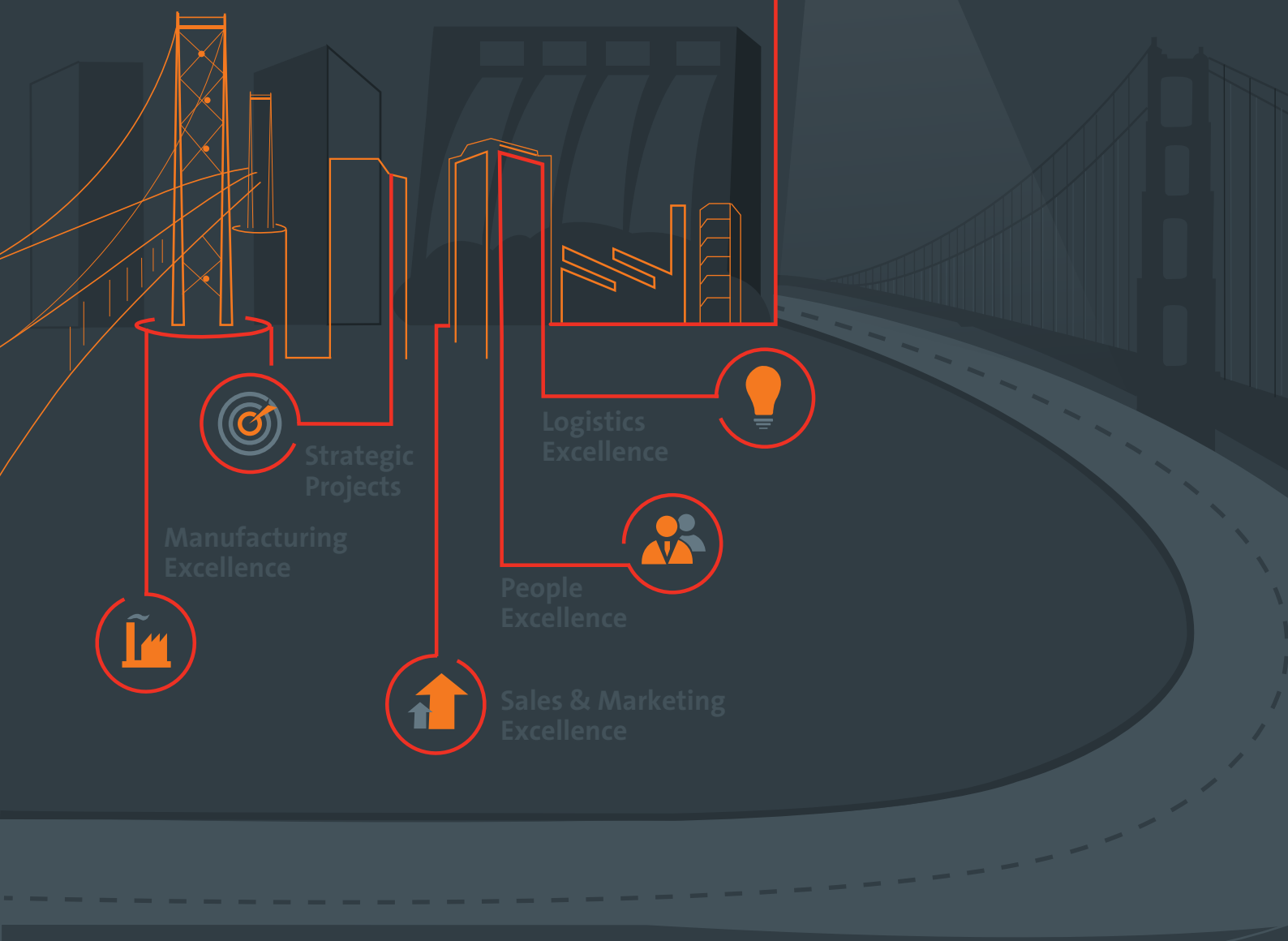


## Sustainable Development Report

ACC Limited  
Web Update 2012



# CONTENTS

## 1

### FOREWORD

### ORGANISATION & STRATEGY

1.1 Organisation Profile	03
1.2 Sustainability Issues & Organisation	04
1.3 Key Performance Data	05-06
1.4 Awards received in 2012	07-08
1.5 The Road So Far	09
1.6 Reporting Parameters & Methodology	10
1.7 Stakeholder Engagement	11
1.8 Corporate Governance Structure	12-15
1.9 Memberships	16

## 2

### ECONOMIC PERFORMANCE

2.1 Economic Impact	17-20
2.2 Customer Relations	21-23
2.3 Supply Chain Management	24-26
2.4 Eco-Efficient Product	27-29

## 3

### ENVIRONMENTAL PERFORMANCE

3.1 Energy	30-36
3.2 CO <sub>2</sub> Emission	37-39
3.3 Atmospheric Emission	40-42
3.4 Mineral Resources Management	43-44
3.5 Alternative Fuels and Raw Materials	45-47
3.6 Water and Waste Management	48-52
3.7 Sustainable Construction	53-55

## 4

### SOCIAL PERFORMANCE

4.1 Community Engagement	56-62
4.2 Employment Practices	63-72
4.3 Occupational Health and Safety	73-75
4.4 Fair Business Practices	76-78
4.5 Product Responsibility	79-81

## 5

### THE ROAD AHEAD

82-83

## 6

### ANNEXURES

6.1 GRI Content Index	84-90
6.2 UNGC	91
6.3 Glossary	92-96

## FOREWORD



I am pleased to present highlights of ACC's 6th Sustainable Development Report.

We continued to adopt a proactive approach towards sustainable development and demonstrate a strong concern to meet the interests of all stakeholder groups.

Our main thrust is on reducing the overall carbon footprint of our operations while optimising our costs, using the recognized levers of reducing clinker factor, manufacturing blended cements that consume less clinker, pursuing continuous improvements in thermal and electrical energy efficiency, improving the usage of alternative fuels and adopting clean and green technologies.

Consistent progress was achieved in the last year in respect of all these areas. Specific CO<sub>2</sub> emissions declined from 550.28 kg CO<sub>2</sub>/tonne of cement in 2011 to 539.12 kg CO<sub>2</sub>/tonne of cement in 2012 which is the best performance in this respect in the Indian Cement Industry and also notable in global industry standards. We substituted 2.2% of thermal energy consumption compared to 1.6% in the preceding year, while there was a 1.79% reduction in our clinker factor.

We supported the Cement Sustainable Initiative and made a major contribution in co-chairing the group involved in developing a Low Carbon Road Map for the Indian Cement Industry to achieve a reduction in direct emissions leading up to the year 2050. This is the first of its kind that covered a country and sector specific long term action plan to mitigate climate change risks.

We are playing an exemplary role in conserving fossil fuels by expanding the use of lower carbon alternative fuels and increasing our fuel substitution, guided by Holcim's Geocycle philosophy. In doing so, we render valuable services to the country by eliminating deleterious industrial wastes, municipal wastes, agricultural and bio-mass, thus benefiting waste generating industries, cities and society at large.

An important means of reducing CO<sub>2</sub> emissions in cement production is by reducing the clinker factor which is the share of clinker in cement. We promote the production of blended cements in which clinker is partially replaced by cementitious materials like fly-ash and granulated blast furnace slag, which are byproduct materials from other industrial processes. Our blended cement CDM project is one of the biggest for the cement sector in India.

On the environment front, we complied with all applicable local environmental regulations, while adopting Holcim's global environmental standards and practices. During the year we established Continuous Emission Monitoring Systems and Continuous Ambient Air Quality Monitoring Stations in most of our plants. In a move that introduced greater transparency, live data from some of these systems is uplinked to state pollution control board websites. We have implemented fugitive dust emission control systems in loading, unloading and material storage areas to maintain them below statutory limits.

We continued our efforts to become water neutral by implementing measures to reduce water consumption in manufacturing, power generation and in our townships. Two of our plants - Jamul and Kymore - are now fully self-reliant in water using only harvested rain water. Thanks to these measures, overall specific water consumption in the company fell by as much as 10%.

ACC maintains its leadership position on other fronts. We were the only cement company to figure in the Carbon Disclosure Leadership Index that was part of the Carbon Disclosure Project report 2012 for India. ACC assisted the Bureau of Energy Efficiency of Ministry of Power in developing a total specific energy base-line methodology for Cement sector for arriving at energy reduction targets set for all Designated Consumers notified by BEE.

The people side of our Sustainability agenda begins with a commitment to the safety of employees and all those who are touched by our operations and with our promise to engage gainfully with the communities we serve.

Through various initiatives, we continued to promote safety ownership amongst line management at all plants while engaging with all levels of employees. Regular hazard identification and risk assessment workshops addressed employees as well as contractors at plant sites. A new programme "ACC Chetna" launched last year trains employees to practice simple safe behaviours that help prevent injuries at the workplace and at home. Guided by the vision of "No harm anywhere to anyone associated with ACC", we went beyond our plant operations to give a new focus to Logistics Safety with safe and defensive driving training for drivers.

On the social side, we partnered with local communities around our operations in providing education, healthcare and supporting efforts to create sustainable

livelihoods, build village infrastructure and other development schemes. These initiatives reached out to 132 villages, touching the lives of about half a million people. Skill development programmes for differently-abled youth enabled placement of 136 young deaf adults while our HIV/AIDS treatment centres reached out to 319 afflicted people. We initiated behavioural change campaigns to encourage segregation of wastes by households to promote solid waste management.

We believe that sustainable development makes a strong business case. Many of the goals in our sustainable development agenda are also specifically targeted in a programme launched by us in early 2012. Called “Institutionalizing Excellence”, it was meant to deliver superior value to customers while simultaneously seeking cost leadership. The programme targets time-bound improvements in manufacturing, sales, logistics, people processes and procurement of major inputs. By the end of the year, the excellence journey had already started showing positive results in these areas.

We acknowledge the contribution of our employees which enabled us to achieve the company’s goals. The Institutionalizing Excellence programme visibly helped in upgrading skills and competency building of employees, in sharing and replicating best practices and in developing long term visions and action plans for critical performance indicators.

As we look ahead, we see India’s economy continue to grow resulting in construction activity particularly in housing and infrastructure sectors. As one of the country’s largest cement producers, we aim to enhance our capacity to meet the increasing requirements for cement. We have projects under implementation that will usher in growth while strengthening the outlook for further reducing our carbon footprint.

Work has commenced on the Jamul expansion project which will add 5 million tonnes of capacity in the east. This project, which will produce low carbon cement, will be completed in 2015. There are other green energy initiatives on the radar. A waste heat recovery power generation plant is nearing completion at Gagal and will go into trials by the end of 2013. To support the thrust on increasing alternative fuels, we are setting up AFR pre-processing platforms at three plants - Madukkarai, Wadi and Kymore.

Logistics emerged as a major priority. We aim to develop a world class logistics organization with best-in-class performance in terms of cost-to-serve and time-to-serve. In 2012 we deployed emerging technologies like RFID (Radio Frequency Identification) and GPS (Global Positioning Systems) for the first time in the Indian cement industry, to enable easy tracking of road transport vehicles in our plants and in transit to the end-consumer. We plan to take these initiatives further.

Providing superior value to our customers is among our most important objectives. We will continue to pursue improvements in quality and service levels and expand our marketing and sales organization. Our product development strategy will include environment-friendly offerings for special applications.

As we carry on with our determined efforts towards institutionalizing excellence, we are confident that Sustainability will continue to drive a large part of this journey and our future growth plans. In doing so, we will continue to rely on the valuable support we receive from our parent company Holcim and benefit from their rich experience.

We welcome your feedback and suggestions.

Kuldip Kaura

# 1 ORGANIZATION & STRATEGY



## 1.1 ORGANIZATIONAL PROFILE

In 1936, ten cement companies merged together to form a single entity that was called “The Associated Cement Companies Limited”. In 2006 the name was changed into the simpler version of just “ACC Limited”. Today ACC is part of the Holcim group of Switzerland which owns 50.3 % of its total equity. The company operates 17 cement factories, over 50 ready mixed concrete plants, 21 sales offices and several zonal offices across India with a workforce of about 9000 persons.

The organization structure of the company is divided into three autonomous geographical regions - North, East and South-West - each headed by a chief executive under the overall leadership of the Chief Executive officer and Managing Director at corporate level. In 2013 the South-West region was bifurcated into two regions South and West, each with separate chief executives.

### *People's Brand*

The brand name ACC is well recognized in India and internationally. While many iconic and enduring structures such as Mumbai's Marine Drive and the Bhakra Dam are built with ACC cement, the brand is also counted as being the most preferred one to construct homes for the masses of India in its cities, towns and villages. The company's cordial relationships with generations of customers and other stakeholders have added to the trust, respect and confidence this brand enjoys. ACC cement is made easily available across Indian cities and towns with the support of over 9000 authorized dealers and more than 50,000 sales outlets located all over the country.

### *Innovation at its core*

The name of ACC is associated with numerous innovations in cement and concrete technology. These include notable achievements like India's first indigenous cement plant, the world's largest cement plant, commercial distribution of Bulk cement and Ready Mix Concrete and most significantly, the promotion of eco-friendly blended cements in India - Portland Slag Cement and Portland Pozzolana Cement - that utilize industrial wastes from steel plants and from thermal power stations.

### *Focus on Sustainability*

Growing from a capacity of 1 million tonnes per annum in 1936 to 30 million tonnes per annum by 2012, the company took an early lead in areas like energy conservation and demonstrating concern for the environment, long before the concepts of sustainable development and Triple Bottom Line were evolved. ACC's focus on sustainable development is such that it integrates a sustainable approach into all activities of its value chain from mining to sales. Among the company's most important achievements have been mineral conservation and the gainful utilization of industrial wastes which enabled India's cement industry to achieve an impressive reduction of its carbon footprint.

### *A Social Volunteer*

In partnership with the rural community living around its operations, ACC implements social volunteering initiatives leading to the betterment of society. These include efforts in rural health, livelihood creation, education, vocational guidance and technical knowledge advancement programmes. Among its many contributions the ones that stand out are its treatment centres for patients of HIV/AIDS, the adoption of seven government-run technical schools and the operation of two technical institutes for students from remote places.

## 1.2 SUSTAINABILITY ISSUES AND ORGANIZATION

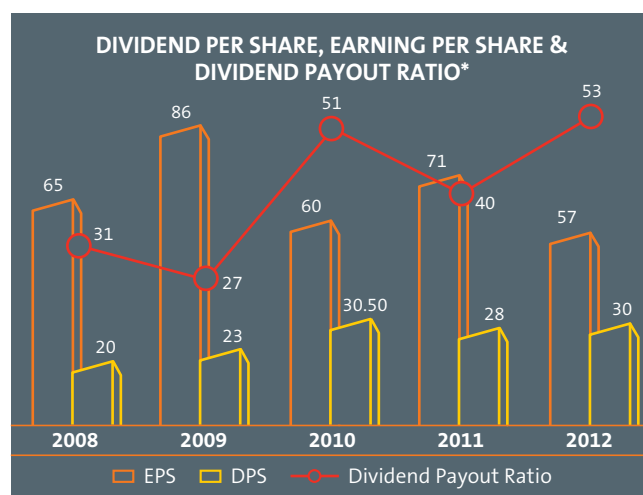
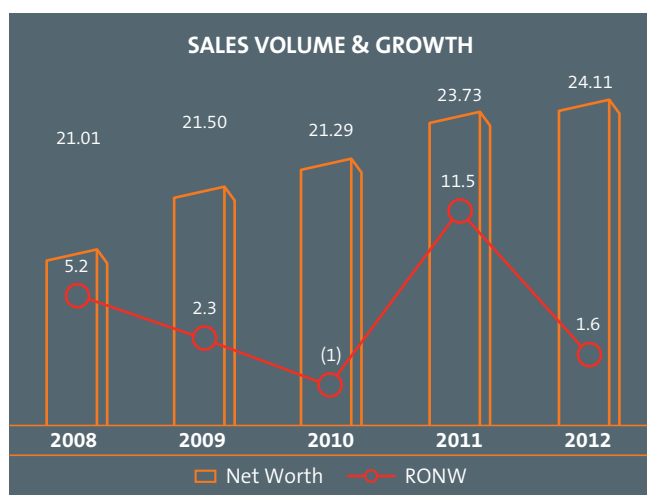
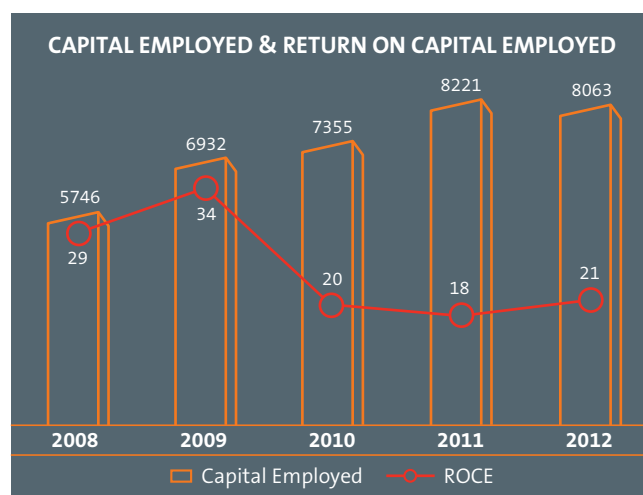
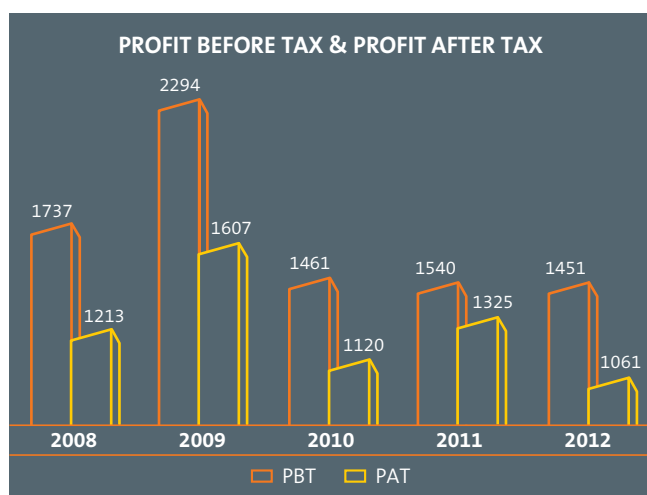
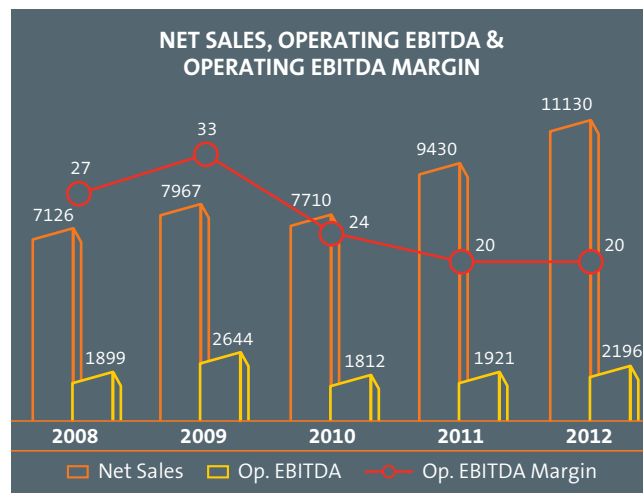
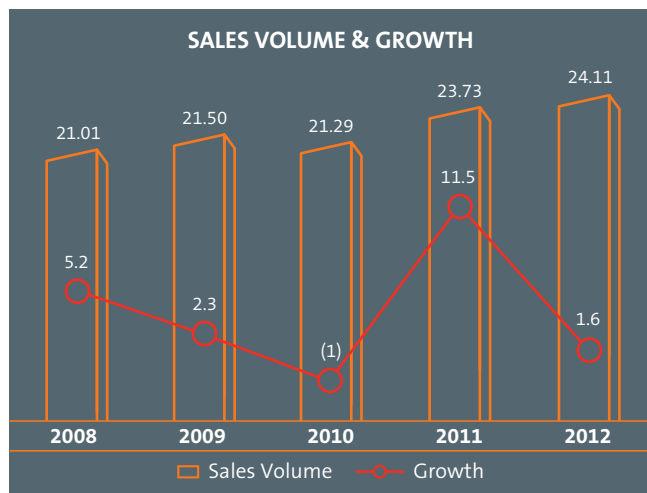
All concerns of our internal and external stakeholders on account of their perceived significant economic, environmental and social impacts due to our operations have been mapped into our sustainability matrix. Our last report explained how these issues were mapped and prioritized. Below is the organization's materiality matrix framework

Level of current potential impact on ACC					
	Very High		Customer Relation	Legal Compliance	Energy
	High		Employment Practices	CSR Engagement, Carbon Dioxide, Corporate Governance, Economic Impact, Resource Management, Atmospheric Emission, OH&S - Safety	Water, Sustainable Construction
	Medium		Spills and Other incidents Supply Chain Management	OH&S - Health Eco-efficient product	
	Low				
		Low	Medium	High	Very High
		Level of concern to stakeholders			

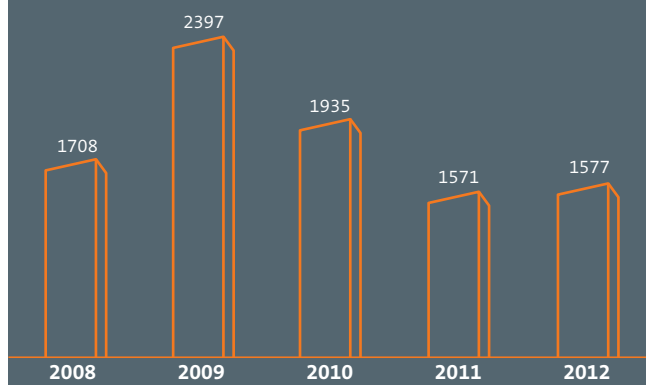
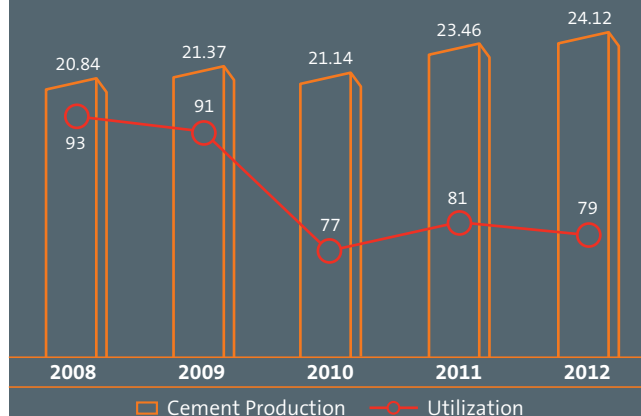
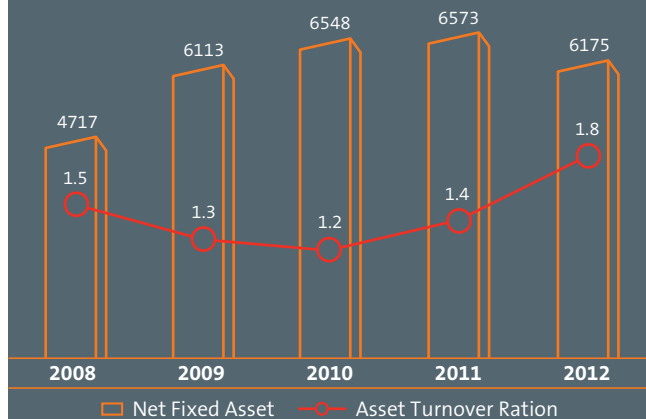
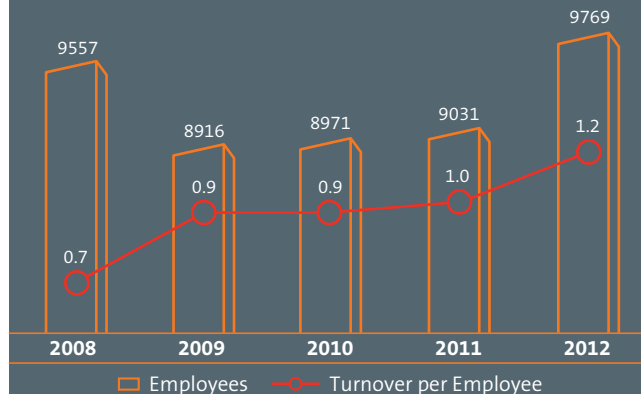
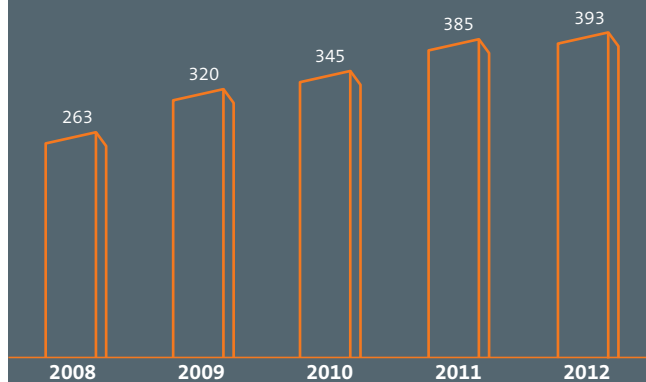
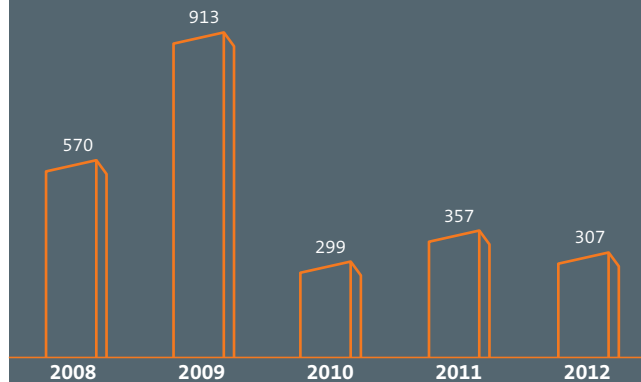
### **Sustainable Development Council**

Sustainable Development Council or SD Council headed by the Chief Executive comprises of representatives from the key functions relating to sustainable development. This council drives the implementation of the organization's sustainability performance agenda. To coordinate and advise the council from time to time on target setting and reporting, core group of the SD Council meets more frequently. Plant level SD Councils at each of our plants further strengthen the process. These processes are assigned to appropriate functional departments and integrated into individual job descriptions and the company's performance management system.

