



# CORPORATE SUSTAINABILITY REPORT



2009 - 2011



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**Today the global steel industry is facing several challenges across the value chain related to several important and urgent issues. We have developed a process of sifting through such a universe of issues to arrive at those which are most important to our operations and will directly form a part of our risk management framework.**

Dear Stakeholders,

Last 2 years have witnessed strategic decisions and significant changes which mark the beginning of a new chapter in JSW Steel ensuring long term sustainability.

We have strengthened our governance mechanism by creating a Corporate Sustainability Cell to drive JSW Steel's sustainability agenda. We work with the World Steel Association to share knowledge, strategize and better manage the sustainability challenges faced by our industry. Mr. Sajjan Jindal, Chairman and Managing Director of JSW Steel is a member of the World Steel Association's Executive Committee and also chairs its Sustainable Committee. JSW Steel along with 50 other global steel makers have signed the Association's sustainability charter to meet the demand for producing steel in a safe, sustainable way; valuing the inter-dependence of environmental, social and economic aspects in all decision-making.

#### **Sustainability Challenges**

Today the global steel industry is facing several challenges across the value chain related to several important and urgent issues. We have developed a process of sifting through such universe of issues to arrive at those which are most important to our operations and will directly form a part of our risk management framework. Accordingly we have identified the following priority sustainability focus areas for JSW Steel:

The report has been developed according to the Global Reporting Initiative's G3 Guidelines on Sustainability Reporting

- Climate change and Energy
- Environmental excellence
- Product responsibility and Innovation

- Intellectual capital management
- Health and Safety
- Community development

and is aligned to sustainability performance indicators specified by the World Steel Association and the 10 principles of United Nations Global Compact.

### Water & CO<sub>2</sub> impact

JSW Steel has adopted an integrated water management approach which offers more sustainable options of managing water resources. Hatch Associates have conducted detailed study which revealed that our specific water consumption is in lowest range amongst established integrated steel producers globally. (3m<sup>3</sup>/ ton of Crude Steel)

We have also commissioned PE International, Germany to study Carbon footprint of all units of JSW Steel – Vijayanagar, Salem, Vasind & Tarapur and their report is covering all aspects of carbon usage will be available shortly.

At JSW we are very conscious of our impact on rare resource of water, its optimum utilisation and GHG emission and impact on Climate Change.

### Stakeholder Engagement and Community Development

We have recently aligned our social responsibility initiatives to the “Millennium Development Goals” and restructured the on-ground programs. To support these programs we

have launched a “Volunteerism – Leap” program across the group. Through this program more than 700 employees have come forward to offer their talent, time and money towards betterment of society with a maximum contribution from our oldest unit at Vasind, the birth place of our community service programs. We have formulated a far-sighted policy on volunteerism that allows our employees to contribute up to 40 hours in any project of choice on an annual basis. Further, we provide supporting infrastructure for those who wish to contribute additional time.

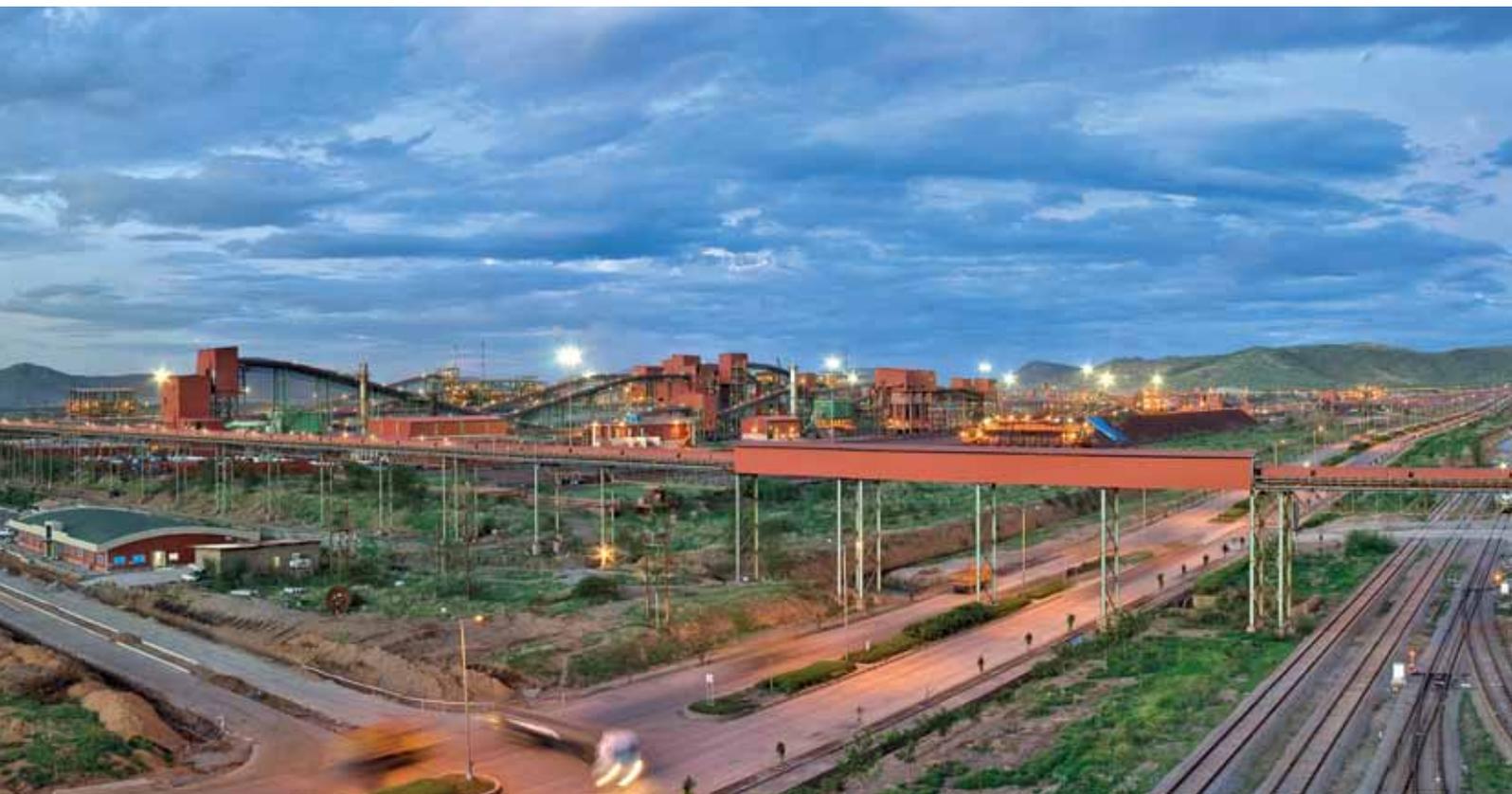
We strive to understand the requirements and expectations of our stakeholders and respond appropriately to create better social value through our products, services and operations. At JSW Steel, stakeholder engagement has been a periodic activity implemented through effective communication channels that foster a two-way engagement.

We aim to provide a holistic view of our sustainability performance through this report and trust that it serves the information requirements of our stakeholders. We welcome open and honest feedback on this report

**Jugal K Tandon**  
CEO – Corporate Sustainability

For any additional information or to provide feedback on this report, please write to us at [corporate.sustainability@jsw.in](mailto:corporate.sustainability@jsw.in)

## VISION MISSION AND VALUES



### OUR VISION

Global recognition for size, culture and quality, while nurturing nature and society

### OUR MISSION

Supporting the nation's growth in Power and Steel with Speed and Innovation



## OUR CORE VALUES

- Innovate and evolve
- Drive with excellence
- Building leaders
- Adopt youth policies
- Challenging the challenges

## OUR SUSTAINABILITY POLICY

- Be responsible & sensitive to Environment by ensuring that Gaseous & liquid effluents, if any, are superior or equal in quality compared to inputs & treat solid wastes to make them value added products.
- Be compliant “plus” with the norms & upgrade technology to address Climate Change issues proactively. Assist supply-chain partners to achieve similar goals.
- Continuous improvement in process efficiency to optimize usage of Natural resources. Encourage Recycle, Reuse & Reduce.
- Proactively support the community through Social Programmes in Sanitation, Health, Education, Women Empowerment, Skill building, Livelihood enrichment, Water conservation, Youth Development etc.
- Ensuring financial growth of the enterprise along with improvement of Human, Social & Natural Wealth
- Encourage all its employees & their families in Volunteering Programme to enable them participate in building the SOCIETY.
- Ensure Safety & Health of “All” engaged in Operations, Projects, Logistics & other activities across all locations.



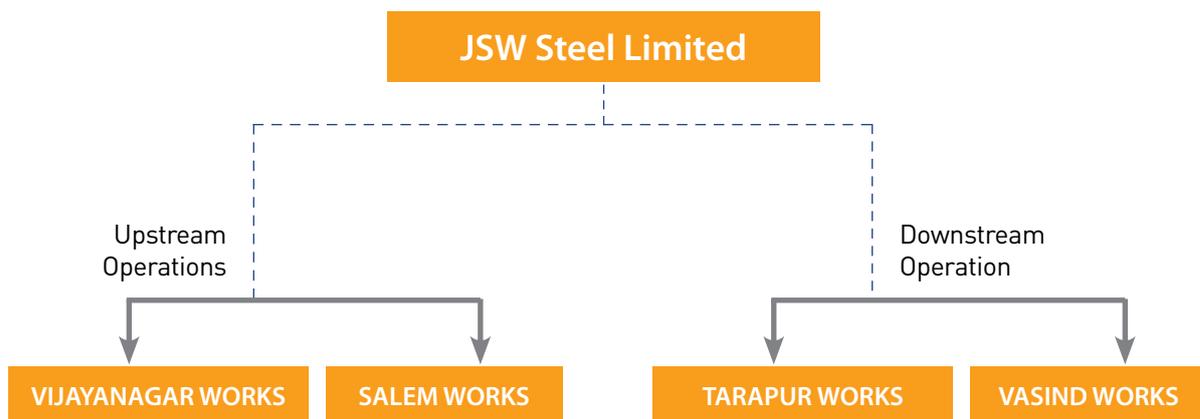
**With acquisition of majority stake in Ispat Industries Ltd. and the recent tie-up with Japan’s JFE Steel Corp, we have expanded our steelmaking capacity from 4.8 MTPA to 14.3 MTPA.**

JSW Steel Ltd., belonging to JSW group, part of the O P Jindal Group, is one of the lowest cost steel producers in the world. The group has diversified interest in mining, carbon steel, power, industrial gases, port facilities, Aluminium, Cement and Information Technology. We are engaged in manufacture of flat and long products viz. H R Coils, C R Coils, Galvanised products, Auto Grade / White Goods Grade CRCA Steel, Bars and Rods. Incorporated in 1994, we have grown to US \$ 5 billion in fifteen years. JSW Steel Limited has the largest galvanizing and colour coating production capacity in the country and is the largest exporter of galvanized products with presence in over 100 countries across five continents.

With acquisition of majority stake in Ispat Industries Ltd. and the recent tie-up with Japan’s JFE Steel Corp, we have expanded our steelmaking capacity from 4.8 MTPA to 14.3 MTPA with a portfolio of 23% of value added flat products spread across four locations – Vijayanagar, Salem, Vasind

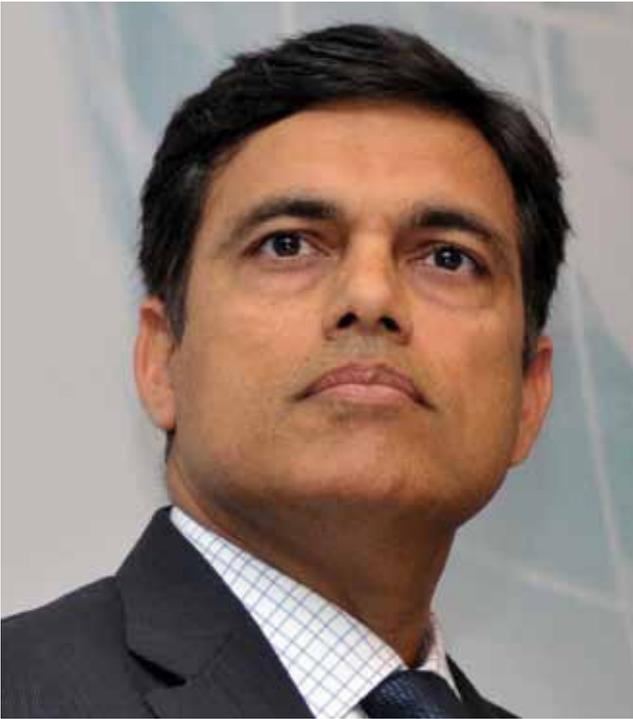
and Tarapur. Vijayanagar works in Karnataka has an existing capacity of 6.8 MTPA, comprising 5.3 MTPA of flat steel products (including 0.8 MTPA of value added flat products) and 1.5 MTPA of long products. We have implemented state-of-the-art manufacturing solutions at the cold rolling mill of Vijayanagar works to improve our automation efficiency. Salem works in Tamil Nadu has an operating capacity of 1.0 MTPA of long products while Vasind and Tarapur units in Maharashtra have a capacity of 1.0 MTPA of value added flat products.

We have established strong presence in the global value-added steel segment through the acquisition of a steel mill in US and a service center in UK. We have also formed a joint venture for setting up a steel plant in Georgia. Our tie-up with JFE Steel Corp, Japan, enables us to manufacture high grade automotive steel. In addition to steel making factories, we have acquired mining assets in Chile, USA and Mozambique.



