Sustainability Report 2016-17

Responsible Infrastructure

HCC

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About the Report

Responsible Infrastructure 2016-17 is the eighth annual sustainability report of Hindustan Construction Company's (HCC – Engineering & Construction business). We have prepared this report 'in accordance' with the Core option of GRI G4 Guidelines. The report presents management disclosure and performance highlights on the key sustainability issues material to the company. The reporting period is the financial year ending on March 31, 2017.

This report includes the ninth consecutive annual 'Communications on Progress' (COP) on the United Nations Global Compact's CEO Water Mandate Initiative, covering the same reporting period.

The report has undergone limited assurance (as per AA 1000 AS standard) by Thinkthrough Consulting Pvt. Ltd., an independent professional services firm.

Our reporting boundary is inclusive of all HCC (Engineering & Construction) projects in progress during the reporting year. Any exceptions in boundary with respect to specific performance indicator are clearly mentioned within the report.

We hope this report provides an insight into our approach to sustainability and our achievements to all stakeholders, and we will strive to continue enhancing our sustainability disclosures going ahead. Any feedback and queries are welcome, and may be directed to:

Aditya Patwardhan
Assistant General Manager – Corporate Social Responsibility
aditya.patwardhan@hccindia.com

Message from the Chairman & Managing Director

Dear Reader,

In the fast evolving global landscape, sustainability has also progressed. It is no longer enough for a company to focus on its direct footprint. Achieving economic, social and environmental performance in today's dynamic business scenario requires a long-term corporate social responsibility and sustainability strategy that is executed with rigour year after year.

I am happy to present HCC's 8th Sustainability Report. The 2017 report reaffirms our commitment to triple bottom line performance. This report is inclusive of our 9th consecutive Communication on Progress (COP) on the U.N. Global Compact's CEO Water Mandate, to which HCC is a signatory. The report is independently assured and is based on the international Global Reporting Initiative (GRI) G4 guidelines.

This report highlights a number of crucial infrastructure projects that demonstrate how we integrate sustainability into the way we work - delivering better outcomes for our customers and the societies that benefit from them.

The biggest challenge faced by businesses today is maintaining the balance between progress and the planet's wellbeing. It is incumbent on every company to address challenges such as climate change, depleting natural resources, especially water, as well as rising energy demand and environmental pollution - our planet is facing. While it is imprudent to abandon development and growth targets, the solution would be to reduce and retard the impacts of problems in question within the framework of rational and systematic approaches.

At HCC, we regard sustainability as our responsibility to enhance the positive effects of our projects and to avoid or alleviate the negative ones. Our belief is that we are not just delivering a physical asset to our customers and communities, but also an enabling environment that will benefit them in the long term.

On the economic front, the government has taken a series of initiatives showing a revival of the infrastructure sector in India. The government has fast-tracked clearances for stalled projects and closely monitoring these at the highest levels. The Cabinet Committee on Economic Affairs has approved a series of initiatives which ought to help in improving liquidity and introduce much needed reforms in the business of contracting. In last union budget the outlay on infrastructure has substantially increased to ₹ 3.96 trillion.

In this business environment, HCC adopted a two-pronged strategic approach. On the one hand, it looked inwards to create a more competitive and resilient enterprise with clear focus on developing processes, people and a strong performance driven organisation culture. On the other, it leveraged the best mix of revised policy and regulatory measures to streamline cash flows and create a suitable platform for continuing business operations efficiently and servicing market opportunities.

On the environment front, besides meeting all the statutory norms in the project operations, HCC is continuously honing it's abilities to develop technologically-enhanced solutions, use innovations and technology absorption & adaptation that improves the efficiency and optimally use natural resources.

Simultaneously, social factors such as the inclusion of the local communities, maintenance of a high standard of safety and human capital development had been some of our focus areas.

In 2016-17, HCC continued its commitment to the UN – CEO Water Mandate, with improved water use efficiency across operations, accompanied by a community-based water conservation intervention which conserved more than 1000 million litres of water. With these efforts, we have maintained Water Positive status for the third year consecutively with a neutrality index of over 1.

With "Responsible Infrastructure" as our moto, we recognise the importance of responsible and holistic communications of our non-financial performance with our internal and external stakeholders. We will continue to have partnerships across industry, government, education and civil society to ensure we are preparing our communities to thrive in this changing world.

Ajit Gulabchand
Chairman and Managing Director

Message from President and CEO

Dear Reader,

In today's rapidly changing world, we are confronted with several challenges, such as how best to protect and conserve the environment while managing our bottom-line and driving operational excellence to deliver responsible infrastructure. At HCC, sustainability commitment is an integral part of our business strategy. I am delighted to present our sustainability report for the FY 2016-17.

We are in the business of infrastructure projects, envisaging employment of vast resources of men, material and equipment at different locations for a specific period of time. This calls for a two pronged strategy – a long term at the organisational level and a medium or short term at the project level while adopting sustainability practices.

While achieving our growth targets, we ensure optimization of the inherent risks and maximizing value for stakeholders across the spectrum without compromising on values of good corporate citizenship. We have adopted sustainable construction practices, ensured prudent use of natural resources, minimized the impact on the environment and aimed at preserving the eco-system. To provide sustenance to communities around our project locations, we partner with society and ensure that they thrive along with our business.

Our sustainable business practices begin at the procurement stage. We have imbibed the principle of optimal utilization of critical natural resources in our material procurement practice. This includes reuse of materials, minimizing waste generation and sourcing locally to the extent possible in order to decrease avoidable long-distance transport. We are also cognizant of our energy consumption and aim to optimize it by adoption of energy efficient practices through the use of latest technology and engineering innovations.

In the year under review, we adopted various energy efficient practices such as optimized concrete ingredients, material integrated designs, developing alternative construction methods and less energy intensive construction techniques that helped us prudent use of natural resources. Some noteworthy achievements has been usage of Roller Compacted Concrete (RCC) technology at Teesta-IV Low Dam Project and pumping of self-compacting concrete at Sainj Hydro power project where we created a world record in long distance concrete pumping.

As we deliver complex infrastructure projects, safety is of overriding importance to our operations. Our recently introduced Proactive Safety Observation Programme and Behaviour Based Safety programme are yielding good results in the way safety has been observed at all HCC project sites.

Our community development initiatives are focused towards building India's social infrastructure, with improvements in the areas of healthcare, water, sanitation, education and skill development.

We welcome you to pursue through the details of our sustainability performance, and we hope you will find the same illuminating.

Arun Karambelkar
President and CEO

G4-1, G4-6, G4-19, G4-24, G4-26, G4-27,

Organisational Overview

Hindustan Construction Company Ltd. (HCC), headquartered in Mumbai, Maharashtra, has over 90 years legacy of successful execution of large and complex infrastructure projects of national importance. The company has constructed a majority of India's landmark infrastructure projects, having constructed 25% of India's Hydel Power and over 65% of India's Nuclear Power generation capacities, over 3800 lane km of roads and highways, more than 320 km of complex tunnelling and over 365 major bridges till June 2017.

Over last 9 decades, the Company has developed proficiencies in the field of Power, Water, Transportation and Industrial Construction.

HCC has been the first Company in the Construction Sector of India to implement ISO certified Quality, Occupational Health & Safety and Environment Management Systems and robust Corporate Governance norms. HCC has also achieved the fastest implementation of SAP(Systems Applications and Products in Data Processing), ERP(Enterprise Resource Planning) across its entire project locations, some even at record breaking altitudes of 11,000 feet in the Himalayan ranges.

Power

Hydro Power:

HCC provides end-to-end turnkey construction solutions for hydro power projects including design & detailed engineering, procurement, civil-hydro electrical – electro mechanical works as well as control & instrumentation works. Our constructions include dams, barrages, powerhouses, shafts, tunnels and canals.

- Built 25% of India's installed hydro power capacity
- Constructed 320 km of tunnels out of which180 km lie in Himalayan geology
- Built 47 dams and barrages, 23 surface and underground power stations
- 7 EPC projects: Kishangnaga HEP, Tehri PSP, Dagachhu HEP, Sainj HEP, Vishnughad HEP, Nikachhu HEP & Sawalkote HEP

Nuclear Power

HCC is India's leading nuclear power plant constructor and acknowledged associate for developing nuclear plant construction technologies. It has associated with India's nuclear power generation programme right from its inception.

- Constructed India's first indigenously built nuclear power plant at Kota.
- Built 15 out of 24 nuclear reactors in India
- Involved in construction of all 8 reactors of Rajasthan Atomic Power Project
- India's largest light water reactors built at Kudankulam nuclear power plant in 2010

Thermal Power

HCC offers constructing the complete range of thermal power plant components.

- 18 thermal plants and 3 gas based projects
- India's second diesel based plant at Brahmapuram, Kerala
- A 275 m high steel flue chimney for Tata Thermal Power Generating Station, Trombay – regarded as one of the tallest concrete structures in India

Transportation

HCC caters to every segment of the transportation sector such as metro rails, bridges, highways, tunnels, sea-links and ports.

- Involved in construction of Kolkata Metro, 6 packages of Delhi Metro, 8 station buildings of Mumbai Metro Line 1 and one underground package of Mumbai Metro Line 3
- 10% of India's highways under National Highway Development Programme
- India's longest railway tunnel at Pir Panjal
- Bandra Worli Sea Link, India's first cable stayed bridge constructed in open sea
- Currently constructing Dry Dock in Mumbai for Indian Navy
- Also constructing India's largest rail-cum-road bridge at Bogibeel in Assam

Water Solutions

HCC has presence across the complete value chain ranging from source development, treatment, as well as transmission and specialize in execution of massive complex integrated water management projects on EPC basis.

- 7 irrigation dams, 19 barrages, 105 water / sewage treatment plants, 460 km pipelines
- World's longest barrage at Farakka
- Asia's second largest lift irrigation scheme – Godavari Lift Irrigation scheme
- India's first private sector water supply project at Tirupur
- India's largest water treatment plant in Mumbai

Buildings and Industrial Plants

Armed with speedy execution, precision engineering and the ability to handle end-to-end solution for wide range of structural needs, HCC has assumed expertise, distinction and a reputation for managing and completing complex projects with remarkable simplicity.

- A total of 109 buildings over the last 7 years measuring 7.5 million sq.ft. and Smart City development of 4.4 million sq.ft.
    - 47 Power plant buildings
    - 18 Metro station buildings
    - 19 Industrial buildings
    - 14 Commercial & Residential Buildings
    - 11 Institutional Buildings

The Board of Directors of HCC

Ajit Gulabchand	Promoter, Chairman and Managing Director
Rajas R. Doshi	Independent Director
Ram P. Gandhi	Independent Director
Sharad M. Kulkarni	Independent Director
Anil C. Singhvi	Independent Director
Harsha Bangari	Non-Executive Director
Omkar Goswami	Independent Director
Acharyulu Nateri,	Non-Executive Director
Shalaka Gulabchand Dhawan	Whole-time Director
Arjun Dhawan	Whole-time Director & Group CEO

Further details of our corporate governance are available in the Annual Report FY 2016-17 on our website: http://www.hccindia.com/pdf/HCC-Annual-Report-FY-2016-17.pdf

Our Equity Share is listed on the Bombay Stock Exchange (BSE) as well as the National Stock Exchange of India Limited (NSE). Global Depository Shares (GDSs) are listed on the Luxembourg Stock Exchange (LuxSE).

HCC Clients:

Strategic International Associations

Joint Venture Partners (Execution / Risk Sharing / Resource Sharing)

Technology Partners

Vision

To be the Industry Leader and a Market-Driven Engineering Construction Company renowned for excellence, quality, performance and reliability in all types of construction.

Mission

- To be the customer's preferred choice for providing construction services
- Constantly assess the needs, realities and values of the customer and set goals to satisfy their needs
- Continually innovate, develop and adopt state-of-the-art technologies, methodologies and materials to deliver customer satisfaction through better, faster and cheaper construction
- Continually aspire to deliver higher standards of safety, occupational health and environment protection at work
- Continually develop and maintain a robust supply chain that will help us deliver value to the customer on time and to expectations
- Continually improve the competence of our people through education and by inculcating strict principles of conduct and responsibility, high standards of performance, and respect for individuals and their work.
- Organize work for effectiveness in delivering results and always look to commit today's resources to the future
- To build a reputation of trust and reliability amongst our customers, other stakeholders and society.

