions through the behavioural change program to ensure that they follow best practices on road safety and minimize risk-taking behaviour for optimal transport operations. We assess our drivers based on the CSI Road Safety Checklist, a comprehensive checklist of 31 indicators, which not only covers screening of vehicles based on efficiency, but also assesses driver's understanding on defensive driving, knowledge of road safety and speed limits.
QUALITY OF LIFE AT DALMIA BHARAT

The best output at the workplace can be achieved only if our talent is provided with an opportunity to lead a happy, healthy and fulfilling life with competitive compensation and other benefits. Our contribution to provident fund, pension fund, superannuation fund and ESI ensure happiness of our talents. 100% of our workforce is covered under health & life insurance benefits; workmen are covered under Workers’ Compensation (WC) Policy. We communicate and raise awareness among talents regarding the benefits and opportunities available to them.

At present, there are two defined benefit plans for our talents, viz., gratuity and provident fund contribution by Dalmia Cement Provident Fund Trust. The costs of providing benefits under these plans are determined on the basis of actuarial valuation at each year-end. Separate actuarial valuation is carried out for each plan using the projected unit credit method. Actuarial gains and losses for both defined benefit plans are recognized in full in the period in which they occur in the statement of profit and loss. As per our Company policies, the benefits offered to contractual talents are different from those offered to our permanent talents. However, the benefits provided to contractual talents are competitive with local market standards.

Female talents are eligible to avail 6 months of maternity leave, whereas male talents are offered five days paternal leave. Leave encashment including compensated absences are provided for based on actuarial valuation at the year end.

To ensure talent health and promote over all prosperity, we have installed Occupational Health Centres (OHC) that offer health services through regular health check-up camps supervised by our doctors and other external specialists. Health awareness programs are held for executives, contract workers as well as their family members and health tips are communicated via newsletters and posters at the plant locations. Regular wellness activities such as
Yoga programs are undertaken and periodic inspections of hygiene are done. We make sure that high-risk areas in operations are identified and the workforce involved in the same undergoes necessary check-ups and treatment.

We took an initiative to make the plant blossom with colours by painting the silos and old conveyor belts making the plant aesthetically pleasing.

**HUMAN RELATIONS GUIDELINES AND MANAGEMENT**

Human resources management involves an efficient and cyclic process with demarcated benefits and outcomes for the quality input provided by the talents. Through our performance review process, we assist our talents and their superior in defining set goals for themselves and aligning the same with the Company's objectives and core values. Additionally, this helps in identifying gap areas that can be perceived as opportunities of improvement thus ensuring talent development and value addition to the organisation.

**Communication with Talents**

Effective communication with the talents is an integral part of any organisation and it is ensured at Dalmia Bharat that talent communication takes place through proper channels. A talent communication forum is in place in which all senior leaders including the Managing Director interact with the talents on various matters. Also, there are various vital award schemes for exceptional performing teams. Regular surveys are conducted by international agencies to assess the working environment and comfort level of the talents and a 360 degree reflect-program is in place encouraging subordinates to express views about the reporting managers.

A minimum notice period of 21 days is typically provided to talents prior to implementation of any significant operational change that could affect them substantially.

**Digitization**

The new digital life (and workplace) is forcing us to rethink HR from top to bottom: how we design programs, the tools we use, and how we roll out and communicate solutions. We have taken
the next steps and evaluated each and every process and replaced all papers transactions with digital transactions. We take pride in stating that today Human Relations Department is a “No paper” department. Starting from talent acquisition to the exit formalities, the entire talent life cycle is run digitally with everything on a paperless mode. Digitization has now moved from transacting digitally via apps on mobiles as well for us in Dalmia Bharat.

RESPECTING HUMAN RIGHTS

At Dalmia Bharat, we respect Human Beings first and thus promote human rights of all our stakeholders within and beyond the boundaries of our business operations.

We believe that respectful and productive business dealings can only be achieved through strong organizational values. The Company avoids complicity with human rights abuse by third parties as well. We are committed to ensuring that the all are treated with dignity and respect.

The Human Relations and the Legal & Compliance department, in collaboration with other functions, ensures that the human rights are upheld and reinforced from time to time at the operational level. We work proactively with our suppliers and other stakeholders within the value chain to ensure that they are aware of and respect the rights of the individuals and communities that we operate in.

We neither engage in nor support forced labour and it is ensured that all talents work voluntarily. The terms and conditions relating to the engagement are communicated prior to acquisition. As an act to reinforce our commitment towards human rights at the operational level, regular inspections are held at the plant level to ensure non engagement of child labour. To ensure the same, contractual talents are screened and suppliers are encouraged to practice non tolerance towards child labour. During the reporting period, there were no cases of child labour or forced labour. However, during FY’17 there were 2 complaints related to sexual harassment as against zero cases of sexual harassment in FY’16.
PROMOTING TALENT DEVELOPMENT

At Dalmia Bharat, we believe in fostering Leadership, Learning & Change within the talent and thus within the organization. We identify, at each level, the skills required to move to another critical role, and then the same is imparted. Our human capital provides us with a competitive advantage and hence we strive to acquire the best and further nurture them to grow successfully. While transforming and expanding, we develop the potential of our human capital in order to provide for our leadership responsibilities and equip our talents with the tools to succeed in a challenging environment. Through learning and development opportunities, we teach our talents new skills, enhance their expertise and inspire them to excel.

KNOWLEDGE SHARING

As an initiative to enhance the knowledge and capabilities of our talents at the plant level, workshops are conducted in association with the CSI thus promoting cross learning and knowledge exchange.

INTERVENTION HOURS

(Per talent)

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<tr>
<th>PERMANENT TALENT</th>
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<td>9</td>
<td>16</td>
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CAPACITY BUILDING

- **GAP ANALYSIS**
  - PMS
  - Self-assessment
  - Manager Input
  - HOD Input
  - Development Center Assessment Center Inputs
  - Skill Mapping

- **TRAINING CALENDAR**
  - Technical
  - Behavioural
  - Safety
  - Health
  - Environment

- **FACULTY**
  - Trainers
  - Facilitators
  - Coaches
  - Internal
  - External

- **ASSESSMENT TOOLS**
  - Pre-Test
  - Post-Test
  - Training Effectiveness

- **FEEDBACK**
  - Feedback to Individuals
  - Suggestion area for Development

While transforming and expanding, we develop the potential of our human capital in order to provide for our leadership responsibilities and equip our talents with the tools to succeed in a challenging environment.
Our Leadership Learning & Change Institute, NALANDA, is an independent Institute and is headed by a Dean. It is charged with the role of creating new leaders, bringing new learning and acting as change agent in the organization. The Dalmia Technical Institute (DTI) – an arm of Nalanda, is responsible for identifying knowledge gap areas through tools like Performance Management System, 360 Degree Reflect and Individual Development Planning; and then formulating customized intervention programs to ensure career progression.

One such initiative is 'Lakshya' which ensures that high potential talents are duly recognized and nurtured for higher roles. A productive combination of technical, behavioural and leadership interventions are provided to the talents. We conduct bi-monthly sessions for two hours on various topics such as safety, management systems, certifications, total preventive maintenance, values & ethics etc. During the FY’17, safety and skill upgradation intervention was imparted by the Company to around 30% of the permanent talents and around 60% of the casual/temporary/contractual talents. Furthermore, around 13% of the permanent women talents and 100% of the talents with disabilities were groomed under the safety and skill upgradation programme of the Company.
LAKSHYA
Advanced Leadership Program for Star Performers
This exciting journey to become high impact leaders was launched in 2014 and is a 15-month long intensive leadership journey wherein star performers, handpicked from across the group through due processes, go through a rigorous training program facilitated by renowned external agencies and Nalanda (the Dalmia School of Leadership, Learning and Change). This program acts as a ‘finishing school' for our top performers and creates a pipeline of top notch leaders who fill our slots in our CTB (critical to business) succession plan.

Dalmia Technical Training Institute (DTI)
The goal of this institute is to impart skills training for workers. This is an on-going program where interventions are conducted by in-house specialists, external veterans and domain experts. This is to ensure that our workers evolve as specialists
RELATIONS WITH TRADE UNIONS
We respect the right of all talents to form and participate in a union. Our Dalmiapuram and Rajgangpur units have trade unions to cover talents under collective bargaining. Even though the rest of the units of DBL do not have a formal trade union, periodic engagement with the talents is ensured through the Works Committee. Regular meetings are held between the management and the unions and suggestions from the union representatives are incorporated and it is ensured that they are never subjected to any kind of discrimination. We did not receive any complaints regarding labour practices during the reporting period.

ENGAGING WITH TALENTS
We provide ample opportunities to our talents to collaborate among themselves, share among themselves, implement ideas and grow as individuals as well as give back to the community. Through an open and transparent communication, we are able to maintain peaceful and cordial relations with our workforce.

Diversity and Inclusion
Diversity and inclusion are the source of fresh perspectives and experiences and enable an innovative and stimulating environment. We, at Dalmia Bharat, ensure that our human capital is diverse and each talent is encouraged and inspired to contribute equally to the development of the organisation. In addition, with a firm belief in gender equality, Dalmia Bharat ensures there is no discrimination in remuneration of male and female talents at any of the locations. Also, nearly all of our senior management (functional heads) are recruited locally, that is, from within the country.

TOTAL WORKFORCE BY AGE GROUP (FY’17)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Senior Management</th>
<th>Mid Management</th>
<th>Junior Management</th>
<th>Staff</th>
<th>Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 30 yrs</td>
<td>3</td>
<td>160</td>
<td>120</td>
<td>36</td>
<td>168</td>
</tr>
<tr>
<td>30 - 50 yrs</td>
<td>38</td>
<td>116</td>
<td>92</td>
<td>30</td>
<td>130</td>
</tr>
<tr>
<td>&gt; 50 yrs</td>
<td>59</td>
<td>10</td>
<td>36</td>
<td>35</td>
<td>481</td>
</tr>
</tbody>
</table>

The above figures correspond to only regular talents (contractual not included).
Attracting and Retaining Talent

Our talent strategy involves building a talented pool of leaders with a deep understanding of our business and retaining this talent to continue the pursuit of excellence. An important step towards retaining our workforce involves periodic review of talent performance and timely appraisal thus motivating the workforce to deliver excellence. A performance appraisal review system is in place that ensures that appropriate feedback is provided through regular performance and career development review. During the FY’16, 2895 talents received career development review out of a total of 4,779. For FY’17, it is an ongoing process.

