ACC

SHAPING A
SUSTAINABLE FUTURE

ACC LIMITED

SUSTAINABLE DEVELOPMENT REPORT 2017

“For us at ACC, sustainability is about being ready for tomorrow. Climate change, fuel and energy prices, water and resource scarcity are all going to have an impact on our business. This is why we are taking positive action now.”

Neeraj Akhoury
Managing Director & CEO, ACC Limited

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Chairman's Statement

Dear Stakeholders,

All good companies have an ambitious vision for their business. But success, most often, comes with a price tag. Increasingly, it has become imperative that the processes employed in the pursuit and delivery of this vision and profits are socially and environmentally responsible.

The challenge for business leaders today is to balance the needs of an organisation with those of the economy, the environment and society at large - for today and for future generations. Developing countries like India are even more pressured in the quest to urgently improve living conditions, infrastructure, employment and the security of its citizens while addressing ecological concerns. Sustainability is not a buzzword. For the country as well as businesses, pursuing growth whilst minimising their environmental impact is the only way to ensure a sustainable future.

Clearly this is no easy task. At ACC, we've had decades of experience in taking challenges head-on, whether it is our recent collaboration that led to pumping of concrete made of ACC cement to a world record distance of 2.43 kms for the Sainj Hydroelectric Power Project in Himachal Pradesh or reducing specific CO_2 emissions by 34% per tonne of cement since 1990. On the environmental front, we also significantly reduced our specific electrical energy consumption and made a sizable reduction in overall freshwater withdrawal in our cement operations. On the social front, we enhanced our CSR outreach to ~4.82 lakh people. This positions us well on the path to meet targets of the Company's 'SD 2030 Plan' which is particularly focused on the areas of Climate, Circular Economy, Water & Nature and People & Communities.

We are proud that ACC is an innovative and successful company delivering profits to its shareholders and value to all its stakeholders. But more than that, a strong financial performance allows us to make substantial investments in technology that produces superior quality cement, makes our operations safer and contribute more meaningfully to the communities near our plants.

We are delivering for our future. As you read through this report, I am confident that you will appreciate the scale of our ambition, the seriousness of our intent, and the rigour with which we are implementing it.

I am grateful to the employees of ACC for their commitment and to our extended family of stakeholders for supporting our endeavours to continually improve the way we do business.

N. S. Sekhsaria

Narotam Sekhsaria

Managing Director & CEO's Message

Sustainability is deeply embedded in our business model, focused on the four pillars of Climate, Circular Economy, Water & Nature, and People & Communities and I am proud to state that ACC has done robust work in 2017 to surpass its target in each of these areas.

Dear Stakeholders,

We recognise that we are operating in a world where many natural resources that our business relies on, such as limestone, fossil fuels and water, are limited. Managing and measuring our environmental impact is not only important for the planet, it is essential for the financial sustainability of our supply chain and our business.

Through ACC's Sustainable Development 2030 Plan, we manage the company's most material economic, environmental and societal impacts with the ambition to create shared value for our business as well as diverse stakeholders around the country. Meeting stakeholder expectations creates a more positive role for our business and the industry as a whole. This includes protecting the water resources on which our operations and communities rely, and investing in community programmes that empower stakeholders throughout our value chain. It also includes managing impacts that are fundamental for any company that does business the right way, such as governance and ethics, people and labour, and other environmental issues such as carbon emissions, biodiversity, waste and packaging.

For the 11th year now, ACC has been publishing its Annual Sustainable Development Report, upholding a tradition of providing information of value to the reader as well as assessing and reinforcing the internal chain of accountability. In this year's sustainability disclosure, we made an effort to map our SD strategies, approach and initiatives to the 17 United Nations Sustainable Development Goals .

I am sure that our shareholders will be very pleased with ACC's business performance in 2017 - its robust revenue and volume growth, improved productivity, capacity utilisation and market share, as well as the dividend payout.

Sustainability is deeply embedded in our business model, focused on the four pillars of Climate, Circular Economy, Water & Nature, and People & Communities and I am proud to state that ACC has done robust work in 2017 to surpass its target in each of these areas. We significantly lowered our carbon footprint and are in line with our target to reduce CO_2 emissions by 34%; we have utilised ~10 mn tonnes of waste; reduced freshwater withdrawals by 15%; and our community programmes have benefitted half a million people across the country.

'Safety' is one of our overarching values. Our highest priority is to ensure that everyone involved in our business, from employees to contractors, goes home safe every day. Our Health and Safety Improvement Plan involves strengthening leadership and accountability, building employee capability, making H&S systems more robust, a thrust on road safety and organisational health.

At ₹ 21.82 crores, our CSR expenditure of 2.33% of ACC's net profit has helped transform lives in over 200 villages across the country; improving access to health and sanitation, education, livelihood and income generation opportunities, as well as empowering women.

Ever so often, we stop and ask ourselves - are we giving back more to society than we take from it? The Management of ACC and I can quite honestly say that we do. We are confident that through this report, you dear reader, will agree with us.

Neeraj Akhoury

A Balanced Scorecard in 2017

ECONOMIC	ENVIRONMENTAL	SOCIETAL
Highest ever cement sales. Sales volume grows 14% at 26.21 mn tonnes as compared to 22.99 mn tonnes in the previous year	ACC's Sustainable Development Report for 2016 is India's first to be based on new GRI Standards, one year ahead of schedule	Strengthened Health & Safety regimen, which enabled reduction of LTI and LTIFR by half. We regret losing one employee at our site during the year
Improved operating EBITDA and margin; PAT up 41%	Roadmaps and interim targets prepared to achieve SD 2030 plan	H&S guidelines rolled out for RMX business
Additional volume from expanded capacity at Jamul and Sindri enhanced market presence in the East	Specific CO_2 Emissions cut by 3.7 % from 545 kg/tonne in 2016 to 525 kg /tonne in 2017	'Star Warehouse Rating' programme launched to upgrade safety parameters at warehouses and make them best-in-class
Average selling prices of cement increased by 5% YoY, despite continued pricing pressure	ACC utilized ~10 mn tonnes of waste derived resources including fly ash and slag	CSR expenditure of ₹ 21.82 crore or 2.33% of average net profit
Continued thrust on promotion of premium cement products yielded increase of ~ 20% in sales volume	Green energy generation 37 mn units wind energy 53 mn units waste heat recovery 6.55 mn units solar power	ACC's CSR activities positively impacted over 4.82 lakh people residing in 202 villages
Ready Mix Concrete sales volume grows 11% YoY to 28.77 lakh cubic metres	Specific electrical energy consumption down 5% from previous year	Supported the setting up of 22 new Green Building Centres (GBCs). In all GBC's helped build 7,736 low cost shelters
Focus on large projects like infrastructure, roads and metros in the B2B segment enables consistent growth	20% reduction in specific freshwater withdrawal in cement operations vis-a-vis 2016	Employee engagement measured in 'Pulse Survey' shows highest score among Group companies
Rationalising road movement enhances logistics efficiency and helps ease diesel price increases	Life Cycle Assessment exercise taken up for all cement products; EPD later published in 2018	Harmonious Industrial Relations maintained
CRISIL reaffirmed its highest credit rating of AAA / STABLE for ACC's long-term financial instruments	Biodiversity Indicator & Reporting System in place to monitor changes. Biodiversity training at all mines. Planted ~ 1.4 lakh trees	Tie-up with Apollo Hospitals to provide top class tertiary medical care to employees

2.0 Organisation & Strategy

Our business practices and management approach contribute to the following Sustainable Development Goals

2.1 About the Report

ACC Limited used the Global Reporting Initiative (GRI) framework for communicating its sustainability agenda for the first time through its Corporate Sustainable Development Report in 2007. This is the 11th year of the report that reviews sustainability performance in 2017. This report has been prepared in accordance with the GRI Standards: Comprehensive option. Although GRI had recommended these standards be used for reporting from July 2018, ACC proactively adopted them in its 2016 report and was recognised by GRI South Asia as being the first in India to adopt the latest standards. (GRI 102 - 50, 52, 54)

This report addresses the performance of all of its operations viz. limestone mines, cement plants and ready mix concrete plants and all their related processes; excluding office buildings and five subsidiary companies which are not material subsidiaries as defined by SEBI and together have no significant bearing on overall operations. In addition, ACC has two joint ventures and two associate companies which are named in the Board's Report of the Annual Report and on the Company's website, which are also excluded from the scope of this report. (GRI 102 - 46, 49)

This report does not contain any restatement of information given in previous reports. The format adopted here is the same as in the report for 2016.

Materiality was assessed afresh in 2018 including prioritisation of stakeholders. This exercise was entrusted to Thinkstep Sustainability Solutions Pvt. Ltd., a subsidiary of Thinkstep AG, Germany, that specialises in sustainability software and consulting. Details are presented in chapters 2.5 and 2.6. As before, we dedicate this report to our stakeholders whose interests and concerns are reflected in the materiality matrix presented in Chapter 2.6. (GRI 102- 48)

We have attempted to make this report more concise while providing background data and references to our website. In doing so, we have ensured that it remains comprehensive and includes all material topics. The boundaries for material topics are indicated based on an assessment of positive or negative impacts on stakeholder groups and their influence or proximity to the organisation. The ACC's Annual Report for 2017 was used as basic reference. Images, tables and charts are obtained from internal sources, wherever readily available. This year we have also aligned our report with United Nations Sustainable Development Goals.

The report was compiled and steered by ACC's Environment & Energy Conservation Cell (EECC) in close collaboration with the Corporate Communications Department and other functional departments of ACC. A complete GRI Index is annexed at the end of the report.

External assurance of the report is provided by an independent agency M/s TUV Nord India Pvt. Ltd. and their Assurance Statement is a part of this report.

We welcome any feedback, queries or suggestions which may be sent by email to corporate.communications@acclimited.com. (GRI 102-53)

2.2 Organisation Profile

7,422
Employees

17
Cement Plants

62
Ready Mix Concrete Plants

21
Sales units with several Zonal Offices

10,000+
Dealers

ACC Limited, one of India's leading manufacturers of cement and concrete was incorporated in 1936. Today, its operations span the country with 17 cement factories, 62 Ready Mix Concrete plants, 21 sales units and several zonal offices. It has a workforce of about 7400 people and an extensive countrywide distribution network of over 10,000 dealers. Headquartered in Mumbai, the company's operations are wholly domestic. Since 2016, ACC Limited is a subsidiary of Ambuja Cements Limited and a member of the LafargeHolcim Group, the leading global construction materials and solutions company.
(GRI 102-7)

The Company has long been recognised as a trendsetter in cement and concrete technology. The Company is recognised for its unique expertise in cement manufacture, mining and distribution. With a track record of innovative R&D and product development, ACC built India's first indigenous cement plant, the first bulk cement handling facility, and was first to launch the commercial distribution of Bulk Cement and Ready Mix Concrete. It is a big customer of the domestic coal industry and a considerable user of India's vast network of rail and road transport network for inward and outward movement of materials.

ACC is among the first in India to demonstrate commitment to environmental protection and installed sophisticated pollution control equipment dating back to 1966, much before pollution control laws came into existence. Besides this, the company has numerous planet-friendly business practices like rehabilitating used mines into forests and useful water bodies, promoting renewable energy sources and alternative fuel and raw materials to conserve mineral resources and lower its carbon footprint. Under the Geocycle brand, ACC offers effective solutions for management of industrial, agricultural and municipal waste through co-processing in its cement kilns.

Taking purposeful steps in knowledge building, ACC runs two institutes that offer professional technical courses relevant to the manufacturing sectors that mainly benefit youth from backward areas. ACC also supports seven government run Industrial Training Institutes (ITI) by upgrading their quality of education and infrastructure.

Felicitated as one of India's most trusted brands that contributed significantly to building the nation, ACC has touched the lives of millions of Indians with its quality products, services and expertise. Its deep commitment to sustainable development, high ethical standards and ongoing efforts in community welfare have won it acclaim as a responsible corporate citizen. ACC's name has for long been synonymous with cement and continues to enjoy a high level of equity in the Indian market.

2.3 Corporate Governance

BOARD OF DIRECTORS
(as on April 18, 2018)

N. S. Sekhsaria
Chairman

Jan Jenisch
Deputy Chairman

Neeraj Akhoury
Managing Director & CEO

Martin Kriegner

Shailesh Haribhakti

Sushil Kumar Roongta

Ashwin Dani

Farrokh K Kavarana

V K Sharma

Arunkumar R Gandhi

Falguni Nayar

Christof Hässig

ACC is respected by its stakeholders for conducting business in a manner that demonstrates integrity, transparency, accountability and compliance with the law. This has infused stakeholder trust and confidence, helped attract and retain financial and human capital and meet societal expectations. (GRI 102-5, 16)

Board of Directors

The Board is made up of executive and non-executive directors; all eminent professionals selected on the basis of their expertise in areas relevant to the Company and their ability to advise on matters of strategy, economic, environmental and social aspects. The Board plays a pivotal role in ensuring good governance and its role, responsibility and accountability are clearly defined. The Board and its Committees guide the Management team which is accountable for achieving the Company's objectives and enhancing stakeholder value.

Pursuant to SEBI Listing Regulations, the Company has a policy on Board diversity that is posted on the Company's website and can be accessed on the following link http://www.acclimited.com/assets/new/new_pdf/Policyondiversityoftheboard.pdf (GRI 102-18)

Leadership & Organisation Structure

The Managing Director & Chief Executive Officer (MD & CEO) provides the strategic direction, lays down policy guidelines and ensures implementation of the decisions of the Board of Directors and its various Committees and functions under the superintendence, direction and control of the Board.

The Executive Committee (ExCo) supports the MD & CEO and comprises the Chief Financial Officer (CFO), Chief Manufacturing Officer, Chief People Officer and Chief Procurement Officer. The ExCo is responsible for overall business deliverables and meets regularly to review and monitor the implementation of annual plans and budgets, discuss cross-functional matters and address business challenges. (GRI 102-18, 19)

Organisation Structure, Roles and Responsibilities

ACC has a function-based organisation structure with verticals for the functions of Sales & Marketing, Manufacturing, Human Resources, Finance, Procurement and other Corporate Services. Cement Plants and Marketing units are grouped into four regional clusters viz. North, South, East and West. Regional Heads for Sales, Logistics, Finance and HR report to the respective Vertical Head. Plant Heads report to the Manufacturing Cluster Head in the region. Procurement activities are managed by India Procurement Organisation (IPO) from five cluster offices. Health & Safety reports to the MD & CEO whilst the Secretarial, Compliance and Legal functions report to the CFO. (GRI 102- 20)

Committees of the Board

The Board of Directors has constituted various Committees of Directors to focus on specific areas of business to assist it in discharging its duties and responsibilities. Mandatory committees include the Audit Committee, Stakeholders' Relationship Committee, Nomination & Remuneration (N&R) Committee, Corporate Social Responsibility (CSR) Committee and the Risk Management Committee. Two other committees constituted by the Board are the Compliance Committee and the Special Committee to specifically study the merits and

challenges of corporate restructuring. The Board reviews the functioning of the committees. The Chairman of each Committee convenes its meetings and the minutes are circulated to the Board of Directors and tabled at the Board Meeting. Their composition and terms of reference are set out in more detail on the Company's website and in the section on Corporate Governance of the Annual Report for 2017. The links to these pages are furnished in the last paragraph of this chapter.
(GRI 102-18-24)

Code Of Business Conduct

The Board of Directors has approved a Code of Business Conduct applicable to Members of the Board and to all employees. ACC has a policy of 'zero tolerance' to bribery and corruption in any form which is explained at length in the 'Anti-Bribery & Corruption Directive', annexed to the above Code, which has been posted on the Company's website www.acclimited.com. All Board Members and Senior Management personnel have confirmed compliance with the Code. Management staff is trained on the Code periodically. (GRI 102-17, 25)

Board Effectiveness and Other Governance Practices

Well-defined guidelines and rules ensure the effectiveness and probity of all aspects of the functioning of the Board and its supervision of the overall performance of the company. This includes procedures adopted for:

- Familiarisation Programme for Independent Directors
- Board's annual self-evaluation of its performance
- Criteria for selection of candidates for appointment as Directors and Key Managerial Personnel and for senior leadership positions
- Remuneration Policy for Directors, Key Managerial Personnel and Members of the Executive Committee
- Related party transactions
- Prevention of Insider Trading

More details are available at www.acclimited.com/investor-relations/corporate-governance and also in the section on Corporate Governance on page 91 of the Annual Report for 2017 available at www.acclimited.com/newsite/annualreport2017/ACC_Annual_Report-2017.pdf
(GRI 102-28, 32-37)

2.4 Key Impacts, Risks & Opportunities

Risk Management Committee
Shailesh Haribhakti
Falguni Nayar
Sushil Kumar Roongta
Neeraj Akhoury

Identifying and managing business risk is one of the key success factors of any business activity and it begins with robust governance practices. The governance structure within the Organization has well defined roles and responsibilities that enable and empower the Management to identify and cash in on business opportunities, and manage risks. In addition, there is a comprehensive framework for strategic planning and implementation and performance monitoring of the business plan, which, inter alia includes a well-structured Business Risk Management (BRM) process. With a view to systematically identify risks and opportunities and monitor their movement, a heat map has been developed comprising two parameters viz. likelihood of the event and the impact it is expected to have on the Company's operations and performance. The risks that fall under high likelihood and high impact are identified as key risks. This structured process in identifying risks supports the Executive Committee in strategic decision-making and in the development of detailed mitigation plans. The identified risks are then integrated into the Company's planning cycle which is a rolling process to inter alia periodically review the movement of the risks on the heat map and measure the effectiveness of the mitigation plan.
(GRI 102-11, 15, 29-32,201-2)

Key Business Risks and Mitigation Plans

Raw Material Risk

Fuel: The manufacture of cement is an energy intensive process. Coal and petcoke are the principal fuels used by the Indian cement industry to produce thermal energy. The Company requires more than 5 mn tonnes of coal and petcoke to meet the requirements of its kilns and captive power plants. During the year, there was a short supply in the availability of linkage coal, and the Company had to source its requirement of coal at higher prices from the domestic open market and from imports. Petcoke prices also witnessed a significant increase during the year. In October 2017, the Supreme Court of India imposed a temporary ban on the usage of petcoke in the States of Rajasthan, Haryana and Uttar Pradesh with a view to curb pollution. The ban was eased in December 2017 for the cement industry, when the Supreme Court allowed cement companies to use petcoke as a feed stock. However, the apex court has sought a nationwide ban on the use of pet coke, which, if imposed, would consequently increase the Company's dependence on imported coal, the cost of which is ~20% to 30% higher than that of petcoke. This could in turn increase the fuel costs. The procurement of domestic coal was also laden with various challenges mainly availability of wagons. The continuous volatility in fuel prices in international markets, a probable ban on the usage of petcoke, and the uncertainty over availability of domestic and linkage coal, continue to pose challenges for the cement industry as well as the Company. Despite these challenges, various initiatives and proactive measures taken by the Management in bringing about improvements in the overall manufacturing performance has helped in softening the aforesaid inflationary pressures. The Company has progressively increased the usage of AFR, improved fuel mix at certain plants, entered into firm contracts for part volume and balance on spot to capture opportunities, spread out purchases throughout the year and explored long term off take from local refineries.

Limestone Availability: Limestone is one of the main raw materials which is used to manufacture cement. It is therefore of paramount importance for the Company to ensure an uninterrupted long-term availability of this vital mineral. As per the new Mines and Minerals (Development & Regulation) Amendment Act 2015 (MMDR), leases granted before

the commencement of the Act, for captive use are extended up to March 31, 2030, or till the completion of their existing periods of renewal, whichever is later. Most of the Company's limestone leases thereby get an extension up to March 31, 2030. New mining leases will henceforth be allotted through an auction process to the highest bidder. The period of lease will be fifty years from the date of grant. Forest & Wildlife clearances are now a prerequisite and land acquisition is becoming more challenging and expensive. To address this risk, the Company has taken steps for converting its prospecting licenses into mining leases and also plans to secure new mining leases for its existing plants and for new expansions at different locations. Further, considering that limestone is a natural resource, its usage is done judiciously in the manufacture of cement by adding higher percentage of additives by which it is possible to use low grade limestone, thereby conserving minerals and increasing the life of the mine.

Market Competition

The total installed capacity of the cement industry in India is much higher than its capacity utilization which presently is ~70%. While this imbalance is expected to continue for some time, capacity expansion continues. Thus, the Indian cement industry has become intensely competitive. This could potentially impact the sales volumes, market share and profitability of the Company. To mitigate this risk, the Company is leveraging its newly created capacities at Jamul and Sindri to increase its market share, enhance its brand equity and visibility, and enlarge its product portfolio by increasing the share of its premium products in the retail segment, application based products and value-added services to the B2B segment. The Company is also exploring asset smart options such as tolling and de-bottlenecking at some of its existing plants to increase volume and market share.