	Hot Rolled	Cold Rolled	Galvanised	Pre-painted Galvanised	Jindal Vishwas
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	Hot Rolled	Cold Rolled	Galvanised	Pre-painted Galvanised	Jindal Vishwas
Products	<ul style="list-style-type: none"> <li>• HR Coil</li> <li>• HR Plates &amp; Sheet</li> <li>• HRPO</li> <li>• HRSPO</li> </ul>	<ul style="list-style-type: none"> <li>• CR Coil &amp; Sheet</li> </ul>	<ul style="list-style-type: none"> <li>• Galvanised Corrugated Sheet</li> <li>• GP Sheet &amp; Coil</li> </ul>	<ul style="list-style-type: none"> <li>• PPGI Coil</li> <li>• PPGI Sheet</li> <li>• PPGI Profile</li> </ul>	<ul style="list-style-type: none"> <li>• GC Sheets</li> </ul>
Applications	<ul style="list-style-type: none"> <li>• Automobile</li> <li>• Boiler and pressure vessel</li> <li>• Ship building</li> <li>• Railways</li> <li>• Transmission towers</li> <li>• Oil &amp; petro chemicals</li> <li>• Marine containers</li> <li>• Coal and mining</li> <li>• General and heavy engineering</li> </ul>	<ul style="list-style-type: none"> <li>• Automobile</li> <li>• White good</li> <li>• Cold rolled formed section</li> <li>• General engineering and fabrication</li> <li>• Packaging</li> <li>• Drums / barrels</li> <li>• Furniture</li> </ul>	<ul style="list-style-type: none"> <li>• Automobile</li> <li>• Boiler and pressure vessel</li> <li>• Ship building</li> <li>• Railways</li> <li>• Transmission towers</li> <li>• Marine containers</li> <li>• Coal and mining</li> <li>• General and heavy engineering</li> <li>• Oil &amp; petro chemicals</li> </ul>	<ul style="list-style-type: none"> <li>• Roof, wall cladding and other building products</li> <li>• Household appliances</li> <li>• Furniture</li> <li>• Automotives</li> </ul>	<ul style="list-style-type: none"> <li>• Roofing</li> <li>• Cladding</li> </ul>



**It is said that in  
the journey of life,  
more important  
than where you are,  
is where you are  
heading to...**

Dear Stakeholders,

At JSW Steel, we believe that change is the only constant; accelerating the value-creation momentum had been our main focus during the two years under review.

The year 2009-10 saw investments made in horizontal expansion. We commissioned the new state-of-the-art Hot Strip Mill and the CRM complex at Vijayanagar works. During 2009-10 we also laid the foundations of the new facility in Salboni, West Bengal. The year 2010-11 was characterized by backward integration through acquisition of strategic assets, both domestic and international. We acquired coking coal assets in USA, signed a technological collaboration agreement with equity participation with Japanese steelmaker JFE, and commissioned iron ore mines in Chile. The game-changer in domestic steel sector was the acquisition of a 45.53% majority stake in Ispat Industries that has a capacity of 3.3 MTPA with a scalability of 5 MTPA. This along with our other capacities at Vijayanagar & Salem will make us the largest Steel company in India.

We continue to pursue our ambitious growth plans with sustainability at the core of our operations. Our sustainability agenda rests on six identified focus areas. We engage with key stakeholders: employees, customers, suppliers, contractors, shareholders, regulatory authorities and NGO's to create better societal value through our products, services and operations. JSW Steel is also a signatory to the World Steel Association's sustainability charter that signifies our commitment to value the inter-dependence of environmental, social and economic aspects in decision-making to produce steel in a safe and sustainable manner.

JSW Steel during the year has conducted a comprehensive study to understand our water and carbon footprint of Vijayanagar Works and have partnered with various reputed agencies to further reduce our impact on Global Warming. Through product responsibility and innovation initiatives, we continue to pursue our aim to be reckoned as one of the lowest cost steel producers in the world.

I am particularly proud of our social responsibility initiatives, which continue to make a difference in the society and enhance quality of life of many. We have taken pioneering steps to set up JSW-Times of India Earth Care Awards for excellence in Climate Change mitigation and adaption. These awards have been very well received by various sections of Indian society.

We are moving ahead with unprecedented speed and have set into motion a growth wave of investment covering aggressive volume growth and innovative value addition in a responsible and sustainable manner. I sincerely appreciate the tremendous support of all our stakeholders and assure them that investment of their time, money and efforts in JSW Steel is an investment towards a commitment of improving the quality of life of all stakeholders through continuous and purposeful engagement in Economic progress, Social Responsibility and Environment concern.

**Sajjan Jindal**  
Chairman & Managing Director

## SUSTAINABILITY PERFORMANCE SNAPSHOT

### Vijayanagar Works

	Performance (2009-2010)	Performance (2010-2011)	Plans (2011-2012)
Energy and Climate Change	<ul style="list-style-type: none"> <li>By conserving energy and improving the yield the hot metal handling loss was reduced from 2.64% in the last year to 1.79% in this year.</li> <li>In order to improve energy recovery and utilization, the gas generated from the coke oven-3 was used as fuel in other plant operations and power generation.</li> <li>To conserve the use of fresh fuels, initiated addition of nut coke with sinters (a first at the Works) in the blast furnace. This facilitated nut coke consumption (otherwise not used in iron making) reducing lump coke consumption in iron-making.</li> </ul>	<ul style="list-style-type: none"> <li>16% increase of in-house manufactured coke from 2.32 million tonnes in 2009-10 to 2.7 million tonnes, reducing dependency on high-cost imported coke.</li> <li>Commissioned a pilot coke oven facility to blend coal for sustaining coke quality and productivity.</li> <li>Conducted carbon footprinting exercise</li> </ul>	<ul style="list-style-type: none"> <li>Measure the carbon footprint of every product and process, a European regulation expected to cascade to the India environment.</li> </ul>
Environmental excellence	<ul style="list-style-type: none"> <li>To enhance the resource productivity and waste management by creating a customer base for consumption of tar generated as a by-product from coke oven-3.</li> <li>To reuse the waste and improve resource productivity, utilized beneficiated iron ore fines and about 90 kg of plant solid waste per tonne of crude steel produced.</li> </ul>	<ul style="list-style-type: none"> <li>Altered the pellet making process, which eliminated dust generation in the pellet making process.</li> <li>Increased quantum of mill scale into the sinter feed; increased waste volume in sinter, reducing cost.</li> <li>Revamped the ESP at the sinter plant 1 for improved environment management.</li> <li>Conducted water footprinting exercise.</li> <li>Reused blow water from BF gear box, secondary cooling circuit of BF3, in GCP, saving 500 m<sup>3</sup>/day of make-up water; replaced industrial water with seepage water in slag granulation unit which saved 200 m<sup>3</sup>/day of make-up water.</li> <li>Reduced process wastage due to cobble, by pushing the billet nearest to the furnace exit door back into furnace on the detection of a cobble.</li> </ul>	<ul style="list-style-type: none"> <li>Work on the water audit report recommendations towards adopting integrated water management.</li> </ul>

	Performance (2009-2010)	Performance (2010-2011)	Plans (2011-2012)
Innovation and product responsibility	<ul style="list-style-type: none"> <li>Improved the utilization of low-grade iron through superior iron-ore recovery, commissioned the first phase of the beneficiation plant (BP-2) and stabilized the operations.</li> <li>Innovated products for oil pipeline sector for the first time in India, manufactured an average of 20,000 tonnes per month of API X-70 grade steel.</li> <li>Enhanced the product quality and acceptability: achieved an ovality index of less than 2 mm, which is the lowest in India.</li> <li>Improved productivity and product quality by maintaining a consistent pushing of material in 108 ovens (coke oven-1 and coke oven- 2) throughout the year and eliminated shocks to the coke ovens due to irregular pushing.</li> </ul>	<ul style="list-style-type: none"> <li>Entered into long-term arrangements for sale of tar and sulphur.</li> <li>Commissioned the beneficiation plant for up-gradation of Iron ore quality.</li> <li>Improved feed quality from beneficiation plants II and process modification, enhancing pellet production.</li> <li>Commissioned a coal briquetting unit to reduce hot metal production cost.</li> <li>Manufactured and supplied more than 150,000 tonnes of API X grade steel (for pipe manufacturing) to domestic and international markets.</li> <li>Developed 32 new grades of value-added steel.</li> <li>Received JFE Audit Certification at HSM 3 for being perfectly suited for rolling auto grade steel.</li> </ul>	<ul style="list-style-type: none"> <li>Commission the second phase of beneficiation plant II to process low grade fines to reduce costs and modernise beneficiation plant I in line with the technology of beneficiation plant II, enabling it to upgrade iron ore quality.</li> <li>Develop new product grades namely, EDD and IF grades skin panel for catering to MNC automobile clients.</li> <li>Roll substrata sourced from JFE facilities for meeting the requirements of global automotive players.</li> </ul>
Talent management	<ul style="list-style-type: none"> <li>To address the long term requirement of workforce development, the "Rajiv Gandhi Institute of Steel Technology" was established.</li> <li>Created an attachment trainee program to ensure transfer of tacit knowledge amongst employees.</li> <li>Included talent management as a part of the employee engagement survey.</li> </ul>	<ul style="list-style-type: none"> <li>Rolled out an implemented Annual Training Plan to equip employees across levels with knowledge and skill.</li> <li>Strengthened talent management process and identified more than two hundred high potential employees, across levels to build internal talent pool.</li> <li>Conducted employee engagement survey and facilitated implementation of action plan to raise employee engagement levels.</li> <li>Organised workshop titled 'Role of Women in the Corporate World' for the women employees which focused on managing challenges faced by working women in today's world.</li> </ul>	<ul style="list-style-type: none"> <li>Recruit more members for managing additional business volumes consequent to the complete commissioning of 3.2 expansion project.</li> <li>Strengthen the training initiative.</li> <li>Undertake expansion of residential colonies to cater to the additions to the team.</li> <li>Analyse the findings of the McKinsey survey, providing solutions to the critical issues as per the survey report.</li> <li>Building talent pool and leadership development.</li> </ul>

## Vijayanagar Works

	Performance (2009-2010)	Performance (2010-2011)	Plans (2011-2012)
Health and safety	<ul style="list-style-type: none"> <li>Enhanced the reliability and safety of plant operations by institutionalizing a scientific preventive maintenance schedule for all coke oven batteries without affecting production.</li> </ul>	<ul style="list-style-type: none"> <li>Optimised automatic sequence to increase productivity (from 121 tonnes per hour to about 129 tonnes per hour) and safety.</li> <li>Invested in central traffic control system for monitoring movement and safety at the raw material receipt yard to track and control the overall movement of trains inside JSW.</li> </ul>	<ul style="list-style-type: none"> <li>Further focus on behavioural and operational safety to eliminate occurrence of any incident.</li> </ul>
Community development	<ul style="list-style-type: none"> <li>Established Computer Aided Learning Centre in schools.</li> <li>Provided meals to about 60,000 children covering 480 schools through the Mid-day Meal programme.</li> <li>Create Self Help Groups through collateral free credit programmes aimed at income generation and thereby promoting sustainable livelihood opportunities to the poor women in villages around Vijayanagar Works.</li> <li>Established OPJC to empower the rural youth for livelihood promotion'. Each programme consists of modules of modular employable skills as per scheme of Ministry of Labour &amp; Employment, Govt. of India for trades like Welder, Crane Operator and Mechanical Maintenance Mechanic (Mechanical Discipline) &amp; Electrical Maintenance Mechanic and Electric AC Motor Winding Mechanic.</li> <li>Established Tamanna a school for differently abled children. This school strives to make these children financially independent by imparting vocational skills and training to the mentally challenged children and to develop possible income generating venture for them.</li> </ul>	<ul style="list-style-type: none"> <li>Conducted 36 general health camps in 22 villages and 5,914 patients screened were provided with free medicines as per the need of the patients.</li> <li>Four new Computer Aided Learning Centers (CALCs) were set up, benefiting 2,300 primary school children.</li> <li>526 children in 16 balawadis, 530 children in 20 mobile library centers &amp; 492 slow learners in 20 villages have been benefited by the activities of Village Child Learning Centers.</li> <li>29 new women SHGs were formed.</li> <li>Organised exposure visit on sustainable agriculture practice, plantation of trees (horticulture and forest species) in the selected farmers' field and trained farmers on composting, Vermicomposting and preparation of panchagavya for 29 farmers have been identified from 5 villages.</li> <li>Selected Basapura village for holistic infrastructure development and various infrastructure projects were taken up.</li> </ul>	<ul style="list-style-type: none"> <li>Further focus on Primary Education, Infant &amp; Maternal Mortality, and Environment Conservation -Millennium Development Goals of the United Nations.</li> <li>Expand the scope of vocational training and education.</li> </ul>

