

Responsible Infrastructure



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1. About the Report

Responsible Infrastructure 2012-13 is Hindustan Construction Company's (HCC) fourth consecutive annual sustainability report, and presents sustainability highlights from the financial year (FY) 2012-13 (1 April 2012 to 31 March 2013). For this report, we have adopted the new Global Reporting Initiative (GRI) G3.1 Construction and Real Estate Sector Supplement (CRESS) reporting framework. We continue reporting the highest Application Level of A+. Wherever necessary, we have explained the assumptions and/or exceptions while reporting on the GRI key performance indicators.

This report also comprises our fifth Communication on Progress (COP) for the UN Global Compact's CEO Water Mandate initiative, for the same reporting period.

The primary target audiences for this report are our employees, investors, customers and suppliers, business partners, regulatory authorities as well as individuals and organizations who may be interested in learning more about our triple bottom line philosophy and performance.

The scope of reporting of key performance indicators is limited to our Engineering & Construction business. For FY 2012-13, a total of sixteen projects across India have been included in the reporting purview. Some of the projects in scope last year have either been completed or are being demobilized. Bogibeel and Tehri are new additions to the reporting scope this year and Pir Panjal is no longer in the scope of the report.

This report has been assured by Ernst & Young LLP, an independent and professional services firm. A representative sample of data was made available for scrutiny and verification to their assurance team. As part of their assurance protocol, Ernst & Young LLP also oversaw our materiality reassessment exercise. The external assurance adds continued credibility to our reporting and has strengthened our approach through capacity building at HCC.

Readers are welcome to address their queries or feedback on this report to:

Ms. Niyati Sareen

General Manager, CSR

Niyati.Sareen@hccindia.com

Mr. Aditya Patwardhan

Manager, Sustainability

Aditya.Patwardhan@hccindia.com

All financial values in this report are expressed in terms of Indian Rupees ("INR" or "Rs."). Large numbers may be expressed in terms of Lacs, Crores or Millions; these are units of monetary value commonly used and accepted in the Indian sub-continent.

2. From the Chairman and Managing Director's Desk

Dear Reader,

In continuation of HCC's commitment to sustainable business practices, I am delighted to present **Responsible Infrastructure**, our annual **sustainability report for FY 2012-13**. Like its predecessor reports, this report fulfils the requirements of the highest Application Level (A+) of the Global Reporting Initiative's (GRI) framework. We have followed the G3.1 Guidelines as well as the Construction and Real Estate Sector Supplement (CRESS). In addition, the report contains HCC's fifth consecutive Communication on Progress (CoP) for 2012 on the UN Global Compact's CEO Water Mandate.



It is important to view the company's performance in the context of what has been a challenging year for the infrastructure and construction industry in India. India's GDP growth for the year fell to 5%, the lowest in a decade. The slowdown of the Indian economy, accompanied by a drop in gross fixed capital formation, has resulted in reduced construction activity and low growth levels in the construction industry. Given this business environment, we have redoubled our efforts on improving operational efficiency and reducing costs. Through innovative solutions, we have been able to reduce our material use and costs. We are approaching projects with greater focus and concentrating on improving bid success ratio rather than increasing the number of bids.

The industry has also been plagued with issues of environmental clearances, delays in decision making and payments, further impacting growth levels. HCC is no exception. The difficulties associated with environmental clearances continue to be a matter of concern for our business and infrastructure growth in the country. Nationally, 441 projects, valued at over INR 10 trillion, have been stalled due to reasons relating to environmental clearances. This uncertainty and delay in decision making, which could be attributed to centralisation and increase in risk aversion within the civil service, has affected the company's cash flows. I would like to take this opportunity to stress the importance of well-defined norms and mechanisms for obtaining environment clearances, while reiterating our commitment to the protection of the environment and our broader focus on creating responsible infrastructure.

At HCC, we are committed to preserving our environment in a responsible manner across every infrastructure project that we execute in the country, and continually strive to improve our environmental performance wherever possible. A particularly important aspect of our environmental commitment is our focus on water conservation. We believe that effective treatment and recycling of water as well as improved efficiency and ground water recharging are some relatively simple practices that will make the difference between a water-starved country and one where water sustainability contributes to the nation's growth. Our efforts to achieve water neutrality and increase our water use efficiency are highlighted in the UN CEO Water Mandate Communication on Progress, which forms a part of this report.

The commitment to responsible infrastructure extends to our determination to improve the welfare of local communities around our project sites across the country. Over the year, our Corporate Social Responsibility remained focused on education, HIV/AIDS awareness, water management and disaster management. Through our efforts, we have created a competent force of trainers and educators, whose knowledge builds awareness on HIV/AIDS among our employees, our workers, and to communities that surround our project sites.

In addition to the continued initiatives at our project sites, HCC has made great strides in expanding the impacts of community development projects by assuming a leadership role on issues such as water sustainability and disaster management, in India and beyond. Through our active participation in the Disaster Resource Network and other thought leadership forums, we continue to win national and global recognition. Our initiatives on water sustainability were featured amongst ten global case studies in the UNGC Climate Report. Awards and recognition encourage us to make further strides as we move forward in our sustainability journey.

I hope you will find this report informative, and we welcome your feedback and suggestions.

Ajit Gulabchand
Chairman and Managing Director

3. Message from the President and Whole Time Director

2Dear Reader,

We are pleased to present our Company's fourth consecutive annual sustainability report. The continued disclosure of our triple bottom line performance is a testament of HCC's commitment towards sustainable business, communities and the environment.

The past year was challenging for the Company and the industry in general, resulting in several measures to streamline our business and improve operational efficiency. Our unwavering focus on community development however remains strong. Our long-running corporate social responsibility programs, centered around the focus areas of water conservation, disaster response management, addressing the HIV/AIDS challenge, and improvement in community infrastructure, have made a real and significant positive impact across communities in India. This impact is evident in community rebuilding after severe natural calamities and enhanced awareness on health issues among rural population.



As we move forward, we remain committed to refining our focus on these CSR programs and leverage on the capacity that has been built among our employees to make even further impact in the local communities where our projects are located. Our community investment in terms of the degree of engagement and responsiveness as well as meeting urgent and critical community needs is a matter of pride for the Company.

HCC's continued focus on community development even in financially trying times has received recognition from various stakeholders, including our clients. This appreciation has made us re-dedicate ourselves to making a positive difference and enhancing our sustainability communication efforts.

In this context, I welcome you to read more about our sustainability highlights from FY 2012-13 in this report, and provide any suggestions on how we can improve our reporting.

Arun Karambelkar

President and Whole Time Director, HCC

4. Industry Landscape

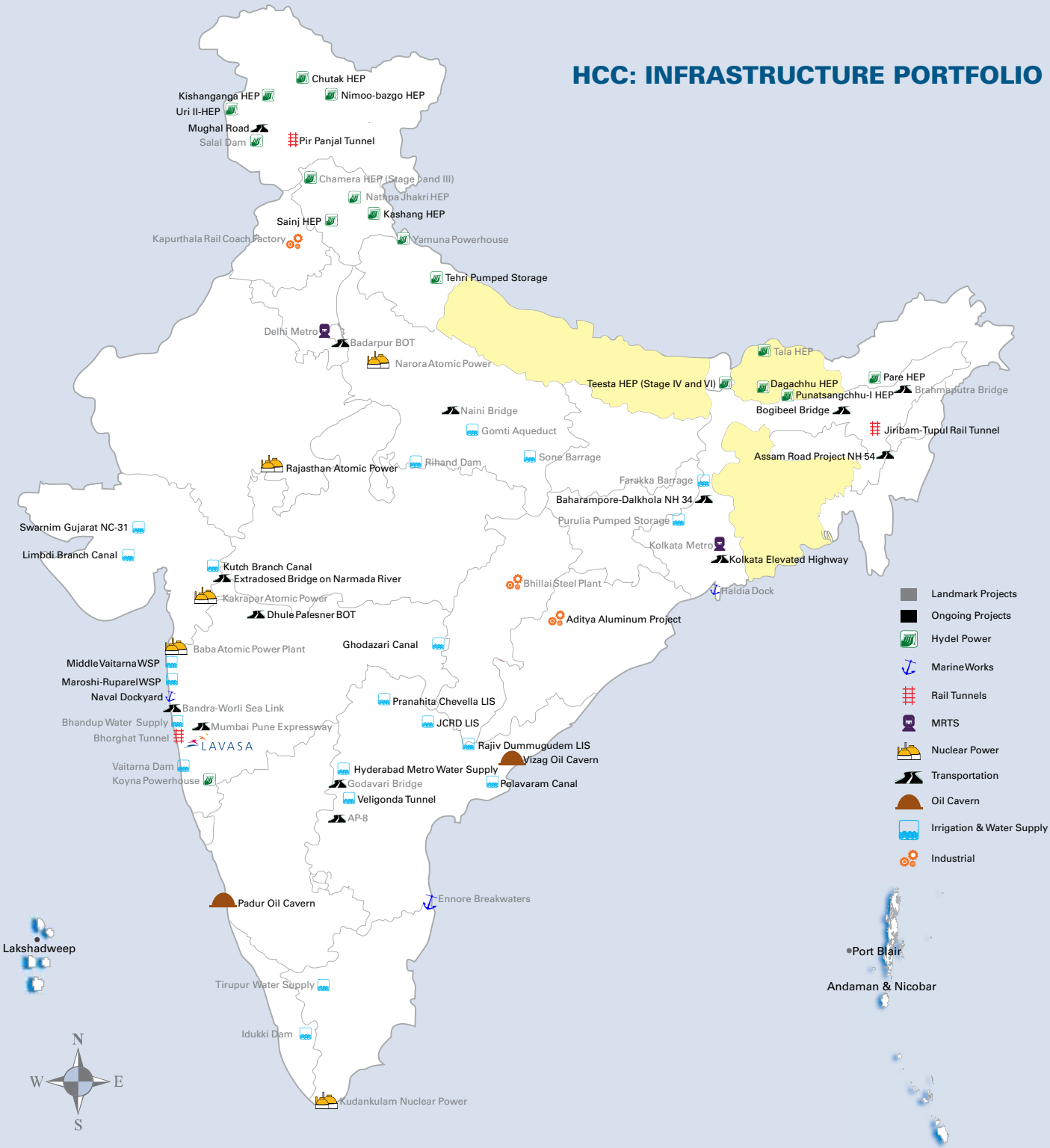
HCC releases its sustainability report for the year 2012-13 against the backdrop of slow industrial and national growth in India. India's GDP has now fallen over 12 successive quarters. The GDP growth for 2012-13 is estimated to be down to 5% — a far cry from the 8% plus annual growth rate that we had got used to for most of the previous decade. This decline in growth has much to do with the depressing investment climate of the country and the dismal state of physical infrastructure.

To ensure the growth of the economy at a real rate of 9% per year calls for substantial physical investments. Unfortunately, growth in gross fixed capital formation (GFCF) has reduced to a paltry 2.5%. A major reason for this has been the sharp fall in the growth of infrastructure investments in power, highways, railways or ports. India, as a nation, has not invested sufficiently in infrastructure — be it public, private or through public-private-partnership — to achieve the growth that is needed to generate sufficient income and job opportunities. As a result, construction activity has reduced across the board, and growth of the construction sector was a mere 5.9% in 2012-13.

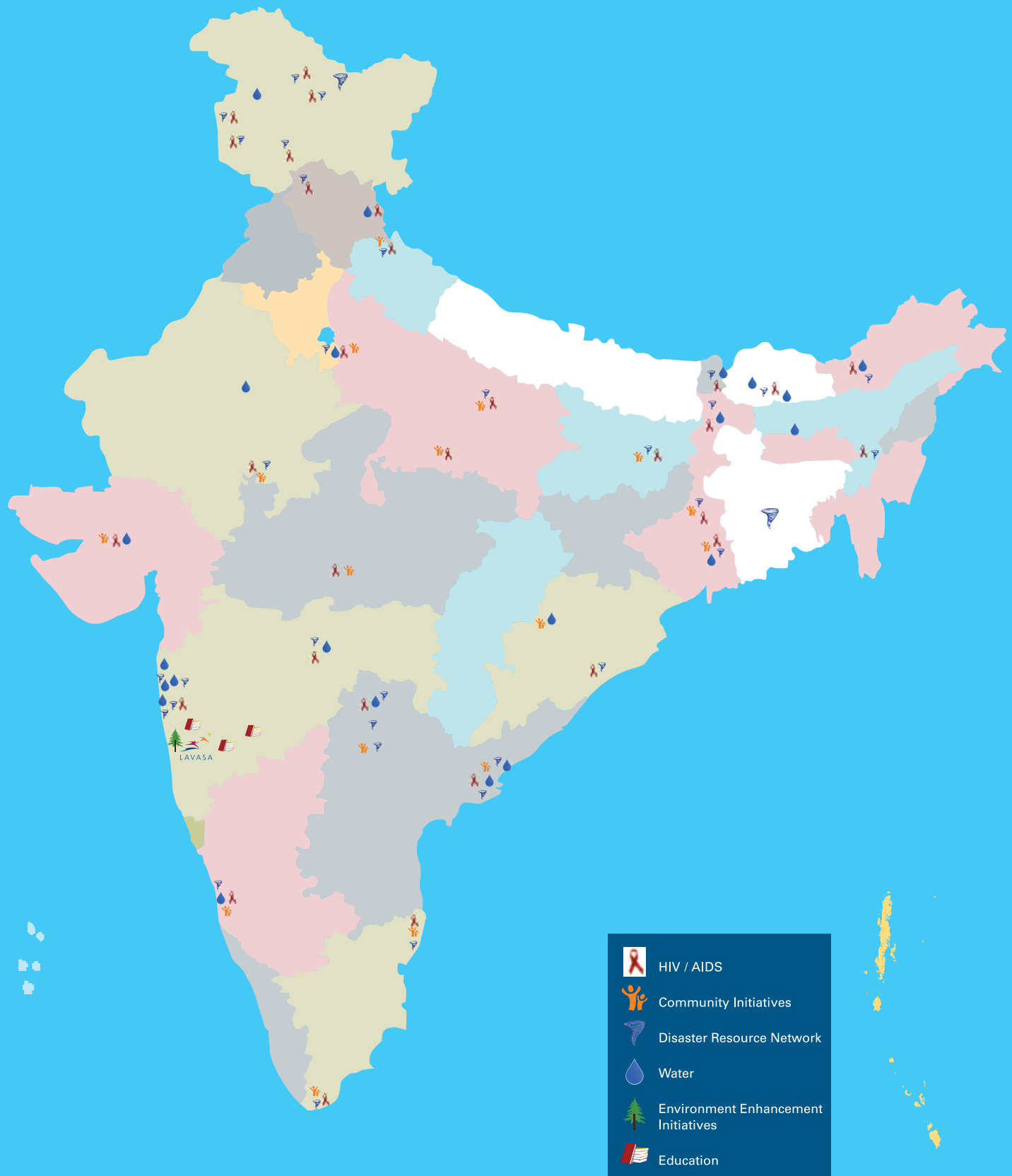
The projects of the National Highway Authority of India (NHAI) continue to run behind schedule. In the National Highways Development Project (NHDP), 2128 km is yet to be contracted out. Besides, there have been several implementation problems with most of the projects that have been contracted out on a BOT basis — the primary one being the inability of the developer to acquire the necessary land. Today, the estimated value of unpaid dues to contractors on account of national highways is at almost INR 22,000 crore. HCC alone is owed some INR 2,500 crore across its various highway construction projects. For hydro-electric projects, the total outstanding is approximately INR 7,500 crore, of which dues to HCC are around INR 2,500 crore.

There have also been long delays in clearances of new infrastructure projects and stoppage of ongoing ones by the Ministry of Environment and Forests (MoEF), resulting in fewer new contracts and actual infrastructure work. Nearly 441 projects with investments valued at well over INR 10 lakh crore (or INR 10 trillion) have been stalled due to reasons pertaining to environmental clearance. What was true at the macro-level was also true in the case of HCC, which is one of India's leading infrastructure players. HCC entered 2012-13 with a low order book. Despite an even more concentrated focus on efficient execution, the order book size was not commensurate with the scale and structure of your Company. Added to that were two other factors: (i) unrealistically low pricing by players desperate to grab orders, and (ii) high interest rates. The combination of a low order book, no growth in turnover, lower operating margins and higher interest costs has led to HCC generating losses in 2012-13.

HCC: INFRASTRUCTURE PORTFOLIO



HCC GROUP'S SUSTAINABILITY FOOTPRINT



5. Organizational Profile

Hindustan Construction Company Ltd. (HCC) is a business group developing and building responsible infrastructure through next practices. HCC has market-leading positions in four core sectors: hydel power, water solutions, transportation, nuclear power and thermal processes. It focuses on landmark projects of high complexity where it applies its core competencies and skills to deliver world-class infrastructure. HCC has constructed 25% of India's hydel power generation and over 50% of India's nuclear power generation capacities, over 3,364 lane km of expressways and highways, more than 207 km of complex tunnelling and over 324 bridges. Much of HCC's work is undertaken in extreme conditions – at high altitudes and sub-zero temperatures in remote parts of the Himalayas, deep under the ground and in dense urban environments.

Group companies

Lavasa Corporation Limited

Lavasa is a planned hill city. It is based on the principles of New Urbanism with an award-winning masterplan developed by design consultant HOK, USA. The city plan uniquely incorporates advanced technology and e-governance principles. It is a blueprint for new city development in India.



HCC Infrastructure Company Limited

HCC Infrastructure is a leading developer serving India's infrastructure needs in the areas of transportation, energy and urban infrastructure. The company's current portfolio includes seven National Highways Authority of India (NHAI) road concessions.



HCC Real Estate Limited

HCC Real Estate Ltd (HREL) is focused on commercial real estate development including new urban development and management projects. HREL's 247 Park in Mumbai is India's largest standalone LEED certified gold rated green building.



Steiner AG

Steiner AG is Switzerland's second-largest total services contractor. It specialises in the turnkey development of new buildings and refurbishments, and offers services in all facets of real estate construction.



Engineering and Construction Business

HCC's Engineering and Construction business (E&C) has nearly a century of construction experience, notably in geographically challenging terrains. We are an experienced engineering and construction leader with businesses in hydel power, water solutions, transportation, and nuclear and special projects.

Transportation

- Over 3,364 lane km of expressways/ highways
- Mumbai-Pune Expressway: India's first concrete pavement, access controlled expressway
- More than 324 bridges
- India's first two metro systems (Kolkata & Delhi)
- India's longest railway tunnel
- India's first cable-stayed sea link
- 4.4 km- long Delhi Faridabad Elevated Highway



Hydel Power

- More than 25 dams across India
- India's first underground powerhouse
- 18 surface and underground powerhouses
- 330 MW Kishanganga Hydroelectric Power Project
- 2 hydroelectric power projects in Chutak and Leh at altitudes more than 10,000 feet



Nuclear and process power plant

- All eight units of Rajasthan Atomic Power Plant
- 18 thermal power projects and three gas based power projects
- India's largest nuclear power plant at Kudankulam
- Pot shell structure for Aditya Aluminum with stringent IP parameters from Aluminum Pechiney



Water Solutions

- 7 irrigation dams, 35 water treatment plants, 70 sewage treatment plants, 18 major barrages
- Vaitarna Dam – India's first concrete gravity dam
- Farraka Barrage – then the world's longest at 2,253 m
- Gomti Aqueduct – then the world's largest water carrying capacity
- India's first and largest private sector water supply project



6. Projects in Scope for Sustainability Report 2012-13

The following projects are in the scope of the report.

Hydroelectric Power Projects

- Dagacchu Hydro Electric Project, Bhutan
- Kashang Hydro Electric Project (Stage I), Himachal Pradesh
- Kishanganga Hydro Electric Project, Jammu & Kashmir
- Pare Hydro Electric Project, Arunachal Pradesh
- Punatsangchhu-1 Hydro Electric Project, Bhutan
- Sainj Hydro Electric Project, Himachal Pradesh
- Teesta Low Dam Hydro Electric Project (Stage IV), West Bengal
- Tehri Pumped Storage Project, Uttarakhand

Nuclear and Special Projects

- Aditya Aluminium Project, Orissa
- Rock Cavern for Crude Oil Storage at Padur, Karnataka

Transportation Projects

- East West Corridor Project Package EW-II (AS23), Assam
- Elevated road Corridor from Park Circus to EM Bypass Project, Kolkata
- Four Laning of Bahrapore-Farakka section of NH-34 (Package-3), West Bengal
- Four Laning of Farakka-Raiganj section of NH-34 (Package-4), West Bengal
- Bogibeel Rail-cum-Road Bridge, Assam

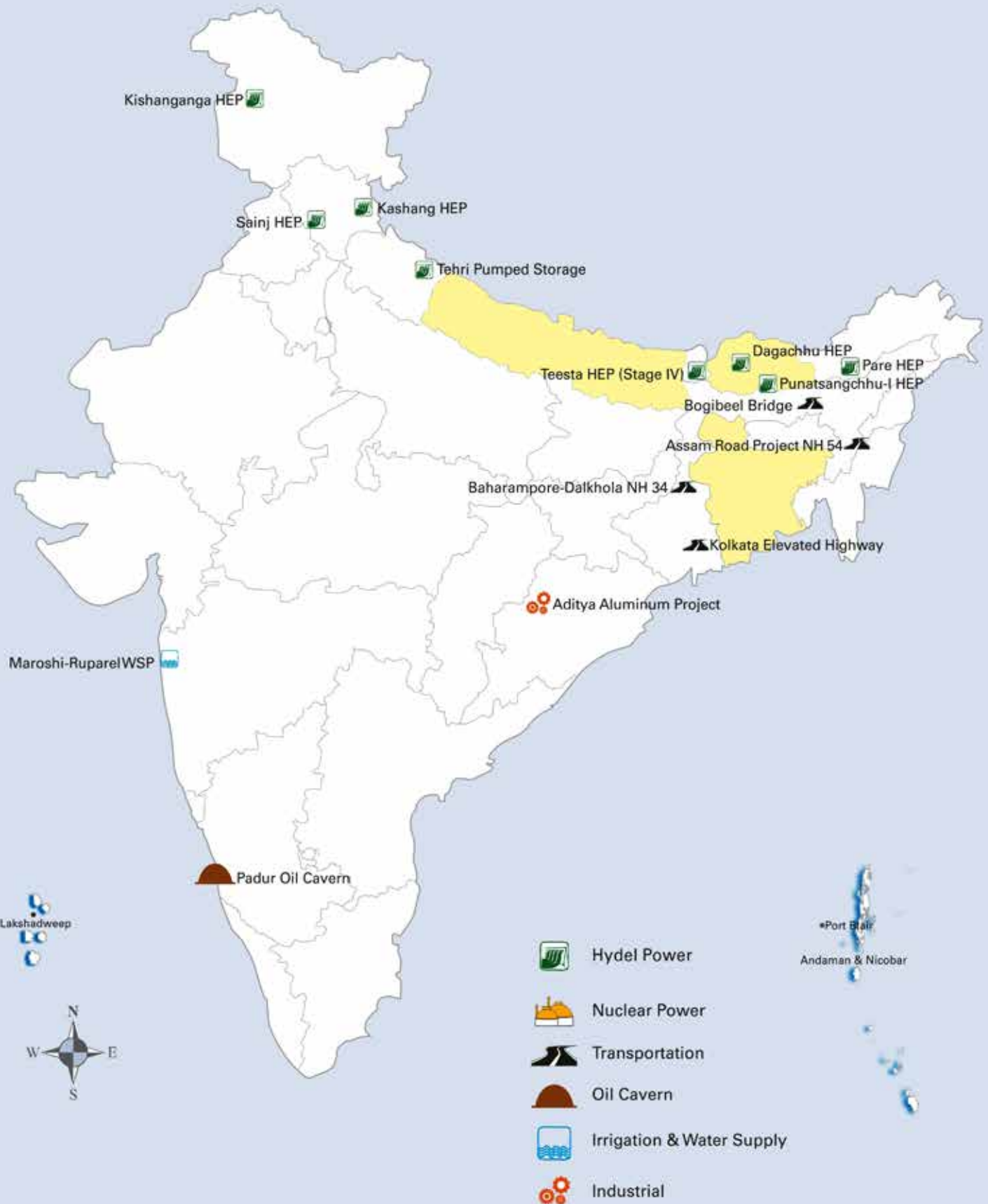
Water Solutions Projects

- Maroshi Ruparel Tunnel Project, Mumbai

The report contains data on key environmental performance indicators from the above projects and presents company wide data on economic performance, human resources, policies, and key initiatives during the reporting period.

Dagachhu HEP and Punatsangchhu HEP are located in Bhutan. The other sites in scope for this report are in India.

Projects in Scope for Sustainability Report 2012-13



7. Vision, Mission and Values

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

The Vision Statement has been inspired by the global infrastructure development needs of tomorrow, with the Customer as the central focus. It was developed after conducting a series of in-house workshops. Senior Leaders within the organization are actively involved in developing and maintaining an effective and efficient management system to disseminate the Vision across HCC in order to achieve 'Customer Delight.'

Mission

The HCC Corporate Mission encompasses the overall strategies, objectives and goals of the Organization:

- To be a leading construction company in the global market.
- To become the customers' most preferred choice by attaining excellence in quality and value added projects completed on time.
- To continually innovate, develop and adopt state-of-the-art technology in methods and materials to enhance productivity and cost effectiveness.
- To continually improve the competence of our people and make them proud to work at HCC.
- To build a safety culture aimed at continually reducing the frequency severity rate towards achieving zero accidents.
- To identify and mitigate all the environmental impacts arising from our activities and comply with applicable environmental norms.
- To develop and adopt eco-friendly concrete technology to reduce one million tons of greenhouse gas (GHG) emissions in the next 10 years.
- To contribute to the development of the local community and society at large as a part of our corporate social responsibility.

Values

Bold, determined, committed and quality conscious at all times - these values are the driving force behind our organization, defining us and guiding us every step of the way. Quality, for us, is a beacon that inspires us in everything we do, and a facet which is carefully nurtured at HCC. We believe that our people are our knowledge assets. We adhere to international standards of governance, and are extremely serious about our corporate and social responsibilities. Our values are representative of who we are and how we behave. They impact our everyday work life and give us a competitive edge.

8. Building Our Brand

The HCC brand has a long and illustrious history and has consistently reflected the qualities of big vision, attention to detail, and passion for nation building through creation of infrastructure and striving for best-in-world technologies and business practices. During 2012-13, we continued to enhance our brand presence through a structured Brand Voice implementation programme aimed at giving an expression to HCC's brand personality. This exercise included a complete revamp of content, design and features of the HCC website as well as the Company's corporate collaterals in accordance with the Brand Voice programme.







While site based branding initiatives continued on an ongoing basis at HCC's project sites, a steady focus was also sustained on internal branding. In order to standardise brand practices within the Company, Brand audits were instituted during the year across project sites to ensure awareness and compliance towards the brand guidelines. Brand induction sessions were also carried out to orient and refresh project brand champions towards the nuances of the HCC brand and its implementation. In addition, key organisational milestones and Group highlights were communicated through the periodic in-house news magazine and e-newsletters to keep our employees informed, engaged and oriented towards HCC's accomplishments.




Some of the key project milestones accomplished and communicated during the year included the completion of the Nimoo Bazgo Hydel Power Project in Leh, the Chutak Hydel Power Project in Kargil district and the 11 km long Pir Panjal Tunnel, India's largest tunnel in Jammu and Kashmir. A structured communication programme resulted in good visibility for HCC in the media, creating a connect with India's critical infrastructure projects – centered around its core philosophy of 'Responsible Infrastructure'.

During the year, some of HCC's major project accomplishments of engineering excellence were detailed and submitted to key industry forums which resulted in HCC winning a series of industry awards. Key instances of technological excellence and industry best practices were also shared and presented as white papers and case studies at leading technical conferences and seminars.

Awards and Achievements

<p>1. Construction Week India Award 2012 for Power Project of the Year for the Chutak Hydroelectric Project, on the basis of the significant geographical and logistical challenges that were overcome during the project's execution. The Chutak HEP has been constructed in Kargil, Jammu & Kashmir, at an altitude of 10,000 feet, in severe winter temperatures of around -37°C.</p>	
<p>2. Dun & Bradstreet – Axis Bank Infra Award 2012 for Best Project under Power Plants for the Chutak Hydroelectric Project.</p>	

<p>3. CIDC Vishwakarma Achievement Award 2013 for Best Project for the Nimoo Bazgo HEP. The Nimoo-Bazgo HEP has been constructed 11,000 feet above sea level in Leh, Jammu & Kashmir in winter temperatures of -390C.</p>	
<p>4. Appreciation note from the National Hydroelectric Power Corporation Limited for achieving 816 meters excavation of HRT at 330MW Kishanganga Hydroelectric Project during the month of November, 2012 with a tunnel boring machine [TBM].</p>	
<p>5. Indian Strategic Petroleum Reserves Ltd Best Site Award for 2012 for the Padur Site, recognizing outstanding efforts put in by the site team towards safety, quality, housekeeping, and Project management.</p>	
<p>6. Indian Strategic Petroleum Reserves Ltd certificate for the Padur Site for achievement of four million safe manhours</p>	
<p>7. Award for Best Social Investment Strategy from World CSR Congress, a body endorsed by the Indian Institute of Corporate Affairs</p>	
<p>8. The only Indian company to be featured amongst ten global company case studies in the Climate Report by the United Nations' Global Compact and United Nations' Environment Programme.</p>	

9. Award of Excellence in Safety from Hindalco for achievement of 10 million safe man hours at Civil and Structural Steel Works at Smelter and CPP Packages at the Aditya Aluminium Project at Lapanga	
10. Appreciation letter from Capt. JM Pathania, Deputy Commissioner, Kinnaur for providing whole-hearted support to the district administration by deploying manpower and machinery to aid in restoring normalcy to the district after unprecedented snowfall on 17 and 18 January, 2012	
11. URS Corporation Ltd Infrastructure & Environment International Operations Health and Safety Award in recognition and appreciation of the exceptional safety behaviour exhibited on the NH-34 Project	

Professional Memberships

Our company is represented at a multitude of industry associations and non-governmental organizations locally, nationally and globally through the active participation of Mr. Ajit Gulabchand, Chairman and Managing Director. Some of his key active memberships are:

Confederation of Indian Industry (CII)	CII – member of National Council 2013-14 Member of CII National Committee on Urbanization and Future Cities 2013-14 Member of CII Economic Policy Council for 2013-14
World Economic Forum	Member of the Governor's Steering Board of the Infrastructure and Urban Development (IU) Community Member of the Disaster Resource Partnership Steering Board Member of the Future of Urban Development Initiative Steering Board
United Nations	First Indian signatory to endorse the United Nations CEO Water Mandate Member of the Private Sector Advisory Group, United Nations International Strategy for Disaster Risk Reduction, UNISDR
TERI	Executive Committee member of TERI's (The Energy and Resources Institute) - Business Council for Sustainable Development (BCSD) 2013-15
IFAWPCA	Past President of the International Federation of Asian and Western Pacific Contractors' Associations (IFAWPCA), 2011-2013
New Cities Foundation	Member of the Board of Trustees at New Cities Foundation
UKIBC	Member of UK India Business Council (UKIBC) Advisory Council
CSDC	Chairman of the Governing Council of the Construction Skills Development Council of India
Others	President of Construction Federation of India Past President and Patron Member of the Governing Council of the Builders Association of India (BAI). Founding member of Construction Industry Development Council of India (CIDC) Chairman of the Board of Governors and member of the Board of Trustees of the National Institute of Construction Management and Research (NICMAR) Chairman of the Administrative Council of the Walchand College of Engineering.