Cyber Security

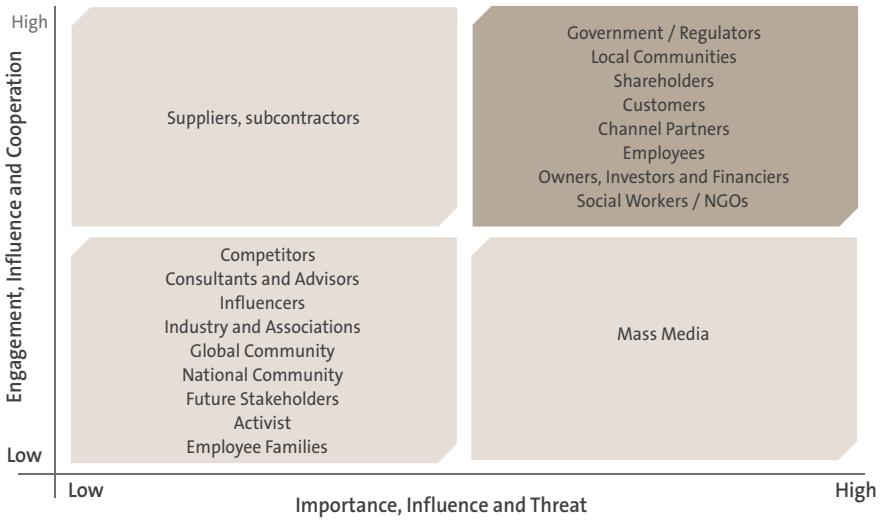
Globally there has been a growing dependence on computer systems and the use of internet for doing business and storing of important and sensitive data. However, the rapid growth of technology and sophistication of wireless devices and network have made it easy for unethical hacking of sensitive data and has given rise to a higher risk of fraud. The Company's IT systems are fully geared to meet the threat of "Distributed Denial of Service" (DDOS) attacks which are highly probable. Manufacturing companies are the new targets as evidenced by recent attacks on large Indian and global firms. The ramifications from cyber attacks are not limited to mere loss of data, but could also result in business and reputation loss. The Indian Government having recognized these risks, has also introduced tighter Cyber Security laws. Responsibilities have been thrust on the Directors of the Company under the Companies Act, 2013 to take appropriate steps to ensure cyber security. ACC's Business Landscape presents a large surface for a possible attack in view of its vast network spread across many remote locations, with complex IT and OT environments. There is however a strong firewall and well established Disaster Recovery System within the LafargeHolcim Group. Most of the hardware and software have been mapped. The Company's cyber security management framework aligns with industry standards and regulations. LafargeHolcim has launched a robust programme on cyber security called 'Zenith'. This programme is aimed at facilitating LafargeHolcim Group Companies to stay abreast and vigilant against possible cyber attacks and remain a step ahead by taking immediate remedial action

2.5 Stakeholder Engagement

With a pan India footprint, ACC touches the lives of countless Indians who purchase its cement and concrete through a vast distribution network. The extended workforce comprising permanent employees, contract and third-party workers as well as trade unions are one of the important groups with daily engagement. Other important stakeholders are shareholders, investors and the community living in the vicinity of our plants and mines.

Stakeholder Analysis

Stakeholder analysis is done periodically. It was done last in 2016 when we undertook a detailed exercise of stakeholder identification, mapping their interface and influence, and thereafter, prioritisation. This year we revisited that analysis through a survey inviting the views of the senior management in order to validate stakeholder mapping and prioritisation. The stakeholders were remapped in terms of their importance to ACC and their levels of influence, threat and cooperation. The accompanying matrix presents Stakeholders' Importance, Influence & Threat to ACC on X-axis and ACC's Engagement, Co-operation & Influence on stakeholders on Y-axis. (GRI 102-40, 42)



Effective Engagement

Our approach to stakeholder engagement remains the same. We continue to engage closely with key stakeholder groups across all functions at different levels depending on the nature of the relationship and transactions. Communication is an important aspect of engagement using direct and indirect means, such as frequent meetings, one-on-one interactions, email messages, informative intranet portals, webcasts and events, which are two-way channels that provide feedback and suggestions to help make continuous improvements in the quality of our services. The aim is to build a strong chain of accountability within the organisation towards meeting stakeholders' needs and concerns, and the quality of our services. (GRI 102-43)

Charters and Memberships

At the global level, ACC is an active member of the Cement Sustainability Initiative (CSI), United Nations Global Compact (UNGC), Leaders for Nature (LfN) of the International Union for Conservation of Nature (IUCN) and India Business and Biodiversity Initiative (IBBI) of the

Confederation of Indian Industry (CII). (GRI -102-12) In India, ACC is a member of important chambers of commerce, trade and other associations. The benefits from these memberships flow from participation in seminars hosted by these bodies, learning from their vast database of knowledge and best practices, opportunities for networking and partnerships, access to decision makers and experts, understanding global and national trends, and gathering fresh insights into government policies and their impact on businesses. Simultaneously, these memberships often serve as platforms to promote our products, services and best practices. (GRI -102-13)

Organisation	Issues of interest and benefit to us
National Safety Council	- Learnings on best safety practices through newsletters and training opportunities - Benchmarking through participating in awards
British Safety Council	As above
Confederation of Indian Industry	- Learning best practices and current trends - Sharing issues of common interest with industry - Representing causes of industry before the government - Useful platform for advocacy - Prestigious award competitions
Federation of Indian Chambers of Commerce & Industry	As above
Bombay Chamber of Commerce & Industry	As above
Indian Merchants' Chamber	As above
PHD Chamber of Commerce and Industry, Delhi	As above
Council for Fair Business Practices	To support the cause of fair business practices and project ACC positively
The Institute of Company Secretaries of India	Workshops or seminars on Company Law and to receive important publications or journals on matters relating to Corporate Laws
Employers' Federation of India	Employee related issues
Indian Roads Congress	Platform for promoting concrete roads
Indian Geological Congress	Latest development in the field of Geology
Federation of Indian Mineral Industries	- Interface between the government and mining companies - Regular feedback on recent amendments in law policy
The Energy & Resources Institute (TERI) Business Council for Sustainable Development	Platform to address issues relating to sustainability and promote leadership in environmental management and social responsibility
Indian Green Buildings Council	Platform for information gathering and networking with potential buyers
Association of Business Communicators of India	Platform for benchmarking other company publications, best practices and networking

The success of our business strategy depends entirely on how we conduct and leverage engagement with principal stakeholder groups. Inherent in our approach with all stakeholders is the effort to project ACC as a responsible organisation that champions sustainable development.

Stakeholder Engagement

Stakeholder	Key Concerns	Mode of engagement	Frequency
Employees	- Work-life balance - Health & safety matters - Sharing knowledge and best practices - Training & development - Better communication - Fair practices - Performance evaluation, rewards and acknowledgments - Hygiene factors	- Functional and cross-functional committees - Emails, written communication - "Town Hall" meetings and webcasts - Employee newsletter - Intranet portal - Cultural events - Annual satisfaction survey - Safety committees, regular meetings, toolbox talks, Visible Personnel Commitment - Trainings and performance management system - Competitions and quiz - Reporting mechanisms	Daily, Weekly, Monthly, Quarterly, half annually and annually; based on the mode of engagement
Government/ Regulators/ Local Authorities	- Compliance with all laws, rules and regulations - Regular reporting	- Regular visits, applications, - Meetings, presentation, reports and networking in different forums organized by regulatory authorities - Presentations from management	As and when required
Channel - Dealers & Retailers	- Assured quality - Support in sales promotion - Timely delivery - Regular supply - Profitability and return on investment	- Sales calls - Dealer meets - Relationship building activities like meets, events and engagements - Net Promoter Score (NPS) Surveys	High frequency and continuous contact/visits Dealer Meets and NPS survey are typically annual exercises
Consumers(Trade) - Individual Home Builders, Contractors	- Selection of good contractor - Estimation of building cost - Assured quality - Selection of good cement - Process of good construction - Troubleshooting	- Direct consumer calls by customer service engineer - Consumer meets - Information on ACC products - Advice on good construction practices - Exhibitions - Complaint handling & feedback mechanism	Customer visits are regular Others are based on needs and on opportunities in the market
Consumers (Institutional)	- Assured quality - Consistency in product - Timely delivery - Regular supply - One window solution for all cement and concrete needs - Testing if needed	- One-to-one sales calls - Technical after sales service - Key Account Management system - Be a solution-provider	High frequency and regular contact
Communities	- Livelihood opportunities - Enhancing employability and income generation - Quality education - Preventive health and sanitation - Community environment - Rural infrastructure development	- CSR interventions - Volunteering initiatives - Community events and functions - Stakeholder Engagement Surveys - Community Advisory Panels meetings - Social audits	Program-based and regular

Stakeholder	Key Concerns	Mode of engagement	Frequency
Investors	- Information on Company's performance - Company's financial health, growth and performance - Dividend payments, change of address etc	- Annual General Meetings. - "Stakeholders' Relationship Committee" to addresses grievances of investors and shareholders. - Designated email ID to enable members and investors to correspond with the Company. - A toll-free number 1800-3002-1001 that members and investors can call	Quarterly/ annually/ as and when required
Vendors and Suppliers	- Registration as approved vendor - Product specifications - Pricing - Delivery period - Terms of payment - Product failures - Compliance to Supplier code of conduct - User complaints	- By regular interaction either by phone, VC, e-mail or in person. - Suppliers meet - Capacity building on Supplier code of conduct through different forums - Surveys	As and when required
Civil Society Organisations, NGOs	- Enhancing the livelihood, employability and income generation - Providing quality education - Preventive health and sanitation to all sections in the community - Environment sustainability and infrastructure development	- Engaging them as partners in facilitating development of the area - Regular meetings with CAPs, Partner NGOs - Regular visits - Annual Stakeholder Engagement Survey	Regular based on programs
Waste generators	- Awareness of safe & sustainable waste disposal methods - Assurance and awareness about co-processing - Delay in permit process - Handling & transporting waste - Cost-effective disposal solutions - Assurance of regular waste disposal	- Regular visits, emails, telephonic conversations, - Participation in various forums, release of case studies and articles in reputed publications - Customer events	Monthly or more
Trade associations and industrial bodies	- Regular participation - Sharing of information, expertise and best practices	- Working on policy documents by providing inputs - Participating in awards, training and capacity building program	As and when required
Media	- Transparent disclosure and information sharing	- Press releases - Publishing articles, news - Meetings and interviews	As and when required

2.6 Materiality & Organisational Strategy

The exercise of mapping key material topics is conducted periodically and was assessed afresh this year as per the requirement of GRI standards for the reporting year 2017. The exercise was last conducted in 2015-16, the results of which were presented in the report for 2016. In 2018, a comprehensive assessment of materiality was conducted to review the previous assessment, gain new insights and record improvements and changes. We engaged the services of an external sustainability consulting agency Thinkstep to anchor the exercise and provide a clear perspective. The approach comprised focused group discussions and survey responses of a representative sample of external and internal stakeholders. It included the following steps:

- Identification: All material topics were identified as per the organisational context, through industry peer research, sector initiatives, wider sustainability trends and harmonising with SDGs.
- Prioritisation: To prioritise business issues, impact of each material topic on our operations, sales, costs and reputation etc. were discussed at focus group discussions with department head, topics were categorized and ranked. Stakeholder concerns were collected from key stakeholder groups through online surveys and interviews, wherein they were asked to categorise all material topics as low, medium or high.
- Review and validation: Lastly, materiality analysis outcomes were reviewed, validated and finalised in consultation with the SD team.

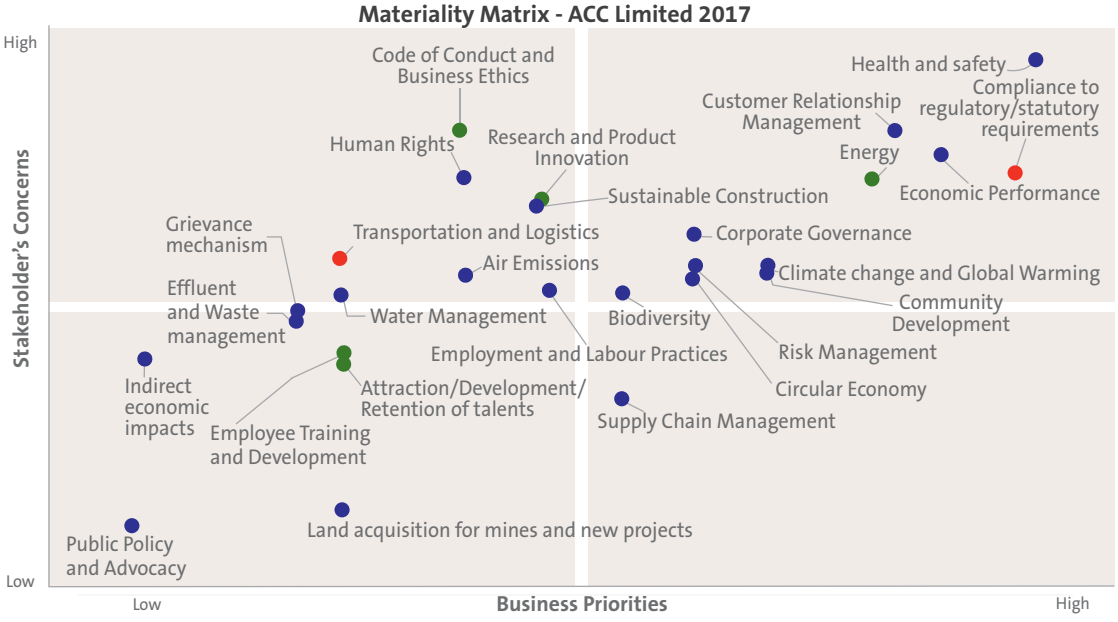
Refining the analysis done in 2016, the material aspects identified this year were aligned with those named by the LafargeHolcim Group in its Sustainability Development 2030 (SD 2030) Plan, and adopted while formulating ACC's SD 2030 plan. Other than this realignment and refinement, the end results are largely similar, mainly because the organisation has not undergone any significant changes in terms of its business or constituent stakeholders. (GRI 102 - 10)

It may be noted that the Company focuses on all impacts of the potential material topics covered in the materiality matrix, whether or not we have direct control over the material topics. Key material topics according to the business priorities and stakeholder's concerns are indicated in the matrix below. (GRI 102-44,47)

Topic Boundaries
- Internal
- External
- Internal & External

(GRI 102-46)

Materiality Matrix - ACC Limited 2017



2.7 Compliance and other Aspects

Compliances

ACC takes compliances seriously with policies and codes in place governing ethical conduct, fair competition and anti-corruption. Senior executives and management staff are regularly made aware of the latest requirements of applicable laws. Compliance matters are reviewed periodically by the top management. (GRI 419 - 1)

During the year, there was no incidence of significant monetary fines or non-monetary sanctions or disputes with regard to any laws and regulations. No cases or orders were brought against the Company but for those described later in this chapter.

Related Party Transactions

All transactions entered into by the Company with related parties during the year were in the ordinary course of business and on an arm's length pricing basis.

Penalties & Strictures

No strictures or penalties were imposed on the Company by Stock Exchanges, the Securities and Exchange Board of India (SEBI) or by any statutory authority on any matters related to capital markets during the last three years.

Fair Competition Directive Programme

The Fair Competition Directive programme (formerly Value Creation in Competitive Environment) was introduced in 2008 with frequent and extensive training conducted to relevant employees aware of fair competitive practices and appropriate behaviour aspects. Specific modules on "Do's and Don't's" in tender bidding have been added.
E-Learning and face-to-face training programmes are now conducted annually for relevant employees, particularly those in sales and purchase functions.

Legal Cases

Complaint filed under Competition Act by Builders' Association of India

In the matter relating to the complaint filed by the Builders' Association of India for alleged violation of the provisions of Sections 3 and 4 of the Competition Act, the Competition Commission of India (CCI) had passed an Order on June 12, 2012 imposing a penalty of 0.5 times of the profit of the Company for the year 2009 (calculated pro-rata from May 20, 2009) and for the full year 2010. For ACC, the penalty amounts to ₹ 1147.59 crore. Thereafter, in an appeal preferred by the Cement Manufacturers before the Competition Appellate Tribunal (COMPAT) against the Order of CCI, COMPAT remanded the matter back to CCI for a fresh hearing and adjudication. CCI on rehearing the arguments, by its Order dated August 31, 2016, once again held the cement companies and the Cement Manufacturers' Association (CMA) guilty of violation of the Sections 3(1) read with 3(3)(a) and 3(3)(b) of the Competition Act and imposed the same penalty. The Hon'ble National Company Law Appellate Tribunal (NCLAT), before which the matter was pending, has completed hearing the arguments of all the appellant cement manufacturers as well as the respondent CCI and its decision has been reserved. As at December 31, 2017, the penalty amount of ₹ 1147.59 crore and interest thereon has been disclosed as a contingent liability in the Notes to Accounts.

CCI's Order on Complaint filed by Director, Supplies & Disposals, State of Haryana

The Director, Supplies & Disposals, State of Haryana had filed a complaint before CCI alleging collusion and bid rigging by cement manufacturers in violation of Section 3(1) and 3(3)(d) of

The Ethics Helpline can be contacted to report any suspected or confirmed incidence of fraud or misconduct on:

- **E-mail**: acc@ethicalview.com
- **Online reporting on** https://integrity.lafargeholcim.com
- **National Toll Free Number**: 18002092008
- **Fax Number**: +91(22) 66459575
- **Address**: PO Box 137, Pune 411 001

the Competition Act. In January 2017, CCI passed an Order against seven cement manufacturers, including ACC, imposing a penalty calculated at the rate of 0.3% of the average turnover of the last three years viz. 2012-13, 2013-14 and 2014-15. In respect of ACC the penalty works out to ₹ 35.32 crore. An appeal is pending before NCLAT in the said matter against the Orders of the CCI. As on December 31, 2017, the penalty amount of Rs 35.32 crore is disclosed as a contingent liability in the Notes to Accounts.(Refer Note 43(A)(c)). (GRI 206-1)

Vigil Mechanism or Whistle Blower Policy

The Ethical View Reporting Policy (EVRP) is a vigil mechanism instituted to report concerns about unethical behavior. The Audit Committee of the Board oversees the functioning of this Policy. Protected disclosures can be made by a whistleblower through several channels to report actual or suspected frauds and violation of the Company's Code of Conduct and/ or Ethics Policy. Details of the Ethical View Reporting Policy are disclosed on the Company's website at www.acclimited.com/sh/ERP.pdf

During the year, the Company reached out extensively to employees through e-learning modules and face-to-face training sessions to create greater awareness about the Company's' Fair Competition Directive and Anti Bribery and Corruption Directive (ABCD). This enabled a high level of engagement and compliance among employees.

In 2017, the Company received 64 complaints under the Ethical View Reporting Policy, of which 51 were resolved and the balance 13 complaints are in various stages of investigation and completion. (GRI 205-1-3, 206-1)

Donations and Political Contributions

Being avowedly politically neutral in its code of business conduct, the Company strictly avoids political donations, campaigns and promotions; it enjoins employees to also observe strict neutrality. The only donations allowed by the company are to legally recognised charitable causes. (GRI 415-1)

3.0 Economic Aspects

Our products, services and business performance contribute to the following Sustainable Development Goals

3.1 Performance Highlights

> At ACC, 2017 was a year of new momentum, focused cost discipline and an emphasis on performance — and the results are commendable.
>
> **Narotam Sekhsaria**
> Chairman, ACC Limited

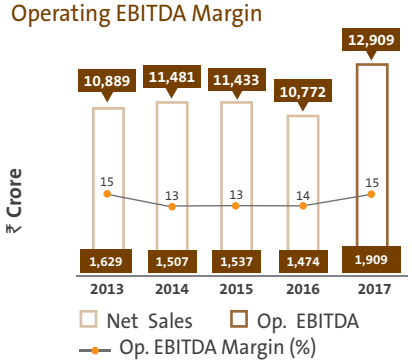
On the economic front, 2017 was a good year for ACC. Sales of cement and concrete by volume and value were the highest ever achieved. While cement sales volume grew at a hefty 14% YoY, Ready Mix Concrete sales volume also recorded an increase of 11%. This was as a result of a thrust on the sale of premium products and value added services. The financial performance was also satisfactory with appreciable upward trends in consolidated operating EBITDA and Profit After Tax, the latter recording a 40% jump despite pressures from rising costs of raw materials and diesel. Consolidated income comprising Revenue from Operations (gross) and other income for the year was ₹14,329.58 crore, 13.31% higher as compared to ₹12,646.20 crore in 2016. Consolidated Profit after Tax for the year was ₹924.41 crore as compared to ₹658.29 crore in 2016. Consolidated operating EBITDA rose by 29% to ₹1,912 crore.