## Salem Works

	Performance (2009-2010)	Performance (2010-2011)	Plans (2011-2012)
Energy and Climate Change	<ul style="list-style-type: none"> <li>Improved energy performance of the plant through commissioning of an energy optimization furnace in the steelmaking shop.</li> <li>Conserved fuel consumption by increasing the injection of PCI coal in the blast furnace thus reducing the consumption of scarce coke.</li> </ul>	<ul style="list-style-type: none"> <li>Modified the waste heat boiler of the coke oven plant which allowed 10% more waste heat to be recovered for onward power generation.</li> </ul>	<ul style="list-style-type: none"> <li>Implement modifications in the waste heat recovery boilers at the coke ovens for cost-effective power generation.</li> </ul>
Environmental excellence	<ul style="list-style-type: none"> <li>Recycled and reused waste through the sinter plant. This is the largest consumer of solid process waste in India.</li> </ul>	<ul style="list-style-type: none"> <li>Developed a unique air-conditioner which performed very well in dust-prone areas – example, hot metal zones, crane cabins, resulting in improved working conditions and productivity.</li> <li>Increased mill scale utilisation in the sinter manufacturing process as a cost effective replacement for iron ore without impacting product quality.</li> <li>Replaced two-thirds of river sand used in the blast furnace runner with EOF slag fines, facilitating waste recycling.</li> <li>Introduced flue dust from the blast furnace as an additive in the cement manufacture, which improved cement productivity for the cement company and dispose a process waste for the steel maker.</li> </ul>	<ul style="list-style-type: none"> <li>Upgrade de-dusting units at the blast furnaces and steel melting shop for better environment management.</li> </ul>
Community development	<ul style="list-style-type: none"> <li>Introduced garment making courses for women from surrounding villages.</li> <li>Started adult literacy programme for employees.</li> <li>Provided water facility to village people through water pipe outlets at various points along the plant boundary.</li> <li>Channelized canal to divert storm water for harvesting during monsoon.</li> <li>Built toilet facilities for nearby villages.</li> </ul>	<ul style="list-style-type: none"> <li>Conducted Eye and Dental care camps for the school in and around the plant.</li> <li>Constructed public bathroom &amp; toilet at Pottaneri &amp; Kallipatti panchayat and overhead tank with borewell.</li> <li>Supported construction of school building and orphanage building near to plant.</li> </ul>	<ul style="list-style-type: none"> <li>Provide teaching aids to ITI, Mettur.</li> <li>Conduct eye and dental camps for the schools in and around plant.</li> <li>Support construction of children hospital.</li> </ul>

## Salem Works

	Performance (2009-2010)	Performance (2010-2011)	Plans (2011-2012)
Innovation and product responsibility	<ul style="list-style-type: none"> <li>Innovated products for diverse application and manufactured about 250 steel grades.</li> </ul>	<ul style="list-style-type: none"> <li>Developed more than 100 product grades for diverse customer requirements, largely focused on the automotive and auto-component sectors; each grade being customised for a specific customer.</li> <li>Injected chemical fluxes with coal fines in the blast furnace, reducing silica variations in the hot metal and improving productivity in the steel making shop, a first for the Indian Steel Industry.</li> <li>Optimised processes with minimal variations; modified process parameters in the ladle furnace, reducing oxygen in steel by 3 ppm and nitrogen by 8 ppm. This helped develop a larger number of grades and guarantee steel with an oxygen content &lt;12 ppm (an international benchmark).</li> </ul>	<ul style="list-style-type: none"> <li>Work with automotive OEMs to develop high-strength steel for leaf springs, reducing steel consumption and increasing fuel consumption per vehicle.</li> <li>Accelerate product approvals from OEMs.</li> <li>Work closely to develop automotive gear steels for applications which are being imported.</li> </ul>

## Vasind and Tarapur Works

	Performance (2009-2010)	Performance (2010-2011)	Plans (2011-2012)
Energy and Climate Change	<ul style="list-style-type: none"> <li>Reduced energy consumption by an estimated 10% through installation of VVF drives in compressors and blowers in various plant sections at Tarapur and Vasind.</li> <li>Created awareness on energy management, improved and monitored control charts and SOPs in galvanizing and colour-coating sections to reduce power consumption.</li> <li>Conducted more than 25 small group activities at both locations to improve productivity and optimize energy consumption.</li> <li>Commissioned a 30 MW thermal power plant to reduce power costs. Post commissioning, the downstream units have emerged as net surplus power generators, with the additional power being wheeled to the state electricity grid.</li> </ul>	<ul style="list-style-type: none"> <li>Achieved the highest plant load factor of 102.56% (December 2010) in the newly commissioned 30 MW power plant at Tarapur.</li> <li>Replaced DC drives with AC drives in one galvanising line, saving 4 units of power per tonne and reducing breakdowns at Tarapur.</li> <li>Developed and installed an auto soot blowing system in a waste heat recovery boiler for superior operations at Vasind.</li> <li>Replaced existing electrical drives and conventional acid pumps with energy-efficient variants at Vasind.</li> </ul>	<ul style="list-style-type: none"> <li>Install Regenerating Re-generative Thermal Oxidiser in the colour coating line (CC11) to reduce LPG consumption at Tarapur.</li> <li>Commissioning of Natural gas project at Vasind (from LPG/Furnace oil to natural gas); the gas pipeline is being routed by GAIL. The fuel conversion will be at the HR plate mill (furnace oil to natural gas) and the galvanising facility (from LPG to natural gas).</li> </ul>

## Vasind and Tarapur Works

	Performance (2009-2010)	Performance (2010-2011)	Plans (2011-2012)
Environmental excellence	<ul style="list-style-type: none"> <li>Conducted more than 25 small group activities at both locations with a focus on productivity, energy and environment management.</li> </ul>	<ul style="list-style-type: none"> <li>Introduced the Eloguard chemical in the water used in the boiler, reducing DM water consumption in the power plant by 40% at Tarapur.</li> <li>Commissioned the Ammonia Injection system to ensure the SPM level from stack remains within the permissible incase of non-functioning of the ESP – an important environment management initiative at Tarapur.</li> <li>Commissioned a dry fog system in the coal and ash handling system to control coal and ash dust emissions.</li> <li>Established an environment control laboratory to check ambient air, stack and in-plant sampling, drinking water and effluents at Vasind.</li> </ul>	<ul style="list-style-type: none"> <li>Further focus on emissions and water management by adopting latest environmental technologies and systems.</li> </ul>
Innovation and product responsibility	<ul style="list-style-type: none"> <li>Introduced 12 value-added product grades with diverse sectoral applications.</li> </ul>	<ul style="list-style-type: none"> <li>Increased the production of thinner gauges (&lt;0.20 mm) at Tarapur for export.</li> <li>Launched Paragti, a new product with lower zinc and paint coating for roofing application; this product was launched in West Bengal, Maharashtra and Gujarat.</li> <li>Commissioned the 1220 mm wide sophisticated Senfung machine at Vasind, which provides multiple profiles to galvanised sheets, generating scratch-free sheets with uniform profile and precise length accuracy.</li> </ul>	<ul style="list-style-type: none"> <li>Modify the flux line in the 'heat to coat' furnace continuous coating line, boosting production by around 2,900 tonnes a month at Tarapur.</li> <li>Enhance the furnace capacity of CSD1 from 12 TPH (full hearth) to 16.5 TPH, permitting the team to develop new product grades at Tarapur.</li> </ul>
Community development	<ul style="list-style-type: none"> <li>Provided training to school drop outs and other students in various trades like welding, tailoring, beautician, etc. through the Vocational Training Centre in Vasind.</li> <li>Organized periodic health camps for the community in the Mahuli area in Vasind through the MAHULI Health Project.</li> <li>Extended the mid-day meal in Tarapur to over 590 schools</li> <li>Adopted an ITI at Tarapur under Public Private Partnership to promote training of youth.</li> </ul>	<ul style="list-style-type: none"> <li>The Shramsadhana Vocational Training Centre (SVTC) at Vasind has expanded to cover 1393 students.</li> <li>Along with Thane district sports council organized a ten day women self defence camp for rural women.</li> <li>JSW adopted Prerna Scheme with JSK (a unit of the Ministry of Health and Family Welfare) to discourage early marriages and early pregnancies.</li> </ul>	<ul style="list-style-type: none"> <li>Focus on infrastructure development of village schools.</li> <li>Upgrade primary health care facilities across Vasind and Tarapur.</li> <li>Expand the vocational training centre.</li> <li>Expand the pre-school (balwadi) centres.</li> </ul>

## ▶ MANAGING STAKEHOLDER EXPECTATIONS

**In light of increasingly complex challenges, the dialogue with different stakeholder groups is becoming critical for business success. The stakeholder engagement, implemented effectively, serves as a major driver of continuous sustainable improvement.**



Regular engagement with stakeholders enables us to integrate and address their expectations and concerns into our business strategy. We engage with employees, customers, suppliers, society, local communities, NGOs, shareholders and financial institutions through a wide range of communication channels.

Our focus is to provide an opportunity for our stakeholders to state their expectations, raise their concerns and provide feedback on our performance. We conduct surveys, organize public hearings and schedule site-visits to gain feedback from various stakeholder groups. At the shop floor, we have created initiatives such as 'Soundboard' and 'Voice of the People' to facilitate greater employee input in order to enhance our HR systems and policies.

In light of increasingly complex challenges, the dialogue with different stakeholder groups is becoming critical for business success. The stakeholder engagement, implemented effectively, serves as a major driver of continuous sustainable improvement. In the past year, we have adopted a more

systematic approach to our dialogue with stakeholders. With best of our efforts, we strive towards making our stakeholder dialogue into an active stakeholder management system. Further details on our stakeholder engagement can be accessed through our previous sustainability report at [http://www.jsw.in/companies/JSWSteel\\_Sustainability\\_Report0911.pdf](http://www.jsw.in/companies/JSWSteel_Sustainability_Report0911.pdf)

### **Facilitating supplier and transporter management**

We at JSW have always innovated in our logistics management to improve our operational performance. We regularly engage with our suppliers and transporters to involve them in our performance enhancement process while proactively addressing their concerns and understanding their expectations. This year we have done an extensive exercise with our suppliers and transporter for Vijayanagar works which resulted in innovative initiatives, improving our operational performance.

We have developed an exchange yard / peripheral yards (with total 26 lines) that are technically graded into separate grids and



de-bottled for safe and secure movements. We have enhanced our tipping capacity to unload and release these wagons at a faster rate. This has enabled us to not only improve our unloading rate but also promoted safe and secure movements. To meet the requirements of our next expansion, we are developing a track hopper, a first in India, where iron ore will be transported by bottom discharge wagon.

This will enable us to unload the full rake in around 2.5 hours. We have also developed a dedicated iron-ore corridor (spread over 22 km) from Nandihalli and Ramanadurga mines to the Vijayanagar Works for iron-ore transportation. We have added an additional entry a raw material receipt yard for incoming rakes from Hospet / Goa to overcome congestion caused on existing serving railway station by engine reversals.

This helped to save an average of minimum two hours per rake along with a monetary saving of INR 1.5 million per day for the railways. Software was developed for generating details of wagon and rake loading, reducing documentation time and improving accuracy.

We have initiated the direct loading of finished steel into the rakes to most finishing mills to minimize material handling, shifting and saving time. We have focused on increased road transportation to address increase in logistic needs through following initiatives:

Introduced pan-India dedicated fleet owners.

- Introduced pan-India dedicated fleet owners.
- Introduced multi-model transportation to de-risk against rakes shortages (road-rail-road, rail-road, road-rail, rail-barge, road-barge).
- Reduced the turnaround time of commercial vehicles from four hours in 2008-09 to about three hours in 2009-10.
- Ensured adequate storage capacity and handling equipment.
- Improved yard management.

We further have plans to develop multi-model logistics to ensure rake availability and accelerate delivery of growing volumes in the coming year.

**Creating a roadmap for addressing these key issues would help us leverage on our business prudence to accomplish our goal of creating long term stakeholder value.**

We have always focused on integrating sustainability aspects into our business planning. We believe that sustainability will play a key role for us to achieve our ambitious growth plans and derive a competitive edge over our peers. We have analyzed our sustainability risks and opportunities and identified six focus areas. Creating a roadmap for addressing these key issues would help us leverage on our business prudence to accomplish our goal of creating long term stakeholder value.

### **Energy and Climate change**

We aim to be reckoned as the steel manufacturer with best energy performance and low emissions intensity. We continually strive to improve our energy performance and have implemented many innovative initiatives to reduce our energy consumption by actively pursuing process modification and modernization along with energy recovery and reuse across our operations. We also promote energy conservation as an important aspect of plant performance and benchmark it with the industry leaders.

We are committed to climate change mitigation and adaptation, with a focus on energy management and conservation, to contribute to lower GHG emissions. Our endeavour is to continue to deploy the best-in-class technologies across our manufacturing operations. We have initiated deployment of IT systems to map and report our carbon footprint on a periodic basis.



### **Environmental excellence**

We improve our operational efficiencies by increasing our resource productivity. Steel waste from external and internal sources is reused, thereby reducing the requirement for equivalent virgin materials. Recognising the growing importance of water management, we recycle and reuse water apart from managing effluent discharge in an environmentally sound manner. We have implemented robust environmental management systems across our manufacturing units and aim to further improve our performance by pursuing opportunities to reduce our impact and adopting environment-friendly technologies.

### **Product responsibility and Innovation**

We have always accorded priority to providing our customers with products of best quality that add value. Our prudent business operations coupled with innovation have helped us manufacture products at significantly lower costs without compromising on product quality, while our strong



distribution network has helped us penetrate the market and reach out to all strata of the society. By improving our operational efficiency and strengthening our distribution network we aim to drive cost stewardship. We lay a special emphasis on the rural markets of India, with significantly low per capita steel consumption, to seize the market potential and provide affordable solutions.