9. Key Highlights

HCC Group highlights

- Group turnover at INR 8,510 crore
- HCC Standalone Turnover at INR 3,837 crore
- HCC E&C Orderbook at INR 14,935 crore
- UN Recognition for HCC's Sustainability Practices at the Rio+20 conferences organized by the United Nations at Brazil in June 2012, the only Indian company to be featured amongst ten global companies
- Dhule Palesner Highway (NH3) operational, additional 13km phase of development readied for tolling two years in advance
- Incorporation of HCC Operations and Maintenance Ltd. to provide safe, reliable and world class O&M to road users

Construction highlights

Engineering and Construction Business

The Company's order backlog as on March 31, 2013 was Rs 14,935 crore. The order backlog is distributed across various sectors including power, transport, water and industrial.

Transportation

- All the contracts that were won during the year have been in the transportation sector
- The total value of these contracts is INR 3,003 crore with HCC's share being INR 2,478 crore
- The largest contract is worth INR 884 crore and involves the construction of a 10.2 km long railway tunnel in Dharam Qazigund section of Udhampur-Srinagar-Baramulla-New BG Railway Line Project.
- Two contracts worth INR 373 crore and INR 866 crore were secured in 2012-13 from the Delhi Metro Rail Corporation
- In a joint venture with Samsung (Korea) for construction of a 3.76 km long tunnel from Janakpuri West to Palam
- We are constructing an extra dosed bridge across the Narmada in Gujarat
- We are constructing three packages aggregating 256 kms of NH34 in West Bengal

Power

- We are a leader in the construction of hydro and nuclear power projects. Projects in these sectors continued to perform well in 2012-13

Hydro Power

- During 2012-13, we completed two hydroelectric projects for NHPC Ltd viz., Nimoo Bazgo HEP in Jammu and Kashmir and Chamera HEP in Himachal Pradesh.
- The Company's largest hydro power project under execution is the 3 x 110 MW Kishanganga HEP, which has made excellent progress especially on tunnel excavation by Tunnel Boring Machine (TBM).
- The projects in Bhutan are the 114 MW Dagachhu Hydro Power Plant and the 1,200 MW Punatsangchhu I

Nuclear Power

- The contract for civil works of Rajasthan Atomic Power Project (RAPP) Units 7 and 8 is progressing well

Thermal Power

- Works of civil and structural erection for Muzaffarpur Thermal Power Project in Bihar is progressing well

Water Supply and Irrigation

- Swarnim Gujarat Saurashtra-Kutch Water Grid Programme – Package NC 31 is nearing completion
- A 12 km long water supply tunnel in Mumbai is also at an advanced stage of completion

Industrial

- We are executing several packages for Hindalco Industries Ltd at Aditya Aluminium Plant, Sambalpur, Orissa
- We are also executing two underground crude oil storage caverns for Indian Strategic Petroleum Reserves Ltd at Vishakhapatnam, Andhra Pradesh and Padur, Karnataka

Marine Works

- Work on the INR 609 crore contract for reconstruction of the dry dock and wharves in Mumbai for Director General Naval Project is progressing well

Project Showcase

1. Pir Panjal Tunnel – Asia's second longest tunnel commissioned for rail traffic



At the commissioning of the Pir Panjal Tunnel, Prime Minister Dr. Manmohan Singh, together with UPA chairperson Sonia Gandhi and Jammu and Kashmir Chief Minister Omar Abdullah flag off the first train on its inaugural journey from Banihal Station in the Jammu region to Qazigund in the Kashmir valley.

Asia's second longest tunnel – the Pir Panjal Tunnel – built by Hindustan Construction Company on the Banihal to Qazigund section of the Jammu – Srinagar – Udhampur railway line, was commissioned on June 26, 2013, as the Prime Minister of India – Dr. Manmohan Singh, flagged off the first train from Banihal Railway station.

IRCON International Ltd, an autonomous constructing agency for the Indian Railways, was entrusted with the task to construct a section of the Udhampur – Srinagar – Baramulla rail link project from Dharam to Baramulla section. The railway line from Quazigund to Baramulla (119 km) was already completed by IRCON and it has been operational for public since October 2009. In order to accelerate the balance work, the total length between Dharam to Quazigund section was divided into 6 zones

and the contract for zones – IV, VA and VB was awarded to HCC. On successful completion of these contracts, HCC was subsequently awarded a contract for construction of a 10.2 km long T48 tunnel between Dharam and Qazigund.

Arun Karambelkar, President & Whole Time Director, HCC said, “The tunnel has been constructed using New Austrian Tunnelling Method (NATM) and it is for the first time in the country that this method has been used on such a large scale. About 1,300 workers and 150 engineers worked round the clock to accomplish this challenging task. Overcoming all odds, the HCC project team sustained round-the-clock work execution across all project fronts, even in freezing winter temperatures, with a singular objective – to successfully execute this project of national importance.” Over the years HCC has successfully executed several landmark projects across India including the iconic Bandra- Worli Sea Link in Mumbai.

The tunnel excavation was commenced by HCC in November 2005. During the course of work, the project team faced several technical challenges due to unpredictable geology and inconsistency of the rock mass of this region. Despite the challenges, the project team successfully completed the work with a Zero Accident record. The overall breakthrough between Banihal to Qazigund was achieved on October 2011 and execution of a 6.4 km long tunnel was carried out in a single phase.

Opening of this section promises a new beginning for the state as it will significantly ease the transportation problem faced by the people during winters when inclement weather forces closure of the Jawahar Tunnel which to date is the sole link to the Kashmir Valley. In addition, it will considerably reduce the travel time between the two places. The distance between Banihal and Qazigund, which is also one of the most treacherous stretches in the entire Kashmir rail network project, will reduce from 35 km by road to 17.5 km on train. This exemplary engineering architecture, constructed by HCC, is totally water proof and is equipped with a fire fighting system across the entire length of the tunnel.

Project Highlights in Brief:

- Longest transportation tunnel in India and second longest in Asia (11.215 km).
- Provision of 3 m wide concrete road inside the tunnel throughout the length (11.275 km) for maintenance and emergency relief purpose. This road has been constructed adjacent to the railway track.
- The Pir Panjal tunnel passes approx 440 m below the existing Jawahar Road Tunnel.
- The alignment of Pir Panjal tunnel crosses the NH – 1A at three locations.
- First large scale use of NATM method in India.
- Highest overburden (mountain height above the tunnel) of 1.1kilometers
- A team of 1,500 workers braved the freezing winter months from December to March and tided over all the challenges to successfully complete the project.
- Usage of geotechnical Instruments for routine monitoring, assessing the stress redistribution and stabilization before final Lining.
- The total excavation quantity is of 11 lakh cum. Rock bolting of 315,000 meters.
- Progressed parallel activities (such as invert overt lining & face excavation works was done simultaneously) by introducing invert bridge.
- 11 km long Ballast Less Track (BLT) was carried out for the first time in India for such a length.

2. Nimoo Bazgo Hydroelectric Power Project



Situated 11,000 feet above sea level, the 3 X 15 MW Nimoo Bazgo Hydroelectric Project, located 70 km from Leh, will ensure reliable power supply to the electricity deficient Ladakh region.

The Nimoo Bazgo Hydroelectric Project is a run-of-the-river scheme with a capacity of 45 MW that has been constructed by HCC on the Zaskar River (a tributary of River Indus) for the National Hydroelectric Power Corporation (NHPC) in Leh district in Jammu & Kashmir. Owing to its key location, Leh serves as a strategic hub for the district administration. However, the availability of electricity in this area is grossly inadequate. At present, the local population of around 2.70 lakh and the government and defense establishment in this region is totally dependent on diesel generator sets for electricity generation, due to which a huge quantity of diesel needs to be stored for usage during the winter season (as the road closure period from both Manali & Srinagar is between November to end of April).

The NHPC had planned the Nimoo Bazgo Hydroelectric Project in Leh (45 MW) along with the Chutak HEP (44 MW), to overcome the acute power shortage in this region. Both the projects are being constructed by HCC. The total capacity of 89 MW from both these projects will be fully dedicated for use in the Ladakh region.

An HCC team of over 1,200 members braved severe winter temperatures of around -39°C and overcame significant logistical and inventory challenges to successfully execute the project and in the process set new standards in work execution for the region. Despite these challenging conditions, all the project milestones were achieved ahead of schedule through precise planning, rigorous scheduling of work and meticulous project management. All major civil works have been completed and NHPC issued the taking over certificate with effect from June 30, 2012.

Milestone	Event	From the Date of Commencement	Status
MS-1	200000 cum Diversion Channel Excavation - 7 months	7th Month (22.04.2007) Achieved on 17 April 2007, ahead of schedule.	Advance Completion
MS-2	Equipment Mobilizations Ending - 9 months	9th Month (22.06.2007)	Achieved
MS-3	River Diversion - 14 Months	14th Month (22.11.2007)	Achieved
MS-4	Dam Concreting upto Crest Level	25th Month (22.10.2008)	Achieved
MS-5	Concreting upto EL3076	32nd Month (22.05.2009)	Achieved
MS-6	M/c Hall Complete upto Roof level	34th Month (22.07.2009)	Achieved
MS-7	Dam Concreting Complete	44th Month (22.05.2010)	Achieved



Nimoo Bazgo Hydel Power Project, a 45 MW power project built by HCC, at Alchi, village in the Leh district of Jammu & Kashmir – located at an altitude of 11,000 feet.

10. Materiality Analysis & Stakeholder Engagement Revisited

1. Summary Results of HCC Project Managers Workshop and Survey of Department Heads

In 2009, HCC took up a materiality assessment exercise to identify the issues most material to sustainability at HCC. The exercise was driven internally and consisted of the top management scoring the relevance of issues to the business. Four issues were identified as most material: Employee Health and Safety, Construction Waste Minimization, Pollution and Water, and Community Initiatives.

In FY12-13, a reassessment of materiality and stakeholder engagement was conducted by the company. In this regard, a workshop was conducted for project managers, which served as a platform to increase their awareness on sustainability issues. At the end of the workshop, a questionnaire was distributed among the participants, asking them to rank materiality issues and stakeholder categories critical to the company's sustainability. In addition, the questionnaire was also circulated among heads of departments of the company. The workshop and survey findings were compiled and analysed to arrive at an overall understanding of material issues and stakeholders of importance.

Periodic reassessment of materiality and stakeholder engagement allows us to realign our sustainability initiatives such that their impacts are optimised. This reassessment allowed us to engage with our internal stakeholders – our employees – and understand their views on sustainability, while increasing their awareness on the company's sustainability practices. We look forward to recalibrating our sustainability approach around these prioritised issues in the forthcoming years.

The list of top material issues and stakeholders as evidenced through this process is given below.

Material Issues
Resource efficiency
Safe working conditions for employees & workers (including contracted workers)
Timely delivery of projects
Environmental & Social Compliance
Customer satisfaction
Environment and biodiversity protection
Key stakeholders
Customers/clients
Employees
Local communities
Shareholders
Regulatory authorities
Banks and financial institutions
Other key issues
<ul style="list-style-type: none">• Need for a formal needs assessment in local communities• Scheduled delivery of materials and completion of project• Treatment of water used for construction in hydro projects• Improved sustainability awareness among external stakeholders• More on-site sustainability workshops• Increased documentation of CSR activities• Proper utilization of machinery

2. Stakeholder Engagement at HCC

During 2012-13, we continued our stakeholder engagement program as laid down for six categories of stakeholders who were engaged by us: Customers, Suppliers/Sub-contractors, Employees, Investors and Shareholders, JV Partners, and Local Communities, at both the organizational and project levels. In addition to this, we continued our efforts towards systems implementation in order to aid in the overall engagement process. We periodically engage our internal and external stakeholders on pre-defined schedules and an ongoing need basis. A summary of our approach to stakeholder engagement is presented below.

Customers/ Clients

- One-on-one engagement with clients as per necessity
- Focus on quality infrastructure
- Assistance to clients on sustainability and CSR activities

Suppliers/ Subcontractors

- Annual SRA Program and regular vendor meets
- One-on-one engagement with suppliers
- Robust feedback system

Employees

- Regular interactions, training sessions and communications
- HCC Newsletters and E&C Connect newsletters
- Employee surveys
- Structured performance management systems
- Practical Learning At Your Workplace

Investors and Shareholders

- Quarterly analyst meets and regular communications
- AGMs and EGMs
- Quarterly Analysts Meets
- Corporate Website
- Publications
- Investors' and Shareholders' Grievances Committee

JV Partners

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

Local Communities

- Covered in detail in the ***Our Communities*** section

Our sustainability report preparation is done internally, and all concerned function heads are engaged with for their inputs and performance details specific to their roles.

3. Participation in Conferences and Other Industry Events

Sr. No.	Program Name	No. of Participants from Senior Management
1	Conference on Hydro Power in India	1
2	International Hydro Power Conference	2
3	World Hydro Power Convention 2012	2
4	Tunnelling Asia 2013	1
5	'Challenges in Infrastructure Projects', Disha 2013, Indian Institute of Materials Management	1
6	Tunnel construction in India	1

The following is a list of conferences and seminars in which Mr. Ajit Gulabchand participated:

- 9 April 2012 – **The GreenKarbon Debate** organized by TERI along with along with Sanctuary Asia. (Against) The Proposition is: "India's economic ambitions will falter without timely and decisive action on climate change."
- 2 May 2012 – Member of Asia Pacific judging panel for the **Infrastructure Journal** – The Infrastructure100: World Cities Edition, commissioned by the Global Infrastructure team at KPMG
- 14 May 2012 – *Defining Urbanites : how we became a city species and why it matters* at the **New Cities Summit**
- 8 November 2012- **World Economic Forum on India** – Derisking Indian Cities
- 8 January 2013 – *Responsible Infrastructure* – **International Federation of Asian and Western Pacific Contractors' Associations (IFAWPCA)**.
- 24 January 2013- **World Economic Forum** Annual Meeting at Davos – *Designing Smart Cities: Building Toward Resilience*
- 30 January 2013- **The World CEO Sustainability Summit (WCSS)** – *TERI Chief Sustainability Officers (CSO) voices on the Resource Revolution – Highlighting the scope and complexity of the changing landscape*
- 8 February 2013 – **India Investment Round Table** at UK, Part of delegation led by Mr Anand Sharma, Minister Com & Industries

11. Corporate Governance

1. Code of Conduct

The Board of Directors has laid down two separate Codes of Conduct, one for the Non-Executive Directors and the other for Executive Directors and designated employees in the Senior Management. These Codes have been posted on the Company's website – www.hccindia.com. All the Board Members and Senior Management personnel of the Company have affirmed compliance with the Code of Conduct as applicable to them, for the year ended March 31, 2013. A declaration to this effect has been signed by Mr. Ajit Gulabchand, Chairman & Managing Director.

2. Board of Directors

The composition of the Board is in conformity with Clause 49 of the Listing Agreement, which stipulates that at least 50% of the Board should consist of Independent Directors, if the Chairman of the Board is an Executive Director.

As on March 31, 2013, the Board comprised of twelve Directors. Out of these, two are Executive Directors, including the Chairman & Managing Director who is a Promoter Director. Of the ten Non-Executive Directors, eight are Independent Directors. The composition of the Board is in conformity with Clause 49 of the Listing Agreement. All the Directors possess the requisite qualifications and experience in general corporate management and other aspects, enabling them to contribute effectively in this capacity. For more information on the Board of Directors, refer to the Annual Report for 2012-13.

The composition of the board is as follows:

Name of the Director	Category
Ajit Gulabchand ¹	Promoter, Chairman and Managing Director
Y. H. Malegam	Independent Director
K. G. Tendulkar	Non-Executive Director
Rajas R. Doshi	Independent Director
Ram P. Gandhi	Independent Director
Prof. Fred Moavenzadeh	Non-Executive Director
D. M. Popat	Independent Director
Sharad M. Kulkarni	Independent Director
Nirmal P. Bhogilal	Independent Director
Anil C. Singhvi	Independent Director
Arun V. Karambelkar	President and Whole-time Director
Dr. Ila Patnaik ²	Independent Director

¹ On March 28, 2013, the Board has re-appointed Mr. Ajit Gulabchand as Managing Director designated as Chairman and Managing Director w.e.f April 1, 2013 for a period of 5 years.

² Dr. Ila Patnaik is the first woman on the Board of Directors of HCC. All Directors are over 50 years of age.

3. Top 10 shareholders as on 31 March 2013:

Shareholder Name	Category	No. of Shares	Percentage of shareholding
<i>Hincon Holdings Ltd</i>	Promoter	20,07,03,600	33.09
<i>Hincon Finance Limited</i>	Promoter	3,83,65,500	6.32
<i>SIWA Holdings Limited</i>	FII	3,60,82,151	5.95
<i>HSBC Global Investment Funds A/C HSBC Global Investment Funds Mauritius Limited</i>	FII	3,22,57,988	5.32
<i>Sundaram Mutual Fund A/C Sundaram Select Midcap</i>	Mutual Fund	1,21,85,832	2.01
<i>Dimensional Emerging Markets Value Fund</i>	FII	67,41,542	1.11
<i>BNP Paribas Arbitrage</i>	FII	65,08,000	1.07
<i>Copthall Mauritius Investment Limited</i>	FII	59,51,387	0.98
<i>Life Insurance Corporation of India</i>	Insurance Co	59,40,480	0.98
<i>Reliance Capital Trustee Co Ltd -Reliance Infrastructure Fund</i>	Mutual Fund	57,80,961	0.95
Total		35,05,17,441	57.78

4. Board Committees

The Board of Directors has constituted five Board Committees viz. Audit Committee, Remuneration Committee, Shareholders'/Investors' Grievance Committee, ESOP Compensation Committee and Selection Committee of the Board. All decisions pertaining to the constitution of Committees, appointment of members and fixing of terms of reference of the Committees are taken by the Board of Directors. Details on the role and composition of these Committees, including the number of meetings held during the financial year and attendance at meetings, are provided below.

The **Audit Committee** oversees the Company's financial reporting process and disclosure of its financial information to ensure that the financial statements are correct, sufficient and credible.

The **Remuneration Committee** of the Board is responsible to recommend to the Board the compensation package for the Whole-time Directors including Managing Director of the Company.

The **Shareholders'/Investors' Grievance Committee** monitors redressal of queries/complaints received from shareholders relating to transfers, non-receipt of Annual Report, dividend etc.

The **ESOP Compensation Committee** deals with various matters relating to the Employees Stock Option Scheme per employee and in aggregate.

The **Selection Committee** of the Board deals with matters concerning the appointment and remuneration at the time of appointment of the Directors' relatives in respect of holding Office or Place of Profit in the Company.

For further information on Board Committees, please refer to the annual report for the year 2012-13

5. Risk Management

The Company has established a well-documented and robust risk management framework. Under this framework, risks are identified across all business processes of the Company on continuous basis. Once identified, these risks are systematically categorised as strategic risks, business risks or reporting risks. The former looks at all risks associated with the longer term interests of the Company. The latter look at risks associated with the regular functioning of each of the processes and the risks associated with incorrect or untimely financial and non-financial reporting. To address these risks in a

comprehensive manner, each risk is mapped to the concerned department for further action. Based on this framework, HCC has set in place various procedures for Risk Management.

All details on the financial and commercial transactions, where Directors may have a potential interest, are provided to the Board. The interested Directors neither participate in the discussion, nor vote on such matters. During 2012-13, there were no related party transactions of material nature that may have a potential conflict with the interests of the Company.



12. Innovative Solutions

As part of our strategic plan for business growth and organizational development, we launched an initiative in the year 2011-12 called the Innovention Framework. The objectives of this initiative were to provide a platform for all HCC employees to share new ideas and learnings, facilitate incubation of new ideas from the seed stage to actual implementation. Under this, regular interactions are held with all HCC project managers during the quarterly project review meetings. Some of the innovations adopted during the year 2012-13 are listed below.

1. Leveraging IT for Improved Performance

Motivation for Implementation

Keeping in view the Group's objective of operational efficiency and cost control, the focus during FY 2012-13 was on harnessing the complete IT value chain to bring about business process automations, process refinements and controls, intelligent reporting and effective collaboration.

Implementation procedure

The SAP ERP system at HCC is now well stabilized and has been enhanced further keeping the above objectives in view. Over the previous year there has been a quantum increase in SAP usage as a decision making system for monitoring and controlling operations. Key highlights:

Business process improvements / process enhancements

- The budgeting system for project sites was further fine-tuned to bring about simplicity in preparation and ease of review. The latest project budgets have been prepared using this new system.
- Refinement in the equipment refurbishment process for better visibility to refurbishment costs and controlling. This is already operational.
- Enhancements in the equipment mobilization process giving complete visibility at each step of an equipment movement from the initial transfer request till it has reached the destination site.
- Treasury, LC & BG processes have been mapped in SAP and are at an advanced stage of implementation.
- Cheque control process for effective tracking and control on cheque lots, streamlining of Bank reconciliation along with various reports for review and monitoring has been developed and is in the implementation phase.

Key reports and analytics

- Daily auto-emailed reports on Progress and Collections against Budgets/Targets.
- Complete workflow based Project Flash reporting covering Turnover, Collections and Remittances.
- Project Cost (Unit direct cost & Indirect cost) and its reconciliation with Financial MIS (P&L)
- Online Financial MIS (P&L)
- Equipment consumption analysis trends
- Procurement – major material price trend analysis and spend analysis
- Monthly auto-emailed Inventory reports and graphs
- Vendor debit balance ageing

Other key IT initiatives

- To cater to HCC's need for financial consolidation across all its groups as per the Revised Schedule VI format, an online and integrated financial consolidation package has been developed and is put to effective use.
- SAP CRM is now stabilized and is helping the business development through greater project pipeline visibility, planning of Sales Order Budgets as well as prioritizing and focusing sales efforts and thereby increasing the win-to-loss ratio. The effective utilization and value addition at HCC was recognized by SAP who has now benchmarked this implementation as a global business transformation case study.
- To ensure process efficiency and transparency in the disposal process, an online web-based Disposal portal has been launched which is a platform for the HCC Disposal team to collaborate with various partners for such business dealings.

2. Introduction of Standard Contracts System

Motivation for Implementation

The purpose of a standard contracts system is to identify cause of actions that create entitlement/obligations and to subsequently take formal early steps under the Contract provisions so as to maximise entitlement and/or reduce risk without compromising on customer satisfaction. Early formal steps are essential to avoid forfeiture of rights.

Implementation procedure

The standard contracts document system was initially rolled-out at the Head Office and Project sites between February 24 and May 10, 2012 in order to commence the streamlining of all live projects with regard to the Contracts Standard Documentation System. It was introduced for capturing and bringing about simplicity in retrieving all documentation (Client IN / OUT letters) regarding HCC additional contractual entitlements / claim matters. These claims if not settled amicably with Clients during the tenure of the Contract, or possibly soon thereafter, lead to long drawn out settlement by arbitration and / or final adjudication through the courts system.

Thereafter the updated Contracts ISO Procedure was issued by the Integrated Management System on October 09, 2012. The standard updated Contracts document system Circulars unique to HCC was finally rolled-out at the HO on November 25, 2012. The document system Circulars were rolled-out to all site Contract Managers (CMs) & Quantity Surveyors (Qs) on December 08, 2012; which brings CMs / Qs under one umbrella of the HO Contracts Dept.

Under the aforementioned system, there are eight key *System (S)* circulars and ten *General (G)* Circulars. The standard set of folders provided to each CM / QS at the time of induction contains 30 G Circulars. The S & G Circulars are updated from time to time. In addition, S & G Circulars will be added in the future as the system develops / Contracts employees master the system. The S Circulars form the backbone for induction and CMs & Qs operating the system.

Under the system, HCC HO contracts are to be made fully interactive with the Project Team right from the stage of the receipt of Letter of Acceptance and commencement of the project. The system has been implemented across all new projects through staff induction. The system has also been implemented on older projects to the best extent possible. The system is now implemented from day 1 of the CM / QS induction to the project, which may be a new joiner allocation to the project site. It is mandatory for contracts personnel to operate the standard system when communicating all project developments between HO and the Site. It is also mandatory that all new joiner CM & QS are inducted and thoroughly familiarized about the S & G Circulars, and Contract Awareness at the HO itself, before proceeding to their respective allocated Project(s).

3. Innovation and Crisis Resolution at Dagachhu HEP, Bhutan

Motivation for Implementation

A geological surprise was encountered during the excavation of pressure shaft at Dagachhu. During excavation it was observed that water was flowing at the bottom of the pressure shaft and material was continuously collapsing from the side of the shaft. Eventually, the amount of water flow and the collapsed material increased and during the first two days, 700 cubic meters of collapsed muck was removed from the bottom of the pressure shaft. A cavity was formed in the pressure shaft and its size was increasing, posing a threat to the already constructed surge shaft.

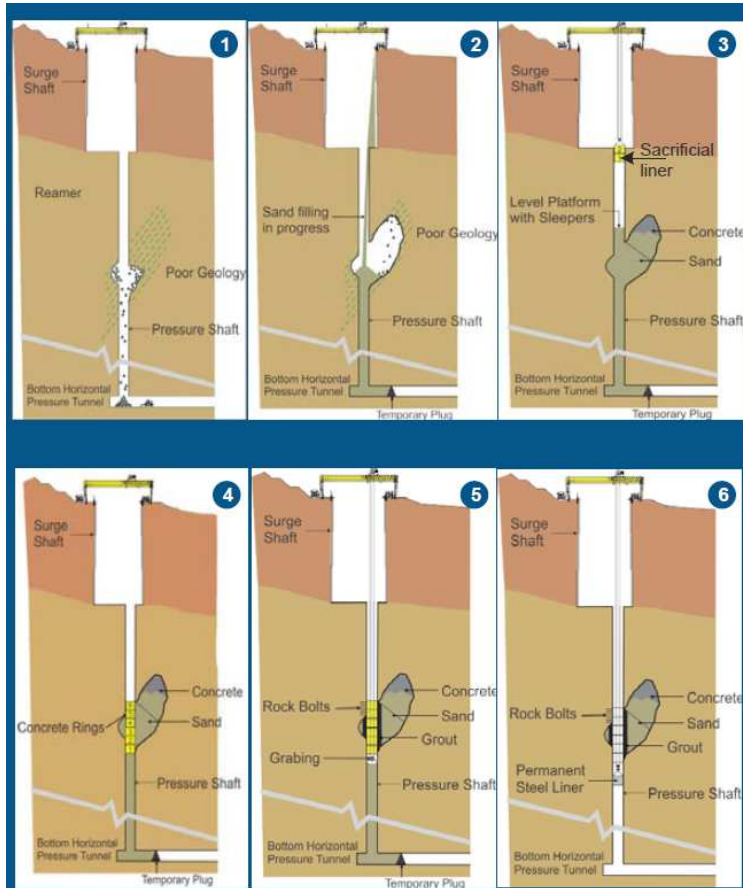
Implementation procedure

To restrict any further collapse, a temporary plug was constructed at the bottom of the pressure shaft and the shaft was filled up with sandy material. Sand-filling was followed by concrete filling and grouting. A proposal for a sacrificial liner sinking was finalized. The principle of well sinking used included use of concrete counter weight and manual excavation at the cutting shore.

Impacts

Cavity treatment through use sacrificial liner is a proactive approach to overcome geological challenges. The solution was presented by Mr. Digvijay Kudtarkar in the form of a technical paper at Tunneling Asia '13

conference organized by Central Board of Irrigation & Power (CBIP) & Tunneling Association of India, held at Delhi on 27 Feb 2013. The innovative solution for such a geological surprise was appreciated and accepted by all national and international delegates.



4. Innovation in Construction of Cut-Off Wall at Kishanganga HEP, Jammu & Kashmir



Motivation for Implementation

The construction of the Kishanganga Hydro-electric Project (KGHEP) dam involves a key element of the design i.e. installation of a cut-off wall under the dam whose purpose is to stem under-dam seepage through any natural water passages.

A 1.0 m thick cut-off wall (CoW) with anticipated maximum depth of 35 m, spread to the extent of 120 m in length, has to be installed in bouldery ground in the river bed which, in turn, is underlain by bedrock (hard rock, UCS > 265 MPa) and into which the cut-off must be keyed at its base for a depth of 1.0 meter. The cut-off shall be a plastic concrete wall and, not being structural, will be without any steel reinforcement.

Hydromill Technology (for cut-off / diaphragm walls)

- Hard rock & tough boulders having UCS value more than 265 MPa are challenging for Hydromill.
- Practically, the mobilization of such a hefty machine at Gurez, which is one of the difficult locations geographically and logistically, would not have been feasible, which is the most prominent hurdle in the selection of hydromill as a choice.
- The 'varying lithology' present in the alluvium and the 'rock socketing' requirement can determine the need for different cutter wheels, thereby impacting the cycle time.
- In bouldery alluvium, the cutter wheels can gather large cobbles and at times these can get caught and stall the wheels and may necessitate removal of hydromill for pulling out the cobbles thereby interrupting the work progress.

These and such other various reasons dictated the use of traditional proven method of Grabbing and Chiseling for construction of CoW at Gurez KGHEP. Having to use this traditional technology, there was necessity of innovation to improvise the technique for the faster and eased out processes involved. Introducing systematic drilling and controlled blasting prior to grabbing &

chiseling has brought a pragmatic change in the processes. Following is the description, with advantages, of the innovated chosen technique –

Innovated Chosen Technique:

- Improvisation and innovation in the traditional method of grabbing & chiseling is the systematic controlled blasting to shatter the rock-mass & boulders prior to its excavation.
- The purpose of the drilling and blasting is twofold:
 - to identify the actual lithological profile of the soil to be excavated by the grabs in the second stage and
 - to limit the recourse to chiseling.
- The impact of 'varying geology' and the 'rock socketing' at the bottom, on this traditional technique is limited and it can easily navigate through the lithology encountered along the depth.
- The technique involved so also the machinery as well as tools and tackles are not much complex and are manageable from logistics as well as operation point of view.

Based on above comparison the traditional (but improvised) Drill-blasting & Grabbing-Chiseling has been chosen for KGHEP Cut-off Wall construction which is rare.

5. Construction Innovations at Sainj HEP, Himachal Pradesh

Initiatives Implemented

The two major changes in methodology for execution of HRT lining carried out are as follows:

1. Supply of concrete from outside Adit to the gantry inside the tunnel through long distance pumping i.e. use of high pressure capacity concrete pump and pipeline with diameter of 150mm and length of 1500m to secure uninterrupted supply of concrete
2. Proposed completion of tunnel lining in one go through use of 36 m of formwork

Impacts

1. Long distance pumping concept was proposed due to difficulty in movement of transit mixer due to tunnel size. A long distance pumping trial is currently underway for 1.5 km. The system has been designed for 2.7 km pumping length.
2. The conventional method for tunnel-lining involves the use of 12-15 m long formwork in concreting of kerb, overt and invert separately. The use of the proposed technique is estimated to give lining a progress of 200m/month as against 90-100m/month with the conventional technique. The new technique is also capable of working as a continuous-type, allowing a progress rate of 400 m/month with modified design mix parameter.