### 1.3 KEY PERFORMANCE DATA



\*Dividend Payout Ratio is calculated without considering dividend distribution tax

**NET CASH GENERATED FROM OPERATIONS**

**CEMENT PRODUCTION & CAPACITY UTILIZATION**

**NET FIXED ASSETS & ASSET TURNOVER RATIO**

**EMPLOYEES AT THE YEAR END & TURNOVER PER EMPLOYEE**

**BOOK VALUE PER SHARE**

**ECONOMIC VALUE ADDED (EVA)**




#### 1.4 AWARDS RECEIVED IN 2012

#	Name of Award / Rating / Certification	Name of Awarding / Rating / Certifying Organisation	Year	Theme of the Award*
<b>Environment Management and Energy Conservation</b>				
1	National Energy Conservation Award - to ACC Thondebhavi	Bureau of Energy Efficiency, Ministry of Power, Government of India	2012	Energy
2	Rajasthan Energy Conservation Award to ACC Lakheri	Government of Rajasthan	2012	Energy
3	Greentech Environment Award 2012 to ACC Kudithini, Gold Category in Cement Sector	Greentech Foundation	2012	Environment
4	Earth Care Award to ACC Gagal for Excellence	JSW Foundation	2012	Climate Change, GHG Mitigation & Adaptation in Cement Sector
5	Best Environment Practice in Cement Industry to ACC Sindri	The Institution of Engineers (India) Dhanbad	2012	Environment
6	National Award for Excellence in Energy Management 2012 (Energy Efficient Unit) to ACC Lakheri	CII - Godrej GBC	2012	Energy
7	Green Manufacturing Excellence Award to ACC Gagal, Lakheri, Sindri, Wadi and Thondebhavi	Frost and Sullivan	2012	Environment Management



Chief Financial Officer award 2012 from The Institute of Chartered Accountants of India



National Energy Conservation Award 2012 to ACC Thondebhavi



Green Building Council Memento to ACC



CII National Energy Management Award to ACC Lakheri

Safety				
8	National Safety Council Award for 2011 to ACC Gagal	National Safety Council	2012	Safety
CSR				
9	Asia Responsible Entrepreneurship award	Enterprise Asia, South Asia	2012	Social Empowerment
Quality and Manufacturing Excellence awards				
10	IMC Ramkrishna Bajaj National Quality Award Certificate of Merit to ACC Gagal	IMC Ramkrishna Bajaj National Quality Trust	2012	Quality
11	Best in Class Manufacturing Awards	Indira College of Engineering & Management, Pune	2012	Manufacturing Leadership in Cement
12	India Manufacturing Excellence Awards 2012 - Platinum to ACC Lakheri, Gold Certificates of Merit to ACC Gagal, Jamul & Wadi (II) and Silver to Chanda and Kudithini	The Economic Times and Frost & Sullivan\	2012	Manufacturing excellence
Others				
13	Chief Financial Officer Award 2012	The Institute of Chartered Accountants of India	2012	Finance
14	ACC Wins CNBC Asia's India Talent Management Award 2012	CNBC	2012	Talent Management
15	Association of Business Communicators of India (ABCI) awards for Annual Report design 2011, Parivar page on Facebook (Silver) and Corporate Calendar for 2012 (Bronze)	Association of Business Communicators of India	2012	Communications



CNBC Asia's India Talent Management Award 2012



## 1.5 THE ROAD SO FAR

Goals 2013 Energy - Alternative Fuels & Raw Materials	STATUS
Increase Total Substitution Rate (TSR) to 4.12% by 2013 from the base of 0.6% in 2009.	Partially achieved - TSR achieved by end of 2012 is 2.2%
<b>ENERGY (FOSSIL FUELS AND ENERGY EFFICIENCY)</b>	
5% reduction in specific power consumption per ton of cement by 2013 from a base of 91 KWH in 2009	Partially achieved - 3.33% reduction in specific power consumption per ton of cement by end of 2012
Increase the % share of Renewable Energy capacity to total Captive Power capacity from 6% in 2009 to 15% by 2013	% of Renewable Energy share by end of 2012 is 6%
<b>LEGAL COMPLIANCE</b>	
To be the most respected cement company in India and one of the most reputed corporate entities	Maintained
<b>SUSTAINABLE CONSTRUCTION</b>	
To promote usage of blended cement in all forms of construction, as green cement	ACC has always promoted blended cement as green cement required lower amount of natural resources and utilization waste products from other industries.
To position ACC as a responsible company that promotes sustainable construction.	ACC has been actively promoting Holcim awards on Sustainable construction in India to increase awareness and participation. Apart from the same the other initiative in this area are <ol style="list-style-type: none"> <li>1. Promotion of Concrete Roads</li> <li>2. Promotion of Low Cost Housing</li> <li>3. Following Green Building norms for some of its establishments.</li> </ol>
To maintain lead rank in share of blended cement to total cement production. (in 2009 ACC produced 91% blended cement against industry average of 75%)	In year 2012, ACC has 87% blended cement production. Industry figures are not available on the same after issues related to CMA.
<b>WATER, WASTE MANAGEMENT &amp; TRANSPORT</b>	
Zero discharge of effluents	Achieved
10% reduction in specific water consumption per ton of cement on the base of 2010-11	Achieved

## 1.6 REPORTING PARAMETERS AND METHODOLOGY

To maintain a transparent and an honest communication with all our stakeholders we release SD report summarizing our performance on sustainability front on yearly basis. We consider this reporting as an instrument to improve our value chain by integrating sustainability into our business and decision processes. As we report what we do, this reporting encourages us to do more for sustainability.

Since this report leads to a sincere, appropriate and well-targeted communication, it will help in increasing employee motivation, enhancing company reputation and strengthening our credibility.

### **Accounting Year:**

We follow the calendar year that is January to December for reporting financial performance (Annual Report) as well as Sustainability Performance (Sustainability Development Report).

### **Reporting Cycle:**

ACC publishes Sustainability Development Report in printed form every alternate year. However an electronic version of the report is uploaded on the company's website in the intervening year as a web update.

### **Report Boundaries:**

The scope of this report is limited to the company's cement business covering all its cement manufacturing plants. Since cement business contributes more than 95 per cent of the company's overall business, this report represents company as a whole.

### **Reporting Framework:**

This report has been prepared following the GRI Reporting Framework version G-3.1 of the Global Reporting Initiative (GRI) Guidelines. However the sequence of the performance Indicators is not as per the GRI guidelines. Instead, the indicators are placed under different chapters titled as per material issues identified by our stakeholders. The link between the GRI indicators and respective chapter is given at the end in the GRI content index. We regret any inconvenience to readers by rearrangement.

### **Data collation:**

To ensure the transparent disclosure of the data, significant efforts have been put to collect most of the data which has been either published or verified. In some cases, information was collected for the purpose of this report.

## 1.7 STAKEHOLDER ENGAGEMENT

Stakeholder engagement is key to our sustainability strategy. It includes mapping stakeholder concerns vis-a-vis impacts on our performance, based on which materiality of issues gets defined for pursuing meaningful action, reporting on our performance and the challenges we face with regard to sustainability issues.

The engagement process entails different approaches and procedures such as surveys and assessments, face-to-face meetings (individual or group) etc to be followed.



## 1.8 CORPORATE GOVERNANCE STRUCTURE



ACC's philosophy is embedded in a rich legacy of fair business dealings and ethical practices. This strong sense of values and robust business practices makes ACC a much respected name in the Indian Corporate world. ACC is one of the foremost Companies in India to have a well defined Governance Structure long before it was mandated by law.

The Company has complied with the requirements of Corporate Governance as laid down under Clause 49 of the Listing Agreement with the Stock Exchanges.

### ***Governance & Organization Structure***

The governance structure within the Organization broadly comprises three levels:

1. The Board of Directors
2. The Committees of the Board at the apex level and
3. The Management Structure at the operational level

This layered structure brings about a harmonious blend in governance as the Board sets the overall corporate objectives and gives direction and freedom to the management to achieve these corporate objectives within a given framework thereby bringing about an enabling environment for value creation through sustainable profitable growth.

### ***Board of Directors***

The Board of Directors of the Company comprises executive and non- executive directors. The Board plays a pivotal role in ensuring good governance. The role, functions, responsibility and accountability of the Board are clearly defined. In addition to its primary role of setting corporate strategies and goals and monitoring corporate performance, the Board directs and guides activities of the management towards the set goals and seeks accountability with a view to create long term sustainable growth that translates into progress, prosperity and the fulfilment of stakeholders' aspirations. It also sets high standards of corporate behaviour and ensures compliance with laws and regulations.

### ***Committee of Directors***

The Board has constituted six committees viz. Audit Committee, Compliance Committee, Compensation Committee, CAPEX Committee, Shareholders'/ Investors'

Grievance Committee and Corporate Social Responsibility Committee each of which has been mandated to operate within a given framework.

#### **- Audit Committee**

The Audit Committee acts as a link between the Statutory and Internal Auditors and the Board of Directors. Its terms of reference are as per the guidelines set out in the Listing Agreement with the Stock Exchanges. These broadly include approval of the Annual Internal Audit Plan, review of the financial reporting system, internal control systems, discussions on quarterly, half yearly and annual financial results, direct and indirect taxation, review performance of Statutory, Internal and Cost Auditors, recommendation for appointment of Statutory and Cost Auditors and their remuneration, Business Risk Management and its mitigation plan, Management Discussion & Analysis of the Company's operations, Internal Audit Report, Appointment, Removal and terms of remuneration of Chief Internal Auditor, significant related party transactions.

The Audit Committee comprises 4 Independent Directors of the Company. All members of the Committee are financially literate. The Chairman of the Audit Committee in compliance with Clause 49 of the Listing Agreement is an Independent Director. The Company has framed the Audit Committee Charter for the purpose of effective compliance of Clause 49 of the Listing Agreement. The Audit Committee has put in place a self assessment process for assessing its performance. The process set up in 2009 has a questionnaire grouped into the following themes developed to obtain feedback from its members:

- Audit committee composition, structure and meetings
- Understanding the Business and Risk Management
- Overview of Financial Reporting Process
- Internal Control over Financial Reporting
- Overview of the Internal and External Audit

#### **- Shareholders' / Investors' Grievance Committee**

The Shareholders'/Investors' Grievance Committee deals with various matters that concern the Company's shareholders and investors relating to the following:-

- Transfer / transmission of shares / debentures
- Issue of duplicate share certificate
- Issue and allotment of rights/bonus shares/shares against Employee Stock Options
- Review of shares dematerialised and all other related matters
- Monitoring expeditious redressal of investors' grievances
- Non receipt of Annual Report and declared dividend
- All other matters related to shares / debentures

#### **- Compensation Committee**

The Compensation Committee, inter alia reviews the overall compensation policy, service agreement and other employment conditions of the CEO & Managing Director with a view to retaining and motivating the best managerial talents. In determining the remuneration package of the CEO & Managing Director, it evaluates the remuneration paid by comparable organizations and thereafter makes its recommendations to the ACC Board in this regard. The committee also reviews the performance of the CEO & Managing Director and recommends to the ACC Board the quantum of annual increment/ performance incentive. The Committee also reviews the performance of the Managing Committee. It also identifies suitable candidates for appointment as Independent Directors and makes its recommendations in this regard to the ACC Board.

**- Compliance Committee**

The Compliance Committee was constituted to regularly review the status of Company's Compliance with various Laws and Regulations as well as to understand the implications of major legislative and regulatory developments that may significantly affect the Company and report the same to the ACC Board.

**- CAPEX Committee**

The CAPEX Committee was constituted to undertake a detailed examination of various large project proposals. The Committee evaluates the financial viability of all expansion CAPEX proposals exceeding a pre-decided ceiling limit.

- Monitors the projects with regard to the committees approved expenditure and time schedules Post audit evaluation of above completed projects
- Evaluates acquisition proposals if any, and makes appropriate recommendations to the Board
- Such other duties relating to CAPEX projects as may be assigned to the Committee from time to time by the Board

**- Corporate Social Responsibility Committee**

The Corporate Social Responsibility Committee (CSR Committee) provides guidance and strategic directions to the Company on various CSR activities to be undertaken and monitor the progress /impact of the identified projects/programmes on the Communities.

***Managing Committee***

The Company has formed a Managing Committee which comprises the Chief Executive Officer and Managing Director, Chief Executives of the Regions and Corporate Functional Heads. This Committee is a brain storming and consultative committee where important business issues are discussed, monthly performance reviewed and targets set. The various business challenges are also discussed and decisions taken within the framework of the strategic policies laid down by the Board.

**Organizational status of internal audit department**

The Company has an Internal Audit department which functions independent of the executive management. The Chief Internal Auditor reports to the Chairman of the Audit Committee.

**Clarity of roles and responsibilities at functional level**

All heads of major functions like purchase, finance, human resources, projects etc report directly to Chief Executive Officer thereby ensuring independence and proper segregation of duties.

**Adequate segregation of duties at process level**

At the process level, the Company has implemented SAP and adequate segregation of duties has been ensured among all users. A system / tool is also in place for periodic review at a transaction level and also has situation mitigation plans for any conflicts. Further details of the Company's governance and composition of the Company's Board of Directors is available on the Company's website at [www.acclimited.com](http://www.acclimited.com).

**Code of Business Conduct & Ethics**

The Board of Directors has approved a Code of Business Conduct and Ethics which is applicable to the Members of the Board and all employees in the Management grade. The Code has been posted on the Company's website [www.acclimited.com](http://www.acclimited.com).

The Company has also adopted a “Code of Conduct for Prevention of Insider Trading” to regulate trading in securities.

The Code lays down the standard of conduct which is expected to be followed by the concerned Directors and the designated employees in their business dealings and in particular on matters relating to conflict of interests, bribery and corruption, integrity of accounting and financial reporting, fair competition, Corporate Social Responsibility, concern for sustainable development/ sustainable performance, concern for occupational health and safety, use of licensed software, email and internet connectivity and corporate communications.

All the Board Members and the senior management personnel have confirmed compliance with the Code.

The Company has also adopted a Code of Conduct for Prevention of Insider Trading with a view to regulate trading in securities by the Directors and designated employees of the Company. The Board of Directors and designated employees have confirmed compliance with the Code.

#### **Avoidance of conflict of Interest**

Our commitment extends beyond compliance with the law to include a firm belief that the best way to be a great Company and to deliver value to our customers, employees, shareholders and the community is to be fair, honest and ethical in our business practices and personal behaviour at work.

We have a Code of Business Conduct and Ethics in place which clearly mentions behaviours expected of the individuals and the actions to be taken in case of non-adherence.

## 1.9 MEMBERSHIPS

1. National Safety Council (NSC)
2. British Safety Council (BSC)
3. Bombay Chamber of Commerce & Industry
4. Indian Merchants' Chamber
5. Council for Fair Business Practices
6. Indo American Chamber of Commerce
7. The Institute of Company Secretaries of India - centre for Research & Training
8. Bombay First
9. International Management Institute, New Delhi
10. Employers Federation of India
11. Bombay Management Association
12. Confederation of Indian Industry (CII)
13. Federation of Indian Chambers of Commerce & Industry (FICCI)
14. Progress Harmony Development Chamber of Commerce and Industry (PHDCCI), Delhi
15. Indian Roads Congress
16. Indian Geological Congress
17. Federation of Indian Mineral Industries
18. The Energy & Resources Institute (TERI) - Business Council for Sustainable Development
19. Swiss Indian Chamber of Commerce, India

## 2 ECONOMIC PERFORMANCE



### 2.1 ECONOMIC IMPACT

**EC1: Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments**

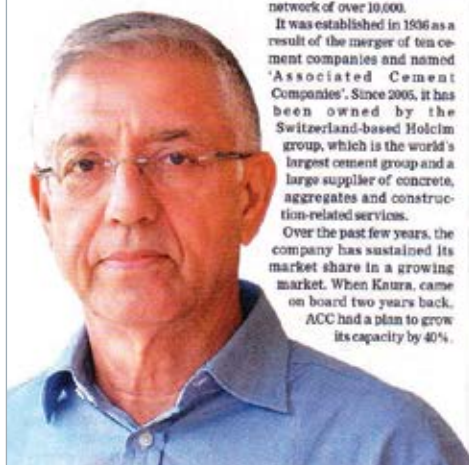
	2012		2011	
Direct economic value generated	INR Crore	% Share	INR Crore	% Share
Gross Revenue from operations and Other income*	14,468.25	100%	12,172.36	100%
Economic value distributed				
Operating costs	8,273.71	57%	6,937.08	57%
Employee wages and benefits	616.65	4%	533.01	4%
Payments to providers of capital	522.88	4%	585.05	5%
Payments to governments	3,440.60	24%	3,325.46	27%
Community investments	25.51	0%	22.00	0%
Total Economic value distributed	12,879.35	89%	11,402.60	94%
Economic value retained	1,588.90	11%	769.76	7%

\* Revenue figures includes sales tax

# Building Another ACC

*Our strong brand is trusted by generations of customers and served by a very loyal channel network. We are strongly committed to sustainable development by way of using environment-friendly blended cements, and promotion of concrete roads instead of bitumen roads*

**Kuldip Kaura**  
CEO AND MD



It took 76 long years of a series of mergers, numerous expansions, and all the hard work for ACC to build a cement capacity of 30 million tonnes. This time around, however, Kuldip Kaura, its CEO and MD, wants to do it in just another 10 years. "Creating another ACC" is how he puts it while talking about his ambitious plan to double the company's capacity in a decade.

ACC is one of the few cement manufacturing companies which has not only been able to grow with the market, but has also continuously strived to focus on customer satisfaction. The country's second-biggest cement manufacturer has a pan India presence with a market share of 11% and a dealer network of over 10,000.

It was established in 1906 as a result of the merger of ten cement companies and named 'Associated Cement Companies'. Since 2005, it has been owned by the Switzerland-based Holcim group, which is the world's largest cement group and a large supplier of concrete, aggregates and construction-related services.

Over the past few years, the company has sustained its market share in a growing market. When Kaura, came on board two years back, ACC had a plan to grow its capacity by 40%.

The key challenge for him was to ensure proper commissioning of these plants, ramp up and placement of the large additional volume into the market. "This also meant building up our internal organisation and further development of our vast channel network. Amidst these challenges there was also an opportunity to make use of resultant synergies and other cost benefits," says Kaura.

In addition, what took the company ahead of its competitors was the continuous focus on improving its brand. "We have built a strong logistics team which is busy working on several initiatives to achieve significant improvements in time to serve and cost to serve," says Kaura. The company has been continuously innovating to increase the satisfaction level of customers by guiding users to adopt good construction practices, assisting with proper usage and cement application and through new product development. It has launched special products in the recent past like "Coastal Plus", "P&R", and "Concrete Plus" which are designed for specific markets.

The company believes that because of various internal factors the economy has witnessed a downward trend in the last two years. However, on a fundamental level, it believes that the economy should continue to grow in the range of 7-8% year on year. With the signalling of reforms by the government, the company believes that the economy can again pick up the threads and get on the path to recovery.

Kaura estimates that on a long-term basis, the cement market will grow at around 8-9%. With this growth, the country's cement production would reach 600 million tonnes. "Even if we manage to keep our current market share of 11%, we have an opportunity to grow from the current 30 million tonnes to 66-68 million tonnes. This means creating another

## Focal Point

- Focused not only on building capacity, but also on creating a strong dealer network
- Systematically raised capacity in line with soaring demand
- Consistently launched special products for specific markets
- Focused on customer satisfaction by reducing turnaround time

ACC in the next 10 years." However, the growth will not be without some hiccups. Coal, a critical element for cement production, has been a worrying factor in terms of the demand-supply gap, quality and price. Another major bottleneck is the logistics infrastructure in the country, which is not keeping pace with the growth in demand. This could lead to transport and safety issues. To counter this, the company plans to develop alternative fuels and raw materials. With the participation of various agencies and regulatory bodies, it intends to promote co-processing of industrial wastes, municipal solid wastes, agricultural wastes and biomass.

With customer satisfaction as its primary focus, the company has launched a programme called "Institutionalizing Excellence" to capture significant value creation opportunity in terms of both cost leadership and customer value creation. The programme has been implemented across all functions like manufacturing, logistics, marketing and people development with a clear ownership at the management level and its own target and timelines. In respect of operational and manufacturing excellence, the plan is to benchmark the company against Holcim's vast global family of cement plants in terms of various operational parameters, input costs as well as in safety and environment.