Some highlights are presented in this chapter. More details of the financial performance may be seen on pages 17-26 of the Company's Annual Report 2017 at www.acclimited.com/newsite/annualreport2017/ACC_Annual_Report-2017.pdf. A statement showing Direct Economic Value Generated and Distributed appears on page 22 of the Annual Report 2017 while page 23 shows the Value Added Statement. (GRI 102 - 45, 201 - 1)

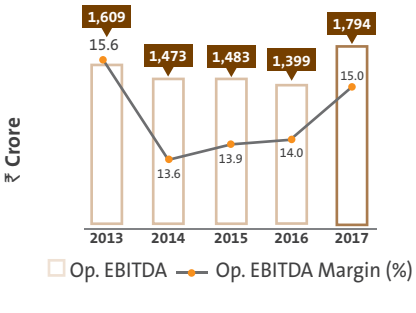
Financial assistance

In 2017, the Company accrued incentives of ₹151.57 Crore under various State Investment Promotion Scheme. Refer to page 195 of the Annual Report 2017 at thttp://www.acclimited.com/newsite/annualreport2017/ACC_Annual_Report-2017.pdf . (GRI 201- 4)

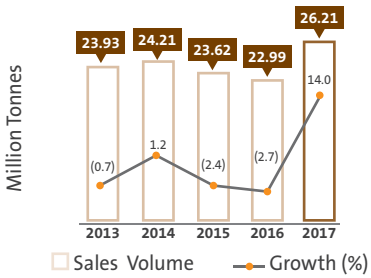
Net Sales, Operating EBITDA & Operating EBITDA Margin



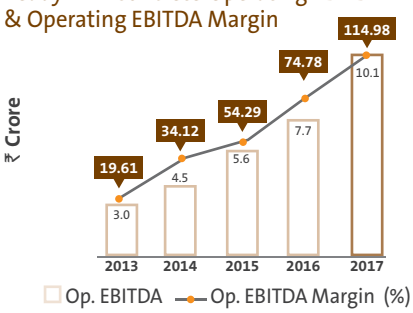
Cement Operating EBITDA & Operating EBITDA Margin



Cement Sales Volume & Growth

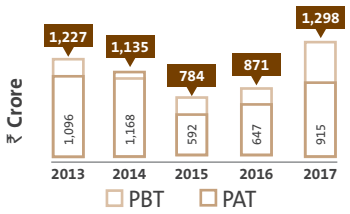


Ready Mix Concrete Operating EBITDA & Operating EBITDA Margin

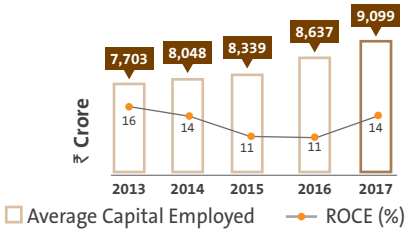


Figures for 2017 and 2016 are as per Ind AS and remaining Figures are as per Previous GAAP

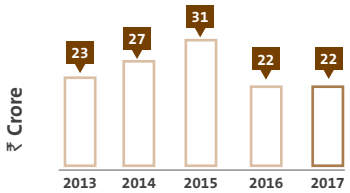
Profit Before Tax & Profit After Tax



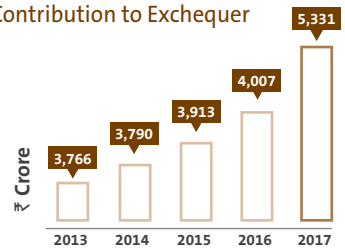
Average Capital Employed & Return On Capital Employed (ROCE)



Corporate Social Responsibility Expenditure

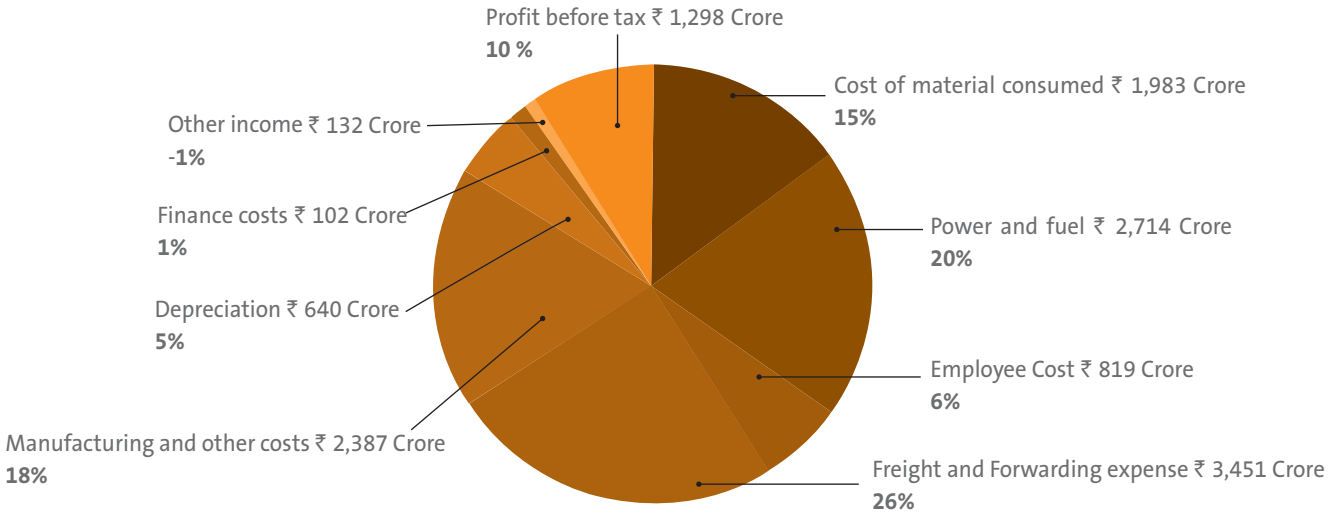


Contribution to Exchequer



Figures for 2017 and 2016 are as per Ind AS and remaining Figures are as per Previous GAAP

Cost and Profit as a percentage of Revenue from Operations (Net) - 2017



3.2 Products & Services

~85%
of our product portfolio consists of blended cements

For over eight decades, ACC has delivered cutting edge building products complemented with reliable customer service. The ACC brand is synonymous with cement and enjoys a high level of equity in India.

The Company has played a vital role in building the nation. It's high quality building materials, services and expertise have raised numerous mega infrastructure projects like dams, canals, irrigation schemes, power plants, ports, airports, bridges, roads and railways; besides transforming cities with skyscrapers, flyovers, housing and metro rail projects. These have together touched the lives of millions of Indians in cities, towns and villages.

Types of Cement

ACC makes four types of cements used in general construction.

43 Grade Ordinary Portland Cement
53 Grade Ordinary Portland Cement
Portland Pozzolana Cement and
Portland Slag Cement

It produces and markets the Gold Range of premium cement products and the Silver Range of base cement products, supplied in high quality packaging. These products assure superior performance for different applications from foundations to roofs, with water repellent properties, for coastal areas with special parameters like early strength and durability. Cement is distributed mostly in 50 kg bags, each made of polypropylene (PP) and AD Star bags. Bulk supply is also offered for large users.

Blended Cements

Portland Slag Cement (PSC) and Portland Pozzolana Cement (PPC) are blended cements that are made by substituting a part of clinker with certain industrial byproducts, such as slag from steel plants or fly ash from thermal power stations. Blended cements are recognised globally as being substantially more environment-friendly as they involve lower CO_2 emissions and help conserve precious limestone resources.

Ready Mix Concrete (RMX)

ACC is among the largest manufacturers of RMX concrete in India with 62 modern RMX plants in major cities and towns. It has a range of building solutions for different applications and custom-made requirements. RMX is mostly sold directly to buyers and end-users. (GRI 102 - 2)

ACC RMX offers a range of Value Added Products and Solutions tailored to meet specific customer requirements. These are only a few examples of the wide portfolio. Others include ACC Speedcrete for quick road solutions and certain high strength varieties.

Quality Specifications

ACC observes more stringent quality norms for manufacturing cement than the relevant statutory ones prescribed by the Indian Standards. ACC cement conforms to 43 Grade Ordinary Portland Cement (IS 8112- 1989), 53 Grade Ordinary Portland Cement (IS 12269-1987), Portland Slag Cement (IS 455-1989) and Portland Pozzolana Cement (IS 1489-Part 1).
Each bag of cement clearly indicates the statutory quality specification to which the cement contained therein conforms. Bags containing special cements also highlight key product benefits in addition to the statutory information.

RMX - Value Added Products

ACC-Feathercrete
50-75% lighter than normal concrete, it has thermal and sound insulation properties. It is fire-resistant, with reduced structural loading.

ACC-Coolcrete
Temperature-controlled concrete designed to maintain temperature within specified limits (even as low as 25O C), useful in mass concrete such as thick slabs, beams and columns.

ACC-Thermocrete
Designed to provide thermal comfort such that the building retains or loses heat as desired, keeping it cool in summer and warm in winter, thus conserving energy.

ACC-Permecrete
Environment friendly concrete which is permeable and permits seepage of water through it, thus improving groundwater tables and avoiding water logging.

ACC-Ecocrete
An environment friendly, high performance, durable concrete, designed to build sustainable structures and protect the environment.

ACC's Ready Mix Concrete business refers to the two codes of IS 456:2000, Plain and Reinforced Concrete - Code of Practice (Third Revision), (Reaffirmed 2005) and IS 4926:2003, Ready Mix Concrete - Code of Practice (Second Revision), 2003.
We do not manufacture any products that are either restricted or disputed.
There were no instances of non-compliance with regulations and voluntary codes concerning product and service information and labeling. Similarly, there was no instance reported for non-compliance with regulations and voluntary codes concerning health and safety impacts of our products and services. (GRI 416 - 1, 417 - 2, 3)

Customers

Individual home builders (IHBs) across the country make up our largest customer segment. IHBs purchase cement from trade channels. An important and growing segment is that of industrial, commercial and infrastructure (ICI) projects. These customers purchase cement directly from the Company. Direct buyers may also include RMX plants or units where cement is consumed as a raw material to make concrete products. The Company has geared up its product range and capability to serve the engineering excellence needed for the increasing number of urban transformation projects.

A Valuable Building Material

The Indian cement industry is the world's second largest and has contributed considerably to the Indian economy by way of offering direct and indirect employment, taxes and revenues. The cement industry is a large user of the Indian Railways, road transport and coal industry. Cement plants, most of which are located in rural and semi-urban areas, have created hubs of economic activity in their vicinity. The consumption of cement per capita is often used as a rough indicator of economic and human development.

Most Viable Building Material

With lower average embodied carbon and energy as compared to most other building materials, concrete is recognised as being the most viable building material in use today. India's cement industry is acknowledged as having the smallest carbon footprint as compared to its counterparts in the rest of the world, with ACC itself enjoying pride of place as being one of the country's most sustainable companies.

Unique Services promoting Sustainability

ACC provides two unique services, not directly related to its main commercial business.

Green Building Centres (GBCs) - technical and logistics support in enabling micro-entrepreneurships in rural and semi-urban areas to promote cement based home-building components that assure affordable construction.

Geocycle - a global brand promoted by LafargeHolcim offering total waste management solutions provided to industries, municipalities, townships and agricultural waste generators; services that are sustainable, safe and reliable using co-processing technology.

Details of these two unique services are available in subsequent chapters 4.5 and 4.8 of this report.

3.3 Marketing Communication

Our marketing communication is a judicious mix of

Personal selling

Promotion

Direct marketing

Advertising

PR & Publicity

Digital media

Indian Cement Market

India's cement industry is the second largest in the world after China with an installed capacity of about 465 mn tonnes per annum. A predominant share of this capacity is in the organised private sector with more than 200 large plants. Cement plants tend to be located next to deposits of limestone, the principal raw material. In the last decade some reputed foreign cement manufacturers have entered the industry through the acquisition of existing units. India is also among the largest consumers of cement and consumed the bulk of the 301 million tonnes produced in 2017, with barely 4 mn tonnes exported to its neighbours. The industry is intensely competitive and has been operating at merely 70% capacity utilisation. A large supply overhang, numerous competitors and diverse buyers together make the cement market subject to geographical and seasonal price fluctuations.

India's overall cement production grew ~6% in 2017 while ACC's cement sales rose by 14% to 26.21 mn tonnes from 22.99 mn tonnes in 2016. ACC's newly expanded capacities in the east of India stabilised, capacity utilization improved to 79% and market share increased as well.

Channels of Communication

Well-structured and result-oriented sales and marketing campaigns are devised to reach out to customers through appropriate use of a mix of communication channels that enable visibility and frequent contact, particularly close to the point of purchase.

Care is taken to ensure that all these activities are compliant with relevant regulations and laws. We track brand equity regularly to get insights to help us assess how ACC brands are perceived and to identify areas of improvement.

ACC is regularly acknowledged for the quality of its marketing and customer communications. The company has been a founder member of the Association of Business Communicators of India (ABCI), the country's premier body in this field.

As a responsible customer-centric organisation, ACC upholds a tradition of ethical marketing practices. During the year, there were no incidents of non-compliance with any regulations or voluntary codes relating to the Company's marketing communications, including advertising, promotion and sponsorships.

Marketing Communication Strategies

- To communicate ACC as a trusted brand in the marketplace – by making customers aware of the company's profile and track record and to inspire trust among them. This is achieved by presenting the Company's market standing, heritage, and major milestones.
- To present a complete profile and description of our products.
- To emphasize the superior status of our products as compared to conventional products highlighting their special qualities and benefits to the end user.
- To demonstrate the special values of our products through live examples and to disseminate customer-focused information on topics of relevance to the customer.
- To network with various professionals and influencer groups who can serve as brand ambassadors.

3.4 Customer Excellence

ACC Dream Home App

For dealers, masons, engineers, architects

10,000+ downloads on Google Playstore

Customer-centric Philosophy

ACC is a customer-centric organisation. This means that we act to ensure that customers get the best value from our products and services and are enriched by the experience.
A customer-centric approach necessitates superior products, services and logistics.

ACC is acknowledged as a supplier who meets high standards in quality and packaging of cement and Ready Mix concrete, exceeding base statutory specifications. We also promote a range of blended cements and value added concrete solutions with superior features suitable for different applications and local conditions.

Customer Segments

The major customer segments for cement are housing (~66%), followed by infrastructure (~18%) and commercial (~16%) sectors.

For ACC, the largest customer segment in terms of both volume and profitability is the retail segment comprising Individual Home Builders and low-rise buildings. ACC sells ~78% of its cement in retail i.e. "Business to Consumer"(B2C) segment while the remaining 22% is offered in the "Business to Business" (B2B) segment. (GRI 417-1)

Customer Service That Cares

We take customer service seriously. Customer service engineers at each Sales Unit meet customers, end users and channel partners before and after sales to promote awareness on the correct usage of cement and concrete and good construction practices. (GRI 102-6)

Engaging Customers

Effective customer relationship management (CRM) systems are in place to manage customer transactions, queries and other interactions. A selection of routine studies and dipstick surveys are conducted to understand the needs of our customers. Tools like Net Promoter Scores (NPS) and the E3 Model (Economic, Emotional and Ego) help us to gauge dealer satisfaction levels and their specific requirements.

The sales force plans frequent interactions to engage with, reward and motivate channel partners. Each sales region convenes dealer meets. In addition, there are customer meets, technical seminars and engagements to reach out to Individual Home Builders through personal meetings, site visits and participation in home building and construction exhibitions.

ACC's Construction Ka Doctor is a unique method of customer engagement located within dealer counters.

ACC is increasing its use of digital technology to connect with its existing customers and to further extend its customer base. Its latest offering Dealer Connect Web Sales enables dealers to place and track orders online 24x7.

Ready Mix Concrete

ACC's Ready Mix Concrete (RMX) business serves the infrastructure, commercial and realty segments. The Company has shaped its RMX business as a solution provider serving diverse customer segments from skyscrapers, townships, roads and highways, flyovers, metro rail projects to irrigation schemes and power plants, each with its own requirement of concrete applications.

ACC's RMX business caters to the needs of all kinds of major government construction projects

for infrastructure development, Smart Cities, urban rejuvenation projects as well as the commercial and realty segments.

The concrete product range now includes a wide range of one-stop solutions and value added products, all tailored to meet specific customer requirements from basic requirements upto higher grades of concrete to build the country's tallest and largest structures

Complaints

The Company has an effective complaint handling system that facilitates prompt logging, investigation, resolution and closure. A total of 954 complaints were received from customers in 2017. Most of these were satisfactorily resolved leaving only 34 (or less than 4%) pending at the close of the year.

Innovation

Innovation is spurred by the need to fulfill customer needs, improve the quality and pace of construction as well as resolve issues pertaining to cost efficiencies in energy, raw materials sourcing, logistics and productivity improvement. As a pioneer and trend setter, ACC was first in India to introduce the commercial sale of Bulk Cement and Ready Mix Concrete. These two value added products have together had a major impact on large construction projects in urban clusters and infrastructure development. Recently, the Company has added several new products that have widened its portfolio of value added and eco-friendly varieties of cement and concrete for special and customized application, which have received favourable acceptance in the market.

Environment Product Declaration (EPD)

In a significant step, ACC assessed the impacts of its products on the environment and human health through the Life Cycle Assessment (LCA) exercise. This activity was undertaken for all its blended cement products and results were published in the Environment Product Declaration (EPD) section on the Company's website. A similar exercise undertaken for concrete products is still in progress. The EPD is an internationally recognised format for declaring the environmental performance of a product, based on LCA.

GreenPro Certification

We initiated and concluded the process of obtaining the GreenPro certification for all our cement products. GreenPro is a recognised product certification which helps an environmentally conscious customer to make an informed decision when choosing eco-friendly products. ACC was recently conferred with the GreenPro award by the Confederation of Indian Industries (CII).

Product Responsibility

Cement, concrete and related raw materials are generally not considered to have any major safety or health hazards associated with them. However, at the stage of quality assurance, we try to ensure that there is no potential harm to our end consumers while they are handling these products. Towards this end, awareness programmes for safe handling and usage of our products are conducted for customers, masons and engineers to minimise harm, if any.

All our products are manufactured and sold in accordance with statutory quality standards. None of the cement or concrete products manufactured and sold by us is banned or restricted in any way.

3.5 Transport and Logistics

Awards

Demand Planning and Forecasting Award 2017
in the category Best Use of Analytics in Demand planning and Forecasting - Manufacturing Sector - by the Institute of Supply Chain Management.

Industry Excellence in Supply Chain – Manufacturing 2017
at 11th Express Logistics and Supply Chain Leadership Awards 2017.

Warehouse Innovation/ Initiative of the Year 2017
at 11th Express Logistics and Supply Chain Leadership Awards 2017.

Critical Success Factor

Freight and Forwarding expenses made up a whopping 26% of the total cost of operations of the company in 2017, up 2% from the previous year. Cost efficient distribution and on-time delivery is among the most critical success factors in the business of a bulk commodity like cement. The efficient management of transportation and logistics can be a game changer in many industries, particularly cement.

Logistics Excellence

The logistics function is one of the cornerstones of ACC's business, which has set itself the goal of achieving best-in-class logistics in terms of cost-to-serve and time-to-serve. It has put in place a well structured comprehensive logistics excellence programme with the participation of all internal and external stakeholders - from employees at the plant to those involved in last mile delivery to customers. Their motto – move less, handle less, move efficiently, contract efficiently and manage growth - is embedded in the logistics team as it strives for continuous improvement.

Logistics Planning & Management

Road and rail are the two modes of transport open to the company for inbound and outbound movement as we have no access to waterways. Rail dispatches are useful in moving large quantities of cement over long distances, while road transport is effective for shorter routes and enables direct delivery. Road transport is managed by company approved transporters. Cement manufacture is a continuous process and often there is a mismatch between production and demand, which is bridged by warehousing but entails extra costs of handling, storage and re-transport.

Innovative improvements

Several innovative approaches have been used to enhance logistics efficiency and safety.