Celebrations and Activities

With an Events Management Committee in place, our talents are constantly encouraged to take part in sports and other physical activities. Most of our plants have separate recreation halls to facilitate Indoor games and some are also equipped with 'Ladies Clubs' for extending the same facility to the spouses of the executive members.

ROSHNI - LEARNING SERVICE TO MANKIND

Roshni is a Talent Volunteering program. Under this program, the company actively promotes, encourages and recognizes volunteering and does what it can to enable its talents to engage with the community.
Enriching The Work Experience

KARMA: WALK THE TALK

An initiative to instil and advance leadership in a novel and fun way, Karma – Walk the Talk – is a program that requires candidates to trek the Himalayan mountain ranges in Himachal and Sikkim and pick up vital lessons and skills through direct experiences. As candidates face some of the most difficult terrains on earth – comprising rocky mountains, snowy stretches, steep inclines and declines, hazardous bends and icy cold waters - they learn the meaning of courage, resilience, teamwork and commitment, with each member displaying unwavering support for their team-mates.

ANANDAM: THE ART OF UNDERSTANDING HAPPINESS

The objective of 'Anandam' is to share principles and practices for holistic well-being and happiness with our talents in a way that is practical, and creates meaningful connections with our organization purpose and values.
PRERNA: A JOURNEY TOWARDS PERSONAL AND EMOTIONAL WELL-BEING

It is a program specially designed to help the wives of the talents of Dalmia break the monotony of daily life, and introspect on living one’s beliefs to the fullest – towards a journey of self-discovery and emotional freedom. Prerna is designed to empower the women by developing their potential and inspire them towards positive self-development.

SAKSHAM: IMBIBING VALUES AMONG CHILDREN

'Saksham' is an initiative created to boost character building amongst the children of all Dalmia members, primarily in areas of Love, Focus, Positivity and Integrity, in an innovative and impactful manner. The other objective of the program is to build a 'relationship' based organization.
INTELLECTUAL CAPITAL

Intellectual Capital is an organisation’s knowledge pool. It not only comprises of intellectual property that an organisation creates over time such as patents, licenses, copyrights and rights but also the system, products, processes and protocols in place.
MANAGEMENT APPROACH

R&D is the backbone of our business model. We believe in constantly evolving to market needs, developing innovative quality products and improving service to achieve customer delight. We aspire to constantly challenge ourselves to higher benchmarks in quality, usability and sustainability.

R&D backs all our undertakings and is crucial for our long-term success. New product launches and initiatives adds to our intellectual property and sets new benchmarks for the industry.

Dalmia’s strategy to innovate involves incremental capital investment and increased capacity utilization for existing resources. Our focus on value added products has been on identifying and capitalizing on new business streams. In line with our organizational commitments towards climate change and affordable housing our current focus area is to switch to greener alternatives and optimize costs for our customers.

The Company invested to the tune of INR 6.5 crore during FY’17 in its R&D department which resulted in improving sales and profitability.
A CULTURE OF INNOVATION

Our innovation stems from multiple cross functional interactions along with inputs from subject matter experts and customers. Day to day experiences and intermingling of professional expertise from technical, manufacturing, marketing team among others fuel the need gap analysis and enables improvements in existing systems. In the near future we wish to implement a systemic approach to implementing new ideas and processes.

We continuously endeavor to strengthen our team through capacity building of existing talents and recruiting highly experienced and capable scientists and technologists to carry out innovative research in the field of cement, concrete and building materials. Frequent interaction with our peer group and active participation in industry forums and technical seminars have helped us in adapting to the latest changes and developments and being more responsive to the needs of the consumer. The team also engages in extensive reach programs to understand the needs of the market and raise consumer awareness on cement attributes.

In the current governance structure, there is a centralised research and development team at the head office that works in close confluence with the regional quality heads that are distributed across the business in Chennai, Guwahati and Rajgangpur. Further the quality heads coordinate with the quality departments at the sites ensuring necessary checks and balances are in place for bringing about positive change in the evolving system of cement manufacturing. To facilitate effective knowledge sharing the quality heads are mobilised across various sites at regular intervals ensuring adoption of best practices.

The marketing and the manufacturing team work in close tandem with each other ensuring established quality norms for every product. At each plant, there exist Internal Quality Monitoring Parameters (IQMP) defining raw mix design, kiln feed & clinker quality thus replicating a reliable output in every cycle. Preparation of standard reference materials like lime stone, raw mill, clinker and cement are accurately calibrated through X-ray fluorescence (XRF) at all manufacturing units. Our robotic laboratories, online analyzers and laboratory clinkerisation facilities enable us to implement improved control of process and product. Morphology and microstructure of materials is studied through optical microscopy.

Achieving customer delight is paramount for us. We have been strengthening interfaces with the customers and the construction companies towards sensing needs and assimilating feedbacks for value addition in the existing products.

Focus Areas in the Reporting Period

- Increasing the use of alternative and economical fuels
- Improving quality through the use of high performance chemicals
- Reorienting the raw design mix
- Increasing fly ash and slag absorption in the manufacture of PPC and PSC varieties respectively
QUALITY MANAGEMENT PROCESS

<table>
<thead>
<tr>
<th>QUALITY REPORT</th>
<th>QUALITY REVIEW</th>
<th>QUALITY MEET</th>
<th>PROFICIENCY STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DAILY</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Site level phenomena to mitigate any anomaly in cement manufacturing.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MONTHLY</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Circulation to manufacturing heads and group CEO for being competitive and a market leader.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>QUARTERLY</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cross-functional regional meet of Quality Control heads to understand the functioning and areas of improvement.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>BI-ANNUAL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cross-functional organizational meet to address needs of customers and facilitate knowledge sharing.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ANNUAL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laboratory proficiency study is conducted at the group level.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

We constantly endeavor to ramp up our technical prowess through various development programs aimed at enhancing skills of the analysts and exposing managers on new developments in cement chemistry and technology. Our work is regularly published in the form of research articles in National & International journals that strengthens our brand image and brings visibility to the organization.
DALMIA RESEARCH AND DEVELOPMENT CENTRE

Dalmia Bharat opened an R&D centre in Chennai in 2015 to foster continuous innovation and support organization's evolving manufacturing and marketing initiatives to deliver radical solutions leading to higher Industry benchmarks.

The R&D team continuously collaborates with national and international institutes, including IIT Delhi and École Polytechnique Fédérale de Lausanne, Switzerland, and 3rd party testing labs like Bureau Veritas Construction Services, Mumbai for research, design and development of its new product solutions as well as value addition to existing product basket. This has enabled us to considerably reduce the gestation time for introducing innovative solutions. Dalmia Bharat also publishes research papers in national and international journals (World Cement and International Cement Review) to aid knowledge sharing across industry.

Apart from the Dalmia Research Centre (DRC) at Chennai, another research centre has been approved at Rajgangpur specifically for developing new products and solutions. In another initiative, Dalmia Bharat would be setting up an 'Experience Centre or Centre of Excellence' at New Delhi to showcase upcoming products and new developments in the cement industry. The centre will serve as a show-and-share destination for visitations from high level dignitaries and key stakeholders from Government and non-Government institutions. The centre will bridge the gap on awareness about new developments in building material, and will facilitate enhanced engagement and mutual learning and development.

The research centers are supplemented by 3 Robotics labs and 14 Research labs distributed across our footprint of business operation. Further two application labs are planned at Guwahati and Kolkata respectively to strengthen the research and development. The team is poised for rapid expansion and will be more than doubled over the next few years. We are currently investing significantly into building infrastructure, procuring state of the art lab equipment and capacity building of our talents besides adding skilled manpower.

Our state-of-the-art Robotics Lab with minimalistic manual intervention, enables us to achieve high degree of quality control and strengthens the robustness of our manufacturing process. The lab is enabled with online sampling and particle analysis feature that automatically calibrates the equipment to desired performance metrics.
Skim Coat
Dalmia Magic Premium Skim Coat is a proprietary cementitious surface finish solution. The unique colour and the polymer modification makes it suitable for applications on variety of surfaces such as plastered surfaces, brick, autoclaved aerated concrete surfaces etc. for both interior as well as exterior applications. Predominately, it comes with two different natural colour tones such as light pink and sandstone shades with excellent light fastness properties.

Dalmia Infragreen (PPC / PSC)
Sensing the need for a high performance cement for infrastructrure segment, we developed Dalmia Infragreen. It is a Pozzolan chemically modified proprietary cement falling under PPC (flyash bases) or PSC (slag based) category with highly improved performance. It enables rapid infrastructure development and large constructions, without comprimising on durability. It needs no other performance enhancers while application in the concrete.

Both these products have been extensively tested in the market with respect to different applications and have been accepted by our customers and are now in the process of commercialization.
VALUE ADDED PRODUCTS

Oil Well Cement
Oil-well cements are used for cementing work in the drilling of oil wells where they are subject to high temperatures and pressures. They usually contain special organic retarders to prevent the cement from setting too quickly. Our Oil well cement is manufactured against stringent quality standards and is American Petroleum Institute certified. We are one of the very few companies that have been able to adhere to API standards. We are the largest producer of oil well cement in India and cater to reputed clients like ONGC and Oil India Ltd.

Railway Sleeper Cement
Dalmia pioneered this cement in India adhering to special specifications and requirements by the Indian Railways. The cement was used to replace wooden railway sleepers for hi-speed trains. It is currently supplied to all major railway sleeper manufacturers in India.