### **Intellectual capital management**

Employees are our key assets. We invest in developing our intellectual capital through various structured training programs and focus on grooming our next generation leaders by providing them with challenging opportunities. The contributions of our employees are duly recognized and rewarded. Our aim is to provide an innovative work environment which would enable our employees to achieve their potential and in turn contribute to our overall success.

### **Health and Safety**

We view employee health and safety as a critical operational

performance parameter. We are committed to providing a safe and healthy work environment for our employees and contractors on-site and for the society off-site. Our safety performance has improved over the years owing to our concerted efforts in creating awareness and imbibing safety in every aspect of the work. Our target is to invest in best-in-class processes and behavioural safety measures towards achieving zero accidents.

### **Community development**

We strongly believe in giving back to the community and significantly invest in developmental initiatives in the areas of education, livelihood generation, health, women empowerment and arts, heritage and culture. We have aligned our community development initiatives to United Nations Millennium Development Goals to support and contribute to the nation's progress on these goals. We actively engage with communities surrounding our operations and partner with NGOs to ensure inclusive growth.

At JSW Steel, we believe that business conduct with social, environmental and economic considerations is the key towards achieving responsible citizenship. At the heart of our corporate governance policy is an ideology of transparency and openness in the way the Management and the Board function. Our Board with balanced mix of experts of eminence and integrity are at the core of engaging and promoting ethical business practices.

### Board of Directors

As on 31.03.2011, the Board of Directors comprises of 14 Directors, of which 10 are non-executive. The Chairperson is non-executive and a promoter of the Company. The Directors are appointed by shareholders at General Meetings.

### Internal Controls and Audit

At JSW, we have a strong internal audit department comprising 25 executives who report to the audit committee. Most of our operations are covered by ERP system and are supported by a defined online authorization protocol. The successful integration of the COSO framework with our audit processes has enhanced the quality of financial reporting and compatibility with business ethics.

The internal audit department works on a risk based audit plan which is approved by the audit committee. We have instituted a Corporate Sustainability Cell, headed by the CEO - Corporate Sustainability, to manage the sustainability agenda at JSW Steel. At each manufacturing operation we have Environmental and CSR Cells to plan and implement environmental and social initiatives.

In addition, each plant follows the CREP guidelines given by the MoEF for integrated steel plant operations. We have a structured system of ensuring and reviewing compliance to all applicable legal requirements. The respective functional heads give a compliance certificate to the JMD & Group CFO who along with the CFO & Company Secretary

gives Compliance certificates quarterly to the Board. We intend to include impact and monitoring of effectiveness of sustainability initiatives in near future. Towards this end, we recognize the need to develop databases /MIS to capture information on non-financial performance aspects in a consistent and consolidated manner.

### Risk Committee

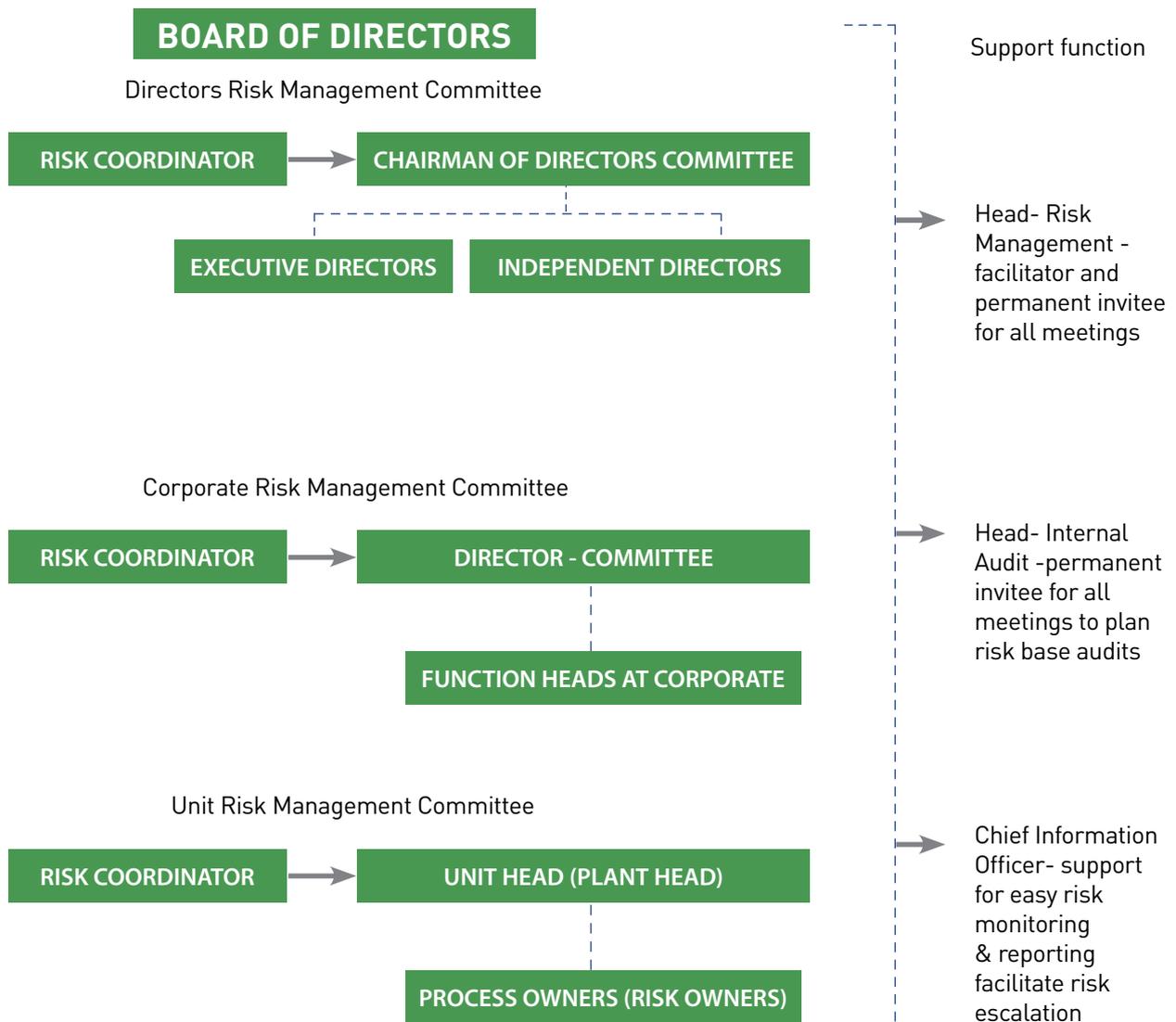
The company has been following the Committee of Sponsoring Organizations' (COSO) framework of Enterprise Risk Management (ERM) to anticipate & respond to risks & opportunities proactively, cohesively & consistently & to ensure resilience & sustainable growth.

Ownership of process specific risks remains with process owner who is expected to anticipate & communicate to all. Regular interactions take place at units & corporate offices to understand interdependencies, prioritise consistently & respond proactively. Subcommittee of Directors consisting of all executive & 3 independent directors oversees the framework.

Top risks relating to investments, projects, markets, infrastructure, logistics, materials, technology, operations, performance, systems & processes, environment, health, safety & CSR are discussed for proactive response. Also process specific risks with high impact & velocity are discussed for specific actions to be taken by respective process owner. All these activities are coordinated by Head Risk Management.

### Management Systems

We believe in a robust and strict monitoring mechanism for all our processes and by doing so, we continuously strive for improvements. Our operations at Vijayanagar and Salem are ISO 9001, ISO 14001 and OHSAS 18001 certified. We continually strive to improve by identifying initiatives through several forums and systems. These include customer feedback, activities identified under EMS, QMS and OHSMS, quality circles, cross functional teams, six sigma, TPM and TQM.



**JSW Steel has been recognised across industry as one of the most responsible organisations. A host of Awards over the years are a testament to this fact.**

### **National Award for Excellence in Energy Management 2010**

Excellent Energy Efficient Unit Award 2010 at National Award for Excellence in Energy Management 2010 conducted by CII - Godrej GBC on September 1 & 2, 2010 at Chennai Trade Centre, Chennai.

### **Karnataka Chapter Safety Award 2009**

Unnatha Suraksha Puraskara, for outstanding safety performance and management systems in Metals category of industries during 2006-08, by National Safety Council, Karnataka Chapter. (09 September 2009, Bengaluru).

### **Best Practices in Talent Management Award 2010**

"Performance Excellence Trophy in the Manufacturing Category" by Indian Merchant Chambers Quality Cell. (19 March 2010, Mumbai).

### **National Award for Excellence in Water Management 2010**

Excellent Water Efficient Unit Award 2010 at National Award for Excellence in Water Management 2010 conducted by CII, ember 10 & 11, 2010 at Hyderabad.

### **National Sustainability Award 2010**

First Prize amongst the Integrated Steel Plants Category. The award was presented at 48th National Metallurgists Day Celebrations and 64th Annual Technical Meeting of Indian Institute of Metals, on November 14, 2010 at Bangalore.

### **CII-EXIM Award 2010**

Excellent Energy Efficient Unit Award 2009 for Best Energy Management Practices, by CII Godrej Green Business Centre. (20 November 2009, Chennai).

### **Young Metallurgist of the Year Award 2010**

Mr. Prachethan Kumar, Manager (R&D and SS), was conferred with 'Young Metallurgist of the Year Award - 2010' at the 48th National Metallurgists' Day Celebrations held on November 14, 2010 at Banagalore.

### **The Best Performing CFO in Metals & Commodities Sector 2010**

Mr. Sheshagiri Rao M.V.S, Jt. Managing Director & group CFO was awarded 'the Best Performing CFO in Metals & Commodities Sector' by CNBC TV18 on October 27, 2010

### **IMC Ramkrishna Bajaj National Quality Award 2010**

"Performance Excellence Trophy in the Manufacturing Category" by Indian Merchant Chambers Quality Cell. (19 March 2010, Mumbai).



**Global HR Excellence Award  
2010**

Global HR Excellence Award 2010 for Innovative HR Practices at Asia Pacific HRM Congress held on September 3, 2010 at Bangalore.

**CII-EXIM Award  
2009**

“Commendation Certificate for Significant Achievement” for Business Excellence by Confederation of Indian Industries. (17 December 2009, Delhi).

**Institution Building Award by World HR  
Congress  
2009**

“Commendation Certificate for Significant Achievement” for Business Excellence by Confederation of Indian Industries. (17 December 2009, Delhi).

**Greentech Environment Excellence Award  
2009**

Gold award in metal and mining sector for outstanding achievement in Environment Management (10 October 2009, Kovalam)

**National Award for Excellence in Energy  
Management 2009**

Excellent Energy Efficient Unit Award 2009 for Best Energy Management Practices, by CII Godrej Green Business Centre. (20 November 2009, Chennai).

**Metallurgist of the Year Award  
2009**

Dr. Madhu Ranjan, VP (R&D and SS), has been conferred with ‘Metallurgist of the Year Award - 2009 instituted by the Ministry of Steel, Govt. of India, at the 47th National Metallurgists’ Day Celebrations. (14 November 2009, Kolkata).

## PERFORMANCE REVIEW

Upstream Operations	2010-11	2009-10	2008-09	2007-08	2006-07
<b>Environmental Performance</b>					
Total Production (million tons)	6.43	5.99	3.27	3.22	2.69
<b>Material consumption</b>					
Coal (million tons)	9.40	8.81	4.70	5.68	5.13
Iron ore (million tons)	14.42	11.41	6.39	6.00	5.65
Fluxes (million tons)	3.35	3.30	2.04	2.03	1.63
<b>Material Recycled</b>					
Material recycled ('000 tons)	708.29	609.21	306.27	310.91	188.68
Material recycled (%)	11.02	10.18	9.37	9.67	7.02
<b>Energy Consumption</b>					
Direct energy consumption ('000 GJ)	168,686	233,192	130,479	148,080	115,921
Indirect energy consumption ('000 GJ) <sup>1</sup>	2,747.69	6,073.02	--	--	--
Energy saved due to conservation ('000 GJ)	14,331.64	22,022.51	74,266.06	77,231.57	65,032.89
<b>Water Consumption</b>					
Total water consumption ('000 cu. M) <sup>2</sup>	28,114.50	24,512.40	11,618.57	12,470.90	8,685.69
Total water recycled ('000 cu. M)	4,584.63	2,680.84	5,148.20	5,522.72	1,526.40
<b>Greenhouse gas emissions</b>					
Direct emissions ('000 tons of CO <sub>2</sub> eq.)	13,561.86	12,651.88	10,085.50	9,392.09	9,067.82
Indirect emissions ('000 tons of CO <sub>2</sub> eq.) <sup>1</sup>	1,494.12	889.87	--	--	--
Emissions of ODS (tons of CFC-11 eq.)	0.030	0.002	0.088	0.086	0.089
<b>Total air emissions</b>					
SPM ('000 tons/year)	9.48	8.22	4.83	3.99	2.42
SO <sub>x</sub> ('000 tons/year)	7.17	6.49	4.29	2.54	1.18
NO <sub>x</sub> ('000 tons/year)	9.35	8.05	5.05	3.96	3.02
<b>Solid waste utilisation (%)</b>	<b>75</b>	<b>90</b>	<b>85</b>	<b>82</b>	<b>89</b>
<b>Workforce Breakdown</b>					
Management (nos)	2,532	2,447	2,197	1,959	1,476
Non-management (nos)	4,468	3,400	2,640	2,196	1,477
Contractual Labour (nos)	5,996	6,240	7,361	5,993	3,489
<b>Employee Turnover</b>					
<b>Age Wise:</b>					
<30 years of age (nos)	398	748	219	337	NA
30-50 years of age (nos)	114	190	71	88	NA
>50 years of age (nos)	50	28	10	12	NA
<b>Gender Wise</b>					
Male (nos)	529	894	281	401	NA
Female (nos)	33	72	19	36	NA