- Radio Frequency Identification (RFID) and Global Positioning Systems (GPS) - ACC was the first in the cement industry to use these technologies to monitor truck movement in-plant and in transit to help reduce loading and unloading time, reduce delays and manage vehicle turnaround
- Engagement with drivers and transporters
- Improve warehouse efficiency and safety – The new Star Warehouse Programme aims to upgrade warehouses across several parameters to make them the best in class in the industry
- Focus on road safety

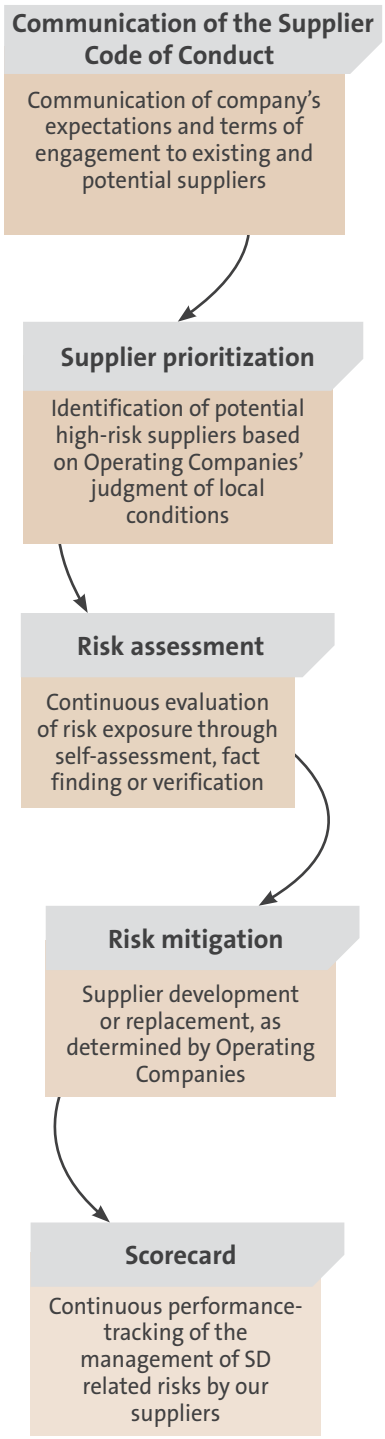
Driver Management Centres

Started in 2016 to create higher awareness of road safety among drivers and crew at cement plants by inculcating in them proper behaviour required to undertake safe journeys. Each DMC has professionally trained coaches who use specialised training techniques.

Winning Performance

The logistics function performed well in 2017, particularly with regard to its role in sourcing to reduce input costs. Optimization of rail and road movement and route mapping helped control transport costs despite a rise in fuel prices.

3.6 Supply Chain & Procurement



A major share of the Company's cost of operations is that of the supply chain and procurement processes. It makes up a wide range of activities including sourcing, vendor selection and evaluation, purchase of goods and services and negotiation of contracts. Procurement activities for ACC Limited are managed by the India Procurement Organisation (IPO) located in the Thane campus and headed by the Chief Procurement Officer who is also a member of the Company's Executive Committee. The IPO is further organised into five procurement cluster offices manned by a multi-disciplined group of personnel drawn from both companies to enable efficient servicing of internal and external stakeholders. IPO conducts itself in a manner designed to ensure efficiency and transparency in its operations.

Procurement is a process of strategic importance to the Company. The function bears the responsibility of ensuring uninterrupted production and distribution so vital to a continuous process like cement. It is expected to help streamline these critical processes, manage raw material prices and costs, while ensuring the best terms and sources of supply best mode of transport – together ensuring that the high standards of ACC's products and services are maintained. Procurement is one of the most important parts of the organisation's value chain as it plays an influential role in its operations, efficiency and ultimate profitability. (GRI 102-9)

Major inputs required for cement are limestone, coal, petcoke, gypsum, slag and fly ash, iron ore, bauxite, etc. Cement making is energy intensive and needs a good deal of thermal and electrical energy. All cement plants of the Company are located within close proximity to limestone mines, which ensures minimum transportation of this principal raw material. Coal and petcoke are the major fuel and are procured directly from domestic companies or imported. ACC meets most of its electrical energy requirements from captive thermal power plants. Other bulk materials are transported inward by rail or road. Cement machinery being outsized, complex and specialised with few reliable sources, is purchased directly from manufacturers.

Suppliers and Vendors

We have a large countrywide base of over 10,000 suppliers which includes large established manufacturers or distributors of trusted brand names. Wherever possible, ACC purchases materials and equipment directly from manufacturers or from their licensed sellers. To substitute fossil fuel, the Company also utilises industrial, biomass and municipal waste to serve as Alternative Fuel & Raw Materials (AFR). In keeping with the Company's own planet-friendly traditions, procurement encourages its vendors to follow sustainable practices. In addition to delivering quality products and services on time and as indented, ACC prefers vendors with established practices in the areas of CSR and Sustainability. (GRI 102-9,204-1)

Table 3.6.1

	Unit	2017
Total number of suppliers	no.	10,413
Indian suppliers (local)	no.	10,322
International suppliers	no.	91
% of suppliers identified as "High Risk" (for sustainability criteria aligned with Supplier Code of Conduct)	%	4.2

Supplier Code of Conduct

Suppliers and vendors are expected to adhere to our Code of Conduct which includes principles of health and safety, human rights, business ethics, and environment. Transparency and accountability are a must in all procurement activities.

	Unit	2017
Number of Suppliers screened through Self Assessment Questionnaire (socials, environmental aspects)	no.	438
Monetary value of payments made to suppliers	₹ Crore	10,361.12
Proportion of spending on local suppliers	%	97.29

Supplier Environmental and Social Assessment

All agreements with suppliers, such as purchase orders, purchase agreements, service agreements, and frame agreements have to refer to the supplier's compliance with the SA8000 audit certification, environmental management, legal compliance requirements and social clauses, including human rights aspects and ethical requirements. With its signature or order confirmation, the supplier accepts and agrees to adhere to these requirements. .
In the reporting period under review, 4.2% of critical suppliers (through high risk-high spend) were screened using environmental criteria and social criteria. (GRI 308-1, 414-1) There were no instances where any supplier was identified to have significant actual and potential negative environmental or social impacts. (GRI 308-2, 414-2)

Case Study

Procurement Partnership Summit - Unlocking Supplier value and opportunity

A Procurement Partnership Summit was convened by the India Procurement Organisation (IPO) in September 2017 to strengthen supplier relationships and align priorities. The Summit was attended by more than 50 participants representing 32 key suppliers. The topics of discussion included Health & Safety, contractor safety management, sustainable procurement, anti-bribery corruption and directive, third party due diligence, and automation in SAP – Ariba.

Six key suppliers presented an overview of their business and initiatives they had undertaken during the year using the Total Cost of Ownership (TCO) approach. Many of these cases were industry leading best practices. The Summit provided an excellent opportunity to forge good relations with suppliers and for them to share their expectations, pain points and to capitalise on opportunities.

'Suppliers are our business partners and we look forward to building long term relationships with our key partners."

Procyon Mukherjee, Chief Procurement Officer

4.0 Environmental Aspects

4.1 Materials

4.2 Climate Change

4.3 Other Emissions

4.4 Energy

4.5 Circular Economy & Managing Waste

4.6 Water

4.7 Biodiversity

4.8 Sustainable Construction

Our SD 2030 Plan for Climate, Circular Economy and Water & Nature and relevant initiatives contribute to the following Sustainable Development Goals

4.1 Materials

~10 mn tonnes of waste-derived resources used in 2017

As cement manufacturing is a continuous process, an uninterrupted supply of raw materials is essential. The production of cement consumes a considerable amount of mineral resources such as limestone, shale, clay, sand, iron ore and bauxite. Limestone is the primary raw material. ACC is among the largest users of limestone in the country. Each Integrated cement plant has one or more captive mines to extract limestone. The other raw materials are sourced externally. Coal and petcoke are used as principal fuel for thermal energy.
(GRI 301-1,2) The bulk of our electrical energy is generated in-house at our captive thermal power plants. In blended cements, limestone based clinker is substituted with by-products from other processes such as slag from steel plants and fly ash from thermal power plants. Most of the cement sold in India is packed in polypropylene and Adstar bags of 50 kg each.

Table 4.1.1

Raw materials - Cement	Unit	2015	2016	2017
Limestone	mn tonnes	22.82	22.41	20.11
Gypsum	mn tonnes	1.14	0.86	1.17
Alternative raw material	mn tonnes	0.22	0.33	0.32
Slag	mn tonnes	2.61	2.68	3.53
Fly ash	mn tonnes	4.17	3.9	4.48
Additives	mn tonnes	0.01	0.016	0.09
Others (bauxite, iron ore etc.)	mn tonnes	0.79	0.67	2.07
Lubricating oil (tonnes)	tonnes	489	489	533
Grease (tonnes)	tonnes	167	167	160
Weight of bags consumed	tonnes	31,473	29,992	27,248
% recycled materials used	%	22.04	22.38	26.37

Our commitment to mineral conservation is demonstrated in different ways, principally by promoting the manufacturing of blended cements using non-fossil fuels, petcoke and industrial and municipal waste for co-processing. While we co-process waste generated by other industries and processes, no product made by the Company is reclaimed in any way. (GRI 301-3)
Ready Mix Concrete is made as a mixture in specified proportions of Portland Cement, water and aggregates made up of sand and gravel or crushed stone.

Table 4.1.2

Raw materials - RMX	Unit	2015	2016	2017
Cement	tonnes	5,50,655	6,33,830	7,80,083
Slag	tonnes	40,067	53,381	43,784
Fly ash	tonnes	1,62,038	1,77,670	1,95,316
Additives	tonnes	7,518	8,312	9,369
Sand	tonnes	15,87,154	18,59,552	21,45,884
Aggregates	tonnes	21,05,141	23,90,050	27,55,088
Lubricating oil	tonnes	30.45	20.93	93.5
Grease	tonnes	7.63	8.56	9.6

4.2 Climate Change

34%

reduction in net CO_2 emissions per tonne of cement since 1990

Portland Cement has been the most transformative among building materials ever since its regular use. It has proved to be durable, versatile, cost-effective and possibly the most viable choice until a more worthy substitute is discovered. For the state and society, the cement industry is a big employer, providing jobs and livelihoods, creating a multiplier effect by way of ancillary businesses, and has been economically rewarding by way of substantial tax revenues. Yet cement is at the centre of the global climate change debate because its production is responsible for about 7% of total global carbon dioxide (CO_2) emissions.

CO_2 emissions

Carbon dioxide is generated as a byproduct of clinker production, an intermediary in cement-making, through the chemical conversion of limestone ($CaCO_3$) into lime (CaO). The industry's environmental impact is measured by the proportion of carbon dioxide emitted per tonne of cement produced. The industry has found several ways in which these emissions can be mitigated or sequestered.

ACC has demonstrated a deep commitment to environment protection ever since its inception and initiated remedial measures to adopt strict carbon discipline in a bid to minimising its carbon footprint. The Company's specific CO_2 emissions are among the lowest in the cement industry globally. ACC is an active member of the Indian Chapter of the Cement Sustainability Initiative (CSI) and an important signatory of the Low Carbon Technology Roadmap for the Indian cement industry, a voluntary commitment by CSI member companies with time bound targets for reduction of carbon emissions leading to the year 2050.

Table 4.2.1

CO_2 Emissions - Cement	Unit	2015	2016	2017
Total CO_2 Emissions - Gross	tonnes	1,29,78,374	1,27,37,840	1,44,91,481
Total CO_2 Emissions - Net	tonnes	1,28,85,699	1,26,28,887	1,43,51,799
Specific CO_2 Emissions - Gross	kg/ tonne cement material	556	551	534
Specific CO_2 Emissions - Net	kg/ tonne cement material	552	547	525
Scope 1 emissions*	tonnes	1,50,98,332	1,48,56,102	1,66,66,819
Scope 2 emissions**	tonnes	4,62,359	5,44,035	5,95,431
Scope 3 emissions***	tonnes	6,84,642	5,39,067	6,75,988

**Includes CO_2 emissions from captive power plant/DG set and calculated using WBCSD CO_2 protocol*

***Calculated by using CM Emission factor – CO_2 Baseline Database for the Indian Power Sector - V11 – Apr 2016 by Central Electricity Authority*

****Calculated based on assumptions & approximation of the distance travelled for categories of Employee commute, inbound, outbound and logistic.* (GRI 305-1, 2, 3, 4, 5)

Emissions from Ready Mix Concrete (RMX)

The production of RMX is a simple process, essentially involving blending and mixing operations. Consequently, the process entails relatively low levels of carbon emissions. Much of these CO_2 emissions are in fact, generated more during transportation and less in the process itself.

Table 4.2.2

CO_2 Emissions - RMX	Unit	2015	2016	2017
Scope 1 emissions*	tonnes	1,796	3,015	4,275
Scope 2 emissions**	tonnes	3,836	6,772	5,110
Scope 3 emissions***	tonnes	39,275	41,607	36,961

**Includes CO_2 emissions from captive power plant/DG set and calculated using WBCSD CO_2 protocol*
***Calculated by using CM Emission factor – CO_2 Baseline Database for the Indian Power Sector - V11 – Apr 2016 by Central Electricity Authority*
****Calculated based on assumptions & approximation of the distance travelled for categories of Employee commute, inbound, outbound and logistic.* (GRI 305-1, 2, 3, 4, 5)

Reducing CO_2 Emissions

ACC's SD 2030 Plan, aligning with that of LafargeHolcim, includes targets for "reduction of specific CO_2 emissions by 40% per tonne of cement (vis-à-vis the base of 1990)". The Company is working on five key levers to help in overall CO_2 reduction.

- Clinker factor to raise clinker substitution
- Use of green energy and waste heat recovery
- Use of alternative fuels and raw materials
- Adoption of new low carbon technologies
- Production of more blended cements

Improving energy efficiency

Various energy conservation initiatives undertaken in 2017 as explained in Chapter 4.4 helped us lower energy consumption and reduce our CO_2 footprint.

Reducing Clinker Factor

One of ACC's best practices has been the decisive steps taken to substitute limestone and thus, improve its clinker factor. A notable way is in the production of Portland Slag and Portland Pozzolana cements. In 2017, the share of blended cement increased to 84.7%. Stabilisation of the recently expanded Jamul and Sindri plants has helped in improving the clinker factor performance.

Alternative Fuels & Resources (AFR)

As a way to reduce the use of fossil-based fuel and other mineral resources, the Company has gainfully utilised industrial, municipal and agricultural waste and biomass to serve as alternative fuel by co-processing them in its cement kilns. Co-processing of various waste streams enabled us to achieve a Thermal Substitution Rate (TSR) of 4.0% in 2017 as compared to 3.2% achieved in 2016.

Table 4.2.3

Overall CO_2 reduction achieved (Scope-1&2)	Unit	2015	2016	2017
On account of thermal savings [1]	tonnes	6,847	2,451	35,746
On account of electrical savings [2]	tonnes	Nil	Nil	1,08,113
On account of clinker factor improvement [3]	tonnes	Nil	Nil	5,31,861

Note: (1) CO_2 emission reductions on account of thermal energy is calculated value. (2) CM Emission Factor (CO_2 Baseline Database for the Indian Power Sector – V 11 – Apr 2016 – by Central Electricity Authority) was used for calculating the CO_2 emissions on account of electrical savings.(3) CO_2 emission reductions on account of clinker factor improvement is calculated by using the thumb rule that for 1% improvement in clinker factor there is reduction of 7.5 Kg CO_2 / Tonne of Cement (GRI 302-4)

Logistics & Transport

Logistics and transportation operations entail predominantly CO_2 emissions arising out of fuel consumption by the vehicles. The volume of emissions is directly related to the volume of materials transported, mode of transport (road or rail), the nature and efficiency of vehicles and the quality of roads. Some of it can be addressed by regular maintenance of vehicles. Where available, rail movement is preferred for long distances as a more sustainable mode.

Vehicular transport also involves dust pollution, particularly of heavy vehicles moving in cities along dusty roads or at speed. Cement trucks at our plants are de-dusted and covered in tarpaulins before they are dispatched. Bulk transport of cement is of particular merit in this respect as the material is fully covered, making it cost-effective and environment-friendly. RMX is transported in fully covered transit mixers.

Non-compliance

During the year there were no instances of non-compliance with environmental laws or regulations. (GRI 307-1)

Biogenic Emissions

Biomass and agricultural wastes used in cement kilns also involve CO_2 emissions. This is not accounted by protocol in Scope 1 emissions shown in Table 4.2.1. (GRI 305-1)

4.3 Other Emissions

₹ 19,122 lakhs
towards environmental expenditure

Besides CO_2, there are other emissions from the cement manufacturing process such as dust, sulphur oxides (SOx) and nitrogen oxides (NOx). 2017 was a path-breaking year when the Ministry of Environment, Forest and Climate Change (MoEF & CC) issued directions to the cement industry to ensure compliance with dust, SOx and NOx emission norms by August 31, 2018. Accordingly, ACC was ready with detailed plant-wise action plans to comply with these requirements and submitted them to the Central or State Pollution Control Boards. (GRI 305-7)

NOx emission control

Primary measures for NOx emission control comprising Computational Fluid Dynamics (CFD) modeling, meal curtain and low NOx burner were implemented at Lakheri, Gagal 1 & 2, Wadi 1 & 2 and Madukkarai. Secondary measures such as Selective Non-Catalytic Reduction (SNCR) systems are being executed at Gagal 1 & 2, Kymore and Wadi 2. ACC also began the process of executing the SNCR system for Lakheri, Jamul, Bargarh, Chaibasa, Madukkarai and Wadi 1 and has proposed execution of this system for CPPs at Chanda and Wadi shortly.

SOx emission control

The Company's SOx emissions are within specified regulatory limits, and hence do not require any emission control measures. However, secondary measures such as installation of limestone feeding systems are being taken at Chanda, Kymore, Jamul and Wadi plants to control SOx emissions from CPPs.

Table 4.3.1

Emissions*	Unit	2015	2016	2017
NOx	g/tonne clinker	1,544.79	1,966.91	2,020.6158
	g/tonne cement	1,001.80	1,289.25	1,319.30
	tonnes	23,883.50	29,880.65	35,040.30
SOx	g/tonne clinker	175.60	128.74	136.20
	g/tonne cement	113.88	84.38	88.93
	tonnes	2,714.92	1,955.72	2,361.89
Dust	g/tonne clinker	36.58	41.50	38.93
	g/tonne cement	23.72	27.24	25.41
	tonnes	565.53	630.52	675.01

** The emissions reported are based on Kiln stacks only*

Cement manufacturing does not generate significant levels of persistent organic pollutants (POP), volatile organic compounds (VOC), hazardous air pollutants (HAP) or ozone depleting substances (ODS) into the environment. (GRI 305-6, 305-7)

In compliance with the disclosure instructions, ACC submits online reports of emissions and effluents for all plants on the websites of the Central Pollution Control Board (CPCB) and State Pollution Control Boards wherever available. (GRI 305-7)

Dust emission control

In addition to primary measures, some secondary measures undertaken during the year for controlling dust emissions include conversion of Electrostatic Precipitator(ESP) to hybrid filter in captive power plants (CPPs) at Jamul and Chanda, conversion of cement mill ESP to Bag House at Damodhar , upgradation of cooler ESPs at Gagal 1 & 2, parallel bag house for Gagal coal mill, bag house revamping in kiln at Gagal 2, which is in progress. All these measures have together resulted in reduction of stack dust emissions by 6.6% over the previous year.