■ SURESH K. GUPTA / ACC

In 2012, total 1,56,904 CERs have been realised against Wind mill project and Blended Cement project.

## FINANCIAL PERFORMANCE

Figures in INR Crore

	2012	2011	2010
<b>INCOME STATEMENT</b>			
Net Sales	11,130	9,430	7,710
Operating EBITDA	2,196	1,921	1,812
Profit before Tax	1,451	1,540	1,461
Profit after Tax	1,061	1,325	1,120
<b>BALANCE SHEET</b>			
Net Worth	7,383	7,192	6,469
Cash and cash equivalents	3,037	2,832	2,288
Capital Employed	8,063	8,221	7,355
<b>SIGNIFICANT RATIOS</b>			
Operating EBITDA / Net sales	20%	20%	24%
Return on Capital Employed	21%	18%	20%
Return on Net Worth	14%	18%	17%
Net worth per Share (INR)	393	385	345
Dividend per Share (INR)	30	28	30.5
Basic Earnings per Share (INR)	56.52	70.59	59.66

#### STATEMENT OF CASH FLOWS

Net cash provided by / (used in)			
Operating activities	1,577	1,571	1,935
Investing activities	(311)	(258)	(812)
Financial activities	(1,066)	(768)	(621)

#### **EC2: Financial implications and other risks and opportunities for the organization's activities due to climate change**

Being a responsible organization and firm believer of Triple Bottom Line approach of Sustainability, ACC's top management is fully aware of risks and opportunities for the organization's activities due to climate change. The approach has become an integral part of our business decision making process where in the financial implications on account of Climate change are evaluated and corrective / preventive measures are ascertained & considered. We have institutionalized Business Risk Management Process (BRM) which helps us in identifying various risks and opportunities associated with our business. We have also developed Materiality Matrix which identifies the material issues to the organization.

ACC's identifies the risks and opportunities based on the following three paradigms:

- Changes in the regulations
- Changes in Physical Climate parameters
- Changes in other Climate related parameters

**Risks and Opportunities based on the changes in regulations:** ACC has identified risks on account of Perform, Achieve and Trade (PAT) scheme which sets specific energy consumption targets for energy intensive sectors like Power, Cement etc., and Renewable Purchase Obligation (RPO) which gives an obligation to consume certain percentage of renewable energy in proportion to the coal based power generation. This risk has opened doors for ACC to explore various opportunities to embark on the journey of aggressive implementation of various energy conservation measures & to identify sources of renewable energy.

**Risks and Opportunities based on the Climate parameters:** Water scarcity is one of the major risk identified on account of climate parameters. However extreme rains may not have much impact on the overall operations of the organization as our operations are having PAN India presence. However the water scarcity has made us to explore opportunities in the areas of rain water harvesting, adopting latest dry technologies to minimize the water consumption etc., It would be difficult to ascertain the financial implications as it is linked with the degree of water scarcity.

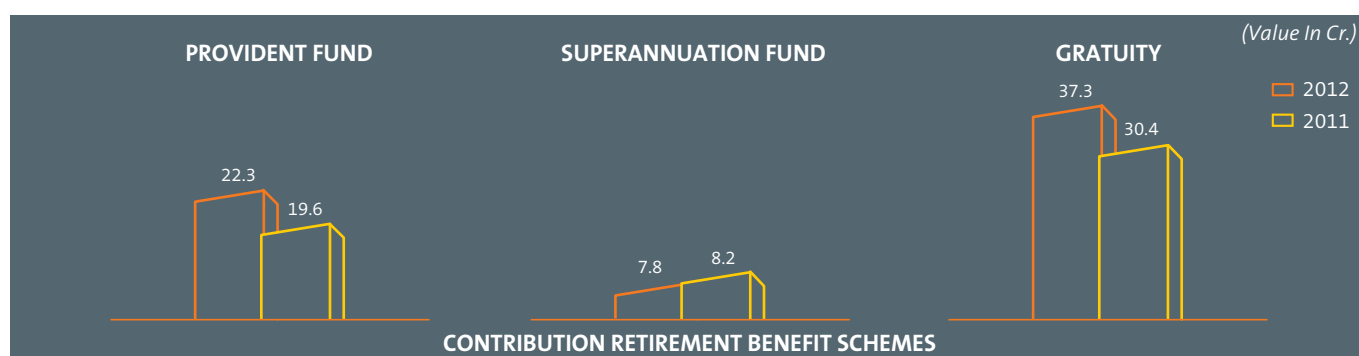
**Risks and Opportunities based on other Climate related parameters:** Consumers, as well as investors are becoming more and more aware of the environmental impacts of manufacturing cement. At the same time government has also put up stringent regulations seeking information on social and environmental impacts in the form of Business Responsibility Report (BRR). Any lapse on meeting the expectations of Consumers and Investors on account of environmental performance will impact the organization's reputation. However this risks opens an opportunity to adopt best available environment technologies to achieve excellent environmental performance. During the year 2012 our 9MW Tamil Nadu Wind Mill Project has realized 18111 CERs and our Blended Cement project has realized 138793 CERs. Similarly our 7.5MW Rajasthan Wind Mill Project is registered as CDM Project.

### **EC3: Coverage of the organization's defined benefit plan obligations**

#### **Employee benefits**

Employee's Retirement Benefit Scheme includes Company's Officer's Superannuation fund, provident fund, employee state insurance and Labour Welfare Fund, Gratuity, additional Gratuity, Post Employment Medical benefits, Silver jubilee and long service awards.

The pension plans and other applicable employee benefits obligation are determined in accordance with independent actuarial valuation.



### **EC4: Significant financial assistance received from government**

During the year 2012 Company received the excise duty exemption on cement at Gagal unit I and II and it received 80IC benefits of ₹ 19 Cr at Gagal Unit I.

It also received the sales tax (VAT) benefits at Chanda (₹ 20.76 Cr), Gagal unit I and Chaibasa.

### **EC9: Understanding and describing significant indirect economic impacts, including the extent of impacts**

Being an essential construction material, cement is a global commodity that makes important contributions to economic activity. At ACC, we realize that our economic performance has direct and indirect impact on all of our stakeholders, including our employees, local governments, non-profit organizations, customers, suppliers and the communities in which we operate.

In our efforts to contributing value to society, we recognize that our activities also create indirect economic impacts such as advances in innovation or the economic effects of changes in locations and/or operations.

Due to our growing operations, the activities of our different stakeholders have also been growing, thereby creating value to the local and national economy. Such rising level of operations has also enabled increased job creation in our value chain by our suppliers, distributors, contractors and customers.

The use of our products to improve the infrastructure in the country had resulted in improvement in the quality of life of communities.

### **SO6: Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country**

The company did not make any financial or in-kind contributions to any political parties during the year 2012.

## 2.2 CUSTOMER RELATIONS



### **CRM Customer Relationship Management**

ACC has been continuously adapting different innovative techniques to reach more & more customers base to deliver best quality cement/ products & services. In this line, ACC has rolled out CRM (Customer Relationship Management) software across the organization. It is an initiative targeted to improve relationship with two broad segments i.e. Channel Partners (Cement Dealers) and End-Consumers (Home Builders).

#### **1. Channel Partners (Cement Dealers)**

Our channel partners are located all across the country from metros to small villages. With the help of CRM software, ACC sales force receives updates with real-time information on the commercial transactions. This facilitated better interaction between the ACC sales force and our channel partners and also resulted in quicker resolution of issues pertaining to deliveries, payments, branding support etc.



In year 2012, 37% of the orders were placed through Websales.

## 2. End-Consumers (Home Builders)

To provide quality products and technical services to its end consumers has always been aim of the sales force. CRM software helps ACC personnel to plan and deliver the services in a more structured and real-time manner which has strengthened our association with end customers. The broad range of services offered were: on-site services, right product guidance, knowledge sharing sessions, good construction practices, complaint resolution, site demonstrations etc.

This software is now being used extensively by the front-end sales teams and customer service teams. The CRM software is being used by 800+ active users across ACC.

### **Websales**

ACC has introduced Websales, an online portal that allows the ACC Dealer network to order cement anytime from anywhere. The dealers can view complete transaction history which includes Order List, Pending Orders, Dispatch List, Invoice details for last 1 month.

With this system there is an absolute transparency on order booking time and delivery status. The dealer benefits are in terms of no follow up required regarding orders and thereby more time available for building customer relations/acquiring new customer.

Websales was introduced in year 2010. It has been rolled out in phases across ACC and in year 2012, 37% of the orders were placed through Web sales.

### **ACC Concrete Club**

ACC Concrete club is a long term engagement program with Influencers which provides a platform for the Influencer community for exchange of knowledge within the influencer groups through online and offline forums. Also this platform gives ACC the opportunity to further strengthen the relations.

The Architects/ Consultants/ Engineers were informed about the latest practices followed in the world of Construction and Sustainable Development. Online discussion forum helped in sharing best practices currently operational in the field.

Workshops and training programs are organized for Contractors and Masons for skill up-gradation, which helped them to replicate the best construction practices. Around 1300+ members have been enrolled in ACC Concrete Club.

### **EasyACCess**

EasyACCess is an on-line issue resolution platform for ACC Dealers. Dealers are able to login their issues pertaining to different functional areas like Product, Logistics, Accounts etc. online. Based on the type of issue and location, they are forwarded for resolutions to respective functional areas. These issues are thereafter to be resolved in a time-bound manner. Issues not getting resolved within stipulated time are escalated to higher officials for information and necessary action.

This initiative has helped ACC in giving a time-bound and transparent issue resolution to its channel partners. This has also helped ACC in maintaining an inventory of issues and thereafter resulting in process and system corrections.

***PR5: Practices related to customer satisfaction, including results of surveys measuring customer satisfaction - addressed in customer satisfaction***

ACC conducts Channel satisfaction survey and Brand Health studies on a regular basis.

Brand Health studies are conducted among the end-consumers i.e. Individual Home Builders. Apart from the derived figure of Brand Equity Index for ACC, other direct metrics like Brand Awareness, Brand Consideration, Brand Usage are also tracked. The overall brand equity index of ACC on an all India basis measured in 2012 was 4.7 Brand Equity Index is a 10 point index. As per Nielsen norms on 11% of the brands have a Brand Equity more than 5.

Satisfaction survey was conducted online by ACC for the first time in year 2012. The survey was hosted in a portal dedicated for ACC Cement Channel (Lakshya). The satisfaction scores for year 2012 were 76 out of 100. Apart from this satisfaction survey, Net Promotor Survey as a tool to measure the operational effectiveness of the company is being piloted at ACC

***EN27: Percentage of products sold and their packaging materials that are reclaimed by category***

The quantity of bulk cement sold during the period Jan-Dec'12 is 1006650 MT. Quantity of paper sacks used in 2012 is 2774700. We co-process waste plastics in cement kiln which in a way partially compensate the plastic cement bags we send in the environment.

***EN29: Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce***

Environmental impacts on account of transporting products and other goods and materials used for the organization's operations and transporting members of the workforce results mainly in two aspects i.e., CO<sub>2</sub> emissions and dust emissions.

**Increase of 6% Bulk sales in volume in 2011 compared to 2012**

On the CO<sub>2</sub> emissions front, the aspect of CO<sub>2</sub> emissions from our out bound logistics was studied by us during our Carbon foot print activity carried out during the year 2010 and realized that the CO<sub>2</sub> emissions from our outbound logistics contribute to <1% of our total emissions. On products transportation, out bound logistics contribute to major part. Coming to employee commuting, our major work force is situated at our plants where the commuting distance is <1 - 2 Kms and thus does not contribute to major part of our activities. Hence we believe that our total CO<sub>2</sub> emissions on account of transportation of products, other goods etc., is less than <2% of our total emissions.

## 2.3 SUPPLY CHAIN MANAGEMENT



ACC strives to achieve the highest ethical standards in all its procurement activities. For the past 3 years, procurement has been one of the focal point to drive the sustainability agenda in the company. To make the Central Procurement Organization the best in the Cement Industry and to achieve the World Class status, we have implemented several sustainability initiatives guided by Holcim Group. Our Central Procurement Organization (CPO) has achieved many milestones and benchmarks within Holcim and outside. We also convey our sustainability agenda to our suppliers and vendors to drive it together. Our vendors have rated us best in the industry in terms of satisfaction as surveyed by A.C. Neilson. We have also been nominated at "Procurement Leaders Awards" in excellence category.

All of our procurement agreements include sections and clauses pertaining to Labour standards and Occupational Health and Safety.

### ***Sustainability Principles in Procurement***

The principles of Sustainable Development - value creation, sustainable environment performance and corporate social responsibility - are integral to our business strategy.

ACC Limited seeks to engage in long-term relationships with Suppliers that commit to their social responsibility, that adhere to international standards such as SA8000 (Social Accountability) and ISO 14001 (Environment Management System) and that have systems in place to comply with relevant local provisions.

The Company has set minimum requirements pertaining to Sustainability (including Environment Management, Safety standards and Social Accountability) to be followed by any Supplier / Third Party Service Providers (Contractors). A standard questionnaire on CSR & OH&S is sent to suppliers while seeking Requests for Quotations (RFQs) in which appropriate clauses have been incorporated based on the nature of order. It is mandatory for new suppliers to provide these details. Most of our vendors have been covered under this initiative which helps to reduce the number of supplier related incidents.

In cases, where Suppliers are not able to meet these minimum requirements, we



engage in a dialogue and adopt mechanisms to improve our Suppliers' standards. Re-assessment of qualified Suppliers' compliance with these requirements takes place within the regular schedule of Supplier re-qualification. However, in any cases of violation or obvious non-compliance by the Supplier, re-assessment must be immediate and termination if necessitated.

### **Contractual Agreement of Compliance**

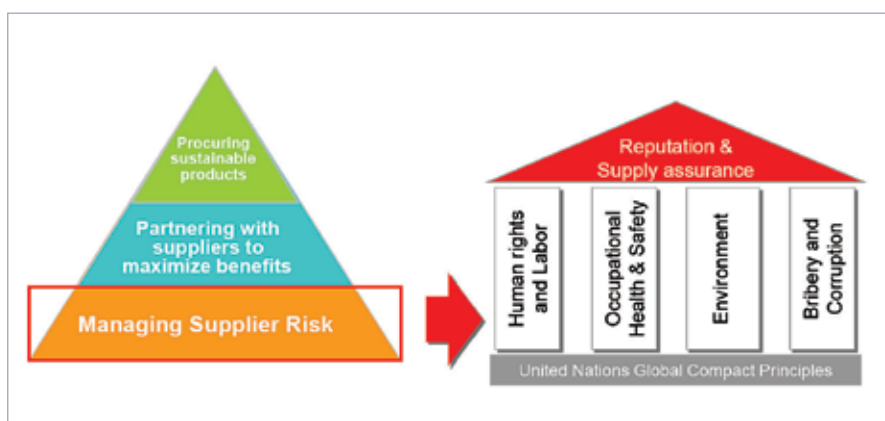
All Purchase Orders or Agreements we enter into incorporate different clauses related to Safety, Environment Management and Corporate Social Responsibility. During the year 2012, no cases of human rights violation (viz. incidences of child labour, forced or compulsory labour, overtime without pay etc.) were recorded in our operations.

### **Sustainable Procurement**

ACC has always been committed to procure responsibly and therefore under the guidance of its parent company Holcim, integrated approach has been constituted to ensure consistent management of the risk derived from doing business with non compliant suppliers that do not uphold the Company's standards on environment, OH&S and social responsibility. The Company has started the implementation of Sustainable Procurement through the Supplier Code of Conduct which is meant to provide clear summary of ACC's expectation from the suppliers in all procurement dealings. Transparency and accountability should be strictly adhered to in all procurement activities. This has listed nine standards that Suppliers are expected to adhere to, in addition to complying with local and national laws and regulations.

These standards cover Occupational Health and Safety (OH&S), Working Conditions, Freedom of Association and Non-retaliation, Forced Labour, Child Labour, Non-Discrimination, Environmental Regulatory Compliance, Management of Environmental Impacts, Bribery and Corruption.

The Supplier Code of Conduct is based on the Principles of the United Nations Global Compact (UNGC), a voluntary global initiative for responsible business practice that Holcim is a member of.



The integrated approach to implement sustainable procurement across the supplier base consists of 5 steps:

#### **1. Communication of the Supplier Code of Conduct**

Communication of company's expectations and terms of engagement to existing and potential suppliers

## 2. Supplier prioritization

Identification of potential high-risk suppliers based on Operating Companies' judgment of local conditions

## 3. Risk assessment

Continuous evaluation of risk exposure through self-assessment, fact finding or verification

## 4. Risk mitigation

Supplier development or replacement, as determined by Operating Companies.

## 5. Scorecard

Continuous performance-tracking of the management of SD related risks by our suppliers.

### ***Our position with respect to various Indicators is as under:***

The Company requires all its suppliers to complete the Supplier CSR (Corporate Social Responsibility) and OHS (Occupational Health and Safety) Management System Questionnaire as a condition for eligibility. The questions in the self declaration cover the aspects of employee's safety, occupational health, corporate social responsibility and environment. All procurement agreements of the Company include conditions pertaining to labour standards and occupational health and safety. (HR2)

As disclosed in (HR2), inclusion and ensuring the compliance of Human rights in all our agreements / purchase orders irrespective of the nature and size has become an integral part of conducting our business. (HR1)

All Suppliers operating from within the Indian Territory (National suppliers) are treated as Local suppliers. The total spend on all Suppliers during the year 2012 was ₹ 8354 Crores of which the expenditure on local Suppliers was ₹ 7701 Crores representing 92.18 per cent. Also, wherever viable, ACC considers vendors located in the proximity of its plants. (EC6)

ACC encourages collective bargaining to maintain harmonious Industrial relations. The issue of mutual interest are periodically discussed and resolved with employee's representatives. They are also inducted in various committees constituted for their welfare (such as Safety Committee, Canteen Committee and Works Committee). (HR5) It is the Company's practice to only engage with an employee once he has attained the minimum age of 18 years. Those, who are below 18 years of age, are not allowed to enter into the plants. ACC also ensures that its contractors strictly comply with the same guidelines. (HR6)

The Company adheres to the law while engaging labour. It does not engage forced labour. The labour engaged by the contractor is governed by the Contract Labour (R&A) Act and the contract is supposed to obtain license to engage Contract labour after fulfilling the prescribed condition of the Act. (HR7)

## 2.4 ECO-EFFICIENT PRODUCTS



### ***Reduction in clinker factor:***

The in-house developed cement additives combinations were optimised Plant wise for PPC / PSC. These additives worked as grinding aid, accelerators for cement hydration and helped to improve wettability of Cements, thus reducing the water demand of PPC. The effect of these additive combinations on properties of PPC/PSC was understood in details through series of experiments by varying the concentration of chemicals, singularly and in combination at different levels of fly ash/slag and with varying sources of clinker substantial reduction in clinker factor could be achieved in PPC / PSC with improved quality and performance of the PPC/PSC in Concrete.

Use of Cement additives on regular basis in cement grinding also resulted in improved Cement Mill productivity, achieving reduced power consumption per Ton of Cement.

Advantages in manufacturing Blended Cements:

- Reduction in CO<sub>2</sub> emission by substituting clinker by alternatives like Flyash (from thermal power plants) and Slag (from Steel plants)
- Preserving natural resources like limestone & corrective materials like Iron Ore , bauxite etc
- Blended Cements substantially improves durability of Concrete Structures and prevents environmental deterioration, thus the structures do not require rehabilitation, there by contributing to sustainability

### ***Development of Application Oriented Cements:***

Special premium grade application oriented cements have developed Fly ash Based: Concrete Plus, ACC Gold, Slag Based Cements: Coastal Plus, F2R (Foundation to Roof)



A specially developed Slag Cement, which have faster setting, high early strengths but due to slag component provides decreased permeability in concrete with increased resistance to chloride and sulphate penetration and attack on concrete. This prevents reinforcement corrosion and thereby enhances durability of concrete structures

# City to adopt instant road-repair solutions

Potholed roads can now be fixed in 24 hours, thanks to latest technology

Varsha Dugar

ACC Concrete, ready mix concrete (RMC) manufacturer and part of ACC limited, introduced what the company officials call two breakthrough solutions in road repair on November 24.

Ultra Thin White Topping-24 (UTWT24) and Speedcrete were promoted as instant road repair solutions. The overlay can be laid in depths ranging from 100mm-150mm for road sections. But the unique selling point of these products, is that these solutions take only 24 hours to repair roads which means that vehicles can use the road within 24 hours after it is laid. Conventional repair solutions including the Indian Road Congress certified UTWT takes almost double the time to make the road ready for use.

Representatives of the Thane Municipal Corporation and Brihanmumbai Municipal Corporation attended a seminar hosted by ACC Concrete to present these products. TMC chief RA Rajeev told DNA, "UTWT has been extensively used in Thane for construction of internal roads with a very good success rate. Now, ACC Concrete has come up with the UTWT 24."



GK Bag DNA

Talking exclusively to DNA about the products, ACC Concrete managing director **Hans Fuchs** says fixing roads promptly is the need of the hour as it is very important to reduce losses caused because of roads undergoing repair work. Excerpts of the interview

**Q: Would you say that these concepts are revolutionary for road repairs?**

**A:** It is, in some ways, as we need to cut down on the time consumed to repair roads in India. We had offered UTWT first, based on the guidelines of the IRC. Now, we have modified that product to cut down losses caused by time-consuming repair solutions. So this is a great concept.

**Q: Are there other competitors in the market for this technology and how will ACC Concrete stand above them?**

**A:** Yes, there will be other companies making a similar product but we believe that proper implementation of the product is what will make us different from our competitors. We will ensure that our executives look after the

repair work so that the product is laid the way it is supposed to be.

**Q: What has been the response of the municipal bodies and particularly the TMC?**

**A:** The TMC is one of the most progressive municipal bodies we have worked with. We are very hopeful that they will like our product.



Foundation to Roof Cement, A specially developed Slag Cement, which have faster setting, high early strengths but due to slag component provides decreased permeability in concrete with increased resistance to chloride and sulphate penetration and attack on concrete. This prevents reinforcement corrosion and thereby enhances durability of concrete structures



A specially developed PPC which has fast setting properties and early strengths comparable to OPC, hence provides alternative in market to OPC for the customers and compared to OPC would enhance durability of concrete structures due to fly ash component, the GHG impact is much lower to OPC



It is the only one of its kind specially formulated cement with higher strength, enhanced durability. Water repelling Cement particles in the concrete structure prevents water ingress at early, as well as later ages in the Durable water resistant PPC Concrete, thus enhancing the durability quotient. It also reduces rising dampness in brickwork when used in mortar

### EN1: Materials used by weight or volume

Raw Material	Unit	2012	2011	2010
Limestone	Million Tonnes	22.07	22.69	18.729
Gypsum	Million Tonnes	1.185	1.14	1.075
Others <sup>1</sup>	Million Tonnes	1.50	1.51	--
Raw Material (Recycled waste material)	Unit	2012	2011	2010
Alternative Raw Materials	Million Tonnes	0.245	0.18	0.273
Slag	Million Tonnes	2.44	2.68	2.286
Flyash	Million Tonnes	4.35	3.98	3.879
Additives	Unit	2012	2011	2010
Additives <sup>2</sup>	Million Tonnes	0.017	0.018	1.652
Associated materials	Unit	2012	2011	2010
Lubricating Oil	Tonnes	813	890	921
Grease	Tonnes	226	211	208
Packaging Materials	Unit	2012	2011	2010
Weight of Bags Consumed	Tonnes	31969	29523	29131

1. Others is earlier a part of additives

2. Additives accounting changed as advised by the assurance provider

## 3 ENVIRONMENTAL PERFORMANCE



At ACC Environmental awareness has been an integral part of our business and we continue to strive towards improving the energy and environment standards by laying milestones for each of our manufacturing units. Our units embark every year on unique drive for Sustainable Business Development to maintain a perfect balance between manufacturing, ecology and society.