Airstrip Cement
Dalmia’s Airstrip Cement is specially manufactured to meet a high impact load bearing capacity and is used for manufacturing airstrips, building roads and flyovers.
DALMIA DSP: In a country, which is fiercely competitive and sensitive to pricing, launching a premium brand 'Dalmia DSP' represented a seminal moment. The product is positioned as one of the best cement for 'Dhalai' or 'Concreteing'. This product displays quality attributes across the spectrum and is packed in special BOPP bags that comprises of nano-pores (compared to micro-pores or macro-pores) that provides a shower resistant property, minimal seepage, enhanced aesthetic appearance, extended cement freshness and facilitates multi-colour printing. The market responded positively to the new offering and the brand contributed as much as 10% to trade sales by the end of FY’17.

ONE SOLUTION FOR BETTER CONSTRUCTION
- Superior finesse for slender, defect free structure
- Bright finish of exposed concrete surfaces resulting in better insulation
- Higher concrete coverage & optimized consumption
- Better workability and enhanced concrete placement
- Low heat of hydration for crack-free, durable cement
- Best in class 1 day and 15 day strength
- Scientifically formulated for life long stability
- Impermeable concrete for long lasting and corrosion-free RCC structure
- Ideal particle size for better strength and low water requirements
VALUE ADDED PRODUCTS IN THE PIPELINE

Well-equipped laboratory facility plant location, state-of-the-art characterization facilities at premium institutes and knowledge sharing from experts and experienced professionals have been instrumental in shaping and adding to Dalmia Bharat’s intellectual Capital. Going forward we are planning for collaborative research on LC3 (Lime stone calcined clay) cement, photo-catalytic binders and thermodynamic modelling of clinkerisation process besides several others.

Collaboration with Academic Centres for Resolving High Cost Procurement

Our operation in the north eastern India particularly in Assam and Meghalaya were facing a challenge towards procurement of cost effective fly ash for day to day manufacturing process. The cost for procurement soon became prohibitive to normal usage and led to the search for alternative materials that can serve as a suitable substitute in our product. The solution came in the form of 'White Aluminous Clay' which was a joint venture with IIT Delhi and EPFL, Switzerland.

Innovating use of Low Grade Limestone

Our new formulation of high Belite cement promotes usage of marginal grade lime stone and serves as a perfect composition for dams and bridges due to its lower heat of hydration and high durability.

Interventions across Dalmia

- **Geographic Information System (GIS) fusion mapping** of supply chain in accordance with density of customers and delivery schedules enabled us to optimize the network and strategically develop and position centres leading to operational saving on logistics.
- **Android application 'Suvidha'** for customers enabled real time order management and tracking of consignments.
- Introducing fleet of bigger trucks on selected network helped in reducing the overall turnaround time.
- **Driver's passports** enabled us to screen our drivers ensuring adequate skill level for the transporter and keep a track of the periodic vehicle assessment (for pollution norms etc.) thus reducing safety accidents.
- Use of Business intelligence and process digitization through a range of applications for our customers, sales force and logistics have enhanced our processes and brought us closer to our stakeholders.
- **Human Resource Information System (HRIS)** leads to better analysis of human resource information facilitating capacity building programs in accordance with gap analysis of talent skill set.
- Extensive use of interventions like reverse air bag house and electrostatic precipitators have led to considerable reduction in air emissions.
LANDMARK ARCHITECTURE THAT SPEAKS FOR US

We are proud to be associated with these prestigious projects.
The Group intends to channelize information into meaningful decision making through use of process automation and business analytics churning real time information from a pool of sources.

INFORMATION MANAGEMENT

As Dalmia Bharat grew in scale and scope, the organization has been consolidating its information management platform and strengthening its product delivery and competitiveness. The current evolving system has enabled us to enhance our market responsiveness and reduce time-to-market in delivering sustainable and cost-effective solutions to its ever-expanding list of clientele.

We started with integrating various business functions and verticals, providing the leadership with a macro and micro level view of the organization facilitating decision making and resource allocation. The Group websites were aligned towards integrating operations across entities.

The Company migrated to cloud platform enabling cost-efficient rollout of applications and lower operational overheads. The Company also incorporated various applications facilitating real time engagements with the customers, sales force and other stakeholders on events like order management, credit request, grievance management and invoicing.
The Group intends to channelize information into meaningful decision making through use of process automation and business analytics churning real time information from a pool of sources. The idea is to make the business engagement with the stakeholders a memorable experience.

**Digitization of the supply chain**

Digitisation of the supply chain was the key in optimising the turnaround time and profitability. Empowerment of drivers with the navigation system, digital proof of material delivery on smart phones and mail, vehicle tracking & monitoring and e-ordering (24*7 with acknowledgment within 90 seconds) were some of the prime interventions that led to harmonizing the value chain.

Suvidha mobile and tabled based application was launched to facilitate dealer engagement, making it possible to place order 24x7, resulting in a larger order throughout beyond working hours and maximising mon-peak hour utilization.

The Company’s cadre of young data scientists developed and customized a number of graphical tools from the Google suite to work with legacy delivery data to identify sales-integrity maps and suggest alternative delivery models, redefining depot linkages with customer delivery points.

Application Devices: Deployed mobile based application services, revolutionising our sales effectiveness. Provided the sales force with real-time information on customers, credit limits, outstanding and other data.

Project Milaap led to convergence of the Group’s cement businesses under a common umbrella thus harmonizing process controls and streamlining knowledge sharing among group entities.

The Google platform facilitated seamless communication and collaboration across the Group’s business and cross-functional teams.

Group-wise infrastructure and support systems comprising print management systems and facilities management services were outsourced to a core IT Company moderate costs and liberate internal resources to achieve prioritised objectives.

The digital pipeline empowers truck drivers to seek repeat orders from network partners. An alternative platform will empower transporters to holistically address business challenges while ‘on-the-go’ through mobile handsets.

The infrastructure services were strengthened to accommodate a disaster recovery centre.
INNOVATION THROUGH CRAFT BETON

Craft Beton represents a paradigm shift in the perception, use, and application of cement.

Internationally acclaimed designers created over 50 high-end luxury products with the finesse and form of an art piece. Every design demonstrating that cement can be far more than just a product line, aesthetic, practical and even aspirational.

Craft Beton truly showcases the beauty and versatility of cement. It rethinks art and redefines perception. The Craft Beton Collection 2017 designed by Ili Tyagi (India), Somesh Singh (India), Mirslow Baca (Poland) and Alan Saga (Mexico) are minimalist designs in cement with reflections and art that have been never been expressed before.

We have consistently and successfully calibrated cement in various ways, fine-tuning it for the end consumer across geographies and for different needs. Craft Béton is perhaps the finest expression of our innovation, which has essentially created a historic new category for cement.

“For the first time cement is an object of desire, is a feasible and better alternative to conventional materials and is distinctive.” – Mr. Mahendra Singhi, Group CEO, Dalmia Bharat (Cement) Limited.
The craft beton collection can be viewed and ordered online at www.craftbeton.com
MANUFACTURED CAPITAL

Manufactured Capital comprises of tangible assets that are at an organisation's disposal for the production of goods or the provision of services.
In our endeavour to grow at a faster rate than our industry peers it becomes critical to manage scale, optimize resources allocation and balance structural factors.

MANAGEMENT APPROACH
Cement sector in India is at the gateway to a prospective turnover with a series of government infrastructure and commercial projects stacked up as the economy rebounds. Our anticipation to the development in the macro environment has led us to gradual expansion in all spheres of business blocks. Through a series of acquisitions coupled with in-house productivity enhancement, we are all set to capitalize on the opportunity and deliver superior stakeholder value. Currently, we are the fourth largest cement manufacturing group in India serving markets in 21 states and various countries including Bangladesh, Nepal, Sri Lanka, Myanmar and Bhutan among others.

In our endeavour to grow at a faster rate than our industry peers it becomes critical to manage scale, optimize resources allocation and balance structural factors such as large fixed costs and fluctuations in supply and demand by abating the variable outlay. A prudent combination of technological interventions, excellence in execution, customer centricity and cost optimization has been the corner stone of our success.

The Company intends to enhance asset sweating, increase Dalmia DSP contribution, moderate power consumption/ton of cement produced, enhance kiln productivity, optimise heat rate and reduce logistic costs.

In southern India, Dalmia increased its market share in the absence of new capacity addition. Increased efficiency in power plant and reduced auxiliary power consumption (11.1% in FY’16 to 9.2% in FY’17) leading to moderation in power generation. Further, with the commencement of operations at the Belgaum plant, surplus power was either wheeled to other unit or marketed to the grid which resulted in the moderation of costs.

In north east India, emphasis on operational efficiencies bore fruit with kiln throughput increasing by 8% while power consumption per unit of cement declining by 12% resulting in moderation of operational costs by 20%. Innovative sourcing further moderated the power costs. While the Meghalaya plant entered into a barter arrangement with the grid, the newly commissioned Umrangshu plant sourced power through open access.

The Company increased exports by about 2.3 times to Sri Lanka, Myanmar and Maldives.
INFRASTRUCTURE AND SERVICES

Our capacity expansion from 1.2 MnT to 25 MnT over the last decade is one of the fastest across the industry in India. Our growth meticulously planned in sync with the market trends enabled us to improve margins by reducing the lead distance to demand clusters. Progressive investment in capability building has started getting translated into financial gains. Our scale empowers us to provide better pricing than our peers. We wish to continue expanding our market footprint and strengthening our foothold to gain market share. Our goal is to deliver superior value added products to our clients and contribute towards prosperity of the nation.

Under the aegis of Cement Sustainability Initiative (CSI) we are committed to a low-carbon pathway through increased clinker substitution and alternative fuel use; improvements leading to energy efficiency, and the development & widespread implementation of newer technologies to achieve the target reductions. We have aggressive plans to ramp up our cement production capacity (currently pegged at 25 MnT per annum) through investment of INR 2000 crore in Odisha in the next three years on account of smart city projects and rapid industrialization. Odisha government is in the process of auctioning the Malkangiri limestone deposit that may fuel our productions in the near future.