4.4 Energy

The manufacturing of cement is very energy intensive. Power and fuel together make up 20% of the total cost of the Company's operations. Coal and petcoke are the main fuels for thermal energy while most of the power requirements are fed by captive thermal power plants. Details of our energy consumption are presented in Table 4.4.1 (GRI 302-1,2,3,4)

Table 4.4.1

Energy Consumption - Cement	Unit	2015	2016	2017
Kiln Fuel Consumption				
Coal + Petcoke	TJ	45,767	45,927	51,695
Diesel oil	TJ	41	70	71
Alternative fossil and mixed fuels*	TJ	1,068	1,241	1,712
Biomass fuels	TJ	283	304	501
Diesel Oil for Onsite vehicle movement	TJ	460	570	556
Fuels for drying of raw materials	TJ	1,266	1,181	1,313
Non-Kiln Fuel Consumption				
Coal + Petcoke	TJ	22,888	23,136	24,306
Diesel oil	TJ	15	8	10
Alternative Fuels	TJ	148	98	291
Alternative biomass fuels	TJ	17	151	131
Electricity Purchased/Imported	MWh	4,81,624	5,66,703	6,20,240
Energy consumption outside the organisation**	TJ	9,209	7,275	9,122
Specific Power consumption upto and including clinker production	kWh/ton clinker	70.01	73.06	69.91
Specific Power consumption upto and including cement grinding	kWh/ton cementitious material	81.56	84.62	80.30
Specific Power consumption upto and including cement grinding, colony auxillaries	kWh/ton cementitious material	83.85	87.04	82.40

** As per WBCSD protocol, alternative fossil fuel comprises of waste oil, waste tyres, plastics, solvents, impregnated saw dust etc*

*** Considered diesel as fuel consumed in transportation*

Energy consumption in Ready Mix Concrete

The RMX business consumes a relatively small proportion of energy, which is used mainly in mixing, blending operations, pumping and in transportation. Details are provided in Table 4.4.2. (GRI 302-1,2)

Table 4.4.2

Energy Consumption - RMX	Unit	2015	2016	2017
Diesel oil	TJ	24	41	43
Electricity purchased	MWh	3996	7054	5436
Energy consumption outside the organisation*	TJ	530	561	355

** Considered diesel as fuel consumed in transportation and calculated from Scope 3 emissions*

The issue of reduction in energy requirements of sold products and services is not applicable to cement or concrete. (GRI 302-5)

Renewable and Green Energy

ACC's renewable energy portfolio consists of 19 MW of wind farms located in the states of Rajasthan, Tamil Nadu and Maharashtra. These generated 37.37 mn units of green power (Rajasthan 12.90 mn units, Tamil Nadu 21.05 mn units, Maharashtra 3.42 mn units), which helped to fully meet the Renewable Purchase Obligation (RPO) (non-solar) for the Company's plants at Madukkarai and Lakheri, besides getting power at a much cheaper cost. In Maharashtra, ACC Thane complex and Bulk Cement Corporation (India) Limited, Kalamboli are operating mainly on renewable energy with negligible cost through ACC's wind turbines installed at Satara, Maharashtra, resulting in power cost saving of ₹3 crore.

Additional green power of 6.55 mn units of solar energy was procured through Power Purchase Agreements for Wadi, Thondebhavi and Kudithini plants in Karnataka. In all, 43.92 mn units of green energy were used, representing an increase of 15% as compared to the previous year. The RPO of other plants are met by purchasing Renewable Energy Certificates (REC),solar and non solar. Lakheri plant installed a 10 KW rooftop solar plant at its DAV School.

The waste heat recovery system at Gagal Cement Works generated 53.01 mn units of electrical energy during the year 2017.

Table 4.4.3

Total Direct & Indirect Energy Consumption from all sources	Unit	2015	2016	2017
Total Power Generation	TJ	23068	23393	25696
Total Renewable Energy Generation	mn units	35.16	36.51	37.37
Renewable Energy Certificates Purchased	MWh	64526	69336	76080
Power and fuel expenses	₹ Crore	2394	2157	2714
Thermal energy efficiency	GJ/tonne clinker	3.05	3.12	3.10

Energy Conservation

Energy conservation and efficiency measures were undertaken in various areas of cement manufacturing and Captive Power Plants (CPP), mainly through operational measures. A few projects are presented in Table 4.4.4.
(GRI 302-4)

ACC Jamul was adjudged **Excellent Energy Efficient unit by Confederation of Indian Industries (CII), supported by BEE** for best practices in energy conservation.

Table 4.4.4

Plant	Initiatives
Lakheri	Raw mill1 vertical roller mill fan efficiency was improved by Computational Fluid Dynamics (CFD) study.
Jamul	Optimised operation efficiencies in the roller press and other major equipment in clinkering and grinding sections; upgraded liquid resistance starter for the old side cement mill main drive; grid power intake was optimised to limit the same to less than 75% of maximum demand to reduce fixed charges
Chanda	Finite Element Analysis (FEA) of cement mill was carried out to convert a dual chamber into a mono chamber. The study is complete and will be implemented in 2018.
Wadi	The CFD study was conducted to replace Mitsubishi Fluidised Calciner (MFC) fan by blower for fluidisation to achieve stable operation of the plant and to reduce kiln feed and fuel; pre-heater top cyclone inlet modification implemented to improve performance.
Tikaria	Detailed CPP audit; completed the debottlenecking project of cement mill-1 to improve the mill output; installed new set of condenser tubes along with online cleaning system for improving CPP's performance and completed cleaning of both fly ash silos.
Chaibasa	CFD study was implemented for VRM cyclone to reduce pressure drop across the cyclones; installed Medium Voltage Variable Frequency Drive (MVVFD) for slag dryer fan motor.
Damodhar	CFD study of cement mill - 1 aeroclone cyclones was implemented to reduce the pressure drop across the cyclone and improve the Production Rate Index (PRI).
Madukkarai	CFD was conducted at various locations, raw coal hopper feed chute to improve feeding, fresh kiln feed box to calciner string to improve heat transfer and avoid short circuiting to control free lime, calciner top cyclone to riser duct feed box to improve heat transfer, meal curtain to improve the material distribution at kiln riser, cement mill 8 cyclone to improve the PRI: burner tip modification to increase the momentum, thereby reduce the free lime in clinker.
All Plants	Focus on arresting leakages and pressure drops through the CFD study; upgradation of the Distributed Control System, capacitor banks have been added to the system across ACC plants to improve plant power factor, and replacement of conventional lights with LED across the plants.

ACC invested ₹ 27.30 crore on productivity / efficiency improvement, besides implementation of low cost measures to reduce energy consumption. The following are some additional projects being implemented to achieve further energy conservation:

- Process optimisation Upgradation of existing fans with high efficiency fans
- Installation of VSDs for process fans at clinkering and grinding, Boiler Feed Pump for CPP
- Online condenser cleaning system for turbine tubes
- Upgradation of Energy Management System

4.5 Circular Economy & Managing Waste

geocycle
For a zero-waste future

zero-waste future

Network of 9 co-processing and 3 specialised pre-processing facilities

4 lakh tonnes of waste co-processed in 2017

Circular Economy

We follow the LafargeHolcim approach of promoting a circular economy by "repurposing waste through material recycling and energy recovery." In doing so, we transform waste, create livelihood opportunities and offer gainful solutions for waste management, all of which, ensures a cleaner environment.

Cement manufacturing is a resource intensive process, consuming large quantities of limestone as basic input and coal as principal fuel. Both of these are non-renewable minerals. We manage the consumption of limestone judiciously with a mix of additives that enables the use of lower grade limestone, thereby conserving minerals and increasing the life of our mines. We also substitute some part of limestone with by-products from other processes that were hitherto industrial waste, such as slag from steel plants and fly ash from thermal power plants which are part of our blended cement. Further, we dispose off industrial, municipal and agricultural wastes by co-processing in cement kilns which recovers energy and material value from them, if any.

During 2017, we consumed 4.68 mn tonnes of fly ash, 3.58 mn tonnes of slag, 1.32 mn tonnes of crushed rock fines and 0.35 mn tonnes of other waste derived resources.

Geocycle

Sustainable waste management is the need of the hour. Waste poses a major societal challenge in the world today, but one that can be solved with innovative thinking. We have taken the lead in providing sustainable waste management solutions to industries and municipalities under the Geocycle brand of LafargeHolcim. Geocycle works with waste generators to minimise and repurpose waste more sustainably and responsibly while providing cost effective waste management solutions to industry, agriculture and municipalities.

Co-processing

Co-processing technology as employed by Geocycle offers an approach to manage waste sustainably that is practical, cost efficient, safe and environmentally preferred. Co-processing in cement kilns guarantees complete destruction of all waste due to the high temperature and long residence time involved. Backed by our state-of-the-art technology, tailored processes and in-depth expertise, Geocycle provides safe and reliable solutions to its customers, supporting them in transportation and final waste management through pre-processing and co-processing.

We have set up co-processing facilities at our network of cement plants. Additionally, we have three state-of-the-art pre-processing facilities with installations for blending liquids, shredding solids and sludge, and homogenising waste prior to its co-processing. These facilities have a waste processing capacity of around 0.3 mn tonnes per annum, which allows us to manage large volumes of waste safely and sustainably.

Our Track Record

In 2017, we safely co-processed more than 0.4 mn tonnes of waste. This helped us achieve a thermal substitution rate (TSR) of 4.0% as compared to 3.2% achieved in 2016.
All our operations are conducted professionally, carefully managing any associated risks.

This protects employees, communities and the environment. We actively engage with local communities to promote their prosperity and well-being.

A range of hazardous and non-hazardous waste is co-processed at our facilities - from sludge, waste solvents, packaging waste, expired medicines and trade rejects to agricultural residues and non-recyclable segregated combustible fractions of municipal wastes. .

Case Study

Partnering with the Petrochemical sector

Geocycle is working towards developing newer solutions, extending its service portfolio and moving upstream in its value chain to offer services including onsite management according to customer requirements. Through Geocycle, ACC has been partnering with the petrochemical sector to ensure safe and sustainable management of the waste generated by it. Key challenges are posed by the high volume of waste generation across the industry and difficulties involved in their handling.

We now extend complete solutions to the petrochemical sector. One of our petrochemical partners was looking to manage a large quantity of accumulated oil sludge. The extensive scope of services required was challenging – it included excavation of material from a storage tank, packaging, labelling, loading and transportation. While other solution providers were reticent to provide a complete solution, we were able to overcome the challenges and efficiently co-processed the entire quantity demonstrating a high commitment to safety and professionalism.

Another petrochemicals partner faced the daunting task of disposing tank bottom sludge. We supported them by connecting them with regulated third party agencies to provide complete solutions from pit cleaning to pre-processing and co-processing.

These projects highlight our partnership approach and willingness to work closely with partners to fully understand their specific waste challenges, needs and priorities, respond to their particular situation and provide a safe and environment friendly solution. Such innovative solutions by our team reaffirm our commitment towards a zero waste future.

Managing Waste & Effluents at ACC

Unlike some other process industries, cement plants are generally not known to emit waste other than emissions outlined in the preceding chapters. Cement manufacture by itself does not generate any waste water or effluents. Water consumed for industrial cooling gets recycled and reused in the process itself and is thus not wasted. Captive Power Plants (CPPs) may generate small quantities of effluents which are sent for treatment to Effluent Treatment Plants (ETP). The sewage from residential township in the plant campus is treated in Sewage Treatment Plants (STPs). All the waste water thus treated through ETPs and STPs is deployed in dust suppression and green belt development. Domestic waste water not amenable for recycling or treatment is ent into soak-pits located within the plant boundaries.

The “Zero Discharge” motto at ACC means that no plant or location is permitted to discharge any process effluent in nearby water bodies or elsewhere. During the year, for CPPs, a Zero Liquid Discharge (ZLD) system was installed at the CPP in Chanda while another is in progress at Wadi. There is a proposal to install these systems at Tikaria, Kymore and Jamul. (GRI 306-5)

Solid waste such as used oil and grease, metallic scrap, etc. may be generated from maintenance and housekeeping activities of a cement plant. The prescribed approach to handling such waste is to first use the 4R Approach (Reduce, Reuse, Recover and Recycle). If permissible, some hazardous waste such as oil may be sent for co-processing. The remaining hazardous waste is sold to authorised third parties for final disposal (GRI 306-2). We do not transport hazardous waste categorised under the Basel Convention (GRI 306-4). Table 4.5.1 shows the quantity of hazardous and non-hazardous waste generated in 2017. (GRI 306-1)

Table 4.5.1

Waste type	Unit	2015	2016	2017
Hazardous waste				
Waste oil	litres	2,26,307	83,633	1,85,063
Grease	kgs	16,796	50,232	50,490
Non-hazardous waste				
Steel scrap	tonnes	10,813	30,635	12,579
Others	tonnes	4,558	5,098	4,412
Filter bags	Nos	63,632	1,13,671	92,908

Note: 1. Steel Scrap includes castings, waste steel, MS drums, wrapper scrap, iron scrap, grinding balls, HC lining plate, table liner, HC grinding media, etc.
2. Others includes waste cement bags, conveyor belts, wood, copper, plastic bags, electrical cables, empty glass bottles, aluminum, tyres, paper, PVC drums, HDPE wrapper, etc.

The spill management system minimises impacts in the event of a spill. There were no instances of any significant spill in 2017. (GRI 306-3)

Cement is sold in 50 kg bags mostly of polypropylene and Adstar. Unusable bags are reused within the plant, while small quantities leftover may be sold as scrap. Empty bags are sometimes used in construction sites for storage of material. Empty cement bags are also used as roof coverings particularly during monsoons. We do not reclaim used packaging material. (GRI 301-3)

Plastic Waste Management Rules

The Government has notified the Plastic Waste Management Rules, 2016 which supersedes the earlier Rules. These Rules bring in extended producers' responsibility to ensure a collect-back system of plastic waste apart from ensuring other compliances. According to the Rules, the cement industry is obliged to establish a collection system for cement packing bags and the plan of collection is to be submitted to the State Pollution Control Boards (SPCBs) while applying for Consent to Operate. These Rules have huge implications on the cement industry and ACC is gearing up to meet these challenges.

New Solid Waste Management Rules

Vide a notification on new Solid Waste Management Rules issued by MoEF & CC in April 2016, cement plants within residential townships have been instructed to comply with the practices of segregation of waste at source, collection of waste from source and disposal in line with the prescribed practices. We are taking necessary actions to comply with the requirements.

4.6 Water

~15%
reduction in specific freshwater withdrawal vs 2015

ACC was early to recognise the value of water conservation. The proof of that is visible at most plants which have created water reserves and regularly revive and rehabilitate existing water sources. Rainwater harvesting is an established practice at all plants. ACC has resolved to achieve Zero Discharge of water in all its operations. All plant locations make unremitting efforts to comply with this commitment in several ways, beginning with stringent discipline in water consumption and by treatment, recycling and reuse of water. Thus, several ACC plants are already self-reliant in meeting their water requirements, bringing us closer to our goal of becoming "water positive". Besides, our withdrawal of water does not impact any water body. (GRI 303-2)

Table 4.6.1

Total water withdrawal* - Cement	Unit	2015	2016	2017
Surface water	mn m^3	5.37	5.44	6.68
Harvested rainwater	mn m^3	8.01	6.85	6.76
Municipal water	mn m^3	0.07	0.07	0.14
Ground water	mn m^3	1.23	1.99	2.00
Percentage of sites with water recycling	%	88.24	88.24	100
Total Quantity of Water Treated and Reused Annually	%	9.84	9.1	10.5
Total Quantity of Water Treated and Reused Annually	mn m^3	1.45	1.31	1.63
Total water withdrawal* - RMX				
Municipal water	mn m^3		0.48	0.37
Ground water	mn m^3	0.871	0.32	0.64

**Partial quantities are based on meter reading where available while the rest is calculated based on pump capacity and running hours* (GRI 303-1, 3)

Sustainable Development 2030 Plan

The Group's SD 2030 Plan lays down a target to reduce specific fresh water withdrawal by 30% by 2030. To meet this target, various initiatives are being taken such as:

- Reduction of fresh water intake by lowering water demand in process and non-process areas.
- Process optimisation and upgradation to water efficient technologies wherever feasible.
- Installation of Sewage Treatment Plants (STP), Effluent Treatment Plants (ETP), and Zero Liquid Discharge (ZLD) systems for effective reutilisation of waste water. Efforts to conserve water through rain water continue at all plants, mines, colonies and community areas.
- Installation of water metering and monitoring systems at most plants help identify the source of leakages and potential scope for water conservation.

Implementing WASH - Ensuring a Safe and healthy future

Access to water, sanitation and hygiene (WASH) is one of the Sustainable Development Goals (SDGs) to be achieved by 2030. The WASH pledge is an initiative by the World Business Council for Sustainable Development (WBCSD) and its compliance is one of our SD 2030 targets. During the year, ACC assessed the WASH score at all its plant sites, and developed action plans for each plant to implement the WASH pledge.

4.7 Biodiversity

ACC's SD 2030 Plan includes an assurance that we aim to create a "positive change on biodiversity by 2030 vis-à-vis 2020."

Mining and Biodiversity

Cement is an extractive process and mining is the main activity which could directly impact habitat and biodiversity. This can happen due to erosion of top soil, damage to flora and fauna, noise and dust pollution. We adopt clean mining practices and continuously endeavour to reduce the level of impact of our operations on the environment around us. All our plants and mines work according to comprehensive plans approved by mining authorities. Used and spent mines undergo rehabilitation in a manner designed to protect the local biodiversity, and all our sites have approved quarry rehabilitation plans. With 17 mining sites, by 2017, total rehabilitated area was ~758 ha. (GRI 304 - 2, 3)

Among our mining sites, three sites are relatively biodiversity-sensitive, where 10 species fall under 'Schedule I' category for which we have prepared a Wildlife Conservation Plan (WCP), duly approved by the authorities. In terms of the International Union for Conservation of Nature (IUCN) Red List species categorisation, these 10 species include one critically endangered, two endangered, two vulnerable, one near threatened and four of least concern categories.

The WCP is implemented in consultation with local authorities including the forest department and the Chief Wildlife Warden. Other biodiversity issues, if any, are addressed through the Biodiversity Management Plan at these locations. (GRI 304 - 1, 3, 4)

Other Ongoing Initiatives

All plants continued to pursue other ongoing efforts to conserve biodiversity, flora and fauna in plants, townships, mines and surrounding areas. These include some of the following:

- Tree plantation: Around 1.40 lakh trees were planted with an average survival rate of over 80%, comprising native and local species best suited to the local ecology.
- Rain water harvesting: All worked-out mining pits harvest rainwater which continue to enhance water self-reliance at some of our plants.
- Top soil preservation: This is regularly practiced so that top soil is preserved for future use in afforestation and plantation activities.
- Managing invasive species: Our plant locations keep continuous vigil to guard against invasive plant species that can be a major threat to native plants and ecology. This needs regular awareness programmes for employees and local communities. At few locations, invasive species, such as Parthenium, are removed and sent for co-processing (GRI 304-2)

Biodiversity Awareness

Conscious efforts are made at all locations to spread awareness on major biodiversity conservation issues through training programmes at all locations. Wherever possible, we utilise the expertise of IUCN - Leader for Nature (LfN) programme, CII's India Business & Biodiversity Initiative (IBBI) and Cement Sustainability Initiative (CSI).

Biodiversity Indicator and Reporting System (BIRS)

Achieving the Biodiversity commitment of the SD 2030 Plan is challenging and requires special efforts in measuring and monitoring. In 2016, the company rolled out the Biodiversity Indicator Reporting System (BIRS), a newly developed tool to assess the condition of biodiversity and monitor relative changes in it. It was designed by independent experts in collaboration with the International Union for the Conservation of Nature (IUCN) and first rolled out in the Lakheri plant. The BIRS methodology enables us to aggregate the biodiversity scores across sites, based on which we will be able to monitor the relative changes in biodiversity and understand the changes to habitats and ecosystems over time. In 2017, baseline assessment was completed for all mining sites at nine locations much ahead of the target date of 2020. This exercise has enabled us to identify site-wise action plans for biodiversity conservation in consultation with third party experts.