### 3.1 ENERGY

As part of “Institutionalizing Excellence”, Communities of Excellence (COEs) were formed at PAN ACC to reduce energy intensity across the Key Performance Indicators.

- 1) Electrical Energy Community
- 2) Thermal Energy Community
- 3) Clinker Factor Community
- 4) Captive Power Plant Community
- 5) Thermal Substitution Rate (TSR) Community

Each Community was led by a Plant Director as Community Leader, with Champions for each COE at designated Plants and plant level champions at each plant. Energy Circles were formed for each process area at each plant. Some of the activities by the COE were

- a) Aspiration setting for each plant by carrying out section wise Gap analysis against the best achieved performance of 2011 & Bench marking of the equipment with similar equipment in other plants
- b) Plant visits were carried out to identify projects and finalize the plant road maps to achieve the aspirations
- c) Preparing Training Modules for enhancing capabilities
- d) Conducting Boot camps to build individual and institutional capabilities



Concurrently another initiative by the acronym EARN (Energy Activation across Regional Network) was started across South East Asia region of Holcim. The 5 Pillars of this initiative are:

- 1) Reduction of Energy intensity
- 2) Optimization of Fuel Mix & Increase in AFR
- 3) Proactive Energy Management
- 4) Excellence in buying energy
- 5) Energy Business participation.

These initiatives created a basis for providing opportunities for regular sharing of best practices and ideas across the organization as well as for internal and external benchmarking. A notable feature of the programme is the creation of model plants characterized by their best performance, best practices, infrastructure and setting up a good training culture.

Major part of the year was spent in streamlining the process, idea creation, identifying projects requiring major Capex and processing Capex request and getting projects approved for implementation. Many projects leading to reduction in specific energy were ordered out and some of the low cost / low cycle time projects were implemented during the year. New benchmarks in performance have been created by several plants with notable achievements in reducing specific thermal energy consumption, specific electrical energy and outstanding results in reducing the percentage of clinker factor. A new milestone was also achieved by one plant when it successfully switched to 100 per cent use of pet-coke.

Driven by the Communities of Excellence, ACC executed many energy saving projects, which are collectively listed as below, which influenced our energy performance

- 1) Installation of Low Voltage & Medium Voltage Variable Speed Drives for fans, pumps and compressors across ACC plants. Many LV & MV VSD's were also ordered towards the end of the year.
- 2) Replacement of Existing Separator with High Efficiency V-Separator



- 3) Installation of New Air Cooled condenser in place of existing condenser to increase the de-rated generation capacity in the Captive Power Plant
- 4) Installation of High efficiency fan impellers
- 5) Installation of Rota-scale for coal feeding
- 6) Conducted Computational Fluid Dynamics (CFD) Study to improve flow across cyclones, thereby reducing the pressure drop and fan power consumption
- 7) Conducted detailed Energy Audits to identify fresh energy conservation projects.
- 8) Installation of Capacitor banks to the individual systems across ACC plants to improve plant power factor.
- 9) Replacement of conventional lamps with Compact Fluorescent Lamps and LED light for plant and colony lighting.
- 10) Conducted ISO 50001 Certification Audit at 4 of our plants.
- 11) Optimisation of :- Vertical Roller Mills & Ball Mills to improve output, clinker cooler to reduce radiation losses , and compressed air distribution system to reduce pressure drop and power consumption

### EN3: Direct energy consumption by primary energy source

Energy Consumption	Unit	2012	2011	2010
Coal + Pet Coke consumption in Kiln	TJ	46933	48983	42086
Diesel Oil consumption in Kiln	TJ	52	62	56
Alternative Fossil fuels* consumed in Kiln	TJ	164	111	331
Alternative Bio-mass consumed in Kiln	TJ	396	156	123
Diesel Oil consumption for Onsite vehicle movement	TJ	563	554	550
Fuels for drying of raw materials#	TJ	1124	1262	---
Coal for onsite power generation	TJ	24602	24515	23767
Diesel Oil consumption for Onsite power generation	TJ	32	35	63
Biomass for Onsite Power generation#	TJ	42	60	---

\*As per WBCSD protocol - Alternative fossil fuel comprises of waste oil, waste tyres, plastics, solvents, impregnated saw dust etc.

# Started reporting from 2011 as advised by SD assurance provider



### Specific energy consumption

Energy Consumption	Unit	2012	2011	2010
Specific power consumption upto & including clinker production	KWH / Tonne of Clinker	73.39	73.61	76.17
Specific power consumption upto & including cement grinding	KWH / Tonne of Cementitious Material	85.37	86.35	88.26
Specific power consumption including cement grinding, colony, auxiliaries	KWH / Tonne of Cementitious Material	87.75	88.93	90.85
Specific total power consumption including cement grinding, colony, auxiliaries & packing	KWH / Tonne of Cementitious Material	90.01	90.93	92.86
Specific thermal energy consumption	GJ / Tonne of Clinker	3.076	3.101	3.137

### EN4: Indirect energy consumption by primary source

Electrical Energy Purchased	Unit	2012	2011	2010
Electricity Purchased	MWH / Annum	606200	701929	588514

### EN5: Energy saved due to conservation and efficiency improvements

(Partial list of energy conservation initiatives during 2012 and corresponding annualized savings)

Plant	Electrical Energy Conservation Initiatives	Savings in Lakh kWh
Wadi	Reducing the dam ring height in RM2 to reduce Main Drive load and increase feed	23.76
Madukkarai	Replacement of Dynamic separator in Cement Mill VRPM with Static separator cum settling chamber	19.49
Jamul	Grinding media optimization & pattern change in cement mill	13.78
Wadi	Operating Raw Mill 1 & Raw Mill 2 Fan with GRR for speed control	20.46
Chanda	Optimisation of Distribution transformers	6.67
Madukkarai	Modification in the Settling Chamber to improve the efficiency from 50 to 65%	5.25
Jamul	Optimization of kiln 3 Pre heater fan and K-2 exhaust fan	4.96
Lakheri	Modification of wobbler discharge chute and clamshell gate at mines to increase wobbler output	4.11

Plant	Thermal Energy Conservation Initiatives	Saving in Lakh Kcal
Chanda	Recuperation efficiency was improved by operating secondary air at 1100°C & tertiary air at 915°C	76947.3
Chanda	Optimised cooler operation thereby Reducing clinker temperature by 20°C	63951.7

More than 2.34 Lakh KCal of energy have been conserved by implementing various measures at Chanda Unit.

Chanda	Reducing Pre Heater Outlet Temperature by 5°C	41380.5
Chanda	Optimization of burner momentum (current-4.5-5.5) to (7.5-8.0 NMw)	34198.8
Lakheri	Improvement in Raw Mix & Fuel Mix	30400.7
Chanda	Optimised cooler fan efficiency thereby reducing excess air in cooler and reducing temperature by 5°C	18467.3

**EN6: Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives**

Some Part of our electrical energy consumption is obtained from our renewable energy source which is used for manufacturing cement. Thus, the cement produced from our facilities has minimum impact on the environment.

Non Conventional Energy	Unit	2012	2011	2010
Wind Power generated by Madukkarai Cements	Million units	24.2	21.55	21.96
Wind Power generated by Lakheri Cements	Million units	14.63	13.73	13.69
Wind Power generated by Maharashtra Wind mill	Million units	3.5	3.61	3.05

**Elaborating on few initiatives:**

1. For recirculation and reuse of water used for extracting heat from equipment used in cement manufacturing process, a closed loop cooling system is used with one ID (Induced draft) cross flow cooling tower with two shells. This cooling tower has five pumps installed to supply the cold water for oil coolers, injection into mills and compressors for entire cement mill and packing house operation. Out of these 5 pumps, two pumps run at a time for 24 hours. Hot water returning from the process goes to HOT well and from HOT well it is again pumped to the top of cooling tower as well as for spray system for cooling. The schematic is given below:

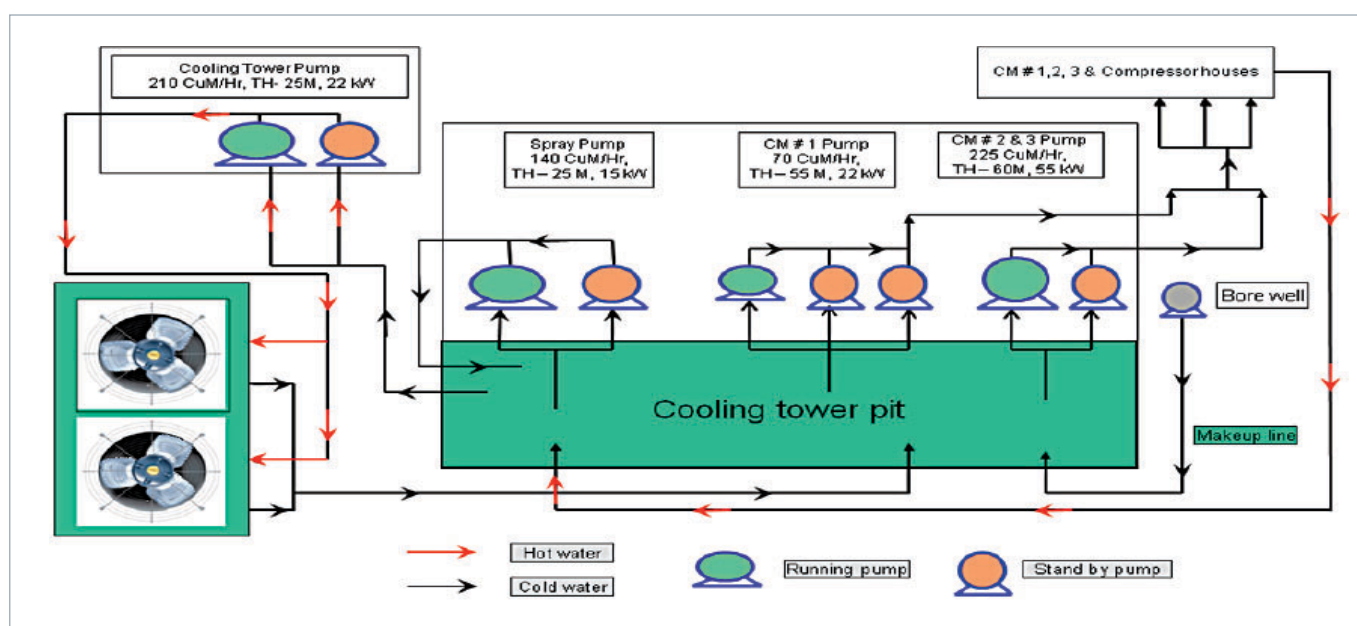


Fig 1: Schematic of existing system at CMU section

## Modification in the process water flow line

After detailed study of the system, the same was modified, whereby the return header was connected with the cooling tower pump and Spray pump discharge header so that the running of Cooling tower pump and spray pump are avoided. The pressure in the return header was sufficient to move the hot water up to the height of cooling tower. The modified scheme is shown in figure 2 below:

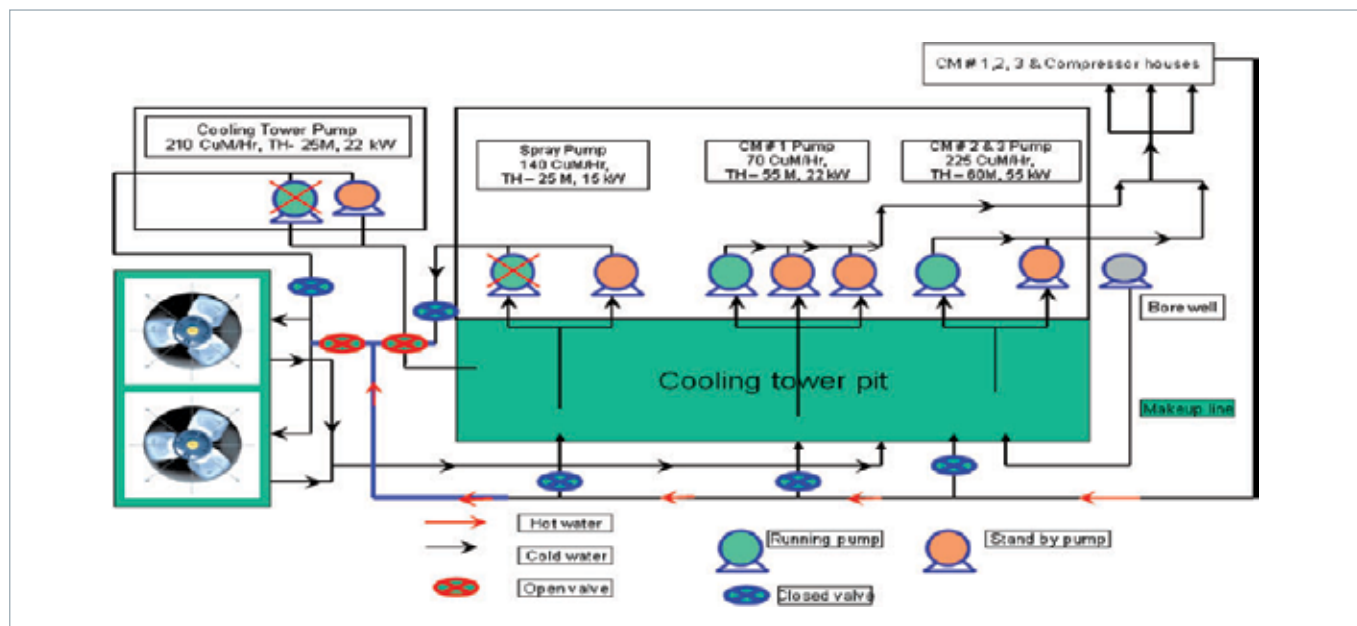


Fig 2: Schematic of modified system at Pre grinder section



Modified system

## Cost Benefit Analysis

- Annual electricity savings: 1.845 Lakh kWh
  - Savings from electrical energy saving: ₹ 9.098 Lakh
  - Total investment required: ₹ 2 Lakh
  - Payback period: 2.63 months
  - Lower maintenance required
2. CFD study helps to reduce pressure drop across cyclone and dust accumulation at cyclone inlet
- Most of the solutions can be achieved in cost effective manner

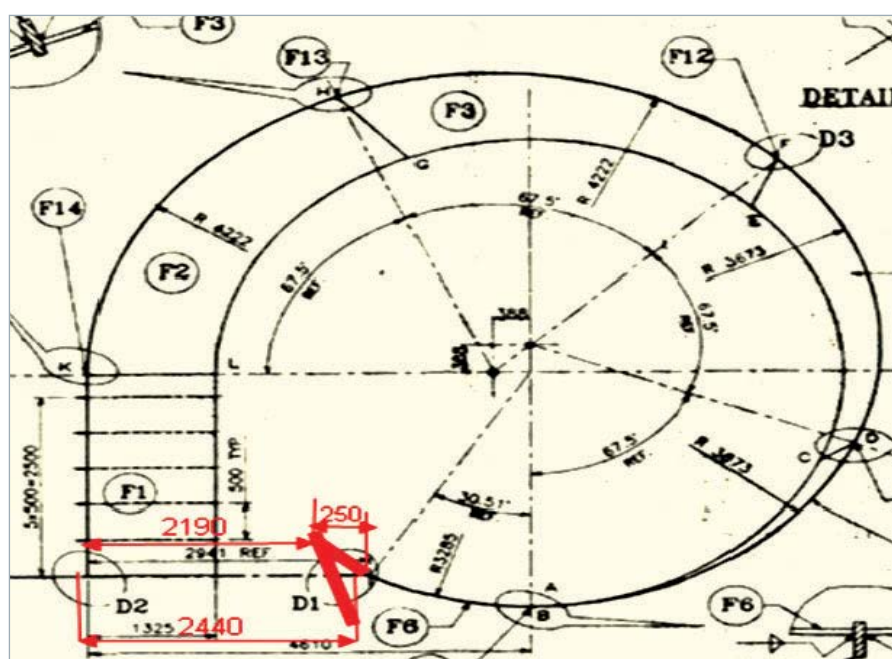
Accumulation of dust at the cyclone inlet is very common problem faced by a cement plants. But to get it resolved in a cost effective way is seldom achieved.

Similar problem was encountered by Kymore plant, where dust layer of about 500mm used to get accumulated at the inlet of 4th cyclone of pre-heater tower. This excessive dust was leading to reduction in cyclone efficiency and also an increase in pressure drop, resulting in higher power consumption of the fan. Kymore plant referred this issue to Techport, Thane an ACC-Ambuja Cement Ltd Technical support centre.

Based on Computational Fluid Dynamics study done at Techport, plant was advised to modify the cyclone inlet to guide the flow towards the circumference of the

cyclone inlet. With this modification, the dust accumulation has reduced to a large extent. More significantly, this modification improved the efficiency of cyclone and reduction in overall pressure drop of preheater leading to substantial power power.

Earlier Avg power consumption	=	1145 kW
Avg Power after modification	=	1105 kW
Average power saving	=	40 kWh
Total cost saving	=	10.75 Lakhs
Cost for implementation	=	Around 2.0 Lakhs



Top view of cyclone: Red mark plate shows new modification implemented

## Before Implementation



## After Implementation



## EN7: Initiatives to reduce indirect energy consumption and reductions achieved

As indicated in (EN6), we have generated 42.33 million units during 2012 from our renewable energy sources which we are utilizing in our operations to the maximum extent possible, thereby reducing our indirect energy consumption from grid. We have reduced our grid energy consumption by ~13% during 2012 when compared with 2011 (EN17). This has been achieved due to implementation of various energy conservation measures listed in (EN5).

### 3.2 CO<sub>2</sub> EMISSION



ACC is continuously improving its CO<sub>2</sub> performance by implementing various measures in the manufacturing process throughout its supply chain starting from raw material sourcing to delivering the cement to end customer. During the manufacturing process the following initiatives have been taken to reduce specific CO<sub>2</sub> emissions:

1. Increasing the usage of alternative raw materials
2. Increasing the usage of alternative fuels
3. Increasing the usage of flyash & slag
4. Process optimization
5. Implementing various energy efficiency projects
6. Reducing the Clinker factory
7. Improving the efficiency of process & operations
8. Utilizing wind power

#### **EN16: Total direct and indirect greenhouse gas emissions by weight**

CO<sub>2</sub> Emissions from Cement Production (Excluding onsite power generation)

Parameter	Unit	2012	2011	2010
Absolute Gross CO <sub>2</sub> Emissions	Million Tonnes of CO <sub>2</sub>	12.96	13.46	11.46
Absolute Net CO <sub>2</sub> Emissions	Million Tonnes of CO <sub>2</sub>	12.94	13.45	11.43
Specific Net CO <sub>2</sub> Emissions	Kg CO <sub>2</sub> / Tonne of Cement	539.12	550.28	551.76

*Note: The above figures are calculated as per the WBCSD protocol*

CO<sub>2</sub> Emissions from Clinker Production (Excluding onsite power generation)

Absolute CO <sub>2</sub> Emissions	Million Tonnes of CO <sub>2</sub>	12.96	13.46	11.46
Specific CO <sub>2</sub> Emissions	Kg CO <sub>2</sub> / Tonne of Clinker	838.48	842.28	847.11

CO<sub>2</sub> Emissions from Onsite Power Generation

Absolute CO <sub>2</sub> Emissions	Million Tonnes of CO <sub>2</sub>	2.382	2.296	2.282
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During the year 2012, by implementing various energy efficiency & resource conservation measures, we have decreased of our 2012 specific CO<sub>2</sub> emissions per tonne of cement by ~2% when compared with 2011 specific CO<sub>2</sub> emissions per tonne of cement.

#### ***'SPEED' to reduce time, cost and dust***

In March 2012, the company launched an RFID (Radio Frequency Identification) based vehicle tracking system called "SPEED". The objective of developing a new logistics management system through SPEED was stimulate efficiency and productivity along with saving on freight costs and reducing the detention time of vehicles at its cement plants.

Earlier vehicles were originally labelled with barcode labels for tracking, which started to deteriorate and be obscured by dirt, which sometimes caused failure in registering the vehicle. Sometimes tracking the location of the vehicles at any stage of the loading process due to high volume was extremely difficult. SPEED has given the logistics team the functionality to monitor real-time in-plant movement of vehicles and improve the overall safety inside the plant. Now, with the help of RFID based tracking, seasonal and occasional trucks coming to the plants for loading during lean seasons can be sorted out and more focus can be given to the dedicated and regular fleet. In addition, parking yard infrastructure can now be better utilized by the dedicated fleet. This project has helped the company to improve the performance of the distribution fleet.

An RFID tag composed of an antenna or coupling element bearing a unique identifier is attached on the vehicle. RFID readers communicate with these tags through a radio frequency channel to obtain identifying information and display it. The technology assures regular tracking on real-time basis, access control and better supply chain management. RFID technology offers several significant advantages over barcodes (the earlier technology) such as long distance scanning without manual intervention, more data capacity, more legible and quicker reading and faster processing even in adverse conditions such as dirt and dust. It also facilitates rapid product movement and measure detention time at each stage of truck loading and thus the utilization of assets within the plant.

SPEED was successfully implemented in ACC's Tikaria Cement Works followed by Damodhar Cement Works and Thondebhavi Cement Works. The company plans to roll out the system to all of its 17 plants in two years.

This project was named SPEED as it guarantees Safety of the stakeholders, Productivity of the packers, Efficient utilization of the assets and Ensuring customer Delight.

#### ***EN17: Other relevant indirect GHG emissions by weight***

CO<sub>2</sub> Emissions from Purchased Electricity (*Combined Margin Emission Factor was used for calculating the CO<sub>2</sub> Emissions*)

Parameter	Unit	2012	2011	2010
Absolute CO <sub>2</sub> Emissions	Million Tonnes of CO <sub>2</sub>	0.566	0.625	0.491

At ACC we have three wind mills of 19 MW installed capacity at Tamilnadu, Rajasthan & Maharashtra. The wind energy generated from these sources is utilized for our captive purpose by wheeling into our premises. The wind energy generation has increased during 2012 when compared with 2011. This has also contributed in reducing our dependency on grid power.

#### EN18: Initiatives to reduce greenhouse gas emissions and reductions achieved

Overall CO<sub>2</sub> Reductions Achieved

Parameter	Unit	2012	2011	2010
On Account of Thermal Savings <sup>1</sup>	Tonnes of CO <sub>2</sub>	65260	22983	Nil
On Account of Electrical Savings <sup>2</sup>	Tonnes of CO <sub>2</sub>	13804	78849	Nil
On Account of Clinker Factor Improvement <sup>3</sup>	Tonnes of CO <sub>2</sub>	200872	Nil	Nil

*Note: (1) CO<sub>2</sub> emission reductions on account of thermal energy is calculated by using simple mathematical equation. (2) Combined Margin Emission Factor (CO<sub>2</sub> Baseline Database for the Indian Power Sector - User Guide - Version 8.0 - Jan 2013 - by Central Electricity Authority) was used for calculating the CO<sub>2</sub> emissions on account of electrical savings. (3) CO<sub>2</sub> 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<sub>2</sub> / Tonne of Cement*

The CO<sub>2</sub> reductions mentioned above are achieved by implementing various energy efficiency measures, increasing the utilization of alternative fuels & biomass fuels consumption and as well as utilization of alternative raw materials in the cement manufacturing process. Please refer to (EN1), (EN2) & (EN5) for more information.