Awards and Recognitions

- Construction Times Award' to HCC's Pir Panjal Railway Tunnel project - Winner under the category "Best Executed Rail Tunnel Project of the year"
- Construction Week Award' (Runners-up trophy) for HCC's Teesta Low Dam IV Hydro Power Project - under the category "Water Project of the Year Award"
- CIDC Vishwakarma Award 2017' to HCC's Teesta Low Dam - Stage IV project – Winner for "Best Construction Project under Power category"
- Infosec Maestros Award 2017 for IT Security Solutions implemented at the Tendering department of HCC

Memberships

HCC is represented at several national and global governmental, departmental and industries forums by Mr. Ajit Gulabchand, Chairman and Managing Director. Some of these key memberships are:

1. Member, CII National Council
2. Member, CII Associations Council
3. CII National Committee on Construction 2016-17
4. CII Task Force on Ease of Doing Business 2016-17
5. CII National Committee on Infrastructure & PPP 2016-17
6. Co-Chair of the Governor's Steering Board of the Infrastructure and Urban Development (IU) Community at the World Economic Forum (WEF), 2016
7. Chair of Disaster Resource Partnership Steering Board, IU, WEF 2015, 2016
8. Member of Steering Board, Future of Urban Development Services, IU, WEF

9. Member of Steering Board, Partnering Against Corruption Initiative (PACI), IU, WEF
10. Member of Steering Board, Future of Construction, WEF
11. Member of UK India Business Council (UKIBC) Advisory Council
12. Chairman of the Governing Council of the Construction Skills Development Council of India
13. Member of the Private Sector Alliance for Disaster Resilient Societies (ARISE), United Nations International Strategy for Disaster Risk Reduction (UNISDR)
14. Member of Board of Trustees – New Cities Foundation
15. Past President of International Federation of Asian and Western Pacific Contractors' Associations (IFAWPCA) (2011-12)
16. Signatory member United Nations' Global Compact's CEO Water Mandate
17. Signatory member of Caring for Climate, United Nation's action platform for business
18. Signatory member of WEF's CEO Climate Leaders
19. President of the Construction Federation of India (CFI)
20. Past President and Patron Member of the Governing Council of the Builders Association of India.
21. Chairman of the Board of Trustees and Board of Governors of the National Institute of Construction Management and Research (NICMAR)
22. Chairman of the Administrative Council of the Walchand College of Engineering.
23. Executive Committee Member of TERI's (The Energy and Resources Institute) Council for Business Sustainability (2015-18)

Advocacy

Mr. Ajit Gulabchand, Chairman and Managing Director has delivered numerous key note addresses and participated in several prestigious and internationally recognized sustainable development events. Some of his key participations in various global forums in FY 2016-17 are listed below:

6 Oct 2016: A private session on Accelerating Infrastructure Investments in India at The India Economic Summit, New Delhi

7 Oct 2016: A session on Triggering India's Resource Revolution at The India Economic Summit, New Delhi

7 Oct 2016: Panellist for a discussion on Cracking India's Urban Code at The India Economic Summit, New Delhi

24 Nov 2016: Panellist for CEO's Roundtable on "Building National Competitiveness" organised by CII, Pune

17 Jan 2017: Part of the Steering Committee Meeting on Future of Urban Development & Services at the Annual Meeting of World Economic Forum, Davos

18 Jan 2017: Co-Chair of the Governors Meeting for Infrastructure & Urban Development at the Annual Meeting of World Economic Forum, Davos

18 Jan 2017: Co-Chair of the Governors Policy Meeting for Infrastructure & Urban Development at the Annual Meeting of World Economic Forum, Davos

18 Jan 2017: Discussion Leader on Getting Infrastructure Back on Track at the Annual Meeting of World Economic Forum, Davos

19 Jan 2017: Member of Partnering Against Corruption Initiative (PACI) Vanguard Meeting at the Annual Meeting of World Economic Forum, Davos

Our Approach to Sustainability

At HCC, we continuously strive to address the social, economic and environmental aspects of sustainability in the construction processes whilst delivering projects that meet the needs of clients as well as their end users. These aspects are identified throughout the lifecycle of the projects and where possible incorporated into our project programme. Throughout this process we seek to apply best practices and share new knowledge with our teams and the wider construction industry.

HCC continually manage risk, interrogate and refine programme sequencing and where required deploy alternative techniques as well as provide 360 degree advice and feedback to stakeholders on better ways of working. This often results in cost saving, mitigating stakeholder impacts and finding opportunities to develop integrated waste and recycling strategies.

Stakeholder Engagement:

Our identification of key stakeholder groups takes into consideration the actual or potential impacts that our businesses have on them, and vice versa. We continually engage all our stakeholder groups through structured mechanisms on pre-determined schedules and an ongoing needs basis. Our annual sustainability report informs all our stakeholders of our various initiatives and progress. While the company's senior management is primarily consulted for the preparation of this report, we strive to align the report contents to the interest of our stakeholders.

As a part of the Business development process, we continue to interact with customers of our upcoming projects during prequalification, as well as at various stages of the bidding cycle. Through these interactions we try to understand the customer requirements for the bids. During the bid preparation stage the Business Development group puts maximum efforts to ensure that these requirements are met.

We also form project based strategic partnerships with major international contractors in cases wherein we are unable to meet the prequalification criteria, a new technology is needed or in case of large projects where the risks are required to be shared. We also implemented a 'Partner Management' process in 2012 as a part of which we continue to have bid specific interactions with our joint venture partners.

Identification of our Stakeholders

As a follow-up to our regular materiality assessment and on account of adoption of the GRI G4 Guidelines, we undertook a review of our materiality through a workshop with the company's senior management. While the key material issues continue to be as presented in our previous sustainability report, the following aspects of the GRI G4 Guidelines were identified as material for the company, based on stakeholder expectations, the degree of impact to the business, and our ability to mitigate these impacts:

Details of our Stakeholder Engagement

Customers/Clients

- One-on-one engagement with the client as necessitated
- Formalised Customer Feedback Systems (described below)

Suppliers/Subcontractors

- Annual SRA program and perodic vendor meets
- One-on-one engagements
- A robust feedback system

Employees

- Regular interactions, training sessions and communications
- HCC Newsletters and E&C Connect mailers
- Structured performance management systems
- Training programs

Investors and Shareholders

- Quaterly analyst meets and regular communications
- AGMs and EGMs
- Publications
- Corproate Website
- Investors' and shareholders' greviances committee

JV Partners

- On-going partner management approach
- Sustainable partnerships in strategic business sectors
- Effective communication channels

Local Communities

- Covered in detail in the 'community sustainability' section

Material Aspects

Our assessment of material sustainability issues is primarily shaped by the nature of our activities, degree of impacts on business and stakeholder expectations. As an infrastructure construction contractor, the nature of our contracts largely defines our legal responsibility with respect to various social and environmental impacts and their mitigation. However, as a responsible business, we ensure that environmental and social considerations are given utmost importance within our activities, and we strive to propagate them within our sphere of influence.

The report demonstrates our broad understanding of sustainability context, taking into account diverse topics such as water sustainability, employment health safety and environment protection. Given this broad sustainability context, we have identified 20 material aspects as per GRI G4 Guidelines.

G4-19, G4-24, G4-26, G4-27,

Economic Performance	Occupational Health and Safety
Procurement Practices	Training and Education
Materials	Diversity and Equal Opportunity
Energy	Equal Remuneration for Women and Men
Water	Human Rights investments
Emissions	Non-discrimination
Effluents and Waste	Child Labour
Environmental Expenditure	Forced or Compulsory Labour
Employment	Local Communities
Labour Management Relations	Compliance

The disclosures on our management approach as well as performance details on indicators pertaining to the above aspects are presented in this report, which is prepared 'In Accordance' with the Core option. We will strive to keep exploring opportunities for enhancing our sustainability disclosures going ahead.

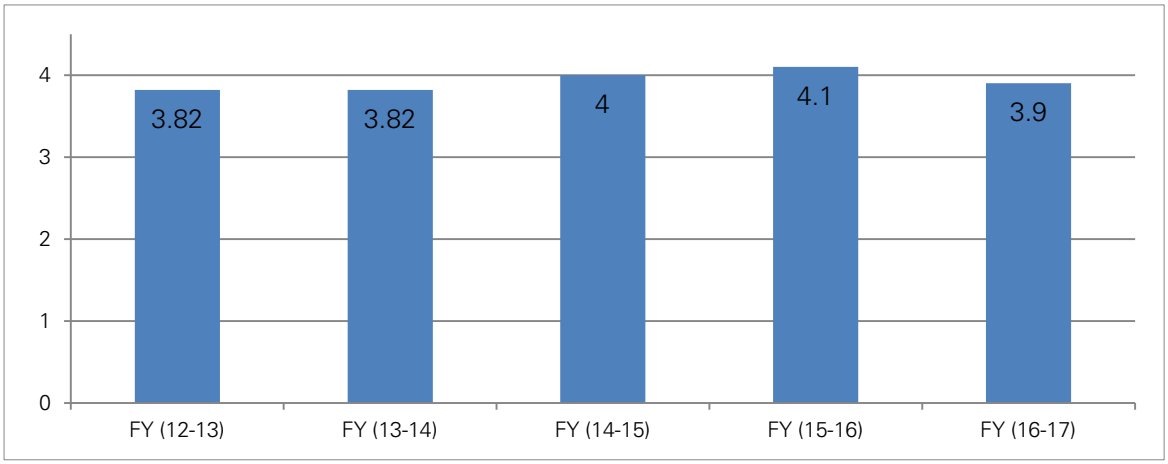
Formalized Customer Feedback System

We obtain customers' feedback about various parameters of HCC's product and services through a standard questionnaire every quarter.

After receiving the feedback, we are analysed and areas of weakness identified by customers are short listed. The summary of customers' feedback is presented to the management during quarterly management review and the actions recommended by management are planned & followed up as corrective measure.

In case of project obtaining Customer Satisfaction Index (CSI) below 3 in any of the quarters, the Management Representative (MR) along with the concerned Project Manager shall arrange for interaction with the concerned customers to have a better understanding of their expectations. MR shall recommend to the Project Management the necessary actions to mitigate the causes of dissatisfaction. The Project Manager shall take necessary corrective actions within the ambit of the contract and inform the MR about the status of corrective action.

Trend of Customer Satisfaction Index



G4-19, G4-21

Business Development:

Infrastructure sector is a key driver for the Indian economy. The sector is critical for boosting India's overall development. Government of India has given a lot of importance to this sector and has initiated a no of policy measures that would ensure time-bound creation of world class infrastructure in the country. India needs ₹ 31 trillion (US$ 454.83 billion) to be spent on infrastructure development over the next five years, with 70 per cent of funds needed for roads, Railways, Power and urban infrastructure segments. The government has also given a lot of emphasis energy sectors like Hydro Power, Nuclear Power, Wind Power and Solar Power.

Over the last 2 years, HCC has tried catering to the changing needs of Indian Infrastructure by focusing on the infrastructure sectors like Roads, Railways and clean energy sectors like Hydro Power and Nuclear Power. Our Order book as on 31st March 2017 was ₹ 203.89 billion and has increased by 40% as compared to Order book on 31st March 2015. The growth has mainly come by securing more projects in Transportation and renewable energy like Nuclear Power & Hydro Power. We are also building green buildings for Nuclear Power Infrastructure. Environment friendly green buildings are an area of focus for HCC and we will look at securing more projects in this sector in the coming years.

HCC focuses on execution of large and complex infrastructure projects. Large infra projects require large resources and have huge impact on the environment. The Employers for the projects carry out Environmental Impact Assessment [EIA] studies and suggest Environmental Mitigation Plan [EMP]. On basis of the EIA and EMP the projects are then given clearances by Ministry of Environment and Forests and are allowed to be bid only after securing MOEF clearances.

The bid documents stipulate stringent requirements for Environmental and Safety aspects of the projects. HCC carries out a detailed assessment of the project at the bidding stage before deciding to bid for the project. HCC focuses on Environmental, Health and Safety parameters while doing the bid assessment. All the requirements are studied, risks related to HSE are identified. As a part of the bid submission HCC details out the HSE plan for the project with inputs provided by IMS department in accordance with the stipulated requirements.