## UPSTREAM OPERATIONS

Upstream Operations	2010-11	2009-10	2008-09	2007-08	2006-07
<b>Training Performance</b>					
Management (manhours)	29,074	200,456	169,940	180,876	169,856
Non-management (manhours)	37,622	112,566	229,080	183,284	86,184
Contract Labour (manhours)	110,808	36,824	267,588	230,712	NA
<b>Safety Performance</b>					
Injuries (nos)	58	97	46	46	39
Injury rate (per 100 workforce)	0.257	0.438	0.375	0.375	0.480
Lost days <sup>3</sup> (nos)	4,531	3,546	1,315	2,515	2,412
Lost day rate (per 100 workforce)	20.09	16.01	10.72	20.50	29.68
Man hours worked (million hours)	45.10	44.31	24.54	24.54	16.25
Fatalities (nos)	4	4	2	0	0

World Steel Association's Performance Parameters	Units	Industry average (2010)	2010-11	2009-10
Investment in new processes and products	% of revenue	8.8	0.17	0.06
Economic Value Distributed	Billion USD	477	4.79	3.69
Economic Value Distributed	% of revenue	83	73.75	74.25
Energy Intensity*	GJ/tonne of crude steel cast	20.1 (p)	26.34	40.57
Greenhouse gas emission*	Tonnes CO <sub>2</sub> /tonne of crude steel cast	1.8 (p)	2.31	2.30
Material efficiency*	% of material converted to products and by-products	97.7	71%	NA
Environmental Management Systems (EMS)*	% of employees and contractors in EMS-registered production facilities	88.5	58.67	69.50
Employee Training*	Training days/Employee	6.7	1.19	6.69
Lost Time Injury Frequency Rate* <sup>^</sup>	Injuries / million hours worked	2.3	2.19	1.29

(p) - preliminary; data collection in progress by World Steel Council

\* Values for upstream operations at Vijayanagar and Salem

<sup>^</sup> Lost time injury – as per The Factories Act, 1948 of India

<sup>1</sup> There was no indirect energy purchased during FY 2006-07, FY 2007-08, FY 2008-09 and hence no related indirect emissions

<sup>2</sup> This year we have reconciled the water consumption data at the Vijayanagar Works to ensure consistency with the boundary of reporting and accordingly the values stated for the FY 2006-07, 2007-08 and 2008-09 have been restated.

<sup>3</sup> As per global reporting practice, we have reported the number of lost days sans fatalities. As per Indian regulations, each fatality is equivalent to 6000 lost days.

## PERFORMANCE REVIEW

Downstream Operations	2010-11	2009-10	2008-09	2007-08	2006-07
<b>Environmental Performance</b>					
Total Production ('000 tons)	1,182	1,329	1,058	1,863	1,718
<b>Material consumption</b>					
Zinc & alloy ('000 tons)	41.18	40.86	31.98	32.63	30.28
Hot rolled coils ('000 tons)	912.48	862.63	852.19	911.98	843.10
Slabs ('000 tons)	149.30	329.27	247.11	235.54	213.95
Cold rolled coils ('000 tons)	34.10	57.63	--	--	--
Packaging material ('000 tons)	3.37	3.59	2.25	2.48	6.55
<b>Material Recycled</b>					
Material recycled (tons)	390.18	280.65	385.69	345.22	427.00
<b>Energy Consumption</b>					
Direct energy consumption ('000 GJ)	1,371	1,783	1,686	2,123	2,063
Indirect energy consumption ('000 GJ)	229.13	348.46	424.84	271.55	291.06
Energy saved due to conservation ('000 GJ)	3.02	3.66	13.07	19.78	7.42
<b>Total water consumption ('000 cu. M)</b>	<b>1,172.82</b>	<b>1,083.35</b>	<b>943.98</b>	<b>1,015.32</b>	<b>1,018.73</b>
Total water recycled <sup>1</sup> ('000 cu. M)	84.52	22.35	13.17	23.55	319.19
Total water discharged <sup>1</sup> ('000 cu. M)	225.05	152.54	159.72	187.64	175.57
<b>Greenhouse Gas Emissions</b>					
Direct emissions ('000 tons of CO <sub>2</sub> eq.)	124.29	138.92	121.54	154.39	151.04
Indirect emissions ('000 tons of CO <sub>2</sub> eq.)	234.18	154.09	105.03	67.13	71.96
Emissions of ODS (tons of CFC-11 eq.)	0.011	0.015	0.132	0.163	0.077
<b>Total air emissions</b>					
SPM (tons/year)	157.06	313.31	143.12	73.90	130.89
SO <sub>x</sub> (tons/year)	468.56	831.77	1,101.23	1,245.38	1,140.51
NO <sub>x</sub> (tons/year)	18.31	28.05	12.78	7.94	8.59
<b>Total waste disposed</b>					
Hazardous waste ('000 tons)	29.54	29.76	30.19	32.33	28.09
Non-hazardous waste ('000 tons)	8.06	10.25	50.39	49.38	62.27
<b>Workforce Breakdown</b>					
Management (nos)	411	390	396	404	589
Non-management (nos)	739	1,045	1,061	1,070	897
Contractual Labour (nos)	1,133	1,142	1,091	891	976
<b>Employee Turnover</b>					
<b>Age Wise</b>					
<30 years of age (nos)	23	20	15	37	NA
30-50 years of age (nos)	25	11	10	12	NA
>50 years of age (nos)	11	4	7	10	NA

## DOWNSTREAM OPERATIONS

Downstream Operations	2010-11	2009-10	2008-09	2007-08	2006-07
<b>Gender Wise</b>					
Male (nos)	57	35	30	58	NA
Female (nos)	2	0	2	1	NA
<b>Training Performance</b>					
Management (manhours)	4,894	4,339	10,246	7,691	4,389
Non-management (manhours)	4,813	2,317	7,541	5,107	2,601
Contract Labour (manhours)	2,421	1,338	484	219	NA
<i>* The values for FY 2010-11 include Vasind and Tarapur works while data for previous years include only Vasind works</i>					
<b>Safety Performance</b>					
Injuries (nos)	1	4	4	7	8
Injury rate (per 100 workforce)	0.039	0.104	0.139	0.252	0.207
Lost days (nos) <sup>2</sup>	95	58	86	101	899
Lost day rate (per 100 workforce)	3.66	1.51	3.00	3.64	23.23
Man hours worked (million hours)	5.19	7.68	5.74	5.56	7.74
Fatalities (nos)	1	0	1	0	0

<sup>1</sup> The values for FY 2010-11 include Vasind and Tarapur works while data for previous years include only Vasind works

<sup>2</sup> As per global reporting practice, we have reported the number of lost days sans fatalities.  
As per Indian regulation each fatality is equivalent to 6000 lost days.

**At JSW steel, we believe that business conduct with a social, environmental and economic backdrop is key towards achieving responsible citizenship. We have laid a strong foundation for making corporate governance a way of life by constituting a Board with balanced mix of experts of eminence and integrity, forming a core group of top level executives.**



The period 2010-2011 would be marked as an important period for the global steel industry. In 2010, global steel production grew 15%, to 1,414 Million Tonnes (MT) while the consumption grew 13.1% to 1,283 MT. The growth is significant considering the huge downslide in steel production and consumption in the last quarter of 2008 (due to the global economic crisis). The growth in 2010 exceeded the previous record set in 2007. The Indian economy was one of the fastest growing economies to recover from the economic crisis, registering a second year of accelerated growth.

The Indian economy grew at a robust rate of 8.5 % in 2010 -11 (8% in 2009-10). However, the current issue of controlling inflation while pursuing growth remains a key challenge to be addressed. In 2010-11, domestic steel consumption grew at a healthy 10% from 59 MT in 2009-10 to 66 MT, owing to strong demand from the infrastructure, construction, automobile and industrial sectors. Rising production capacities has reduced India's import dependency from 13% in 2009-10 to about 10% in 2010-11.

During the period 2009-11, we took various strategic initiatives to improve our volumes and profitability, which helped us post an impressive performance. The 2.8 MTPA crude steel expansion project at Vijayanagar works commenced commercial production on 10 April 2009 enhancing the crude steel manufacturing capacity to 6.8 MTPA and scaling up our overall steel manufacturing capacity to 7.8 MTPA. With the completion of this expansion project, we have scaled new heights as a leading player in the steel industry in the country.

Consequently, we achieved a significant volume growth of 72.6% in crude steel production and 77.9% in saleable steel during the current year, compared to that of last year, despite disruptions in the plant operations at Vijayanagar Works due to unprecedented and incessant rains followed by floods in southern part of India in October 2009. The manufacturing unit achieved steady state operations by December 2009. At Vijayanagar, ore availability improved from captive mines. As a result of stabilisation of operations at HSM2, the volume of HR products has increased significantly. Salem Works



emerged as the largest special steels unit in India following the commissioning of a blooming mill. Products from these units received approvals from a number of global OEMs. The downstream (Tarapur and Vasind) units recorded a higher production to address a significant demand in increase for coated products from the automotive and white goods sectors. A new 300 MW power generation facility was commissioned in December 2011 at Vijayanagar.

The sales volume continued to show a rising trend with an increase of 7% from 5.72 MT in 2009-10 to 6.10 MT in 2010-11. The number of JSW Shoppe outlets went up to 280 and the sales through JSW Shoppe increased 77% from 0.64 MT in 2009-10 to 1.12 MT in 2010-11. The various cost reduction initiatives taken, such as, increased coal injection in blast furnace, lower usage of fluxes, higher captive power generation, increase in utilization of Corex Gas, usage of Coke Oven Gas from Recovery Type Coke Ovens, etc., along with lower input costs led to reduction in cost of production. During the period 2009-11 we posted a cumulative Profit after Tax of ₹ 40.34 billion.

Location	Product	2010-11	2009-10
Vijayanagar works	Slabs / Billets	5.77	5.22
	HR Coils	4.79	3.40
	CR	0.87	0.74
	Galvanized	0.04	0.03
	Rolled Long	0.76	0.60
Salem works	Billets & Blooms	0.65	0.76
	Rolled Long	0.37	0.36
Down-stream units	HR Plates	0.15	0.31
	Galvanized / Galvalume	0.87	0.87
	Colour Coated	0.16	0.15
<b>Total Steel Production</b>		<b>6.43</b>	<b>5.99</b>

*All figures in million tons*

Economic Value Generated	2010-11	2009-10
Economic Value Generated	293,736.90	224,844.70
Revenues	293,736.90	224,844.70
Economic Value Distributed	216,636.50	166,945.10
Operating cost	187,263.40	135,801.80
Employee wages and benefits	5,344.70	3,652.00
Payments to providers of capital	10,128.40	10,661.30
Payments to Governments	13,750.00	16,700.00
CSR initiatives	150.00	130.00
Economic Value Retained	77,100.40	57,899.60

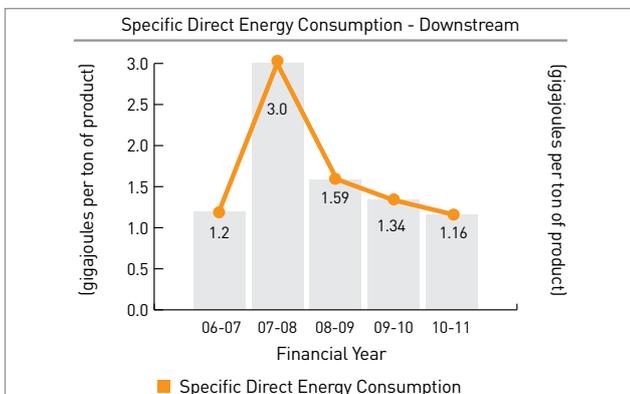
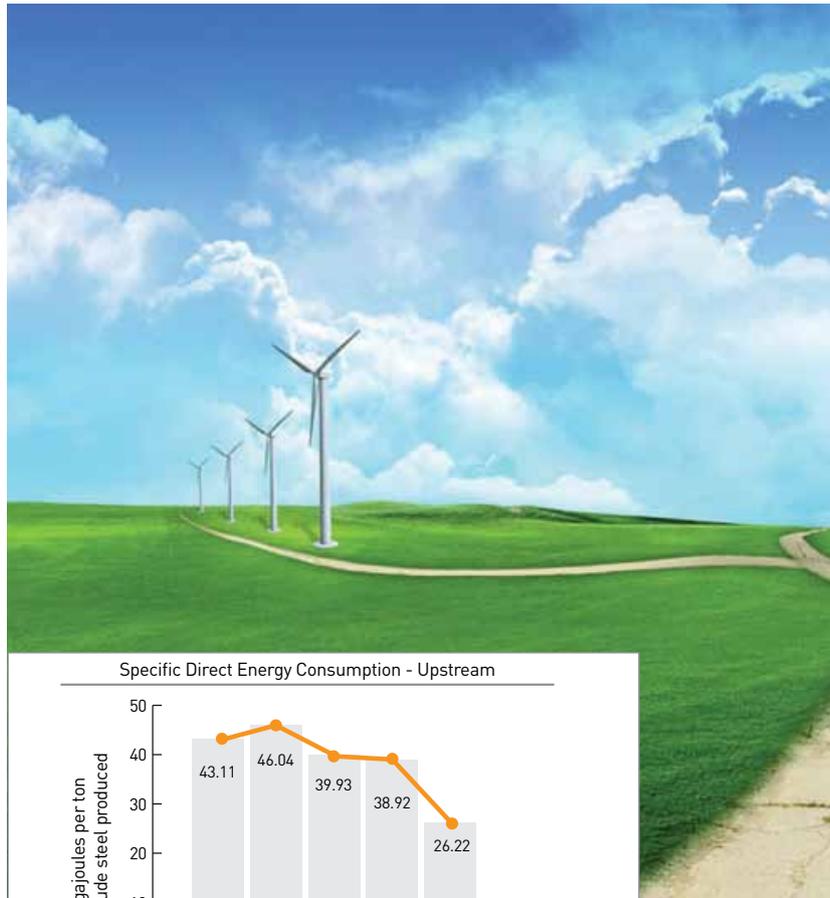
*All figures in ₹ million*