Resource Allocation

Towards continuous improvement in operational performance we keep evaluating and revamping our technological prowess. Existing kiln burners have been replaced by new generation burners (with less primary and conveying air requirements) leading to savings in fuel consumption in our plants.

An internal benchmarking system and dashboard provides plant specific and aggregated Group level data on energy consumption, alternative fuel consumption and cement carbon footprint metrics. These analytics forms the basis of many of the new initiatives and interventions in the Company.

An extensive effort through VL-8 exercise is underway pan organization to add on to the existing installed capacity through effective utilization of equipment and debottlenecking of the processes. On a regular basis, plants are allotted targets across a spectrum of parameters and knowledge sharing is encouraged between plants to replicate better performances. Dalmia Bharat has incorporated a three pronged approach to higher energy efficiency through higher production, continuous monitoring and cross collaboration. A healthy in-house competition among the plants encourages improvements in performance metrics. Once a performance benchmark is set, the best practices are rapidly incorporated at other locations within a span of 3-4 months. To facilitate effective knowledge management, there are regular video conferences and talents are transferred between the plants.

The main challenges to business are quality and availability of limestone, fuel, AFR and marketing the goods to the consumers. In a price sensitive market like India, we have been
optimizing our processes to control the variable cost and maintain our margins while serving our customers at the most cost effective rate. The primary contributors to the variable costs are raw material, power and fuel. Through increased use of alternative fuels and materials our goal has been to optimize on our costs and ensure availability and quality of the fuels in the long run. We have one of the lowest clinker to cement ratios. Increased usage of slag and fly ash have enabled us to produce one of the greenest cements in the world. Many of our units have obtained licenses to incinerate hazardous waste from allied industries.

We have collaborated with several international organisations to assess the feasibility and assist in the implementation of new Low Carbon technology (LCT) in our cement plants. The Company has been working on low cost affordable housing and pre-fabricated housing material in contribution to ‘Housing for All’ initiative. We aspire to strengthen our product portfolio through additional value added products that lead to higher market realizations.

**HIGHLIGHTS**

- One of the lowest carbon footprint in the cement sector
- Among the lowest Power Consumer (70 kWh / ton of Cement) leading to one of the lowest variable costs (INR 1,320 per ton of Cement)
- High Ratio of Blended Cement ~80%
- Power and Fuel Cost (INR 608/ton of cement)

**EXPANSION & INVESTMENT**

Dalmia Bharat has been selected as the preferred bidder for the Kesla II limestone block in Raipur District, Chhattisgarh. The block has an estimated reserve of 215 MnT. Besides we have also bid for mines in other locations such as Chittorgarh (Rajasthan) and Odisha.
Towards Cleaner Operations
Presently five locations have captive power plants – Dalmiapuram, Ariyalur, Belgaum, Rajgangpur and Thangskai. To promote efficiency, the organization continuously monitors its auxiliary power consumption, heat rate and specific water consumption. To achieve higher capacity utilization, the generated power is either wheeled to other units or is fed back into the grid.

<table>
<thead>
<tr>
<th>SOLAR</th>
<th>THERMAL</th>
<th>WASTE HEAT RECOVERY</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 MW</td>
<td>178 MW</td>
<td>9.2 MW</td>
</tr>
</tbody>
</table>

Installed Capacity in Group Plants

In line with Dalmia Bharat’s renewable energy commitments of RE100, there are no plans to add thermal capacity in the near future. Diversification of our power portfolio into fossil free electricity generation through setting up green power projects based on Waste Heat Recovery (WHR) and solar PV are improving our overall GHG reduction performance. A 9.2 MW WHR project has been implemented in the reporting period besides several others under feasibility assessment.

<table>
<thead>
<tr>
<th>GROUND MOUNTED SOLAR</th>
<th>ROOF TOP SOLAR</th>
<th>WASTE HEAT RECOVERY</th>
</tr>
</thead>
<tbody>
<tr>
<td>23.2 MW</td>
<td>3.4 MW</td>
<td>34.3 MW</td>
</tr>
</tbody>
</table>

Power Generation Potential evaluated in Group Plants

To meet its power requirements the Company signs frequent short term power purchase agreements. The north east locations procure power directly from the exchange as the price is competitive despite cross subsidy charges, scheduling charges and transmission losses. To meet the emission norms, the Company has adopted various techniques such as addition of limestone to capture the sulphur and procuring low sulphur coal. We have installed screening plants to remove contamination and improve the recovery rate for limestone.
### Synergy among Coal Based Power Plants (CPPs)
- Standardization of reports to facilitate KPI based comparability.
- Monthly review meetings targeted at developing action plan, understanding constraints and targets to better planning and achievement.
- Sharing of best practices and building awareness.
- Equipment wise benchmarking.
- Removal of pressure killing elements dampers, valves, silencers, full opening of boiler feed pump control valve.

### ACC Efficiency and Fan Power Consumptions
- Auto operation of variable frequency drives (VFDs).
- Vacuum improvement through air leakage plug, cleaning and water spray.
- Optimization of ACC blade angles on ambient temperature basis.
- Fans operation improvised by running at minimum speed.
- Avoiding practice of stopping fans due to lower load.

### Operational Efficiency
- Focus on design operating parameters, capacity utilization study and monitoring of specific energy consumption of various equipment, equipment efficiency.
- Optimizing boiler system pressure & temperature drop profile.
- VFDs installation & optimization and ensuring auto operation, expediting ordering & commissioning.
Highest reduction in auxiliary power consumption of approximately 2.6% was observed at our Rajgangpur and Meghalaya CPP; while Belgaum CPP reported the lowest average in the range of 7.5%. Continuous improvement measures and interventions have enabled us to tone down power cost from INR 4.8 per unit in FY’16 to INR 3.9 per unit in FY’17. This was achieved through measures like power wheeling from captive units to grinding units, increased use of renewable energy (solar power) and waste heat recovery, reducing auxiliary power consumption and improved plant load factor. The Rajgangpur CPP wheels power to plants at Kapilas and Medinipur plants while the Ariyalur and Belgaum CPP caters to plant at Kadapa. The plants at Umrangshu and Lanka procure power from Indian Energy Exchange (IEX) through Day Ahead arrangement.

We have standardized our plant machinery and equipment to facilitate price comparisons and to be cost effective. The needs of the adjacent sites are managed collectively and orders are placed in bulk to facilitate cost effective procurement. Talents are regularly transferred between departments to foster a technical cum commercial angle to business decisions. Incorporating multiple factors into decision making such as urgency, technical attributes, life of machine, breakdown costs etc. enable us to effectively reduce down time. For majority of the components and equipment the vendors, brands and models have been finalized to reduce decision time and incorporate the best components in business operations. We have partnered with IBM for digitization of the procurement system which enables us to negotiate better deals and also serves as a trail for effective post procurement auditing.

### MINIMIZING RAW WATER CONSUMPTION ACROSS GROUP CPPS
- Dumping System Commissioned
- Optimization of Soot Blowing System
- Timely Overhauling / Maintenance / Replacement of Drain Valves / Start-up Vent Passing
- Re-using of Sample Cooler Drain Water
- Re-use of MGF/UF/RO Back Wash Water
- Venting Loss Reduced During Load Throw by Optimizing Steam Pressure
- Re-use of Cooling Tower Blow Down

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**AUXILIARY POWER CONSUMPTION**

<table>
<thead>
<tr>
<th></th>
<th>FY'16</th>
<th>FY'17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest</td>
<td>11.1%</td>
<td>9.2%</td>
</tr>
</tbody>
</table>

**WATER CONSUMPTION IN GROUP CPPs**

<table>
<thead>
<tr>
<th></th>
<th>FY'16</th>
<th>FY'17</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.48 KL/kWh</td>
<td>0.31 KL/kWh</td>
<td></td>
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</tbody>
</table>
SNAPSHOT OF THE KEY PROCESSES, FACILITIES AND TECHNOLOGIES

Successful cement companies succeed by blending structural moves in line with effective commercial practices. At Dalmia Bharat, we have incrementally transitioned into low carbon technologies and green business practices without compromising on product attributes and operational efficiency. Through better fuel management, larger share of blended cement and higher productivity, we have cut our variable cost significantly.

We mark our performance against global benchmarks to strengthen our infrastructure making it resilient to changes in macro environment and across business cycles.

Continuous innovation and prudent tweaks have resulted in higher proportion of blended cement, flexible structures and lower specific consumption of natural resources. 3D modelling of our plant buildings and mines through drones has resulted in better planning of activities within the plant premises. Global Positioning System (GPS) installation in the trucks has reduced the overall turnaround time and also discourages the driver to take detours. Investment in infrastructure around our sites has led to enhanced stakeholder engagements, build efficiency and brand effectiveness resulting in a multiplier effect on the local economy.

Mines

Our mines are the starting point for implementing greener practices in our journey to manufacture a more sustainable product. We have incorporated various interventions to ensure that we address the safety of our workers and well-being of the communities living in the vicinity of our business operations. Focussing on horticulture, maintaining our water resources efficiently, suppressing the dust emissions and harvesting rain water in catchment areas are some of the key initiatives adopted across our mines.
Eco-friendly mining practices

1) Deployment of Large size Excavators
Large excavators (6.5 m³) capable of digging semi hard strata supported by rock breakers are deployed to minimize blasting operations. In case, hard strata is encountered during the mining operation further drilling is done with higher spacing and burden to obtain better yield of blast resulting in higher powder factors. This initiative has reduced the average blasting per month.

2) Eliminating Secondary Blasting By Deployment Of Rock Breaker
By deploying higher capacity rock breaker (HB 5800) for secondary breaking, we have completely eliminated secondary blasting operation in the mine to minimize the adverse impacts like fly rock and noise in the surrounding area.

3) Provision of Clay Separation Plant
A clay separation unit/screening plant has been installed in the crusher circuit to conserve the first bench limestone which is generally contaminated with yellow clay. This installation has resulted in utilizing subgrade lime stone with minimal waste disposal and increase in mineral reserves resulting in increase in mine life. This contributes to our commitment towards mineral conservation and sustainable mining.