### 3.3 ATMOSPHERIC EMISSIONS:



Cement Industry by its nature of manufacturing is prone to generate dust & gaseous emissions. The emissions from cement manufacturing can be classified as

- (a) Stack Emissions - Dust & Gaseous Emissions
- (b) Fugitive Emissions

ACC has incorporated various control measures to minimize these emissions on continuous basis.

#### **Stack Emissions:**

ACC is continuously upgrading the existing Air Pollution Control equipments / installing new equipments to meet the requirements of latest emission norms. Some of the initiatives in this direction are listed below:

- (a) Commissioning of 8 high efficiency bag filters at different locations at Gagal
- (b) Modification of bag filter for Cement mill at Damodhar
- (c) Modification of bag filters at different locations at Kymore
- (d) Modification of bag filters at different locations at Madukkarai
- (e) Modification of bag filters for cement mill & clinker hopper at Chanda

Apart from these Capex intensive projects, ACC has also upgrading its emission monitoring systems continuously. In line with this, ACC has installed Continuous Emission Monitoring Systems (CEMS) in its Kiln stacks and also provided Opacity Monitors for other process stacks wherever required. During the Year 2012 ACC has installed CEMs for the following Kiln Stacks:

- Wadi I
- Chaibasa
- Madukkarai

#### **SO<sub>2</sub> and NO<sub>x</sub> Emissions:**

With CEMS in place, we are tracking SO<sub>2</sub> and NO<sub>x</sub> emissions in real time which is helping us to take immediate corrective actions on the process to control the emissions. It also helps us to prepare for the upcoming regulations on SO<sub>2</sub> & NO<sub>x</sub> emissions.

#### EN19: Emissions of ozone depleting substances by weight

“Cement Industry is not emitting any ozone-depleting substances. Hence this is not applicable”.

#### EN20: NO<sub>x</sub>, SO<sub>2</sub>, and other significant air emissions by type and weight\*

Parameter	Unit	2012	2011	2010
NO <sub>x</sub>	gm / Tonne of Clinker	1772.86	1582.89	1172.01
SO <sub>2</sub>	gm / Tonne of Clinker	111.39	68.35	119.33
Dust	gm / Tonne of Clinker	64.92	74.04	83.30
NO <sub>x</sub>	gm / Tonne of Cement	1136.05	1058.11	747.16
SO <sub>2</sub>	gm / Tonne of Cement	71.38	45.69	76.07
Dust	gm / Tonne of Cement	41.60	49.49	53.10
NO <sub>x</sub>	Tonnes	27393.77	25174.05	15849.74
SO <sub>2</sub>	Tonnes	1721.24	1087.03	1613.76
Dust	Tonnes	1003.11	1177.46	1126.52

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

The increase in SO<sub>2</sub> emissions is due to increased clinker production at Chanda Cement Works from previous year. There is a slight increase in NO<sub>x</sub> emissions during 2012 when compared with 2011. During the year 2012, by implementing various air pollution control equipment measures which are indicated above has resulted in decreasing our absolute dust emissions by ~14% when compared with 2011 absolute dust emissions.

#### Fugitive Dust Emissions:

ACC has been continuously implementing various measures to control the fugitive dust emissions.

Some of the initiatives taken in this direction during the year 2012 are as given below:

- Installation of various equipments to control fugitive dust emissions at many plants



Road sweeping machine at Bargarh

In addition to control measures, we have also installed Continuous Ambient Air Quality Monitoring Stations (CAAQMS) to measure the ambient air quality at our premises. In 2012, CAAQMS was installed at Thondebhavi Cement Works, Kudithini Cement Works and Tikaria Cement Works



CAAQMS Station installed at Tikaria & Kudithini

The information on the measured ambient air quality by CAAQMS installed at various plants is being uploaded continuously on CPCB website.

### 3.4 MINERAL RESOURCES MANAGEMENT:



Since ACC operates several limestone mines, ecosystems restoration and biodiversity conservation is a significant aspect to be taken care of. None of the ACC sites fall under or adjacent to any Protected Area. Environmental Impact Assessment studies conducted at all operational units including mines, concludes that there has not been any significant changes to natural habitats at site. To ensure minimum impact to biodiversity, closure plans are prepared as and when required, for rehabilitation of relevant areas. Mined out areas are then rehabilitated such that they are restored to a level nearing original state or one which is considered to be healthy for the ecosystem.

#### ***EN12: Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas***

The company realizes that our activities have an impact on biodiversity though not very significant as concluded in Environment Impact Assessment studies conducted so far. As per EIA, none of the locations have identified any significant environmental impacts to natural habitats due to operational activities. All locations of ACC have Environment Clearances from Ministry of Environment and Forest, Government of India.

#### ***EN13: Habitats protected or restored***

ACC adopts all measures to ensure least damage to nearby habitat. All the quarries of ACC are worked out and restored / rehabilitated according to the approved mine plan including progressive mine closure plan.

#### ***EN14: Strategies, current actions, and future plans for managing impacts on biodiversity***

Acknowledging the fact that activities have an impact on the environment and biodiversity no matter how minimal it is, it is our responsibility to manage those impacts. We aspire to restore important habitats and ecosystems at all locations through rehabilitation of our quarries. Native species of trees are chosen to afforest the land to retain the uniqueness of the ecosystem and to avoid the infestation by invasive species. Species- specific conservation plan have been developed at locations wherever required, under the recommendation and guidance of regulatory authorities. A Progressive Mine Closure Plan is included in the Mining Plan which is validated from time to time and resubmitted for approval to IBM as and when required.

In 2012, a biodiversity study was undertaken at one of the site, in collaboration with IUCN. The study outcome is being referred to formulate the further action plan not just for that respective site but also for other units as well.

**EN15: Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk**

No IUCN Red List species or Schedule I fauna have been reported in any of the Environmental Impact Assessment studies conducted at the company's plant locations.

**Afforestation at Mined out land**

*Our mining sites encompass various types of landscapes including extracted area / mined out land at locations. By reclaiming these sites for a better ecological system, we attempt to minimize the impact of our operations on biodiversity and ecosystem. We believe that water harvesting and afforestation activities can contribute significantly to biodiversity conservation. Therefore we dedicate our concerted efforts in implementing above two practices at all our sites. We engage local communities and organizations for carrying out water harvesting and tree plantation.*



*In 2012, total 93,376 numbers of trees were planted at ACC. Local native species such as Acacia nilotica, Lucenea leucocephala, Delonix regia etc were chosen for plantation at respective locations depending on the climate, geographical location and suitability, in consultation with local forest department. Since these species are adapted to local condition, they grow fast and also help in maintaining the local ecological balance. Specific targets of tree plantation are set by individual units. Most of the afforestation activities are undertaken by school students on various occasions and events celebrated in plants such as Earth Day, Environment Day, Mines week etc.*

*Total area equivalent to 35 hectares has been afforested in year 2012.*

*Please refer section 3.6 for water harvesting initiatives.*

### 3.5 ALTERNATIVE FUELS & RAW MATERIALS:



ACC firmly believes that organizations today need to demonstrate the will to tackle sustainability challenges and enhance triple bottom line performance in every aspect of business. This belief has remained a foundation of our operations and has translated to a successful initiative towards exploring new forms of alternative fossil fuel energy and alternative raw material sources.

ACC recognized very early on that the dire challenge of increasing waste (industrial & municipal) volumes on one hand and fast depletion of natural resources on the other hand could be addressed through innovative green thinking. Given the vast technical expertise and research experience available with us in the field of cement technology, ACC took the lead in research and development to demonstrate that the waste disposal through co-processing in cement kilns is the ideal solution to this challenge.

Our initiative to encourage waste co-processing in cement kilns across the country under the aegis of Geocycle has grown from strength to strength. This initiative solves a growing problem by encouraging the philosophy of industrial ecology.

Wastes from industries which would otherwise have been disposed through land filling or incineration without any resource/energy recovery are safely co-processed in our cement kilns. Through Geocycle we are offering sustainable waste management services/solutions to different industrial sectors such as automobiles, rubber, chemicals & allied industries, pharmaceuticals, food & beverages, FMCG, machinery manufacturing, petrochemicals, refineries, pulp & paper, steel, sugar & distillery, toy manufacturing etc

Any resource or energy value inherent in the waste is utilized as alternative fuel or alternative raw material in our manufacturing process. We are encouraging the use of Alternative fuels and raw materials (AFR) across our units in India in keeping with our commitment to work towards sustainable development.

ACC is further strengthening its co-processing infrastructure by investing in state of the art feeding systems, storage areas and pre and co-processing platforms to ensure that we can provide more sustainable and environmentally sound waste management solutions for larger waste volumes.

ACC has been in the forefront to ensure greater responsibility by cement companies

while using AFR and has ensured that usage of AFR is governed by an “Alternative Fuels & Raw Materials Policy” policy across the company.

The cornerstone of co-processing operations at ACC Limited is Occupational Health and Safety. At ACC, OH&S is based on thorough information, efficient risk assessment, and complete implementation of all preventive measures. The OH&S vision of ‘no harm anywhere to anyone associated with ACC’ is followed in letter and spirit and we ensure highest safety standards for our employees, business partners as well as communities surrounding our facilities. We kicked off an internal safety audit for all our co-processing facilities (ACert) in 2010. By 2012 we have conducted a preliminary ACert assessment in all our facilities and final third party audit by M/s DNV has been completed in 3 facilities (Chaibasa Cement Works, Kymore Cement Works and Lakheri Cement Works).

Taking forward the commitment to sustainable development ACC has also extended support to various municipal bodies for disposal of waste plastics from Municipal Solid Waste (MSW). We have signed MoUs with Municipalities from the States of Himachal, Madhya Pradesh, Goa and Odisha to provide environmentally sound management of segregated plastic waste. This initiative of acting as a partner to society by offering sustainable waste management services for sorted municipal waste was continued in the year 2012.

Engaging with our stakeholders with open & transparent communication with them is a critical part of the way we manage our business. ACC communicates with wide range of stakeholders in many forms. Communicating transparently with all its stakeholders is a key principle of ACC’s AFR policy. In the year 2012 we laid focus on communicating with our stakeholders through a wide variety of platforms and sharing information transparently regarding our operations of co-processing. To encourage open sharing of all activities carried out by Geocycle amongst our internal stakeholders a quarterly newsletter was initiated. We also made presentations in various interaction forums and seminars all across India to create awareness about co-processing technology. These forums saw a representation from our various stakeholders such as NGOs, regulatory bodies, Industrial bodies, academicians etc.

#### **EN2: Percentage of materials used that are recycled input materials.**

Parameter	Unit	2012	2011	2010
Recycled Raw Materials Used	%	22.09	21.23	23.09
Thermal Substitution Rate	%	2.2	0.53	1.1

#### **Key initiatives and achievements:**

- Signing of contract with 24 new industries
- Tonnage contribution of Industrial waste jumped, in 2012, by 26 % over 2011
- Eight successful third party emission monitoring trial burns conducted across ACC in 2012

#### **EN26: Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation**

The waste management solution/services extended by ACC to other Industries and municipalities through co-processing is a proven environmentally sound solution. This solution lies higher on the waste management hierarchy compared to traditional methods of secured land filling and incineration.

In spite of Co-processing being an environmentally safe solution ACC remains committed to ensuring that any possible impacts on environment or surrounding communities are avoided through the precautionary approach. Some initiatives for the same are as follows:

- Information about each co-processable waste is collected, reviewed and communicated in simplified language as a work place label.
- ACC has built appropriate feeding systems and made storage arrangements for handling wastes in isolation ensuring appropriate spill control and fire fighting measures.
- People handling wastes are trained on the risks and hazards associated with it along with the required controls and emergency response actions. ACC has established state-of-the-art laboratories for assessing the co-processability of wastes at following locations.
  - > ACC R&D at Thane, Maharashtra
  - > ACC Kymore Cement Works, MP
  - > ACC Wadi Cement Works, Karnataka
  - > ACC Madukkarai Cement Works, Tamil Nadu
  - > ACC Bargarh Cement Works, Odisha
- In order to demonstrate safe & environment-friendly disposal of wastes, several plant-scale trial runs have been conducted at ACC Plants.

### **ODS disposal in cement Kilns @ ACC Kymore**

*Ozone depleting substances (ODS's) are chlorine and bromine-based chemicals such as chlorofluorocarbons (CFC's), halons used for air conditioning, refrigeration and fire extinguishing equipment etc. The Global Warming Potential (GWP) of ODS can be several hundred to several thousand times more than carbon dioxide and its safe disposal is a challenging task.*

*With an aspiration of providing sustainable solution to the waste management through co-processing under the brand name of GEOCYCLE, ACC has undertaken various co-processing trial of difficult industrial wastes in past few years. In 2012, the company once again demonstrated its capability to dispose one of the most difficult wastes i.e. ODS, safely. In December 2012, ACC's Kymore, along with Geocycle Team, carried out the trial of ODS destruction at its kiln no. 2 where an appropriate facility was set up encompassing all appropriate instruments and equipments. Requisite safety measures were put into place to ensure its safe destruction. A risk assessment was carried out to identify any associated risks and mitigation actions. The facility operators and workers are provided with proper training sessions to understand the detailed process and operation of its destruction. The system was based on logics for its start up and shut off operation and controlled from CCR. The CFCs were fed to the kiln along with primary air through blower.*

*In order to demonstrate complete destruction of CFCs fed to the kiln, Destruction and Removal Efficiency (DRE) Assessment was conducted.*

*According to the United Nations Environment Programme (UNEP), existing cement kilns, when properly operated, can destroy most organic compounds because the temperature in the burning zone is over 1500°C and residence times are up to 10 seconds. The alkaline nature of the material being processed in the kiln neutralizes the acid gases formed by the destruction of CFCs. Thus ODS were safely disposed through co-processing in cement kiln without any impact on the cement process, emissions or the final product.*

*For ACC, Kymore unit and Geocycle, it was a remarkable achievement which has enhanced everybody's confidence to deal with difficult wastes.*

### 3.6 WATER & WASTE MANAGEMENT:



We at ACC continuously strive to minimize our water foot print during our manufacturing process. Lot of emphasis is given to minimize water consumption by implementing various measures like up-gradation of process, arresting the leakages, reuse, recycle of water wherever possible. Our plants harvest rain water in our mined out pits which helps us to use this water for our manufacturing purposes and reducing the dependency on surface or ground water. Apart from reducing the impact on environment, the harvested water also serves as recharging pit for ground water, thereby improving the ground water level in the surrounding areas which will have a positive impact on the environment. We also harvest rain water in our plant & colony premises and in communities under CSR activities.

Two of our manufacturing facilities namely Jamul Cement Works & Kymore Cement Works are running completely on harvested rainwater in the mined out pits without depending on any other water sources.



*Rain water harvesting in mined out pit at Bargarh*

### EN8: Total water withdrawal by source\*

(For Plant, Captive power plant, Colony and nearby Communities)

Source of Water	Unit	2012	2011	2010
Surface Water	Million M3	8.18	8.85	5.46
Harvested Rain Water	Million M3	8.16	7.66	5.10
Municipal Water Supplies	Million M3	0.048	0.016	0.061
Ground Water	Million M3	1.34	1.23	1.41

\*Partial quantities are based on meter readings where available while the rest is calculated

### Few of the initiatives taken in water management during 2012:

At Chanda Cement Works, we have created two rain water harvesting ponds, to which are connected all storm water drains of entire plant area. The rain water harvesting pits serves to harvest rain water and as well as recharging the ground water by the recharge bore well which is attached to harvesting pond. The capacity of rain water harvesting pit is around 7000 m3.



Rainwater Harvesting Pond at Chanda

At Kudithini Cement Works, we have a created rain water harvesting ponds inside the plant premises with an approximate capacity of 1200 m3. All the rain water is being collected in these ponds. The rain water harvesting pond helps in recharging the ground water as well as improves the aesthetic look of the entire area.



Rainwater Harvesting Pond at Kudithini

At Thondebhavi Cement Works, Vertical Roller Mill (VRM) has started to operate with ZERO table water spray and successfully stopped heating of the system during mill start-up which saved LDO as well as huge water consumption.

At Jamul Cements works, initiatives taken for minimizing water consumption during manufacturing process are as follows:

1. Water savings in Captive Power Plant (CPP) cooling tower by increasing the Cycle of Concentration (COC)
2. Water savings in Gas Conditioning Towers (GCT) by installing VVFD for the pump motor
3. Water savings by installation of float valve in all the over head tanks to stop over flow of water

#### **EN9: Water Source significantly affected by withdrawal of water**

No significant impact reported on the water sources affected by withdrawal of water. In reference to EN8 & EN10, we are increasing our water consumption from harvested rainwater and thereby decreasing the dependency on other water sources. Apart from shifting the source of water consumption, we are also increasing our recycling & reuse capacity gradually.

At Chaibasa Cement Works, we have installed a Sewage Treatment Plant with a capacity of 600m<sup>3</sup>/day. The treated waste water is used for dust suppression and gardening in & around plant premises.



Sewage Treatment Plant at Chaibasa

#### **EN10: Percentage and total volume of water recycled and reused\***

Water Treated and Reused	Unit	2012	2011	2010
Total quantity of water treated and reused annually	%	13.15	11.45	16.46
Total quantity of water treated and reused annually	Million M3	2.33	2.03	1.98

\*Estimated

#### **EN21: Total water discharge by quality and destination**

Zero discharge from our industrial processes

### Waste Management:

At our cement plants the Hazardous waste generated mainly comprises of spent oil and grease. The waste thus generated was handled as per the Hazardous waste management rules and which is sold to authorized recyclers as per CPCB. Apart from that we co-process the same in our cement kilns wherever we have the authorization to do so.

### EN22: Total weight of waste by type and disposal method

Hazardous Waste			
Details	Unit	2012	2011
Waste Oil	Litres	108848	171276
Grease	Kgs	16950	76955
Non Hazardous Waste#			
Steel Scarp <sup>1</sup>	Tonnes	11077	8650
Others <sup>2</sup>	Tonnes	5559	782
Fliter Bags	No.s	33063	22296

Note:

1. Steel Scrap includes castings, waste steel, MS drums, rapper 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, tyre, paper, PVC drums, HDPE rapper, etc.

# Started reporting from the year 2011 onwards

### EN23: Total number and volume of significant spills

No significant spills reported in the year

### EN24: Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally

No waste exported/imported/shipped internationally.

### EN25: Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organisation's discharges of water and runoff

Refer to EN21

### EN28: Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environment laws and regulations.

No significant fines and non-monetary sanctions to our knowledge

### EN30: Total environmental protection expenditures and investments by type

Details	Unit	2012	2011	2010
Environmental Expenditure	₹ In Million	1476.49	2379	1880

ACC continuously invests/upgrades environment protection measures to upkeep the environment in & around the plant premises. ACC has invested in various areas like up-gradation of pollution control measures, CEMS, dust suppression systems, rainwater harvesting, air pollution control equipment, green belt development, environmental training & awareness, road sweeping machine etc.

ACC believes in its human capital and always strives to impart technical training to update the knowledge which helps the individuals to grow and can contribute better to the organization. Various training programs are organized at corporate level and at individual plant levels. Trainings are conducted by in-house experts as well as external speakers depending upon the topics.



***Environmental Engineers Conference { 24-26 Sept.2012 }***  
**ACC - ACL Leadership Academy, Thane**

*Annual Meet of Environmental Engineers*

### 3.7 SUSTAINABLE CONSTRUCTION



#### **Concrete Roads**

Popularity of Concrete Roads has been increasing due to its higher resistance to aggressive & different climatic conditions like heavy rainfall & extreme temperature/ weather changes in many parts of country. Current Bitumen roads deteriorate faster due to lower resistance to abrasion caused due to heavy traffic , heavy axel loads and harsh metal wheels. Also such surfaces of such roads get damaged faster under rapid changes of weather, heavy rainfall and ground water.

Over a period, concrete roads offer proven economies of 15-25% in fuel consumption and 10-15% savings in vehicle running costs.

In the above context, sustainability of concrete roads, lower carbon footprint cannot be overlooked.

To improve awareness and training in respect to Concrete Roads various Seminars and Awareness Workshops were organized.

ACC along with Confederation of Indian Industry (CII) created a platform to improve awareness with stakeholders. Seminars have been held in various cities like Delhi, Gwalior, Shimla, Bhopal, Jaipur etc. ACC & CII have also been working closely with central & state governments. ACC has initiated activities to spread awareness on the benefits of concrete roads.

To take this initiative forward to next level, we need to upgrade the skills of the personnel in the field of concrete road construction. Hence Technical & Knowledge Sharing Programmes were conducted in many cities. These were done in Jabalpur, Indore, Chindwara, Sagar, Ratlam, Dewas etc.

Skill Development programme were also done for masons and supervisors in Uttar Pradesh (UP) and Madhya Pradesh (MP) covering some major topics such as correct

manufacturing of concrete, concrete mix preparation, testing of concrete, use of equipments, concrete surface compaction, groove cutting and importance of curing. A total of 24 such programmes have been conducted covering more than 1000 engineers from govt. road sector and 960 masons and supervisors from road building contractors.

We in ACC believe that making infrastructure like good and strong concrete roads will help in building a solid platform for India's economy to grow. This will also help in connecting rural and semi urban areas of India with Urban cities of India creating job opportunities in each segment.

The experience of those who have built concrete roads in recent years in the cities of Mumbai, Surat, Indore and Hyderabad demonstrates even greater economies. An important fact not usually considered in life cycle cost analyses is that concrete roads continue to serve long after their declared useful life.

Examples like Mumbai's famed Marine Drive and Express ways like Mumbai Pune Express Road made of concrete are proving its worth and endures all. In fact Mumbai's Marine Drive must have paid back its costs decades ago.

### Affordable Housing

As a step towards providing affordable housing to the rural population ACC has started an initiative to design and construct affordable housing for this segment 2 years back. Just to name few places, during last year we have completed 25 units in Hoshangabad, 50 units in Mandla, 25 units in Sagar, 50 units in Chindwara, 25 units in Betul. Most of these units were built with trained masons who were given 2 days training on the subject. Total 560 units have been completed till Dec 2012. No. of beneficiaries and masons training in AFH covered are 560 nos in M.P. through 7 program session at various centers. Joint session with selected builders of Rajasthan was also organized to cover AFH in urban areas.



***Public Positions:***

Lobbying: ACC is continuously engaged with various regulatory authorities, industrial bodies like TERI, CII, NCBM, FIMI, BCC, CSI etc., in formulating new regulations and updating the existing norms to meet the changing requirements.

- Interactions with various regulatory authorities like Central Pollution Control Board (CPCB), Ministry of Environment and Forests (MoEF) and State Pollution Control Board (SPCB)
- Co-chaired the Sector Expert Committee for Cement Sector along with Government of India, Bureau of Energy Efficiency (BEE) to streamline the Perform, Achieve and Trade (PAT) Scheme for Cement Sector.