6. Durability of Concrete

Global Intelligence India is known for organizing workshops and conferences that bring together academia, professionals, and practicing engineers from varied areas of expertise and knowledge. On October 12, 2012, Global Intelligence India organized a one-day forum on concrete durability in Mumbai. The forum aimed at addressing the topic of durability of concrete in a world with depleting resources where sustainability is the driving force. Dr. Chetan Hazaree from HCC's Research and Development department presented a technical paper titled, 'Are we ready for specifying durability?' The subject preliminarily explored how concrete specifications in India are not allowing a full-fledged realization of durable concrete and sustainable growth.

7. Innovations at Bogibeel Rail-cum-Road Bridge project, Assam

A rail-cum-road bridge is being built at Bogibeel. The bridge will carry three lane roads with footpath on both side and also a dual broad gauge Rail with gang way on either side. The superstructure is a two tier composite truss with completely welded steel truss and reinforced concrete deck for road on top. The proposed bridge is longer than the existing Railway bridges across the River Brahmaputra (more than double the bridge length at Jogighopa and over 4 times the length of bridge at Saraighat) and the longest rail-cum-road bridge in the country. The construction of such a long bridge requires a lot of work, and presents a great challenge and opportunity to adopt and implement new technologies and methods developed and tested elsewhere in the world.

In line with the above sentiment, new technologies were identified:

- Introduction of welded truss joints
- Use of welded Connections for the main Joints of the Truss
- Slip resistant high strength friction grip bolted connections (HSFG)
- Composite construction in trusses
- Incremental launching of truss girders
- Application of performance concepts for seismic design

While each of the above technologies individually contributes little to a reduction in cost, a combination of these technologies is expected to result in a more economical design leading to substantial reduction in cost of the bridge. Additionally, these technologies used in combination could lead to early completion and easier maintenance and aesthetics. A total of 70,000 MT of structural steel is to be fabricated and erected as part of the project. For the first time in India, a totally welded steel truss girder is being used for construction and Euro (EN) codes are being followed for all activities at this project site. A stringent corrosion protection system is in place, under which all activities need to be executed below 85% humidity, despite average humidity of 90% and maximum humidity of 97%.



Teesta Low Dam – Stage IV Hydel Power Project is the first NHPC project in India where Roller Compacted Concrete (RCC) technology is deployed.

13. Economic Performance

Highlights

Group turnover at INR 8,510 crore	HCC Standalone Turnover at INR 3,837 crore	HCC E&C Orderbook at INR 14,935 crore
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Our Approach

HCC operates a portfolio of diverse but integrated businesses, each having different markets, requiring different skill sets and operating under varying risk return profiles. The entire gamut of activities is unified under the HCC value chain. Engineering and Construction, our core business, focuses on hydel power, water solutions, transportation, and nuclear and special projects.

As part of our growth strategy, our business has been extended to offer complete Engineering, Procurement and Construction (EPC) services, a delivery model that the company is looking to strengthen further. We have tied up with international players to win strategic projects in the EPC space, including those in the emerging business lines.

We have robust controls in place at the Board of Directors and Management levels to monitor and effectively supervise our immediate and long-term financial reporting, risk management and business planning on an ongoing basis. The Board plays an active role in fulfilling its fiduciary obligations to shareholders by efficiently overseeing management functions to ensure their effectiveness in delivering shareholder value. The Management assumes overall responsibility for developing the company's strategic goals and executing the functional operations of the business. This governance framework is made effective through an efficient system of timely disclosures and transparent business practices.

Given our commitment to nation-building through creation of responsible infrastructure, we see ourselves as enablers in leaving behind a positive economic legacy impact. Our presence in remote and often under-developed parts of the country positively impacts the economy of local communities through direct and indirect job creation. Given the pan-India presence of the company, our employees are hired from across the country, while contracted and sub-contracted workforce are predominantly hired from near our project sites to the extent possible. However, given the contractual nature of HCC's business, our policies and practices are limited to the construction phase, beyond which the responsibility lies with our clients/customers.

In the current year, the company faces tougher challenges with the economic slowdown coupled with financial problem being faced by HCC. This has had a negative effect on the confidence of our stakeholders such as investors, clients and partners. The pressure on performance has further increased with lesser number of opportunities in the market and aggressive bidding by new players in the sector.

In order to cope with the dip in financial position, our emphasis is on reducing the financial burden on the company. This can be achieved with projects that are less capital intensive and of a shorter duration to ensure faster turnover generation. In order to focus on such opportunities, which are primarily in the Industrial and Process sectors, the company has started a new initiative called *HCC Lite*.

The key rationale for this initiative has been summarised below:

Key Characteristics	Benefits
Less capital intensive	Results in a leaner asset base and equipment block for companies focused on this sector.
Over 90% of clients are from the private sector who make prompt payments	Lower working capital requirements.
Low investment and funding requirements	Reduced debt levels, lesser interest burden improved profitability
Quick turnover and leaner equipment base.	Better return on assets higher turnover to gross block

Under this initiative, a separate cell called *HCC Lite* has been set up within the Operations department and a Head has been appointed. We target to achieve a few orders in this segment during the current year.

As a result of increased competitive pressure, the industry is facing an increasing number of new entrants who bid for large contracts, the space that HCC typically targets. Over the last few years, this has led to an arbitrary bidding pattern because of aggressive pricing by these players. As a result, several contracts were awarded to smaller players who have a limited knowledge of executing such large jobs at prices that are generally not practical. As a result of this, it is not only the established players in the market who suffers, but also the client, whose project is stalled during execution due to non-performance of the contractor.

In order to serve clients to the best of our abilities, it is imperative that we understand their needs and propose a cost-effective solution that takes care of all their requirements keeping in mind the risks involved. The need of the hour is hence to select bids in a way that is best suited to HCC's capabilities and requirements. When the prospects are fewer but better, we have the freedom to focus on all aspects of the prospects: understand the client's needs by effectively engaging with the client, early and effective engagement with partners, and presentation of cost-effective and competitive technological solutions. Efforts made to this end are detailed below.

Initiatives

1. Use of Profile Steel Moulding Machines in Aditya Aluminum Project

Motivation for Implementation

The Aditya Aluminium Project required the production of 30000 pre-cast concrete units. The stringent technical specifications required the units to have three side inclined faces ending at a single point with a finished dimension of 7.07mm at all corners. When conventional steel moulds were used to cast pre-cast elements, the specifications could not be met. Procurement of alternative moulds could have cost Rs. 95.68 Lakh.

Implementation procedure

Alternatives such as use of wooden moulds, fabricated die-cast moulds, continuous cast moulds and plastic moulds were explored. These options had to be rejected either due to lack of consistency in finished products, inability to achieve the desired tolerance level, or high cost of implementation.

On further exploration, it was discovered that profile steel moulding machines, ordinarily used for moulding door frames that require finishing on outside, could be used to fabricate these moulds, which required finishing on the inside.

Based on conceptual sketches, sample moulds were precision profiled and fabricated so that a full-scale mock-up could be conducted. Thereafter, mock-ups were performed successfully with sample moulds at our VAG corridor lab. Subsequently, the project site validated the performance of mould for regular production.

Impacts

This innovation has resulted in reduction of mould cost from Rs. 95.68 Lakh to Rs. 1.68 Lakh.

2. Institution of Sales Planning and Review Process

With the completion of SAP CRM implementation in the Business Development division of the Sales and Marketing department, the process of selection and review is being streamlined. The purpose of this move is to select better prospects and track them at every stage in order to enhance our project hit ratio. By identifying better prospects, we can focus and concentrate our resources on fewer prospects and present a more competitive proposal to enhance our chances to win the bid. In order to do so, we are in a process of implementing a Prospect Rating System followed by an Action Plan Review for select prospects.

All these efforts are also expected to improve accuracy in sales forecast for the given financial year. The overall plan for developing a Prospecting and Planning Tool to enhance our project wins comprises of the following:

1. **Prospect Rating** will demonstrate and establish to us the quality of the prospect and will also reflect a SWOT assessment in a manner.
2. **Preparedness Assessment/Planning to Win** – Related to the ratings i.e. importance/weight and rating, jointly we shall identify required actions, gaps and preferred target dates to establish our action plan in the next stage, which would be our *Planning to Win* tool.
3. **Win Action Plan** – At this step, the identified 'Required Actions' shall be clubbed with a "projected target time" e.g. collection of DPR, site visit, partnering solution etc. which shall assist us in establishing a time table for all our High and Medium Winnability Prospects.

Each of the above steps has been detailed as below:

Prospect Rating

In this exercise, identified prospects are prioritised based on Winnability, which is assessed on the basis of key parameters viz.

- Competency - Inherent strength with past experience or specialisation
- Competition - Market and competitive pressures
- Partner/Specialist Sub-contractor – Availability and affordability of a partner for qualification/ technology/skills/competitiveness
- Client Relationship - Support foreseen from owner organisations and its real depth
- Geography

These parameters are further sub-divided in to sub-parameters, which are further given weights in order of their Winnability. After this, a score is granted on a scale of 1-10 indicating the level of HCC's preparedness. The questionnaire prepared for the exercise is as below:

Prospect Rating Matrix		Weightages	
Prospect	New Ganderbal 3x31 MW HEP	Factor	#
Prospect Sector	HEP	Competency	30%
HCC Share (Rs Cr)	525	Client Relationship	20%
Prospect Score	64	Competition	30%
Assessed Priority	Low Winnability	Geography	10%
		Partners	10%
		Total Check	100%

Factor	#	1	2	3	4	Total Check
Competency	30%	12%	0%	13%	5%	30%
Client Relationship	20%	8%	8%	4%	5%	20%
Competition	30%	5%	20%	5%	5%	30%
Geography	10%	0%	5%	5%	5%	10%
Partners	10%	2%	4%	2%	2%	10%

Project Tree

Quality of Prospect / Assessment of Winnability
PROSPECTS TO BE AWARDED BEFORE 31-MAR-14

Competency

#1 9 Past similar works/ Knowledge
#2 9 PQ Credentials
#3 6 Practised Skills / Specialist Knowledge
#4 6 Equipment Availability

Client Relationship

Working on Existing Projects 6 #1
Management Relation 7 #2
Preferred Party status 5 #3

Competition

#1 6 Low no. of bidders
#2 5 Quality of Competition
#3 4 Ability to limit competition

Geography

Proximity to existing project 7 #1
(resource sharing)
Security Issues 7 #2
Access / Connectivity 7 #3

Partners / Specialist Sub-contractor

#1 8 For Qualification
Specialist/ Sub-contractor/ Vendor 7 #2
#4 8 For Knowledge
For Competitiveness 8 #3

Remarks

Parameter	Points
Competency	Factor for Cost Level (HCC cost being high)

Priority Reference

Score	Priority
>81	High Winnability
76-80	Medium Winnability *
66-80	Medium Winnability
51-65	Low Winnability
21-50	Others
<20	No Bid

The weight thus assigned for each sub-parameter indicates the Winnability of the project and the score indicates the status of HCC against the given sub-parameter. Together these measures help in the identification of critical areas i.e. areas that need an action plan in order for HCC to win the project.

Based on this assessment as well as risks like schedule (bidding, award), funding and clearances, the prospect is assigned a priority and the sales budget/ forecast is derived as below:

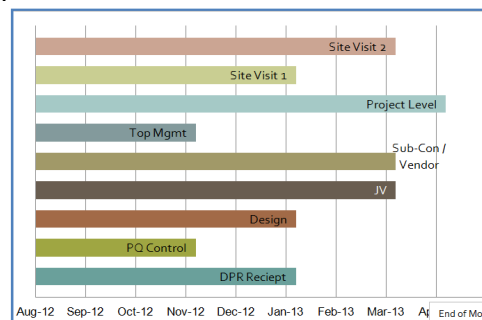
Priority	Relevance for budget	Relevance for bidding
High Winnability	Relevant	Relevant
Medium Winnability	Partially Relevant	Relevant
Low Winnability		Relevant
Others		Relevant for Sp. Cases

The Budget is calculated by considering all the projects where HCC is L1, the ones with High Winnability and select prospects from Medium Winnability. Additionally a higher limit of the order intake target is represented as Uppercase which includes all Medium Priority prospects along with L1 and High Winnability prospects.

Preparedness Assessment/Planning to Win

This step is required to identify a timeline when *Win*-related actions are to be taken. For e.g. the following format may be considered for reference:

	Months before Bid Submission
NIT	3
DPR Receipt	4
PQ Control	6
Partner Identification	
Design	4
JV	2
Sub-Con / Vendor	2
Client Meeting	
Top Mgmt	6
Project Level	Every month
Site Visit 1	4
Site Visit 2	2



Action Plan

The critical areas/key parameters identified in step 1 and the timelines established in step 2 help in preparing an Action Plan which defines the critical actions required along with timelines and responsibility matrix to ensure project win. With these efforts, we hope to target and win good prospects that not only help HCC achieve its growth targets but also return value to its stakeholders.

3. Supply Chain Management Initiatives

HCC continues to optimise its supply chain operations and simultaneously encourages local sourcing of construction material to the extent feasible in order to support local economic development. Given our pan-India presence, we consider material sourced from within the country as locally sourced.

Consolidation of major materials has led to better prices, assured supplies, and extended credit. Pre-tender tie-ups have led to 15 months fixed price contracts. Imports substitution, e.g. in the case of liner plates at Sainj, has led to improved delivery. Wherever possible, alternate modes of logistics have been used. For instance, in the case of delivery of steel plates by rake in Bogibeel has resulted in monetary savings due to use of rail instead of road. Alternate sourcing, e.g. plates for Bogibeel from Welspun and Essar in place of SAIL & JINDAL, has led to reduced lead time and minimised wastage. Procurement of Rebars in cut length and controlled rolling margin at Maroshi has led to monetary savings. We have also focused on development of local vendors such as TCI Max, Mangalam, Adhunik, Kashmir Rolling, R S Ispat, leading to benefits to both HCC and the local suppliers and economy. HCC is also the first construction company to take advantage of concession of zero custom duty applicable under import for the Mega Power Project at Tehri.

Through optimization of inventory and reduction of surplus, economic savings have been achieved. In 2008, the cost was reduced from the peak cost of INR 480 Cr in FY12-13 to INR 341 Cr with continual improvement and better managed Inventory. Some surplus has been eliminated through liquidation and disposal as well as by use of the same in other Projects, by making use of control mechanism in Customised SAP/ERP.

14. Environmentally Sustainable Practices

Highlights

Formulation and launch of HCC Water Policy	Participation in several conferences on water conservation	Use of Erosion control Blanket at NH-34
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Our Approach

One of HCC's overarching sustainability priorities is to design and build infrastructure in an environmentally responsible manner. Our Integrated Management System (IMS) Policy clearly conveys our commitment of improving our performance on various environmental aspects that go beyond regulatory compliance.

Our IMS system adheres to the requirements of ISO 14001: 2004 Environmental Management Systems, ISO 9001: 2008 Quality Management Systems, and BS OHSAS 18001: 2007 Occupational, Health and Safety Systems. During November-December 2011, M/s. TUV NORD, the certifying agency, conducted a recertification audit to verify the status of our compliance to the requirements of these standards. IMS comprises of a number of policies and procedures that are regularly revised by our top Management, and communicated to and implemented across all our project locations.

Given the fact that construction activity is water and natural resource-intensive, continued availability of high-quality, low-cost and locally-sourced raw materials will become a critical challenge in the future. Since we execute large and technically complex construction projects in geographically challenging locations, we also recognize the impact of unpredictable weather-related events (such as drought, cyclones, etc) arising due to the global climate change on our operations as a major environmental risk going forward.

We aim to reduce our total water consumption and improve our water efficiency index. This is in line with our ultimate objective of achieving water-neutrality, a goal that is strongly supported by our top decision-makers. Water meters have been installed at all our operating sites in order to measure and track our water consumption footprint. Our commitment to water sustainability is further exemplified by our Communication on Progress (COP) 2012 to meet our UN Global Compact CEO Water Mandate obligations.

We have also introduced several changes in our materials procuring practices to ensure optimal use of critical natural resources. This includes focusing on reuse of materials, decreasing waste generation, sourcing locally to the extent feasible and better procurement controls centrally to decrease unnecessary long-distance transport. We are also conscious of our energy footprint and encourage adoption of energy efficient practices. Use of the latest technology and engineering innovations developed through our employee-driven Innovention Forum further help us meet our goals in this regard.

Although none of our construction projects are situated in ecologically sensitive areas, our project teams remain sensitive to the protection of local ecology, landforms and communities. Wherever required, dust suppression is regularly carried out to preserve the air quality and afford comfort to the surrounding population. As a construction company, contamination of land is relevant to our operations. However, we remain committed to protecting the land quality in and around our project sites.

As a construction company, we do not manufacture any products or deliver services. We have however included initiatives to use environmentally friendly materials wherever possible and minimize

impacts from the construction activities, including the impact of transportation of construction materials.

Environmental, health and safety awareness has become a major area of focus in our workforce training programs across all project sites. Structured training modules, dedicated in-house and external faculty, and pre- and post-testing of employees ensure the effectiveness of our training programs.

Initiatives

1. Use of Fly Ash in Construction Activities

Motivation for Implementation

In order to reduce direct cost, fly ash is used on site as a replacement for conventional materials.

Implementation procedure

Our focus is on maximizing use of fly ash in concrete for all structures as a replacement for cement. For road embankments, fly ash acts as a replacement for earth. Fly ash bricks also act as a replacement for clay.

Impacts

Replacement of conventional materials with fly ash not only reduces costs but also helps make operations more environment-friendly through reduction in the carbon footprint.

2. Use of Geo-Green at NH-34 Road Project



Use of Erosion Control Blanket (ECB) is recommended by IRC: SP: 21-2009 for slope protection of road embankments. ECB, which is made of coconut coir, protects soil and seed from erosion by providing a cover against the erosive forces of overland storm water flow and the effect of rainfall. Coir ECB acts as a non-deteriorating mulch that promotes seed germination beneath the mat. Vegetation easily grows through it because of its high porosity.

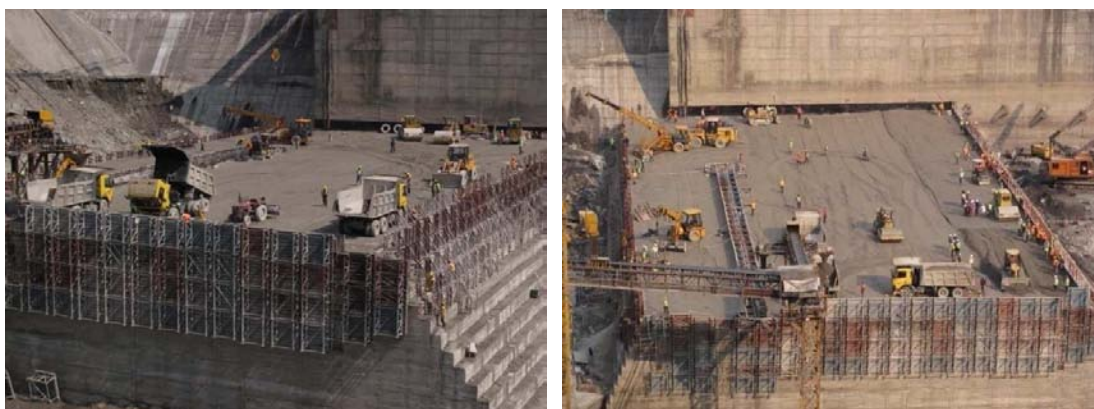
Coir blanket has been successfully installed at our NH-34 Project and has been found to be very effective aesthetically as well as economically as compared to the traditional stone pitching/PCC. Installation of bio-friendly products reflects HCC's long standing commitment toward 'Responsible infrastructure'.

3. Wastage reduction of reinforcement steel using Rebar software

Typically, almost 10-15% of the total project cost in large construction projects goes towards the cost of reinforcement steel. Highbar Technologies has developed a software called Rebar for optimization and management of reinforcement steel. Through the rebar solution, the budgeted wastage of reinforcement steel can be reduced by 7-10%. The Bar Bending schedule needs to be fed into the software system. The system keeps track of inventory available in terms of diameter and length-wise reinforcement bars of various full and cut lengths. The software has an optimization engine that provides the best possible cutting length combination schedules so that

the wastage can be minimized. The system also allows us to keep track of off-cut pieces so that they may be used in the future to reduce wastage further.

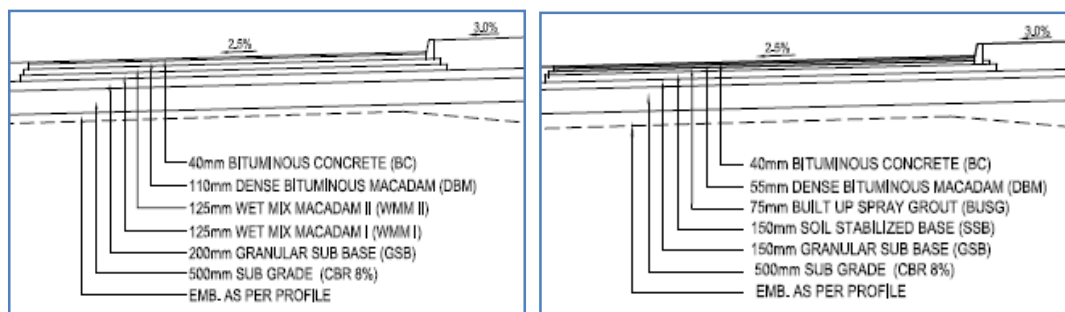
4. Building with high volume fly ash technology at Teesta-IV



The Teesta Dam is the third dam of its kind in India with roller compacted concrete (RCC). The dam is to be used for power generation. Upto 70% of the material used is fly ash, amounting to 25,000 MT. Fly ash is used to control heat generation and also to avoid cracking of concrete. Use of fly ash is greatly beneficial to the environment.

5. Building for longer life with lesser natural materials and lesser carbon footprint

Construction is done with polymer based soil stabilizer in the pilot stretch. The bituminous layer thickness was reduced by 55 mm, saving approximately 1000/2000 MT of bituminous mixture per kilometer of a two/four lane road construction. Aggregate layer thickness reduces by 125 mm, amounting to approximately 2100/4200 MT of quarried rock saved per kilometer for a two/ four lane road construction. Typical cross sections are appended



6. Value engineering for access to surge shaft at Sainj Hydro Electric Project

At Sainj HE Project, as per the original programme the client was to provide /hand over the access road up to the bifurcation point and from Bifurcation point, a part access road and two separate Adits were planned to reach the surge shaft top and bottom.

During the course of the contract, the client was not able to hand over the access road up to the bifurcation point. The completion schedule would have been impacted by a total time over run of 7-9 months. In order to avoid any delay in the timelines, an optimized layout was proposed by HCC suggesting a minimum length for the access road and the common portal, with provision for Adit to top and bottom of Surge Shaft. The optimized layout with complete proposal was approved by the client and the work is progressing as per schedule.

7. DMRC CC 30 Shoring System

At the Delhi Metro Rail Corporation Contract Package CC30, construction of underground tunnels and two stations required excavation work to be carried out at a considerable depth. A shoring system is required to hold the earth face at considerable depths within a restricted space. The shoring system adopted consists of structural steel 'I' beams and wooden battens which can be retrieved and reused at other locations as and when the work is completed at a particular section, with minimal loss / consumption of system members and in the process optimize the design and requirement of construction materials required in the structure.

8. Installation of Stabilizer in NH-34 Phase-IV

A 500kva Servo stabilizer was installed in the Gazole plant area of Phase-IV of National Highway 34. This change of equipment resulted in savings of 43964 kWh, equivalent to over INR 10 lacs.



The Pir Panjal Railway Tunnel is India's longest Railway Tunnel (10.96 Km) for transportation constructed by HCC between Banihal and Qazigund on Udhampur – Srinagar – Baramulla broad gauge rail line.

15. Communication of Progress on the UN CEO Water Mandate

Message from Chairman and Managing Director

Water has been argued to be a social good. It is commonly accepted that access to water is a basic human right. However, being a social good and private good are not mutually exclusive conditions. In fact, more water for one individual can mean less water for other individuals who share a water-supply system. Classifying water as a basic human right, therefore, introduces further social complications in terms of equitable distribution.

While water has been treated as a social good, water is also a commercial good when it comes to farming, manufacturing and so on. Water is also an environmental good, in the sense that more than 50% of the world's water is today being used by human beings, which in turn crowds out the rest of life and nature on our planet. This over exploitation of our water resources for human use paves the way for disasters. There is a need to judiciously consume water in order to conserve our environment as well. So, we need to bring in a new definition for water, wherein it is not just a social good to which everybody is entitled to, and to be freely consumed, but something that is a social good as well. Water is also a commercial good too, with an economic value and therefore one must pay for its consumption. It is also an environmental good, wherein you respect water as a resource and replenish it after it has been used by creating sufficient high water tables.

While the government must serve as the ultimate custodian of our nation's water resources and play the key role in setting frameworks and strategies, many other stakeholders also have a role to play in delivering solutions. Proper coordination within government-set strategies requires sound facts and an approach that supports cost-effective solutions. The resulting need for multi-stakeholder engagement means that coalitions are required; these are public-private-civil society coalitions focused collectively on addressing the water security issue, each leveraging its own comparative advantage towards meeting the challenge within a common policy framework.

As we develop responsible infrastructure in our direct operations, we have been and will continue to engage in practices which enhance our ability to become water efficient and ultimately a water neutral company. Besides, we shall continue to contribute in public policy and collective actions at all levels apart from engaging with our supply / value chain for water shed development and water resources management.

Yours sincerely,

Ajit Gulabchand
Chairman & Managing Director

Preamble

Water scarcity is considered to be a local phenomenon; however, in the current era of globalization, the looming water scarcity in India is going to affect people beyond its boundaries as well. India, with 18 percent of the world's population and four percent of the globe's water resources, is doubling its spend on water management. The federal and state governments have set aside INR 1.1 trillion (\$20 billion) for sewage treatment, irrigation and recycling for the five-year period ending March 2017. A nation with 1.2 billion people, which treats only 20 percent of its sewage, India is now spending more money as inadequate clean water is threatening to stunt growth in industrial and farm output. Industrial water demand in India may surge 57 percent by 2025, with India emerging as the most water-stressed among the Group of 20 nations. According to a 2011 census, water availability in

India, per person, dropped by 15 percent to 1,545 cubic liters in a decade. By 2030, India's demand for clean water may exceed supply by 50 percent while pollution is making what's available unfit for human consumption, industrial or farm use, according to McKinsey & Co. forecasts and a government report.

There is still hope for India because water scarcity in India is predominantly a manmade problem; therefore if India makes significant changes in the way it thinks about water and manages its resources soon, it could ward off, or at least mollify, the impending crisis. Fresh water use efficiency is the key for all the competing stakeholders of water resources in the country. In order to create an enabling environment, there is a dire need for coordinated efforts from all the stakeholders, in general, and corporate sectors engaged in developing infrastructure in particular.

Hindustan Construction Company Ltd (HCC) has long recognized the correlation between business viability and sustainable water resource use. The initial driver of HCC's focus on water was concern about not only the high cost of resource-inefficient infrastructure development, but about the business risks posed by two types of water scarcity facing the country: physical scarcity, where there is not enough water to meet demand, and economic scarcity, where communities lack the infrastructure and/or financial capacity to access the water they need. The company has begun to consider how climate change adds a new dimension to these existing challenges and will likely worsen both types of water scarcity in India, especially in regions where water availability is already under pressure and where poor people will be the hardest hit.

HCC has made reduction of water use across its construction project sites a top priority, and beginning in 2008, HCC adopted a rigorous, company-wide framework for improving water resource management under the aegis of United Nations Global Compact (UNGC)'s 'The CEO Water Mandate'. HCC has made it a point to embed the principles of water resources management to its work practices. As a responsible corporate steward, HCC has also been motivating other companies, to join this initiative by sharing best practices of water stewardship at HCC in various local, regional, national, and international conferences and symposia. Such moves are crucial in bringing about inclusive development for the nation, in general, and in developing sustainable infrastructure, in particular.

In this chapter, an effort is being made to outline HCC's efforts, during the last financial year (2012-2013), in maintaining and improving water consciousness, in general, and advocacy as well as implementation of the 4R water principle (reduce, recycle, reuse, and recharge) at all our direct operations and beyond, in particular. Besides, the chapter also highlights HCC's engagement with various organizations and deals with issues related to water at local, regional, national, and international level. Each section of this chapter captures activities / efforts taken by HCC towards implementation of the CEO Water Mandate's six key areas of action Direct Operation, Supply Chain and Watershed Management, Collective Action, Public Policy, Community Engagement and Transparency.

1. Direct Operations

In line with our commitment to water conservation at our direct operations, we continue to:

- Conduct comprehensive water-use assessment to understand the extent to which HCC uses water
- Enhance our ability to maximise water conservation in line with HCC's mission statement
- Invest in and implement water efficient measures
- Encourage and engage employees to contribute towards maximizing water efficiency
- Include water conservation related agenda at all level of decision making in the company, including but not limited to quarterly project review meetings and annual general body meetings

UN Water Mandate Implementation at HCC

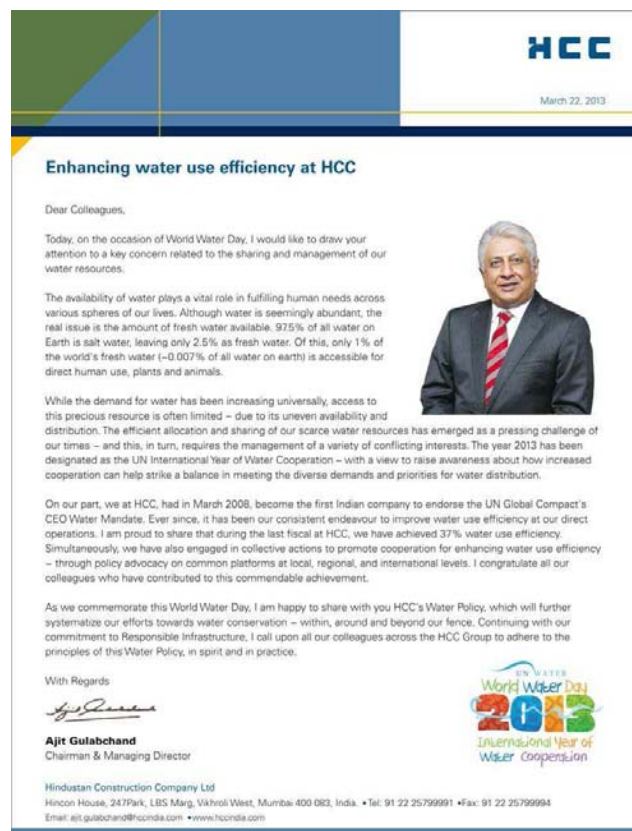
We recognize that wherever and whenever infrastructure is developed, it will have an impact on the community and the environment. Therefore, HCC has embedded a wide range of sustainability measures into its core operations, and continues to innovate and apply not only the best but next-generation practices while executing some of the largest infrastructure projects in the country. To address the pressing challenge of water scarcity, HCC has set an overall goal of achieving water neutrality through location-specific strategies and follows a robust implementation process. The implementation process was thoroughly described in its first communication of progress on Water in 2009 (HCC's Water COP 2009).

In order to accelerate the efforts being undertaken by HCC to achieve water stewardship at all levels and ultimately establish an internal benchmark of water efficiency in its direct operation, two empirical scales were developed in FY-2011-12: Water Efficiency Index and Water Neutrality Index. Besides, efforts were also made to define net water consumption in its processes. The details about the indices and net water consumption can be found in the Water Chapter of HCC's Sustainability Report: *Responsible Infrastructure 2011-12*.