Order Backlog: (in ₹ billion)

	FY 15	FY 16	FY 17
Hydro	42.46	48.93	44.19
Transport	58.50	90.62	110.40
Water	30.97	27.18	30.37
Nuclear	12.58	16.31	18.93
Total	**144.51**	**181.23**	**203.89**

Risk Management:

The Company has established a well-documented and robust risk management framework under the provisions of Companies Act, 2013. The Company has constituted Risk Management Committee in place, which has been delegated with the authority by the Board to review and monitor the implementation of the Risk Management Policy of the Company.

Under this GRI G4 guidelines, risks are identified across all business processes of the Company on a continuous basis. Once identified, these risks are managed systematically by categorizing them into Enterprise Level Risk & Project Level Risk. These risks are further broken down into various sub-categories of risks such as operational, financials, contractual, order book, project cost & time overrun etc. and proper documentation is maintained in the form of activity log registers, mitigation, reports; and monitored by respective functional heads. Review of these risk and documentation is undertaken by Risk Review Committee of the management, held at agreed intervals but at-least once in quarter and mainly during Quarterly project reviews.

Risk Review Committee was successful in early identification of financial risk related to borrowing structure & cash flow mismatch due to late realization of claims lodged with clients. These risk were materially mitigated during the year by implementing new financial restructuring scheme introduced by Reserve Bank of India known as 'Scheme for Sustainable Structuring of Stressed Assets (S4A)' with lenders and issue of guidelines by Cabinet Committee of Economic Affairs (CCEA) for release of 75% of arbitration awards in favour of infrastructure companies, respectively.

Engineering Highlights

Research and Development (R&D)

Construction R&D is being carried out with the objectives of continual efficiency enhancement, reductions in material costs, process development, improving speed, enhancement of construction quality, sustainability, etc. These efforts are undertaken through interdisciplinary engineering within the organization and in collaboration with vendors, consultants and academia having similar interests.

R&D efforts are currently focused on:

i. Optimizing concrete ingredients with specific focus on reducing cement content with an aim of reducing the carbon footprint and making concrete sustainable. This is partly achieved through use of less energy intensive chemicals, use of alternate cementing materials and optimal quality assurance planning.
ii. Optimal quarrying and crushing of aggregates required for various applications with an objective of reducing environmental impact.
iii. The philosophy of materials integrated design is gradually brought into practice, thus enabling better and optimal use of locally available materials.
iv. Developing alternate materials in close collaboration with specialized vendors, while conforming to the specifications, but at a relatively less expensive rates and better use of wastes from other industries e.g. developing alternative to microfine cement using microfine GGBS.
v. Less energy intensive construction techniques. This includes selecting methods that have lesser energy foot prints while offering sustainability advantage. e.g. Roller compacted concrete (RCC) over conventional dam concrete.
vi. Alternate feasible designs with improved specifications. This is done with the objective of enhancing the sustainability of the built structures and reducing the consumption of natural materials. e.g. Reduction in crust pavement thickness.

As a result of various R&D efforts, over five technical papers were presented in various forums including international and national research journals, periodicals, conferences and magazines.

Technology Absorption and Adaptation

a) Efforts made towards technology absorption and adaptations during the last three years are:

i. RCC Dam at Teesta Low Dam Project-IV – Successfully adopting the use of roller compacted concrete as a construction material/ method is underway at Teesta Lower Dam-IV project in West Bengal. This is assisted by material design and supervision from a Malaysian Expert.
ii. 2.432 km concrete pumping at Sainj HEP - The method of placing concrete using long distance pumping was successfully impleted for a distance of 2432 m at Sainj Hydroelectric project in Himachal Pradesh.
iii. Double-shielded TBM at Kishangagnga HEP - the technology of using doubled shielded Tunnel Boring Machine (TBM) (Seli make) has been successfully implemented for the head race tunnel. A record boring of 816 meter was achieved in one month (November 12).

iv. 125 m span double-decker steel bridge launching at Bogibeel bridge - HCC with its consortium partner from Germany has finalized the method for continuous launching of ten nos. of 125 meter span each road cum railway double-decker steel bridge.
v. Alternative pavement designs & erosion protection at various highway projects -

- Various cementitious, non-cementitious and polymeric soil stabilizers for improving soil properties were experimented.
- Alternative pavement designs using different soil stabilization strategies were implemented at various sections of NH34 road project, Indo-Nepal border road project, Numaligarh-Jorhat road project.
- The technology of using coir mattresses is successfully adopted as erosion protection of embankment and alternative design options for road pavement are under implementation.

vi. Optimized design for Tehri PSP - the powerhouse cavern has been designed by using FLAC-3D Software for optimization of rock supports with other design concepts in collaboration with expert from France and Canada is under progress.
vii. Top-down construction method for Assam road project - At Assam road project, top-down construction method is used.
viii. Simultaneous retrieval of twin tube TBM - For the first time in India, twin tube TBMs were retrieved at the Delhi Metro Railway Corporation (DMRC) project, CC34.

Our Employees

Management Approach

Our people are critical to the growth and success of the Company, and we remain committed to the creation and retention of best-in-class workforce. Maintaining labour management relations, Employee well-being, health and safety, training and education of employees, human rights (equal opportunity and non-discrimination), equal remuneration, zero tolerance to child labour and forced, compulsory and child labour are some of the key tenets of our human resource practices. We have adopted policies and instituted several initiatives to this end.

Attracting talent

We have a streamlined and efficient recruitment and selection process to find and attract the best talent, thereby creating competitive strength and strategic advantage for the Company. Considering that our project sites are often located in remote and difficult geographical locations, we ensure that our employees deployed at these projects are provided with high quality facilities as well as a safe and secure living environment.

Employee wellbeing

The safety, health and well-being of all our employees and workers are given the utmost priority in all our operations and activities. We conduct safety and health related trainings and awareness drives at all our project sites for our employees, contract workers and members of the surrounding communities. The safety performance across all project sites is monitored centrally at the corporate office on a continual basis and is reported to the senior management.

Skills Development

Learning and Development continues to be an important aspect of our human resources strategy. Skill development not only enhances the personal growth of our employees but is also key to realizing our vision of being an industry leader renowned for excellence, quality, performance and reliability in engineering construction. A wide range of technical and managerial training programs, catering to specific needs of various business sectors, functions and individual employees, are conducted through both internal and external trainers.

Graduate and management trainees are provided with focussed trainings through a combination of classroom and on-the-job training as well as special assignments. These training programs, together with coaching and mentoring provided by seniors, help them transition smoothly into corporate life within HCC. We also focus on training the workers; including sub-contract and PRW staff, in order to upgrade their skills, creating a safe working environment and contributing to their continued employability.

Performance Management System

The Performance Management System at HCC provides a platform to employees for a transparent discussion and feedback on performance and development on an annual basis. To foster an environment of meritocracy and team work the rewards are linked to individual, functional / business and organizational performance.

G4-DMA, G4-19, G4-24, G4-26, G4-27, G4-LA11

Zero tolerance to discrimination

As a responsible employer, we are committed to fair labour practices and are in compliance with all applicable laws. We follow a zero-tolerance approach on the issues of employee discrimination, bonded labour, child labour, corruption and unethical conduct. We strictly enforce age verification of employees and contract labourers at our project sites.

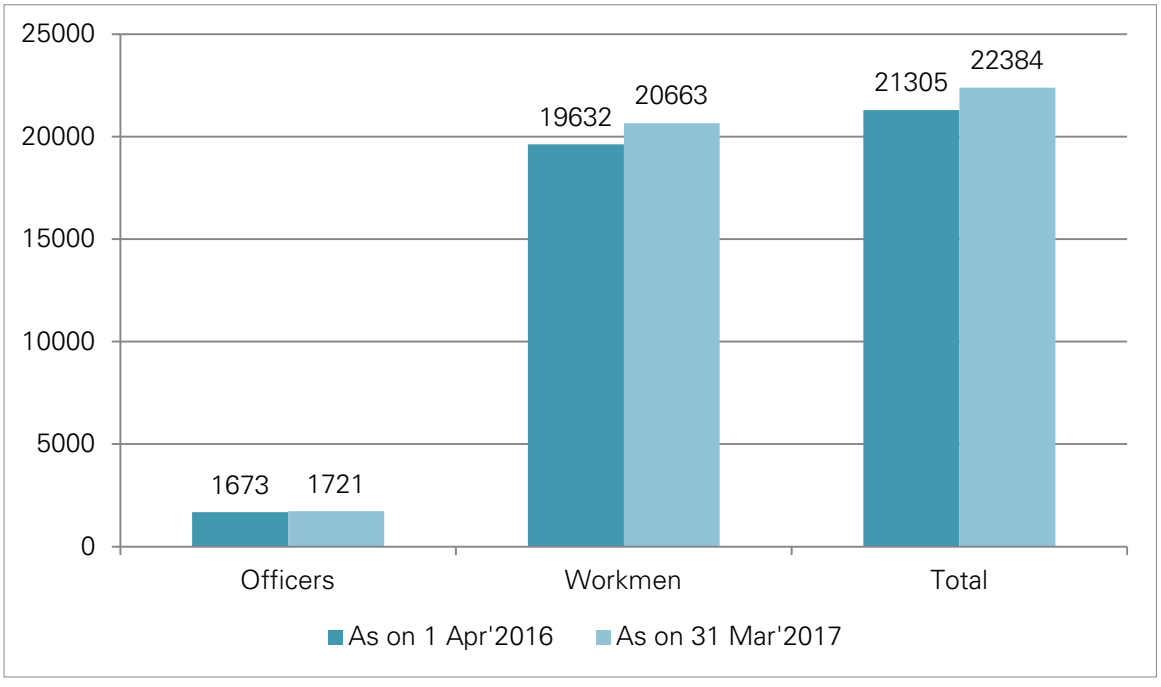
Contract workmen

Responsibility towards all our contract workmen is an important element of our responsible infrastructure philosophy. We remain committed to ensuring their health, safety, overall well-being, continual learning and development, equal opportunity and upholding all facets of human rights as per the law of the land.

Employment

Our human resources focus continued to be on improving efficiencies and reducing cost. While the trend of attrition continued, it remained within industry standard. At the same time, we continued to hire people with the right skill sets in order to ensure efficient, timely and high quality execution of our projects. We also ensured that existing benefits to our employees continue to remain available despite challenging business environment.

As of 31st March, 2017, our total workforce strength (HCC Engineering & Construction business) was 22384. This comprised of 1661 Senior, Middle and Junior Management Officers, 60 Trainees, Apprentices and Short-term Contracts, as well as 20663 Workmen (on project rolls, sub-contracted and piece rate workers).



A snapshot of our employment data, as of 31st March 2017 is presented below:

Social Performance – Key Performance Indicators[1]	FY 2016-17
Total Workforce	
Workforce by Level of Employment	
Officers (Senior, Middle, Junior Management)	1,661
Others (Short Term Contracts, Trainees etc.)	60
Workmen (Excluding FTC)	20,663
Workforce by Type of Contract	
Permanent Employees	5,855
Sub-contract	5,704
Piece-rate Workers	9,104
Fixed-term Contract	92
Workforce by Gender (excluding Workmen)	
Male	1,638
Female	83

The details of new employee hires and attrition in FY 2016-17 are presented in the table below:

	Numbers left Voluntarily in FY 16-17 (attrition rate)	Numbers left Involuntarily in FY 16-17 (attrition rate)	Number of new hires in FY 16-17	Numbers of new hires, who voluntarily left in FY 16-17	Numbers of new hires, who involuntarily left in FY 16-17
By gender					
Male	359 (22.16%)	36 (2.22%)	385	58	3
Female	9 (11.69%)	0	6	1	0
By Age groups					
< 30 years	152 (39.28%)	1 (0.26%)	200	27	0
30-50 years	197 (18.33%)	17 (1.58%)	166	30	1
>50 years	19 (8.09%)	18 (7.66%)	25	2	2

**The number of new hires does not include 58 employees transferred to HCC Limited from other group companies during the year 2016-17.*

Our workmen (both permanent and temporary) at offices and project sites have the right of collective bargaining. While the workers on our rolls are fully unionized, the terms and conditions of the workmen on the sub-contractor rolls and piece rate workers are bargained by their respective sub-contractors/PRWs.

[1]All workforce figures are as of 31 March 2017 and pertain to all active project sites of the Company; HCC has pan-India presence and does not report regional breakdown; None of our project sites fall within areas defined as insecure.