4) Plantation in and Around the Mine Area
Since the inception of the mining operation we have been committed to planting thousands of tree saplings in the top soil dumping area and in the buffer zone for developing thick greenery in mine area. We have planted multiple trees till date and ensure that they survive through regular care.

5) Eco - friendly Drilling Operations
Drilling has been one of the major source of dust emission. In order to mitigate the emissions we have deployed the hydraulic drill machine with inbuilt dust collecting devices like Dust Control Technologies (DCT) system with bag filters and mist system. The machine is equipped with an AC cabin that reduces the exposure of operator from the hot climate and noise. The cabin also ensures operator's safety, health & comfort.

6) Rain Water Harvesting in the Mine Pit
With inadequate and usually scanty rainfall in most of the regions, we have made provisions to divert the storm water drains to our mines sump and utilizing the stored water for the operations and green belt development. Additionally, we have also constructed multiple check dams to harvest rain water for community use, irrigating surrounding agriculture lands and recharging ground.
7) Permanent Water Sprinkling System
Permanent water sprinklers have been provided on the main haul roads for effective suppression of the dust on the haul roads.

8) Dry fog dust controlling system
We have provided the dry fog dust controlling system at our crusher hopper and at all conveyor belt transfer points which are more effective than the traditional system of dust suppression.

9) Other Initiatives for Protection of Environment & Health
- Dust control measures to reduce dust related hazards:
  In the loading & hauling area dust is being monitored regularly and controlled by wetting the haul roads and muck piling by water jet.
  We have provided closed conveyors system for material transportation from crusher to plant for minimizing environmental impacts.
- Provision of AC cabins to all Heavy Earth Moving Machinery (HEMM) – AC cabins are provided to all HEMM core equipment for protecting the operators from heat, dust and noise
- Provision of sufficient illumination: we have provided fixed lighting towers and mobile lighting towers for providing sufficient illumination during the dark hours.
- All environmental parameters like dust survey, noise, water and illumination are monitored on a regular basis
- The blast induced ground vibrations are monitored in each every blast.
SOCIAL AND RELATIONSHIP CAPITAL

Social and Relationship Capital corresponds to the Capital of shared norms, values, beliefs and behaviour that is nurtured through stakeholder engagements.
Investing in social and relationship capital has a long-term bearing on brand value and reputation.

MANAGEMENT APPROACH
Dalmia Bharat is committed to creating shared value for all our stakeholders. Delivering value necessitates a deep understanding of the inter-linkages and the impact from our business operations along the entire value chain from cradle to grave. This understanding enables us to understand the trade-offs we make in day-to-day business decisions and thus collaborate with each other in mutually benefiting win-win initiatives while transforming the business landscape. Growth in social and relationship capital corresponds to increase in the value of intangibles like brand and reputation in the long horizon and gives the organization the ‘Social License to operate’.
CORPORATE AFFAIRS

Today’s dynamic business environment has become increasingly intricate due to political and regulatory changes, pace of modern communications, greater proliferation of social channels and activist stakeholders. It presents a significant reputational risk if the organization’s direction and actions are not clear, consistent and accurately represented in sync with organization’s ethos. Thus, it has become imperative for forward-leaning organizations to ensure ‘proactive’ corporate narrative and its dissemination across all platforms and audiences in order to leverage and align its stakeholders.

A three-tiered corporate affairs team regularly engages with a varied group of ever-expanding stakeholders enabling a 360 degree perspective and ensuring that their opinion, needs and concerns are accounted for. Further, active participation in various summits and industry associations, frequent capacity building workshops and monthly review meetings keeps us responsive to the upcoming trends and exploring new business opportunities.

STAKEHOLDERS

All our interactions with our stakeholders take place in accordance with the highest standards of integrity, transparency, respect, and equality. The findings of the stakeholder engagement feeds into our decision making process with a view to build transparency, preventing potential conflicts and generating mechanism to resolving concerns.

STAKEHOLDER MAPPING

To understand the needs of our stakeholders we continuously engage with them through a bouquet of channels that have been summarized in the following table.
<table>
<thead>
<tr>
<th>CUSTOMERS</th>
<th>CONCERNS</th>
<th>COMMUNICATION CHANNELS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Timely Delivery</td>
<td>Customer Feedback</td>
</tr>
<tr>
<td></td>
<td>Quality</td>
<td>Customer Satisfaction Survey</td>
</tr>
<tr>
<td></td>
<td>Pricing</td>
<td>Phone calls, Emails and Meetings</td>
</tr>
<tr>
<td></td>
<td>Post-sale Support</td>
<td>Signed Contracts</td>
</tr>
<tr>
<td></td>
<td>Product Related Certifications</td>
<td>Exhibitions, Events</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Websites and Social Media</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>EMPLOYEES</th>
<th>CONCERNS</th>
<th>COMMUNICATION CHANNELS</th>
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<tbody>
<tr>
<td></td>
<td>Work Life Balance</td>
<td>Email</td>
</tr>
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<td></td>
<td>Training &amp; Skill Development</td>
<td>Intranet Portal</td>
</tr>
<tr>
<td></td>
<td>Career Growth</td>
<td>Employee Satisfaction Surveys</td>
</tr>
<tr>
<td></td>
<td>Occupational Health &amp; Safety</td>
<td>Training Programs</td>
</tr>
<tr>
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<td>Job Security</td>
<td>Performance Appraisal Reviews</td>
</tr>
<tr>
<td></td>
<td>Transparent Communication</td>
<td>Grievance Redressal Mechanisms</td>
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<tr>
<td></td>
<td></td>
<td>Publications &amp; Newsletters</td>
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<table>
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<th>CONCERNS</th>
<th>COMMUNICATION CHANNELS</th>
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<tbody>
<tr>
<td></td>
<td>Timely Payments</td>
<td>Emails &amp; Meetings</td>
</tr>
<tr>
<td></td>
<td>Continuity of Orders</td>
<td>Vendor Assessment &amp; Review</td>
</tr>
<tr>
<td></td>
<td>Transparency</td>
<td>Signed Contracts</td>
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</table>

<table>
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<th>COMMUNITIES</th>
<th>CONCERNS</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Local Employment</td>
<td>Training &amp; Workshops</td>
</tr>
<tr>
<td></td>
<td>Environmental Pollution Control</td>
<td>Regular Meetings</td>
</tr>
<tr>
<td></td>
<td>Infrastructure Development</td>
<td>Need Assessment &amp; Review</td>
</tr>
<tr>
<td></td>
<td>Training &amp; Livelihood Programmes</td>
<td>Surveys</td>
</tr>
<tr>
<td></td>
<td>Participation in Social Services</td>
<td>CSR Reports</td>
</tr>
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<table>
<thead>
<tr>
<th>INVESTORS</th>
<th>CONCERNS</th>
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<td>Sustainable Growth &amp; Returns</td>
<td>Board Meetings</td>
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<tr>
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<td>Risk Management</td>
<td>Annual Reports</td>
</tr>
<tr>
<td></td>
<td>Corporate Governance</td>
<td>Website</td>
</tr>
<tr>
<td></td>
<td>Market Share</td>
<td></td>
</tr>
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<td></td>
<td>Operational Performance</td>
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</table>

<table>
<thead>
<tr>
<th>GOVERNMENT &amp; REGULATORY BODIES</th>
<th>CONCERNS</th>
<th>COMMUNICATION CHANNELS</th>
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<tr>
<td></td>
<td>Tax &amp; Royalties</td>
<td>Annual Reports</td>
</tr>
<tr>
<td></td>
<td>Compliance to Laws &amp; Regulations</td>
<td>Communication with Regulatory Bodies</td>
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<tr>
<td></td>
<td>Employment</td>
<td>Formal Dialogues</td>
</tr>
<tr>
<td></td>
<td>Pollution Prevention</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Local Economy Growth</td>
<td></td>
</tr>
</tbody>
</table>
STAKEHOLDERS

Customers

We are committed to providing a holistic customer experience to propel our organization in an increasingly cluttered and commoditized marketplace. Through exceptional product delivery and enhanced engagement we aspire to build a customer centric organization.

Clustered annual meets allows our leadership to directly interact with the dealers and sub-dealers and engaging on win-win engagements. A dedicated helpline number allows our customers to connect with us on a real time basis. Any concerns or feedback is addressed immediately and also documented for necessary process interventions.

Quarterly technical newsletters *Tech Think* and *Unnati* are published in English and vernacular languages dedicated to engineers & architects and masons respectively. The publications serves as a learning aid and highlights our product attributes for sectorial needs.

Annual technocrat conference, meets and lecture series are conducted for engineers, architects and masons wherein eminent speakers shed light on the latest development, emerging technologies and construction best practices. Visits are also arranged to plant and R&D centre to get an understanding of the product offerings and attributes.

We have engaged with the reputed independent market research organizations like IMRB International and Nielsen to get a pulse of the consumers. As per the recent IMRB survey, about 61% and 47% of the sample size of respondents recommended our brand in east and south respectively. Such recommendation scores serve as a measure of customer satisfaction.

Even in the absence of a formal survey, the marketing team continues to encourage our customers to give ad-hoc feedback as and when necessary on product quality or service.

Our informal surveys on dealer satisfaction level serve as valuable inputs enabled us to improve our overall product delivery on various fronts like sales team interaction, public relations, trade engagement and technical services.

We received a total of 704 grievances across all channels of communication which includes sales team, technical services, call centre, email, formal letters and site visit. There are no customer
complaints or consumer cases pending as on March 31, 2017. The concerns, feedbacks and recommendations enable us to tune the business model towards better delivery and exceptional service.

**Talents**

Our talents are our most valuable asset and we are committed to providing them with a safe, healthy and synergistic environment. We believe that a satisfied and motivated talent leads to higher service, quality, and productivity that in turn leads to higher customer satisfaction.