## CLIMATE CHANGE AND ENERGY

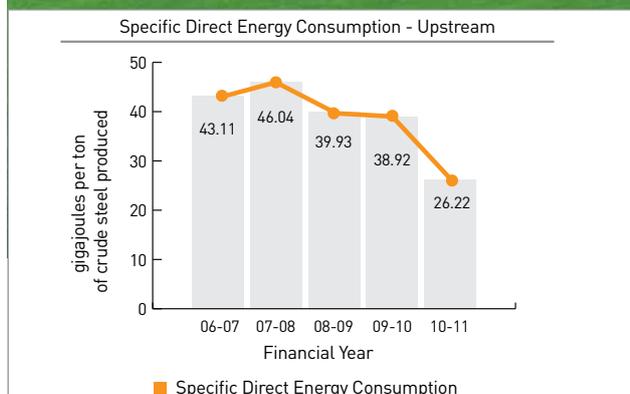
Coal constitutes the most significant percentage of our direct energy consumption at our upstream operations. We meet the internal energy requirements of reheating furnace, and other utilities through by-product fuel gases generated in iron and steel making units. The surplus by-product gases are used for power generation.

Electricity is sourced from our group company JSW Energy Ltd. at Vijayanagar works and from state electricity grid at Salem works. Reflecting our growth plans, Vijayanagar works has been under constant expansion mode with addition of new facilities. The energy consumption and other key parameters of operation have witnessed variable performance and are expected to normalise once the plant attains stable operations phase.

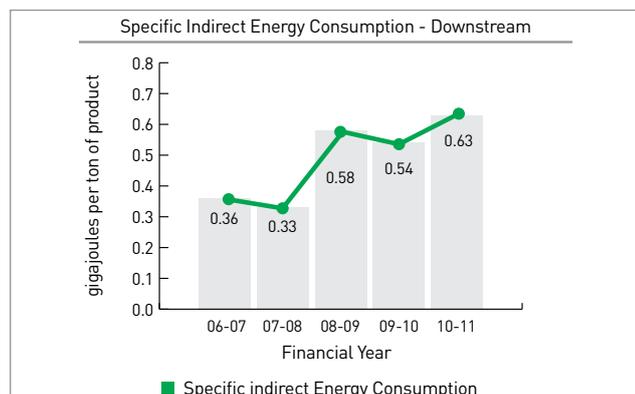
At Vasind and Tarapur works, the direct energy requirement is met through fuels such as LPG, Furnace Oil, LDO, and



### Specific Direct Energy Consumption - Downstream



### Specific Indirect Energy Consumption - Upstream

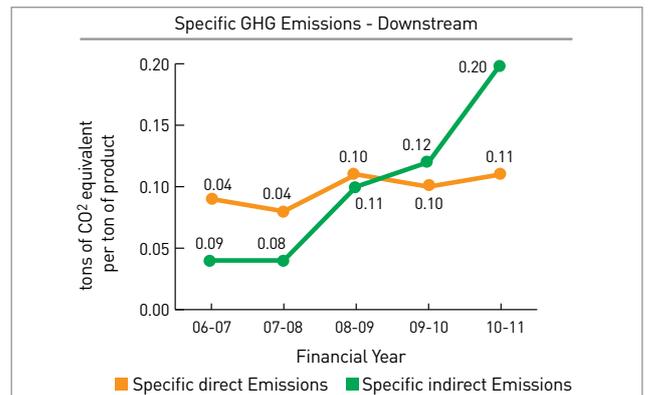


### Specific Indirect Energy Consumption - Downstream

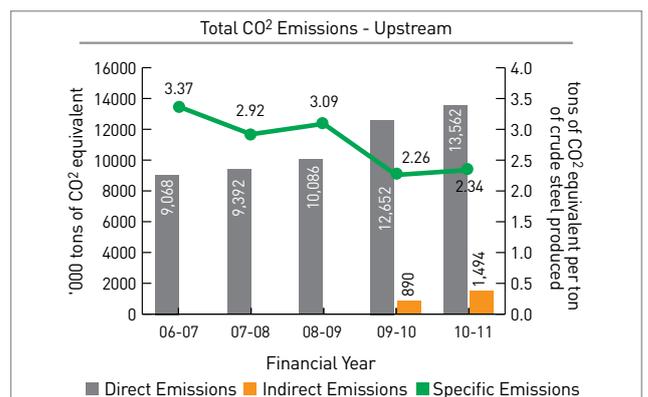
HSD while electricity is sourced from the state electricity grid. Tarapur also features a 30 MW captive power plant which caters to most of its electrical energy requirements.

At JSW Steel, we are working towards reducing our energy and carbon footprint. Near-term mitigation actions, development of advanced energy technologies for the long term, and adaptation to the potential impacts of climate change are needed to meet this challenge.

While we continued to grow our business, our total GHG emissions remained relatively flat due to our concerted efforts for emissions reduction.



### Specific GHG Emissions - Downstream



### Total CO<sub>2</sub> Emissions - Upstream

#### Carbon Footprinting – Measuring Our Impact (Case Study)

As a proactive approach towards effectively managing our GHG emissions we have taken up a comprehensive Carbon footprint analysis of our complete operations. We have employed the services of M/s PE Sustainability Solutions Pvt Ltd (PESSPL) for carrying out the Carbon footprint analysis as per the ISO 14064 standards as well as the Greenhouse gas protocol initiative for Iron and steel production developed by World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD). The total footprint includes all direct as well as indirect sources of emissions and can be broken down into Scope I, II and III emissions.

At the same time, a framework of monitoring, recording and assessing the GHG emissions is designed and implemented on GaBi 4.4 software, to enable evaluation

of the Carbon footprint on a regular basis. We have taken a lead in utilizing the opportunity provided under the Clean Development Mechanism and have projects registered with UNFCCC. These projects have helped us to generate cumulative revenue of more than ₹ 2,000 million till date. In addition to the above projects, 4 projects are under the process of registration at UNFCCC.

Further demonstrating our commitment towards tackling the challenge of global warming, we have instituted the Earth Care Awards for Excellence in Climate Change Mitigation and Adaptation, along with 'The Times of India'. These awards felicitate individuals and industry representatives for initiatives in management of natural resources and mitigation of greenhouse gases.

From possessing contemporary technologies to redefining benchmarks, we breathe the philosophy: “question every convention, replace the often quoted ‘why’ with the bolder “why not” in every aspect of our way of doing business.

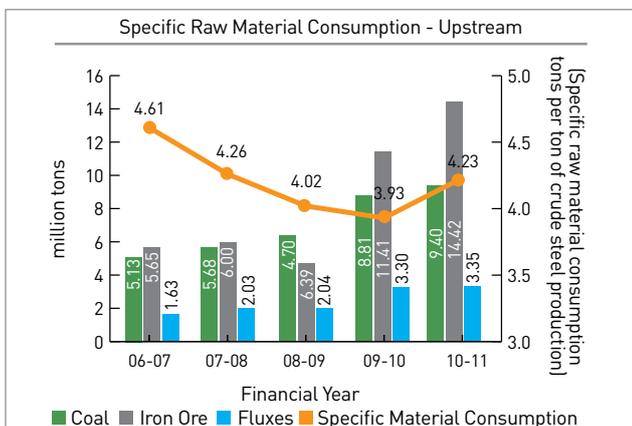


**Product responsibility**

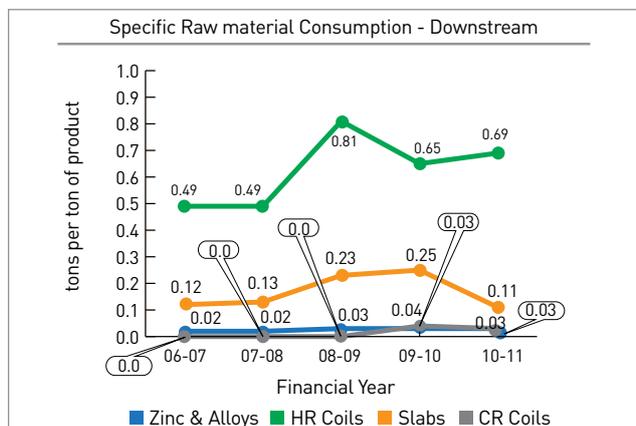
Steel as a base material is used to manufacture a variety of products. Being an environment-friendly material, steel can be recycled indefinitely without loss of its inherent properties. The recycling of steel contributes to resource conservation including raw materials and energy and we make every effort to recycle steel to the extent possible to use in our operations.

The steel reject (scrap) generated during the processing of

steel for final products is completely recycled. We also use steel scrap collected from other sources in steel making. Direct reduced iron (DRI) can be used as an alternative to steel scrap. Though we have not conducted a comprehensive life-cycle assessment (LCA) for our products, we support the development of LCA related studies and research through our participation in World Steel Association. Our upstream operations consume natural resources such as coal, iron ore, fluxes for producing steel while our downstream operations



Specific Raw Material Consumption - Upstream



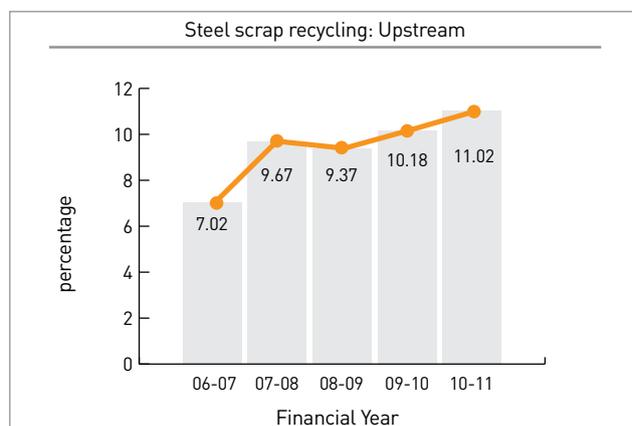
Specific Raw Material Consumption - Downstream



process huge volumes of intermediate steel products such as slabs and coils.

### Innovation

We are guided by our mission to “Support the nation’s growth in power and steel with speed and innovation” and strongly believe that innovative business processes will drive our growth and be the key enabler for our success. We have established a corporate R&D cell at Vijayanagar – the centre



### Steel Scrap Recycling - Upstream

for all innovation activities with R&D sub-centres at other units, namely Salem, Tarapur and Vasind, reporting to the corporate cell. Our innovation team focuses on process and product development, aimed at improving the efficiency and providing innovative products. The innovation team comprising of 44 qualified members work in conjunction with shop-floor teams to design and implement innovative processes.

The team is also responsible for new product development and patents. The efforts of the innovation team are facilitated by a full-fledged R&D centre equipped with contemporary infrastructure, pilot testing and simulation facilities. We have undertaken several innovative process improvements during the period 2009-11 which have enabled us to improve the efficiency and reduce redundancies in the manufacturing process. Some of the key process improvements include:

#### 2009-10

- Optimized coking time in coke ovens for various blends and improved productivity of the non-recovery type coke ovens by about 5%.
- Developed a quenching methodology to reduce the coke moisture content and also reduced water consumption in coke quenching.
- Analysed sinter-making parameters leading to better sinter quality and resulting in a decrease in sinter return fines from 30-35% to about 20%.
- Optimised the pellet-making process by altering the input blend resulting in improved pellet quality and strength.
- Optimised burden distribution and the material discharge rate in the blast furnace; adopted soft blowing practice and improved tapping practice to improve blast furnace productivity.
- Reduced fuel rate by about 10 kgs per tonne of hot metal in BF-1 and BF-2.
- Recycled steel slag to replace about 5% clinker in cement making.
- Developed unique processes to manufacture DRI from green pellets and steel plant waste, replacing scrap consumption in the BOF plant.

#### 2010-11

- Identified new coal sources and developed coal blends for consistently achieving a coke CSR of 65 and above.
- Developed the process of utilising coal tar pitch in coal-

cake preparation replacing water. This initiative improves coke CSR by 2-3 points, increase gas generation from the coke oven (hence more power generation) and reduces water consumption.

- Improved pellet quality at the drying stage through a novel improvisation – increased the pellet size in the hearth enabling improved circulation of hot air for better firing of pellets – consequently, the under-fired pellets reduced from 8% to 5%.
- Increased the melting rate and adopted the high-alumina slag practice, reducing the fuel rate and slag rate by 30 kg per tonne of hot metal and 27 kg per tonne of hot metal in the Corex units.
- Developed technology for the briquetting of coal fines for its usage in the Corex unit.
- Improved pellet disk yield from 80% to 88% through optimisation of disk angle, rotational speed of the disk, and water distribution, minimising recycling of over-sized and under-sized and optimising costs.
- Improved gas utilisation efficiency in BF 3, improving the fuel rate and optimising operational cost.
- Reduced grinding loss of back-up rolls by about 10% at the hot strip mill – I, increasing its usable life.