Reward and Recognition

We have adopted a Recognition and Reward Policy that governs our approach to recognizing and rewarding the outstanding performance and contributions of individual employees and teams. The key areas in which performance is recognized under this policy are

- Project performance (physical progress, financial and safety performance),
- Order acquisition,
- Promoting safety culture at projects, and
- Claims & Collections.

The policy also aims at institutionalizing the company's brand values, promoting innovation, team work and recognizing the contributions towards the company's priority areas.

The recognition is given on an annual basis in the Project Managers conference and the half yearly and annual awards in the E&C Business Conference. This recognition scheme has resulted in continuous improvement in our productivity and performance.

Employee Benefits

Our full time employees enjoy the following benefits during their association with us:

- Medical Insurance Scheme
- Superannuation Scheme/ Pension Scheme
- Executive Health check-up facility (Senior and Middle Management)
- Annual Performance linked incentive (Senior and Middle Management) and incentives for project sites.
- Additional allowance/ benefits for employees posted in difficult locations

All the above benefits are subject to company policies. The Provident Fund benefit is also extended to our contractual employees in addition to our full time staff.

Diversity and Equal Opportunity

Respect for gender diversity and equal opportunity is intrinsic to our philosophy and culture, including equal remuneration for men and women. In this regard, we go beyond legal requirements and follow global best practices, including the UN Global Compact Principles of Labour Standards and Human Rights. All our operations and contracts meet the appropriate human rights criteria as required by the applicable laws of the land. We have adopted a Policy on Prevention & Redressal of Sexual Harassment, in line with the statutory requirements. All 391 new hires have undergone awareness training on Human rights and Prevention of Sexual Harassment.

We remain committed to gender diversity and all our hiring and career progression activities, employee remuneration and benefits, initiatives and engagements are non-discriminatory. While the nature of our business and remote locations of our project sites does not allow for a suitable working environment for women employees, our corporate office employs around 80 women employees. There were 13 women employee participants in training programs conducted in FY 2016-17, amounting to 74 hours of training. The table below shows the ratio of basic salary and remuneration of women to men for each employee category:

Ratio of Basic Salary and Remuneration of Women to Men	
Senior management	1
Junior and middle management	1

All our women employees are entitled to maternity leave. The table below shows the data pertaining to the return and retention of women employees post maternity leave:

Return to Work after Parental Leave	
Number of Employees Entitled (all Women)	83
Number of Employees Availed and Returned	2
Number of Retentions 12 Months After Return	2

Employee Training and Development

We strive to provide the best learning opportunities to our employees and workers. A variety of technical and functional programs catering to specific needs of various project sites, functional areas and individual development needs were conducted during 2016-17.

Key training sessions conducted for officers include:

- Essentials, Trends and Issues in Concrete Construction
- Equipment Management
- Project Accounts Officers Development Program
- Advanced Materials Management
- Udaan - Achieve your Potential
- Safety Officers Development Program
- Behaviour Based Safety
- Workplace Ergonomics
- Environment Protection at site
- Housekeeping & Site Logistics
- Construction Safety

Key training sessions conducted for workers during the reporting year include:

- Basic Construction Safety
- Defensive Driving
- Operation and maintenance of various construction equipment
- Construction Methodology modules

The table below shows average employee training man-hours received by employees in FY 2016-17:

Average Employee Training Man-hours by Level of Employment	
Officers	6.74
Trainees	30.80
Workers	2.88

Average Employee Training Man-hours by Gender (Trainees included)	
Officers (Male)	7.8
Officers (Female)	1.0

We do not discriminate between male and female employees for training.

Out of the programs organised for officers, some of them are central programs conducted at Head Office. These are primarily Personal Development Program, Functional & Technical Skills Development Programs and some of Health & Safety programs. Highlights of these programs are given below:

Personal Development Program

With an objective to enable our officers at our project sites to achieve their personal and organizational goals with excellence and enhance their workplace effectiveness, a personal development program titled "UDAAN – Achieve Your Potential" was conducted at our Head Office. It was an experiential learning workshop in which role plays, games, group activities were conducted to provide insights, tools & techniques to the participants for enhancing skills in the following areas:

- Self Management
- Communication Skills
- Constraint Management
- Team Management

Functional, Technical & Safety Training Programs

To enhance functional & technical skills, training programs like "Advanced Materials Management", "Equipment Management", "Safety Officers Development Program" etc, were conducted at Head Office for the officers working in those areas at project sites. These programs were designed to equip the officers to play effective role in project sites and make a positive impact in the day-to-day functioning. These programs were conducted by a team of internal and external experts.

A specialized program on "Ergonomics and Healthy Work Postures" was conducted for the officers working at Head Office where the nature of work involves sitting at desk for a prolonged period of time. The objective of the program was to create awareness on this topic and help them plan and make small addition to their office routine that can help them to adopt a healthier lifestyle.

Health and Safety

Management Approach

Safety, as they say, is much more important than convenience and it is perhaps the most effective insurance policy. At HCC, paramount importance is given to safety at every juncture, every step of the way. The company advocates efforts to achieve "zero incident" at every project site. Several initiatives have been undertaken over the years to improve the safety performance at HCC including mandatory induction and training programmes, tool box talks, usages of personal protective equipment etc.

Proactive Safety observation Program (PSOP)

A new initiative called Proactive Safety Observation Programme (PSOP) was launched in 2013 that has brought a paradigm shift in the way safety has been observed at all HCC project sites. This entails a dedicated PSOP round and is not combined with any other safety inspection round.

The PSOP round consists of a cross functional team walking through the site on a weekly basis for site safety observations. During PSOP rounds, members of the team identify unsafe act, unsafe condition, unsafe practices adopted at site. Subsequently, Project HSE Head will document the observation in PSOP report detailing with action required to address the observations and responsibility given to section heads for taking corrective and preventive actions as well as their close out.

Project Managers also attends PSOP round at least once in a month to show his commitment for safety to other site team members. PSOP observations are discussed in the monthly safety committee meetings in the presence of Project Managers, who reviews all observations and gives direction to responsible person to ensure full compliance.

Daily Safety Reporting

We have initiated online daily safety reporting to simplify our reporting system and make sure everyone knows about it. It provides immediate consolidation of HSE information and easy monitoring of reporting of safety performance indicators and also facilitates data analysis. This reporting helps us set daily target for the projects and makes site personnel more involved and accountable at the site.

Under this system, the project site has to send the data of safety performance indicators daily to the safety department at Head office. The data includes various indicators such as unsafe condition, unsafe act, near miss, first aid case, tool box talk, trainings, penalty enforced etc. A compilation of the data from all project sites is then forwarded to the senior management through automatic computer generated mail daily by showing daily reporting against target.

This online Daily safety reporting keeps the project management informed on progress as well as any current or possible issues. It also helps creates a record of daily events that can be reviewed for improvement. This initiative has helped us in the development and implementation of proactive safety culture at project and further leads to achieve our company goal 'Zero Reportable Accident'.

Safety related Trainings:

Trainings are critical in making our employees and workers competent in safety and can help to avoid accidents. We have started a train-the-trainer program so that we can develop skill and competency level of our employees. We have conducted several internal and external training programs at our projects based on the project requirements.

Monthly Safety Theme:

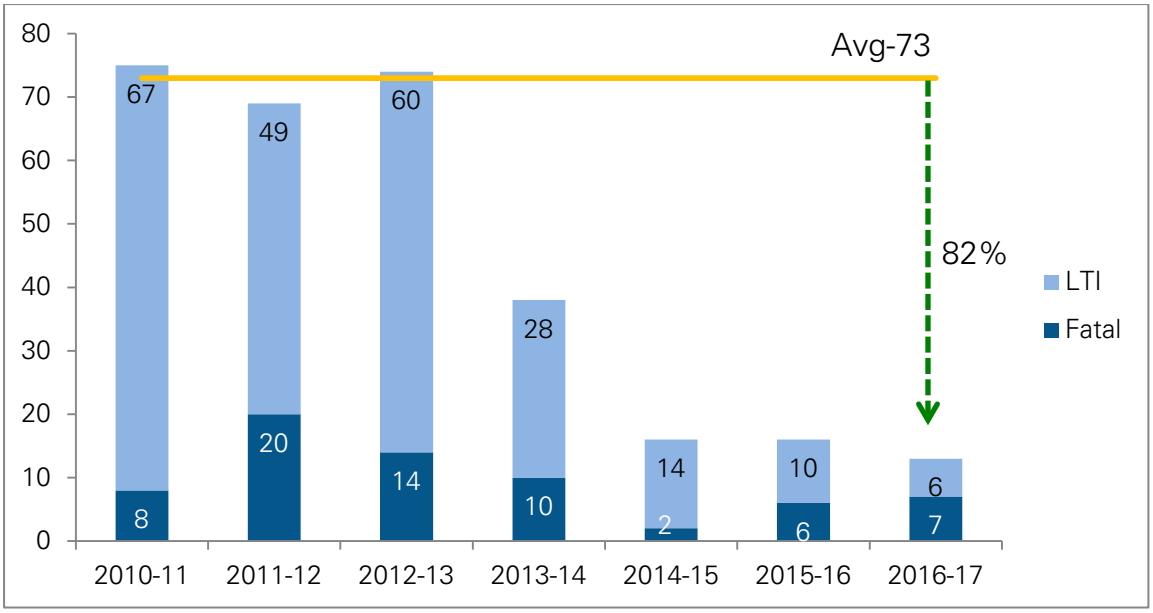
We celebrate first day of every month as a Safety Day of the Month, which is followed by a training being organization on the safety theme adopted for that month. This includes short speech by the Project Manager and senior staff to the assembled gathering of employees, workmen, client and sub-contractors at each project site.

The monthly safety theme topic is displayed at the prominent locations at the site and notice boards urging to the involvement of the staff and employees. Motivational awards are distributed to the workers/ staff who have taken active involvement in enhancing the safety culture in their respective work areas.

List of Monthly Safety Theme celebrated at projects during FY 2016-17

FY 2016-2017	
Month	Safety Theme
April`16	Near Miss
May'16	Material handling
Jun'16	Scaffolding safety
July'16	Vehicle movement/defensive driving
Aug'16	Electrical safety LOTO
Sept'16	Mobile crane operational safety
Oct'16	Working at Height
Nov'16	Behavioural Based Safety
Dec'16	Occupational health hazards in Construction
Jan'17	Safety in Equipment & Machinery Operation
Feb'17	Excavation Safety
Mar'17	Fire Prevention & Control

Safety Statistics:



Safety Statistics *	
Man Hours Worked (Millions)	64.8
Injuries	06
Fatalities	07
Lost Days	42288
Frequency Rate	0.20
Frequency Severity Index	0.36

* includes HCC employees and subcontracted workmen

Behaviour Based Safety Programme:

HCC has added a new dimension to our safety programme by introducing a 'Behaviour based Safety Programme'. Behaviour based safety (BBS) emphasizes that employees need to take an ownership of their safe as well as unsafe behaviours. If they behave unsafe, they are not punished, instead they are repeatedly told to correct; and when they behave safe, they are encouraged. Both unsafe and safe behaviours are counted and displayed. BBS also discusses the unsafe conditions that influence unsafe behaviours.

BBS is a data driven decision-making process. BBS believes that what gets measured gets done and each employee can make a difference in organizational safety. Employees are the basic source of expertise of behavioural change (observe and correct). BBS begins by briefing sessions for all work areas and depts. BBS is a teamwork; it is companywide and people driven.

The feedback process reinforces the use of safe behaviours and helps us determine why certain at-risk behaviours were performed. Collecting information about at-risk behaviour helps the management determine the root cause of behaviour and develop an action plan to remove the barrier causing the behaviour.