## 4 SOCIAL PERFORMANCE



### 4.1 COMMUNITY ENGAGEMENT

#### ***SO1: Percentage of operations with implemented local community engagement, impact assessments, and development programs***

One of the key stakeholders for the company are the communities living around its operations. The company actively assists these communities in identifying, prioritising and meeting their developmental aspirations through periodic needs assessment surveys. A detailed five year action plan is developed in consultation with the local communities that addresses the needs assessed in survey. This action plan is further divided into year wise action plans based on the priorities decided by the community. The implementation of these yearly plans is then continuously monitored to ensure that they respond to the needs expressed by the communities.

ACC's CSR initiatives focus on holistic development of host communities and create social, environmental, and economic value for the society. CSR initiatives are delivered by company's CSR team in partnership with reputed NGOs and government organisations.

A formal Community Advisory Panel (CAP) is constituted at each plant location, consisting of relevant local stakeholders and opinion leaders such as panchayat representatives, villagers, district officials and union representatives among others. The panels have proven to be valuable in presenting stakeholder views and ensuring appropriate delivery of plan initiatives. CAP meetings typically focus on activities like planning, sharing of information on various aspects and project implementation.

Whenever needed, CAP meetings are facilitated by respective local ACC teams, active engagement and support of the CAP at each plant location has enabled the company to strengthen the participation of the local community in village development initiatives.

A Stakeholder Engagement Survey is conducted on a yearly basis, wherein all stakeholders particularly the community members are involved to discuss effectiveness of each CSR initiative's implementation. Community offers its feedback on progress and outcomes of the projects conducted during the year. This helps in making the CSR initiatives more appropriate to community needs and enhance the sustainability.

Meetings with the villagers and their representative bodies, helps to reviewing the progress of community projects, obtain timely feedback from stakeholders, gain recognition for the efforts made and most importantly to take corrective measures as and when required to ensure that resources are utilized more effectively and optimally. During 2012, with active support from the local community, Government and NGOs, the company carried out CSR activities in 132 villages thereby covering a population of 0.5 million, primarily around ACC's 17 plants.

Various CSR interventions directly benefitted 3 lakh 68 thousand people. ACC's interventions mainly focused on following three focus areas i) Education ii) Sustainable Community Development (SCD) and iii) Infrastructure Development. SCD comprises of a range of initiatives in health, nutrition, water and sanitation, agriculture, employability and livelihood.

CSR interventions were consciously selected to address the prevailing business risks in the area as well as the expressed needs of the host communities. The projects were planned, implemented and evaluated with stakeholder participation.

Wherever possible, ACC availed the opportunity of working in partnership with Government, NGOs and academic institutions in the area.

Company's education initiatives benefitted 28,000 children. ACC established schools at its locations provide good quality education to children of employees and communities. Support to these schools was continued during 2012, further support was also provided to other schools in the vicinity.

Technology aided Education initiatives such as smart classes, interactive kiosks, implemented at several ACC locations for enhancing quality of learning which benefitted 6100 school children.

Company supported 4268 meritorious students from weaker sections of the community under its various education support initiatives to aid continuing their education.





Literacy programme for adults, particularly for women members of Self Help Groups in neighbouring villages were conducted. About 800 people were benefitted through this initiative.

ACC continued to support 7 Government run ITIs under the Public Private Partnership (PPP) scheme partnered with Ministry of labour and employment, Government of India.

ACC supported ITIs for enhancing the skills and employability of the students by upgrading the quality of education and education infrastructure.

**EC9: Understanding and describing significant indirect economic impacts, including the extent of impacts.**

**Sustainable Community Development initiatives:** Skill Development and Placement for unemployed Youth: ACC has partnered with various institutions for imparting skill development training and placement. It's unique modular employability training, which not only improves the skills of the trainees but also provides placement to them. The initiative helped in creation of about 5300 livelihood of which 2342 persons were placed with various employers with an average salary of ₹ 5000 per month thereby enabling a similar number of families to live above poverty line.

**On farm and Off farm initiatives,** some in partnership with NABARD and State Governments directly benefited 2212 farmers. The initiatives taken up for the enhancement in farm practices included soil and moisture conservation activities, crop productivity enhancement through better variety of seeds, improved cultivation techniques, drip irrigation and farm ponds, better tools and farm equipments, compost and bio fertilizer and bio pesticides. These initiatives ensured increase in income for these farmer families



**Women Empowerment:** Women Self Help Groups (SHGs) facilitated by CSR initiatives benefitted more than 7000 women in the community. Total 512 SHGs were organized and strengthened during the year. Members were given regular trainings for group cohesiveness, book-keeping and exposure to best practices in SHG functioning; and some of them have initiated their own micro enterprises. Through bank linkages and inter-lending these members generated a total savings of INR 1.12 crore.

**LA8: Education, training, counselling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.**

**Promoting Health:** Most of our manufacturing units are located in remote places where basic medical facilities are not adequate. Health being one of the prime concerns of the community and critical for general well being of our stakeholders, significant initiatives were undertaken in this domain. ACC's health initiatives complement government's community health programs for betterment of overall community health nearby our plant locations. Our medical facilities at plant locations also extend its support to nearby Primary Health Care centres and Community Health Care centres. Total 1,35,009 people benefitted from our various health and nutrition related initiatives.

In addition, through 46 Anganwadi Centers we reached out to more than 3910 Mother and children with immunization, Ante & Post Natal Care and growth monitoring programs. This has resulted in better supply and use of government's medicine supplies through AWC which has direct impact on infant mortality and maternal mortality. The 224 kitchen garden initiated through CSR have saved nutritional food expenditure of ₹ 1200/- per family, enhancing their health condition

Healthy truck drivers are essential for smooth supply chain. During 2012, CSR program covered 1025 drivers under family health insurance, associated with the company's logistics. This gave guaranteed cashless hospitalization cover of ₹ 3.5 crores and accidental benefit upto ₹ 2.5 crore for these drivers.

ACC support to ACTFID and AYUSHMAAN trusts were continued for their on-going work on HIV/AIDS.

## Community initiative by ACC in Chandrapur

**LOKMAT NEWS SERVICE**  
NAGPUR, JUNE 24

ACC Chanda Cement Works (CCW), in tandem with its commitment towards community development, has successfully initiated numerous CSR activities in and around Chandrapur.

These initiatives include water resource development in the drought prone area of Chandrapur where drinking water programme for the community is undertaken.

Many sources and systems have been revived by the plant to provide drinking water to the nearby villages and also have dug borewells which acts like a source of drinking water for the community.

CCW has also contributed ₹ 4 lakh under water scheme along with a filter plant for drinking water. It has also successfully installed solar water chlorination project at Shenggaon.

CCW has also helped in setting up 5 computer learning centres with the help of 'Holle in Wall' NGO.

CCW organizes exposure visit for children to State Bank of India, post offices and mines.

Exhibitions are also organized on various issues and cultural programmes for students. CCW has established 5 village libraries for students, provided book case and books. Mount Carmel School in Chandrapur receives constant support from Chanda Cement Works.

Jointly with CSR team and district hospital, CCW organized health camps such as blood donation, dental care, ENT, tubectomy, orthopaedic, heart diseases examination and treatment. ACC AHEAD also organizes weekly dispensary at village Nokda and community development programme for women.

CCW works closely with 2 notable NGOs in Chandrapur.

The NGOs conduct leadership development programme which aim to nourish entrepreneurs in the community.

So far, there have been 12 entrepreneurs who have established their business in the fields of poultry, tailoring, shopping accessories, etc.

CMRC conducts various other programs and training workshop to generate livelihood for village women like book keeping and skill awareness programs.

In agricultural sector, CCW has started Insecticide Resistance Management Project in conjunction with Central Institute of Cotton Research at Khapri near Nagpur under the ministry of Agriculture Government of India. CCW identifies villages and farmers and explains the concept of Insecticide Resistance Management.

The plant also provides expert guidance and training to the identified farmers.

Under this partnership, the institute organized an exposure visit for the control use of insecticide and pesticide on chilli, cotton, soyabean seeds for 13 villages, of which 9 villages took up organic farming post that visit.

#### Details of Patients Registered With ACTFID & AYUSHMAN during 2012

HIV/AIDS Treatment:	Number	
	ACTFID	AYUSHMAAN
No. of patients (PLHIV)counselled & tested	1440	966
No. of patients tested for HIVpositive	240	37
No. of patients tested for CD4 cell count	2435	542
No. of patients of pre ART ( Jan - Dec 2012)	349	68
No. of patients on ART ( Jan - Dec 2012)	267	52

Apart from provision of Antiretroviral Therapy (ART), several programs were conducted to address the psycho-social needs of People Living with HIV (PLHIV). These included:

1. Positive People's Network with monthly meetings
2. Self Help Groups for PLHIV
3. Home-based child care program for Children Living with HIV (CLHIV)
4. Life skills education program for CLHIV
5. Networking with likeminded non-governmental organizations in the district to provide income generation schemes and employment opportunities
6. Community level HIV intervention programs Information Education and Communication (IEC) activities

#### **Move towards a better quality of life**

ACC collaborates with the community and local bodies to improve the environment they live in. The upward shift in quality of life is notable at several locations.

'Clean and Green Habitat' project at Madukkarai, initiated in early 2012, is notably successful project in this genre. It has created and strengthened a mechanism for effective disposal of solid and domestic waste in the project area. This initiative is a Public Private Partnership (PPP) with Madukkarai Town Panchayat and 'Hand in Hand', a local NGO. Clean Green Madukkarai has created a clean habitat for 8500 households with a population of 35,000 people. About 120 tonnes of segregated waste is collected and effectively reused and disposed every month. Nearly half of the waste is bio composted. About 1.5 tonnes of plastic waste is consumed by the cement kiln as an alternative fuel. The fuel costs for transporting the solid waste have drastically reduced than earlier years due to this project.

Sanitary workers and Garbage collectors from the community are called 'Green Friends'. Forty five Green Friends jobs have been created leading to regular employment in this project. A green belt has been planned around the habitat and the community has already planted thousand saplings.

Success is owed to active participation of community, consistent engagement of Madukkarai Panchayat for this notable transformation through ACC's initiative.



**Employee Volunteering Program:** At ACC all employees and their family members have an opportunity to make a meaningful contribution to society through acts of social volunteering. Together for Communities (TFC), a formal company supported employee volunteering programme, was launched in 2012. This initiative covered five themes namely,

- Hand Washing Campaign
- Water Quality Monitoring Campaign
- Road Safety Campaign
- Beach Clean Drive
- Tree Plantation Drive

1027 volunteers contributed 5769 volunteering hours by participating in these volunteering activities.



**Infrastructure Development for Livable Community:** Company plays a vital role in facilitating the creation and maintenance of basic infrastructure around its operations such as roads, drains, provision of safe drinking water, deepening of ponds, repairs to schools, anganwadi and other community amenities.

**EC8: Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, inkind, or pro bono engagement.**



During 2012, ACC's CSR initiatives for infrastructure development benefitted 1,26,000 people. Each plant contributed in creation of water harvesting structures and installation of hand pumps for drinking water. Excavation of pond for irrigation and other water uses directly benefitted 5700 people, whereas drinking water initiatives benefitted 14,283 people.

Fifty houses were constructed and handed over to flood affected people near Kudithini in Karnataka. In partnership with Government under the Indira Awas Yojana two Low Cost Houses were also constructed for 2 poor homeless families at Kymore. In addition, 7 Community Toilets and 147 toilets for individual households were constructed to promote sanitation among neighbouring communities in various locations.

A total length of 12.36 Kilometer road was constructed for meeting the needs of communities and our own operations around Wadi, Thondebhavi, Chanda and Kymore. Our initiatives to repair community amenities directly benefitted 22,000 people.

**SO9 - Operations with significant potential or actual negative impacts on local communities**

**SO10 - Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities**


ACC is among the first Indian companies to include commitment to environmental protection as one of its corporate objectives. Long before pollution control norms and regulatory laws came into existence, ACC inducted the use of sophisticated high efficiency pollution control equipment for cement kilns, raw mills, coal mills, power plants and coolers, in 1966. Today ACC factory has high efficiency state-of-the art pollution control equipment and devices. ACC is the industry

We have visited the ACC Limited, Kudithini Cement Works on 29.09.2011 to participate in the Community Stakeholders' Meeting on behalf of Veni Veerapura Village.

After meeting we went around the plant and observed the following. We are very happy to mention that:

- Dust free atmosphere is found inside the plant
- Sufficient precautions are taken for safety aspects of men & machine including visitor's safety.
- When enquired regarding chemical emissions and dust emission with the technical people, ACC officials replied that the plant is meant for "Zero" emissions & dust free environment. We are satisfied with the statement as we have physically witnessed.
- Overall, we got confidence that no harm will be faced by our villagers from ACC Limited Kudithini Cement Works operations.

And we convey our special thanks to ACC Limited; Kudithini Cement Works for using Latest technology to avoid dust emission of maintain the plant upkeep.

  
 న. వెంకటేశ్వర మర్తి  
 ధర్మబాధ్యక్షుడు, బాపట్ల తాలూకా, పల్నాడు జిల్లా

पञ्चायत समिति के. पाटन, जिला बून्दी (राज.)

सुखिप्रवर्तन नीति  
अनुसार

मो ३२२०९७६७५, ९९४७९१४ ०४

2018-19

Revised 2016-2017

इ.स. १०० के करीब आग सभ्यता  
में स्पष्टता, कि मानो के खरद, जेवनी उर्वरता  
फिरात गार्दो लोवन बरुडा, मिट्टा प्रभावित  
कहिले सामाजिक, आर्थिक, उद्योगिक  
मार्केटिंग प्रणालीय सामाजिक-कर्मिक  
जगत में कभी सभ्यता हुआ है  
इति लिए इ.स. १०० के आग  
प्राचीन सभ्यता में जेवनी के उर्वरता, सभ्यता  
कहा है।

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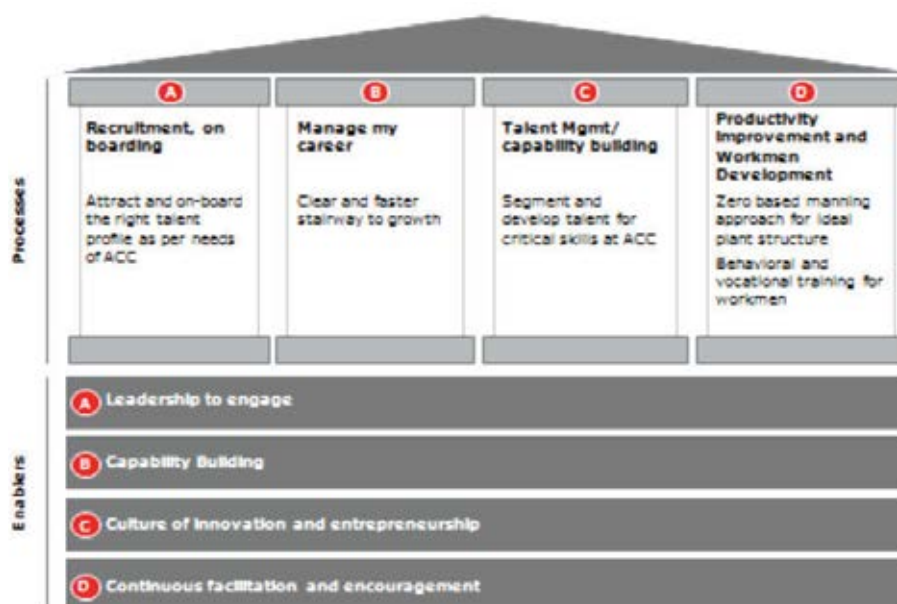
## 4.2 EMPLOYMENT PRACTICES



On employment front, we strive to maintain a competitive and favourable working environment. We believe that workplace should be such that employees are highly motivated to achieve company's as well as individual's objective. For last two years, ACC has been working to develop a learning culture to foster internal growth, to become more responsive to changing needs and to synergize HR professionals to achieve excellence. We aim to offer a workplace to our employees where everyone feels proud to work and also inspire others.

In 2012, we started with our People Excellence journey to re-engineer our existing processes and align to the Business Excellence journey. We focused on designing and improving the following People Practices:

1. Recruitment and On-Boarding
2. Talent Management and Capability Building
3. Workmen Development



To meet the business challenges around growth, performance and market & business environment we have designed our HR strategy around the People Excellence model described in picture above.

#### **Recruitment and On-Boarding**

##### **Our Recruitment Philosophy strives to :**

- > Hire freshers from campus and build internal talent pipeline
- > Restrict lateral hiring to 50-60 people per year to infuse fresh blood
- Robust recruitment process is put in place where by
  - > Trainees are hired from identified colleges only - 15 colleges for MBAs and 25 colleges for GETs
  - > Selection criteria is decided to hire ACC fit
  - > Building Brand equity initiatives to ensure first day slot in GET campuses
  - > Campus interview panel members are selected and trained on 'Target Selection workshop'

##### **Impact of the initiative:**

<b>15</b>	<b>MBA Colleges identified for</b>
<b>25</b>	<b>GETs Colleges identified for recruitment</b>
<b>90</b>	<b>Line managers trained on selection process</b>
<b>21</b>	<b>Out of 25 GET Colleges where ACC got Day 1 slot</b>

##### **On-boarding Philosophy which helps in**

- > Improving the effectiveness of training provided to trainees
- > Improving retention rate
- > Develop a robust handholding process for trainees so that they can take on the line role

##### **On-boarding Process consists of:**

- > Three year on-boarding program designed for the trainees, which includes a blend of classroom training, on-the-job tasks and mentoring.
- > Skill builder which was created for Graduate Engineers and B.Sc trainees with help of line managers includes ~ 18-21 modules across the value chain (production and sales value chain).
- > On-boarding centres were created for trainees in Sales Units (SU) and Plants. The aim was to provide new entrants standard and focused on-the-job exposure to the various functions and also be mentored by technical experts at Plants. At end of every module Assessment is being done to evaluate the learning

○ Results of the on-boarding process:

- 89** } GETs went through the on-boarding centre
- 55** } B.Sc.s went through the on-boarding centre
- 12** } On-boarding Centres developed at Plants/SUs
- 45** } MBA trainees from 2012 batch deployed on improvement projects

**Building Capability among our workforce through Workmen Development Initiative: Philosophy:**

- Involving Workmen in Institutionalizing Excellence program will lead to more involved & up-skilled Workmen resulting in better plant performance



**Workmen Development Framework:**

- Engage: Focused Group Discussions with workmen to understand current engagement issues
- Involve: Involve all the technically skilled Workmen and Supervisors in improvement projects. Identify Coaches / Facilitators to support the projects
- Upskill:
  - > Training on problem solving and QC tools (by Mahindra Institute of Quality/ Gyan Jyoti school of TQM)
  - > Mindsets and behaviours workshops (Synergy consultants)
  - > Vocational training based on skill gap analysis (SkillSonics)

**Coverage as on 31st December 2012:**

Workmen Development Areas	Initiatives	Coverage
Involve	Number of Plants Programme launch	14
Engage	Number of FGDs conducted	171
	Number of workmen who have undergone mindset program	670
Up-skill	Number of Workmen undergone Work Skills, BM01 and BM02 program	355
	Facilitator trained in QC/PS Tools	258
	Workmen trained in QC/PS Tools	397

**Building Capability among our High Potentials and Existing Workforce:**

In 2012, we focused on re-engineering the development framework for our High Potentials and existing workforce. Keeping in mind future growth plans of the

organization and making people future ready, we decided that differential and focused development inputs need to be given at every level. To meet this requirement, we created a Learning & Development (L&D) Framework -



We developed a robust talent development framework as highlighted below:

#### Employee Engagement Initiative: Sitaron Ki Khoj

The journey of Sitaron Ki Khoj that started in December 2011 came to an end on 20th August 2012. This initiative was started at national level to identify the best talent in performing arts like music, dance & singing. A grand finale event was organized where all 16 shortlisted participants were called from across all locations of ACC. This event saw many eminent leaders who had worked for ACC and also our top leadership team along with an audience of around 700 employees and their family who had come to encourage their teams. This event had performances from 16 contestants and guest performance by renowned Indian artists. Also, a live web telecast of this was done using webex facility for our employees at Regions & Plants. This event not only showcased the talent at national level but also helped us bond as one family.





Innovate to excel is organized on PAN ACC basis to recognize the best ideas from the work force. This programme is organised every year to encourage new ideas which can be implemented on PAN ACC basis.



**HR3: Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.**

During induction training programs, the trainees are given awareness session about some of the human rights aspects like Child Labour, forced labour & working conditions. However, 482 hours of training has been provided during the year 2012.

**HR4: Total number of incidents of discrimination and corrective actions taken**

There were no incidents of discrimination.

***HR5: Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights***

Employees in the workmen category are governed by the Collective Bargaining Process. There is no identified operation in which right to exercise freedom of association/ collective bargaining is at significant risk.

Employees in the above category in all our Cement Manufacturing Units are represented by a collective body i.e. a Trade Union, at respective Units.

***HR6: Operations and significant suppliers identified as having significant risk for incidents of child labour, and measures taken to contribute to the effective abolition of child labour***

We strictly ensure that in none of our Operations, Processes and Units have engagement of Child Labour. Apart from that, we have taken self declaration from our suppliers stating that there will not be any engagement with child labour.

In order to ensure that all the employees/ workers entering into our premise are adults, we have security guards posted at all our entry points and they ensure that workforce entering the factory is more than 18 years of age. Also, we get report from our Manufacturing Units confirming that no Child Labour had been engaged by them.

***HR7: Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures taken to contribute to the elimination of all forms of forced or compulsory labor***

- We have a well laid down recruitment and selection process.
- None of our workplaces have forced / compulsory labor.

***HR8: Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations***

We do not have formal Human Rights Policy related to our operations; however we create awareness about child labour and non-use of force to security personnel.

(Note: In BRR we had mentioned: "The policy is embedded in the Company's Code of Business Conduct and Ethics, HR policies and various other HR practices.")

***HR9: Total number of incidents of violations involving rights of indigenous people and actions taken***

No violation reported during reporting period.

***HR 10: Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments***

Holcim has reviewed impact assessment at two of the manufacturing sites during reporting period.

***HR11: Number of grievances related to human rights filed, addressed and resolved through formal grievance mechanisms***

No grievance has been received during reporting period.

**LA1: Total Workforce by employment type, employment contract and region, broken down by gender**

Workforce Numbers as per employment type, employment contract

As on Dec 31st 2012	TOP AJB 21 & above	Senior (AJB 18-20)	Middle & FML (AJB 11-17)	Others	Total (2012)	Total (2011)	Total (2010)
Male FTEs*	33	183	3521	5051	8788	8758	8702
Female FTEs	0	4	269	54	327	273	212
Total FTEs	33	187	3790	5105	9115	9031	8914

Approximately 23% reduction in attrition rate has been achieved in year 2012

**LA2: Total number and rate of new employee hired and employee turnover by age group, gender and region (Management Staff and Workmen) (as on 31st Dec 2012)**

Turnover (Resignations) Number as per Gender

Region	Female	Male	Total
Total (2010)	17	426	443
Total (2011)	24	413	437
Total (2012)	20	317	337

Turnover (Resignations) Number as per age group

	Under 30 yrs	30- 50 yrs	>50 yrs	Total
Number of FTEs* leaving the company	132	182	23	337

\*FTEs: Full Time Equivalents

**LA3: Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation**

ACC basically categorizes both the Full time equivalents (FTEs) engaged on core jobs and the Sub contract FTE engaged on non- core jobs on the same pedestal as far as benefits arising out of various statutes. Benefits to Full time equivalents which are not available to temporary or part-time employees include:

- Accommodation in Housing Colony
- Certain loan facilities
- Recreating Club Facility
- Long Service Awards

**LA4: Percentage of employees covered by collective bargaining agreements**

All workmen are covered by collective bargaining agreements, which form around 56% of the total workforce. The key parties involved in the collective bargaining process are Employers and the Trade Union representing the workers, who bargain on Wages, Allowances, Benefits, Working Conditions, Condition of Service, etc.