We thrive to ensure talent well-being and organize regular intervention/awareness sessions on material aspects and occupational health hazards. Transparent and regular communication is the cornerstone of effective talent engagement. Our communication platform ‘SPARSH’ enables seamless sharing of best practices and learnings. Quarterly in-house magazine *Pragati* and monthly e-zine *Insider* highlights business strategy and sustainability initiatives taken by the organization. Initiatives like *Anandam*, *Saksham* and *Prerna* facilitates better work life balance and well-being of our talents. Around 17% of the permanent talents of the Group are members of these recognised trade unions.

**Suppliers**

Our suppliers are an integral component of our value chain and enable us to timely deliver quality products to our clientele. We have implemented a stringent supplier selection and evaluation criteria that encompasses a range of quality, social and environmental screening parameters. Our supply chain and procurement procedures are regularly updated to incorporate learnings from issues that were encountered in day to day business.

While delivering across diversified markets, we have optimized sourcing of raw materials and equipment to the advantage of local suppliers. On one hand while it creates ripple economic development in allied sectors on the other it reduces risks associated with globalized sourcing. We support local sourcing of raw materials and engagement of local service providers and community in and around the plant operations.

We encourage our suppliers to implement and strengthen Environment Health and Safety (EHS) norms through periodic contractor-supplier meetings. Such meetings also stimulate discussions on new technologies and how we can synergize our efforts to higher profitability.

*2017*
We believe in equal opportunity for all and practice complete transparency in performance parameters used to award contracts. We assist our suppliers to overcome performance barriers to enable to continue transactional business activities.

Apart from formal engagements we also connect on specific events such as the GST tax regime launch and demonetization. We proactively conducted knowledge meets and ensured that liquidity is maintained with our business ecosystem.

In the reporting period under review, many critical suppliers were screened using environmental criteria and social criteria including human rights impacts and were sensitized on the actual and potential negative environmental or social impacts of their business operation. We engage and assist our suppliers to implement highest standards of ethical and responsible business practices.

Dealers
Our channel partners are a major contributor to the sales volume and the growth of the Company. Regular awareness programs related to our schemes, discount policies, loyalty programs, and profitability in dealing with our products are conducted for the channel partners. We also enable them with support materials such as product brochures, literatures and testimonials among others. Dealer signage, shop painting and in-shop branding are done at outlets to help the dealers communicate our brand. Point of purchase (POP) items are placed at dealer counters which provide dealers impetus to sell the brand. It also gives brand visibility to the consumers visiting the outlets.

Business meets are organized from time to time which informs the dealers on the latest organization developments and new opportunities. Factory visits are gateways to hands on training on product features leading to a better understanding of the product and also promote feature based selling rather than cost based.

Communities
At DBL, our objective is to touch the lives of all our stakeholders, create win-win opportunities and make a meaningful positive difference in lives we touch. All our operational ventures begin with a need assessment and incorporate enhanced cooperation and involvement from the community leaders. Our strategic social initiatives continue to empower the communities through a series of projects on education, employment, housing and infrastructure, community health and environment. These engagements strengthen our social license to operate while addressing the needs of the society.

Investors
Our investors enable us to make strategic initiatives and invest into new ventures. We continually strive to enhance our reputation as a responsible and sustainable Company in order to attract and retain investors while building on the shared value. We follow due diligence in all processes and communicate material information to our shareholders.
through established lines of communication. Within the stipulated time frame by the Stock exchange, financial reports are published in the print media and made available to the stock exchange.

The Annual General Meeting provides a platform for the shareholders to interact with the leadership and get answers to their queries. We have addressed concerns on structure of the organization, high debt to EBITDA ratio, ESG compliance, merger and acquisitions versus organic expansion, effective utilization of cash and return on capital employed (ROCE) etc.

In the FY'17 a total of 94 complaints were received from the investors which were all resolved on priority. We thrive to accommodate the disparate interests of our diverse stakeholder groups ensuring transparency in all transactions and adequate representation across forums.

**Government and Regulatory Bodies**

We strictly abide by the laws of nation and operate within the stipulated boundaries of legality, transparency and fairness. Right from the inception of any project through site selection, impact assessment, reduction and restoration of natural habitat we practice due diligence and adhere to the protocols, compliances and clearances. We ensure 'proactive' corporate narrative and its dissemination across all platforms and audiences in order to leverage and align our stakeholders. Effective participation in various summits and industry associations facilitates collaborative effort in addressing upcoming challenges and exploring new business opportunities.
CORPORATE SOCIAL RESPONSIBILITY
We are committed to creating shared value for all our stakeholders. Our CSR activities are carried out through our not-for-profit arm known as Dalmia Bharat Foundation (DBF). The team deployed across India engages in real time with the stakeholders towards evaluation and fine tuning the interventions to address the needs of the beneficiaries and the local communities.

In FY'17, the Company’s CSR activities were concentrated in 9 states, viz., Tamil Nadu, Andhra Pradesh, Karnataka, Assam, Meghalaya, Odisha, Jharkhand, Rajasthan and Bihar encompassing 476 villages in the vicinity to its manufacturing plants. Our efforts are primarily centred on 4 focus areas which are Soil and Water Conservation, Energy Conservation and Climate Change Mitigation, Livelihood Skill Intervention, Social Development. We invested a total of INR 10.16 crore in the reporting period on various CSR interventions.

VISION
EVERY HOUSEHOLD HAS A SUSTAINABLE LIVELIHOOD IN OUR ENVIRONMENT.

MISSION
TO FACILITATE THE STAKEHOLDERS HASTEN THEIR SOCIAL, ECONOMIC AND ENVIRONMENTAL PROGRESS THROUGH EFFECTIVE MANAGEMENT OF HUMAN AND NATURAL CAPITAL.

FOCUS AREAS FOR OUR SOCIAL INVESTMENT
6 lakh beneficiaries and counting ...
<table>
<thead>
<tr>
<th>Organization</th>
<th>Collaboration Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>NABARD</td>
<td>Collaboration on Watershed projects, sustainable cotton cultivation and the promotion of Farmer Producer Collectives.</td>
</tr>
<tr>
<td>BETTER COTTON INITIATIVE</td>
<td>Projects on cotton cultivation, environment issues, working conditions of farmers and on market linkages.</td>
</tr>
<tr>
<td>COTTON CONNECT</td>
<td>Leveraging marketing and technical support for our sustainable cotton cultivation project.</td>
</tr>
<tr>
<td>HAREON SOLAR</td>
<td>Promoting clean energy access through off-grid solutions and renewable energy resources.</td>
</tr>
<tr>
<td>NIRMAAN ORGANIZATION</td>
<td>Addressing social challenges and facilitating recruitment camps and entrepreneurial development programs.</td>
</tr>
<tr>
<td>PT. DEENDAYAL UPADHYAYA IPH</td>
<td>Pandit Deendayal Upadhyaya Institute for the Physically Handicapped (IPH); Distributing mobility aids and accessories to persons with disabilities.</td>
</tr>
<tr>
<td>SEWAK</td>
<td>Reproductive and child health (RCH) services.</td>
</tr>
<tr>
<td>NATIONAL SKILL DEVELOPMENT CORPORATION</td>
<td>Sourcing of learning aids, toolkits and curriculum resources will be sourced.</td>
</tr>
</tbody>
</table>
1. Soil and Water Conservation

Soil and water conservation is one of the primary focus areas of our CSR program contributing to the agrarian economy in the vicinity of our sites through extensive participation from the community. In the absence of latest technology, adequate awareness and irrigation facilities the agriculture and allied sectors generate low yield and depend heavily on good monsoons. Even with adequate monsoons, the top soil is either eroded, overused or chemically altered through extensive use of pesticides and fertilizers. A majority of families practicing agriculture seldom make investment into yield boosting or process optimizing technologies and thus achieve limited yield. Our programs are targeted in the areas where the ground water level is low, sometimes to the tune of 500 feet below the ground level. We have incorporated a series of interventions customized to the local conditions to enhance the scale of agricultural activities through increase in irrigated land, adoption of drip irrigation and diversified cropping.

Water Harvesting Initiatives
Consolidated figure for FY’16 and FY’17

<table>
<thead>
<tr>
<th>Land Brought Under Drip Irrigation</th>
<th>394 acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm Ponds</td>
<td>365</td>
</tr>
<tr>
<td>Ring Wells</td>
<td>9</td>
</tr>
<tr>
<td>Village Ponds</td>
<td>44</td>
</tr>
<tr>
<td>Check Dams</td>
<td>11</td>
</tr>
<tr>
<td>Sprinklers</td>
<td>11</td>
</tr>
</tbody>
</table>

INTENT 2020
14 mn m³ of water harvesting potential.

INTENT 2030
50 mn m³ of water harvesting potential.

OBJECTIVES
- To undertake integrated watershed management project for effective management of soil and water.
- To create water harvesting structures for effective water harvesting and management.
- To promote micro-irrigation techniques for optimal utilisation of water for productive purposes.

HIGHLIGHTS
- Water conservation efforts have added potential for 35 lakh m³ of water harvesting potential at our program areas.
- Our Social Return on Impact (SROI) assessment suggests that our interventions in Soil and Water Conservation has generated value of 4.0x in the life our stakeholders.
CASE STUDY
Integrated soil and water conservation at Ariyalur
Peria Odai is a stream located in Ariyalur, at Ottakovil village which overflows with a nominal rainfall. In the absence of any water harvesting structures, the water was not utilized up to its potential. Our team collaborated with the local villagers and identified that there existed a potential to harvest nearly 1 lakh m³ of water. This assessment transformed into an integrated soil and water conservation project, with the construction of four check dams, one sunken pond and a farm pond along the stream. As per our estimates, with just three rainfalls per year, these structures will hold 45,000 m³ of water. Over 3,000 people are estimated to benefit from the project.