- Total 1813 trained BBS Observers, which is about 10% of average manpower.
- 3794 number of site persons undergone BBS Awareness training.
- Around 80-85% unsafe behaviors were corrected on the spot and by counseling.
- TARGET: 90% Trained BBS Observer of Avg Manpower

Safety achievements & client appreciation:

- A certificate of appreciation was awarded to HCC on 3rd February 2016, by HSE Leadership Forum, in recognition for achieving more than 5 million safe man hours without a Lost Time incident at the Reliance J3 Project.
- A certificate of appreciation was awarded to HCC, by URS, for exhibition of exceptional safety behaviour and achieving 7.46 million safe man hours in 2014.
- A certificate of appreciation was awarded to HCC, by Sardar Sarovar Narmada Nigam Ltd., for its contribution towards the achievement of 5 million safe man hours up to 25th March 2015 and for its strict adherence to HSE practices at Kachchh Branch Canal Pkg-II.
- A Safety Recognition certificate was awarded to HCC on 28th April 2015, by the Ministry of Labour and Human Resources-Royal Government of Bhutan, in recognition for adopting good Occupational Health and Safety practices at the workplace for 2014.
- A certificate of appreciation was awarded to HCC on 27th October 2014, by National Safety Council of India, in recognition of appreciable achievement in Occupational Safety & Health at the Maroshi Ruparel Tunnel Project, during the assessment year 2012.

HIV/AIDS education and awareness

In recognition of the serious impact of HIV/AIDS on migrant workers, HCC formed an HIV/AIDS workplace policy and adopted an intervention programme that focuses on educating and raising HIV/AIDS awareness amongst migrant workers that forms the core of the workforce at the Company's projects. The Company observes World AIDS Day every year on 1st December. Events are conducted with strong employee participation, and these involve rallies, pinning of red ribbons, awareness and lectures. Posters and material given by NACO/ ILO and the state-level AIDS control societies are prominently displayed.

Economic Performance

Management Approach

HCC's core business is providing Engineering and Construction (E&C) services for large projects across sectors like Power (Hydro, Nuclear, Thermal), Transportation (Roads, Bridges, Metros, Ports), Water (Irrigation and Water Supply) and Industrial projects.

While applying an element of caution with focus on optimising the preservation of cash, HCC continued to leverage its core strengths to push for new orders. This was essential for a company of HCC's size, because it is only through a sizeable order backlog that it can be assured of the revenues and returns needed to service its debt while creating greater corporate value.

HCC continued with its efforts at securing new orders and maintain a healthy order book. During 2016-2017, HCC secured ₹ 53.75 billion worth of new orders and the order backlog grew by 12.5% from ₹ 181.23 billion at the end of 2015-16 to ₹ 203.90 billion by the end of 2016-17. As of March 31, 2017, HCC was also L1 in orders worth ₹ 28.04 billion, much of which will translate into new orders in the near future.

However, pressures on working capital did affect execution. Consequently revenues remained flat in 2016-17. Even so, considerable efforts have been made on increasing productivity and cost optimisation across projects at the sites. These have borne positive results, and are now engrained as a part of its continuous improvement mechanism.

Abridged Profit and Loss account of HCC as a Standalone Company (in ₹ billion)

	2016-17	2015-16
Total Income from Operations	41.96	41.91
Operating Expenses	34.43	33.81
EBITDA	7.53	8.10
Depreciation	1.25	1.52
Other Income	2.50	2.15
Foreign Exchange Gain/(Loss)	0.12	(0.02)
EBIT	8.90	8.71
Interest	7.72	7.02
Exceptional Items	0.21	0.28
PBT	0.97	1.41
Tax	0.38	0.46
PAT	0.59	0.95

Key Financial Ratios

	2016-17	2015-16
EBIT/Total Income from Operations	21.2%	20.8%
PBT/Total Income from Operations	2.3%	3.3%
PAT/Total Income from Operations	1.4%	2.3%
ROCE=EBIT/Capital Employed	12.5%	12.7%
(Total Assets - Current Liabilities) RONW=PAT/Net Worth	3.0%	4.8%

* before Exceptional Items

In parallel to the efforts on strengthening its internal capabilities, HCC laid major emphasis on financially restructuring the Company and release as much cash as possible to sustain and grow operations.

In 2012, the banks had sanctioned HCC a complete restructuring package under the aegis of the 'Corporate Debt Restructuring (CDR)' scheme. However, the financial state of the Company remained under stress due to a further slowdown in the industry and the slow pace of dues recovery from customers. Recognising the need for a more definitive solution, the joint lender's forum in its meeting held on July 12, 2016 passed to resolve the HCC account under the recent Reserve Bank of

India (RBI) guidelines of 'Scheme for Sustainable Structuring of Stressed Assets (S4A)'. In fact, HCC became the first company in India to adopt S4A.

This scheme allows a mix of reliefs like postponement of certain debt obligations by calling it unsustainable, a part of which is converted to equity. For HCC, the salient features of the S4A scheme are:

- The entire funded exposure of ₹ 51.07 billion was divided into two debt classifications: sustainable debt of ₹ 26.81 billion and unsustainable debt of ₹ 24.26 billion.
- A portion of the unsustainable debt was converted into equity share capital so as to allow lenders to jointly own around 23.6% of the expanded share capital of the Company.
- OCDs have a repayment period over 10 years and will carry a coupon of 0.01% p.a with yield to maturity of 11.5%.

HCC secured approval of the scheme from shareholders at an Extraordinary General Meeting held on January 5, 2017. Thereafter, the S4A scheme has been implemented which has substantially reduced interest outgo and repayment obligations.

In addition, on September 5, 2016, the Cabinet Committee for Economic Affairs (CCEA) announced a slew of initiatives through the Niti Ayog to deal with claims of players in the construction industry vis-a-vis major government bodies and public sector undertakings. The key aspect of the measures for construction companies was the directive to release 75% of arbitration award amount against a margin free bank guarantee.

HCC has already secured favourable arbitration awards which will yield a cash inflow of ₹ 25.99 billion as 75% of the awarded amount. As on date, ₹ 3.80 billions were received of the above amount. Additionally, there will be further cash inflow once awards for pending claims are settled.

To summarise, 2016-17 saw certain concrete steps being taken to provide interim cash flow relief, and free up the Company to pursue and promote its existing operations and turnaround the business.

Economic Performance - Key Performance Indicators	Value (Million INR) (FY 2016-17)
Economic Value Generated	41959.37
Revenues	41959.37
Economic Value Distributed	43439.69
Operating Costs	29989.81
Employee Benefits and Wages	3968.01
Payment to Providers of Capital	7723.68
Payments to Government (Indian)	1750.76
Economic Value Retained	(1480.32)

Environmental Performance

Management Approach

This DMA Covers management's approach on material aspects- Procurement Practices, Materials, Energy, Water, Emissions, Effluents and waste and environmental expenditure. We have imbibed the principle of optimal utilization of critical natural resources in our material procurement practice. This includes reuse of materials, minimizing waste generation, sourcing locally to the extent possible and stronger procurement controls centrally in order to decrease avoidable long-distance transport.

We are also cognizant of our energy consumption and emissions and aim to optimize it by adoption of energy efficient practices through the use of latest technology and engineering innovations. HCC understands the importance of Water conservation and hence endeavours for effective adoption of the 4 R's (Reduce, Reuse, Recycle and Replenish) at all the projects.

We do not have any construction projects are that located in ecologically sensitive areas. However our on-site teams remain sensitive to the local ecology, landforms and communities, and invest in taking several proactive initiatives to conserve the natural local environment around our project sites.

Resource optimization initiatives

A. Cut to length Plates at Bogibeel Rail-cum-road Bridge Project

At the Bogibeel Rail-cum-road Bridge project, instead of using the readily available standard size plates, about 95 different variants of make-to-order sizes were procured in order to reduce the wastage of steel. In addition, HCC used 'Most 2D' automatic nesting software to generate efficient two-dimensional cutting plans for fabricating the steel superstructure for the bridge. The nesting technology was based on advanced cutting algorithms specially designed to optimise the cutting layouts in shearing. The software generates high-utilization layouts, significantly reducing waste and maximize productivity.

B. Tighter tolerances of steel plates for Sawarakuddu Hydro Power Project

At Sawarakuddu Hydro Power Project, steel plates from Essar Steel are procured for construction of steel liner in the pressure shaft and penstock. HCC team negotiated with the supplier Essar Steel to manage tighter tolerances on thickness, width and lengths of steel plates. The supplier worked on process tightening to manufacture these plates to achieve tolerances tighter that the one specified by the IS standards and even the client, Himachal Pradesh Power Corporation Limited. This resulted in huge savings in material rejection.

C. Coupler Use for Savings

Reinforcement Couplers were used to avoid overlapping of TMT Bars at all projects. Net savings due to reduction in overlap at three projects:

DMRC CC30: ₹ 0.824 million
DMRC CC66: ₹ 1.102 million
BARC Tarapur: ₹ 1.556 million

Conservation of Energy

The Company is continuing with energy saving measures initiated earlier like usage of Load Sharing System in D.G. plants, APFC (Automatic Power Factor Controller) panels, FCMA (Flux Compensated Magnetic Amplifier) Starter for Main Crusher Motors, Variable Frequency Drive (VFD) Starting System for Ventilation Fans & EOT/ Gantry Cranes and Use of Energy Efficient Motors in Gantry Cranes.

Usage of Load Sharing System in D.G. sets

DG Sets of various ratings are provided with synchronized arrangement. Based on the load, the operators switch 'on' or 'off' the DG Sets without interrupting the load. With this arrangement, the DG Loading can be controlled to ensure better productivity.

APFC (Automatic Power Factor Controller) panels

As a practice, we are installing APFC Panels at site electrical installations in strategic locations, in order to improve the power factor. Further, we are also installing additional 'Capacitor Banks' at high inductive load ends. Most of the loads at construction sites are motor load (i.e. inductive load) and hence installing power factor correcting devices results in substantial cost savings. Improvement in Power Factor has following effects: • Reduced reactive current, thus reduction in I2R losses • Reduction in reactive current, which results in lesser IR Voltage drops • Lower expenditure for electricity consumption

FCMA (Flux Compensated Magnetic Amplifier) Starter for Main Crusher Motors

Main Crusher Motors are generally of very high ratings due to starting torque requirement. For staring these Crusher Motors, the Transformer, DG set and Switchgear configuration in conventional systems has a very high rating. To overcome this, we introduced Electronic Soft Starters. However the cost of maintenance of Electronic Soft Starters was high (in order to handle starter breakdown). Therefore, FCMA Starters were introduced. Due to these starters, the requirement of Transformers, DG Set and Switchgear ratings have been lowered in comparison to the conventional system. This indirectly trickles down to savings in terms of electricity consumption.

Variable Frequency Drive (VFD) Starting System for Ventilation Fans & EOT/ Gantry Cranes

In certain applications such as Ventilation Fans and Cranes, the Motor ratings selected are for the Peak requirement, whereas for most of the time it runs at reduced loads. Under such circumstances, the use of VFD has resulted in reduced electricity consumption. For example, during tunnel excavation, VFD plays a vital role in reducing the fan speed / air flow of the ventilation system as per the requirement, thereby reducing power consumption.

Use of Energy Efficient Motors in Gantry Cranes

This is a Continuous process and all new cranes are generally procured with Energy Efficient Motors.

Use of LED lights and tubes at all the new coming projects

Use of LED lights and Tubes instead of previously used mercury tubes or CFL bulbs is now started and being implemented at all the new sites.

World Water Day

As a proponent of the CEO Water Mandate of the United Nations and WASH (Water, Sanitation and Hygiene) initiative of the World Business Council for Sustainable Development, HCC celebrated the World Water Day across all project sites and head office on March 22, 2017. This year's theme focussed on wastewater and ways to reduce and reuse as over 80% of all the wastewater from our homes, cities, industry and agriculture flows back to nature, polluting the environment. The theme emphasised on need to improve the collection and treatment of wastewater and safely reuse it. At the same time, it also focused on need to reduce the quantity and pollution load of wastewater we produce, to help protect the environment and our water resources.

World Environment Day

The World Environment Day was celebrated across our project sites on June 05, 2016. The theme for 2016 World Environment Day was 'Go Wild for Life - Save the Environment.' It encouraged people to celebrate all those species under threat and take action to help safeguard them for future generations. To mark this day, a communication was sent by the Chairman and Managing Director, Mr. Ajit Gulabchand to all employees. It highlighted our commitment to protect, conserve, and improve the ambient environment of all work sites to the best of our abilities. As a responsible organization in environmental awareness, HCC project sites took a variety of initiatives like clean up drives around the vicinity, tree plantation drives and environmental awareness campaigns, along with quiz and poster competitions. Posters and banners were displayed to create mass awareness in the nearby areas of project sites.