During 2009-11 we have developed 60 new slab grade and 25 new billet grade products that include API grades for line pipe steel, drawing and deep drawing steels, medium carbon and high tensile steel, micro-alloyed structural-grade steels, auto and tube maker grade, billet grade steels, automotive grade steels for interior and exterior applications and silicon steel – non-oriented. During 2009-11 we have filed 11 patents. We have invested a total of ₹ 630.3 million during 2009-11 in our R&D efforts.

### Predictive Mathematical models

Predictive mathematical models are emerging as a key tool for improved operations across steel and iron industry. Steel

and iron making process involves operations in challenging conditions like high temperatures and pressures, toxic gases, etc. Predictive models enable us to anticipate possible outcome of the operations and proactively take measures to improve the efficiency and reduce the downtime. We have successfully implemented predictive models, across the key manufacturing processes, which include:

- Hearth wear monitoring model for Corex
- Coal pyrolysis and power generation model for non-recovery coke ovens
- Voidage evaluation model for Blast Furnace
- Top gas prediction model for Blast Furnace
- Model to predict reduction (direct and indirect) in the Blast Furnace
- Model to predict the hearth liquid level
- Model for predicting caster defective segments

### Customer focus and responsible marketing

We accord utmost importance to customer delight. We review our products and distribution network regularly to provide quality products and delightful experience for our customers. We conduct bi-annual third party customer satisfaction surveys to comprehend our customer requirements.

The results of the latest survey have been positive with most of our customers rating us good to excellent for our quality attributes and customer relationship. We strive to make continuous improvement in customer relations by obtaining feedback on pro-active basis.

The feedback received is segregated into four different areas: New product development, Issues related to service, Commercial and logistics, and Issues related to technical parameters of the product.

### Coal Briquetting Technology (case study)

We used high-cost, imported coal as feed for our Corex units. Over 45% of the imported coal gets screened-off for fines. Consequently, imports are significantly higher than the actual quantum required for making hot metal. To meet this challenge, our R&D team developed the coal briquetting technology which completely utilised the coal fines in making hot metal.

Besides, it would improve plant availability and productivity and reduce the fuel rate in Corex. More importantly, it would significantly reduce the working capital blocked in importing such high-cost coals. We are establishing a 0.6 MT briquetting facility at Vijayanagar Works, which is under commissioning.



### Innovative marketing

Rural India, with average per capita steel consumption of just 13 kgs as compared to average per capita consumption of 48 kgs and 187 kgs for India and world respectively, continues to be our focus where we expect significant market opportunities. We leverage our strong distribution network to expand the customer outreach to even rural areas. Our “JSW Shoppe” retail outlets were conceptualized to create a unique shopping experience for our customers while offering a variety of steel solutions.

JSW Shoppes contain the display of our entire product range aiding the customers to take an informed decision. Offering “just-in-time” solutions to the small and spot customers has been one of the key features of JSW Shoppe that has given us an edge over other market players. As on 31 March 2011, we had 280 JSW Shoppes spread across more than 136 districts of the nation.

We further intend to penetrate the market and have plans to scale up JSW Shoppes to 400+ across India by end of FY 2011-12. We also envision to have about 600 JSW Shoppes by 2015 and average monthly sales volume of 1,000 tonnes per Shoppe, culminating to about 7.2 MT of steel annually (post-2015 when all 600 Shoppes are operational).

### Pragati – steel solutions for rural India (Case Study)

Traditional roofing solutions in rural parts of the country include mud tiles, stone tiles, plastic sheets, AC sheets. Wood is another common material used for roofing. Most of these solutions are ineffective to sustain the vagaries of different climatic conditions and have an environmental impact.

To address these concerns and provide better roofing solutions, we developed a unique solution for rural India. We have conducted a year-long extensive exercise to understand the needs of these rural customers by visiting many rural parts of the country and conducting interviews with more than 1,000 people. Based on the outcome of this exercise, we conceptualized a safe, environment-friendly, aesthetically appealing yet economically viable solution: ‘Pragati’ - color coated corrugated steel sheets. We have formally launched these sheets during FY 2010-11.

We pursue environmental excellence across our operations by adopting latest technologies, implementing environmental management systems, creating awareness and training our employees on good environmental management practices.

### Water management

Water is a critical resource for steel manufacturing process. We source water at our upstream operations from near-by water bodies and at our downstream operations from local municipal utility sources. We continuously strive to improve our water consumption efficiency by adopting technologies requiring lower levels of water use and effectively recycling and reusing water.

At our Vijayanagar works, water is used in a decentralized manner with fourteen independent water recirculation systems for treating and recycling water for reuse. We have been successful in creating a cascading system of water recycle and reuse, where the blow-down water from one process is reused as make-up water for another process. Special treatment chemicals are used to increase the cycles of concentration for recycling more than 98% of treated water.

The remaining water is stored in the guard pond which is utilized for meeting the requirements of beneficiation plant and horticulture activities. As the volume of treated wastewater is increasing due to addition of new facilities, two reverse osmosis plants are being installed for recovering about 350 m<sup>3</sup>/h of water from the blow down of different units for use as fresh water in the steel plant. At our downstream operations, we ensure maximum reuse of the water in the process and also use treated effluent for horticulture purposes.

Some of key initiatives taken to improve our water efficiency include:

- Our R&D team developed the process of utilizing coal tar pitch in coal-cake preparation replacing water. This initiative aims at improving coke CSR by 2-3 points and increasing gas generation from the coke oven and reduces water consumption.
- At Vijayanagar Works, we reused blow water from the BF gear box, secondary cooling circuit of BF3, in GCP, saving 500 m<sup>3</sup>/day of make-up water; replaced industrial water with seepage water in slag granulation unit which saved 200 m<sup>3</sup>/day of make-up water.
- At Tarapur Works, we introduced the Eloguard chemical in the water used in the boiler, reducing DM water consumption in the power plant by 40%.

### Waste management

We focus on reducing, recycling and reusing waste across our manufacturing units. Solid wastes generated at our upstream operations include slag, sludge and dust. Blast furnaces and steel melting shops contribute to slag generation.

While all granulated slag is sold for cement making, a part of BOF slag is used in sinter plant and Corex units to utilize its lime content. Significant quantum of sludge generated from water treatment plants is reused in pellet plant and the unutilized quantity is securely stored in the slime pond. We completely recycle the iron-rich mill scales waste through sinter plant.

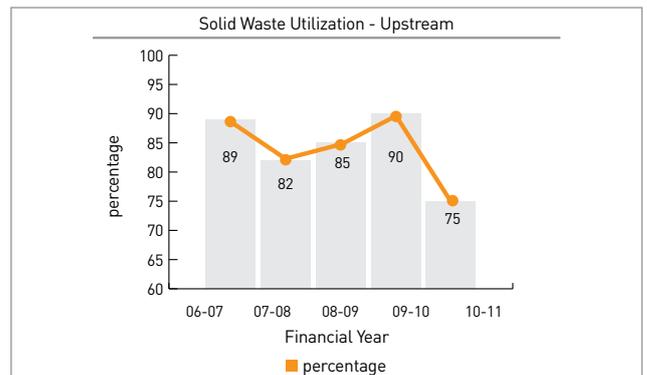
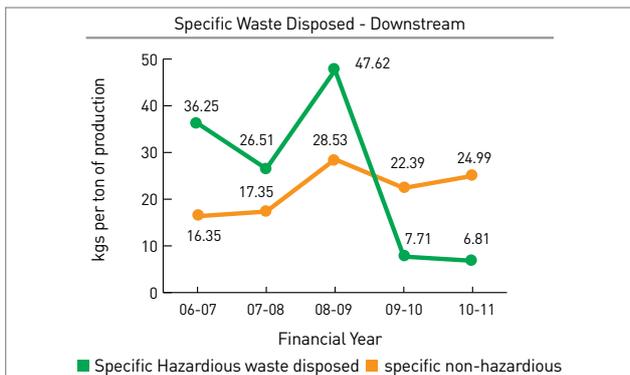
We also utilize the dust collected from bag filters in sinter making. Non-process wastes generated are either incinerated or disposed through authorized vendors. Hazardous waste generated includes oil derived from hydraulic lube and waste water treatment plants, sludge from BOD plant and CRM, decanter sludge and acid sludge.

The waste oil is sold to authorized re-processors and sludge is reused in the process. ETP sludge generated at our downstream operations is disposed through an authorized vendor. At Vijayanagar, we also dispose e-waste through an approved recycler, e-parisara. The decrease in the solid waste utilization for FY 2010-11 at our upstream operations is attributed to the storage of BOF sludge at Vijayanagar works for future use.

### Beneficiation Plant (Case Study)

We have taken significant initiatives to improve iron ore quality and reduction of tailings going to slime pond from our beneficiation plants. This will not only help us increase our resource efficiency but also manage our waste in an environmentally sound manner. The major initiatives taken towards this end include:

- Up-gradation of Beneficiation Plant – I
- Recovery of iron content from Beneficiation Plant – I slime pond
- Pilot project to process BHQ (Blended Hematite & Quartzite) ore
- Water recovery from slime pond – I
- Feasibility analysis of use of paste thickeners for tailings management



### Specific Waste Disposed - Downstream

### Solid Waste Utilisation - Downstream

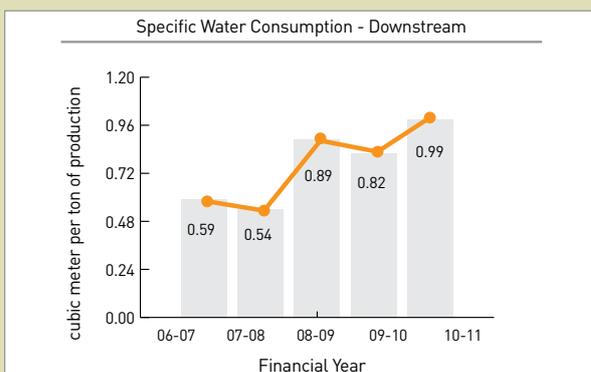
#### Water Auditing at Vijayanagar

In August 2010, an extensive water auditing exercise was conducted at our Vijayanagar Works by M/s Hatch Associates. The overall aim of this exercise was to develop a detailed understanding of the site's water balance and associated issues which would enable us to take an integrated water management approach to future developments on site.

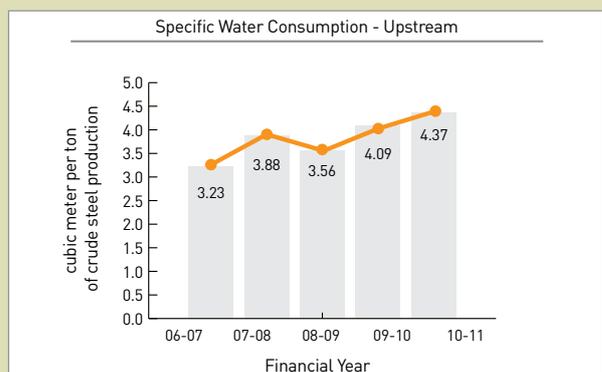
The primary goals of the audit were to identify opportunities for reduction in raw water consumption and determine the possibility of achieving zero liquid discharge economically. The key findings established that the site's specific water consumption is considered to be excellent in comparison to other integrated iron & steel plants. The findings also suggested that while the site has already achieved considerable progress in maximizing

internal recycling and reuse of water and wastewater streams, there are opportunities for increased capture of storm water on-site and further reduce raw water consumption.

We are studying the recommendations of the audit to implement them towards adopting an integrated water management approach. Our Vijayanagar works witnessed an increase in the specific water consumption owing to the expansion mode of the plant during the reporting period. This is expected to normalize as the plant would assume stable operations phase. The increase observed in the water consumption and wastewater discharge at our downstream operations is primarily due to the new captive power plant operational at our Tarapur works during the reporting period.



### Specific Water Consumption - Downstream



### Specific Water Consumption - Upstream

**Air emissions**

We manage the air emissions due to our operations by adopting clean technologies to reduce the impact. We use pollution control equipments such as ESPs, bag filters, cyclones and venture scrubbers to control process air emissions.

We further reduce the emissions of SOx by use of low sulphur coal and desulphurization of coke oven gases; SPM by water sprays and NOx by use of special burners. At our Vijayanagar manufacturing unit we use bag filters designed for 50 mg/nm<sup>3</sup> as against the regulatory norm of 150 mg/nm<sup>3</sup> and the bag filter dust is transported through closed containers, to avoid spillage.

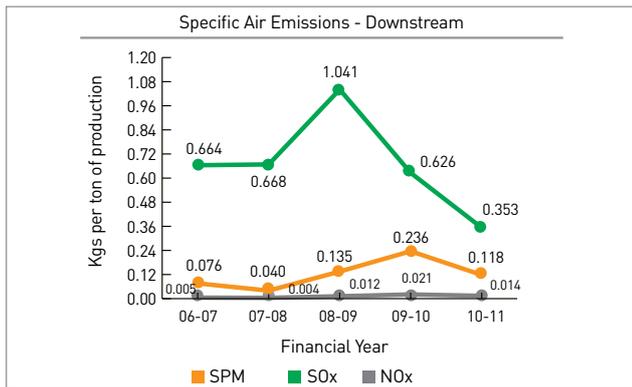
The specific air emissions generated at our upstream operations during FY 2010-11 have increased due to the expansion projects at Vijayanagar works and are anticipated to normalise as the plant attains stable operational phase.