4.8 Sustainable Construction

53 GBCs in 2017
38 active, 15 under implementation

19,259 affordable homes built through GBCs

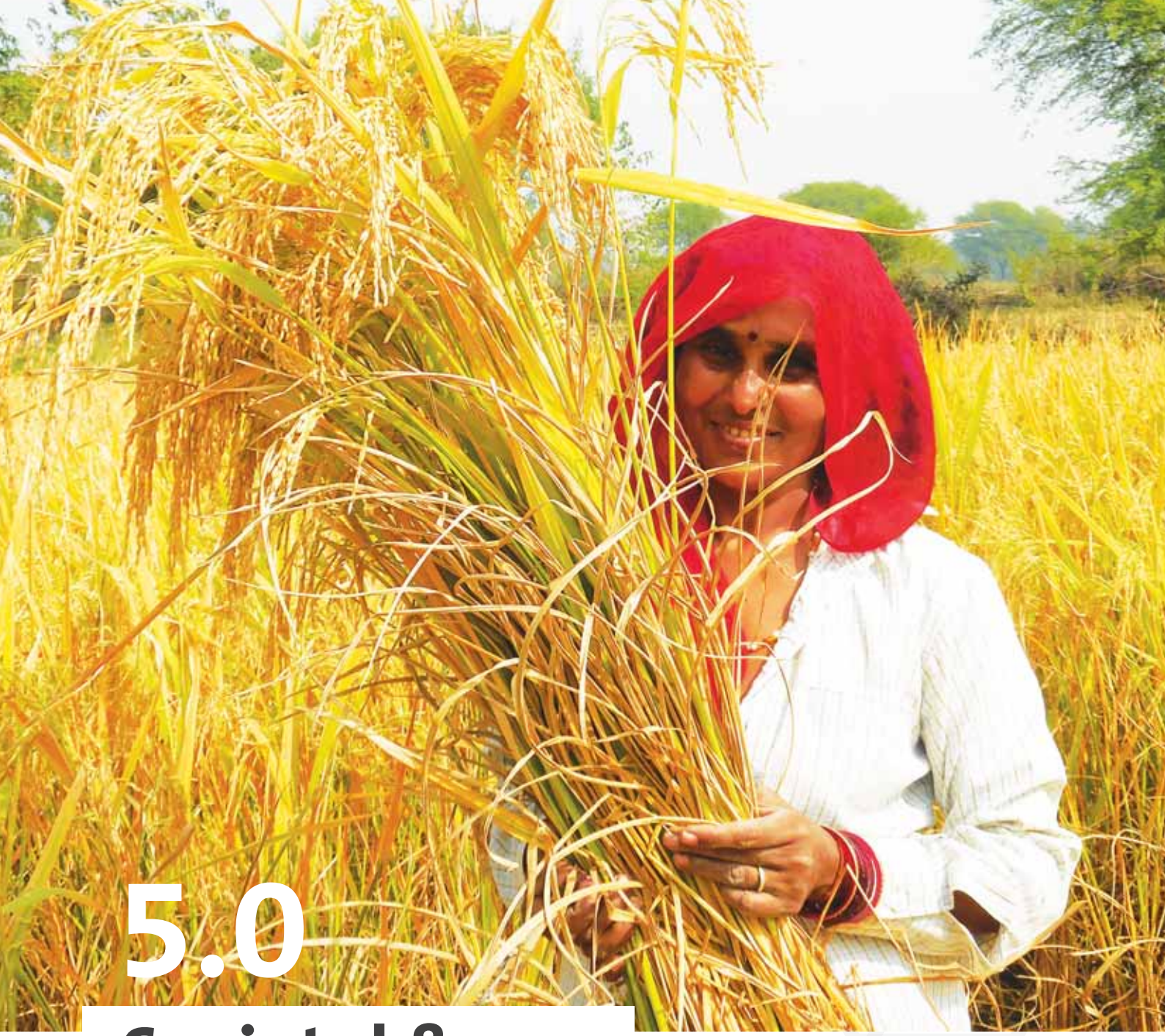
As a responsible cement manufacturer, ACC consciously seeks to promote and advocate sustainable ways of using its products in construction. Other than adopting low carbon practices in its own production processes, the company actively demonstrates a concern to spread awareness among other stakeholders in the construction chain to use methods that are cost-effective, planet-friendly and socially responsive. In addition the company shares its expertise wherever possible through means such as its Indian Concrete Journal, technical seminars and training programmes for masons, contractors and engineers. ACC is inspired by the LafargeHolcim Foundation for Sustainable Construction to promote and encourage sustainable construction projects in the country.

Green Building Centers (GBCs)

The company has long advanced the importance of affordable construction. Expanding this concept to incorporate wider aspects of sustainability, ACC launched its unique Green Building centres across the country. These centres actively promote sustainable, green, cost effective and affordable construction in semi-urban and rural India, by supporting local micro-entrepreneurs and small businesses to make and market affordable cement-based home building components and pre-fabricated materials. During the year, 22 new Green Building centres were set up. GBCs have together utilised 23,749 tonnes of Fly ash, conserving 51,465 tonnes natural top soil and thus avoid 3,622 tonnes of Carbon Dioxide Emission during the year. In all GBCs have helped raise 7,736 low costs housing /shelters.

LafargeHolcim Awards for Sustainable Construction

ACC has wholeheartedly promoted this global competition in India, using it as an opportunity to spread awareness about sustainable construction in India among a diverse group of stakeholders associated with the built environment. India usually sends the highest number of entries. Conducted continentally in its first phase, the LafargeHolcim Awards are among the most reputed worldwide competitions to adjudge sustainable design in construction. The USD 2 mn Awards competition seeks projects at an advanced stage of design, not finished works. It evaluates project entries for designs that go beyond current standards, showcase sustainable responses to technological, environmental, socioeconomic, and cultural issues affecting contemporary construction to deliver visionary solutions to the way the world builds. An Indian project entry emerged as winner of the Gold Prize at the Asia Pacific segment of the Global LafargeHolcim Awards 2017 for the first time. Submitted by architects from Mumbai the design is for transformation of an existing orphanage in Thane using a viable economic model that combines a child-friendly architectural design with social sustainability and novel concepts like passive building technology.



5.0 Societal & Other Aspects

Our SD 2030 Plan for People and Communities and relevant Initiatives contribute to the following Sustainable Development Goals

5.1 Health & Safety

Zero Harm encapsulates the Group's approach to Health & Safety (H&S); an overarching value, demonstrated in all our business operations.

Despite practicing a vigourous H&S regimen, we regret the tragic on-site fatality of one employee during the year. We have redoubled our efforts to make all our offices, plants and other locations safer and healthier. In particular, we have stepped up our efforts in the area of road safety (GRI 403-2)

Table 5.1.1

Parameters	2015	2016	2017
Employee Fatalities (no.)	0	0	1
Fatality Rates (directly employed)	0	0	0.67
Contractor Fatalities - on site (no.)	3	5	0
Contractors Fatalities - off site (no.)	4	5	4
Employee Lost Time Injury (LTI)	19	16	7
Employee Lost Time Injury Frequency Rate(LTIFR)	1.00	0.90	0.41
Employee Injury Rate (IR)	1.63	1.33	0.94
Employee Lost Day Rate (LDR)	33.00	53.80	18.95

Health and Safety Improvement Plan

A new Health & Safety Improvement Plan was formulated and put in place during the year. The plan involved action to achieve seven distinct objectives, each assigned clearly designated leaders and tasks. Programmes were drawn up for implementation in pursuit of each of the objectives. (GRI 403-1, 3, 4)

Star Warehouse Rating Programme

This programme aims to upgrade our warehouses across several parameters to make them the best in class in the cement industry. The programme rates different warehouses on various aspects of warehousing quality - infrastructure, processes, stacking and storing, people skills and other practices. In the process a benchmark is created for warehouse operations standards as a useful reference. Learning and sharing best practices is the key in raising the standards to represent the highest levels of customer service.

A jury panel consisting of ACC managers, CFAs (clearing & forwarding agents) and external experts is constituted to rate different warehouses around the country. The key parameters for evaluation are Health & Safety practices, branding, infrastructure and operations, with each parameter having further specific criteria to qualify for 3, 5 and 7 star ratings. The company wants to identify and felicitate the best CFAs and staff and share the winning practices so as to create a learning platform for all ACC warehouse owners and managers.

Road shows have already been conducted across regions to appraise CFAs and their staff about details of this programme. Regional and national level reward and recognition events are planned in 2018 to award the best performers.

Table 5.1.2

Objective	Programmes/ Actions
H&S Leadership & Accountability	- "More Boots on the Ground" to encourage more visits to shopfloor by senior leaders - 3600 H&S Leadership Survey - E-Module Fostering Feedback and self-introspection launched
People H&S Capability	- NEBOSH International Certificate Program - Risk Assessment Training - Developing Safety Commitment
H&S Management System	- Group H&S Safety Audit - Mandatory Safety Release on "Safe managing of hot material Leakage" - Hazard & Operability (HAZOP) "quarry-to-lorry" risk assessment at Bargarh and Gagal - "Suraksha Laher" campaign on Working at Heights and Machine guarding in May 2017
Road Safety and Logistics	- Driver Management Centres - Star Warehouse Rating Programme
Electrical Safety	- "Suraksha Laher campaign in Dec 2017
Visible Personal Commitment	- ACC H&S Feedback app launched to provide real-time feedback for preventive actions
Health	- Industrial Hygiene survey covering respirable dust and noise - New health surveillance with profile fitness matrix rolled out - EMR infrastructure optimisation done for all plants - A pool of employees is monitored via Lifestyle Management program - Tie-up with Apollo Hospitals; rate contract with Apollo Pharmacy - Skill up-gradation for doctors - "Health & Safety" workshop for ACC school teachers - 26 doctors and 14 paramedics trained in International trauma life support (ITLS) and advanced cardiac life support (ACLS) - 6 doctors attended Medical Education programme at Christian Medical College (CMC) Vellore

100% of our workforce is covered by formal joint management - worker health and safety committees. Guidelines are in place for personnel and property security. Several health and safety topics such as contractor safety directive, use of PPE and related subjects are covered in formal agreements with trade unions.(GRI 403-1,4)

Driver Management Centres

Driver Management Centres (DMC) were established in 2016 at cement plants to create awareness among drivers and employees on H&S related matters and to inculcate in them the proper behaviour required for safe journeys. The DMCs address issues relating to drivers, vehicles and journey management and use specialised techniques like simulator training, seat belt convincer training and defensive driver training techniques.

The focus in 2017 was on scaling up DMCs, upgrading their deliverables and capacity building of counselors. DMCs now include multiple programmes including Defensive Driver Induction (DDI) for first trip drivers, Defensive Driving Course (DDC), In-cab Assessment, tool box talks, Journey Risk Management (JRM) briefing and In Vehicle Monitoring System (IVMS) and Global Positioning System(GPS) based counseling.

Select counselors are sent to a driver training institute managed by a reputable organisation to enable them to get expert inputs and hands-on driving experience on a custom-built track. In addition, there is 'Train the Trainer' programme conducted by professional agencies.

Ready Mix Concrete Business

RMX is a service-oriented business, where delivery time is critical and is particularly vulnerable to risks mainly in transport and handling. Specific guidelines and procedures were developed and rolled out for eight critical activities of RMX operations based on the risk profiles and for customer site safety and pumping operations. These activities include the 'Seven Mirrors Policy' for transit mixers, the compulsory use of wheel chokes, IVMS in all transit mixers for monitoring speeding, harsh braking and acceleration by drivers.

An expert from LafargeHolcim conducted a world class training at ACC RMX to improve the safety culture in this rapidly growing business.

5.2 People & Employment

70-20-10 Approach

70% of learning is on-the-job training, 20% is coaching and hand-holding and 10% is through formal development.

In today's competitive world, companies and people must continue to evolve to stay ahead of the game. ACC values diversity and promotes an inclusive and fair workforce. In the year 2017, the company employed total 7422 people out of which approximately 3.7% equaling to 274, were women. Among the new hires, 10% of total recruited employees represented women. Also , our total workforce included 17 differently-abled people.

Table 5.2.1

Total Employee - By Category	Female	Male
Management Staff	227	3,843
Non-management staff	47	3,278
Third party employees		7,914
Casual employees		27
Total employees	274	7,148

Table 5.2.2

Total Employee - By Age	Female	Male
<30	110	1,229
30-50	128	3,734
>50	36	2,185

Table 5.2.3 (GRI 102-8, 401-1)

Employee Tunover - By Age	Female	Male
<30	27	160
30-50	11	224
>50	7	332
Total	45	716

Table 5.2.4 (GRI 102-8, 401-1)

New Hires - By Age	Female	Male
<30	8	111
30-50	9	147
>50	1	9
Total	28	267

Developing Leaders

ACC has an integrated approach to performance management and talent development. The Performance Management System (PMS) defines roles, targets and measures for individual and group performance, such that they are closely aligned with the business and strategic goals of the company. This enables objectivity and enhances on-the-job engagement and retention. Our Talent Review and Succession Planning Framework provides a pipeline of internal talent that is ready and equipped to take up next level roles. Most of the senior leadership teams in manufacturing, sales, logistics and support functions have been sourced from the Company's internal talent pool. The development and learning pedagogy supports the entire life cycle of an employee's career. This approach to employee development has been successful in giving us a competitive edge and driving sustainable growth. (GRI 404-3)

Table 5.2.5

Annual Performance	Female	Male
Managers who received annual performance reviews	227	3,843
Non- management employees who received annual performance reviews	47	3,305

During the year, various training programs were conducted for employees, details of which are given below. Average training hours per employee was 16 hours. (GRI 404 -1)

Table 5.2.6

Training hours - By Category	Female	Male
Management staff	3,699	93,761
Non-management staff	874	22,142
Number of Training Hours	**Female**	**Male**
For Health and safety	534	30,836
For IT training	13	364
For Management skills	2,616	41,221
For Environment & sustainability	96	980
Anti-corruption policies & procedures	59	831
Other Trainings	1,234	41,354

Empowering Women

In a bold new thrust on enhancing gender diversity, 56 young women candidates were inducted into a three-year residential training course at ACC Cement Technology Institute (ACTI) in Jamul. These women are being trained to become Central Control Room (CCR) operators-cum- Quality Analysts. The CCR is the hub of a modern day cement plant. This is a one-of-its-kind initiative in the industry that is bound to break traditional stereotypes in cement manufacturing units and provide an impetus to our gender diversity ambitions. (GRI 405-1)

Employee Engagement– Ranked Best Globally in LafargeHolcim Group

ACC employees scored the highest in the "Pulse Survey" conducted by LafargeHolcim to assess employee engagement-cum-perceptions among its worldwide group companies. The survey sought to capture employee's responses to a comprehensive set of parameters, such as My Company - New value propositions, My Work – impact, My Deal – what it means to me and Behavioural Pillars of Agility, Collaboration and Empowerment. Will 100% of ACC employees participating in the survey, the findings indicated a very high degree of pride and affinity among employees and a close association with the Company's vision, mission and core values. The results not only underscored ACC's highly engaged and motivated workforce, but also endorses the Company's commitment to create a best-in-class workplace.

Industrial Relations

Continuing its tradition of harmony and mutual respect with the workforce and trade associations, ACC maintained cordial industrial relations with them throughout the year. The year saw the launch of 'Sparsh – a caring connect,' a telephonic counseling service for employees and their families meant to provide them with support and confidential advice to deal with a wide range of mental health issues.

Workday

During the year, people processes were strengthened by the implementation of Workday, a robust cloud-based HR information platform. Workday empowers line managers by providing them a single source for all employee-related information. This has reinforced the effectiveness of line managers in the vital function of people development and providing agility and collaboration ease to HR managers.

Employee Benefits

ACC's remuneration package is competitive. Full-time employees benefit from attractive schemes covering education, health, retirement, loans, disability and invalidity coverage, and financial assistance. Plant employees get furnished or unfurnished accommodation according to their entitlement while their families enjoy round-the-clock healthcare at well-equipped healthcare centres; recreational and cultural facilities; and subsidised education at excellent company schools. Temporary or part-time staff, do not receive the same benefits as full-time or permanent staff, though these benefits compare well with local market practice.
(GRI 401-2)

Table 5.2.7 (GRI 102-38, 39, 202-1, 405-2)

Type of employees	Ratio of basic salary of men to women
Management Staff (Base salary)	1.13
Management Staff (Base salary + bonus etc)	1.13
Non-Management Staff (Base)	0.99

Retirement

Employees retire on superannuation after reaching the age of 60 years. A permanent employee receives retirement benefits in compliance with statutory requirements, including leave encashment, provident fund, Officers' Superannuation Fund, gratuity, additional gratuity as eligible, and amounts due under the National Pension Scheme, if any. Advance notice is served one year ahead of the date of retirement. Some useful advice is offered on health and investment aspects though no specific re-training is provided.
(GRI 404-2 and GRI 201-3)

Parental leave

ACC has recruited women in different positions at the Head Office, sales offices and plants since its inception. Paid maternity leave has been a long tradition that continues in the company. In 2017, 16 women took maternity leave entitled, of whom eight (or 50%) returned to work, six were still on leave, one resigned while one sadly passed away. The majority of women who avail such leave return to work, invariably involving no loss of continuity in position or job content. This facility of parental leave is not open to male employees.
(GRI 401-3)

A majority of women who avail such leave return to work, invariably involving no loss of continuity in position or job content. This facility of parental leave is not open to male employees. (GRI 401-3)

Other Aspects

A minimum notice period of 15 -30 days is typically provided to employees and their elected representatives before the implementation of any significant operational change that could substantially affect them. Senior management staff is hired within the country, while non-management staff at most operations is drawn from the local communities. (GRI 202-2)
During the year there was no material change in the company's general remuneration policy for employees vis-à-vis that for its Chief Executive. Since there was a transition in the leadership position within the year, it is possible that the ratio comparing the percentage increase in these two categories may not be entirely meaningful. Hence, this ratio is not included in this report.

5.3 Human Rights

At ACC, we recognise the inherent dignity and human rights of all those associated with us, and we adhere to all local laws and regulations relating to fair treatment of employees and workers, whether engaged directly or by contractors, vendors, service providers and other stakeholders in matters such as minimum wages, compensation and dismissal, recruitment and promotion, working hours, equal opportunity, diversity, anti-discrimination and other benefits and welfare.

Awareness of Human Rights

All employees are made aware of human rights aspects through online or face-to-face training, as part of ACC's Code of Business Conduct. In 2017, ACC rolled out an e-module open to all employees to make them aware about human rights, to know how they relate to the company as a whole and to their respective individual responsibilities.

Non-Discrimination & Harassment

The company has complied with the requirements of the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 and rules framed accordingly. A policy is in place for the prevention and redressal of sexual harassment at the workplace which covers all women - permanent, temporary or those who are contractual. The policy has been widely communicated internally. Redressal of complaints relating to sexual harassment is overseen by an internal committee of four management staff, including three women. One nodal person nominated in each unit receives and forwards complaints either to the First Instance Person (FIP) who is a woman or directly to the committee.

There were no complaints relating to sexual harassment during the year. Awareness on the subject is raised and renewed through internal and external programmes. (GRI 406-1)

Freedom of Association and Collective Bargaining

There are recognised trade unions affiliated to various central trade union bodies. The Company's Shop Floor Associates are members of their respective unions. About 45% of permanent employees are members of recognised employee associations.

All non-management staff and Shop Floor Associates categories are covered by collective bargaining agreement which includes notice period and provisions for consultation and negotiation. No complaints were recorded in this regard during the year.
(GRI 402-1; GRI 407-1, GRI 102-41)

Child and Forced Labour

We strictly forbid the practices of child labour as well as forced or compulsory labour across the organisation. This is expressly prohibited in the Code of Business Conduct. Further, our procurement policy does not permit business to be conducted with any vendors or service providers known to engage in such practices. No such violations were reported during the year. (GRI 408-1,409-1)

Security Practices

Induction and orientation of the company's security staff includes training in human rights aspects as laid down in the Code of Business Conduct. This is also applicable to third party organisations providing security personnel. (GRI 410-1)

Rights of Indigenous Peoples

The organisation respects local government regulations on provisions of the rights of indigenous people. During the year there were no incidents of any violations in this respect. (GRI 411-1)

Human Rights Assessment

No instances were recorded across the company of any Human Rights violation by way of the incidence of child labour, forced or compulsory labour etc. During the year we undertook Human Right Assessments at two locations as a first phase with other locations to be taken up later in this year and the next. (GRI 412-1)

5.4 Community Development & Social Responsibility

CSR initiatives benefitted

4.82 lakh
people residing in

202 villages

Among ACC's key stakeholders are the communities living around its operations, many located in remote areas of the country. The company actively engages with and assists these communities in identifying, prioritising and meeting their developmental aspirations through periodic needs assessment surveys. ACC's CSR agenda meets requirements of Schedule VII of the Companies Act, 2013 and is in consonance with all of the UN Sustainable Development Goals except four not directly applicable to its operations.

Planning & Implementation

Best practices and development principles are adopted in the management of the Company's community development agenda, from the basic needs assessment using participatory rural appraisal (PRA) tools to developing village level micro-plans, monitoring project implementation, completion and evaluation. Projects are planned and undertaken in an inclusive manner with a Community Advisory Panel (CAP), comprising the community's representatives and opinion leaders and then implemented by the Company's in-house team in partnership with carefully selected partners, such as NGOs, academic institutions, corporates and government organisations. Quarterly meetings are held with the CAP to review progress and suggest course correction. Capacity building and institutional sustainability are integral to all projects. Conscious efforts are made to give priority to the landless, farmers with small land holdings, woman-headed households and other marginalised sections of the community.

Project Thematic Areas

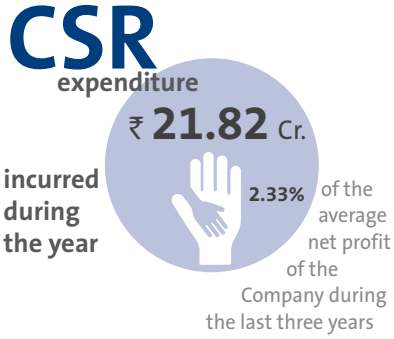
ACC's CSR agenda is structured around four thematic areas of Livelihood, Education, Water and Sanitation and Health. (GRI 203-1,2)

Social Audit

CSR projects undertaken by the Company have undergone a third party audit by a team of experts from the development sector, led by the CEO of Dialogue of Civilizations (DOC) Research Institute gGmbH, Berlin.