In the current reporting period, to further streamline our collective efforts in the organization for effective implementation of the UN Water Mandate at HCC, a system guideline entitled 'Guideline for UN Water Mandate implementation at sites' was released by HCC's Integrated Management System with a provision of access to the document by all at HCC.

The guidelines, which are based on HCC's learning while implementing the UN Water Mandate at its sites in the last four years, will be helpful for all at HCC, who are directly or indirectly responsible for implementing the Water Mandate in their respective facility / operation at HCC.

In addition to bringing the UN Water Mandate Implementation in HCC's Integrated Management System (IMS), efforts were also made to develop a dedicated policy on water for HCC. HCC's Water Policy was drafted in consultation with internal and external stakeholders (UN, World Economic Forum, the World Bank, and water experts from other renowned agencies). On the occasion of World Water Day 2013, HCC's Water policy was launched by Mr. Ajit Gulabchand, Chairman and Managing Director, Hindustan Construction Company through an internal communication across the organisation.



WATER POLICY

Water is a precious natural resource that needs to be conserved and managed in an integrated and environmentally sound basis. Considering its increasing scarcity and the emerging water crisis, the planning and management of this vital resource and its economical and equitable use has become a matter of utmost urgency.

HCC recognizes the correlation of business sustainability with water resources and is committed to reduce the amount of water consumed across its construction project sites. HCC is the first Indian Company to endorse the United Nations Global Compact's 'The CEO Water Mandate,' which mobilizes businesses globally towards making water sustainability a corporate priority.

At HCC, the principles of water resources management have been incorporated as a core and integral part of its business process. Our commitment to develop sustainable and responsible infrastructure – through a judicious utilization of natural resources such as water- is embedded in HCC's Mission statement, which mandates all within HCC to consider the direct & indirect as well as the short and long-term impacts to the environment and the community, while making any business choices. Accordingly, the HCC water policy demarcates the following canons for all its operations:

- **Awareness, Sensitization, and Education** to all at HCC about significance of 4 R practices for water (Reduce, Recycle, Reuse, and Recharge)
- **Preservation of Quality of Water in Natural Water Resources** (river, estuary, spring, lake, ground water aquifer etc.) from where we withdraw water by assessing water use, setting targets for water conservation and wastewater treatment, investing in new technologies to achieve these goals and internalizing water considerations in business decision-making.
- **Optimum utilization of Water** by adopting responsible operating practices and designs for the environment (DfE) through re-engineering of our existing processes, wherever and to the extent possible techno-economically, to ensure minimization of impact on the availability of water to the community and eventually become a water positive company.
- **Disclosure of water usage** by openly communicating and engaging with neighboring community as well as national and international water forums/ societies regarding our water usage and conservation initiatives in an ongoing manner.

Further, we commit to not only maintain and improve water conservation measures at our site but also engage others by showcasing/ demonstrating our success stories and engage ourselves in providing thought leadership on water at various national and international forums as a responsible business steward.

A handwritten signature in black ink, likely belonging to the Chairman and Managing Director, is placed above the title.

Date: 22/03/2013

CHAIRMAN AND MANAGING DIRECTOR

Water Intake by Source

Water meters have been installed at all our operating sites. Our total freshwater withdrawal for the reporting year stands at 2182 million litres. This figure includes withdrawal of groundwater, surface water, rainwater and water from municipalities and water tankers, and desalinated water. 344 million litres of water was recycled and reused and 1294 million litres of wastewater generated was adequately treated and discharged into the environment.

Snapshot of some of the Water Interventions at Our Project Sites

During the reporting year, the UN Water Mandate team visited several of HCC's construction sites in India and abroad. As part of these visits, the team identified and implemented techno-economically and socially acceptable proposals for reduction, recycle, reuse, and recharge of water. Additionally, efforts were made to evaluate the performance of previously implemented water interventions.

Currently, there are 22 sites in India and Bhutan (as shown in Figure 3-1) where water initiatives have been implemented under the aegis of the UN CEO Water Mandate. Site-wise performance can be seen in the following graphs (Figure 3-2 through 3-5). The graph in Figure 3-2 shows corresponding water withdrawals, water discharged (after adequate treatment), net water consumption, and water subjected to recycle and reuse. The graph in Figure 3-3 shows water neutrality of individual sites and also indicates the amount of water replenishment required to make the project site water neutral. Graphs in Figure 3-4 & 3-5 show fresh water use efficiency of the sites. Through these graphs it is evident that of the operating sites where UN Water Mandate has been implemented, three are water efficient and the rest are water sensitive.

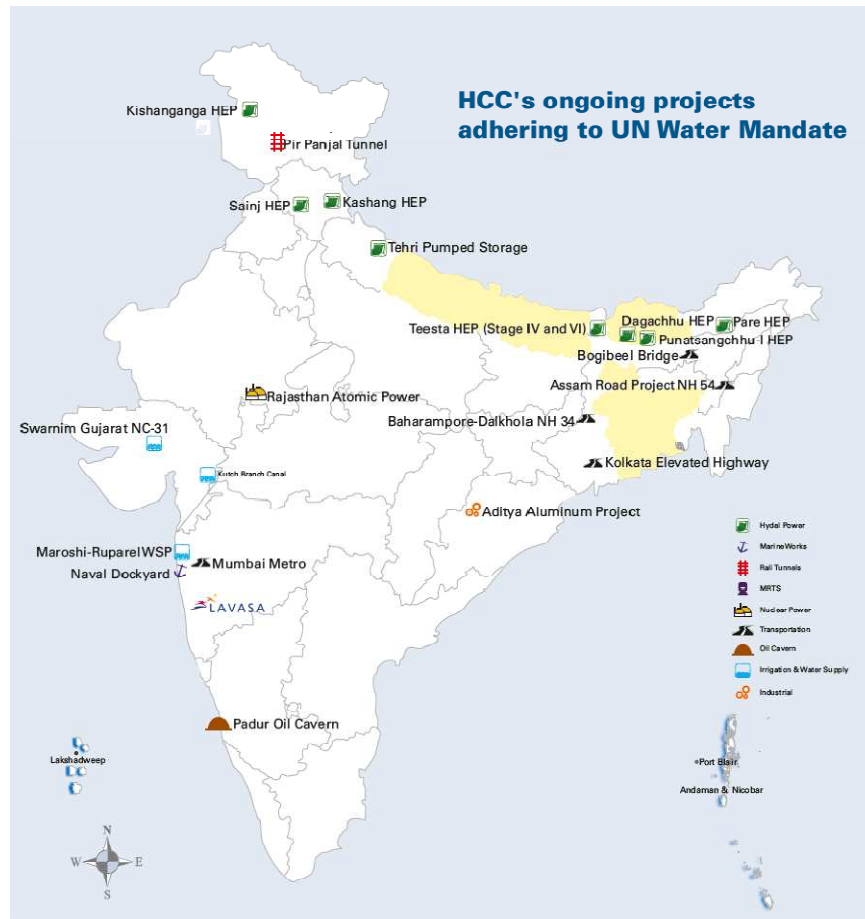


Figure 0-1 Ongoing sites where UN Water Mandate has been implemented

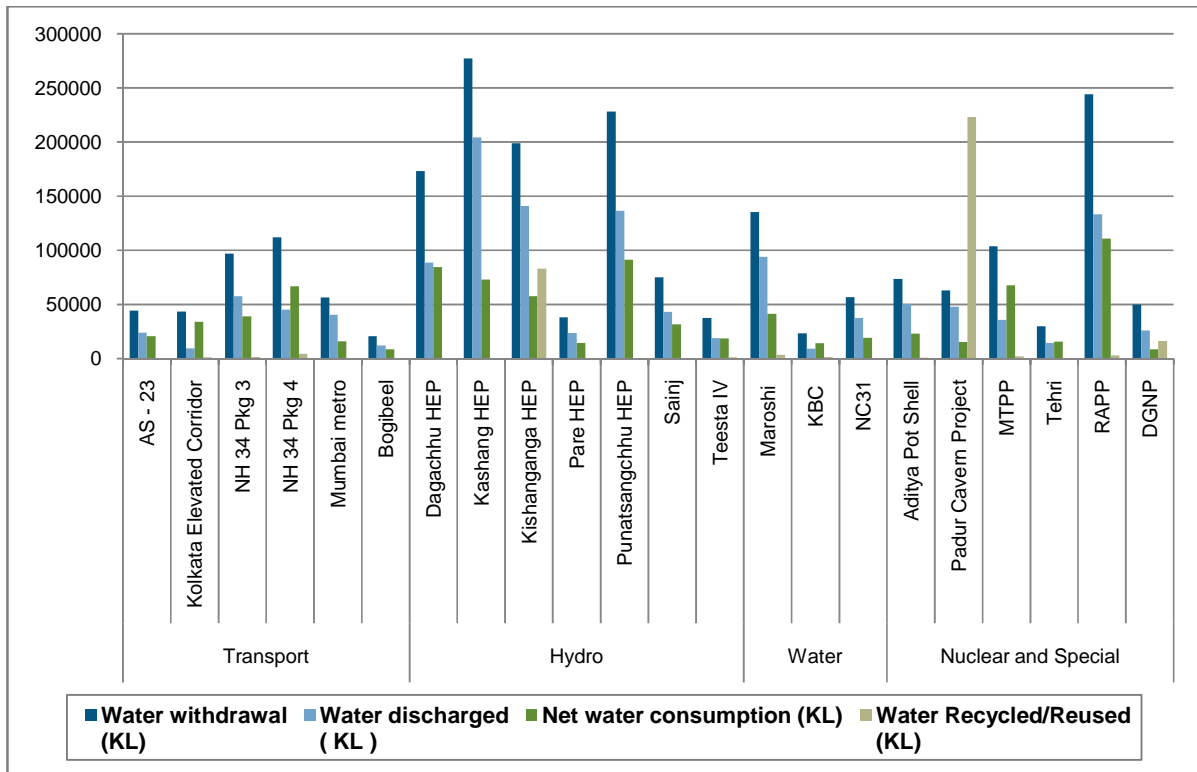


Figure 0-2 Overview of water management at HCC's Ongoing Sites

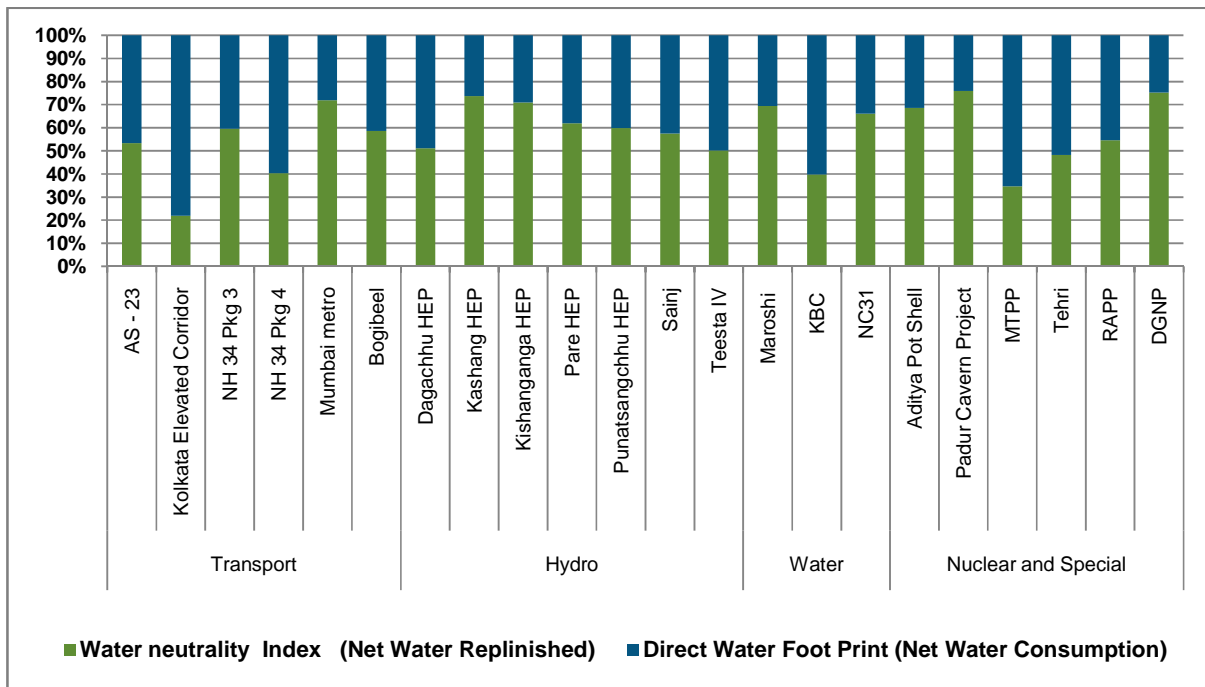


Figure 0-3 Site wise water neutrality based on net water consumption

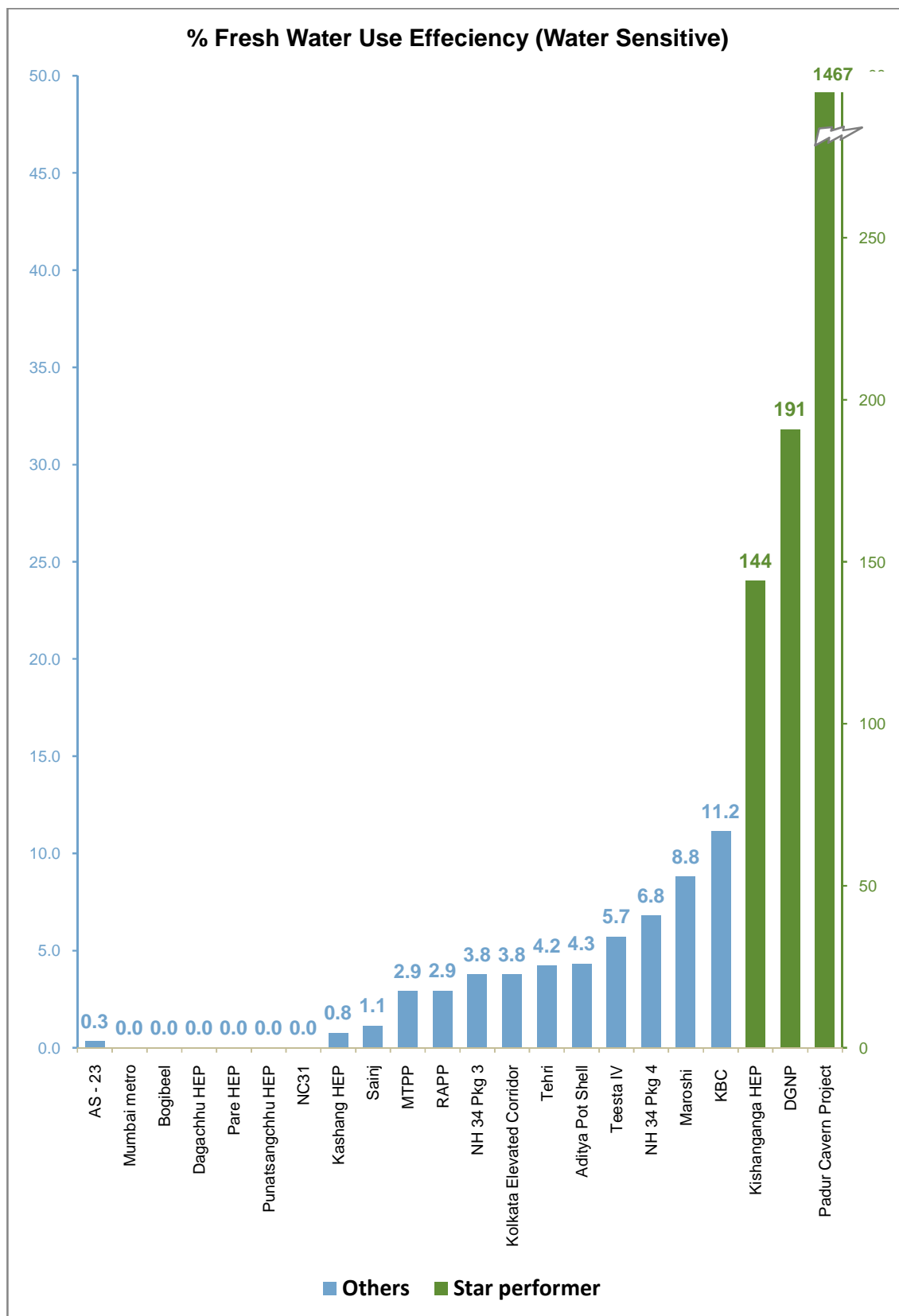
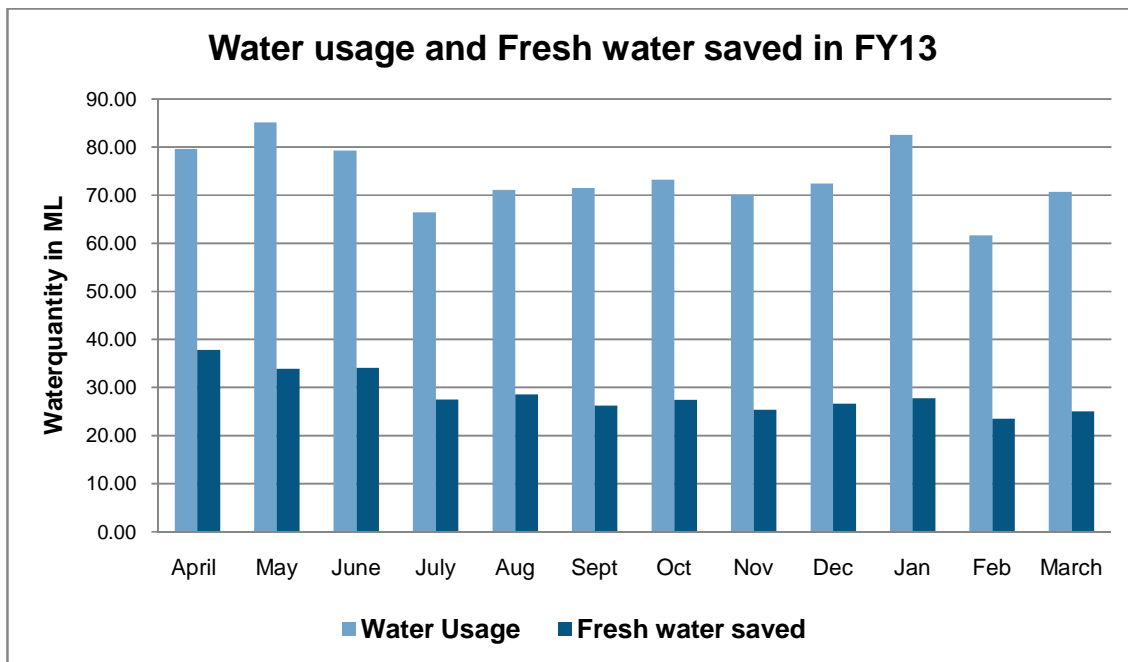


Figure 0-4 Water Efficiency at HCC's Construction Site



Of the water interventions proposed and implemented at our construction project sites, the following four case studies are presented with the intention of highlighting the significance of water interventions not only at our projects sites but also at other industrial/commercial projects in water stress areas.

Case Study 1) Installation of Desalination plant at DGNP

HCC is constructing a dry dock for the Director General of Naval Project (DGNP) at the Naval Dockyard in Mumbai. The only way to fulfil the water requirement of the site was **to procure** the fresh water from the municipal corporation which had a very limited supply. ***Thinking differently, the site evaluated the option of installing a Desalination Plant with the help of the UN CEO Water Mandate team.***

The desalination plant used at DGNP is of reverse osmosis type and has the following components:

- Cartridge filter- to remove suspended solids of 10micron and above.
- Reverse osmosis skid- The filtered water is passed through a Reverse osmosis membrane at a designed pressure to remove the dissolved salts.
- pH dosing – to maintain pH of treated water, chemical dosing is carried out.

Desalination plant parameters –

- Quantity of processed water/output from the plant: 5 cum/hr i.e. 100 KL/day
- Quality of water :– Suitable for construction purpose

Summary of Fresh Water conservation – April 2012 to March 2013:

Sr.	Activity	Intervention	Total (KL)
1	Using treated saline water	Water from Desalination plant	15,228
2	Water reuse/recycle	Reuse of waste water from batching plant after treatment.	1,202
		Total	16,430

Impacts

- Over the reporting period, **30%** of the site's water requirement was satisfied by water from the desalination plant. The rest of the water procured was mostly used for domestic needs at the workers camp.
- Total fresh water saved in FY 12-13 = 16,430 KL** equivalent to 1643 tankers of 10KL.
- The use of desalinated water for construction activities at DGNP site has reduced the stress on local aquifers, which would have otherwise catered to the water needs.
- Savings on the procurement cost of water has helped recover the procurement cost of desalination plant.
- Installation of the plant has ensured that the water needs of the local community are not affected due to extraction of groundwater while procuring fresh water from local vendors.
- The intervention has helped to reduce the site's dependency on the external water sources, which is crucial in a city like Mumbai that always faces an acute scarcity of water.

Case Study 2) Installation of Wastewater Treatment Plant (WWTP) at Padur Cavern project, Karnataka

HCC is constructing an underground crude oil storage cavern for Indian Strategic Petroleum Reserves Limited (ISPRL) at Padur in Karnataka. This rock caverns has a capacity to store 1.25 million tonnes crude oil. HCC has already constructed India's first strategic crude oil storage of 1.33 million tonnes capacity in Vishakhapattanam, Andhra Pradesh. While constructing the cavern at Vishakhapattanam, HCC had reused the waste water by installing a water treatment plant of 1MLD capacity which made the project self sufficient in water.

After the successful implementation of a Wastewater Treatment Plant at Vizag, the Padur Cavern project team installed a 1MLD WWTP. The plant treats wastewater generated by tunnelling activities in the cavern. A significant share of the water requirement of the site is now satisfied through the cyclic reuse of treated water.



Summary of Fresh Water conservation – April 2012 to March 2013:

Sr.	Activity	Total (KL)
1	Tunnel activities	130324
2	Dust suppression activity	4755
3	Casting and curing	88000
	Total	223079

Highlights

- The Site was able to conserve fresh water by adopting a mechanized treatment methodology like wastewater treatment plant and thus, successfully showcase substantial fresh water saving in FY 2012-13.
- The site demonstrated water use efficiency as 1467%, which is the highest amongst HCC sites, indicating substantial fresh water saving over the net water use at site.

Impacts

- During FY12-13, 78 % of water requirement at the site was catered through reuse of treated wastewater.
- **Total fresh water saved in FY 12-13 = 223 million litres**
- The reuse of water has not only led to substantial savings on the cost of water, but also drastically reduced the stress on local aquifers ensuring that the water needs of the local community are not affected due to extraction of groundwater.
- The water recycling plant has helped overcome the problem of both disposal of wastewater, as well as sourcing of fresh water.

Case Study 3) Initiation of Reuse and Recycle of treated water at Kishanganga HEP

HCC is implementing the Kishanganga Hydroelectric Project located on River Kishanganga in Jammu & Kashmir. The project involves construction of a 37m high concrete faced rockfill dam and an underground powerhouse. A maximum gross head of 697 m is proposed to be utilised to generate 1350 Million Units of energy, in a 90% dependable year with an installed capacity of 3x110 MW.

The work involve construction of an Head Race Tunnel by tunnel boring machine. This process was generating significant quantity of wastewater through tunnel boring activities and due to seepage. The wastewater was discharged into the main stream of a nallah after sedimentation. To reuse this wastewater, two sedimentation tanks of 6 MLD and 2 MLD capacities were built at Main Access Tunnel (MAT) and Power House locations respectively. Thus, the wastewater was reused for different construction activities.



Summary of Fresh Water conservation – April 2012 to March 2013

Sr.	Activity	Total (KL)
1	Casting/curing yard wastewater is recycled for curing after proper treatment	6653
2	Wastewater at Main Access Tunnel (MAT) and Tunnel Boring Machine (TBM) is reused / recycled for TBM and Boomer activities after proper treatment	61485
3	Wastewater from batching plant is reused for Dust suppression after proper treatment	15000
	TOTAL	83139

Impacts

- Over the reporting period, **30%** of water requirement of the site was addressed by reusing treated wastewater for construction activities.
- Total fresh water saved in FY12-13 = 83 million litres.**
- The water use efficiency achieved as 144% indicates more fresh water saving than the net water use at site
- The water reuse practices have reduced the wastewater disposal in the surrounding reducing the nuisance from the community around.

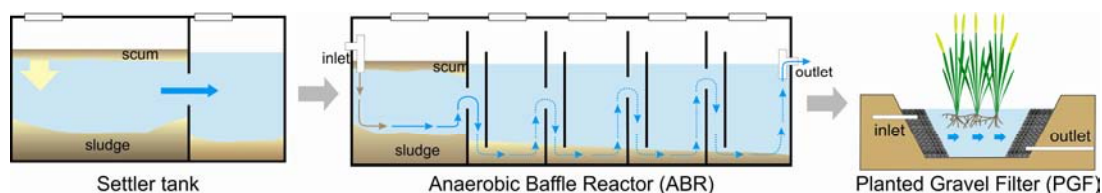
Case Study 4) Bogibeel site Installed Decentralized Wastewater Treatment System

HCC is constructing the Bogibeel Rail-cum-Road Bridge over the River Brahmaputra in Dibrugarh district, Assam. HCC has established its camp and infrastructural facilities on the south bank of the river. The labor camp at the Bogibeel site accommodates around 800 workers. In order to provide the labors with safe sanitation facilities, the site has provided 8 toilet blocks; with 8 water closets (WC) and 8 bathrooms each.

Sewage treatment by Decentralized Wastewater Treatment System (DWTS)

Initially, the project site had adopted a conventional methodology for its septic tank with a soak pit for the treatment of sewage water. However, the soak pits were found to be ineffective because of low water penetration due to clayey soil, resulting in sewage accumulation on the soil surface. In addition, there were concerns that this surface accumulation will pose a severe health and hygiene situation during the monsoons as the area was flood prone.

To overcome this situation, HCC's CSR team with help from the Innovation team and Project teams implemented a new treatment methodology called Decentralised Wastewater Treatment System (DWTS). It is a simple design, non-dependent on energy, reliable, long-lasting, tolerant towards inflow fluctuation, and low in costs. It can treat organic wastewater and is based on different natural water treatment techniques.



The DWTS comprises of:

- **Settler tank**: It is a scientifically designed Septic Tank with two to three compartments based on the number of toilet block users and frequency of toilet use. This tank is used as a settling / sedimentation tank for retaining particles. The outflow is free of settleable solids, but contains dissolved and suspended matters that pass untreated to the next treatment stage. The desludging period is 1 to 3 years depending on the sludge storage.
- **Anaerobic Baffled Reactor (ABR)**: It consists of a series of chambers in which the wastewater is required to flow in an up-flow form. The treatment is done in the absence of oxygen (anaerobic) by bacteria to decompose the suspended and dissolved matters. The sludge is accumulated at the bottom of the chambers and the biochemical oxygen demand (BOD) reduction rate is up to 90%.
- **Planted Gravel Filter (PGF)**: The Planted Gravel Filter is made of plants (reeds) and filter material (graded gravels, river pebbles). This treatment occurs in the presence of oxygen (biological conversion, physical filtration and chemical adsorption) and concentrates more on the removal of smell and colour. Reduction rate of BOD is between 75-90% and of the pathogen organisms is over 95%.
- **Collection Tank**: Treated water is collected in the collection tank for further reuse.

Benefits

- Soil contamination is eliminated as soak pits are not used.
- Typically 40% of the fresh water supply is used for domestic water needs at the project sites. Of this, around 32% goes waste in the soak pit. Implementation of DWTS will help to reuse this 32% of waste water, thus reducing the fresh water consumption.
- The normal effluent of a DWTS contains high levels of nutrients (N and P) and is therefore just right for horticulture.

- Area becomes hygienic.
- System is cost effective when compared to conventional sewage disposal method

Other innovative water saving interventions:

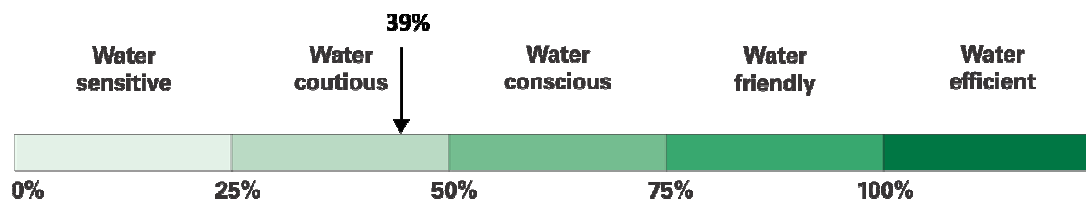
1. Water level controlling equipment – To avoid the overflow of water from overhead tanks
2. Push button taps at basins- to avoid running water wastage during water use at basin.
3. Collection of reject water from RO plant - this water is used for dust suppression
4. Wastewater from the vehicle washing unit is treated in the sedimentation tank with an arrangement to recycle the water.
5. Reuse of DWTS water for horticulture and dust suppression.
6. Implementing the Roof top rain water harvesting system for ground water recharge.

Comprehensive Water Efficiency and Water Neutrality Indices

The following table summarizes water management scenario at HCC's direct operation.

Sr.	Description	QTY	Unit
1	Fresh Water Withdrawal (extraction + procurement)	2,181,578	KL
	Freshwater use as raw material	459,985	KL
	Fresh + desalinated Water used for construction activities+ domestic water use	1,681,510	KL
	Tracking diff.(Water transit losses -evaporation, wastage, frictional losses, storage etc)	40,083	KL
2	Water Recycled /Reused (Fresh water saving)	344134	KL
3	Total Water used at site	2,525,712	KL
4	Total Fresh Water withdrawal at sites	2181578	KL
5	Water disposal in natural water bodies in environmentally safe way	1294035	KL
6	Net water use at site	887543	KL
7	Water use Efficiency at HCC sites During FY 2012-13, water initiatives across HCC's direct operation lead to enhancement of 39% fresh water use efficiency. This was achieved through recycle & reuse of fresh water and utilization of desalinated water in place of fresh water. <i>This implies that HCC's direct operation has reduced consumption of fresh water by 39%.</i>	39%	
8	Water Neutrality at HCC sites. During FY 2012-13, water initiatives across HCC's direct operation lead to efficient utilization of extracted water leading to net consumption of 41% of total water extracted. Remaining 59% process wastewater was disposed in natural water bodies in an environmentally safe way. <i>It implies that to be able to become water neutral, we need to conserve water through Rain water harvesting on a larger scale beyond the fence.</i>	0.59	

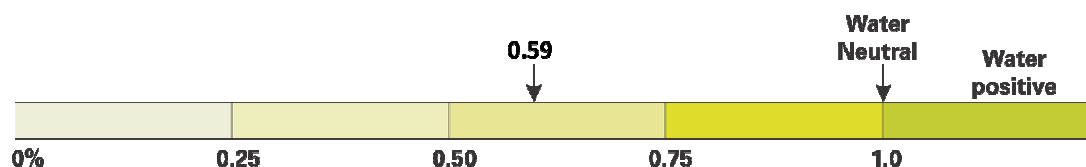
The impacts of water conservation measures taken across HCC's direct operation on the scales of water efficiency and neutrality indices are shown in following line diagrams.