Our Environmental Footprint

Environmental Performance – Key Performance Indicators	Unit	FY 2016-17
Materials		
Raw Materials	Tons	2859438.19
Semi-manufactured Goods or Parts	Tons	288748.15
Associated Materials *	Tons	3738.82
Energy		
Diesel	L	15255729
	GJ	557596.89
Aviation Turbine Fuel	L	68420
	GJ	2485.42
Total Direct Energy	GJ	560082.32
	kWh	155578422.2
Total Indirect Energy (Purchased electricity)	kWh	36057187
Greenhouse Gas Emissions		
GHG emissions due to direct energy use	Ton CO_2eq	41491.91
GHG emissions due to indirect energy use	Ton CO_2eq	29390.21
GHG emissions intensity from construction[2]	Ton CO_2eq/ INR Million [Turnover]	1.01
GHG saved on account of Fly Ash Utilization and ground granulated blast furnace slag	Ton CO_2eq	14895
Waste Disposed		
Solid Hazardous Waste (Empty drums, batteries, E-waste)	Numbers	400 drums
Liquid hazardous waste (Used oil)	KL	20.52
Non-hazardous Waste (Used oil filters, tyres, cement bags)	Numbers	732000 Cement Bags
Non-hazardous waste (Steel Scrap, used spares)	Tons	3533.00
Environmental Expenditure		
Waste disposal, emissions treatment and remediation costs	INR	10550.00
Prevention and environmental management costs	INR	* At all the sites statutory environment monitoring is carried out.

*In addition to the above mentioned quantity, 88.75 kL of oils were used

[2]GHG emissions intensity has been calculated using a sum of emissions from direct and indirect energy use at our project sites in scope. Scope 3 emissions have not been accounted for. Emission factors for direct energy have been used as per the IPCC Guidelines for GHG Inventories (2006), while the emission factor for indirect energy (i.e. purchased electricity) is taken from the Indian Central Electricity Authority (CEA)'s 2009 Baseline Carbon Dioxide Emission Database Version 9.0. Annual turnover of HCC (E&C business) was taken from our Annual Report available on the web-link mentioned in this Report.

CoP: UN CEO Water Mandate

Preamble

We at HCC understand the importance of Water conservation and hence endeavour for effective adoption of the 4 R's (Reduce, Reuse, Recycle and Replenish) at all the projects.

In 2007, HCC endorsed UN Global Compact's CEO Water Mandate and since then we have consciously endeavoured to adopt sustainable practices to ensure prudent use of water. The mandate is based on the notion that there is a business imperative and a responsibility for companies to promote efficient and clean practices for handling water in their operations and to encourage and facilitate sustainable management of the watersheds they operate in. In order to implement this at the ground level, we have imbibed the 4Rs of water conservation in our direct operations.

In this 9th Communication on Progress, we present the efforts made by the company towards propagating water consciousness in FY2016-17.

Direct Operations

HCC is a Construction and Engineering company which deals with construction of Tunnels, Dams, Roads, Nuclear Power Plants, and Water Solutions for cities and huge industrial buildings.

We have developed robust mechanism for implementation of 4Rs across the project sites in order to ensure water-use assessment. We have a Water Policy which is being implemented at all the functional project sites. The trained team of Water Champions who are deployed across all project sites is responsible for accounting of water withdrawal, the implementation of the 4 R's (reduce, reuse, recycle and replenish) and water sensitization among all employees. At each project, water source tagging and utility Mapping is carried out by the Water Champions. Water withdrawal from all the different sources is monitored. Through Regular monitoring, assessment and auditing of the data, we try to optimise the precision and reliability of the reported data. This endeavour helps to achieve optimum usage of the precious resource. The data authenticity is ensured by way of back up of the data up to the photographs showing the meter readings.

Batching plants at every project site has been provided with the sedimentation tanks. The water is reused for dust suppression. This helps to eliminate the contamination of other water bodies in nearing area.

At Bogibeel Road cum Rail Project DWTS (Decentralised Waste-Water Treatment System) installed for the treatment of the sewage water which after the treatment is being recycled for gardening and sprinkling on road for dust suppressions. Also the roof top water harvesting is done. At DGNP, due to scarcity of the water and ample availability of sea water, the desalination plant has been installed.

This Communication on Progress pertains to data from the following 24 project sites of the company:

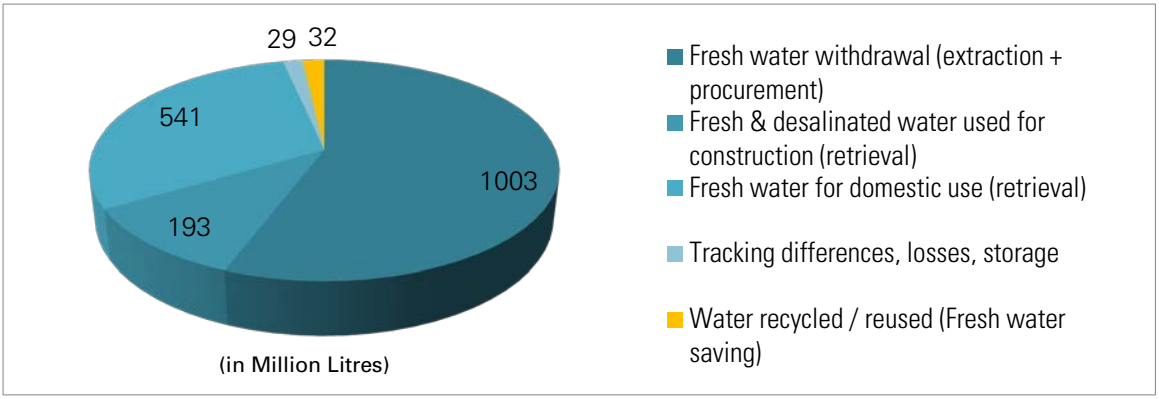
Transport		Hydro		Nuclear and special	
1	AS – 23	12	Kashang HEP	20	MTPP
2	Kolkata Elevated Corridor	13	Kishanganga HEP	21	RAPP
3	NH 34 Pkg 3	14	Pare HEP	22	DGNP
4	NH 34 Pkg 4	15	Punatsangchhu HEP	23	IGCAR
5	Bogibeel	16	Tehri	24	BARC Tarapur
6	DMRC CC30	17	Teesta HEP Stage IV		
7	DMRC CC34	18	Sawrakuddu HEP		
8	T - 48	19	VHEP		
9	T - 49 / A				
10	NJRP				
11	MECP				

Water management scenario at HCC's direct operation

Sr.	Description	QTY	Unit
1	Fresh Water Withdrawal (extraction + procurement)	463	ML
	Freshwater use as raw material	240	ML
	Fresh & desalinated Water used for construction activities	193	ML
	Tracking diff.,losses, storage	29	ML
2	Water Recycled /Reused (Fresh water saving)	32	ML
3	**Total Water used at HCC sites**	**495**	ML
4	Water disposal in natural water bodies after treatment	145	ML
5	**Net water use at HCC sites**	**317**	ML
6	Consolidated Water use Efficiency at HCC sites (Water Reuse/Net water use) x 100	10%	

Domestic Water management

1	Water consumption for domestic use at officers colonies and Worker's Camps	541	ML
2	Domestic Sewage from Colonies and Worker's camps	416	ML



Supply chain and Watershed Management:

HCC is conscious of watershed management around its project sites. While extracting water from the natural resources, proper monitoring systems are put in place for judicious water utilisation. Efforts are made to reuse and recycle water wherever it is possible. During times of water scarcity, the local communities are supported by the company by providing drinking water supply from the operations. For example, at the Kishanganga Hydro Power Project, HCC has been providing drinking water to 5 villages around the project site by purchasing water from the Public Health Engineering Department for the last 5 years.

Community Engagement:

Case Study: Rejuvenation of Diversion Based Irrigation System on Mhalungi River

Background:

Ashapur, a village located in Sinnar taluka of Maharashtra, had been suffering from acute water scarcity. The unavailability of sufficient water from wells forced the farmers to shift to low yielding crops. It also affected the fodder availability for cattle and the farmers were forced to sell out their cattle. This severely affected the socio-economic condition of the villagers.

HCC, with the help of Yuva Mitra, an NGO Based in Sinnar, rejuvenated the diversion based Irrigation system which had become defunct due to siltation. This initiative helped to enhance the ground water table and rejuvenate the wells (more than 60 across 135 hectares of farms). 735 million litres of water was conserved using the canal system, post the 2015 monsoon. The rejuvenation of canal system ensured sufficient water availability in both Kharif and Rabbi Seasons. As a result, the farmers started utilizing the entire available area for cultivation and expanded their range to crops such as Carrot, Peas, Cauliflower, Cabbage, Broccoli, Red Cabbage, Tomatoes, Wal and Chilli. The diversity in the crop pattern helped them to achieve better realization.

Impacts:

The rejuvenation of canal at Ashapur village proved to be a good example of socio-economic improvement. Though the complete impact would be visible over a period of time, the intervention has already started bringing positive change to the lives of the people of the village.

Water consumption and conservation statistics

This community-based water conservation intervention has conserved more than 1000 million litres of water by increasing the ground water table through water percolation.

Thus HCC has maintained water positive status (by way of offsetting) with water index > 1.

Collective Action and Public Policy

Mr. Ajit Gulabchand, Chairman and Managing Director, HCC, has participated in various national and international dialogues and events on environmental issues, including water, as given below;

- Triggering India's Resource Revolution, India Economic Summit, New Delhi
- Panellist : Cracking India's Urban Code, India Economic Summit, New Delhi
- Steering Committee Meeting - Future of Urban Development & Services, Annual Meeting, World Economic Forum, Davos
- Co-Chair: Governors Meeting for Infrastructure & Urban Development, Annual Meeting, World Economic Forum, Davos
- Co-Chair: Governors Policy Meeting for Infrastructure & Urban Development, Annual Meeting, World Economic Forum, Davos

Other participations by Water Team

- 'Liveweek Business', conducted CSR Expo and conference, published 'CSR good book'. In the conference, Aditya Patwardhan, was in one of the panelist and shared the views on CSR and Sustainability, along with more than 75 professionals (including CEOs, COOs, MDs and Directors)
- Aditya Patwardhan was invited for Panel Discussion on 'Sustainability Commitments', by World Sustainability Congress.

Transparency: Communication on Progress (COP)

We remain committed to the United Nations Global Compact's CEO Water Mandate initiative and will continue to promote water consciousness and internalize water efficiency in all our direct operations.

Limited assurance by TTC

This chapter serves as Communication on Progress (COP) for reporting period as April 2016 to March 2017. As part of the limited assurance of HCC's Sustainability Report 2016-17, TTC has reviewed the water related performance indicators as per GRI G4 CRESS Guidelines. The assurance process included field visits to the project sites as specified in the assurance statement.

Community Sustainability

Management Approach

HCC remains steadfast on its objective of pursuing holistic growth with responsibility towards the people and environment. The company CSR philosophy is 'Do Good to Do Well and Do Well to Do Good'. HCC's vision is to be a responsible industry leader, maintaining all the legal compliances and demonstrate environmental, transparent and ethical behavioural practices which will contribute to the economic and sustainable development within the company, industry, and society at large.

HCC CSR Policy aims at implementing its CSR activities in accordance with Section 135 and Schedule VII of the Companies Act 2013 and the notified Rules. The CSR Committee reviews the implementation CSR Policy.

Summary of our CSR initiatives at Project Sites in FY 2016-17

A. All projects of HCC have occupational health centres that provide free medical support to the surrounding communities.
B. HCC provides safe drinking water to the communities around few project sites such as Kishanganga Hydro Power Project.
C. Sanitation facilities (toilets) have been constructed in few communities around project locations such as Numaligarh-Jorhat road project in Assam.
D. A blood donation camp was held at DMRC 66, Delhi, in association with All India Institute of Medical Sciences Delhi.
E. The elderly and underprivileged children were provided the needful products to take care of their health in communities around DMRC CC66 project in Delhi.
F. Sawrakuddu Hydro Power Project site, Himachal Pradesh supported Yuva Vikas Mandal, an NGO, for Tree plantation work in the vicinity.
G. With the help of an NGO, HCC conducted an awareness programme at Mayapur village near Pipalkoti in Chamoli district in Uttarakand for farmers to educate them on better agricultural practices, small scale industries, animal husbandry and gardening products.
H. HCC has undertaken construction of a multi-purpose sports stadium at Gurez, which is close to the dam location of Kishanganga Hydroelectric power project in Jammu & Kashmir. This is the second stadium being built by HCC in the Bandipora district of Jammu & Kashmir. The first stadium was built at Bandipora in 2014. Similarly, sports gears worth ₹ 2.24 lakh was provided to the sports authority of Imphal in Manipur, for sports promotion among the students and children in the community.