CSR Footprint

In 2017, the total CSR expenditure incurred was ₹ 21.82 crore, which is 2.33% of the average net profit of the Company during the last three years. In 2017, ACC reached out to 4.82 lakh people residing in 202 villages and eight towns spread across 14 states of India. (GRI 413-1, 2)



ACC
CSR

Making a

202
Villages covered

43,412
beneficiaries across
316
General and Special Health Camps conducted

4,81,770
Population covered

15,036
Participants in #SaveKidsLives campaign

1,393
Household Sanitation Units constructed

251
Farmer's Club /Farmer's Group (Cumulative) formed with
3,575
members

36
Villages supported through initiatives for achieving Nirmal Gram Status

1,473
Functional SHGs (Cumulative)
103
New SHGs created

3,745
Young beneficiaries of placement linked employability programs

6,647
Women received membership of NABARD 'A' level rated SHGS

₹ 4.42 Cr
Total Savings of all SHGs

549
SHGs recipient of NABARD's 'A' level rating

Difference

23,968 Children, **178** Schools - Reach of education initiatives

1,009 Meritorious students supported with scholarships

25 Schools introduced

4 Schools provided with internet connection

186 Libraries operationalised in community schools

446 Teachers and teaching assistants trained

7,035 Child beneficiaries across **155** Supported anganwadi centres

11,454 People benefitted through excavation of ponds

43,786 Beneficiaries for drinking water initiatives

123 Schools equipped with 100% sanitation

326 Borewells repaired and recharged

13 Rain Water Harvesting structures created

Footprint Jan to Dec , 2017

Trainees from ACC Disha center are efficient and well trained. Their knowledge of repair helps us in our work. We are expecting more well-trained youths for our showroom

Manager, V2 Motors, Karahalli, Devanahalli District

Recognition

The company's work for communities was appreciated and felicitated by reputed external bodies. ACC climbed one step to the 8th position in 2017 among 100 top listed companies of India in an annual CSR ranking of Indian Institute of Management, Udaipur. The company was conferred the first ever ISC-FICCI Sanitation award for "Best Corporate Initiative in Sanitation" by India Sanitation Coalition (ISC) and Federation of Indian Chambers of Commerce & Industry (FICCI). The Economic Times and KPMG gave ACC's CSR contribution the prestigious '2 Good' rating

Success Stories - Project DISHA

DISHA is an employability enhancing initiative that engages youth in capacity building sessions, orientation training, career counseling and information workshops for different trades. It offers courses in computer learning, automobile repair, electrical repair, refrigerator and air conditioning, tailoring, mechanised housekeeping and broom making. The local CSR teams assist with securing gainful placements.

Zeelani hails from village Halkatta and is the oldest child. He stopped his education post SSC. With hopes to provide money for his family and earn a decent livelihood, he joined the two-wheeler training course. Zeelani quickly grasped the concepts of repair program by attending every session of **DISHA**, the employability enhancing initiative.

He now works with TVS, one of finest service centers. Zeelani always believed in himself and never gave up on the struggle of building a better life for his family and himself.

Adarsh is a junior mechanic with TVS. Until, few days back he was trainee in two-wheeler repairing programme. After he had completed his ITI training, his brother introduced him to DISHA, the employability enhancing initiative with training programmes. After regularly attending all classes and successfully qualifying his two months of training with ACC DISHA, Adarsh was placed with TVS.

He is extremely thankful to the Wadi team for helping him enhance his skills and build his career.

"I am a small farmer and have three acres of dry land in the village. My mother is dependent on me since my father's death. I completed the two-wheeler mechanical repairing course and I am now placed in Suzuki showroom as an assistant Mechanic Devanahalli District. I earn ₹ 9000 per month."

I sincerely thank ACC DISHA for giving me this opportunity .

Sivareddy

Project Arogyam at Kymore

Kymore Cement Works runs a successful initiative under this label which works to improve access to good health and nutritional services in coordination with the State Health Department and Integrated Child Development Services (ICDS). Specific interventions include Sneh Sadan that seeks to upgrade village Anganwadi Centres (AWCs) as Model Centres. 20 AWCs have been developed as "Sneh Sadan".

Hand washing campaign - a campaign for health, hygiene and sanitation was initiated. Children of local AWCs and schools were made aware of steps towards proper hand washing before and after meals, cleanliness, hygiene and basic sanitation.

The basics of health, hygiene and sanitation have been imparted to 1,630 adolescent girls. These and other interventions have sensitized local communities on issues like immunisation, antenatal care and institutional deliveries at health centres.

Project Swavalamban - Case Study from Chanda

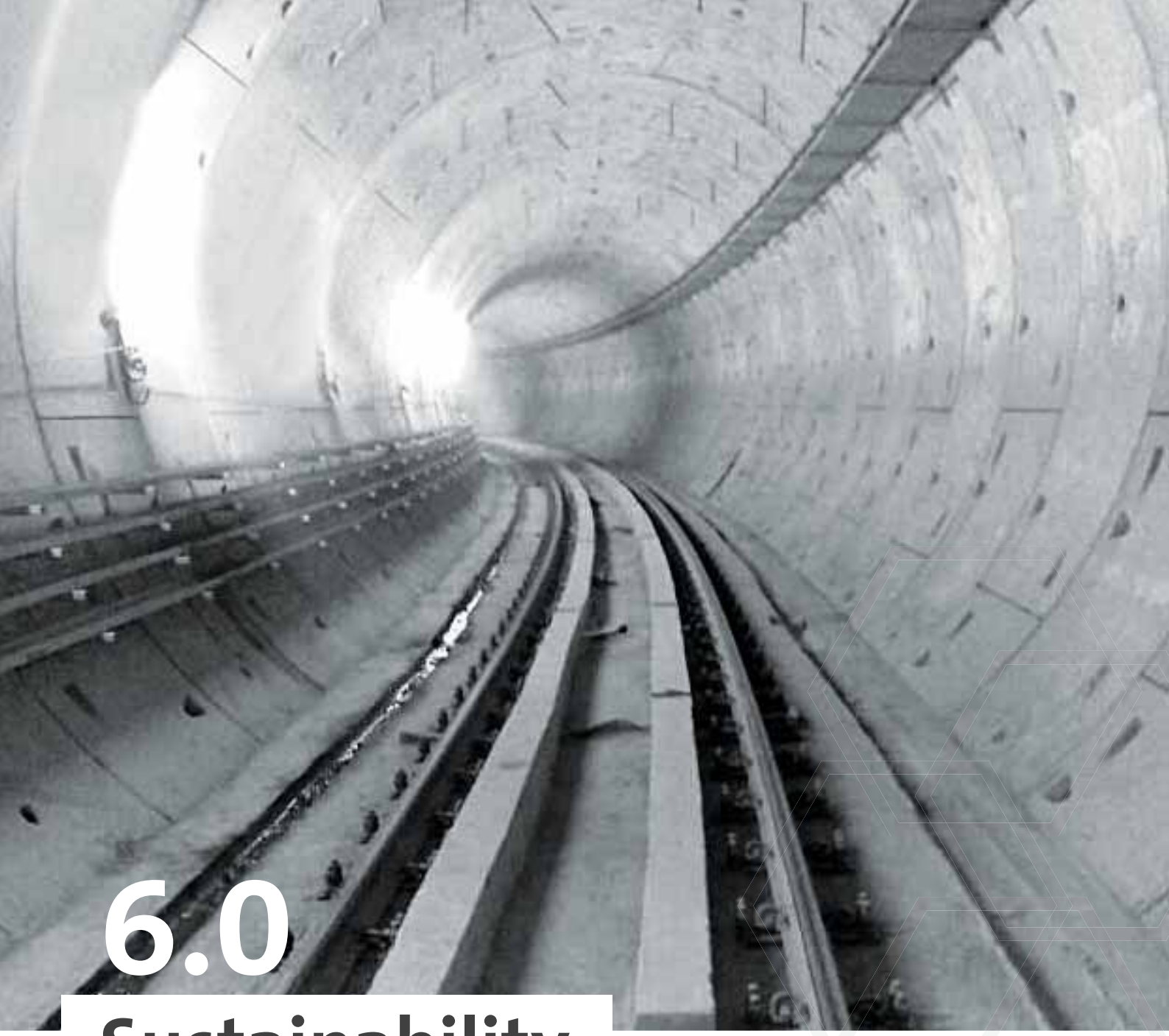
"Financial independence is paramount. If a woman is financially independent, she has the ability to fulfill her dreams and live life on her own terms," said Veena Rajurkar, a 38-year-old woman, living near ACC Chanda and a beneficiary of its 'Swavalamban' initiative. This is an effort to facilitate self-reliance and empower women from weaker sections of the community such as by developing microenterprises through Self Help Groups (SHGs).

For Veena, being a part of Jijamata Mahila Bachat Gat for the past 10 years has proven to be extremely fruitful. The group attended a training programme on cattle breeding, following which they took a bank loan to buy their own cattle. Veena soon started selling milk profitably. Starting with monthly deposits of ₹ 50/-, she now deposits ₹ 200/- per month. She repaid the bank loan and started saving again to expand her business. She attended another training programme to learn how to make dairy products such as paneer, shrikhand, ghee and khoya. Veena has entrepreneurial dreams and wants to be as big as Amul in her region. She is determined to make her and her family's life better. She believes that every woman must become financially strong and work to support her family.

Facilitating Access to Government Social Security Schemes - ACC Sindri

ACC Sindri's CSR team played a guiding role in enabling numerous unorganised workers understand and gain access to social security entitlements provided in the state government's Unorganized Workers' Social Security Act, 2008. This was done through road shows by teams travelling in mobile vans with information, education and communication(IEC) material, actively supported by members of local communities, self-help groups and Panchayati Raj institutions. The teams advised those who were not fully aware of their entitlements in health, nutrition and social security under the state's flagship programmes, sharing useful information on registration, schemes and benefit claim processes.

In collaboration with state government officials and the PHIA Foundation, over 3,500 unorganised workers were registered online in the Shramadhan Portal at Sindri's DISHA Centre. Using information provided by the State Labour Helpline number, the plant's CSR team visited individual households to mobilise unorganised workers with labour identity cards to apply for benefit claim processes. There were 133 beneficiaries for various schemes, such as skill development, educational scholarships, health insurance and maternity schemes.



6.0 Sustainability Roadmap

6.1 Scorecard for 2017

6.2 The Road Ahead

6.1 SD Scorecard 2017

ACC Gagal awarded the **Sustainability 4.0 Award** by Frost & Sullivan & TERI, in the 'Challengers' category for Large Business.

Table 6.1.1

Parameters	Target 2017	Status 2017
CO_2	To reduce specific CO_2 emissions by 35% as compared to 1990	Specific CO_2 emissions reduced by 34% as compared to 1990
Thermal Substitution Rate	To achieve Thermal Substitution Rate of 10%	Target not achieved. Thermal Substitution Rate in 2017 was 4% vs. the target of 10%
Water	To reduce specific water consumption for manufacturing of cement by 10% as compared to 2012	We have reduced specific water consumption by 32% in 2017 vs 2012
Specific Total Energy Intensity (Metric Tonne of Oil Equivalent (MTOE) per tonne of Cement)	To reduce by 3% as compared to 2013	Specific Total Energy Intensity reduced by 11.9% as compared to 2013
CSR	To continue to expand our CSR footprint Focus on inclusive business projects like sanitation, etc.	CSR expenditure was ₹21.82 crore, higher than the required 2% of average profit of the last three years, benefitting over 4.82 lakh people

This is the last year, we are reporting our progress against our SD targets which were set in 2013. From next year onward we will be reporting our SD scorecard against our SD 2030 Plan targets.

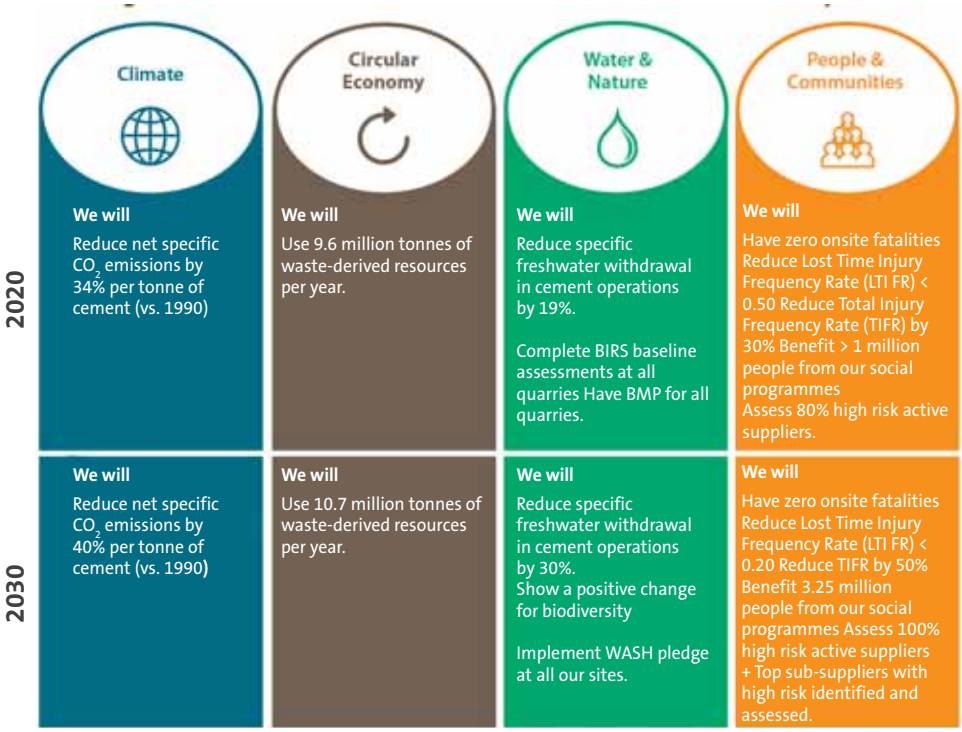
6.2 SD 2030 Plan

ACC's sustainability strategy for the next decade is its Sustainable Development (SD) 2030 Plan, drawn up in 2016, aligned with the LafargeHolcim Group SD Plan, focused on four significant areas:

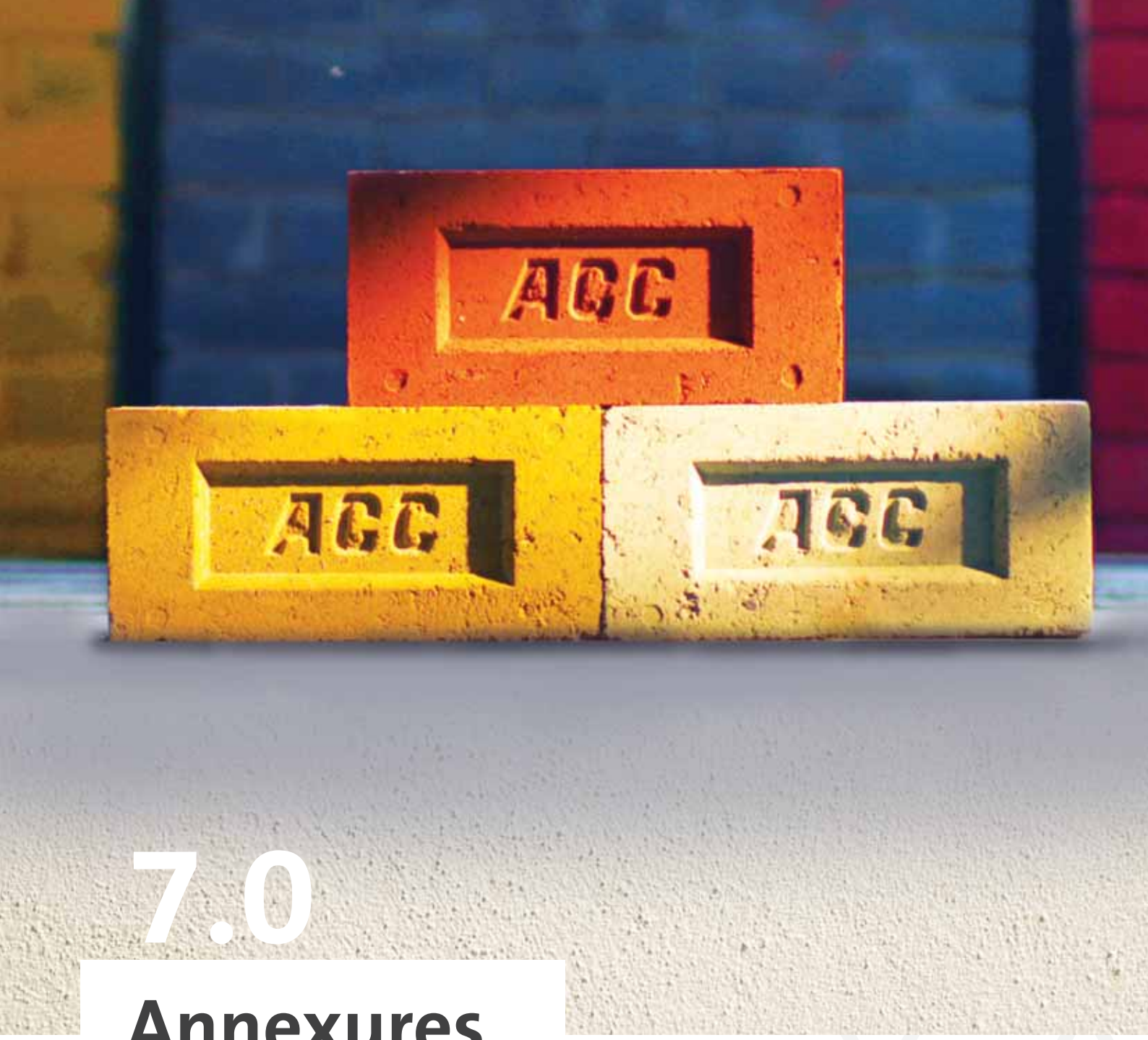
- Climate – Reduction of net specific CO_2 emissions.
- Circular Economy – Enhanced utilization of waste-derived resources.
- Water and Nature – Reduction of specific freshwater withdrawal in cement operations; enhancing biodiversity in all operating mines; implementation of Water Access, Sanitation and Health (WASH) pledge.
- People & Communities – Improving H&S performance, gender diversity, providing low cost shelters / affordable housing and sanitation.

Intermediate targets along action plans for each focus area were crystallized during the year with the active engagement of all stakeholders.

ACC will generate one-third of its turnover from enhanced sustainability solutions



Note: Baseline year is 2015 unless stated otherwise



7.0 Annexures

7.1 Assurance Statement

Sustainability Assurance Service

TÜV INDIA
TUV NORD GROUP

Independent Assurance Statement

Introduction and Engagement

ACC Limited (hereafter 'ACC' or 'the Company') commissioned TUV India Private Limited (TUVI) to conduct the independent assurance of ACC's sustainability report (hereinafter 'the Report'), which includes "reasonable assurance" of ACC's sustainability information for the applied reporting period. This assurance engagement was conducted against the Global Reporting Initiative Standards and AA1000AS (2008) Protocol (Type 2, Moderate Level) for verification of the Sustainability Report. The onsite verification was conducted in May 2018 at Chanda (Integrated Cement Plant), Tikaria (Grinding Plant) and ACC Limited, Thane. In addition, desk review was carried out for other sites which are parts of report boundary. ACC opted for external assurance for the 2017 calendar year. The Report covers ACC's sustainability information for the period 1 January 2017 to 31 December 2017.

Scope, Boundary and Limitations of Assurance

The scope of the sustainability assurance includes following:

- Verification of the application of the Report content, and principles as mentioned in the GRI Standards, and the quality of information presented in the Report over the reporting period;
- Review of the policies, initiatives, practices and performance described in the Report;
- Review of the disclosures made in the Report against the requirements of the GRI Standards
- Verification of the reliability of the GRI Standards Disclosure on economic, environmental and social
- Specified information was selected based on the materiality determination and needs to be meaningful to the intended users;
- Confirmation of the fulfillment of the GRI Standards; 'in accordance' with the Comprehensive criteria, as declared by the management of ACC

The reporting boundary is based on the internal and external materiality assessment. The reporting aspect boundaries are set out in the Report covering the sustainability performance of the ACC encompassing 11 Integrated Cement Plants and 6 Grinding Units and 50 Ready Mix Concrete (RMX) plants. Our engagement did not include an assessment of the adequacy or the effectiveness of ACC's strategy or management of sustainability related issues. During the assurance process, TUVI did not come across the limitations to the scope of the agreed assurance engagement. No external stakeholders were interviewed as a part of the sustainability engagement.