During FY 2012-13, water initiatives across HCC's direct operation lead to minimization of 39% of fresh water extraction. This was achieved through recycle and reuse of fresh water and utilization of desalinated water in place of fresh water.

This implies that HCC's direct operation has reduced consumption of fresh water by 39%

Similarly, as shown in the following scale HCC achieved 0.59 points on the water neutrality index.



During FY 2012-13, water initiatives across HCC's direct operation lead to efficient utilization of extracted water leading to net consumption of 41% of total water extracted. Remaining 59% of the process wastewater was disposed in natural water bodies in an environmentally safe way. In other words, in the reporting period, HCC could offset its water withdrawal by 59% by using desalinated water (in place of fresh water), recharging the ground water through rain water harvesting, and disposal of treated process wastewater to natural fresh water bodies.

2. Supply Chain and Watershed Management

At HCC, we recognize that adoption of comprehensive and total water management and development of responsible infrastructure is not possible without engaging contractors and subcontractors, suppliers, and service providers. Consequently, all possible efforts are made to engage these stakeholders by communicating with them the essence of good water practices and educating them on the methods of adoption of 4R water practices (reduce, recycle, reuse, and recharge) through focused events, conferences, workshops, and symposia. These events are organized at the company, local, regional, state, and national level.

World Water Day Observance

World Water Day was observed across HCC on March 22, 2013. The theme for this year's observance was *International Year of Water Cooperation*. During his opening address at the head office, Dr. Manoj Chaturvedi, Deputy General Manager-CSR-UN Water Mandate at HCC, elaborated upon the significance of water cooperation at the local, national, and international level, and threw light on the role HCC has been playing in facilitating cooperation within the company and beyond.

The special feature of this year's WWD observance was the group-wide release of the water policy by Mr. Ajit Gulabchand, Chairman & Managing Director, HCC, through an email communiqué. The release of a water policy was aimed at further systematization of HCC's efforts towards water conservation. In the communiqué, Mr. Gulabchand urged all of HCC's employees to adhere with HCC's water policy. The policy was formally unveiled by Mr. Arun Karambelkar, President and Whole Time Director, HCC E&C, during the observance.

During his keynote address, Mr. Karambelkar expressed his happiness about the recent CSR award won by HCC in the category of *Best Social Investment Strategy*. He further elaborated on the growing

significance of CSR and the present and future expectations of key stakeholders, including bankers and financiers, from the company. With regards to water initiatives at HCC, he acknowledged the achievements of our sites and head office officials in the space of effective UN CEO Water Mandate implementation. He stressed on the possibility of continued improvement through implementation of an annual water budget in line with financial budget this fiscal year onwards.

A movie clip was also screened to raise awareness on water cooperation during the occasion. WWD was also celebrated across all HCC construction sites. Efforts were also made to engage contract workers and community in the vicinity of the sites to spread awareness on the significance of water cooperation at local / national/ international level in ensuring water security for all.

World Water Observance across HCC

A Communiqué by HCC sent to all contractors, clients, suppliers, & service providers on the occasion of World water Day 2013

HCC unveils Water Policy on World Water Day Achieves 37% water use efficiency

On March 22, 2013, World Water Day was observed at HCC across all project sites and at the Head Office through a series of employee and community engagement initiatives. A short film on the theme for 2013 – 'Water Cooperation' – was screened across all locations. A key highlight this year was the launch of HCC's Water Policy by Arun Karambelkar, our President and Whole Time Director. This Policy will help to further systematize the efforts undertaken towards water efficiency – within, around and beyond our fence.

Chairman Ajit Gulabchand in his message to the HCC Group on the occasion also congratulated our Projects and Water Mandate Teams for their consistent endeavours whereby HCC has achieved 37% water use efficiency at its direct operations during the last fiscal.



Head Office



Boghibeel Rail Cum Road Bridge



Aditya Aluminium Project



Kishanganga HEP



Kolkata Elevated Corridor



Mumbai Metro



NH-34 PKG-3



Padur Cavern



Punatsangchhu – I HEP, Pkg MC-3



Sainj HEP



IN A WAY, EVERY PROJECT OF OURS IS A 'WATER EFFICIENT PROJECT'

Hindustan Construction Company Ltd (HCC) recognizes the correlation of business sustainability with water resource and committed to reduce the amount of water used across all our construction project sites. At HCC, we believe in building responsible infrastructure. And this is reflected not only in the projects we've built across the country, but also in the lives around us. For example, in the current fiscal till date:

- More than 205 million litres of fresh water has been saved by adopting a water recycling plant at one of HCC's Cavern Projects in Andhra Pradesh
- More than 15 million litres of fresh water has been saved by resourcing water from the Arabian Sea instead of fresh water resources by installing a desalination plant at one of construction sites in Mumbai, Maharashtra
- Even in the water rich Himalayan areas, one of HCC's hydro sites has been able to reduce fresh water consumption to the tune of 76 million litres by adopting innovative recycling and reuses approaches.

HCC, the first Indian Company to endorse United Nations Global Compact's 'The CEO Water Mandate', makes a point to embed the principles of water resources management at our work. Such moves are crucial in bringing about inclusive development for the nation, in general, and in developing sustainable infrastructure, in particular. It isn't just a better way to build. We believe it is the only way.

This year's World Water Day's theme is 'Water Cooperation'. Water is a shared resource and its management needs to take into account a wide variety of conflicting interests. This provides opportunities for cooperation among users. Currently, industry ranks as the second highest consumer of available fresh water resources on earth after agriculture. Therefore, it is imperative for all of us to contribute in a bigger way by adopting water efficient measures in our operations and also contribute towards collective actions by collaborating with other stakeholders around and beyond our fence.

We take this opportunity, on World Water Day, to invite you to join us and contribute in a deserving and collective action to solve the global water crisis and related aspects through water cooperation. Please log on to www.hccindia.com to know more about our water conservation measures.



3. Collective Action & Public Policy

We recognise the significance of joint efforts through collective action and understand the role a corporate steward like HCC can play in the arena of public policy. Historically, HCC has been involved in articulation and promotion of actions and activities undertaken by civil societies, multilateral agencies, corporate groups, etc. HCC also actively participates in key policy advocacy forums at company, local, regional, national, and international levels. During the reporting year, HCC participated in various activities pertaining to collective action and advocacy of public policy as described hereunder.

A) Best Practices in Urban Water Management and Sanitation

Ministry of Urban Development (MoUD), Government of India, in collaboration with the World Bank organized a workshop on Urban Water and Sanitation on 9-10 July, 2012 at Shangri-La's Eros Hotel, 19, Ashoka Road, Connaught Place, New Delhi.

After consideration of the water initiatives implemented across HCC as part of the UN Water Mandate, the World Bank invited us to showcase a thematic approach towards water management in the urban context. HCC and LAVASA put up a stall in the exhibition hall with three panels. The first panel showcased HCC's contribution in developing water and wastewater infrastructure in Urban India. The second panel was dedicated to HCC's initiatives at its project sites for water conservation. The third panel detailed water and wastewater management at LAVASA. The stall was visited by Mr. Kamal Nath, Union Minister, Ministry of Urban Development, Govt. of India and other dignitaries and potential clients from Municipal Corporation / Irrigation Development Board across India.



B) FICCI Water Mission and FICCI Water Award 2012

Dr. Manoj Chaturvedi is part of the Federation of Indian Chambers of Commerce and Industry (FICCI)'s Water Mission, where he serves as a *Resource Person*. Launched in March 2011, the Water Mission seeks to encourage industry players to focus on water conservation measures in their organizations. It promotes water conservation and sustainability across the FICCI membership and beyond, with a focus on those industry sectors where water is either a key input or its consumption is otherwise significant.

Under the auspices of the Water Mission, FICCI, in association with HSBC, has instituted the annual Water Awards. These Awards recognize efforts by Indian industry in areas of water efficiency, management and its conservation. Sh. Montek S Ahluwalia, Deputy Chairman, Planning Commission, Govt. of India and Ms. Sheila Dikshit, Chief Minister, Govt. of NCT of Delhi gave away the awards and felicitated Jury Members on 7th Aug



2012 during the Award Ceremoney. Dr. Chaturvedi was fecilitated as an Honrary Jury member for this year's FICCI Water Awards.

C) Executive Seminar on Business and Ecosystem Services by TERI-BCSD

Mr. Gulabchand is on the executive board of TERI- BCSD (The Energy & Resources Institute - Business Council for Sustainable Development) which organised an executive seminar on Business and Ecosystem Services on 27th September 2012. The seminar aimed at increasing understanding of organization's links between ecosystems and its business; also equip colleagues with the skills to better manage their services' impact and dependencies on ecosystems. This interactive multimedia program, drew on the wealth of TERI knowledge from the field and application of methodologies and tools that have been developed over the past 10 years, along with company case studies and extensive practitioner input.

D) UN CEO Water Mandate's Working Conference in Mumbai

The UN Global Compact's CEO Water Mandate, during March 4 to 7, 2013, convened an international conference in Mumbai, India, to explore how the global business community can positively contribute to the growing global and regional water and sanitation challenges – especially with respect to the UN's Post-2015 Development Agenda. Approximately 160 leaders from business, civil society, UN agencies, and other groups gathered to discuss collaborative approaches to water and sanitation problems. The event was sponsored by Tata Steel and co-hosted by HCC. The other key organising partners of the event included Global Compact Network India, NMIMS, FICCI, AWS, and CDP.

The event – *Corporate Water Stewardship and the Post-2015 Development Agenda: Drawing from the India Experience* – constituted one of the United Nations' formal consultations with respect to the Post-2015 process which seeks to identify critical development objectives and possibly formulate new Sustainable Development Goals. The event was live-streamed to the UN's official website devoted to the formal UN water consultations. Mr Gavin Power, Deputy Director of the UN Global Compact, and Head of the CEO Water Mandate, opened the conference, noting that the business community has a historic opportunity to contribute positively to a major UN process that will shape the world's sustainable development trajectory.



HCC's CSR Head, Ms. Niyati Sareen represented on a multi-stakeholder panel and elaborated on the significance of commitment driven action from the corporate world by citing examples of HCC's water initiatives and their impacts within, around, and beyond its fence. She also

articulated the significance of the CEO Water Mandate in fine tuning the conventional approaches to contribute towards the Millennium Development Goals (MDGs) and invited other Indian corporate to become a signatory of this UNGC initiative. She further emphasized on the anticipated roles from other key stakeholders, specifically from Government authorities at all level.

During the conference, participants highlighted upon the need for companies to seek water efficiencies in their supply chains, especially in relation to agriculture, the largest user of freshwater. India, for example, is one of the world's highest per capita water users in farming – underscoring the need for greater efficiencies through systems such as drip irrigation. At the same time, attendees stressed upon the need for better national and municipal water governance by public authorities, including integrated national water strategies that focus on the water-energy-food nexus.

As a co-host, HCC organised and coordinated two field trips for the participants on pre-conference and post conference dates. The first field trip organised on March 04, 2013, to villages in Sangamner Taluka in Ahmednagar District in State of Maharashtra, was to enlighten the participants about the significance of coordinated and objective cooperation and collective action in watershed development in rejuvenating the village economy.



This visit, coordinated and arranged by HCC, provided the participants with an opportunity to understand the on ground implementation mechanisms of collective actions for adaptation to climate change through inclusive water management. The visit also gave them a perspective about the scenarios of pre-and post climate change adaption in the villages, which they learned from the native villagers.



After the conference, on March 08, 2013, a visit to Lavasa was arranged to showcase water initiatives at Lavasa on the ground. The visiting group, comprising of UN Officials and senior executives of endorsing companies of the UN CEO Water Mandate, were given a warm welcome by the Lavasa team headed by Mr. Ambuj Jain, President, Lavasa.



The Lavasa team, headed by Mr. Krunal Negandhi, took the visitors to Nature Trail, wherein the visitors were offered a detailed explanation about various initiatives that have been undertaken to preserve and improve the surrounding ecosystem. The visitors were very much impressed about the work undertaken around the nature trail and they held engaging discussions with the Lavasa team accompanying them. Later, the team was brought to Lavasa International Convention Center (LICC) on a Lavasa DC bus. Enroute, they were shown various other initiatives for water and land management in Lavasa including the places of Hydro seeding and its impact on the Lavasa Landscape.

At the LICC, a virtual tour to Lavasa was arranged by screening a recorded video, which comprises not only the past, present, and future of the locality but also included statements from Mr. Ajit Gulabchand stating his vision behind developing Lavasa. A Corporate Presentation was made on Lavasa by Mr. Ambuj Jain. After the corporate presentation, Mr. Negandhi appraised the visitors about various aspects of environmental management, in general, and water initiative taken in Lavasa, in particular. There was an interactive question answer session, wherein the visitors complemented the efforts being undertaken by Lavasa to develop the city in harmony with nature and by ensuring conservation of natural resources.

Later in the day, the visitors were taken around the water treatment plant and the sewage treatment plant. The visitors were also briefed about steps that were undertaken to ensure integrated water and land management in the city. The visitors were astonished to see the making of a city like Lavasa in synchronization with the Nature and indigenous community. One of the visitors, Mr. Gumbo Themba from UNDP enquired about Lavasa's mainstreaming of the indigenous community. In response he was told by about the basics of creation of an inclusive city that caters to the entire socio-economic spectrum and the creation of several SPVs such as Bamboosa and Whistling Thrust, where locals were empowered to work through rigorous capacity building programs. These programmes enhance their livelihood options. They were also explained about Crystal House School and Tara Mobile Crèche. The visitors enjoyed the Lavasa trip and appreciated the work being undertaken by Lavasa and the HCC Group. Many of them desired to come back with their families for a vacation to enjoy the place.

E) HCC's water initiatives featured in UNGC Climate Report

UNGC Climate Report at Rio +20 Conference features HCC as only Indian company amongst 10 global company case studies. This case study profiles HCC's water conservation initiatives at:

Vizag Cavern Project:

Wastewater treatment plant installed to utilize seepage wastewater for construction which enabled HCC to recycle and reuse nearly 95 percent of the waste water for the project for drilling, dust suppression, concrete curing and other activities.

HCC's use of the wastewater treatment plant enabled the company to reduce its dependency on external sources of water, ensure access to water and continuity of operations, and effectively address the challenge of wastewater disposal.

It significantly reduced the potentially adverse impact of the project on scarce local freshwater resources in the community.

Impact on government policy: Based on the experience with HCC, the Indian Strategic Petroleum Reserve Limited (ISPRL), the government body that awards contracts for such projects, has made the installation of a water treatment and recycling plant a requirement for all future tenders.

Delhi-Faridabad Elevated Expressway:

Conservation, recycling and reuse of water including creation of an artificial rainfall-fed pond and rooftop rain water harvesting (RWH).



The concept of harnessing RWH technique to harvest rainwater collected through specifically designed storm water drains alongside an infrastructure project like elevated highway is unique and exemplary.

This innovative application of the rainwater harvesting technique has the potential to recognize the significance of ground water recharge of rainwater from paved surfaces. It also offers ideas about how to offset the impact of ever increasing paved surfaces being built in the process of infrastructure development, in general, and Roads, highways, and Elevated Highways, in particular.

F) Global Sustainability Leaders Survey

Recognising its leadership in adopting sustainability measures in the engineering and construction sector, HCC became one of 250 global organizations, whose Heads of Sustainability were interviewed to provide global benchmarks about sustainability priorities, budget, and governance. The outcome of the survey revealed that the sustainability leaders have broad responsibilities for energy, environment and sustainability initiatives. This global sustainability survey provides hard data against which sustainability leaders can benchmark their future spending plans and priorities.

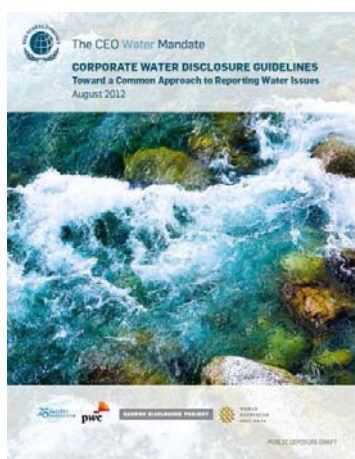


G) Guidelines for Corporate Water Disclosure and Collective Actions

HCC continued to participate in various collective actions being undertaken by the CEO Water Mandate Secretariat, in collaboration with various multilateral organizations/ civil societies, by contributing as Members to the Collective Engagement Working Group (CEWG), and as Member of the Public Sector Advisory Group (PSAG). Ms. Niyati Sareen & Dr. Manoj Chaturvedi from HCC, as members of CEWG & PSAG, were involved in the development of several key documents during the financial year. Some of them are listed here under. HCC's involvement in the development of these documents included participation in periodic calls, providing technical and practical inputs based on hands on experience of the subject on ground.

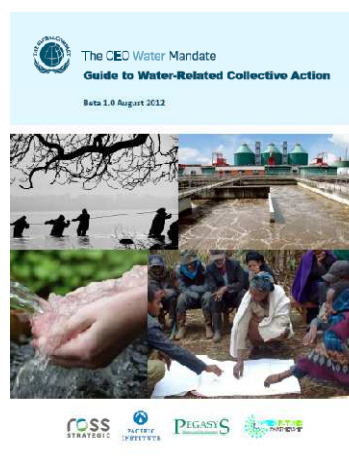
Corporate Water Disclosure Guidelines

Guide to Water-Related Collective Action



This publication aims at Advancing a common approach to corporate water disclosure that addresses the complexity and local nature of water resources, by 1) identifying common metrics that support harmonization and comparability over time and across companies, 2) providing guidance on how companies can assess the water topics that are the most relevant to them, 3) describing how companies can best report activities that are difficult to depict quantitatively, and 4) aligning corporate water management with disclosure so as to enable companies to understand which information is most appropriate to report and how to generate water disclosure content. (UNGC/Pacific Institute, 2012).

URL:
<http://ceowatermandate.org/files/DisclosureGuidelinesFull.pdf>



This publication offers good practice to help companies establish enduring relationships with a broad spectrum of stakeholders, leaders, and individuals to advance sustainable water management. Specifically, it: 1) identifies and characterizes various engagement methods and collective action models, 2) describes how companies can understand the nature of such collaborations, and 3) provides recommendations for how they can best organize and execute these actions. (UNGC/Pacific Institute, 2012).

URL:
http://ceowatermandate.org/files/guide_to_collective_action.pdf

Besides, the above two documents, HCC water team was also assisted the CEO Water Mandate secretariate in launching Water Action Hub (WAH), and have continued to provide inputs in other ongoing multistakeholders initiatives.

H) Multi-stakeholder Workshop at IIT Bombay

IIT Bombay organized a multistakeholder workshop on Sustainable Innovations, Ecoefficiency in Business Decision, Greeting of Supply Chain and CSR. The workshop aimed at bringing together industry and academia and industry to deliberate on inclusive growth and role of aforementioned tools and mechanisms being adopted by corporates across the world in name of sustainability. In the workshop, Dr. Chaturvedi, while presenting HCC's perspective on subjects with due focus on Corporate Responsibility (CR), communicated the role and significance of UNGC's CEO Water Mandate in accelerating, managing, and engaging internal and external stakeholders to achieve and retain leadership role

WORKSHOP ON "Sustainable Innovations, Eco-efficiency in Business Decisions, Greeting of Supply Chain and CSR"			
Date (Day): 27 th February, 2013 (Wednesday)			
Time: 8:00 am to 11:00 am			
Venue: C-15 Building, First Floor, Seminar Hall Near Estate Office, IIT Bombay, Powai, Mumbai			
07:45 - 08:00	Registration	Prof. A. K. Chaturvedi	
08:00 - 08:15	Welcome	Prof.	
		Secretary for Environmental Science & Engineering (ESE)	
		Indian Institute of Technology Bombay	
08:15 - 08:30	Introduction to Workshop	Prof. Anand K. Chaturvedi	
		ESE, IIT Bombay	
08:30 - 08:45	Session	Prof. Virendra K. Chaturvedi	
		University Professor - IITB on	
		Sustainable and Sustainable Innovations	
		Academy (IITB) on Environment, Science	
08:45 - 09:00	Session	Dr. P. M. Kulkarni	
		Dean / Professor	
		Dr. V. K. Bhatnagar	
		Thane (IITB), Mumbai	
		Dr. (Supervisor/Manager)	
		Professor / Director General	
		Dr. P. M. Kulkarni	
		Thane (IITB), Mumbai	
09:00 - 09:15	Breakfast, Tea/Coffee		
09:15 - 09:30	Session	Dr. Virendra K. Chaturvedi	
		Secretary General Manager	
		Dr. V. K. Bhatnagar	
		Thane (IITB), Mumbai	
		Dr. (Supervisor/Manager)	
		Professor / Director General	
		Dr. P. M. Kulkarni	
		Thane (IITB), Mumbai	
10:15 - 11:00	Panel Discussion	Co-ordinator: Prof. Virendra K. Chaturvedi	
		Dr. (Supervisor/Manager)	
		Prof. Virendra Kulkarni	
		Dr. P. M. Kulkarni	
		Thane (IITB), Mumbai	
		End of Workshop	

in peer industry sector. He further emphasized on the significance of multistakeholder driven collective actions.

I) World Economic Forum on India: Private Session on Water

The private water session entitled “Transforming India's Water Challenge: from Vision to Implementation” held at Crown Plaza Hotel, Gurgaon on Tuesday 6 November.

The specific context of the Session was to discuss prevailing and anticipated future water stress in India. By an estimate, water demand is likely to increase 30% by 2025 and 75% by 2050 and with business as usual approach, it will not be possible to meet the projected water demand with available water resources. Therefore efforts are underway at both the state level and national level to devise policy mechanism to deal with the situation.

The first part of the meeting allowed participants to understand the key elements, implications and challenges of the new Draft of the National Water Policy. Participants agreed that the new National Policy has the potential to change the Indian water landscape in a close future, however there still exists an immediate need for bottom-up approaches to be taken at the State level and that there is a need for more public-private-civil society collaboration to tackle India's water challenges.

In the second part of the session, the partnership between the Government of Karnataka and the Water Resources Group was presented as a concrete example of how such public-private collaboration is supporting practical action at the State level and could be scaled up. Discussion revolved around how to build on this experience to scale up solutions and how this model can be replicated to other States in India. The State of Maharashtra made an in absentia intervention inviting a collaboration with the Water Resources Group.

This private session was moderated by Dominic Waughray, Senior Director, Head of Environmental Initiatives, World Economic Forum, and brought together 50 high level participants and speakers from across government, private sector, foundations and civil society. Panellists included

- **D. Satyamurthy**, Principal Secretary, Water Resources, Government of Karnataka,
- **Peter Brabeck-Letmathe**, Chairman of the Board, Nestlé, Switzerland and Chairman of the Water Resources Group,
- **Ajit Gulabchand**, Chairman and Managing Director, Hindustan Construction Company,
- **Yogesh Chandra**, Chief Executive Officer, Coca-Cola India Foundation,
- **Paolo Lanzarotti**, Managing Director, SABMiller India,
- **Rohini Nilekani**, Chairperson, Arghyam Foundation, India,
- **Chetan Pandit**, Member, Central Water Commission, Government of India (2003-2007),
- **Asit Biswas**, **Distinguished** Visiting Professor, Lee Kuan Yew School of Public Policy, National University of Singapore and
- **Arunabha Ghosh**, Chief Executive Officer, Council on Energy, Environment and Water (CEEW), India

Water Resources Group partners

gives an opportunity to offset the impact of ever increasing paved surfaces being built in the process of infrastructure development, in general, and Roads, highways, and Elevated Highways, in particular.

- All efforts should be made to encourage and make mandatory (where possible) to utilize treated domestic sewage for agriculture and / or industry(ies) situated in the surroundings of a given city / township / community establishments having access to centralized water supply and sewerage system.

[2] Under the 12th Section *Water Supply and Sanitation*

- Wherever possible, efforts should be made for installation of decentralized sewage treatment. Recycling and reuse of sewage and sullage should be encouraged and incentivized.

4. Community Engagement

HCC makes every possible effort to engage local communities and work for the community. Our efforts encompass communities within the fence, who are affected by our projects, those around the fence, who exist in the vicinity of the project site, and those beyond the fence, who fall under our sphere of influence but are beyond our project activity. Within and around the fence, our project sites provide or make arrangements for drinking water and sanitation facilities. We also offer them opportunities to undergo health checkups through our special periodic medical check-up camps. Some of the activities carried out/initiated in the reporting period beyond our fence are described below.

A. Akash Ganga Project

Akash Ganga Project is funded by the Department of Science and Technology (DST), Government of India and is executed by Sustainable Innovations (SI), a non-profit organization based in the USA. Akash Ganga has won accolades for innovation and sustainability from the World Bank, Massachusetts Institute of Technology, and Energy Globe Foundation. A holistic solution to alleviate the perennial or chronic shortage of drinking water with the help of science, technology, culture and tradition, and business models to maximize rainwater harvesting, it aims to:

- Develop and deploy novel technologies
- Build an innovative, efficient social enterprise structure – a variation of Prof. Muhammad Yunus's social business
- Build economic models
- Deploy a Gandhian approach to win community participation
- Mobilize beneficiaries
- Effect cultural integration.

DST has approved two grants for the project. First, to showcase economical, cultural, and operational sustainability in the current six villages. Second, to implement Aakash Ganga in two clusters of villages as social enterprise or public-private-community partnership and to build prototype of a rainwater harvesting park. The UN Water Mandate team at HCC provides pro-bono technical assistance to the project and assists the implementing agency (Sustainable Innovations) in reviving the initial Aakash Ganga network design. Dr. Manoj Chaturvedi visited the implementation sites, held detailed discussion with the technical team lead by Dr. B. P. Agrawal of SI and gave inputs to their initial design and implementation program. The work is in progress.

B. Water Initiative at Kihim, a coastal Village in State of Maharashtra

Kihim is a coastal village in Raigarh district of Maharashtra. Situated in the Konkan coastal zone with a scenic beach, it is primarily a tourist destination. Please refer to HCC's Water COPs (2009, 2010) & Sustainability report 2011 & 2012 for details on various community development initiatives / interventions taken by HCC in Kihim.

In line with preceding years, this year as well, efforts were continued to spread the awareness about environmental enhancement projects executed/being executed by HCC for inclusive and empowered development of the Kihim village and villagers. Rainwater harvesting projects implemented in the village appear to have been effective during the monsoon season.

C. World Environment Day (June 05, 2012) & World Water Day (Mar 22, 2013)

Aimed at enhanced engagement of community in the environmental enhancement projects being carried out by HCC for communities within the fence, around the fence, and beyond the fence, efforts were made to observe world water day (WWD) and world environment day (WED) at several places across HCC's operations and beyond. Specific activities included presentation of the context of the respective themes of the WWD and WED for the year, movie clips, poster presentation, plantation, etc.



D. Engagement with WBCSD to develop India Water Tool

Industry operations around the world require water: to run the machinery and equipment, to use in products and packaging, and for the welfare of its employees. The industry often discharges water from its operations and must ensure that the used water leaves its sites unpolluted. In India, the industry uses about 6% of available water. Companies that manage water poorly will be exposed to increased costs and operational risks; reputational and regulatory risks; risks to the health of customers and employees; risks to markets and products, and financial risks eg from investors. Companies that manage water well have the opportunity to contribute to sustainable water management solutions at scale.

To mitigate these risks in India, 14 companies (ACC, Ambuja, Bayer, BASF, BP, DSM, HCC, Infosys, ITC, Jain Irrigation, Pepsico, PwC, Siemens, Vedanta) from different industrial sectors have collaborated under the umbrella of the World Business Council for Sustainable Development (WBCSD) to develop the India Water Tool (IWT).

The development of the IWT is part of the industry's response to the Government of India's National Water Mission. Through this leadership, the industry demonstrates that it can successfully collaborate around water issues. The industry has invited the Government of India to engage with it and support its efforts to manage industrial water use in India. At individual plant locations, the industry is open to collaboration at a local level to ensure strong watershed management by all.

The IWT version 1 (to be launched in July 2013) is to be an India-specific, free, online tool, which helps companies understand potential water availability and quality risks across their India sites. It is the first national customisation of WBCSD's Global Water Tool. It's focus is on groundwater availability and quality. It will help companies answer questions like How many of my sites, and what percentage of my production is in over-exploited or critical aquifers? Which of my sites are in areas of rising/falling groundwater? And Which of my sites are in areas where there is a breach of drinking water quality standards?

The IWT appears to add value to preexisting tools of individual companies and their models on water management by taking them through a first step to understand and communicate their water risks and in turn improve their water use efficiencies across their sites. After using the IWT, companies should carry out individual assessments at high risk plants, to provide a detailed understanding of the situation at that site, and to develop a strong water management plan for that location. Several tools exist to support these steps.

E. Communiqué to Heads of Government at Rio+20

Mr. Ajit Gulabchand, Chairman and Managing Director, HCC was one among a group of 45 chief executive officers who announced a major commitment to advance corporate water management practices, and called on governments attending the Rio+20 to make global water security a top priority through a special Communiqué. The CEOs – all of whom are endorsers of the Global Compact's CEO Water Mandate –outlined a range of public policy actions they believe governments should undertake to make meaningful progress on water and to better leverage the resources and capabilities of the international business community.

Link to the communiqué from Global CEOs to Heads of Government at Rio+20:

http://ceowatermandate.org/files/CEO_Water_Mandate_Communique_June_20.pdf

F. Advocacy through media

Edition	Mumbai
Date	March 29, 2013
Page	9

Make every drop count



AJIT GULABCHAND

▶ *Water must be managed by a coalition of public, private and civil society interests.*

Water is one of the most indispensable of all natural resources. It is vital for the survival of human beings and the scarcity of water has a significant impact on our economic development and biological diversity.

Nations across the world, including India, have recently been facing the challenge of rapidly growing water demand, driven by an increasing population and economic growth, linked to urbanisation and industrialisation. Also, the prevailing water scarcity is not only a result of quantitative or qualitative scarcity but also a consequence of inefficient use and poor water management, which has been recognised in India's draft Water Policy (2012).

Water security is one of the most tangible and fastest-growing social, political and economic challenges faced today. It is also a fast-unfolding environmental crisis. In every sector, the demand for water is expected to increase and analysis suggests that the world will face a 40 per cent global shortfall between forecast demand and available supply by 2030.

This outlook bears potential for crisis and conflict since water lies at the heart of everything that is important for human life: food, sanitation, energy, and production of goods, transport and the biosphere as such.

BASIC RIGHT AND BEYOND

Water has been argued to be a social good. It is commonly accepted that access to water is a basic human right. However, being a social good and private good are not mutually exclusive



Water should be seen as a commercial good to avoid wasteful use. — Sushil Kumar Verma

conditions. In fact, more water for one individual can mean less water for other individuals who share a water-supply system. Classifying water as a basic human right, therefore, introduces further social complications in terms of equitable distribution.

Water is a commercial good when it comes to farming, manufacturing, etc. Water is environmental good and we need to conserve it to conserve our environment.

Water needs to be defined not only as a social good, to which everybody is entitled free of cost, but also as commercial good — to be paid for and an environmental good that you treat with great respect.

India will face around 50 per cent of water shortage and an expenditure of around \$6 billion per annum for the next 5-6 years is needed to restore the balance.

While the Government must be the ultimate custodian of the national water resources and plays the key role in setting frameworks and strategies, many other stakeholders also have a role to play in delivering solutions.