Disaster relief and response

HCC is a founding member of the World Economic Forum's Disaster Resource Network. This initiative in India focuses on training and building capacity to respond to emergency situations and support disaster relief operations. The Company has provided timely interventions in a number of rescue and relief operations within India and internationally, such as the 2004 Indian Ocean tsunami, the 2005 Jammu and Kashmir earthquakes, the 2005 Mumbai floods, the 2007 Bangladesh cyclone, the 2010 Leh flash floods and the 2011 Sikkim earthquake. In 2013, HCC undertook rescue and relief operations for the Uttarakhand cloudburst and flash floods. It worked closely with the Indian army to clear the debris that accumulated on the roads due to landslides, and used the project site at Tehri as

a base camp for the rescued refugees and the army's relief operations. The Company provided refugees with food, water, sanitation, shelter and medical facilities at its relief camp at Tehri. HCC is also a private sector advisory member of the United Nation's International Strategy for Disaster Reduction.

Disaster Relief initiatives in FY 2016-17

Kolkata - the city of joy - was jolted on March 31, 2016 when two spans of an under-construction 2.2-km-long Vivekananda Flyover collapsed in a congested market area of Burra Bazar in north Kolkata. The 100-metre section of these two spans came crashing down upon the dwellers underneath.

In wake of the disaster, HCC was called in for disaster response by the Chief Engineer and the Superintending Engineer of the Kolkata Metropolitan Development Authority (KDMA) at around 12:40 pm.

Without any delay, an emergency response team was assembled to cater to the call, consisting of Engineers, Workers and Equipment (Hydra, Kato Crane, Trailers and 5 sets of Gas Cutters) and were deployed to the action area within 90 minutes.

Initially works continued in the affected zone for 24 hours and the team successfully removed all debris from the area inclusive of damaged steel structures. Later on, further resources were requested to aid in the complete clearance of the damaged deck slab. In response, an average of 50 labours was deployed both in day and night shifts for three days. The damaged deck slab was supported with reinforced concrete blocks and sandbags, which was planned to be dismantled using diamond saws and pneumatic jack hammers.

Along with the Army and the National Disaster Response Force, HCC team has contributed notably to the disaster relief by successfully dismantling the fallen behemoth to the extents possible.

(HCC is currently engaged in the construction of the longest elevated corridor in the city (Ma Flyover) for KDMA.)

HCC is a member of the Disaster Resource Partnership, an alliance initiated by the World Economic Forum and also the founder member of Disaster Resource Network India. Supporting communities by actively participating in disaster relief and response is gradually inculcated in HCC's culture which is once again honoured by the proactive approach taken by HCC's Ma Flyover project team.

Our Sustainability Performance

Economic Performance - Key Performance Indicators	Value (Million INR) (FY 2016-17)
Economic Value Generated	41959.37
Revenues	41959.37
Economic Value Distributed	43439.69
Operating Costs	29989.81
Employee Benefits and Wages	3968.01
Payment to Providers of Capital	7723.68
Payments to Government (Indian)	1750.76
Economic Value Retained	(1480.32)

Environmental Performance – Key Performance Indicators	Unit	FY 2016-17
Materials		
Raw Materials	Tons	2859438.19
Semi-manufactured Goods or Parts	Tons	288748.15
Associated Materials *	Tons	3738.82
Energy		
Diesel	L	15255729
	GJ	557596.89
Aviation Turbine Fuel	L	68420
	GJ	2485.42
Total Direct Energy	GJ	560082.32
	kWh	155578422.2
Total Indirect Energy (Purchased electricity)	kWh	36057187
Greenhouse Gas Emissions		
GHG emissions due to direct energy use	Ton CO_2eq	41491.91
GHG emissions due to indirect energy use	Ton CO_2eq	29390.21
GHG emissions intensity from construction[3]	Ton CO_2eq/ INR Million [Turnover]	1.01
GHG saved on account of Fly Ash Utilization and ground granulated blast furnace slag	Ton CO_2eq	14895
Waste Disposed		
Solid Hazardous Waste (Empty drums, batteries, E-waste)	Numbers	400 drums
Liquid hazardous waste (Used oil)	KL	20.52
Non-hazardous Waste (Used oil filters, tyres, cement bags)	Numbers	732000 Cement Bags
Non-hazardous waste (Steel Scrap, used spares)	Tons	3533.00
Environmental Expenditure		
Waste disposal, emissions treatment and remediation costs	INR	10550.00

*In addition to the above mentioned quantity, 88.75 kL of oils were used

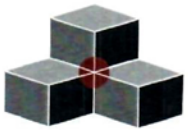
[3]GHG emissions intensity has been calculated using a sum of emissions from direct and indirect energy use at our project sites in scope. Scope 3 emissions have not been accounted for. Emission factors for direct energy have been used as per the IPCC Guidelines for GHG Inventories (2006), while the emission factor for indirect energy (i.e. purchased electricity) is taken from the Indian Central Electricity Authority (CEA)'s 2009 Baseline Carbon Dioxide Emission Database Version 9.0. Annual turnover of HCC (E&C business) was taken from our Annual Report available on the web-link mentioned in this Report.

Social Performance – Key Performance Indicators	FY 2016-17
Total Workforce	
Workforce by Level of Employment	
Officers (Senior, Middle, Junior Management)	1661
Others (Short Term Contracts, Trainees etc.)	60
Workmen (Excluding FTC)	20663
Workforce by Type of Contract	
Permanent Employees	5855
Sub-contract	5704
Piece-rate Workers	9104
Fixed-term Contract	92
Workforce by Gender (excluding Workmen)	
Male	1638
Female	83
New Employee Hire and Turnover	
Total Number of New Hires (excluding Workmen)	
Male	385
Female	6
<30 years	200
30-50 years	166
>50 years	25
Total Number of Employees Leaving Employment (Officers only)	404
Male	395
Female	9
<30 years	153
30-50 years	214
>50 years	37
Return to Work after Parental Leave	
Number of Employees Entitled (all Women)	83
Number of Employees Availed and Returned	2
Number of Retentions 12 Months After Return	2
Ratio of Basic Salary and Remuneration of Women to Men	
Senior management	1.01
Junior and middle management	0.92
Average Employee Training Man-hours by Level of Employment	
Officers	6.74
Trainees	30.80
Workers	2.88
Average Employee Training Man-hours by Gender (Trainees included)	
Male	7.8
Female	1.0
Safety Statistics[4]	
Man-hours Worked	64811723
Injuries	06
Fatalities	07
Lost Days	42288
Frequency Rate	0.20
Severity Rate	652.5
Frequency Severity Index	0.36

[4]Includes HCC Employees and Subcontracted Workmen.

G4-9, G4-19, G4-24, G4-26, G4-27, G4-EN1, G4-EN3, G4-EN15, G4-EN16, CRE-4, G4-EN23, G4-EN31,

Independent Assurance Statement (TTC)



TTC
connecting ideas for impact

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ASSURANCE STATEMENT

The Board of Directors and Management
Hindustan Construction Company Limited
Mumbai, India

Introduction and objective of engagement
Thinkthrough Consulting Pvt. Ltd. (TTC) was engaged by Hindustan Construction Company Limited ('HCC' or 'Company') to provide independent assurance to its Sustainability Report ('Report') for the financial year 2016-17. The Report has been developed by HCC based on Global Reporting Initiative (GRI) G4 Guidelines (2013) and GRI's Construction and Real Estate Sector Supplement (CRESS). The Report has been self-declared to comply with the 'in accordance - comprehensive' requirements of the GRI G4 Guidelines and applicable CRESS sector indicators.

Respective responsibilities
The Report content and its presentation are the sole responsibility of the management of HCC. Company management is also responsible for the design, implementation and maintenance of internal controls relevant to the preparation of the Report, so that it is free from material misstatement, whether due to fraud or error.

TTC's responsibility, as agreed with the management of HCC, is to provide assurance on the Report content as described in the *Assurance Scope* below. We do not accept or assume any responsibility for any other purpose or to any other person or organisation. Any reliance a third party may place on the Report is entirely at its own risk.

Assurance Scope
The scope of our work was limited to assurance over sustainability performance data and information included in the Report for the reporting period April 1, 2016 to March 31, 2017. Subject to the limitations and exclusions listed in the next section, our review included the following:

1. HCC management's approach of material issues;
2. Statements, information and performance data contained within the Report;
3. Alignment of the reported data and information to the requirements of the GRI G4 Sustainability Reporting Guideline and CRESS sector indicators.

Assurance Criteria
The assurance process was conducted in line with the requirements of the AA1000 Assurance Standard (2008) Type 2 assurance[1]. We applied a moderate[2] level of assurance.

Limitations and Exclusions
We conducted our review to express a moderate assurance conclusion. A moderate level assurance engagement relies on a risk based chosen sample of the selected information and the associated limitations that this entails. Our work was limited to two sample sites and corporate office visited by us as stated in *Summary of key assurance procedures*. These visits were undertaken to understand how the Company consolidates and reconciles data provided by project sites. The reliability of the reported data is dependent on the accuracy of data collection and

[1] Type 2 Assurance: an engagement in which the assurance provider gives findings and conclusions on the principles of Inclusivity, Materiality and Responsiveness, and verifies the reliability of specified sustainability performance information AA1000AS (2008) Standard.
[2] A moderate level of assurance as per AA1000 (2008) Standard is commensurate with "limited" assurance as defined in the International Standard on Assurance Engagements 3000 (Revised) – Effective for assurance engagement dated on or after December 15, 2015.

monitoring arrangements at project site level. This independent statement should not be relied upon to detect all errors, omissions or misstatements that may exist.

Excluded from the scope of our work are the following:

- Operations of the Company and aspects of data/information other than those mentioned in *Scope of Assurance*;
- Data and information outside the defined reporting period, i.e., 1st April 2016 to 31st March 2017;
- Historical text which was unchanged from previous years and/or did not relate to ongoing activities;
- Financial data taken from the Company's Annual Report 2016-17 which is audited by an external financial auditor, including but not limited to any statements relating to tax, sales, and financial investments;
- Content of external websites or documents linked from the Report and related pages;
- Company position statements (including any expression of opinion, belief, aspiration, expectation, aim or future intent).

Summary of key assurance procedures

In order to form our conclusions, the procedures we performed were based on our professional judgement and included the steps outlined below:

1. **Conducted interviews with key senior personnel** of the Company to understand the HCC's sustainability vision and strategy, key priorities, current processes in place for capturing sustainability performance data as per GRI- G4 guidelines and CRESS sector indicators, and the progress made during the reporting period;
2. **Reviewed the Company's approach to stakeholder engagement** and processes for determining material issues through interviews and review of associated documents with issue owners at the Company's corporate office at Mumbai (Maharashtra);
3. **Reviewed selected systems and documents** for gathering, analyzing and aggregating sustainability performance data in the reporting period to understand progress made across the organization;
4. **Assessed site performance data** through visits undertaken at two project sites namely: (i) Bogibeel Rail-cum-Road Bridge, Bogibeel (Assam); and (ii) BARC Integrated Nuclear Recycle Plant, Tarapur (Maharashtra).

   At each of the above mentioned sites, our work steps included detailed review of disaggregated data and testing of source documentation for select environmental, social and safety indicators. Additionally, we interviewed data owners and reviewed relevant documents to understand reporting processes and associated systems;
5. **Assessed suitability of Reporting criteria** with respect to relevance, completeness, reliability and neutrality for reporting and also by taking into consideration CRESS sector indicators;
6. **Reviewed presentation of the sustainability data in the Report**, including description of performance, assumptions and limitations.

Our conclusions

Based on the scope of our review, our conclusions are outlined below:

- **Inclusiveness:**

We are not aware of any matter that would lead us to conclude that the Company has not applied the principle of inclusivity in engaging with key stakeholder groups. The company transparently disclosed its stakeholder engagement approach and activities in the sustainability report. The Company's engagement with some key stakeholder groups such as local communities, suppliers and efforts to address their concerns were evidenced during the assurance process.

- **Materiality:**

Nothing has come to our attention that causes us to believe that any material issue has been excluded from sustainability reporting by the Company. The Company has mapped its material issues as a materiality matrix which is disclosed in the sustainability report.