CASE STUDY
Drip Irrigation
We implemented a total of 219 hectares of land across four sites in southern India in the vicinity of our plants. The project was implemented under government's National Horticulture Mission. Close to 1,075 participating farmers were enabled to government subsidy. As per our estimates the intervention led to an additional annual income of INR 15,000 to each family as the yield increased to the tune of 25%.
2. Energy Conservation and Climate Change Mitigation

Local communities in the proximity of our plants lack access to clean energy and usually depend upon wood, agro wastes, cow dung, petrol, kerosene and diesel for their domestic consumption. These fuels pose severe health hazards associated with the fumes that emanate from their combustion in traditional cook stoves. Fluctuating inadequate supply of electricity coupled with power cuts makes it difficult to carry on day to day work and hampers local economy.

In line with the commitments made by India in COP21, we are committed to facilitating a low carbon economy through local partnership with likeminded institutions like New and Renewable Energy Development Corporation (NREDCAP).

Energy Conservation Initiatives
Consolidated figure for FY’16 and FY’17

<table>
<thead>
<tr>
<th>Initiative</th>
<th>FY’16</th>
<th>FY’17</th>
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<tbody>
<tr>
<td>Fuel-efficient cook stoves</td>
<td>2,886</td>
<td></td>
</tr>
<tr>
<td>Bio-gas Plants</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>Solar Powered E-Shalas</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Solar Lanterns and Study Lamps</td>
<td>8,641</td>
<td></td>
</tr>
<tr>
<td>Solar Street Lights</td>
<td>198</td>
<td></td>
</tr>
</tbody>
</table>

INTENT 2020
Ensuring access to clean cooking and solar lighting in 500 villages.

INTENT 2030
Ensuring access to clean cooking and solar lighting in 5,000 villages.

OBJECTIVES
- Creating awareness among communities about renewable energy and its importance by facilitating access to solar energy solutions and clean cooking practices.
- Creating local entrepreneurs for promoting easy access to fuel-efficient cook stoves and solar energy products and equipment.

HIGHLIGHTS
- Our Social Return on Impact Assessment suggests that our interventions in energy conservation and climate change mitigation have generated value of 3.05x in the life our stakeholders.
3. Livelihood Skill Intervention

A country of over billion people, India still faces acute shortage of skilled manpower. For us livelihood skill intervention is beyond making the ends meet. It’s about overall development, wellbeing and confidence that needs to be imparted in the youth of the country. Our vocational and skill building programs are tuned and customised in accordance with the needs of an area which is determined through a detailed needs assessment encompassing existing and potential livelihood possibilities, social norms, market outlook, gender equality, stakeholder engagements and available resource allocation towards building alliances and partnership.

Sensing the needs for low cost financing solutions, we engaged in creation of Self Help Groups (SHGs) towards building financial linkages with institutions thus mobilizing financial resources to create virtuous circles of self-sustaining economies. Through our initiative we have promoted over 580+ SHGs with a total membership of more than 7,000 women members. The program is skewed towards creating women SHGs to break social barriers and bring women to the forefront of Indian economy. We also facilitated loan approvals for milch animals, livestock insurances, promoted animal husbandry and setting up of community fodder plants in various districts across the country.

Our agenda of women empowerment is also highlighted in our skill building program where in women are trained on weaving goods out of locally sourced palm trees which are abundantly available. The training and production centres act as centres of economic development in the rural areas.
CASE STUDY

Farmer Producer Organization (FPO)

In collaboration with NABARD, team from Dalmia Bharat conducted multiple engagements across villages mobilizing likeminded villagers in setting up Farmer Producer Organisations.

This year we have enabled 6 FPOs (3 each in Trichy and Kadapa district of Tamil Nadu and Andhra Pradesh respectively) among coon, paddy, vegetable, Bengal gram and dairy farmers. Our team facilitated effective market linkages and outlets for the produce. Our support to the FPOs includes a range of programs like exposure visits to model ventures, trainings by experts in new and changing processes and systems etc. This initiative is aimed at securing income opportunities for the farmer groups and facilitating sharing of knowledge and field experiences.

Community Dairy Program

In July 2016, we started a new initiative of Community Dairy Program in Medinipur. The participating rural families were enabled through a series of interventions such as cow shed, cattle feed for initial few months, calcium liquid for the first 45 days, free veterinary check-up facility and free medicine for cattle thrice a month.

After the initial support, only medical facilities were continued and the rest was to be organized independently by the program participants. After this initiative, milk production has risen to 10 litres a day per cattle. Our team closely monitors the program to ensure that each beneficiary obtains maximum benefit from this initiative. Under this initiative we also ensure effective market linkages, local sourcing of all inputs and adoption of animal husbandry.

Skill Development Initiatives

Consolidated figure for FY’16 and FY’17

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<thead>
<tr>
<th></th>
<th>FY’16</th>
<th>FY’17</th>
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<tbody>
<tr>
<td>DIKSHA Centers Operational</td>
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<td>10</td>
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<tr>
<td>SHG Federations</td>
<td>10</td>
<td>156</td>
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<tr>
<td>Training Sessions</td>
<td>156</td>
<td>6</td>
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<td>Farmer Producer Organisations</td>
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</tbody>
</table>
4. SOCIAL DEVELOPMENT

Health

Our goal is to increase penetration and access to quality healthcare services for our stakeholders residing in remote areas. Through a range of interventions we facilitate projects on preventive healthcare awareness, immunization, eye care, maternal health, child care and healthcare for differently abled among many others. In the reporting period, we organized several medical camps across our business sites benefitting more than 72,081 beneficiaries in the process.

Our team along with doctors from local hospitals and primary health centres across specialties identified high risk patients and conducted periodical check-ups, demonstration sessions, ante-natal care camps, Gynaecological and paediatric camps, eye and cataract camps, performed surgeries, and assisted in nutrition supplements besides a range of awareness programs. Medicines were distributed to needy patients in collaboration with government hospitals. Nutritional solutions to pregnant and lactating mothers were distributed on posters and pamphlets. Sessions were conducted on low cost, home recipes that aid maternal and child health.

CASE STUDY

Specialty Health camps

This year we have conducted well over 300 General Health Camps across locations benefitting close to 15,000 people with health care services. These camps were organized in partnership with local health services and government health departments. We also conducted ANC (ante-natal care), PNC (post-natal care) camps, polio immunization drives, eye check-up camps and cataract camps contributing to a total of 16 speciality health camps.

Program implementation and monitoring go hand in hand. In November 2016, we undertook a Rapid Assessment of Healthcare services including camps outsourced to iKure in Medinipur and found that 76% of families have two or more members accessing our healthcare services; 88% of people who received treatment for various illnesses were successfully cured and 97% of respondents expressed satisfaction with service delivery as well as with the doctor who attended to them.
Sanitation
The Ministry of Human Resource Development launched Swachh Vidyalaya Programme under Swachh Bharat Mission with an objective to provide separate toilets for boys and girls in all government schools. The move was aimed in breaking social barriers, curbing communicable diseases, bridging gender inequality, increasing attendance in schools and promoting cleanliness across the country. In line with the national development initiative we initiated a village sanitation campaign 'Clean India Programme'.

With increased partnership with the local community we want to ensure that all government schools have functional toilets which are regularly maintained and also used by the students. Inappropriate disposal of human waste posed another problem area with respect to aesthetic nuisance, threat of organic pollution & several infectious diseases in epidemic proportions due to contamination of ground water and drinking water resources. Thus all the sanitation facilities were supplemented with Bio-digester tanks (DRDO approved) that aids in the safe disposal of human faecal matter. Bio-digester technology ensures efficient management of solid waste, through eco-friendly biodegradation processes. The bio-digester tanks are tailor made as per the number of users, materials and other factors.

The schools were chosen on the basis of need assessment conducted at various sites coupled with feedback through our stakeholder engagements. We also conducted awareness sessions for the school staff, villagers, village panchayats and school children on sanitation and cleanliness.

CASE STUDY
Sanitation
Our team facilitated the construction of over 350 individual toilets at Dalmiapuram, Belgaum, Kolhapur, Lumshnong and Umrangshu. School sanitation blocks, inclusive of washing and water facilities, were constructed at Kadapa in the south, Nigohi in the north and Cuttack and Lanjiberna in the east. These have benefited over 1,000 school-going children. Bio-digester technology, that uses eco-friendly bio-degradation processes, is used at all our sanitation program areas.

It has been our endeavour to ensure that with each passing year, more and more parts of the country attain ODF (Open Defecation Free) status. This year we have 5 such villages: two at Lumshnong and one each at Kadapa, Lanjiberna and Umrangshu. Over 20 sanitation awareness campaigns and events have been conducted over the year, with the majority of these being organized at resource-poor and under-served locations in the east. At our school sanitation blocks, we ensure that messages on sanitation and hygiene are creatively and colourfully presented as wall cartoons and paintings. These act as constant reminders encouraging behaviour change among users.
**Education**

It is only the proportion and combination of negative and positive values which separates a good contributing member of society from the rest. Virtues or vices in an individual get rooted in early years through interaction with one’s parents, teachers, circumstances, environment, and sometimes even geographic location. We reached out to a number of children across villages around our sites and engaged them in value based educational interventions. From discussions on good values, leadership, gender equality and valuable relationships to academic and sporting events. We implemented a special program in southern India called ‘Quality Education Initiative’ for children with learning disability. For facilitating qualified teachers we provided Teaching Learning Materials (TLM) to schools and Anganwadis.

Learning is a continuous process. And we demonstrated this through our Functional Literacy Programmes for adults launched from Kovandakurichy village near Dalmiapuram. We conducted 50 such programs in the FY’17. The response and success of the program has encouraged us to make it a regular program across all our centres. Apart from learning aids we also help in the construction of school infrastructure and other assist towards socio economic development of the village.

**CASE STUDY**

**Go Cashless, Go Digital**

In December 2016, we launched the ‘Go Cashless Go Digital’ initiative at our Kovandakurichi and Melarasur Watershed projects. With this initiative, 100% transactions in the region went cashless, enabling complete financial transparency and ease of transaction.