Proper coordination within government-set strategies requires sound facts and an approach that supports cost-effective solutions. The resulting need for multi-stakeholder engagement means that coalitions are required; public-private-civil society coalitions focused collectively on addressing the water security issue,

each leveraging its own comparative advantage towards meeting the challenge within a common policy framework.

Theoretically, managing water as an economic good entails that water can be allocated across competing uses in a way that maximises the net benefit from the amount of water in question. Practically, the increasing financial burden on users to pay for clean water has social and political implications.

There has been growing controversy over the privatisation of water worldwide as the economic principles of valuation, privatisation and efficiency are being applied to water, a resource that many consider a basic human need and right.

BUSINESS RISK

Growing competition for scarce water resources is a growing business risk, a major economic threat, and a challenge for the sustainability of communities and the ecosystems upon which they rely.

It is an issue that has serious implications for the stability of countries in which businesses operate, and for industries whose value chains are exposed to water scarcity.

Recognising the gravity of the problem, The 2030 Water Resources Group (WRG) was formed in 2008 to contribute new insights to the increasingly critical issue of water resource scarcity. Members include McKinsey & Company and the

World Bank Group (led by the International Finance Corporation – IFC) with a consortium of business partners, including Hindustan Construction Company.

All the competing sectors, be it agriculture or industry, must practise water use efficiency to the extent possible. Water efficiency measures must be viewed holistically within a business' strategic planning. Businesses that use water more efficiently now will have a competitive advantage over those that choose to wait. A successful programme must prioritise needs, set well-informed goals, establish current performance minimums and carefully plan a course for action.

WAYS TO BOOST EFFICIENCY

Some ways to achieve water use efficiency within the fence of a given industry are:

Identifying and eliminating wastage and inefficient processes: This may be the most low-cost area for water savings, as it involves minimal capital outlay. Savings can be made through implementing procedural changes, such as cleaning plant areas with brooms rather than water.

Changing processes and equipment: A retrofit of key plant equipment may increase efficiency. Alternatively, upgrades to more efficient models can be factored into planned maintenance and replacement schedules.

Recycling and Reusing treated wastewater: This option may improve the reliability of supply, whilst reducing trade waste charges and associated environmental risks.

Out of suggested measures, equipment (and/or process) changes may be viewed as a 'permanent fix' to achieve water efficiency. Changing employee behaviour, such as an operating procedure, may be viewed as a quick and inexpensive way to achieve similar savings without up-front capital expenses. Both the technical and human side of water management are important.

Consistent training and awareness, in combination with proper tools and equipment, have the potential to achieve more permanent water savings.

Recycling or reuse of industrial wastewater is possible through adoption of preventive approaches at each production stage to minimise the generation of wastewater.

Segregation of wastewater streams is one of the commonly used preventive strategies to achieve efficient treatment of effluent aimed at recycle and reuse.

Although there is a growing awareness of the strategic importance of water, very few industries across India manage water in a systemic and holistic way.

Water management, in the majority of industries, is limited to ensuring the provision of water. In some instances, there are efforts to control or treat effluents and some responsible businesses go beyond the convention and adopt absolute water use efficiency.

However, in most of the cases where water efficiency efforts are implemented as a mere formality, they tend to be unorganised, often leading to sub-optimal results.

These disappointing results may make the management more inclined to withhold its support for any future efficiency projects. Potential exists within the industrial sector to substantially boost water productivity provided it is being adopted/guided by an adequate mechanism.

(The author is Chairman and Managing Director, Hindustan Construction Company)

Publication	TERI-BCSD's EnCore
Edition	January-March 2013
Title	The Era of Chief Sustainability Officers (Cover Story) Pages 2-10
HCC's Highlights	Pages 6 and 10



CEO Speak

Ajit Gulabchand

Chairman and Managing Director, HCC Ltd

"Whenever there is a new initiative in the work methods, you need a champion for it to set standards, engage, and establish tools. A CSO is such a champion within a corporate sector institution whose task is to promote sustainability as an idea and as a practice but with the CEO and the top management extremely committed."



CSO Voices

Niyati Sareen

General Manager – Corporate Social Responsibility, Hindustan Construction Company Ltd



"The sustainability agenda among corporate stewards has nowadays become an all-time favourite agenda for brainstorming in board rooms. Therefore, the CSO Forum appears to be a unique platform instituted at the right time by TERI BCSD."

"EHS / CSR professionals who are thrust into the role of leading their company's sustainability efforts as CSO must also develop new skills beyond the technical expertise that is indispensable in forming and executing a sustainability strategy so that they ignite cross-functional teams, help to develop a system approach in the company, and harness a collective wisdom that transforms the culture in light of the company's sustainability vision and goals."

Publication	The Economic Times
Edition	New Delhi
Date	June 14, 2012
Page	21

Water Scarcity Affects Business of 60% Indian Companies: Survey

SHREYA JAI
NEW DELHI

An overwhelming majority of Indian companies consider water scarcity an increasing business risk, prompting them to conserve the commodity, a survey has revealed.

As many as 83% respondents identified inadequate availability of water as a major risk to their business, in a survey of 27 major industrial sectors conducted by the US-based Columbia Water Center in association with industry lobby FICCI. While 60% respondents said inadequate availability of water was already impacting their business, 87% said the scarcity would impact their business 10 years down the line.

The respondents – from sectors such as infrastructure, textiles, energy, oil and gas, retail, pharmaceuticals, information technology and health services – also raised issues related to allocation, regulatory framework and pricing.

Thermal power plants, which are among the highest consumers of water, stand at a greater risk with their cost of water transportation rising due to depleting sources. Water needs to be transported through pipelines over distances as much as 100 km in some cases, necessitating additional expenditure.

As many as 87% respondents say water scarcity would hit their business in 10 years

"Water is scarce and in coming days it shall be more so," said the official spokesperson of power producer NTPC. "Transportation of water does not put stress on revenues but leads to more expenditure on fixed cost amounting to higher tariff."

Business risk is posed by two types of water scarcity being faced by the country, said Manoj KM Chaturvedi, Hindustan Construction Company's deputy general manager-CSR. "Physical scarcity, where there is not enough water to

meet demand; and economic scarcity, where communities lack the infrastructure and/or financial capacity to access the water they need," he said.

Most respondents also raised concerns over poor water quality and said the lack of regulatory and policy framework will have a bearing on their functioning in the coming years.

"The root cause is the lack of policies," said a senior official with GAIL. "There is no standardised data for industry consumption patterns. The policies are not so effective, the technology obsolete and sometimes they are not bothered about the implementation of the rules."

Romit Sen, senior assistant director with FICCI's water division, said: "Efforts for water conservation have to be a mix of efforts to improve process efficiency, where water consumption in the industrial process is brought down through a mix of technology and plugging leakages within the system."

shreya.jai@timesgroup.com

Publication	One World South Asia, a popular website on sustainable development and human rights.
Date	March 22, 2013
Link	http://southasia.oneworld.net/peoplespeak/indian-industries-are-joining-the-un-water-mandate-hcc-csr-official#.UU_WjBcqDWU

Indian industries are joining the UN Water Mandate: HCC CSR official

Ashok Kumar/OneWorld South Asia

Mar 22, 2013

Dr Manoj Chaturvedi, Deputy General Manager-CSR-UN Water Mandate, Hindustan Construction Company (HCC), a leading infrastructure company, says that industries in the energy sector will consume 200 times more water by year 2025



OneWorld South Asia: *What is your primary role in your current capacity at HCC?*

Manoj Chaturvedi: We were the first endorser company in India for the UN Water Mandate. In 2008, HCC endorsed the UN Water Mandate and we started this journey by instituting a sub-department of CSR called UN Water Mandate team. This team, which comprises of water experts, designates 'water champion' for each of our project sites to assess water impacts and conduct technical, social, and cost analysis of viable water interventions.

These water champions collect primary and secondary data and work with the community which dwells around the project for working out solutions for a sustainable water management in the area.

OWSA: *Looking at the sheer numbers of companies in the constructions business, how crucial do you think it is for them to engage in water conservation?*

Chaturvedi: Looking at the Planning Commission's approach and as the government projection puts it, around \$1 trillion is going to be spent for infrastructure development in next five years. In another 20 years, not less than \$20 trillion, will be spent for building infrastructure. Therefore, there is a need for a provision for construction companies to utilise this opportunity to capture rain water and make a provision for recharging ground water. Authorities like the National Highways Authority of India, have already set such guidelines in water stressed areas.

The Government of India is also in the process of setting up an institution called Bureau of Water Efficiency (BWE) on the lines of Bureau of Energy Efficiency (BEE) and there are also plans to grade projects for using water efficiently. There is also a provision in the 12th Five Year Plan which will make water auditing mandatory for all the industries.

OWSA: *How do you look at the water scarcity scenario in the country?*

Chaturvedi: Entire India is water scarce in one way or the other. We are challenged with two kinds of water scarcity—physical water scarcity and economic water scarcity. Regions in South India and Madhya Pradesh are grappling with physical water scarcity while Uttar Pradesh, Bihar, West Bengal and those in the North East are facing economic water scarcity. In economic water security, there is availability of water but it cannot be used in its current state.

OWSA: *A valuable resource like water is available for free to both individuals and companies. Do you think there is a need for regulation so that there is a judicious use of this resource?*

Chaturvedi: Pricing of water is important. The Supreme Court has clearly said that usage of water for drinking should be a priority, followed by its usage in agriculture and industry.

In most states, not only is water free for farmers but also the power used to draw it is either free or heavily subsidised. Farmers generally use the flood system of irrigation instead of drip irrigation which is not only harmful for their land but also leads to wastage of water.

I am talking about agriculture because it avails 70 per cent of the total water consumption. If we are able to improve efficiency of water usage by farmers by just two per cent, it will be beneficial. Government should focus on more proficient use of water in the agriculture sector.

OWSA: *What kind of role can the industry play in improving water efficiency?*

Chaturvedi: Unlike in the past, many Indian industries are coming up to become a part of the UN Water Mandate. The industry sector is next only to agriculture in terms of water consumption, therefore, it has to take the responsibility of spreading the message both in words and action for efficient water usage.

According to the government data, power industry consumes more water than the non-power sector. It is estimated that by 2025, industries in the energy sector will consume 200 times more water compared to today.

OWSA: *You have a rich experience of working with organisations like the World Business Council for Sustainable Development and Water Action Hub. How do those roles make you better geared for your job?*

Chaturvedi: As part of the CEO Water Mandate initiative we focus on six key areas of operation including direct operation, supply chain and watershed development, public policy, collective action, community engagement and transparency. I put more emphasis on working with the local community for long term solutions to water woes.

OWSA: *Recently HCC bagged the award for the best Social Investment Strategy at the World CSR Congress. How do you think it will encourage you to further your action for water conservation?*

Chaturvedi: This award is for not just for our efforts in conserving water but for entire CSR activities and initiatives of HCC. Our CSR department is divided into five wings including those which are dedicated for water conservation initiatives and community engagement.

Affiliation to eminent publishers on Environment Management

Aiming at engaging and leveraging the knowledge base, developed by HCC on water and sustainability, Dr. Manoj Chaturvedi technically contributed (as peer reviewer/ member of the editorial board) to the publications from eminent publishers on Environment management, as enlisted hereunder.

- **Member of Editorial Board** for **SAVITARKA**- A Mass Awareness E-Magazine on Development Issues (An *Indira Gandhi Institute of Development Research*, ' publication)
- **Reviewer** for *Bio-resources Technology* (an *Elsevier* publication)
- **Reviewer** for *Environmental Management* (a *Springer* publication)
- **Reviewer** for *International Journal for Sustainable Innovations* (An *International Peer Reviewed Journal*)
- **Reviewer** for a **Book** entitled "**Environmental Studies: A Practitioners Approach**" authored by Arceivala & Asolekar (a *Tata McGraw-Hill Education* publication)

5. Transparency

A) Communication on Progress (CoP)

HCC continues to support the United Nations Global Compact's CEO Water Mandate initiative and we, therefore, have been working and will continue to work with our all stakeholders (internal as well as external stakeholders) to promote water consciousness, internalize water efficiency in business decisions, and develop strategies for development of sustainable infrastructure by ensuring implementation of appropriate approaches for 4 Rs: Reduce, Recycle, Reuse, and Recharge, at all our direct operations and within HCC's sphere of influence and reporting on progress made during the reporting period.

HCC recognizes the correlation of business sustainability with water resource management and is committed to reduce the amount of water used across our construction project sites; especially in regions where water availability is already in pressure. HCC's water consciousness is elucidated in HCC's Water Policy and its Integrated Management System (IMS) Guidelines titled 'Guideline for UN Water Mandate implementation at sites'

Sections of this chapter essentially focus on six key areas of action under the CEO Water Mandate's (Direct Operation, Supply Chain and Watershed Management, Collective Action, Public Policy, Community Engagement and Transparency) and delineate the outcome of the specific activities / actions undertaken by the HCC in respective key areas. This chapter serves as Communication on Progress (COP) for year 2012-2013. The reporting period of the COP is April 2012 to March 2013.

B) Budget allocations

In line with the mission statement and continuing from the previous year's decision from HCC's top management, this year also the annual budget proposals for all projects (old, new, and upcoming) had provisions for implementing water initiative related to the 4R (reduce, recycle, reuse, and recharge) interventions. The project sites are entitled to carry out such projects on their own, if the installation cost is Rs. 0.5 million or less. Interventions costing more than Rs. 0.5 million can also be implemented in consultation with the Water Mandate Team at HCC's Head Office.

C) Investments for Water Initiatives

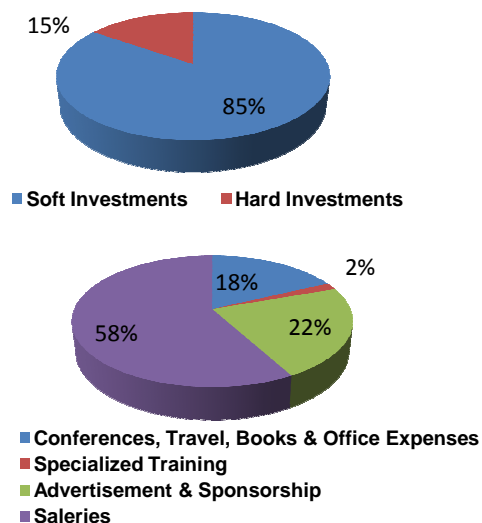
HCC invested Rs. 8.5 million in implementing The UN CEO Water Mandate. The investment covered various soft activities and installation of hardware for water interventions.

D) Soft Investments

Soft investments include sponsoring of/participation in conferences/workshops, travel expenses, books & periodicals, salaries, cost of specialized training, contribution to UNGC foundation and promotion activities etc. Total soft investments: Rs. 6.44 million.

E) Hard Investments

The investments made towards the execution of water consciousness proposals of 4 R water interventions at HCC's project sites are reported under hard investments, which amount to Rs. 1.3 million for the reporting period.



Epilogue

Since its inception in 1926, Hindustan Construction

Company has been a pioneer in the Indian engineering and construction sector, having executed some of the largest and most technically challenging infrastructure projects in the country. Our company's history is inextricably linked with India's nation-building endeavour. Being a construction company, HCC is committed to create responsible infrastructure. We intend to embed sustainability not only in the structure but also in to the operation of those structures as well as in the process of constructing them. Aiming at and maintaining our commitment towards building responsible infrastructure, we have endorsed various UNGC initiatives including the CEO Water Mandate & Caring for Climate, which have essentially helped us to realize our future sustainability goals in relatively better way. **At HCC we not only follow best practices, we also follow next practices.**

Over the years of implementing the CEO Water Mandate at our project sites, we have been able to optimize utilization of water leading to enhancement of our ability to conserve the precious freshwater, on the one hand, and minimize our carbon footprint for resourcing and pumping the freshwater to our construction site, on the other. With these experiences and continual engagement in various UNGC initiatives, in general, and with the CEO Water Mandate secretariat dialogue, in particular; we have been translating our experiences in advocacy document and presenting them to various public forums. These engagements include: national/international conferences, skill building workshops for water managers, round table discussions with key water and environmental stakeholders. HCC will continue to contribute to global fresh water resource management initiatives on an ongoing basis.

16. Our Employees

1. Our Approach

HCC is committed to the creation and retention of a best-in-class workforce critical to its growth. Human Resources (HR) plays a pivotal role in development of human capital at HCC.

Recruitment and selection is the first step towards creating the competitive strength and strategic advantage for the organization. At HCC, we have a streamlined and efficient recruitment process to find and attract the best talent. We have a transparent and task-oriented selection process to choose the right individuals to fill various positions in the organization. The nature of our business requires us to deploy talent at remote and difficult geographical locations. HCC is committed to providing monetary incentives and high quality facilities to its employees, who often have to face difficult conditions in sites that are situated in remote locations.

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.

Learning and Development continues to be a critical aspect of our human resources strategy. For employees, a gamut of technical and managerial programs catering to specific needs of various business sectors, functions and individual employees are conducted. Training for workers, including sub-contract and PRW staff, is organized at site and focuses on skill enhancement (have a higher practical component) and enable the workmen to upgrade their skills for continued employability. Special emphasis is given to the training of graduate and management trainees. A combination of classroom, on-the-job training and special assignments coupled with coaching by seniors helps new entrants transition into corporate life.

We attach the utmost importance to the Occupational Health and Safety of our employees at project sites. We conduct safety and health related trainings at all our project sites for our employees, contract workers and members of the surrounding communities.

We are committed to fair labour practices and are in compliance with all local laws and industry best practices. Our workmen (both permanent and temporary) at offices and project sites have the right of collective bargaining. Respect for gender diversity and human rights is intrinsic to our Company 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 on principles of labour standards and human rights. Inherent to our approach to human rights is respect for local communities and indigenous peoples. We follow a zero-tolerance approach on employee discrimination, bonded labour and child labour issues. The security staff at our project sites is duly trained and sensitised in this regard. We strictly enforce age verification of employees and contract labourers at our project sites. We also encourage our suppliers to uphold the company philosophy in this regard. Currently our investment agreements do not have clauses pertaining to human rights aspects. We have not yet carried out a formal human rights review or assessment of our operations, however, the company has systems in place to address any grievance received in this regard. HCC has standardized camp amenities for workers across all project sites.

2. Initiatives

A) Initiatives for Migrant Workers

HCC has standardized the hutment structures for migrant workers across its project sites. The intention of this measure is to fulfil the basic needs of workers. Over the reporting period, we have

constructed such hutments for migrant workers in our project sites including Bogibeel and T48 Tunnel.

The salient features of the hutment are:

- Steel frame structures with insulated Aerocon wall panel
- Pre painted sheet roofing and false ceiling
- Open space and veranda on two sides
- Separate Toilet block and worker mess

Other welfare activities undertaken for the migrant workers are as follows:

- Provision of transit camps with food facilities for places like Bhutan etc. where entry permits formalities take a longer time.
- Onward and return journey reimbursement of workers staying at site for over six months at a stretch.
- Reimbursement of special entry permit fees for projects like Pare HEP.
- Ensuring of PF deposition for migrant workers.
- Provision of personal protective equipments (Helmet, safety net, safety shoes etc.) for workers.
- Provision of safety induction to all workers.
- Provision of periodical safety training at site.

B) Miscellaneous Employee Schemes

Employee benefits

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

1. Medical Insurance Scheme
2. Superannuation Scheme/ Pension Scheme
3. Executive Health check-up facility (Senior & Middle Management)
4. Employee Stock Options (Senior Management)
5. Annual Performance linked incentive (Senior & Middle Management) & incentives for project sites.
6. 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.

C) Training

HCC provides the best learning opportunities to its employees. A gamut of technical and functional programs catering to specific needs of various functions and business sectors have been conducted in 2012-13. Developmental programs were offered keeping in mind the unique requirements of employees in junior, middle and senior management.

Key training sessions conducted for officers include:

- Concrete Technology
- Hydropower Technology
- Equipment Management
- Integrated Materials Management
- Workshop on Hydraulics
- Enforcement of Arbitration Awards
- Excellence in Personnel Management

- Managerial Development Program
- Environment Protection at site

Safety and health related trainings, technical programs related to equipment operation and maintenance have been conducted for workers in FY 12-13 also.

Key training sessions conducted for workers include:

- Basic Construction Safety
- Defensive Driving
- AIDS Awareness Program
- First Responder Training
- Operation and maintenance of various construction equipment
- Construction Methodology modules

Employees were also nominated for national and international level seminars for skill and knowledge enhancement.

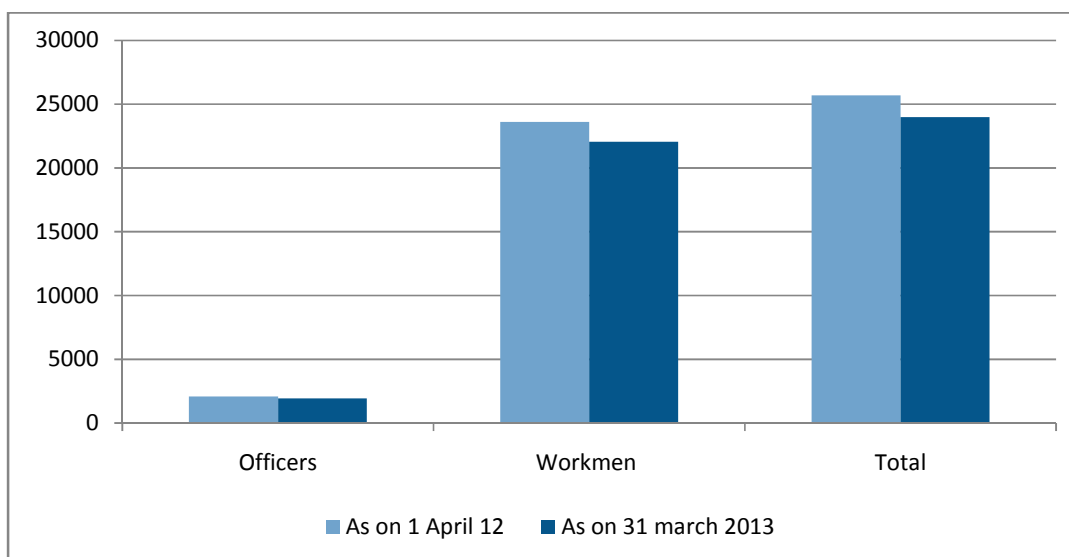
Seminars attended by employees in 2012-13

- Conference on Hydro Power in India
- International Hydro Power Conference
- Effective Contract & Risk Management
- Avoidance & Management of Claims & Disputes under FIDIC
- India Nuclear Energy Summit
- CFI Workshop "Quest for Quality"
- World Hydro Power Convention 2012
- 3rd Annual Conference on Managing Troubled Projects
- IMS Internal Auditor Course
- ECRI Risk Course
- Asiafuge 2012
- Advanced Cost Engineering for Successful Infrastructure Project
- Workshop on Design, Construction & Risk Management in Underground Construction
- Tunnelling Asia 2013
- Workshop for Representatives of Exempted & Un - Exempted Establishments

For employees desirous of pursuing higher studies, HCC has a policy of sabbatical leave, which can be availed for a maximum period of 2 years on approval from the management.

3. Employment, New hiring and Attrition

As of 31st March 2013, HCC's total workforce was 23994, comprising of 1934 officers (senior, middle and junior management and trainees; 89 officers are women) and 22060 workmen (on project rolls, sub contractor rolls and piece rate workers).



A snapshot of HCC's new hiring and attrition data in the reporting period is presented below³:

	Numbers left voluntarily in FY12-13 (attrition rate)	Numbers left involuntarily in FY12-13 (attrition rate)
By employment level		
Senior Management	3 (6.06%)	1 (2.02%)
Others (Excluding Workmen)	454 (23.29%)	55 (2.82%)

	Numbers left voluntarily in FY12-13 (attrition rate)	Numbers left involuntarily in FY12-13 (attrition rate)	Number of new hires in FY12-13	Numbers of new hires, who voluntarily left in FY12-13	Numbers of new hires, who involuntarily left in FY12-13
By gender					
Male	445 (23.33%)	55 (2.88%)	377	62	1
Female	12 (13.11%)	1 (1.09%)	8	0	0
By Age groups					
< 30 years	197 (45.6%)	8 (1.85%)	195	34	0
30-50 years	240 (18.11%)	30 (2.26%)	174	26	1
>50 years	20 (8.26%)	18 (7.44%)	16	2	0
Total new hires in FY 12-13 = 385, Total new hires leaving employment in FY 12-13 = 63					

³ All data as of 31 March 2013; Turnover rate is calculated using average manpower in the period 1 April 2012 to 31 March 2013; HCC has pan India presence and does not report regional breakdown.

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

We remain committed to gender diversity and all our employee benefits, initiatives and engagements are non-discriminatory. Our commitment to diversity is evident by the number of women employed at our corporate office. Out of a total of 89 women employees, three are in the senior management level, 86 are in the middle and junior management as of 31 March 2013. All 89 female employees are eligible for maternity leave.

17. Social Sustainability

Highlights

Participation in the Davos meeting of UNISDR Private Sector Advisory Group	52,212 officers and workers covered under WPI Program for HIV/AIDS	“Ujjivana - Drive for Change”: Solid Waste Management System implemented in Kihim, Maharashtra
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1. Our Approach

Traditionally, HCC has contributed to communities in and around its project sites with an objective to provide services that will improve their quality of life. Our approach is on the lines of Public Private Partnership in accordance with the needs of the community. In order to ensure the sustainability and effectiveness of our community programs, we actively encourage community engagement. We help empower communities through providing skills, knowledge and experiences, enabling them to fully participate in a truly democratic way.

In line with our organizational ethics, we continue to proactively reinforce anti-corruption behavior and competitive bidding practices, complying with all relevant legal requirements in this respect. Given the contractual nature of HCC's business, our clients/customers are liable for resettlement and displacement issues. However, we remain committed to minimizing the impacts of our construction activities on the surrounding population through proactive measures.

We recognize the importance of joint efforts through collective action, and have historically played a role in the public policy arena. In the past reporting year, we were involved in thought leadership, articulation of ideas and promotion of actions in partnership with the civil society, regulatory agencies, corporate groups and the academia. We also participated in various policy advocacy forums at the local, national and international levels.

2. Initiatives

HCC's commitment towards all its stakeholders is not just in principle but in practice. We continue to intervene in several areas of social and environmental development and aim to impact our community positively. Responsible infrastructure development is at the heart of the Company's business ethos. Consequently, HCC has a slew of social responsibility related initiatives that complements its world class operational processes and systems to provide for responsible infrastructure development.

HCC has strategically undertaken initiatives that are broadly categorized as:

- Water sustainability
- Disaster Response
- HIV/AIDS Awareness
- Community Development
- Gulabchand Foundation
 - Education

Disaster Response

As the number and impact of natural disasters continue to increase due to climate change, population increase and rapid urbanization, there has been a growing recognition of the scale and complexity of humanitarian response and commitment to greater involvement of the private sector in disaster prevention, response and reconstruction. Hindustan Construction Company proactively considers disaster risk as an integral part of its sustainable business development agenda.

Ajit Gulabchand, Chairman and Managing Director, HCC believes that “as an engineering and infrastructure development group, HCC has the relevant resources and is well equipped to handle calamities and disasters with its trained engineers, project management capabilities and the heavy equipment needed for disaster response, evacuation and reconstruction.” Mr. Gulabchand’s vision is to build on the core strengths and existing capacity of the organization and deploy its trained engineers to contribute strategically towards disaster response.

1. Capacity Building Trainings

A) Engineering in Emergencies Training

The sixth batch of Engineering in Emergencies (EE) training was conducted from 2-8 July 2012 and was open to all DRN members. Ten people from outside HCC (L&T-2, ESSAR-2, SPCL-4, CH2MHILL-1, and DRP Indonesia-1) participated in the training. A seven-day residential training on disaster management, this is conducted by REDR India for the selected engineers from different companies in the DRN Network. These trained engineers become members of the DRN India core team and can be deployed during emergencies.

The training is designed on the Sphere standards for emergency relief work and global standards for humanitarian response exercises, case studies, role-play, interactive emphasizing environmental/public health triangle composed of water, sanitation and hygiene promotion, shelter and settlement, access to road repairs and maintenance. The training involves participatory group presentations, focused discussions, film shows, simulations and practice with equipment used in the field.

Experience is built through experience-sharing with senior professionals who have been part of national and international disaster responses and rescue missions.



B) First Responder Training

At Kishanganga

First Responder Training was conducted at Bandipora and Gurez, and covered 564 employees. The training session was conducted by the DRN Manager with support of the site doctors. To make it more sustainable, doctors at the site were instructed to take refresher training on certain important topics at regular intervals.



At Bogibeel

First Responder training was conducted at Bogibeel in January 2013. The training session covered officers and workers on the project site and was held by Ms. Shikha Shabdita, Manager, DRN India, with support from a qualified first aider at site. A team of first aiders have been formed at the site, who in turn, will subsequently hold refresher training modules at scheduled intervals so as to make the training more sustainable.



2. Disaster Risk Reduction: Development & Dissemination of Emergency Response plan (ERP) for Kihim Community:

In April 2012, an emergency response plan was developed for Kihim village in Raigad District, Maharashtra by an intern from TISS, under the guidance of Ms. Shikha Shabdita. The plan focused on identifying probable emergencies in Kihim, mapping available resources and laying down guidelines to create a task force to work during emergencies. The plan was based on an application of GIS and Remote Sensing in Disaster Response Planning and Community Based Disaster Risk Management. During the following month, the ERP was shared with the District Disaster Management Authority and Kihim Gram Panchayat who further facilitated to disseminate the plan in the Kihim village community. The findings of the plan were shared with the village community. 40 representatives from different groups, including the Sarpanch and the Village Development Officer attended the programme. It was very much appreciated by the people and they were encouraged to follow the plan. The dissemination was done by Ms. Shikha Shabdita with support from Mr. Ratnakar Khaire.



3. HCC and DRN India Network

A) DRP-Indonesia, DRP Secretariat/World Economic Forum and DRN India, meeting hosted by HCC

The first inter-network exchanges took place in July 2012 in India by organizing a special DRN-India Working Group meeting to share experiences from India, Indonesia and the DRP Global Services Secretariat.

An interactive session, in coordination of the working group meeting of DRN India was organized at the HCC head office on July 12, 2012. The meeting was attended by the representatives of the DRN India from HCC, L&T, Shapoorji & Pallonji, Arup, Essar, Hirco and CH2MHILL and the special invitees were Mr. Gavin White, Senior Project Manager, DRP from WEF, Geneva who gave an overview of the DRP Global with a major focus on why engagement of the private sector is important during disasters and Mr. Victor Rembeth, Project Manager, DRP, Indonesia shared the perspectives and function of the Indonesia Network.



B) Public-private partnerships: DRN India Research Study Published

DRN India Research Study was published by King's College, London under the Humanitarian Futures Programme⁴. The theme of the study is *Platform for Private Sector –Humanitarian Collaboration*. The study is based on a report provided by HCC and an interview of Ms. Niyati Sareen, General Manager, CSR and Ms. Shikha Shabdita.