Verification Methodology

The Report was evaluated against the following criteria:

- Adherence to the principles of Stakeholder inclusiveness, Materiality, Responsiveness, Completeness, Neutrality, Relevance, Sustainability context, Accuracy, Reliability, Comparability, Clarity and Timeliness; as prescribed in the GRI Standards and AA1000AS (2008);
- Application of the principles and requirements of the GRI Standards for its "in accordance Comprehensive" criteria.
- During the assurance engagement, TUVI adopted a risk-based approach, concentrating on verification efforts on the issues of high material relevance to ACC's business and its stakeholders. TUVI has verified the statements and claims made in the Report and assessed the robustness of the underlying data management system, information flows and controls. In doing so:
- TUVI reviewed the approach adopted by ACC for the stakeholder engagement and materiality determination process. TUVI performed limited internal stakeholder engagement to verify the qualitative statements made in the Report;

- TUVI verified the sustainability-related statements and claims made in the Report and assessed the robustness of the data management system, information flow and controls;
- TUVI examined and reviewed the documents, data and other information made available by ACC for the reported disclosures including the Disclosure on Management Approach and performance indicators;
- TUVI conducted interviews with key representatives including data owners and decision-makers from different functions of the ACC during the site visit;
- TUVI performed sample-based reviews of the mechanisms for implementing the sustainability related policies, as described in ACC's Sustainability Report;
- TUVI verified sample-based checks of the processes for generating, gathering and managing the quantitative data and qualitative information included in the Report for the reporting period.

Opportunities for Improvement

The following is an extract from the observations and opportunities for improvement reported to the management of ACC and are considered in drawing our conclusions on the Report; however they are generally consistent with the Management's objectives.

Opportunities are as follows:

- ACC can undertake assessment of present emission targets following the "Science Based Targets" methodology (sectoral de-carbonization approach or absolute based targets or economic approach).
- Supply chain assessment is suggested for vendors to meet the target of assessment of 80 % of high risk high value suppliers
- ACC can opt for ISO-14046 for Water footprint to report the potential environmental impacts related to water
- Alternative fuel utilization needs to maximize. Appropriate programs needs to be derived to ensure maximum availability of Alternative fuel, which will in turn reduction in GHG emission intensity

Conclusions

In our opinion, based on the scope of this assurance engagement, the disclosures on sustainability performance reported in the Report along with the referenced information provides a fair representation of the material aspects, related strategies, and performance indicators, and meets the general content and quality requirements of the GRI Standards Comprehensive option.

- **Disclosures**: TUVI is of the opinion that the reported disclosures generally meet the GRI Standards reporting requirements for 'in accordance'- Comprehensive reporting criteria. ACC refers to general disclosure to report contextual information about an ACC while the Management Approach is discussed to report the management approach for each material topic.
- **Topic Specific Standard:** TUVI is of the opinion that the reported specific disclosures for each material topic generally meet the GRI Standards reporting requirements for 'in accordance'- Comprehensive reporting criteria. The requirements of all material aspect were verified by the assurance team during on site visit.

On the basis of the procedures we have performed, nothing has come to our attention that causes us to believe that the information subject to the Type 2 moderate level assurance engagement was not prepared, in all material aspects, in accordance with the GRI Standards "Comprehensive option" sustainability reporting guidelines, or that the sustainability information is not reliable in all material respects, with regards to the reporting criteria.

TUVI did not perform any assurance of procedures on the prospective information, such as targets, expectations and ambitions, disclosed in the sustainability information. Consequently, TUVI draws no conclusion on the prospective information. This assurance statement has been prepared in accordance with the terms of our engagement. Type 2 moderate level assurance engagement with respect to sustainability related data involves performing procedures to obtain evidence about the sustainability information. TUV also assured the scope 1, 2, 3, GHG emission of ACC. TUVI has evaluated below requirements in context of GRI Standards.

Stakeholder Inclusiveness: Stakeholder identification and engagement is carried out by ACC on a periodic basis to bring out key stakeholder concerns as material aspects of significant stakeholders. In our view, the Report meets the requirements.

Materiality: The materiality assessment process has been carried out, based on the requirements of the GRI Standards, considering aspects that are internal and external to the ACC's range of businesses. The Report fairly brings out the aspects and topics and its respective boundaries of the diverse operations of ACC. In our view, the Report meets the requirements.

Responsiveness: TUVI believes that the responses to the material aspects are fairly articulated in the report, i.e. disclosures on ACC's policies and management systems including governance. In our view, the Report meets the requirements.

Completeness: The Report has fairly disclosed the General and Specific Standard Disclosures, including the Disclosure on Management Approach, covering the sustainability strategy, management approach, monitoring systems and sustainability performance indicators against the GRI Standards, 'in accordance 'with the Comprehensive option. In our view, the Report meets the requirements.

Reliability: The majority of the data and information was verified by TUVI's assurance team at ACC's office on the factory's premises and found to be fairly accurate. Further desk review of web-based data was carried out for all other sites mentioned above. Some inaccuracies in the data identified during the verification process were found to be attributable to transcription, interpretation and aggregation errors and these errors have been corrected. Therefore, in accordance with the GRI Standards and AA1000AS (2008) for a Type 2, moderate level assurance engagement, TUVI concludes that the sustainability data and information presented in the Report is fairly reliable and acceptable. In our view, the Report meets the requirements.

Neutrality: The disclosures related to sustainability issues and performances are reported in a neutral tone, in terms of content and presentation. In our view, the Report meets the requirements.

TUVI expressly disclaims any liability or co-responsibility for any decision a person or entity would make based on this Assurance Statement. The intended users of this assurance statement are the management of ACC. The management of the ACC is responsible for the information provided in the Report as well as the process of collecting, analyzing and reporting the information presented in web-based and printed Reports, including website maintenance and its integrity. TUVI's responsibility regarding this verification is in accordance with the agreed scope of work which includes non-financial quantitative and qualitative information (Sustainability Performance) disclosed by ACC in the Report. This assurance engagement is based on the assumption that the data and the information provided to TUVI by ACC are complete and true.

TUV's Competence and Independence

TUVI is an independent, neutral, third-party providing sustainability services, with qualified environmental and social assurance specialists. TUVI states its independence and impartiality with regard to this assurance engagement. In the reporting year, TUVI did not work with ACC on any engagement that could compromise the independence or impartiality of our findings, conclusions and recommendations. TUVI was not involved in the preparation of any content or data included in the Report, with the exception of this Assurance Statement. TUVI maintains complete impartiality toward any people interviewed during the assurance engagement.

For and on behalf of TUV India Private Limited

Manojkumar Borekar
Project Manager and Reviewer
Head – Sustainability Assurance Service
TUV India Private Limited

Date: 24/05/2018
Place: Mumbai, India
Project Reference No: 8115687663
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7.2 GRI Content Index

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7.3 UN Global Compact

ACC became a signatory to the United Nations Global Compact in 2006 and has since then periodically affirmed adherence to its ten principles. Various chapters of this Sustainable Development Report explain at length the organisation's response to the requirements of the ten principles, perhaps in greater detail than sought by the UNGC itself. The following table indicates the relevant chapter of this report where each principle is addressed. This report may thus be read as the Communication on Progress (CoP) required to be disclosed by signatories of the UNGC.

Table 7.3.1

No.	Principle	Chapter
Human Rights		
1	Businesses should support and respect the protection of Internationally proclaimed human rights; and	5.3 Human Rights
2	Make sure that they are not complicit in human rights abuses	5.3 Human Rights
Labour		
3	Business should uphold the freedom of association and the effective recognition of the right to collective bargaining;	5.2 People Processes 5.3 Human Rights
4	The elimination of all forms of forced and compulsory labour;	
5	The effective abolition of child labour; and	
6	The elimination of discrimination in respect of employment and occupation	
Environment		
7	Businesses should support a precautionary approach to environmental challenges;	4.1 Materials 4.2 Climate Change 4.3 Other Emissions 4.4 Energy 4.5 Circular Economy – Managing Waste 4.6 Water 4.7 Biodiversity 4.8 Sustainable Construction
8	Undertake initiatives to promote greater environmental responsibility; and	
9	Encourage the development and diffusion of environmentally friendly technologies	
Anti-Corruption		
10	Businesses should work against corruption in all its forms, including extortion and bribery	2.7 Compliances and other aspects

7.4 Glossary

Alternative Fuels and Raw Materials or Resources (AFR) - Inputs derived from waste streams contributing energy and/or resource recovery

Bag House - Air pollution control equipment that removes particulates from flue gas released in manufacturing processes

Biodiversity - Refers to the variety of life on earth - the different animals, plants and micro-organisms, their genes and the ecosystems of which they are a part.

Blended Cement - Hydraulic cements consisting essentially of an intimate and uniform blend of ordinary Portland cement with either slag or fly ash

Captive Power Plants (CPP) - Power plants or Generation Sets set up by an industry to meet its own power requirements.

Carbon Footprint - The total set of greenhouse gas emissions caused by an organisation.

Cement - a building material made by grinding calcined limestone and clay to a fine powder. It acts as a binding agent when mixed with sand, gravel or crushed stone and water to make concrete.

Cement Sustainability Initiative (CSI) - a global group of 24 major cement producers set up under the World Business Council for Sustainable Development for the pursuit of issues concerning sustainable development in the cement sector.

Clinker - An intermediate product in cement manufacture that is produced by sintering and fast-cooling ground limestone

Clinker Factor - The percentage of clinker in cement

Community Advisory Panel (CAP) - An informal but representative group of persons selected as accurately representing views of the community in matters concerning its social needs and development schemes

Concrete - A building material produced by mixing cement, water and aggregates comprising sand and gravel or crushed stone.

Co-processing - The act of adapting an existing industrial process in a single combined operation, whereby certain so-called 'waste' materials may be put to use as alternative fuel or raw material in cement kilns, dryers and captive power plants

Corporate Social Responsibility (CSR) - The commitment of business to contribute to sustainable development, working with its stakeholders, local community and society at large to improve their quality of life. We usually use the term to refer to community development.

Central Pollution Control Board (CPCB) - A statutory organisation under the Ministry of Environment and Forests responsible for maintaining national standards under a variety of environmental laws, in consultation with zonal offices, and local governments.

Debottlecking - A technique of optimizing production capacity at a plant by modifying the configuration of equipment or workflow or eliminating bottlenecks that limit throughput.

Employee Lost Time Injury - A work-related injury after which the injured person cannot work for at least one full shift/full working day.

Employee Lost Time Injury Frequency Rate - Refers to the rate of occurrence of workplace incidents that result in an employee's inability to work the next full work day. Calculated as the number of lost-time injuries within a given accounting period relative to the total number of hours worked in the same accounting period.

Employee Lost Working days - Those days on which, because of occupational injury or illness, the employee was away from work or limited to restricted work activity.

Environmental Product Declaration (EPD) - A uniform way of quantifying and disclosing the environmental impact of a product or system.

EthicalView Reporting (EVR) - The company's new vigil mechanism to report concerns about unethical behaviour, frauds and violation of the Company's Code of Conduct and Ethics Policy FICCI - Federation of Indian Chambers of Commerce and Industry, an association of business organisations in India

Fly Ash - Waste particulate residue from thermal power plants or incineration plants

Fossil Fuels - Non-renewable carbon-based fuels like coal and oil etc

Geocycle - The brand name under which LafargeHolcim offers sustainable solutions for waste management.

Global Reporting Initiative (GRI) - An International framework recommended for reporting progress against Sustainable Development.

GPS - Global Positioning System

Green Building - A Building which uses less water, optimizes energy efficiency, conserves natural resources, generates less waste and provides healthier spaces for occupants, as compared to a conventional building.

Greenhouse Gases - Gases that absorb and emit radiation within the thermal infrared range of the earth's atmosphere.

IUCN - The International Union for Conservation of Nature, an international organisation working for natural resource conservation.

Kiln - Large rotating cylindrical industrial oven used in the manufacture of cement clinker. In this report, "kiln" always refers to a rotary kiln. A cement kiln is believed to be among the largest moving machines.

Life Cycle Assessment - An approach to assess the environmental impacts of a product in all stages of its life

Limestone - A sedimentary rock composed of calcium carbonate used as the main input in cement manufacture.

Material Aspects - Topics that reflect the organisation's significant economic, environmental, and social impacts or those that substantially influence stakeholders' assessment and decisions.

Materiality - The threshold at which an issue or indicator becomes sufficiently important that it should be reported.

MT - Metric Tonne

MW - Megawatt, a unit of power equal to one million watts

Needs Assessment - A systematic process to acquire an accurate understanding of a community's needs and priorities in the context of its economic and social development

NOx - A generic term for Nitrogen oxides, usually refers to it as an

air pollutant.

NPS - Net Promoter Score, an index used to measure the willingness of customers to recommend a company's products or services to others. Also used as a proxy to gauge customer satisfaction.

Ordinary Portland Cement (OPC) - Cement made by inter-grinding clinker and gypsum.

Participatory rural appraisal (PRA) - A community-centric approach to development that engages communities in all phases of development programmes from identifying needs and formulating schemes to implementation and monitoring.

Perform Achieve Trade (PAT) Scheme - A trading scheme aimed to reduce energy consumption in industries across India using market oriented mechanisms. The scheme is designed and implemented by the Bureau of Energy Efficiency (BEE), under the Ministry of Power, India.

Profit After Tax (PAT) - It is the net profit earned by the company after deducting all expenses like interest, depreciation and tax.

Personal Protective Equipment (PPE) - Protective clothing, helmets, goggles, or other garments or equipment designed to protect the wearer's body from injury.

Petcoke - Petroleum coke which is a carbon solid derived from oil refinery coker units or other cracking processes.

Portland Pozzolana Cement (PPC) - Cement produced by inter-grinding a pozzolanic material such as fly-ash with clinker and gypsum.

Portland Slag Cement (PSC) - Cement produced by inter - grinding slag with clinker and gypsum.

Public Private Partnership (PPP) - A government service or private business venture which is funded and operated through a partnership of government and one or more private sector companies.

Radio Frequency Identification Device (RFID) - The wireless non-contact use of radio-frequency electromagnetic fields to transfer data, for the purposes of automatically identifying and tracking tags attached to objects.

Rain Water Harvesting (RWH) - Techniques used for collecting and storing, and using rainwater

Ready Mix Concrete (RMX) - Concrete specifically manufactured for delivery to construction sites in a freshly mixed and plastic or unhardened state. RMX is the acronym we use at ACC, though most others refer to it as RMC.

Self-Help Group (SHG) - A village-based voluntary support group usually composed of 10–20 local women or men who come together to address a shared cause or objective.

Slag - A non-metallic product consisting essentially of glass containing silicates, alumino-silicates of lime and other bases. It is obtained as a waste by-product in the manufacture of pig iron in a blast furnace or electric furnace.

SO_2 - The chemical term for sulphur dioxide, usually an air pollutant that plays a critical role in global warming.

Social Audit - A structured way of evaluating an organisation's social responsibility performance in terms of its schemes, expenditures and outcomes

Stakeholder - Individuals or groups whose actions significantly affect or can be affected by an organisation's activities, products or services.

Stakeholder Engagement - The process by which an organisation involves its stakeholders, that is, the people who may be affected by its decisions or can influence the implementation of its decisions.

Sustainable Construction - Building in a way that is socially, economically, environmentally, functionally and aesthetically balanced to meet today's needs and to provide and conserve resources for future generations.

Sustainable Development - Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. SD is the acronym we use at ACC.

Sustainability Reporting - the practice of measuring, disclosing, and being accountable to internal and external stakeholders for organisational performance towards the goal of sustainable development

Thermal Substitution Rate (TSR) - The amount of energy used from alternative fuels as a percentage of the total energy consumed in the process.

Tolling - An arrangement in which a company with specialized equipment processes raw materials or semi-finished goods for another company

UN Global Compact (UNGC) - A UN initiative to encourage global businesses to adopt ten principles covering Human Rights, Labour Standards, Environment and Anti-corruption.

VCCE - Value Creation in Competitive Environment

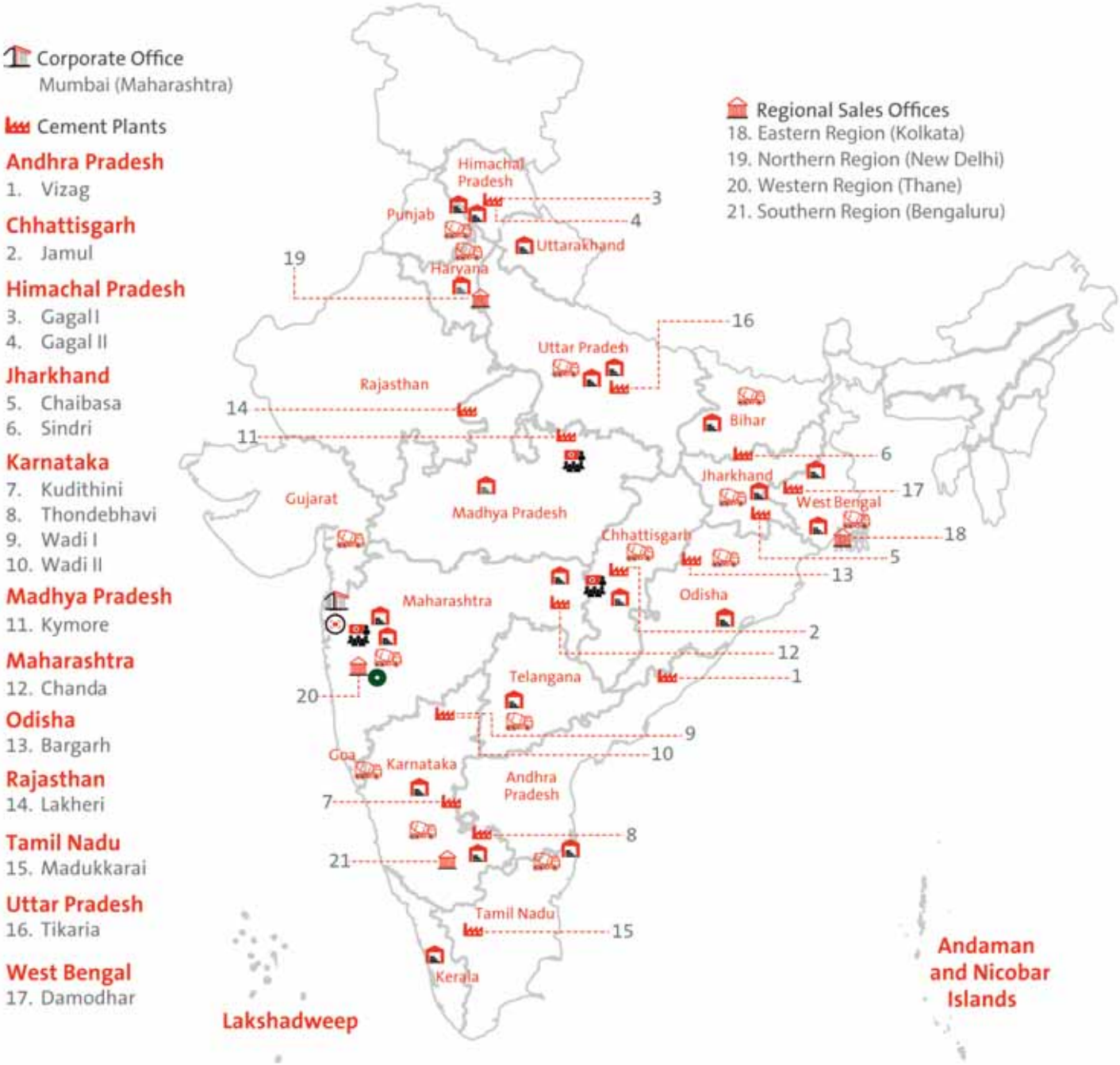
Vertical Roller Mill (VRM) - A type of grinding machine used to grind materials into extremely fine powder. A VRM is now recognized as standard energy efficient equipment to grind clinker into cement.

Waste Heat Recovery - Generating power by utilizing waste heat from preheater and cooler gases.

World Business Council for Sustainable Development (WBCSD) - A CEO-led organisation of forward-thinking companies that galvanizes the global business community to create a sustainable future for business, society and the environment.

7.5 Our Network

ACC Limited is India's foremost manufacturer of cement and ready mix concrete with 17 cement plants, 62 ready mix concrete plants, 1 bulk terminal, a vast distribution network of over 10,000 dealers and a countrywide spread of sales offices.



This map is of 31st December 2017. It is illustrative and not drawn to scale.

Sustainable Development Report 2017 clearly links our company's Sustainable Development approach, strategies, targets and initiatives with United Nations Sustainable Development Goals.

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