- **Responsiveness:**

We are not aware of any matter that would lead us to believe that the Company has not applied the responsiveness principle for dealing with stakeholders on material aspects covering its sustainability performance. The Company's responsiveness to its customers, suppliers, and local communities was reasonably evidenced.

G4-9, G4-19, G4-24, G4-26, G4-27, G4-EN1, G4-EN3, G4-EN15, G4-EN16, CRE-4, G4-EN23, G4-EN31,

- **Reliability of sustainability performance information:**

We reviewed the accuracy and completeness of sustainability information in the Report. Nothing has come to our attention that causes us not to believe that the data has been presented fairly, in material respects, in keeping with the GRI-G4 guidelines and the Company's reporting principles and criteria.

Our observations

Without qualifying our conclusion above, we draw attention to the points stated below:

- In view of the nature of its business, it is noteworthy that HCC is progressively increasing the scope and depth of its reporting;
- Going forward, the report could additionally cover actions and a roadmap on 'material' issues in greater detail;
- During the course of the review, observations regarding data correctness, data management and associated systems were discussed with the management for taking appropriate action either for the current or next reporting cycle;
- It is recommended that the Company further strengthen its material management systems to avoid error in reporting.

Our assurance and independence

TTC is an independent professional services firm that specialises in accountability on sustainability issues. Our assurance team is multidisciplinary and has extensive experience in conducting independent assurance of environmental, health, safety, social, economic and ethical data, systems and processes.

We have implemented measures to ensure that we follow the applicable independence rule and professional competence. Our assurance team does not have any involvement in other projects with HCC that would cause a conflict of interest.

for Thinkthrough Consulting Pvt. Ltd.

Partner
28th August 2017
New Delhi

AA1000
Licensed Assurance Provider
000-223

GRI G4 Content Index

General Standard Disclosures	Page Number (or Link) Information related to Standard Disclosures required by the 'in accordance' options may already be included in other reports prepared by the organization. In these circumstances, the organization may elect to add a specific reference to where the relevant information can be found.	External Assurance Indicate if the Standard Disclosure has been externally assured. If yes, include the page reference for the External Assurance Statement in the report.
STRATEGY AND ANALYSIS		
G4-1	Message from: the Chairman and Managing Director's Desk (2-3), the President and CEO's Desk (4)	YES
ORGANIZATIONAL PROFILE		
G4-3	About the Report (1)	YES
G4-4	Organizational Overview (5 - 8)	YES
G4-5	Organizational Overview (5), HCC Annual Report 2016-17 - http://www.hccindia.com/pdf/HCC-Annual-Report-FY-2016-17.pdf, Page 6	YES
G4-6	About the Report (1), Organizational Overview (5 - 8)	YES
G4-7	Organizational Overview (5)	YES
G4-8	Organizational Overview (5 - 8)	YES
G4-9	Organizational Overview (5 - 8), Revenues – Economic Performance: Key Performance Indicators (40), Total Workforce - Social Performance: Key Performance Indicators (41)	YES
G4-10	Social Performance: Key Performance Indicators (41)	YES
G4-11	Our Employees (20)	YES
G4-12	As a diversified infrastructure company, HCC's supply chain comprises of multiple suppliers/stakeholders that are spread across the country. Labour contractors, technology/equipment providers, construction JV partners and raw material suppliers are an integral part of our supply chain with cement, aggregates, steel being the most important raw materials for us.	YES
G4-13	No significant changes in the reporting entity, including ownership, during the reporting period.	YES
G4-14	Risk Management (14-15).	YES

G4-9, G4-19, G4-24, G4-26, G4-27, G4-EN1, G4-EN3, G4-EN15, G4-EN16, CRE-4, G4-EN23, G4-EN31,

G4-15	GRI G4 CRESS, UNGC, UN CEO Water Mandate, ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007, National Voluntary Guidelines for Environmental, Economic and Social Performance for Businesses (NVG, disclosed in the Company's Annual Report 2016-17(http://www.hccindia.com/pdf/HCC-Annual-Report-FY-2016-17.pdf), page 88-94).	YES
G4-16	Memberships, Advocacy (9-10)	YES
IDENTIFIED MATERIAL ASPECTS AND BOUNDARIES		
G4-17	The financial statements include all the businesses of HCC (for further details please refer to HCC's Annual Report http://www.hccindia.com/pdf/HCC-Annual-Report-FY-2016-17.pdf), whereas the reporting boundary of this report only includes the E&C business of HCC.	YES
G4-18	About the report (1)	YES
G4-19	Material Aspects (12-13)	YES
G4-20	About the Report (1)	YES
G4-21	About the Report (1)	YES
G4-22	None	YES
G4-23	None	YES
STAKEHOLDER ENGAGEMENT		
G4-24	Stakeholder engagement (12)	YES
G4-25	Stakeholder engagement (11)	YES
G4-26	Stakeholder engagement (11-12)	YES
G4-27	Stakeholder engagement (11-12)	YES
REPORT PROFILE		
G4-28	About the Report (1)	YES
G4-29	FY 2015-16	YES
G4-30	About the Report (1)	YES
G4-31	About the Report (1)	YES
G4-32	About the Report (1), GRI Content Index(43-44), Independent Assurance Statement(42)	YES
G4-33	About the Report (1), Independent Assurance Statement(42)	YES
GOVERNANCE		
G4-34	The Board of Directors of HCC (7)	YES
ETHICS AND INTEGRITY		
G4-56	Refer to HCC's Annual Report 2017 (http://www.hccindia.com/pdf/HCC-Annual-Report-FY-2016-17.pdf)	YES

SPECIFIC STANDARD DISCLOSURES					
DMA and Indicators	**Page Number (or Link) Information related to Standard Disclosures required by the 'in accordance' options may already be included in other reports prepared by the organization. In these circumstances, the organization may elect to add a specific reference to where the relevant information can be found.**	**Identified Omission(s) In exceptional cases, if it is not possible to disclose certain required information, identify the information that has been**	**Reason(s) for Omission(s) In exceptional cases, if it is not possible to disclose certain required information, provide the reason for omission.**	**Explanation for Omission(s) In exceptional cases, if it is not possible to disclose certain required information, explain the reasons why the**	**External Assurance Indicate if the Standard Disclosure has been externally assured. If yes, include the page reference**

		omitted.		**information has been omitted.**	**for the External Assurance Statement in the report.**
CATEGORY: ECONOMIC					
MATERIAL ASPECT: ECONOMIC PERFORMANCE					
G4-DMA	Economic Performance(28)				Yes
G4-EC1	Economic Performance (28), Economic Performance - Key Performance Indicators (40), Community Sustainability (38,39)				Yes
G4-EC3	Employee Benefits (21)				Yes
G4-EC4	Economic Performance (28,29). Government is not present in the share-holding structure. Also refer to the HCC Annual Report http://www.hccindia.com/pdf/HCC-Annual-Report-FY-2016-17.pdf (35).				Yes
MATERIAL ASPECT: PROCUREMENT PRACTICES					
G4-DMA	Environmental Performance (30)				
G4-EC9	As HCC has an extensive pan- Indian project footprint, our definition for local sourcing continues to remain nation-wide. Almost 100% of the significant procurement budget at the projects in this reporting period was sourced locally (within India).				Yes
CATEGORY: ENVIRONMENTAL					
MATERIAL ASPECT: MATERIALS					
G4-DMA	Environmental Performance: Resource optimization initiatives (30)				
G4-EN1	Our Sustainability Performance (40)				YES
MATERIAL ASPECT: ENERGY					
G4-DMA	Environmental Performance (30)				
G4-EN3	Environmental Performance - Key Performance Indicators - Energy (40)				YES
MATERIAL ASPECT: WATER					
G4-DMA	Environmental Performance: Conservation of Energy (30)				
G4-EN8	CoP : CEO Water Mandate - Water management (35)				YES
G4-EN10	CoP : CEO Water Mandate - Water management (35)				YES
MATERIAL ASPECT: EMISSIONS					
G4-DMA	Environmental Performance (30)				
G4-EN15	Environmental Performance - Key Performance Indicators - Greenhouse Gas Emissions (40)				YES
G4-EN16	Environmental Performance - Key Performance Indicators - Greenhouse Gas Emissions (40)				YES

CRE4	Environmental Performance - Key Performance Indicators – Energy, Footnote on GHG emissions intensity (40)				YES
MATERIAL ASPECT: EFFLUENTS AND WASTE					
G4-DMA	Environmental Performance (30)				
G4-EN22	CoP : CEO Water Mandate - Water management (34-37)				YES
G4-EN23	Environmental Performance - Key Performance Indicators - Waste Disposed (40)				YES
MATERIAL ASPECT: ENVIRONMENTAL EXPENDITURE					
G4-DMA	Environmental Performance (30)				
G4-EN31	Environmental Performance - Key Performance Indicators - Environmental Expenditure (40)				YES
CRE5	Construction activities by HCC have not caused any significant land contamination, therefore there has been no need for remediation				YES
CATEGORY: SOCIAL					
SUB-CATEGORY: LABOR PRACTICES AND DECENT WORK					
MATERIAL ASPECT: EMPLOYMENT					
G4-DMA	Our Employees (18)				
G4-LA1	Our Employees (20-21), Social Performance: Key Performance Indicators (41)				YES
G4-LA2	Our Employees (21)				YES
G4-LA3	Our Employees (22), Social Performance: Key Performance Indicators (41)				YES
MATERIAL ASPECT: LABOR MANAGEMENT RELATIONS					
G4-DMA	Our Employees (18)				
G4-LA4	No such changes during the reporting period. As prescribed under the Industrial Disputes Act, 1947, 21 days' notice period is provided.				YES
MATERIAL ASPECT: OCCUPATIONAL HEALTH AND SAFETY					
G4-DMA	Health and Safety (18)				
G4-LA5	All our project level health and safety committees have an equal representation of management and workers.				YES
G4-LA6	Our Safety performance (26-27), Social Performance: Key Performance Indicators (41)				YES
CRE6	Environmental Performance (30-31)				YES
MATERIAL ASPECT: TRAINING AND EDUCATION					
G4-DMA	Our Employees: Employee training and development (18)				
G4-LA9	Social Performance: Key Performance Indicators (41)				YES

G4-LA10	Our Employees - Employee Training and Development (21-23)				YES
G4-LA11	Our Employees (18)				YES
MATERIAL ASPECT: DIVERSITY AND EQUAL OPPORTUNITY					
G4-DMA	Our Employees: Equal remuneration (18)				
G4-LA12	Our Employees (20)				YES
MATERIAL ASPECT: EQUAL REMUNERATION FOR WOMEN AND MEN					
G4-DMA	Our Employees: Diversity and equal opportunity (18)				
G4-LA13	Social Performance: Key Performance Indicators (41)				YES
SUB-CATEGORY: HUMAN RIGHTS					
MATERIAL ASPECT: INVESTMENT					
G4-DMA	Currently, our investment agreements do not include clauses on human rights.				
G4-HR1	Currently, our investment agreements do not include clauses on human rights.				YES
MATERIAL ASPECT: NON-DISCRIMINATION					
G4-DMA	Our Employees: Zero tolerance to discrimination (18)				
G4-HR3	No such incidents of discrimination were reported during the reporting period.				YES
MATERIAL ASPECT: CHILD LABOR					
G4-DMA	Our Employees(18)				
G4-HR5	Business responsibility report, NVG principle -3 (Annual reporthttp://www.hccindia.com/pdf/HCC-Annual-Report-FY-2016-17.pdf page-92), Our Employees - Zero tolerance to discrimination (19)				YES
MATERIAL ASPECT: FORCED OR COMPULSORY LABOR					
G4-DMA	Our Employees(18)				
G4-HR6	No operations and suppliers with significant risks have been identified yet.				YES
SUB-CATEGORY: SOCIETY					
MATERIAL ASPECT: LOCAL COMMUNITIES					
G4-DMA	Community sustainability (38)				
G4-SO1	Community Sustainability (38-39). We carry out community engagement and development programs at all our project sites. Given the contractual nature of our work, these programs last through the construction phase.				YES
MATERIAL ASPECT: COMPLIANCE					
G4-DMA	Our Employees (38)				
G4-SO8	No significant fines or sanctions were levied on HCC during the reporting period.				YES

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