C) Disaster Resource Partnership Session at World Economic Forum's India Economic Summit 2012

The World Economic Forum (WEF)'s India Economic Summit was held in Delhi from November 6-8, 2012. During the Summit, Ajit Gulabchand, Chairman and Managing Director, HCC, participated in a series of meeting and panel discussions on a range of issues. On November 7, 2012, a private session on the Disaster Resource Network (DRN) India was held in Gurgaon. The past few years have led to an increased recognition of the role of the private sector in disaster response and recovery. This session on disaster management offered the opportunity for humanitarian and construction professionals to share their experiences and review the synergies that stem from public-private partnerships in disaster response. The session focused on ensuring greater integration of corporate sector, government and the humanitarian sector. The meeting, chaired by Mr. Gulabchand, was attended by business leaders, representatives from international organizations like Indian Red Cross and UNICEF, and a representative from the Government of the National Capital Territory of Delhi.

Some of the highlights of the session were as follows:

- Disaster relief is a key example driver to abolish country borders between India and Pakistan; the next step would be to build on disaster preparedness and extend the current network from India to Pakistan; such action would create an opportunity to

⁴ <http://www.humanitarianfutures.org/content/ground-breaking-research-private-sector-humanitarian-engagement>

replicate the DRP model to another country, particularly given the accumulated knowledge of DRN India;

- Large-scale mock-up disaster drills require an enormous preparation but they are mandatory to test and map the needs for capacity building where necessary;
- Learning how to retrofit structures is fundamental to increase building resilience to natural and man-made disasters and costs much less than to rebuild damaged structures in a post-disaster recovery scenario;
- Need to design safer buildings and the built environment accordingly to minimize damage in disaster scenarios;
- Application of strict ethics and standards in disaster response is paramount to ensure the engagement of private sector, government, non-government organizations and civil society;
- Shift from networks of disaster relief from response to preparedness, namely, training first-aid medical response, storage of non-food items, water & sanitation, community first aid, networking of available resources.

4. HCC and UNISDR

A) Increased engagement with UNISDR

HCC joined the United Nation's International Strategy for Disaster Reduction's (UNISDR) new division, Disaster Risk Reduction Private Sector Partnership (DRR-PSP) to engage the private sector in future Disaster Risk Reduction (DRR) initiatives. Mr. Ajit Gulabchand joined as a member of Private Sector Advisory Board in January 2012. For the year 2012-13 a greater degree of engagement with UNISDR was planned in disaster management initiatives.

B) Davos meeting of United Nations International Strategy for Disaster Reduction (UNISDR) Private Sector Advisory Group (PSAG)

Simulation on "Struggle for Survival"

Mr. Gulabchand was invited by UNISDR to participate in the PSAG meeting and an event organized on 23rd January, 2013 at Davos.

UNISDR organized a short simulation program "Struggle for Survival" in collaboration with Crossroads Foundation an organization based in Hong Kong. Many global CEO's including Mr. Gulabchand with personal insights in to the real-life problems affecting the poor of the world participated in the simulation.

The participants had to make paper bags out of newspapers within a time-frame, then sell it to pay for their basic needs or go to a loan shark, invariably get trapped into the hopelessness of poverty, and in the process experience the desperate choices people have to make. The simulation focused on handling situations post disaster by being the part of the poor community who are affected by the catastrophe which had wiped of the village infrastructure. The Issues touched were disaster planning, role of government support, community savings and micro-insurance schemes, rule of law, value of education, resilient jobs, free provision of basic necessities to allow for recovery, community cohesion population control. 'Designing Smart Cities'



C) Address Public session on *Designing Smart Cities*

Jan 24, 2013, Mr. Gulabchand participated in a public session 'Designing Smart Cities' that had a focus on how cities can be designed for resilience and prosperity, in the context that by 2030, almost two-thirds of the world's population (about five billion people) will be in cities. The discussions touched upon how cities could be made financially and economically resilient, and yet also ensure inclusiveness of the urban poor into the city's fold to make it socially resilient. The themes discussed included a city's ability to recover from a vulnerability to environmental and climate change as well as from socio-economic vulnerability of the youth and poor, the importance of governance and strong institutions that are accountable, and the vital need for integrated land and transport planning in order to provide services to the citizens such as housing, water, roads and accessibility.

D) HCC lead E&C company for UNISDR'S & PWC'S Disaster Risk Framework

UNISDR has developed a Private Sector Advisory Group (PSAG) to engage the private sectors in disaster risk reduction. Our CMD is the member of the advisory group. UNISDR, in collaboration with PricewaterhouseCoopers (PWC) is preparing a disaster risk management framework. This initiative involves a select group of global business to participate in the pilot study to understand how disaster risk is managed in any organization, identify challenges and opportunities.



HCC was invited to be the lead company for this study in the Engineering and Construction sector. Other DRN India member companies also support the study. In order to do the pilot study, UNISDR and PWC organized a workshop in India which was led and hosted by HCC on 5th Dec'12, at HCC head office. PWC, UK facilitated the workshop through video-conferencing. It was a half day meeting which focused on understanding the perspective of construction companies in terms of what is the approach, understanding, and how the companies respond to disasters. The discussion was in line with the questionnaire which was filled by different companies. HCC had a good mix of people from subcontract, procurement, design, monitoring, CSR etc and could respond well during the workshop. There were also representatives from L&T, SPCL, HIRCO, ARUP, who participated in the workshop along with HCC. PWC and UNISDR have launched the report in June 2013.

E) Two case studies on HCC best practices shared with UNISDR for publication.

HCC two best practices case studies namely Disaster Resource Network (DRN) India-Model for Collective Action and Leh Relief work submitted to UNISDR for publishing.

F) Private Sector Partnerships DRR at the Global for Platform 2013: Annual General Meeting

Annual General Meeting -Mr. Ajit Gulabchand attended the annual general meeting on 20th May 2013 in Geneva. This Annual General Meeting for the private sector brings together private sector partners that are members of the PSAG, the DRR-PSP and other companies that are interested to contribute in the future. Practical experiences and good practices were shared. Future opportunities on how the private sector can do more for DRR will were highlighted.

Urban Planning Featured Event during the Global platform 2013-Mr.Gulabchand was invited by UNISDR as a speaker during the Global platform on 23rd May for a session on Building Resilience into Urban Planning and Investments.

HIV/AIDS Awareness

HCC recognises the serious impact of the disease on enterprises and views HIV from the perspective of a broader socio-economic issue affecting the most productive & reproductive age group of our country i.e. 15-49 years. In this context the role of the private sector becomes crucial as businesses have a significant stake in the well-being of the nation.

Our programme aims to sustain optimal workplace productivity by conducting prevention, education and awareness training and to reduce the spread of new infections. Recognizing the serious impact that HIV/AIDS has amongst migrant workers and in turn on the enterprise, HCC has formulated the HIV/AIDS Workplace Policy and adopted a Workplace Intervention Programme (WIP) that focuses on prevention programmes and zero tolerance of stigma and discrimination at the workplace. The WIP focuses on enhancing awareness and education about HIV/AIDS, creating a supportive and safe environment for workers and preventing discrimination.

a. Initiatives

HCC deploys large number of migrant labourers including truck drivers to build the nation's infrastructure who normally are from the remotest part of the country for earning their income leaving their families behind. As HIV/AIDS directly impacts the lives of employees and their families it impacts business. HCC has been actively engaged in the HIV/AIDS response since 2004 at its workplace and for the community.

A) Education for our employees, migrant workers and communities

We believe education and awareness is the key to dispelling HIV and AIDS myths, and is core to reduce the spread of infection. Our education and awareness work is spread through almost 80% of our nation due to the spread of our construction sites.

The workplace HIV/AIDS education and awareness programme is a comprehensive package that delivers HIV education via face-to-face via peer education sessions. In-house resources grow through capacity building sessions for core employees. As Master Trainers they are responsible for sustainability of the program and creating a chain of *Change Agents*.



B) Education and Awareness in community for wider impact

Our HIV/AIDS change Agents are committed to sharing HIV and AIDS knowledge and awareness not only within fence but also with our local communities.

Our Change Agents are peer educators who conduct educational and awareness program for various community stakeholders, including groups of elected representatives from villages, school children, self help groups, college students, slum pockets and religious groups. Information on HIV/AIDS is disseminated using audio-visual material, flip charts, demonstration on use of contraception, information on testing, care and support. There is a focus on clearing the myths and misconceptions related to HIV/AIDS and to reduce stigma and discrimination.

C) Education in Bhutan

Our CSR Manager and Site Master Trainer from India conducted nine days intensive training of trainer program at Bhutan two sites (Punagsanthu and Dagachhu) and trained 42 "Change Agents" includes the local youth also the education and sensitization sessions conducted for 142 employees including top senior managers.

D) Experience Sharing and Review Forum

We have initiated Experience Sharing and Review (ESAR) forum an E-learning methodology through conference calls to strengthen the analytical power of HCC's project sites in terms of achieving HIV CSR Mandate objectives. The project sites shares the process, the activities and the results in terms of quality and quantity. Thus the experience-sharing forum will lead to learning from each other and is continuous learning from ground realities. This forum will also serve for directly reviewing sites performance and documenting best practices and lessons learnt.

i. Sainj

Mr. Binod Kumar, Master Trainer and his team of 23 Peer Educators is implementing the HIV/AIDS program at the Sainj site for all workforce and officers and beyond the fence reaching to the local communities on regular basis by conducting awareness educational series and Nukkad Nataks. Also the program was appreciated by the Asian Development Bank Officials who visited the Site in month of July 12. The team of Master Trainer and Peer Educators reached to 1046 people, 487 workers and 559 community people.

ii. Padur

Mr. Gopalkrishna Jayakumar, Nodal Officer and his team of 23 Peer Educators is implementing the HIV/AIDS program at the Padur site for all workforce and officers and beyond the fence reaching to the local communities on regular basis by conducting awareness educational series and Nukkad Nataks. Also the program was appreciated by our client M/s. Indian Strategic Petroleum Reserves Ltd. (ISPRL). All newly joined employees are briefed about HIV / AIDS at Site Dispensary during induction process which is a ongoing process. The devoted peer educators are ready for 24X7 queries on HIV / AIDS.



iii. DGNP

Mr. Debendra Mahapatra, Master Trainer and his team of 16 peer educators implement the HIV/AIDS program at the DGNP site. With the help of site Male nurse (Peer Educators) & Safety supervisor (Peer Educators) the HIV/AIDS Awareness message are reached to all the site new workers along with visitor during Pre Employment Sessions. They also conduct Re-awareness program by tool box talk jointly with the help of the Nodal Officer, Peer Educators and a client representative. The total number of people attended the program 810 along with company worker & visitor. The quarterly refresh training for all Peer Educators by Master trainer. The site is established good network with government hospital St. George Hospital for needful services. Our client (DGNP) appreciated our participation/involvement on spreading HIV /AIDS awareness movement on project site beyond bread & butter. Also St. George Hospital representative appreciate HCC contribution in this mission.



iv. Dagachhu

Mr. Rajesh, Nodal Officer, and his team of 25 Peer Educators implement the HIV/AIDS program at the Dagachhu site. The site male nurse (Peer Educators) and safety supervisor (Peer Educators) reach on HIV/AIDS Awareness message to all the site new workers along with visitor during Pre Employment Sessions. They conduct Re-awareness program by tool box talk jointly with the help of the



Nodal Officer & Peer Educators. Through Tool Box and Personal contact about 550 people (company worker & Local people) were covered. The site is established good network with government hospital Daga Pela Bhutan Hospital for needful services. Due to extended reach the workmen confidently and freely discuss their personal doubt on with Peer Educators. Also the local Government Hospital representatives also contributed on the awareness program on HIV/AIDS and appreciate HCC contribution in this mission

v. Punatsangchhu

Mr. Farooq, Nodal Officer, and his team of 21 Peer Educators implement the HIV/AIDS program at the PHEP site. The team of Peer Educators consist of five Local Bhutanese among them two are female. This is at first time that the teams of Peer Educators are having women working as Peer Educators. The program is well integrated in the Tool box talk and induction training program. Also on regular basis the local team of PEs conducts the awareness session among the community members. The site Male



nurse (Peer Educators) and Safety supervisor (Peer Educators) reach on HIV/AIDS Awareness message to all the site new workers along with visitor during Pre Employment Sessions. The total number of people attended the program 416 along with company worker & visitor.

vi. Kolkata

Mr. Omni Venkat and his team of Peer Educators are implementing the HIV/AIDS program at the Kolkata site. The total number of people attended the program 1050 along with company worker & visitor. They have conducted the awareness program among the slum pockets near to the project site. The strong networking is established for the communication material and supply



of condom from **West Bengal State AIDS & Prevention Control Society.**

E) Training of Trainers (TOT) program on HIV/AIDS Work Place Program and Policy by International Labour Organisation (ILO) and experience sharing with Trainers

As our partner for HIV/AIDS Program and Policy, ILO conducted a two -day training programme for partner corporate groups and employers' organizations on 21-22 November 2012 New Delhi. Three project sites viz. NH 34 (Package 4), Tehri and MTPP send their participation for the same. After training an Experience sharing and feedback conference call was conducted on 26th December 2012 with these sites and Teesta (Lot 4) to share their learning and site specific action plan. Trained Master trainers Mr. Merajul Hassan, Teesta (4), Mr. Jitendra Agarwal and Mr. Sridam Kanara (NH-34 Pkg.4) presented their site specific action plan and shared their learning of the training.



F) World AIDS Day 2012

On 1st December 2012 World AIDS Day was observed at all Project sites and at the head office. Several events and activities were arranged to show our solidarity and commitment to work towards the prevention of the epidemic. This year's theme was **Getting to Zero: Zero New Infection. Zero discrimination. Zero ADIS-related deaths.** All the activities were planned and implemented were with this theme in mind. innovation, vision and perseverance in the face of the AIDS challenge was highlighted. Activities such as street plays, film shows, poster competitions, cartoon competitions, rallies, distribution of literature and pinning red ribbon, display of posters and HCC's HIV Policy dissemination were undertaken. Some projects also conducted awareness sessions in nearby communities, blood donation camps, lighting of lamps (candles), signing of the Wall of Pledge, and making of a human chain. The initiatives taken by sites were appreciated by the client and local government authorities, and they also participated in the programs.



b. Engaging with partners

In this endeavour, the Company is partnered by the International Labour Organisation (ILO), Mumbai District AIDS Control Society and local public health departments

A) Joining hands with ILO and other UN Agencies on Global campaign on “Getting to Zero”

HCC joined the “Getting to Zero at work” Campaign launched by ILO along with The Ministry of Labour and Employment (MOLE), GOI, the National AIDS Control Organization (NACO), and UN agencies in India during the National Workshop conducted at New Delhi. The quotes our CMD Mr. Ajit Gulabchand shared and released in support to the campaign during the launch.

“ We have moved beyond the traditional norms and standards of occupational health and safety and have integrated HIV and AIDS intervention right at the policy level. At HCC, we believe it's our responsibility to safeguard the health of our migrant workforce and sustain their productivity. We remain totally committed towards the prevention of the epidemic and join hands with the world towards Getting to Zero. ”

Ajit Gulabchand,
Chairman & Managing Director,
Hindustan Construction Company

UNAIDS

GETTING TO ZERO
IN THE WORK PLACE
IMPLEMENT R200
Implement the ILO Recommendation on HIV and AIDS (No. 200)
www.ilo.org/india/index

c. Impact

At the end of 2012-13, a total of 52,212 officers and workers have been covered through the WPI program. We have created a pool of 526 Master Trainers and Peer Educators across our project sites. The total number of man-hours spent on the WPI program is now 172,523 hours. Creation of a trained Master Trainer and Peer Educator pool has helped us fulfill our employee sensitization and training in-house without the need of an outside consultant.

Community Development

Our project sites carry out various community initiatives to improve the quality life of people.

1. Community initiatives at Project site

A) Sainj Site:

A solid waste management system was established at Sainj site. The activity was initiated by Mr. Ratnakar Kahire with support from the project team. The objective of the waste management unit is to reuse waste and give back to the earth, to protect the Environment, and to avoid health hazards. The use of waste into fertilizer was also demonstrated to the local community and the same will be used for the plants in the garden. The main purpose of the WM unit is to recycle Kitchen, household and garden waste in a scientific way.



B) Punagsanthu (PHEP) Site

PHEP has donated 1.1 million Nu towards the rehabilitation and reconstruction of the government admin building (Dzongkha) located at Pajo, which was destroyed in a fire in April 2012. The Government arranged a ceremony where Mr. Jeur handed over a cheque to them on behalf of HCC; the program was attended by local government dignitaries



C) Chamera Site

Chamera site has donated furniture and household material to the Gram Panchayat at Janghi for the Gram Panchayat office use; it has been handed over to the Pradhan. The Chamera project donated furniture and household materials to the Gujjar Ashram for the local poor children at Kalsuin.

D) Kishanganga

HCC contributed to the 19th North Kashmir Sports Festival-2012 organized by DIG North Kashmir Range Baramulla and sponsored awards for the District Cricket Association Bandipora for Winner and Runner team of the local tournament. We also sponsored the Bandipora Football Club team's trip to Kolkata where they played matches. We contributed to the District Red Cross, Bandipora for distribution among the poor and persons affected by any disaster. Additionally, we provided financial assistance for conducting third Hashmee Knock-out Football Tournament 2013

E) Kashang

We helped provide medical facilities to the villagers (Pangi, Kwhongi, and Telingi). Around 1800 families availed of these services. We are associated with the district administration in organizing Kinnaur Mahostav-2012. A free Medical Camp was established in Kinnaur Mahotsav-2012 at the Ramlila Ground and medical facilities were extended to the general public of Kinnaur District. 123 patients availed of these services.

F) Dagacchu

Our site at Dagachhu organised an awareness campaign program on alcohol, drugs, tobacco, dhooma and other issues for the employees and the local community. The training program was conducted in collaboration with client DHPC and Dagapela Government Hospital and was led by the Chief Medical Officer (Dagapela). The program benefited 73 HCC employees and members of the local community.

G) Nimoo

The Nimoo site conducted a one-day polio campaign. A medical camp was organized for the locals in coordination with Leh Government hospital medical staff and site doctor. Polio doses were given to the children from local community and our employee's family



2. Corporate Partnership Kihim

HCC has partnered with Kihim Gram Panchayat since 2008 promoting effective Solid Waste Management, among other environmental and developmental issues. The Company has championed “Ujjivana: Drive For Change” initiative in Kihim to empower the rural community to adopt sustainable integrated Solid Waste Management System and rain water conservation techniques. The model integrates the best environmental concepts and practices such as to promote composting, waste segregation system, scientific mechanism to dispose the solid waste, plastic recycling by setting up poly bag weaving unit by empowering local women self help group , promotion of civic responsibilities, rain water harvesting, reducing waste, along with community participation, involvement of the local government, community based organizations, philanthropic and commercial organizations and the downtrodden (PPP concept). The Kihim model is now being replicated in nearby villages also and the waste Management system is mainstreamed in local self Government.

3. Development of online complaint response system for Kullu region, Himachal Pradesh

Highbar Technologies developed a piece of software for registering complaints at the Sainj HEP project site. It was designed with the intention of minimizing the interactions between the public and the police without losing on transparency. Additionally, the system makes it easier to register complaints on the internet.

The system allows a complainant to register a complaint, receive an acknowledgement receipt for reference, receive SMS alerts on successful registration, and check complaint status.

Complaints are directed to the Tehsil police station and action taken is conveyed via SMS. If no action is taken for 15 days, complaints are sent to the Deputy Superintendent of Police (Dy. SP) of the district. If no action taken for 30 days, complaints are sent to District Superintendent of Police (SP), Kullu.

Complaints are monitored in a complaint register and detailed reports maintained by senior police officials. Assistance was also provided by IT staff at site and the head office of Highbar Technologies to the District SP for implementation of the system. For the assistance provided, HCC received a letter of appreciation from Mr. Ashok Kumar, IPS, District SP, Kullu, on behalf of Kullu Police.

Gulabchand Foundation

Clinical Skills Laboratory (CSL)

The launch of CSL was organised by Nair Hospital on 13th October 2012 at the hospital. An inaugural function and two day instructional course were organised for post graduate medical students from various medical colleges. The laboratory was supported by Medical Council of India and Council of Scientific and Industrial Research. It was inaugurated by cutting the ribbon at the hands of Dr. S N Oak, Vice Chancellor D. Y. Patil Medical College and launch by Dr. Mahalaxmiwala, ex-HoD of Plastic Surgery, Nair Hospital. The program was attended by eminent personalities from the medical fraternity. In his speech, Dr. Anil Tibrewala, Plastic Surgeon, acknowledged the gracious donation by the CMD and Ms. Shalaka Gulabchand Dhawan of Gulabchand Foundation. During his address he also shared with the gathering various other initiatives taken up by Foundation. Dr. Sanjana, Dean, Nair Hospital, thanked Gulabchand Foundation for the generous donation and spoke about the benefits to the larger section of the society along with the medical practitioners. Mr. Harashad Bhatt and Ms. Hemangi Patil were felicitated on the occasion. The program was attended by nearly hundred personnel from various hospitals and eminent personalities from medicine fraternity. The CSL project aim is to help to improve patient care and aid in teaching and training of postgraduate students to make them better trained plastic surgeons and to enable services available to a larger population. Community Development Initiatives



Education


HCC regularly trains engineers and other personnel for its in-house requirements. Walchand College of Engineering (WCE) at Sangli, one of the oldest engineering colleges in India, is presently headed by Mr. Ajit Gulabchand, Chairman & Managing Director of HCC. Under Mr. Gulabchand's visionary leadership, the institution received autonomy in 2007. In 2009, it implemented the Government of India Technical Education Quality Improvement Programme (TEQIP) phase I with all India rank 2, revamped curricula and laboratories for improving academic quality. The college is again selected for participation in TEQIP phase II. The first batch of autonomous B.Tech students graduated in May 2011. In all, 491 B.Tech. and M.Tech. engineers passed out of WCE in the academic year 2011-12 including 20 medalists.

Sharing best practices

1. Participation in Conferences, Seminars and Forums

Sr. No.	Program Name	Participation by HCC
1	International Social Work Conference 2012 held at Penang, Malaysia	submitted abstracts based on Project Sahyog
2	CII committee on drafting CSR rules for amendment in Company's Bill	Membership
3	CSR LIVE Week Conference in Mumbai	speaker opportunity
4	Advocacy meet on HIV/AIDS Workplace policy and programme by AIOE and FICCI	presented HCC's HIV/AIDS Program & Policy
5	Sustainability Committee of Bombay Chamber of Commerce and Industry (BCCI)	Membership
6	Young Bombay Forum (YBF) of Bombay Chamber of Commerce and Industry (BCCI)	Membership
7	Education & Skill Development Committee (ESDC) of Bombay Chamber of Commerce and Industry (BCCI)	Membership

2. Advocacy through media

Publication	INDIACSR News Network
Date	September 30th, 2012
Interview with Niyati Sareen, GM-Corporate Responsibility, Hindustan Construction	
 <p>INDIACSR News Network Niyati Sareen is General Manager – Corporate Responsibility with Hindustan Construction Company Ltd (HCC). She spearheads HCC's sustainability practices in the areas of Water initiatives, Disaster Response and Relief, HIV/AIDS awareness, Community Development and Education. Niyati Sareen shares her thoughts on CSR, her view on CSR in India and CSR best practices of her company. Rusen Kumar talked with Niyati for INDIACSR interview series. <i>Excerpts from an interview with INDIACSR.</i> http://www.indiacsr.in/en/?p=7962</p>	

3. Collective Action

A) GIZ's Migration and Business Research Project

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) are an experienced service provider and assist the German Government and working closely with Government of India on various developmental and CSR projects. GIZ currently undertook a research and action project on migration and business. The project takes its lead from growing reports of labour shortage and use of migrant workers in key industries including the construction industry and the apparel industry. The findings of the research project will help in understanding the problems and issues faced by industries in putting together and maintaining the required workforce. It will also help in understanding existing attempts to address problems associated with migrant workers such as low skill levels, attrition, health, finding good source contractors among others. Our aim is to support industry in understanding workforce options and requirements and in overcoming the constraints faced.

HCC shared its labour practices, systems, case studies and benefit programs with the GIZ team Ms. Orlanda Ruthven, PhD and Ms. Namrata Pathak followed by the site visit at Maroshi site to understand the field based opportunities and constraints related to labour especially migrated one; during the visit the team also interacted with PRWs and key personnel of site. At HO the meetings were held with Sub Contract Department, Human Resource Department, Training and CSR Cell. The report will be furnished to GOI for adopting good labour practices.

B) Study of CSR activities of companies in India

HCC is among ten companies from India selected to have their CSR programmes implemented under Public Private Partnership (PPP). Project Sahayog and Ujjivana were selected by CII-ITC Centre of Excellence to develop cases around the initiatives and impacts. CII-ITC is carrying out this study on recommendation of The Parliamentary Standing Committee on Finance and The Ministry of Corporate Affairs in order to assess the impact of these publicly funded CSR activities. Project Sahyog is an HCC initiative in partnership with Times Foundation and Municipal Corporation of Greater Mumbai (MCGM) in the slum area of L and M wards. As part of this project, we trained 500 health workers of MCGM in communication skills and demand generation for the health services focusing on Prevention of Parent to Child HIV transmission (PPTCT). The site visit included a visit to a slum pocket of ward L.

Project Ujjivana is an HCC initiative undertaken in partnership with the Gram Panchayat of Kihim on solid waste management and community development. The study will be presented to the Parliamentary Standing Committee on Finance and The Ministry of Corporate Affairs.

18. Product Responsibility

Our Approach

As a construction company, we do not manufacture products or deliver services. We are, nevertheless, committed to building responsible and high-quality infrastructure that is beneficial for end users. We continually engage with our customers and clients to understand their expectations and gain feedback to ensure satisfaction.

We are committed to compliance with all relevant statutory requirements and leading industry practices on product responsibility, including aspects of health and safety and customer privacy. As a construction company, we do not manufacture a product or deliver a service, hence labelling is not a material issue.

We continue with our initiatives to enhance and promote the HCC brand and its associated values. In the reporting year, our brand had significant presence in various business and industry events and expositions, where we showcased our wide ranging expertise and experience. A structured communication program resulted in good visibility for HCC in the national media, creating a connection with India's critical infrastructure projects, highlighting our core philosophy of *Responsible Infrastructure*.

We continue to have a responsive customer engagement through implementation of a Customer Response Management (CRM) system, which has helped us realise deeper and more successful customer relations.

19. Our Performance

Economic Performance - Key Performance Indicators⁵	Value (all Million INR)
Economic Value Generated	38322.9
Revenues	38322.9
Economic Value Distributed	41613.6
Operating Costs	32296.6
Employee Benefits and Wages	4020.3
Payment to Providers of Capital	5296.7
Payments to Government (Indian)	-559.4
Economic Value Retained	-2171.9

Environmental Performance – Key Performance Indicators⁶	Unit	FY 2012-13
Materials⁷		
Raw Materials	Tons Cu. M.	433727 2110595
Semi-manufactured Goods or Parts	Tons Cu. M.	5847104 394593
Associated Materials	Tons Cu. M.	17819 475
Energy		
High Speed Diesel	kL Million GJ Million kWh	1946515 47.90 13300
ATF	kL GJ Million kWh	204 7680 2.13
Purchased electricity	Million kWh	33.60
CO₂ Emissions		
GHG emissions due to direct energy use	Ton CO ₂ eq	3549940
GHG emissions due to indirect energy use	Ton CO ₂ eq	30734
GHG emissions intensity from construction ⁸	Ton CO ₂ eq/ INR Million [Turnover]	93.32
Emissions from Stacks⁹		
SPM	Kg	0.54
SO ₂	Kg	0.07
NOx	Kg	0.96
Waste Disposed		
Solid Hazardous Waste	Tons	61.66
Used oil	KL	36629.90
Non-hazardous Waste	Tons	1241.48
Environmental Expenditure	INR Million	6.56
Waste disposal, emissions treatment and remediation costs	INR Million	0.07
Prevention and environmental management costs	INR Million	6.49

⁵ Further details of the Company's financial performance can be found in the Annual Report FY 2012-13 at:

http://www.hccindia.com/hcc_admin/data_content/investor_pdf/HCC_AR_2012-13-Final.pdf

⁶ All environmental key performance indicator data pertains to the project sites listed in the scope of this report.

⁷ The materials procured have been reported in terms of weight or volume, as applicable.

⁸ Is calculated using a sum of emissions from direct and indirect energy use at project sites in scope. Scope 3 emissions have not been accounted for. Annual turnover of HCC's E&C business was taken from the company's Annual Report FY 2011-12, available at: http://www.hccindia.com/hcc_admin/data_content/investor_pdf/HCC_AR_2012-13-Final.pdf

⁹ The NOx, SOx and other significant air emissions at our project sites were within stipulated limits. The emissions values reported are from the Kishanganga HEP, the only site where such monitoring is mandatory, and are within stipulated limits.

Social Performance – Key Performance Indicators¹⁰	FY 2012-13
Total Workforce	23994
Workforce by Level of Employment	
Officers	1898
Others (Short Term Contracts, Trainees etc.)	36
Workmen (Excluding FTC)	22060
Workforce by Type of Contract	
Permanent Employees	9584
Sub-contract	6112
Piece-rate Workers	8191
Fixed-term Contract	107
Workforce by Gender (excluding Workmen)	
Male	1845
Female	89
New Employee Hire and Turnover	
Total Number of New Hires (excluding Workmen)	385
Male	377
Female	8
<30 years	195
30-50 years	174
>50 years	16
Total Number of Employees Leaving Employment (Officers only)	513
Male	500
Female	13
<30 years	205
30-50 years	270
>50 years	38
Return to Work after Parental Leave	
Number of Employees Entitled (all Women)	89
Number of Employees Aailed and Returned	1
Number of Retentions 12 Months After Return	3
Ratio of Basic Salary and Remuneration of Women to Men	
Senior management	1.07
Junior and middle management	0.89
Average Employee Training Man-hours¹¹ by Level of Employment	
Officers	6.87
Trainees	36.16
Workers	1.2
Total Employee Training Man-hours by Gender	
Male	42080
Female	240
Safety Statistics¹²	
Man-hours Worked	85717102
Injuries	60
Fatalities	14
Lost Days	90625
Frequency Rate	0.863
Severity Rate	1057.257
Frequency Severity Index	0.955

¹⁰ All workforce figures are as of 31 March 2013 and pertain to all active project sites (thirty-one) 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; HCC has pan India presence and does not report regional breakdown.

¹¹ Average number of employees in FY 2012-13 considered for calculation.

¹² The numbers above pertain to project sites within the scope of this report, and are inclusive of HCC direct employees, sub-contracted workers and others; Injuries do not include first-aid cases; Lost days are calculated based on scheduled work days; All incidents/occurrences pertain to male employees; No occupational diseases occurred in the reporting period; Absenteeism rates, dangerous occurrences and near miss incidents are tracked internally for effective follow-up actions; Our safety monitoring conforms to ILO guidelines; HCC has a pan-India presence and does not report regional breakdown of safety statistics.

20. Our commitment to NVG Principles

The Ministry of Corporate Affairs, the Government of India released the National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business (NVG) in July, 2011. These guidelines contain comprehensive principles to be adopted by companies as part of their business practice. At HCC, our sustainability philosophy is closely aligned with the spirit and content of the NVG. Presented below is a summary of how HCC's policies and practices align with the NVG principles.