In February 2017, at Lumshnong in the north-east, we undertook another awareness campaign at Umlong village with over 100 members of the local community, including members of the Dorbar Shnong and prominent village local administration members. Six Digital Literacy camps were organized, two each at Ramgarh, Jawaharpur and Nigohi. About 250 participants attended these camps and were able to learn about e-commerce transactions and apps such as Paytm, Bhim etc.
**Infrastructure Development**

Infrastructure development creates a multiplier effect on the socio-cultural development of any locality through enhanced economic activity. We engage in an ongoing basis on construction of building infrastructure around our sites on request of local community. Infrastructural structures include roads and bridges, water tanks, overhead storage reservoirs, bore wells, community hall, ring well sheds, a diesel generator and hospital beds.

**Social Development Initiatives**

Consolidated figure for FY’16 and FY’17

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<th>141</th>
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<td>Business should make sure they are not be complicit in human rights abuses.</td>
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<td>Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.</td>
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<td>Businesses should uphold the effective abolition of child labour.</td>
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<td>Businesses should uphold the elimination of discrimination in respect of employment and occupation.</td>
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<td>Businesses should support a precautionary approach to environmental challenges.</td>
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<td>Businesses should undertake initiatives to promote greater environmental responsibility.</td>
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<td>Businesses should encourage the development and diffusion of environmentally friendly technologies.</td>
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<td><strong>Total CO₂ emissions - gross (million tons)</strong></td>
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<td><strong>Total CO₂ emissions - net (million tons)</strong></td>
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<td><strong>Specific CO₂ emissions - gross (kg / ton cementitious material)</strong></td>
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<td>531</td>
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<tr>
<td></td>
<td><strong>Specific CO₂ emissions - net (kg / ton cementitious material)</strong></td>
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<td>526</td>
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<td><strong>Fuels and Raw Materials</strong></td>
<td><strong>Specific Heat Consumption (SHC) of clinker production (MJ/ton of Clinker)</strong></td>
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<td><strong>Specific Heat Consumption (SHC) of clinker production (Kcal/Kg clinker)</strong></td>
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<td><strong>Alternative Fuel Rate (%)</strong></td>
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<td><strong>Biomass Fuel Rate (%)</strong></td>
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<td><strong>Total Alternative Fuel Rate (%)</strong></td>
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<td></td>
<td><strong>Alternative Raw Materials Rate (%)</strong></td>
<td>31.9%</td>
<td>28%</td>
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<td><strong>Clinker / Cement Ratio (%)</strong></td>
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## Disclosure on Cement Sustainability Initiative (CSI) Index (contd.)

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<td>Number of fatalities (indirectly employed)</td>
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<td>Number of fatalities (3rd party)</td>
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<td>Number of Lost Time Injuries (directly employed)*</td>
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<td>Total number of Lost Time Injuries</td>
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<td>Lost Time Injuries per 1 million man-hours (directly employed)</td>
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<td>Coverage rate continuous measurement: percentage (%) of clinker produced with continuous monitoring of main pollutants, dust, NOx and SOx</td>
<td>90%</td>
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<tr>
<td>Absolute emissions for dust pollutants (in tons/annum)</td>
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<td>Specific emissions for dust pollutants (in grams/ton of clinker)</td>
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<tr>
<td>Absolute emissions for NOx (in tons/annum)</td>
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<tr>
<td>Specific emissions for NOx (in kg/ton of clinker)</td>
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<tr>
<td>Absolute emissions for SOx (in tons/annum)</td>
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<td>Specific emissions for SOx (in kg/ton of clinker)</td>
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<tr>
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<tr>
<td>Total water withdrawal (m³)</td>
<td>44,82,725</td>
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<tr>
<td>Total water discharge (m³)</td>
<td>0</td>
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<tr>
<td>Percentage of sites with recycling system (%)</td>
<td>81.8%</td>
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<tr>
<td>Percentage of sites with a water process (%)</td>
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<th>Local Impact &amp; Biodiversity</th>
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<tr>
<td>Percentage (%) of sites with quarry rehabilitation plans in place</td>
<td>100%</td>
</tr>
<tr>
<td>Percentage (%) of sites with community engagement plans in place</td>
<td>100%</td>
</tr>
<tr>
<td>Number of quarries within, containing or adjacent to areas designated for their high biodiversity value.</td>
<td>As per Government of India regulations, our quarries do not fall in or adjacent to areas with high biodiversity value.</td>
</tr>
<tr>
<td>Percentage (%) of quarries with high biodiversity value where biodiversity management plans are actively implemented</td>
<td>No quarry falls in areas with high biodiversity value</td>
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<tr>
<td>GRI Standard No.</td>
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<td>102-48</td>
<td>Restatements of information</td>
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<td>Changes in reporting</td>
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<td>Recycled input materials used</td>
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## Energy

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<td>Water withdrawal by source</td>
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<th>ENVIRONMENTAL COMPLIANCE</th>
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<th>SOCIAL TOPICS</th>
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<tr>
<td>LABOUR/MANAGEMENT RELATIONS</td>
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<td>OCCUPATIONAL HEALTH AND SAFETY</td>
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<td>TRAINING AND EDUCATION</td>
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<td>CHILD LABOUR</td>
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The Management and Board of Directors
Dalmia Bharat Ltd.,
11th & 12th Floor, Hansalaya Building
15, Barakhamba Road, New Delhi - 110001

Independent Assurance Statement:

Ernst & Young LLP (EY) was engaged by Dalmia Bharat Limited (the 'Company') to provide independent assurance on its integrated Report 2015-17 (the 'Report') covering salient features of business as well as sustainability, including performance during the period 1st April 2015 to 31st March 2017.

The development of the Report based on the International Integrated Reporting Council (IIRC) Framework and Global Reporting Initiative (GRI) Standards, its content and presentation is the sole responsibility of the management of the Company. EY’s responsibility, as agreed with the management of the Company, is to provide independent assurance on the report content as described in the scope of assurance below. Our responsibility in performing our assurance activities is to the management of the Company only and in accordance with the terms of reference agreed with the Company. We do not therefore accept or assume any responsibility for any other purpose or to any other person or organization. Any dependence that any such third party may place on the Report is entirely at its own risk. The assurance report should not be taken as a basis for interpreting the Company’s overall performance, except for the aspects mentioned in the scope below.

Assurance criteria

Our assurance is in accordance with International Federation of Accountants’ International Standard for Assurance Engagements Other than Audits or Reviews of Historical Financial Information (ISAE 3000), and our conclusions are for ‘limited’ assurance as set out in ISAE 3000.

Scope of assurance

The scope of our work for this assurance engagement was limited to review of information pertaining to environmental and social performance for the cement and power business for the period 1st April 2015 to 31st March 2017. We conducted review and verification of data collector’s measurement methodology and general review of the logic of inclusion/ omission of necessary relevant information/ data and this was limited to:

- Review of the Integrated Report for detecting, on a test basis, any major anomalies between the data/information reported in the Integrated Report and the relevant source;
- Review the level of adherence to IIRC framework, the reporting framework followed by the Cient in preparing the Integrated Report;
- Review of Cement Sustainability Initiative’s (CSI) key performance indicators presented in the Report for any major anomaly between the reported data and relevant source data/information;
- Review of the annual Greenhouse Gas (GHG) emissions (scope-I, scope-II and scope-III) presented in the Report with respect to GHG protocol by World Business Council for Sustainable Development (WBCSD), for any major anomaly between the reported data and relevant source data/information;
- Verification of the sample data and information reported at the following units/locations:
  - Ariyalur (Tamil Nadu)
  - Dalmiapuram (Tamil Nadu)
  - Rajangpur (Odisha)
- Review of claims and data streams, on a selective test basis, to determine the level of accuracy of statements in the Report, and of reported data;
- Execution of an audit trail of claims and data streams, on a selective test basis, to determine the level of accuracy in collection, transcription and aggregation;
- Review of the Company’s plans, policies and practices, pertaining to their social, environment and sustainable development, so as to be able to make comments on the fairness of the integrated reporting.
Limitations of our review

The assurance scope excludes:

- Data and information outside the defined reporting period (1st April 2015 to 31st March 2017);
- The plants outside the reporting boundary for the respective years FY 2015-16 and FY 2016-17;
- Review of the 'economic performance indicators' included in the Report which, we have been informed by the Company, are derived from the Company's audited financial records;
- The Company's statements that describe expression of opinion, belief, inference, aspiration, expectation, aim or future intention;
- Data, statements and claims already available in the public domain through Annual Report, Corporate Social Responsibility reports, or other sources available in the public domain;
- Review of the Company's compliance with regulations, acts, guidelines with respect to various regulatory agencies and other legal matters.

Our assurance team and independence

Our assurance team, comprising of multidisciplinary professionals, was drawn from our Climate Change and Sustainability network, and undertakes similar engagements with various Indian and international companies. As an assurance provider, EY is required to comply with the independence requirements set out in International Federation of Accountants (IFAC) Code of Ethics for Professional Accountants. EY's independence policies and procedures ensure compliance with the Code.

Observations and opportunities for improvement

During our review process, we observed that:

- The Company has compiled the Report on the basis of IIRC framework and in-accordance 'core' criteria of GRI Standards of the Global Reporting Initiative;
- The Company has reported on the salient features and performance corresponding to the six capitals of IIRC framework viz. Financial Capital, Manufactured Capital, Intellectual Capital, Social and Relationship Capital, Natural Capital and Human Capital.
- The Company may further expand its reporting coverage to include additional KPIs corresponding to each of the above capitals.
- The Company has demonstrated its commitment on financial and non-financial performance by releasing its Integrated Report. Going forward, the Company may further strengthen the procedures, templates to capture data and internal review mechanism for various non-financial disclosures, such as, scope-ill emissions.

Conclusion

On the basis of our procedures for this limited assurance, nothing has come to our attention that would cause us not to believe that the Company has reported on the identified sustainability issues materially significant to its business and its stakeholders.

Emst & Yong LLP

Chaitanya Kaia
Partner

Dated: 02 February 2018
Place: Mumbai, India

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1 International Federation of Accountants (IFAC) Code of Ethics for Professional Accountants (2013) establishes ethical requirements for professional accountants.