**LA5: Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements**

As per section 9A of the Industrial Disputes Act, 1947, 21 days notice is required to be given to effect change. However, if there is a Settlement / Agreement between the Company and the Trade Union, then there is no requirement of giving Notice for Change.

**LA10: Average hours of training per year per employee by gender, and by employee category**

Training conducted per employee as per employee category

Learning and Development			
Level Bifurcation	Total Man-Days	Total Man-Hours	Average Training hours per person
<b>AJB 11-17</b>			
Female	3492.87	27940.95	104
Male	30627.85	244940.31	70
<b>AJB 21 &amp; above</b>			
Male	93.34	746.3	23
<b>SFA</b>			
Female	55.77	446	8
Male	16669.37	133309	26
<b>AJB 18-20</b>			
Female	9.01	72	18
Male	1187.67	9498.65	52

**LA11: Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings**

Among the numerous external programs organized for ACC employees, listed below are few highlights

- Mining for Sustainability
- Industrial Waste Water Treatment
- Vocational Skills Development- Impact of Industry Engagement
- “Green Building : The GRIHA Approach”
- “Fire Safety Commercial building”
- Industrial Relations & Productivity
- Global Summit on Skill Development
- “Green Co-Rating”
- Accountancy Profession: Leveraging Emerging Challenges for Inclusive Growth
- Highlights Internal Training - Various Functional, Leadership and Behavioural trainings were conducted for Individual development. The highlights are:

**Leadership:**

- 1st offering of First Time Manager program under Talent Management was organized for PAN ACC employees for AJB 14 -15 at Thane
- 7 offerings of Holcim Leadership Competency based Training Program - ‘Analysis & Problem Solving’ was organized for AJB 11 -14 and Shop Floor Associates (SFA) in the North region
- 3 offerings of Holcim Leadership Competency based Training Program - ‘Business & Financial Acumen’ was organized for AJB 15 -17 in the North region
- 2 offerings of Holcim Leadership Competency based Training Program - ‘Engages and Inspires’ was organized in the North region for AJB 11-17
- 7 offerings of Holcim Leadership Competency based Training Program - ‘Manages Execution’ was organized in the North region for AJB 11-14 and Shop Floor Associates (SFA)

- 30 offerings of Short Training Modules for young talent in ACC (AJB 11-15) were organized pan ACC covering Modules -
  - > Shop floor Management
  - > Quality Improvement Tools
  - > Personal Effectiveness Program
  - > Negotiation Skills and Conflict Management
  - > Finance for non-finance
  - > Project Management Approach
- 291 employees were covered under Holcim Leadership Competency Programs
- 563 employees were covered under Short Training Modules for Young Talent in ACC
- 34 Employees were covered under several Holcim International Programs like Senior Leadership program, Senior Management Program, Leadership Seminar, Management Seminar, Quality Manager Course, Holcim SD Forum, Technical Information System etc.
- 3 Offerings of '7 Habits of Highly Effective People' were organized pan ACC covering 62 employees
- "Core Skills Workshop" was organized for the Management Trainees batch of 2011. This initiative is a part of ongoing On-boarding journey at ACC and is aimed at equipping them all with certain critical skills early on in their career so that their journey of growth and development becomes meaningful.

#### **Functional:**

- 3 Batches of Management Trainee Induction were organized at Academy, Thane
- 2 Batches of BSc Trainee Induction were organized at NCB, Ballabgarh
- 2 batches of Lateral Induction Seminar were organized for new entrants in ACC
- Co-processing of Alternative Fuels & Raw Materials, WORKSHOP ON WASTE TO AFR, HAZARDOUS WASTE MANAGEMENT WORKSHOP were organized for AFR related personnel across ACC
- HARP Workshop, Tax Workshop, Training on Cost Centre Management and Working Capital training were organized for Finance personnel
- Brand Management, Customer Relation Management, SMX Training, Achieving Sales and Service Excellence were organized for Sales & Marketing personnel
- Behaviour based Safety Trainings, HIRA workshop, Safety Champion Workshops, Accident Investigation, Contractor Safety Management (CSM), Fire Fighting and First Aid Trainings were a few of the numerous OH&S workshops that were organized PAN ACC
- Several Workshops on MS Office, IT related skills and SAP modules were organized PAN ACC
- Skill Builder Training was imparted to the Graduate Engineer and B.Sc trainees in 2012 to provide them on the job training related to cement manufacturing and related functions.

#### **Behavioral:**

- Workshop on improving 'Interpersonal Skills', 'Negotiation Skills' were organized
- Training on 'Cardinal Rules', 'Housekeeping', 'Health and Hygiene' and 'Hazardous Work Activities' were organized PAN ACC for Shop Floor Associates (SFA)
- Building Bridges and enhancing communication training and shared vision training was imparted to the employees.

**LA12: Percentage of employees receiving regular performance and career development reviews, by gender**

100% of Management Staff have received regular performance and career development reviews.

Also, a comprehensive tool for assessing gaps and developing all the employees and for enhancing employee engagement, we have Development Discussion Document (DDD) which captures the leadership, technical/functional development needs, it also helps in identifying any key contribution made by an individual, the career aspiration of the individual. This document also captures the timelines and the actions (from current & last two years) which the individual along with the support from the immediate manager and organization can take for the Individuals development. DDD thus will help us in more focused and systematic investment for development across organization.

**LA13: Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity**

Please refer to the Section on Corporate Governance for details.

**LA14: Ratio of Basic Salary and remuneration of women to men by Employee Category, by significant locations of operation**

As on 31st Dec 2012, Compensation details as per employee category

Grade	Ratio of Male to Female Basic Salary
Director / Sr VP & Above	NA
GM to Director / VP	1.02
Engineer/Executive to DGM	1.17
SFAs	1.00

**LA15: Return to work and retention rates after parental leave, by gender**

5 women employees have gone on maternity leave, out of which 4 have resumed office in 2012 and one resumed in Feb 2013.

**EC5: Range of ratios of standard entry level wage compared to local minimum wage at significant locations of operations**

- All Permanent workmen are governed by the National Wage Settlement and their wage level is much higher than the local minimum wage.
- All contract workers undertaking jobs which are of a temporary nature are paid as per the government notification on wages.

**EC7: Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation**

ACC is an equal opportunity employer and makes no discrimination on basis of tribe, caste, community, race, colour or gender. We hire and promote individuals on merit for each position compatible with the job requirement and treat the country as local.

#### 4.3 OCCUPATIONAL HEALTH & SAFETY



At ACC, we believe that OH&S is an integral part of our business and Safety is our License to lead. We have various safety management systems & programs like OH&S Pyramid, Fatality Prevention Elements (FPE's), Contractor Safety Management (CSM), Cardinal Rules, Safety Observation Tours (SOT's), Job Safety Assessments (JSA), etc. to ensure a systematic approach to inculcate OH&S into organization processes and to ensure involvement and participation of each employee of the organization in our journey towards Zero Harm.

Risk assessment process is integral part of any job/activity. We have in place risk assessment tools to help Line Managers to evaluate risk in their work areas and activities. This helps them to identify high risk areas and incorporate appropriate controls in place to reduce the risk. Hazard Identification and Risk Assessment (HIRA) workshops have been continued at sites to improve skills of employees on management of Hazards to reduce risk. Apart from our own employees, contractors are being involved in HIRA workshop, which shows a remarkable change in the attitude of contractors towards safety.

A pocket size card called "Job Start Card" has been introduced presently in six cement plants to provide employees with a simple to follow and quick risk assessment tool at fingertips. Risk Assessment Teams (RATs) have been introduced at all the sites, which are dedicated teams of personnel, trained to conduct systematic risk assessments of hazards identified in the workplace.

A Behaviour based safety training program "ACC Chetna" was launched in June 2012. In this program the employees were trained to practice 5 simple behaviours that can prevent injuries at workplace as well as at home. We have covered more than 16000 employees including contract workmen in the program resulting in improvement in safety behaviours.

Visible Safety Leadership programs have been conducted across business units for senior line managers with special emphasis given to Top Management. The program comprises of practical exercises and interactive sessions and prepares line managers to be a role model to their subordinates by leading safety visibly in the field.

Concept of Safety Champions has been successfully established and aims to involve and engage line managers in safety by way of execution of short term safety projects in a deputed site. Approx. 178 line managers have been trained and worked as Safety Champions.

A concept of “Safety Circle” has been rolled out across ACC plants to promote safety ownership amongst line management. The intent of this concept was to involve as well as to engage shop floor employees including contractor workforce to identify safety concerns and execute safety projects for focused improvements in their respective work areas.

The design safety aspects have been reviewed from time to time particularly for project work to ensure the technical integrity of our plants and equipments. Shut down protocols have been developed for addressing all applicable OH&S aspects during plant shut downs. Safety procedures for commissioning have been established for projects.

To improve our safety in Logistics a program entitled “Logistics Safety Excellence” was implemented from June 2012. The program focuses primarily on ensuring roadworthiness of contractor vehicles, training of drivers and the development of onsite traffic management systems along with amenities for drivers.

Our focus on Occupation Health has been on keeping our employees healthy, having effective sustainable Emergency Medical Response (EMR) system and making our work places healthy. The robust health surveillance system and pro-wellness programs on prevention of life style diseases, nutrition, fitness, No tobacco use, awareness for HIV/AIDS have started showing results in the form of reduction in health risk factors. Our pro wellness programs reached more than 7,500 employees, contractors and community members during the year. All the cement units have been profiled for health risk hazards by conducting industrial hygiene surveys. A unique initiative, “Safe & Healthy Student” has been rolled out all over ACC. To make the initiative sustainable, 300 teachers have been trained in wellness, nutrition, fitness, safety and first aid. The resultant initiatives have been incorporated in daily curriculum of the school and would be impacting the behaviour of about 9000 students.

Effectiveness of these different programs targeting critical areas was being reviewed by the Top Management every month. 2nd party and 3rd party audits were conducted to check the level of implementation of these safety programs apart from the plant internal audits.

**Goal Statement: To achieve zero fatality and sustain LTIFR of < 1 in 2013**

***LA6: Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs***

100% representation was ensured in formal joint management-worker health and safety committees. Each plant formed a site central safety committee comprising of equal representatives from the management as well as shop floor associates. The committee headed by the Director Plant, met every month to discuss various OH&S issues, review OH&S performance and plan initiatives. This forum enabled the

workmen to participate in the decision making process pertaining to Occupational Health and Safety issues of the plant.

**LA7: Rates of injury, occupational diseases, lost days, and absenteeism, and total number of work related fatalities by region and by gender**

As a step forward towards our long term goal of Zero Harm, we have moved out of the boundary line of our operations and started monitoring, reporting and investigating off-site incidents which occurred on the road involving transport vehicles carrying raw materials and products for us. The number of fatalities and lost time injuries which have increased are due to inclusion of off-site incidents. We have also put in place logistics safety initiative to address our concern areas and improve safety.

	2012	2011	2010
Fatality	12	3	8
LTIFR (Own and subcontracted employees)	0.43	0.31	0.65
LTISR (Own employees)	18.79	12.39	29.84
Occupational Diseases	No Case	No Case	No Case
Lost time injuries	22	18	32

*Note: The indicators are based on the definitions given by Cement Sustainability Initiative (CSI) of the World Business Council for Sustainable Development (WBCSD) which records lost time injuries when the injury results in person not being able to perform work for more than one day.*

**LA9: Health and safety topics covered in formal agreements with trade unions**

Health and safety forms are part of the standing orders signed by the unions. Issues of personal protective equipments, adherence to the established OH&S procedures, etc. have been made mandatory. Union representatives also participated in various OH&S decision making process and actively participated in site OH&S systems and practices like planned inspections, internal audits and incident investigations.

**Case Study: Safety : “ACC Chetna” : Being conscious about behavioural safety**

ACC Chetna is one of the most important OH&S initiatives of the year falling under Behaviour Based Safety program [BBS]. “Chetna” is a Hindi word which means ‘consciousness’. It is a people centric OH&S program to complement the existing traditional Safety Management programs in accident prevention and control.

‘ACC Chetna’ equips a person with a set of five specific behaviours, Eyes on Path; Eyes on Hands; Assess the Area; Line of Fire & Body Limits; which act as “Last Line of Defence” in accident prevention. These Life changing behaviors empower and encourage people to make Safe choices in their routine operations which prevent them from potential accidents. The key phrase of this program is ‘When we live Chetna, we benefit from Chetna’.

**Last Line of Defence Behaviours**



The program was implemented with two hour awareness session followed by high intensity reminders through various activities and forums. The first session of awareness program was conducted at Tikaria Plant. More than 16,000 personnel including employees and contract men have been covered in this program of awareness session. The global statistics suggest that programs like ACC Chetna are successful in curbing 90% of incidents involving these five behaviours.

## 4.4 FAIR BUSINESS PRACTICES

**ET 500 COVER STORY** WINTER 2012 DECEMBER

## Star Trek: The Dozen who Dazzled Despite the Slowdown

# A Cut Above the Rest

**A**s the character of Big Daddy in Tennessee Williams's play "Cat on a Hot Tin Roof" says, "When you've got pain, it's better to judge yourself, a lot of things".

When the animal spirits are roaring even a shoe-shine boy can make a million. So is the case with companies. All and sundry become investor darlings in a booming economy, but it is only when the tide turns that one finds out who has been swimming naked. The tide did turn and many have fallen by the way side in the last four years. But some are standing tall, and they will continue to do so for years to come. Not because they are monopolies in their respective markets, but because their values, business models, and management philosophies are such that they could weather the storm.

Resisting the temptation to keep up with the Joneses and being parsimonious helped them survive the economic debacle. ET spotlights a select dozen whose performance under pressure marks them out as a cut above the rest.

Indeed, the slowdown was an opportunity for them to weed out unwanted businesses and correct the mistakes of the past.

Fiscal 2012 was a difficult year for Indian corporates. Slowing economic growth, faltering industrial demand due to lower capital expenditure, a weak rupee offsetting the benefit of falling global prices of commodities, sliding export growth, and high interest rates weighed on growth and profitability of companies.

Recent policy decisions have come as a ray of hope, but they are just rays on the horizon. Till such time as

they translate into actual benefits on the ground, companies will have to continue to battle headwinds. The winners are those who are able to surmount these challenges.

The 2012 edition of ET 500 ranking showcases corporates that withstood the pressures of a post-subprime era when global markets seized. Some of the companies we have identified focused on

their core strengths by restructuring business lines and exiting non-core activities; others sought newer markets. There were no exceptions to slower revenue growth or the squeeze on profitability, but these companies remained financially sound and agile enough to rebound when the economy recovered.

### THE FLAG BEARERS

To identify these companies we analysed their performance over the last four years when the business environment was a testing one. Growth has faltered since 2008, at home and overseas. The current state of the global economy is not much different. In fact, it may turn worse if the Euro zone crisis blows up and if the US falls off the fiscal cliff. In the US, which saw some revival in relative terms, several economic parameters are nowhere near pre-sub prime levels. Though the number of jobs has come off historic highs, US firms have cut more jobs in 2012 than the year before.

If the global economy slips back into recession and India struggles to shake off its policy paralysis, there are only a few companies that could survive the double trouble.

We chose 12 companies which could sail the rough seas. They have not only survived the last slowdown, but are also in the pink of health to sustain long-term growth.

Some of them are large capitalised stocks such as Tata Consultancy Services, HDFC Bank, Sun Pharma, auto-component maker Bosch, cement producer ACC, drug-maker Lupin, and shampoo and hair-dye maker Godrej Consumer. Multinational companies such as lubricants player Castrol, and engines maker Cummins India are also on the best-run list. Then there are some that are small, but are still beautiful. Apollo Hospitals and Mahindra & Mahindra Financial Services are better positioned than their rivals.

### HOW WE SPOTTED THEM

An economic downturn makes it difficult to assess a company's financials over a number of years since it tends to skew the findings during the period of hardships. This was a major challenge while evaluating the performance in terms of growth in revenues, profits, cash flows and other financial parameters of ET 500 companies since 2008 — the year the world woke up to the economic realities of a credit binge.

For a more realistic picture we added the stock market performance of the compa-



6 [www.et500magazine.com](http://www.et500magazine.com)

ACC is among elite Indian organizations which have set high ethical standards in business transactions and are well known for their transparency and accountability. ACC works to achieve its overarching objective of creating a value for all stakeholders and fulfilling their aspirations by adopting ethical governance practices and actions. This approach has earned the company the trust and goodwill of all its stakeholders - customers, investors, associates, employees, government and the communities in which it operates.

### Internal Control Systems

A major initiative pertaining to the Governance, Risk and Compliance Module (GRC) which was initiated in 2011, contribute significantly in enhancing the IT Governance framework. Similarly a tool for automation and e-monitoring of legal compliance lead to efficient processing. Internal Audit Department assesses

the risks related to corruption through regular internal audits and checks, based on a well structured risk assessment approach. This helps in ensuring that Internal Control Systems (ICS) were in place and the responsibilities were being discharged effectively. In 2012, 167 key controls were tested at 12 locations. The testing methodology and documentation is reviewed and validated by the Company's external auditors. Potential fraud risk areas, their probability and impact are a vital input for the risk assessment. The testing methodology and documentation is reviewed and validated by the Company's external auditors. The Audit Committee of the Board also reviewed the adequacy and efficacy of internal control systems. (SO<sub>2</sub>)

#### ***Fraud Risk Management***

The company has endorsed a Fraud Risk Management (FRM) Policy since January 2009. For implementation, a Fraud Risk Management committee has been formed chaired by the Company Secretary with Head Legal and Chief Internal Auditor as members. The committee reviews and takes appropriate action on suspected cases of fraud or misconduct. Anyone with knowledge of any incident of misconduct or fraud can communicate with the committee in confidence through a dedicated e-mail/Fax and hotline or by letter. To make employees aware about FRM policy, it has also been uploaded in the intranet portal. In addition several trainings were undertaken along with display of posters at prominent locations in units and uniform screensavers on computers. (SO<sub>3</sub>)

#### ***Corruption***

In the year 2012, one employee colluded with a vendor to receive undue benefit. His employment was terminated. (SO<sub>4</sub>)

#### ***SO5: Public policy positions and participation in public policy development and lobbying***

- a. **Technology Road map for Low Carbon Economy for Indian Cement Sector:** ACC continued to work closely with other members of the Cement Sustainability Initiative (CSI) of the World Business Council for Sustainable Development (WBCSD) as well as a host of external stakeholders with technical expertise by the Confederation of Indian Industry (CII) and the National Council for Cement and Building Materials (NCBM) in the development of a technology road map for a low carbon economy for the Indian cement sector. The exercise is part-funded by International Finance Corporation (IFC). Twenty-seven papers were developed as part of the road map explaining opportunities to drive the industry towards a low carbon economy with thread-bare discussions on each and every paper, taking and improvising based on feedback from all stakeholders. ACC was Co-chair for the initiative along with UltraTech Cement and Shree Cement. The document was released during January 2013
- b. **Carbon Disclosure Project (CDP):** ACC has participated in this project since 2009. This is an international platform where organizations voluntarily disclose their performance in respect of aspects such as corporate governance, climate change strategy, targets and initiatives, climate change communication methodology, climate change risks and opportunities, emissions measurement methodology, details of CO<sub>2</sub> emissions, energy portfolio, emissions performance, and emissions trading. In India CDP Disclosure 2012, the company ranked second in the materials sector and an overall 12th in the country.
- c. **PAT Scheme:** As an expert committee member, we are working with the Bureau of Energy Efficiency in the PAT Scheme and the way forward for carrying out the audits etc.,

- d. **Development of SO<sub>2</sub>, NO<sub>x</sub> Standards:** We are working closely with Ministry of Environment & Forest (MoEF) and Central Pollution Board (CPCB) along with Industry, Industrial bodies like Confederation of Indian Industries (CII), Cement Manufacturers association in developing these standards
  - e. **United Nations Water Tool:** We are co-chairing the development of United Nations water tool
- United Nations Global Compact (UNGC):** ACC is a signatory of UNGC and makes public disclosure on adherence to UNGC principles and makes public disclosure of these through Communication of Progress

***Anti-competitive, Anti-trust and Monopoly practices***

There are four matters against ACC under the Monopolies and Restrictive Trade Practices (MRTP) Act and two under the Competition Act, in which the company is arraigned with other cement manufacturers and the Cement Manufacturers' Association. In two matters, the company had appealed in the Supreme Court against the orders of the MRTP Commission and these appeals are pending hearing. The Competition Commission of India published an order on June 21, 2012 against eleven cement manufacturers including ACC and the Cement Manufacturers' Association imposing a penalty of half of the profit for the year 2009-10 and 2010-11. For ACC the amount works out to ₹ 1147.59 crores. The company is deeply aggrieved by this verdict and is preparing to appeal against the order before the competent authority. The company strongly believes that the penalty thus sought to be imposed on it is unjust and harsh and that the allegations in the order appear to be based on presumptions that are not supported by facts or evidence. Enquiry is in progress before the concerned body in the remaining matters. In all these matters, ACC maintains that it has always operated independently and has never been a part of any cartel as alleged. (SO7&SO8)

#### 4.5 PRODUCT RESPONSIBILITY



We strive to ensure that the health and safety issues related with our products is understood and responded to over its different life cycle stages. These have been defined and include: Development of product concept, R&D, Certification, Manufacturing & Production, Marketing & Promotion, Storage, Distribution & Supply, Use & Service, Disposal, Reuse and Recycling. Periodic health check-ups are ensured for employees at the manufacturing units. Safety parameters are tracked on a regular basis at all units through a well established monitoring mechanism.

On the product application side, mason trainings were conducted by the Customer Service teams focusing on safety and health risks. During the year 10000+ masons were exposed to such trainings.

Regarding type of product and service information required by procedures, ACC complies with all information required under BIS, Weights and Measures norms. We also comply to Advertising Standards Council of India guidelines for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship. For complaints regarding breaches of customer privacy and losses of customer data, ACC has a secure general complaint registration system in place which can be accessed by authorized personnel only.

**PR1: Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.**

	Product Life Cycle								
	Development of product concept	R&D	Certification	Manufacturing & Production	Marketing & Promotion	Storage Distribution & Supply	Use & Service (Product Application)	Use & Service (Usage of buildings)	Disposal, Reuse or Recycling
Risk				Exposure to dust		Exposure to dust, improper handling of cement	Chemical/ Dust; disposal of empty packaging		
Status/ Comments				Dust control systems in place at plants.  Lung function test, audiometry, ECG, X-ray, etc. carried out twice a year for high exposure risk employees & once a year for all others at the manufacturing units.		Safety & house keeping at w/h monitored. Periodic safety observation tours & warehouse safety audits conducted.  Training proposed for unloading labour at warehouse for precautions during handling.	Mason training modules cover safety and health risks through practical training, PPE distribution and site compliance. Carried out mason health check ups at site.		