Principle 1 – Businesses should conduct and govern themselves with Ethics, Transparency and Accountability

The Audit Committee oversees the Company's financial reporting process and disclosure of its financial information to ensure that the financial statements are correct, sufficient and credible. HCC's Code of Conduct, which is applicable to all employees, has clauses on anti-corruption policies and procedures. The Code of Conduct for Executive Directors, which applies to all its Executive Directors and Senior Managers, is intended to serve as guiding principles for Senior Management. As per the code, the Senior Management is expected to observe high standards of ethical conduct, fairness and integrity, and shall work to the best of their ability, responsibility and judgement in a manner that is in the best interests of the Company and its stakeholders. Further, the Company also has a Code of Conduct for its Non-Executive Directors.

Principle 2 – Businesses should provide goods and services that are safe and contribute to sustainability throughout their life cycle

Given that HCC is not in the manufacturing business, conventional product-related issues are not very material to us. However, given the Company's significant role in creation of the country's infrastructure of the country, we are committed to building safe, responsible and sustainable infrastructure of the highest quality. Our focus on supply chain management is driven by a need to reduce costs and material consumption. Through optimization of inventory and reduction of surplus, we have been able to achieve economic savings as well as conservation of natural resources. We focus on development of local vendors leading to benefits for both the company and the local suppliers.

Principle 3 – Businesses should provide well being of all employees

At HCC, we have a transparent and task-oriented selection process to find and attract the best talent. We provide continued learning opportunities to our employees; a total of more than 5,000 training man-days were delivered in FY 2012-13. Safety and health related trainings, technical programs related to equipment operation and maintenance are conducted for workers (including sub-contract staff and piece-rate workers) to enable them to upgrade their skills for continued employability. We have also launched a performance based reward and recognition programme aimed at enhancing organisational/ team performance. We follow a zero-tolerance approach on employee discrimination, bonded labour and child labour issues.

Principle 4 – Businesses should respect the interests of and be responsive towards all stakeholders, especially those who are disadvantaged, vulnerable and marginalized

In FY12-13, a reassessment of materiality and stakeholder engagement was conducted by the company. The objective of the exercise was to redefine our approach to materiality and stakeholder engagement by understanding our employees' views. Local communities were identified as one of the key stakeholders at the end of this exercise. HCC engages with its stakeholders proactively and on a sustained basis, with an aim to address their concerns seriously and speedily. Recognizing the serious impact that HIV/AIDS has amongst migrant workers, and in turn on the enterprise, HCC has formulated the HIV/AIDS Workplace Policy. As part of its commitment of responsiveness to marginalised community stakeholders, HCC has strategically undertaken initiatives within the areas of

disaster response management, HIV/AIDS workplace intervention programme, community development and education.

Principle 5 – Businesses should respect and promote human rights

HCC is a signatory to the UN Global Compact, under which it pledges to uphold human rights in its operations. Our contracts forbid child labour on site. Further, there are checks at every project site at the entry point. In the case of suspicion of child labour, our security staff is trained to ask for identity proof. HCC expects all its external stakeholders to uphold human rights as well.

Principle 6 – Businesses should respect, protect and make efforts to restore the environment

One of HCC's overarching sustainability priorities is to design and build infrastructure in an environmentally responsible manner. Our Integrated Management System (IMS) Policy clearly conveys our commitment of improving our performance on various environmental aspects that go beyond regulatory compliance. We have undertaken several measures to improve our environmental performance. For example, in the reporting year, we have increased the use of fly-ash in our road-building projects. Also, the use of high pressure capacity concrete pumps at Sainj has reduced our usage of vehicles at site for concreting and reduced our carbon footprint at the site.

Principle 7 – Businesses when engaged in influencing public and regulatory policy should do so in a responsible manner

We actively participate in public and regulatory policy discussion, both in India and globally. We are active members of various industry associations and developmental bodies, such as the Confederation of Indian Industry, World Economic Forum, United Nations, The Environment Research Institute, International Federation of Asian and Western Pacific Contractors' Association, New Cities Foundation, and UK-India Business Council. Further information on our membership in industry associations is available in this report in the *Materiality Analysis & Stakeholder Engagement Revisited* and *Reducing our Communication of Progress on UN CEO Water Mandate* chapters.

Principle 8 – Businesses should support inclusive growth and equitable development

HCC has a long tradition of contributing to and investing in communities in and around its project sites. Under the broad umbrella of community development, several initiatives have made a lasting impact on the economic, environmental and social conditions of local people. Through our community development initiatives in the fields of education and HIV/AIDS awareness, we aim to contribute positively not only to communities within our operational boundary, but also those communities with whom we don't come in direct contact. HCC plays a leadership role in the Disaster Resource Network of India and trains selected engineers from different companies in the network on disaster management.

Principle 9 – Businesses should engage with and provide value to their customers and consumers in a responsible manner

At HCC, we consider customer responsibility an integral component of *Responsible Infrastructure*. The Standard Contracts System allows us to better service our clients by streamlining our contracts and instating a uniform approach to contracts throughout the system. With the completion of SAP CRM implementation in the Business Development division of the Sales and Marketing department, the process of selection and review has been streamlined.



Ernst & Young LLP
22, Camac Street
3rd Floor, Block 'C'
Kolkata-700 016, India

Tel: +91 33 6615 3400
Fax: +91 33 2281 7750
ey.com

Independent Assurance Statement

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

Our Engagement

Ernst & Young LLP ("EY") was retained by Hindustan Construction Company Ltd. ("the Company") to provide an independent assurance on its Sustainability Report titled 'Responsible Infrastructure' ("the Report") for its Engineering and Construction Business for the Financial Year 2012-13, which the Company has prepared based on Global Reporting Initiative G3.1 (2011) Construction and Real Estate Sector Supplement Guidelines (GRI G3.1 CRESS). The Company's Management is responsible for the contents of the Report, identification of key issues, engagement with stakeholders and its presentation. EY's responsibility is to provide independent assurance on the report content as described in the scope of assurance. Our responsibility in performing our assurance activities is to the Management of the Company only, and in accordance with the terms of reference agreed with the Company. We do not therefore accept or assume any responsibility for any other purpose or to any other person or organization. Any dependence that any such third party may place on the Report is entirely at its own risk. The assurance report should not be taken as a basis for interpreting the Company's overall performance, except for the aspects mentioned in the scope below.

Scope of Assurance

The scope of assurance covers the following aspects of the Report:

- Data and information related to the Company's environment, health, safety and social performance for the period 1 April 2012 to 31 March 2013;
- Execution of an audit trail of claims and data streams, on a selective test basis, to determine the level of accuracy in collection, transcription and aggregation. This covered three of the Company's Engineering and Construction business verticals at the following locations:
 - National Highway 34 (Package 4), West Bengal (Transportation business vertical);
 - Kishenganga Hydro-electric Power Project, Jammu & Kashmir, (Hydro Power business vertical);
 - Aditya Aluminium Potshell Project, Orissa (Nuclear and Special business vertical)
- The Company's internal policies, protocols and processes related to collection and collation of sustainability performance data.

Exclusions

The assurance scope excludes:

- Operations of the Company other than the Engineering and Construction Business;
- Aspects of the Report other than those mentioned above;
- Data and information outside the defined reporting period;
- The Company's statements that describe expression of opinion, belief, aspiration, expectation, aim or future intention;
- Economic performance indicators included in the Report;
- CRESS (Construction and Real Estate Sector Supplement) indicators included in the Report

Level of Assurance and Criteria Used

The assurance engagement was planned and performed in accordance with International Federation of Accountants' International Standard for Assurance Engagements Other than Audits or Reviews of Historical Financial Information (ISAE 3000). Our evidence-gathering procedures were designed to obtain a 'limited' level of assurance (as set out in ISAE 3000) on reporting principles, as well as sustainability performance indicators as per GRI 3.1 Guidelines.

Key Steps

The performance of our engagement involved the following key steps:

- Interviews at the Company's corporate office in Mumbai with key members of senior management to understand the sustainability vision, mechanism for management of sustainability issues and stakeholder engagement;
- Visits to three sample sites as mentioned in the Scope above;
- Review of relevant documents and systems for gathering, analyzing and aggregating sustainability performance data for the reporting period;
- Evidencing support of claims made in the Report regarding the Company's sustainability performance;
- Review of selected qualitative statements and sample case studies in various sections of the Report.

Observations:

Our key observations are as follows:

- The Company has continued to demonstrate its commitment to sustainability by publishing its fourth sustainability report based on the GRI 3.1 Guidelines at the 'A+' Reporting Application level;
- The Company's continues to have a high focus on water sustainability, as evident through its detailed reporting of water use indices, policy advocacy at national and global levels, and Communication on Progress (COP) on the UN CEO Water Mandate for the period of FY 2012-13. The Company may further identify opportunities to undertake water conservation initiatives in communities around its project sites.
- In the reporting year, the Company undertook an extensive materiality analysis review process, in order to recalibrate its material issues and sustainability goals, primarily through consultation with internal stakeholders. Going forward, the Company may also involve



representatives from key external stakeholder groups in a similar exercise to ensure a more comprehensive materiality analysis.

- There is further scope to strengthen data control by instituting periodic aggregation of KPI related data and details of sustainability initiatives from project sites.

Our Conclusion

On the basis of our review scope and methodology, nothing has come to our attention that would cause us not to believe that the Report presents the Company's triple-bottom-line performance, in material respect, in line with the GRI G3.1 reporting principles and criteria.

Our Assurance Team

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

For Ernst & Young LLP

Sudipta Das
Partner
26 July 2013
Kolkata

22. GRI G3.1 CRESS Content Index

Profile Disclosure / Key Performance Indicator	Description	Reported	Cross Reference/Direct Answer
1.1	Statement from the most senior decision-maker of the organization.	Fully	From the Chairman and Managing Director's Desk (Page 2).
1.2	Description of key impacts, risks, and opportunities.	Fully	From the Chairman and Managing Director's Desk (Page 2), Economic Performance - Our Approach (Page 34), Risk Management (Page 25). HCC constructs new infrastructure, and is not involved in retrofits, upgrades and refurbishments.
2.1	Name of the organization.	Fully	About the Report (Page 1).
2.2	Primary brands, products, and/or services.	Fully	Organizational Profile (Page 8).
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.	Fully	Organizational Profile (Page 8).
2.4	Location of organization's headquarters.	Fully	Back Cover
2.5	Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.	Fully	HCC: Infrastructure Portfolio (Page 6), HCC's Sustainability Footprint (Page 7), Projects in Scope (Page 10).
2.6	Nature of ownership and legal form.	Fully	Top ten shareholders (Page 25).
2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).	Fully	HCC: Infrastructure Portfolio (Page 6), HCC's Sustainability Footprint (Page 7), Projects in Scope (Page 10), Organizational Profile (Page 8).
2.8	Scale of the reporting organization.	Fully	Organizational Profile (Page 8), Projects in Scope (Page 10), Our Performance - Social Performance (Page 102), Economic Performance (Page 101). Net Revenue of the Company's operations in the reporting year is provided on Page 135, (under Information about Primary Business Segments) and Page 91 (Statement of profit and loss)

			of the HCC Annual Report FY12-13 (http://www.hccindia.com/hcc_admin/data_content/investor/pdf/HCC_AR_2012-13-Final.pdf)
2.9	Significant changes during the reporting period regarding size, structure, or ownership.	Fully	No significant changes in the reporting entity, including ownership, during the reporting period.
2.10	Awards received in the reporting period.	Fully	Building our Brand - Awards and Achievements (Page 13).
3.1	Reporting period (e.g., fiscal/calendar year) for information provided.	Fully	About the Report (Page 1).
3.2	Date of most recent previous report (if any).	Fully	FY2011-12
3.3	Reporting cycle (annual, biennial, etc.)	Fully	About the Report (Page 1).
3.4	Contact point for questions regarding the report or its contents.	Fully	About the Report (Page 1).
3.5	Process for defining report content.	Fully	Projects in Scope (Page 10), Materiality and Stakeholder Engagement Revisited (Page 21).
3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers). See GRI Boundary Protocol for further guidance.	Fully	Organizational Profile (Page 8), Projects in Scope (Page 10).
3.7	State any specific limitations on the scope or boundary of the report (see completeness principle for explanation of scope).	Fully	Any limitations in the scope or boundary are specified wherever applicable in the report.
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations.	Fully	Organizational Profile (Page 8), Projects in Scope (Page 10).
3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report. Explain any decisions not to apply, or to substantially diverge from, the GRI Indicator Protocols.	Fully	About the Report (Page 1).
3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g. mergers/acquisitions, change of base years/periods, nature of business, measurement methods).	Fully	During the reporting period, there were no mergers or acquisitions, and hence no restatements to this effect.
3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.	Fully	Organizational Profile (Page 8), Projects in Scope (Page 10).
3.12	Table identifying the location of the Standard Disclosures in the report.	Fully	GRI G3.1 CRESS Content Index (Page 108).

3.13	Policy and current practice with regard to seeking external assurance for the report.	Fully	About the Report (Page 1), EY Independent Assurance Statement (Page 105).
4.1	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight.	Fully	Corporate Governance - Board of Directors, Code of Conduct (Page 24) Board Committees. For further information, refer HCC Annual Report FY12-13.
4.2	Indicate whether the Chair of the highest governance body is also an executive officer.	Fully	Corporate Governance - Board of Directors (Page 24).
4.3	For organizations that have a unitary board structure, state the number and gender of members of the highest governance body that are independent and/or non-executive members.	Fully	Corporate Governance - Board of Directors (Page 24).
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	Fully	Corporate Governance - Board Committees - Shareholders' and Investors' Grievance Committee (Page 25). For further information, refer HCC Annual Report FY12-13 (http://www.hccindia.com/hcc_admin/data_content/investor_pdf/HCC_AR_2012-13-Final.pdf).
4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and environmental performance).	Fully	Corporate Governance - Board Committees - Remuneration Committee (Page 25). For further information, refer page 34 of HCC Annual Report FY12-13 (http://www.hccindia.com/hcc_admin/data_content/investor_pdf/HCC_AR_2012-13-Final.pdf). However, currently there is no linkage with the social and environmental performance of the company.
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	Fully	Corporate Governance - Code of Conduct, Risk Management
4.7	Process for determining the composition, qualifications, and expertise of the members of the highest governance body and its committees, including any consideration of gender and other indicators of diversity.	Fully	Corporate Governance - Board of Directors. For further information, refer HCC page 29 of Annual Report FY12-13.
4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.	Fully	Vision, Mission and Values, Corporate Governance - Code of Conduct.
4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with	Fully	Currently, there is no defined Board oversight on the company's ESG performance.

	internationally agreed standards, codes of conduct, and principles.		
4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.	Fully	Currently, the company does not have a defined oversight on the Board's performance in this regard.
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization.	Fully	Corporate Governance (Page 24)- Risk Management (Page 25).
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.	Fully	GRI G3.1 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).
4.13	Memberships in associations (such as industry associations) and/or national/international advocacy organizations in which the organization: * Has positions in governance bodies; * Participates in projects or committees; * Provides substantive funding beyond routine membership dues; or * Views membership as strategic.	Fully	Building our Brand - Professional Memberships (Page 15).
4.14	List of stakeholder groups engaged by the organization.	Fully	Materiality and Stakeholder Engagement Revisited - Stakeholder Engagement (Page 21).
4.15	Basis for identification and selection of stakeholders with whom to engage.	Fully	Materiality and Stakeholder Engagement Revisited (Page 21).
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	Fully	Stakeholder Engagement under Materiality and Stakeholder Engagement Revisited (Page 21).
4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting.	Fully	Materiality and Stakeholder Engagement Revisited (Page 21).
Disclosures on Management Approach	DMAs for EC, EN, LA, HR, SO, PR indicators	Fully	Economic Performance - Our Approach (34), Environmentally Sustainable Practices - Our Approach (Page 39), Our Employees - Our Approach (Page 78), Social sustainability - Our Approach (Page 83), Product Responsibility - Our Approach (Page 100).
<u>EC1</u>¹³	Direct economic value generated and	Fully	Our Performance - Economic

¹³ Underlined key performance indicators are Core for GRI G3.1 CRESS Application Level A+; the rest are Additional.

	distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.		Performance (Page 101)
<u>EC2</u>	Financial implications and other risks and opportunities for the organization's activities due to climate change and other sustainability issues.	Fully	Environmentally Sustainable Practices - Our Approach (Page 39). We have not yet quantified the financial implications of climate change and other sustainability issues on our business.
<u>EC3</u>	Coverage of the organization's defined benefit plan obligations.	Fully	Our Employees - Employee benefits (Page 79). For additional information, refer to pages 93 and 108 of HCC Annual Report FY12-13 (http://www.hccindia.com/hcc_admin/data_content/investor_pdf/HCC_AR_2012-13-Final.pdf)
<u>EC4</u>	Significant financial assistance received from government.	Fully	The value of deferred tax for FY12-13 was INR 559.4 Million. The Government is not present in the shareholding structure. (Page 101)
<u>EC5</u>	Range of ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation.	Fully	For all sites reported on, we have met or exceeded the local wage requirement.
<u>EC6</u>	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.	Fully	Economic Performance - Supply Chain Management Initiatives (Page 38). Given HCC's extensive project footprint across the country, our definition for local sourcing continue to remain India-wide. Almost 80% of the significant procurement budget at the projects in scope for this report was sourced locally (within India). Our Commitment to NVG Principles - Principle 2 (Page 103)
<u>EC7</u>	Procedures for local hiring and proportion of senior management and all direct employees, contractors and sub-contractors hired from the local community at significant locations of operation.	Partial	Economic Performance - Our Approach (Page 34).
<u>EC8</u>	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.	Fully	HCC: Sustainability Footprint (Page 7). Our spending on infrastructure development provided primarily for public benefit was on need based interventions, determined locally at project sites. Our initiatives in this regard are limited to the extent of the construction phase of our

			project sites.
EC9	Understanding and describing significant indirect economic impacts, including the extent of impacts.	Fully	HCC has not yet carried out a formal assessment of its indirect economic impacts.
EN1	Materials used by weight, value or volume.	Fully	Our Performance - Environmental Performance (Page 101)
EN2	Percentage of materials used that are recycled and reused input materials.	Fully	No substantial percentage of materials used was recycled or reused in the reporting period.
EN3	Direct energy consumption by primary energy source.	Fully	Our Performance - Environmental Performance (Page 101)
EN4	Indirect energy consumption by primary source.	Fully	Our Performance - Environmental Performance (Page 101)
CRE1	Building energy intensity.	Not	Not Applicable - HCC does not manage building use and occupancy
EN5	Energy saved due to conservation and efficiency improvements.	Fully	Environmentally Sustainable Practices - Installation of Stabilizer in NH-34 Phase-IV (Page 42)
EN6	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.	Not	Not Applicable - HCC does not manufacture products or deliver services, hence not applicable
EN8	Total water withdrawal by source.	Fully	CoP on the UN CEO Water Mandate (Page 48-49, 56). All water withdrawn was metered and/or otherwise measured.
EN10	Percentage and total volume of water recycled and reused.	Fully	CoP on the UN CEO Water Mandate (Page 48-49, 51, 56). All water recycled/ reused is linked to metered data.
CRE2	Building water intensity.	Not	Not Applicable - HCC does not manage building use and occupancy
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	Not	None of HCC's project sites fall within the specified criteria
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	Not	None of HCC's project sites fall within the specified criteria
EN16	Total direct and indirect greenhouse gas emissions by weight.	Fully	Our Performance – Environmental Performance (Page 101). Using emission

			factors (IPCC Guidelines) for GHGs (CO ₂ , CH ₄ , N ₂ O) for fuels used (such as ATF, Diesel), we have established the emissions from direct energy consumption. For India, an emission factor of 0.81 tons CO ₂ e per MWh of power generated has been used for establishing the emission for indirect energy consumption, as per UNFCCC recommendation. All calculations have been made based on direct measurements of site-specific data from all HCC projects in scope.
<u>EN17</u>	Other relevant indirect greenhouse gas emissions by weight.	Not	Not Available - We plan to enhance our scope to include air emissions from employee travel going forward (2014).
<u>CRE3</u>	Greenhouse gas emissions intensity from buildings.	Not	Not Applicable - HCC does not manage building use and occupancy.
<u>CRE4</u>	Greenhouse gas emissions intensity from new construction and redevelopment activity.	Fully	Our Performance - Environmental Performance (Page 101)
<u>EN18</u>	Initiatives to reduce greenhouse gas emissions and reductions achieved.	Fully	No initiatives to reduce greenhouse gas emissions and reductions are undertaken currently
<u>EN19</u>	Emissions of ozone-depleting substances by weight.	Fully	We do not use any ODS in our operations
<u>EN20</u>	NO _x , SO _x , and other significant air emissions by type and weight.	Fully	Our Performance - Environmental Performance (Page 101)
<u>EN21</u>	Total water discharge by quality and destination.	Fully	CoP on the UN CEO Water Mandate (Page 56-57). All water discharged is treated and is released in natural water bodies. All water discharges are accordance with the consented values, where specified by Pollution Control Boards in 'Consent to Operate' or water consents. This is allocated to us as per our planned water discharge we provide in applications as estimates. None of the water discharged from any of the HCC operations is reused by any other organization.
<u>EN22</u>	Total weight of waste by type and disposal method.	Fully	Our Performance - Environmental Performance (Page 101). We follow all

			regulatory compliances regarding waste disposal by selling our waste to authorized contractors for appropriate recycling. All the waste is disposed through third party recyclers.
<u>EN23</u>	Total number and volume of significant spills.	Fully	No significant spills in the reporting period
<u>CRE5</u>	Land and other assets remediated and in need of remediation for the existing or intended land use according to applicable legal designations.	Fully	Construction activities by HCC has not resulted in any significant land contamination and need for remediation
<u>EN26</u>	Initiatives to enhance efficiency and mitigate environmental impacts of products and services, and extent of impact mitigation.	Fully	As a construction company, we do not manufacture any products or deliver services. We have however included initiatives to use environmentally friendly materials wherever possible and minimize impacts from the construction activities in the section: Environmentally Friendly Practices (Page 40-42).
<u>EN27</u>	Percentage of products sold and their packaging materials that are reclaimed by category.	Not	Not Applicable - As a B2B company, we do not sell any products directly to the consumers. Additionally, as a construction company, the issue of reclamation of packaging materials is not material.
<u>EN28</u>	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.	Fully	No such fines or sanctions during the reporting period.
<u>EN30</u>	Total environmental protection expenditures and investments by type.	Fully	Our Performance - Environmental Performance (Page 101)
<u>LA1</u>	Total workforce by employment type, employment contract, and region, broken down by gender.	Fully	Our Performance - Social Performance (Page 102) Of the 89 female employees, 88 are permanent and 1 is employed on a fixed term contract.
<u>LA2</u>	Total number and rate of new employee hires and employee turnover by age group, gender, and region.	Fully	Our Performance - Social Performance (Page 102) Our Employees - Employment, New Hiring and Attrition (Page 80) Projects in Scope (Page 10)
<u>LA3</u>	Benefits provided to full-time employees that are not provided to temporary or part-time	Fully	Our Employees - - Employee

	employees, by major operations.		benefits (Page 79) Benefits are reported for employees across HCC projects in India. We strive to provide camp amenities beyond compliance levels at all our sites.
<u>LA15</u>	Return to work and retention rates after parental leave, by gender.	Fully	Our Performance - Social Performance (Page 102)
<u>LA4</u>	Percentage of employees covered by collective bargaining agreements.	Fully	Our Employees - Employment, new hiring and attrition (Page 80-81)
<u>LA5</u>	Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements.	Fully	No such changes during the reporting period. As prescribed under the Industrial Disputes Act, 1947, 21 days notice period is given.
<u>LA6</u>	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs.	Fully	All our project level health and safety committee have an equal management and worker representation.
<u>LA7</u>	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region and by gender.	Fully	Our Performance - Social Performance (Page 102)
<u>CRE6</u>	Percentage of the organization operating in verified compliance with an internationally recognized health and safety management system.	Fully	Environmentally Sustainable Practices - Our Approach (Page 39)
<u>LA8</u>	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	Fully	Social sustainability - HIV/AIDS Awareness (Page 90)
<u>LA10</u>	Average hours of training per year per employee by gender, and by employee category.	Fully	Our Performance - Social Performance (Page 102)
<u>LA11</u>	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	Fully	Our Employees - Training (Page 79-80)
<u>LA12</u>	Percentage of employees receiving regular performance and career development reviews, by gender.	Fully	All permanent employees receive performance reviews annually.
<u>LA13</u>	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity.	Fully	Corporate Governance - Board of Directors (Page 24) Our Performance - Social Performance (Page 102)
<u>LA14</u>	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation.	Fully	Our Performance - Social Performance (Page 102)
<u>HR1</u>	Percentage and total number of significant investment agreements and contracts that include clauses incorporating human rights concerns, or that have undergone human rights screening.	Fully	Our Commitment to NVG Principles - Principle 5 (Page 104) Social sustainability - Our Approach. (Page 83). Currently, our investment

			agreements do not have human rights clauses.
<u>HR2</u>	Percentage of significant suppliers, contractors and other business partners that have undergone human rights screening, and actions taken.	Fully	Our Commitment to NVG Principles - Principle 5 (Page 104). We have not conducted any human rights assessment of our suppliers and contractors so far.
<u>HR3</u>	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.	Fully	No specific training pertaining to human rights were conducted. However, sensitisation in this regard is regularly provided to all employees.
<u>HR4</u>	Total number of incidents of discrimination and corrective actions taken.	Fully	No incidents of discrimination have been reported during the reporting period.
<u>HR5</u>	Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights.	Fully	No operations and suppliers with significant risks have been identified yet.
<u>HR6</u>	Operations and significant suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor.	Fully	Our Commitment to NVG Principles - Principle 5 (Page 104). Social sustainability - Our Approach (Page 83). No operations and suppliers with significant risks have been identified yet.
<u>HR7</u>	Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor.	Fully	No operations and suppliers with significant risks have been identified yet.
<u>HR8</u>	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.	Fully	Our Employees - Our Approach (Page 78)
<u>HR10</u>	Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments.	Fully	Our Employees - Our Approach (Page 78)
<u>HR11</u>	Number of grievances related to human rights filed, addressed and resolved through formal grievance mechanisms.	Fully	There have been no instances of human rights related grievances filed against us in the reporting period.
<u>SO1</u>	Percentage of operations with implemented local community engagement, impact assessments, and development programs.	Fully	HCC: Sustainability Footprint Initiatives at Kihim (Page 96), Social sustainability - Initiatives, HIV/AIDS Workplace Intervention Program (Page 90), Disaster Response Network (Page 84). We have implemented robust community engagement and development programs at all our project sites. Given our

			contractual nature of work, these programs last through the construction phase.
<u>SO9</u>	Operations with significant potential or actual negative and positive impacts on local communities.	Fully	HCC: Sustainability Footprint Initiatives at Kihim (Page 96), Social sustainability - Initiatives, HIV/AIDS WIP (Page 90), DRN (Page 84). Given the contractual nature of our work, our focus is currently limited to the immediate impacts that may occur during the construction phase of infrastructure.
<u>SO10</u>	Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities.	Fully	While there have been no instances of significant negative impacts of HCC projects, the Desalination Plant at DGNP is an example of how we have prevented water stress in local communities (Page 52).
<u>CRE7</u>	Number of persons voluntarily and involuntarily displaced and/or resettled by development, broken down by project.	Not	Social sustainability - Our Approach (Page 83). Given the contractual nature of our business, any resettlement of local communities falls within the purview of our clients. As per regulations, construction activities by the company begins after and necessary resettling has been completed by the client. Hence such information does not reside with HCC, and is not applicable.
<u>SO2</u>	Percentage and total number of business units analyzed for risks related to corruption.	Fully	We have not analyzed our business units for corruption related risks.
<u>SO3</u>	Percentage of employees trained in organization's anti-corruption policies and procedures.	Fully	HCC's Code of Conduct (Page 24), which is applicable to all employees, includes a clause on anti-corruption policies and procedures.
<u>SO4</u>	Actions taken in response to incidents of corruption.	Fully	Social sustainability - Our approach (page 83). In this reporting year, there were no reported incidents of corruption in the organization.
<u>SO5</u>	Public policy positions and participation in public policy development and lobbying.	Fully	Social sustainability - Our approach (Page 83) Stakeholder Engagement - Membership in Associations (Page 15) CoP on the UN CEO Water Mandate - Collective Action & Public Policy (Page 60)

			All our public policy participation results in positive contributions. There is no significant risk identified on account of conflict of interest.
<u>SO6</u>	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.	Fully	There were no financial contributions of such kind in the reporting period.
<u>SO8</u>	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.	Fully	No significant fines or sanctions during the reporting period.
<u>PR1</u>	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.	Fully	As a construction company, we do not manufacture products or deliver direct services. We ensure that our structures are safe from the design up to completion stage, though we do not carry out life cycle assessments at this point.
<u>PR2</u>	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.	Fully	No incidents of non-compliance.
<u>PR3</u>	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.	Not	Not Applicable - As a construction company, we do not manufacture a product or deliver a service, hence this indicator is not applicable.
<u>CRE8</u>	Type and number of sustainability certification, rating and labeling schemes for new construction, management, occupation and redevelopment.	Fully	Environmentally Sustainable Practices - Our Approach (Page 39)
<u>PR4</u>	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.	Fully	As a construction company, we do not manufacture a product or deliver a service, hence this indicator is not applicable.
<u>PR5</u>	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.	Fully	Customer Response Management (Page 100)
<u>PR6</u>	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.	Fully	The Corporate communications practices of HCC conform to the laws and acts that govern corporate advertising, promotion and sponsorship.
<u>PR9</u>	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.	Fully	No such fines paid during the reporting period.



Statement GRI Application Level Check

GRI hereby states that **Hindustan Construction Company Ltd** has presented its report "The Responsible Infrastructure 2012-2013" to GRI's Report Services which have concluded that the report fulfills the requirement of Application Level A+.

GRI Application Levels communicate the extent to which the content of the G3.1 Guidelines has been used in the submitted sustainability reporting. The Check confirms that the required set and number of disclosures for that Application Level have been addressed in the reporting and that the GRI Content Index demonstrates a valid representation of the required disclosures, as described in the GRI G3.1 Guidelines. For methodology, see www.globalreporting.org/SiteCollectionDocuments/ALC-Methodology.pdf

Application Levels do not provide an opinion on the sustainability performance of the reporter nor the quality of the information in the report.

Amsterdam, 8 August 2013

A handwritten signature in blue ink, appearing to read "Nelmara Arbex", is written over a faint, large watermark of the GRI logo.

Nelmara Arbex
Deputy Chief Executive
Global Reporting Initiative



The "+" has been added to this Application Level because Hindustan Construction Company Ltd has submitted (part of) this report for external assurance. GRI accepts the reporter's own criteria for choosing the relevant assurance provider.

The Global Reporting Initiative (GRI) is a network-based organization that has pioneered the development of the world's most widely used sustainability reporting framework and is committed to its continuous improvement and application worldwide. The GRI Guidelines set out the principles and indicators that organizations can use to measure and report their economic, environmental, and social performance. www.globalreporting.org

Disclaimer: Where the relevant sustainability reporting includes external links, including to audio visual material, this statement only concerns material submitted to GRI at the time of the Check on 2 August 2013. GRI explicitly excludes the statement being applied to any later changes to such material.

Hindustan Construction Co Ltd
Hincon House, 11th Floor
247Park
Lal Bahadur Shastri Marg
Vikhroli (West)
Mumbai 400083
India
Tel.: +91 22 2575 1000
Fax: +91 22 2577 7568

www.hccindia.com