**PR2: Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services, by type of outcomes**

	Incidents of non compliance with regulations resulting in fine or penalty	Incidents of non compliance with regulations resulting in warnings	Incidents of non compliance with voluntary codes
Status	No non-compliance with respect to our internal safety standards		
Comments/ Update	Tracking of incidents/ near misses for manufacturing & production; LTI for distribution being tracked  Near miss reporting at plants undertaken comprehensively.		

**PR3: Type of product and service information required by procedures and percentage of significant products and services subject to such information requirements**

	The sourcing of components of product or service	Content, particularly with regard to substances that might produce an environmental or social impact	Safe use of the product or service	Disposal of the product & environmental/ social impacts
Status/ Comments	All information required under BIS, Weights and Measures norm complied with by ACC in 2012.			

***PR4: Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labelling, by type of outcomes***

No incidents of non-compliance were observed. ACC currently manufactures PSC, PPC and OPC cement as per the specification of Bureau of Indian Standard (BIS) and as per the norms; bags normally contain information about the grade, year of manufacture, weight, lot number, week of manufacture and MRP (Maximum Retail Price) under the prescribed rules laid down by Standard of Weights and Measures Act. It is ensured to indicate complete information about the product quality and services (e.g. sharing of test certificates) on a regular basis.

***PR6: Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship***

ACC conforms to the guidelines of Advertising Standards Council of India, a self regulatory voluntary organization of the advertising industry. ACC ensures that only tested and proven product capabilities are claimed in its communication.

***PR7: Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotions and sponsorship by type of outcomes***

No non-compliance with regulations and voluntary codes concerning marketing communications reported during the year 2012.

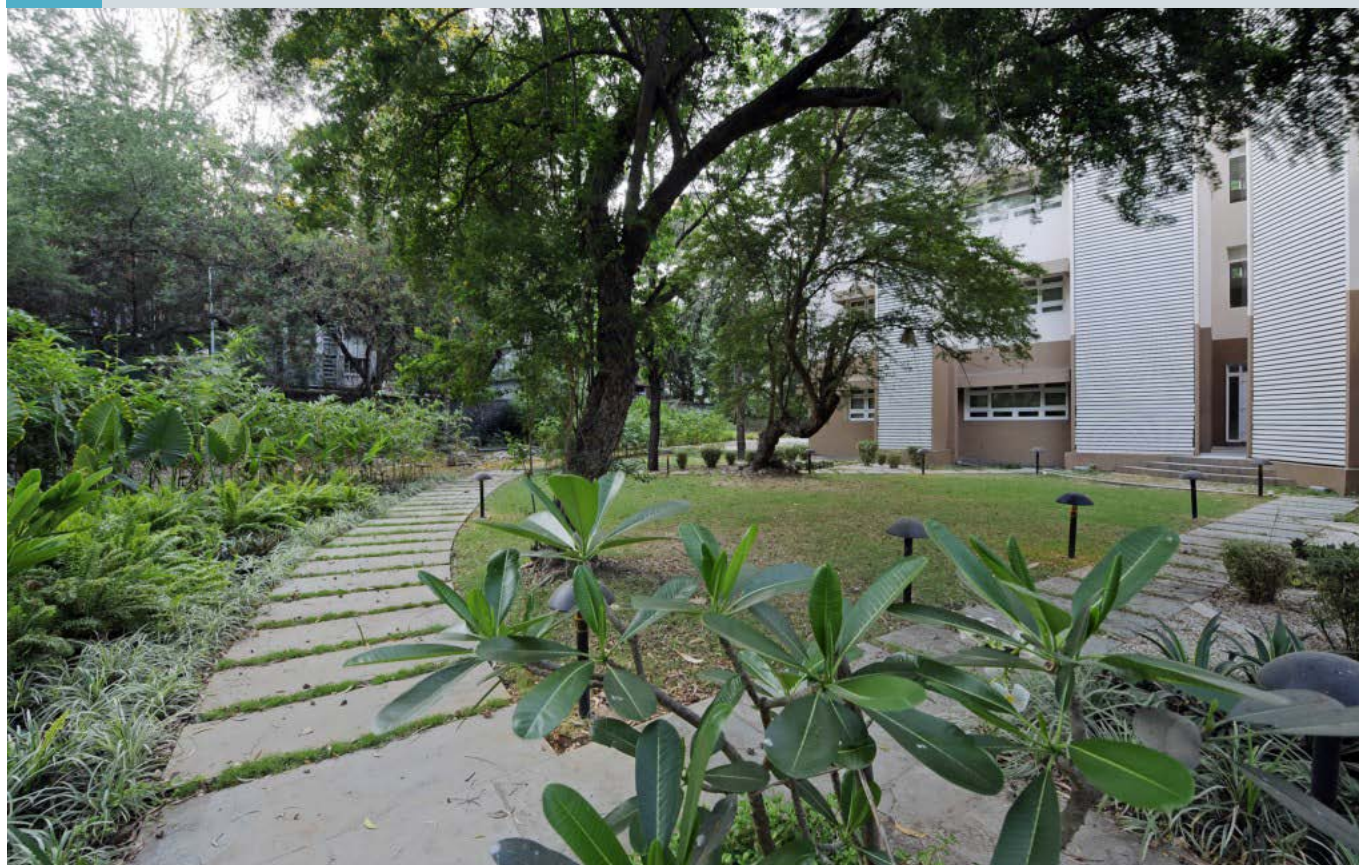
***PR8: Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data***

No complaints received in this regard. ACC has a secure general complaint registration system in place; the present CCS (Customer Complaint System) system can be accessed by authorized personnel only. ACC also has a service guideline clearly emphasizing on maintaining confidentiality of internal data/ information, including any customer related information.

***PR9: Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services***

ACC has Competition Act, BIS, Weights & Measures compliances in place and has not evidenced incidents of fines or non-compliances.

# 5 THE ROAD AHEAD



Goals 2013 Alternative Fuels & Raw Materials	PLAN
<p>Increase Total Substitution Rate (TSR) to 4.12% by 2013 from the base of 0.6% in 2009.</p>	<p>a) Stakeholder alignment on the co-processing technology through interactive meets. Recognition of co-processing as preferred technology in waste management rules.</p>
	<p>b) Awareness generation and capacity build-up through training programs.</p>
	<p>c) Communication plan to align all the stakeholders on benefits of AFR co-processing.</p>
<p><b>ENERGY (FOSSIL FUELS AND ENERGY EFFICIENCY)</b></p> <p>5% reduction in specific power consumption per ton of cement by 2013 from a base of 91 KWH in 2009</p> <p>Increase the % share of Renewable Energy capacity to total Captive Power capacity from 6% in 2009 to 15% by 2013</p>	<p>a) To conduct Energy Audits at all our plants and identify potential areas</p>
	<p>b) Installation of Waste Heat Recovery Systems</p>
	<p>c) Installation / Acquisition of Wind farms and hydro power plants</p>
	<p>d) Installation of Energy Management Systems</p>
	<p>e) Use of Variable Frequency Drives for major electrical machines</p>
	<p>f) Optimisation through effective load management</p>
	<p>g) Encouraging innovation in energy conservation</p>

GOAL 2013	PLAN
<b>LEGAL COMPLIANCE</b> To be the most respected cement company in India and one of the most reputed corporate entities	a) Rollout VCCE (Value Creation in competitive Environment) initiative to create awareness and ensure compliance to competition law b) Conduct Fair Competition Review every year c) Impart Fair Competition Training to all relevant employees d) Regularly monitor and review compliance to competition law
<b>SUSTAINABLE CONSTRUCTION</b> To promote usage of blended cement in all forms of construction, as green cement To position ACC as a responsible company that promotes sustainable construction. To maintain lead rank in share of blended cement to total cement production. (in 2009 ACC produced 91% blended cement against industry average of 75%)	a) Development of communication modules having a mix of films, presentations and support materials suitable for different stakeholder groups b) Regularly monitor improvement in awareness c) Sponsor researchers in usage of blended cement d) Promote approval for composite cement
<b>WATER, WASTE MANAGEMENT &amp; TRANSPORT</b> Zero discharge of effluents 10% reduction in specific water consumption per ton of cement on the base of 2010-11	a) Install monitoring systems for water and establish baseline consumption b) Install Waste Water treatment plants c) Water harvesting initiatives at plants, mines, colonies and nearby communities d) Install Air Cooled condensers for CPP instead of conventional water cooling towers in water deficit locations e) Usage of recycled water for Mill Sprays f) Supplying good drinking and irrigation water to nearby villages - as part of CSR activity g) Promote innovation in water saving projects

## 6 ANNEXURES

### 6.1 GRI CONTENT INDEX

GRI No	Description	Chapter
<b>1</b>	<b>Strategy &amp; Analysis</b>	<b>1.2</b>
1.1	Statement of Chairman & CEO	
1.2	Description of key impacts risks and opportunities	1.2
<b>2</b>	<b>Organisational Profile</b>	<b>1.1</b>
2.1	Name of the organization	1.1
2.2	Primary brands, products, services	1.1
2.3	Operational structure	1.1
2.4	Location of organisation's headquarters	1.1
2.5	Number of countries where organisation operates	1.1
2.6	Nature of ownership and legal form	1.1
2.7	Markets served	1.1
2.8	Scale of reporting organization	1.1
2.9	Significant changes during reporting period	1.1
2.10	Awards received	1.4
<b>3</b>	<b>Report Parameters</b>	<b>1.6</b>
	<b>Report profile</b>	
3.1	Reporting period	1.6
3.2	Date of most recent previous report	1.6
3.3	Reporting cycle	1.6
3.4	Contact point for questions	1.6
	<b>Report Scope and Boundary</b>	
3.5	Process for defining report content	1.6
3.6	Boundary of Report	1.6
3.7	Limitations	1.6
3.8	Basis for reporting on joint ventures, subsidiaries, etc	1.6
3.9	Data measurement techniques and assumptions	1.6
3.10	Explanation of the effect of re-statements	1.6
3.11	Significant changes in reporting	1.6
	<b>GRI Content Index</b>	<b>6.1</b>
3.12	Table identifying location of standard disclosures	6.1
3.13	Policy and current practice regarding external assurance	1.5
<b>4</b>	<b>Governance, Commitments, and Engagements</b>	<b>1.8</b>
4.1	Governance structure	1.8
4.2	Whether the Chair of the highest governance body is an executive officer	1.8
4.3	Number of independent and non-executive members	1.8
4.4	Mechanisms for shareholders and employees	1.8
4.5	Linkage between compensation and organisation's performance	1.8
4.6	Processes to avoid conflicts of interests	1.8

GRI No	Description	Chapter
4.7	Process for determining the qualifications and expertise of members of the highest governance body for guiding organizational strategy economic, environment and social topics	1.8
4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environment and social performance	1.8
4.9	Procedures for overseeing, identification and management of economic, environment and social performance including risks and opportunities	1.8
4.10	Processes for evaluating the highest governance body's performance	1.8
	Commitments to External Initiatives	
4.11	Explanation of whether and how the precautionary approach of principle is addressed	1.2
4.12	Externally developed economic environment and social charters which the organisation endorses	1.5
4.13	Memberships in associations	1.8
	Stakeholder Engagement	
4.14	List of stakeholder groups	1.6
4.15	Basis for identification and selection of stakeholders	1.6
4.16	Approach to stakeholder engagement	1.6
4.17	Key topics and concerns raised through stakeholder engagement	1.6
<b>5</b>	<b>Management Approach and Performance Indicators</b>	
	<b>ECONOMIC</b>	<b>2</b>
	Management Approach	
	Performance Indicators	
EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments	2.1
EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change	2.1
EC3	Coverage of the organization's defined benefit plan obligations	2.1
EC4	Significant financial assistance received from government	2.1
EC5	Range of ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation	4.2
EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation	2.3
EC7	Procedures for local hiring and proportion of senior management hired from the local community at locations of significant operation	4.2
EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, inkind, or pro bono engagement	4.1

GRI No	Description	Chapter
EC9	Understanding and describing significant indirect economic impacts, including the extent of impacts	4.1
	<b>ENVIRONMENTAL</b>	<b>3</b>
	Management Approach	
	Goals and Performance	
	Policy	
	Organizational Responsibilities	
	Training and Awareness	
	Performance Indicators	
EN1	Materials used by weight or volume	2.4
EN2	Percentage of materials used that recycled input materials	3.5
EN3	Direct energy consumption by primary energy source	3.1
EN4	Indirect energy consumption by primary source	3.1
EN5	Energy saved due to conservation and efficiency improvements	3.1
EN6	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives	3.1
EN7	Initiatives to reduce indirect energy consumption and reductions achieved	3.1
EN8	Total water withdrawal by source	3.6
EN9	Water source significantly affected by withdrawal of water	3.6
EN10	Volume of water recycled and reused	3.6
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas	3.4
EN13	Habitats protected or restored	3.4
EN14	Strategies, current actions, and future plans for managing impacts on biodiversity	3.4
EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk	3.4
EN16	Total direct and indirect GHG emissions by weight	3.2
EN17	Other relevant indirect greenhouse gas emissions by weight	3.2
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved	3.2
EN19	Emissions of ozone depleting substances	3.3
EN20	NO, SO, and other significant air emissions by type and weight	3.3
EN21	Total water discharge by quality and destination	3.6
EN22	Total weight of waste by type and disposal method	3.6
EN23	Total number and volume of significant spills	3.6
EN24	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally	3.6

GRI No	Description	Chapter
EN25	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff	3.6
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation	3.5
EN27	Percentage of products sold and their packaging materials that are reclaimed by category	2.2
EN28	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations	3.6
EN29	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce	2.2
EN30	Total environmental protection expenditures and investments by type	3.6
<b>SOCIAL PERFORMANCE</b>		<b>4</b>
	Labour practices and decent work	
	Management Approach	
	Goals and Performance	
	Policy	
	Organisational responsibility	
	Training and Awareness	
	Monitoring and Follow-up	
	Performance Indicators	
LA1	Total workforce by employment type, employment contract, and region, broken down by gender	4.2
LA2	Total number and rate of new employee hired and employee turnover by age group, gender, and region	4.2
LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation	4.2
LA4	Percentage of employees covered by collective bargaining agreements	4.2
LA5	Minimum notice period(s) regarding operational changes, including whether it is specified in collective agreements	4.2
LA6	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs	4.3
LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of workrelated fatalities by region and by gender	4.3
LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases	4.1
LA9	Health and safety topics covered in formal agreements with trade unions	4.3
LA10	Average hours of training per year per employee by gender, and by employee category	4.2

GRI No	Description	Chapter
LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	4.2
LA12	Percentage of employees receiving regular performance and career development reviews, by gender	4.2
LA13	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	4.2
LA14	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation	4.2
LA15	Return to work and retention rates after parental leave, by gender	4.2
<b>Human Rights</b>		<b>4</b>
	Management Approach	
	Goals and Performance	
	Policy	
	Human Rights Performance Indicators	
HR1	Percentage and total number of significant investment agreements and contracts that include clauses incorporating human rights concerns, or that have undergone human rights screening	2.3
HR2	Percentage of significant suppliers, contractors and other business partners that have undergone human rights screening, and actions taken	2.3
HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained	4.2
HR4	Total number of incidents of discrimination and corrective actions taken	4.2
HR5	Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights	4.2/2.3
HR6	Operations and significant suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor	4.2/2.3
HR7	Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor.	4.2/2.3
HR8	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations	4.2
HR9	Total number of incidents of violations involving rights of indigenous people and actions taken	4.2
HR10	Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments	4.2
HR11	Number of grievances related to human rights filed, addressed and resolved through formal grievance mechanisms	4.2

GRI No	Description	Chapter
	<b>Society</b>	<b>4</b>
	Management Approach	
	Goals and Performance	
	Policy	
	Organizational responsibility	
	Training and Awareness	
	Monitoring and follow up	
	Society Performance Indicators	
SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs	4.1
SO2	Percentage and total number of business units analyzed for risks related to corruption	4.4
SO3	Percentage of employees trained in organization's anti-corruption policies and procedures	4.4
SO4	Actions taken in response to incidents of corruption	4.4
SO5	Public policy positions and participation in public policy development and lobbying	4.4
SO6	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country	4.4/2.1
SO7	Total number of legal actions for anticompetitive behavior, anti-trust, and monopoly practices and their outcomes	4.4
SO8	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with laws and regulations	4.4
SO9	Operations with significant potential or actual negative impacts on local communities	4.1
SO10	Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities	4.1
	<b>PRODUCT RESPONSIBILITY</b>	<b>4.5</b>
	Management Approach	
	Goals and Performance	
	Organizational Responsibility	
	Training and Awareness	
	Product Responsibility Performance Indicators	
PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures	4.5
PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes	4.5
PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements	4.5

GRI No	Description	Chapter
PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes	4.5
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction	2.2
PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship	4.5
PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes	4.5
PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	4.5
PR9	Monetary value of significant fines for noncompliance with laws and regulations concerning the provision and use of products and services	4.5

## 6.2 UN GLOBAL COMPACT PRINCIPLES

ACC signed the United Nations Global Compact in 2006. The table below lists the ten principles of the UNGC and indicates the relevant chapter of this report where the organization's activity with respect to each principle is addressed. To that extent, this table and the report also serve as a Communication on Progress (COP) required to be disclosed by signatories of the UNGC

UN Global Compact Principle		
Sl.No	Principle	Chapter
Human Rights		
1	Businesses should support and respect the protection of internationally proclaimed human rights; and	4.2, 4.4
2	Make sure that they are not complicit in human rights abuses	
Labour Standards		
3	Business should uphold the freedom of association and the effective recognition of the right to collective bargaining	4.2, 4.4
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	1.2, 1.7, 2.4, 3.1 to 3.7
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	1.9, 4.5

## 6.3 GLOSSARY

**Absolute Gross Emissions** - Total amount of CO<sub>2</sub> emissions from cement production activities

**Absolute Net Emissions** - Gross CO<sub>2</sub> emissions minus credits for indirect savings such as by use of alternative waste materials as fuel

**ENERGY (Alternative Fuels & Raw Materials)** - Inputs to clinker production derived from waste streams contributing energy and/or resource recovery

**ASSOCHAM** - The Associated Chambers of Commerce and Industry of India, A prominent umbrella body of the Chambers of Commerce of India, providing a forum for dialogue between business and government

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

**BCC** - Bombay Chamber of Commerce

**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

**Capacity building** - The process of creating an enabling environment for social development with appropriate policy and legal framework, human resource development, community participation and strengthening of local systems, institutions and bodies in which all stakeholders participate

**Carbon Disclosure Project** - A United Kingdom based organization which holds largest collection of globally self reported climate change information about greenhouse gas emissions

**Castor** - A type of tree which produces the castor bean that yields castor oil. This oil is one of hard oils, where the oil content in the seed is relatively high. Castor oil's numerous chemical derivatives are "renewable sources, bio-degradable and eco-friendly"

**CDM** - Clean Development Mechanism is a flexible scheme provided in the Kyoto Protocol that assists countries and business entities in achieving compliance with their quantified emission limitation and reduction commitments

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

**CER** - Certified Emission Reduction, a type of tradable carbon credit issued in lieu of emission reduction achieved by projects qualifying under the Clean Development Mechanism (CDM)

**CII** - Confederation of Indian Industry, is a non-government, not-for-profit, industry-led and industry-managed organisation, that facilitates dialogue with industry and government

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

**Clinker Factor** - The percentage of clinker in cement

**Community Advisory Panel** - A group of persons selected to represent the target community whose views are considered as being representative of the community in matters concerning its social needs and development schemes

**Community 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

**Concrete** - A building material produced by mixing Portland cement, water and aggregates comprising sand and gravel or crushed stone. Cement acts as a binder. The average cement content in concrete is about 15%

**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 employees, their families, the local community and society at large to improve their quality of life. In some cases, we have used this term to refer to community development and engagements

**CSI** - Cement Sustainability Initiative

**Eco-Efficiency** - Reduction in the resource intensity of production, i.e. the input of materials, natural resources and energy compared with the output: essentially, doing more with less

**FICCI** - The Federation of Indian Chambers of Commerce and Industry, an association of business organizations in India

**FIMI** - Federation on Indian Mineral Industries

**Fly Ash** - Waste particulate residue from thermal power plants or incineration plants  
**Focus Group** - A form of qualitative research, which involves interviews and interaction with a representative sample of community or population segment

**Fossil Fuels** - Non-renewable carbon-based fuels traditionally used by the cement industry, including coal and oil

**Global Reporting Initiative (GRI)** - An International framework recommended for reporting progress against Sustainable Development G3.1 refers to the guidelines launched in April 2011. A newer version G4 was announced in May 2013

**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

**GTZ** - Deutsche Gesellschaft für Technische Zusammenarbeit or German Technical Cooperation, an international cooperation enterprise specializing in technical cooperation for sustainable development

**HGRS** - Holcim Group Support Services

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

**Jatropha** - A genus of plants and trees whose fruit and seeds contain oil which serves as a replacement of fossil fuels. They are amenable to bio-diesel production

**Kiln** - Large industrial oven for producing clinker used in the manufacture of cement. In this report, “kiln” always refers to a rotary kiln

**LEED™ Rating System** - Leadership in Energy and Environmental Design is a self assessing system designed for rating new and existing commercial, institutional, and high-rise residential buildings. It evaluates environmental performance from a “whole building” perspective over a building’s life cycle, providing a definitive standard for what constitutes a green building

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

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

**Materiality** - Topics and indicators that reflect the organization’s significant economic, environmental, and social impacts or that would substantially influence the assessment and decisions of stakeholders. According to GRI guidelines, Materiality is the threshold at which an issue or indicator becomes sufficiently important that it should be reported

**Millennium Development Goals** - A UN Declaration signed in 2000 comprising eight International Human Development Goals to be achieved by 2015

**NAPCC** - National Action Plan on Climate Change, a document released in June 2008 outlining India’s strategy to meet the challenge of climate change

**NCBM** - National Council for Building Material

**NO<sub>x</sub>** - A generic term for Nitrogen oxides, usually refers to it as an air pollutant  
**Occupational Health and Safety (OH&S)** - Policies and activities to promote and secure the health and safety of employees, subcontractors, third parties and visitors

**Ordinary Portland Cement (OPC)** - Cement that consists of approximately 95 % ground clinker and 5 % gypsum

**Photovoltaic Cell** - An electronic component which generates electrical tension (or voltage) when exposed to light and can therefore be used to produce electricity. These cells produce a constant current with an average voltage of 0.5V

**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

**Ready Mix Concrete (RMX)** - Concrete that is specifically manufactured for delivery to the construction site in a freshly mixed and plastic or unhardened state

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

**SO<sub>2</sub> Sulphur Dioxide** - A term for sulphur dioxide, usually refers to it as an air pollutant

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

**Stakeholder Dialogue** - A structured way to solicit feedback from a company's stakeholders, typically by inviting them to comment on specific issues or problems

**Stakeholder Engagement** - The process by which an organization 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** - The ability to plan for and continually meet the needs of the present day without compromising the ability of future generations to meet their own needs

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

**TERI** - The Energy & Resources Institute, a global think tank and research institute that works in the areas of energy, environment and sustainable development

**TECHPORT** - Technical centre for ACC & ACL which provides consultancy services in various activities during cement manufacturing

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

**WBSCD** - World Business Council for Sustainable Development

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