Some of the salient features of pollution control systems at Vijayanagar Works include:

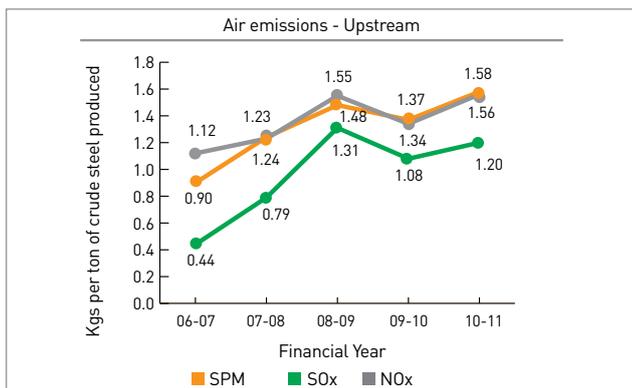
- 100 % of fume extraction systems for cast houses & converters
- Two numbers of largest capacity fume extraction systems for SMS - 15,40,000 m<sup>3</sup> /hr
- 13 number of dedusting systems & ESPs of capacity more than 9,00,000 m<sup>3</sup> /hr
- Use of pulse pleat bags for better emission control
- More than 115 dedusting systems installed in the plant
- The expenditure on pollution control equipment during FY 2010-11 was approximately INR 3.2 billion.

Cost of operation of pollution control equipment – INR 400 per ton of crude steel.

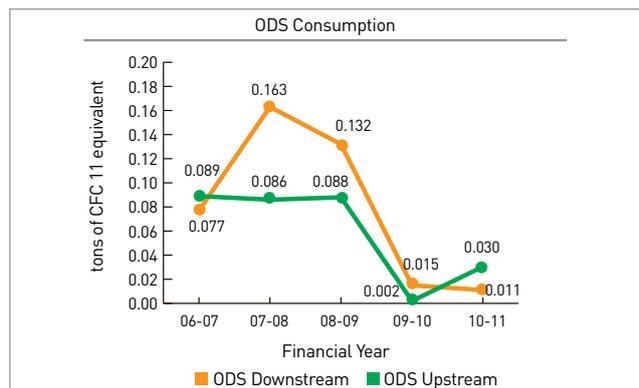
We are reducing the use of Ozone Depleting Substances (ODS) for refrigeration purposes and during the period 2009-11 we have consumed ODS amounting to a total of 0.058 tons of CFC-11 equivalent.



**Specific Air Emission - Downstream**



**Air Emission - Upstream**



**ODS Consumption**

**Biodiversity**

We conduct environmental impact studies as regulated by law to understand our biodiversity impacts and plan mitigation actions. None of manufacturing units are located in an eco-sensitive zone and do not have significant impacts on biodiversity. We are collaborating with "Earth Watch Institute" and have sent 5 teams each of 12 persons of our employees for familiarization camps to SIRSI forest in Western Ghats, which have rich Forests to understand the impact of Bio Diversity and all members came fully charged to protect local Bio Diversity and take steps to improve on it.

# INTELLECTUAL CAPITAL MANAGEMENT

We at JSW believe that employees are the most indispensable drivers of our organization. We have established ourselves as the highest manpower productive team per tonne of steel manufactured in India's growing steel sector. It has always been our endeavour to ensure employee satisfaction and promote welfare by providing a competitive environment wherein they realize their potential.

Targets with respect to aspects of Human Resource management are incorporated in our annual business plan and further these targets are used to define tasks and KRA's of employees for their performance evaluation. The annual incentive scheme is designed in accordance with the attainment of targets and also forms the basis for incentive payment.

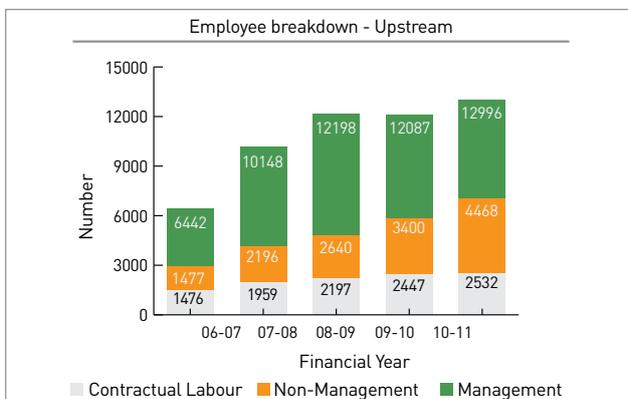
We are sensitive towards the needs of our employees hence their feedback is of prime importance which are obtained from surveys, team interactions and open end discussions

which are held on a timely basis. We have structured our HR policies, strategies and action plans on a framework that takes into account this employee feedback.

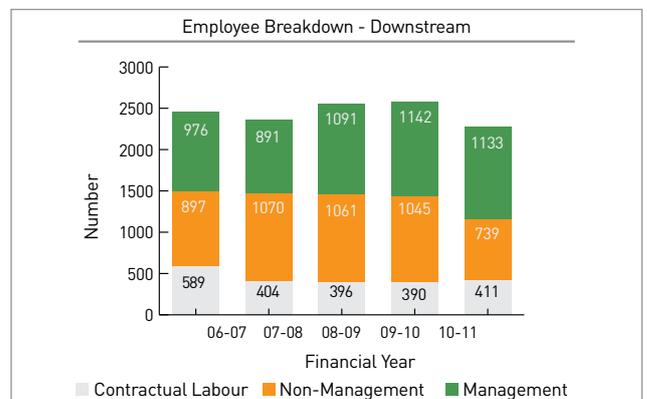
## Talent management

Skilled people resources are getting scarce and attracting qualified professionals is becoming a critical challenge for steel sector. We have an established talent management system to help us address this critical challenge.

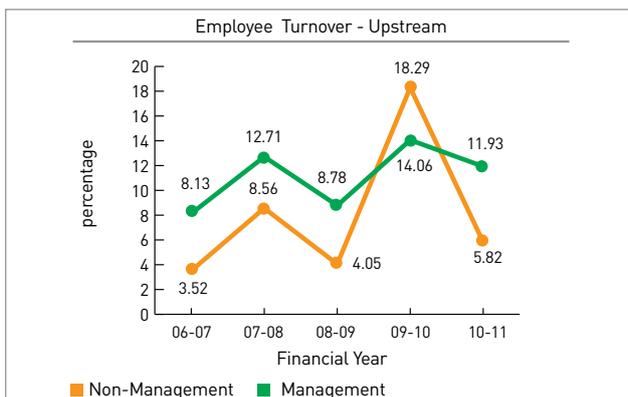
We recruit graduate, diploma engineers and management students from leading engineering and management colleges. In 2010-11, we participated in campus recruitment for management graduates from IIMs and engineers from NITs. Our lateral recruitment of experienced professionals is driven through references, connections, advertisements and placement agencies. As on 31<sup>st</sup> March, 2011 our employee strength was 8,150.



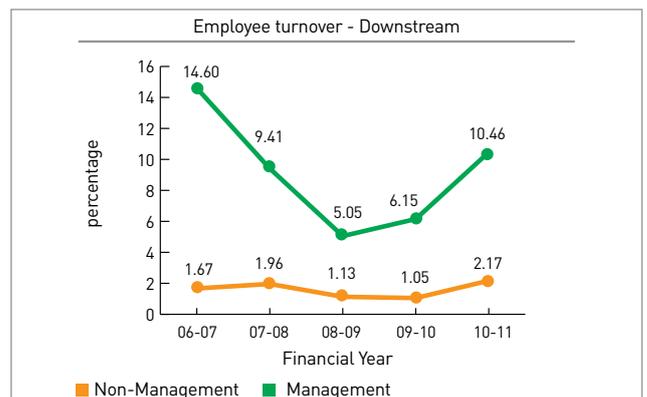
Employee breakdown - Upstream



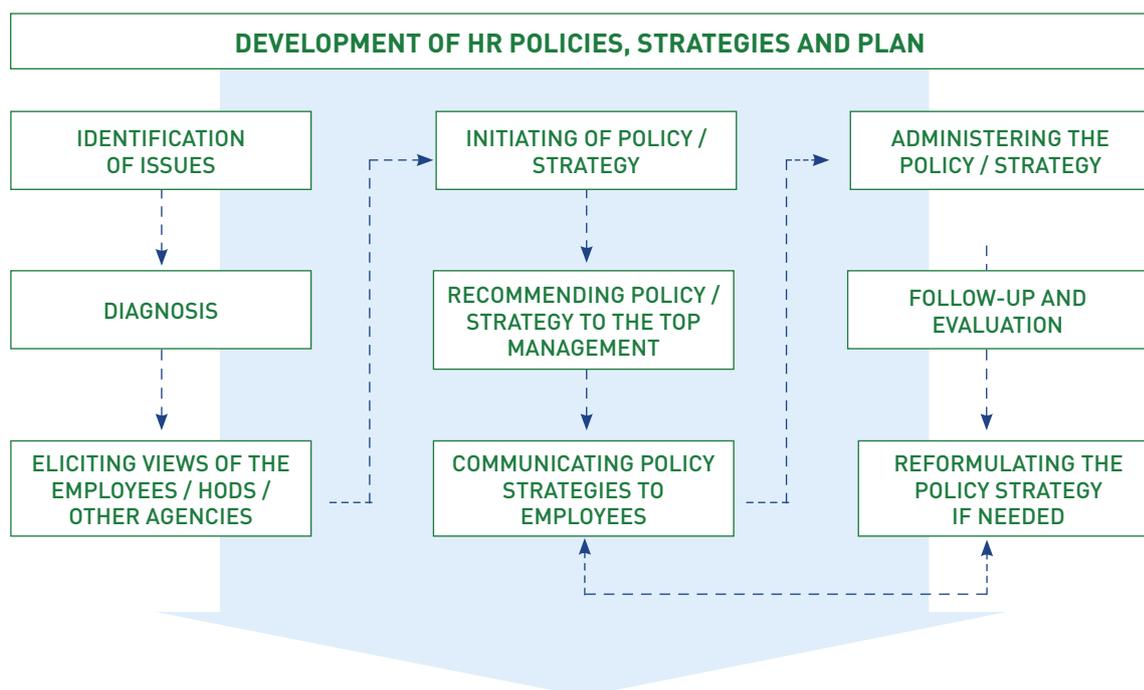
Employee breakdown - Downstream



Employee Turnover - Upstream



Employee Turnover - Downstream



**HR STRATEGIES**

**Manpower Planning and Talent Acquisition**

- Manpower budget 10 MT - employees based on position / function / location / skills / competencies
- Job descriptions for all positions
- Strict watch on teeth to tail ratio
- Recruitment manual - giving details of requirements for each position
- Identity key gaps (critical positions, budget vs actual numbers)
- Introduce testing elements for senior level

**Talent Management**

Identify critical positions at Top, Senior & Middle management levels and their successors

**Talent Development**

- Competency mapping by SHL and Training to meet competency gaps
- Management Development Program
- E-learning module for GETs
- To create training infrastructure at group level for management training

**Organisational Development**

- Gallup workplace engagement study

QUALIFICATION PROFILES OF JSW STEEL EMPLOYEES	%
• Diploma holders	33.5
• Engineers	25.3
• Graduates and post graduates	13.1
• ITI	8.1
• Post Graduates (CA/CS/ICWA/MBA)	3.7
• Others	16.3

We manage the career development of our employees across functions and facilitate career planning for potential executives who are groomed for taking up new challenges thus creating opportunities for innovation.

Our annual performance management system comprises of

self appraisals filled in by employees and subsequent approvals by reporting managers. Subsequently, development plans are created to enhance the development of employees. Our reward and recruitment criterion are purely based on merit. As an extension, we introduced ESOPs for senior executives. About 2,855 executives are now proud partners in our growth.

## INDIVIDUAL REWARD SYSTEM

- Retention Bonus
- Best Suggestion Award
- Late S Chandrashekhar Memorial Best Employee Award
- Best Safety Man Award
- Young Thinkers Award
- Bravery and Courage Award
- Best Quality Circle
- Best Employees of JSW & Associate Employees
- Intellectual Property Rights
- Best Contractor

## GROUP REWARD SYSTEM

- Significant Performance
- Exemplary Work
- Intellectual Property Rights
- Best Suggestion
- Best Safety Department
- Interdepartmental
- National & International
- Best Green Belt Development Award

### Leadership and succession management

To smoothen and enable the second line of leadership to take additional responsibilities resulting from the growing business, second line successors are identified to run the business efficiently. We believe in nurturing our employees and give them opportunities of growth and leadership. We have constituted a few initiatives to instil development and leadership characteristics in our employees.

#### Leadership competency framework:

Define leadership competencies for organizational success; reinforce competencies through focused training, feedback and mentoring-coaching initiatives

#### Succession management process:

Identify key leadership positions Groom leaders from within the organization

#### 360 degree feedback process:

Enable leaders to get feedback on their leadership styles as perceived by others and enable individuals to develop leadership potential by helping them to capitalize on their strengths.

#### Horizontal integration:

Responsibility delegated to top executives with an aim to make the organization leaner.



### Training and Development

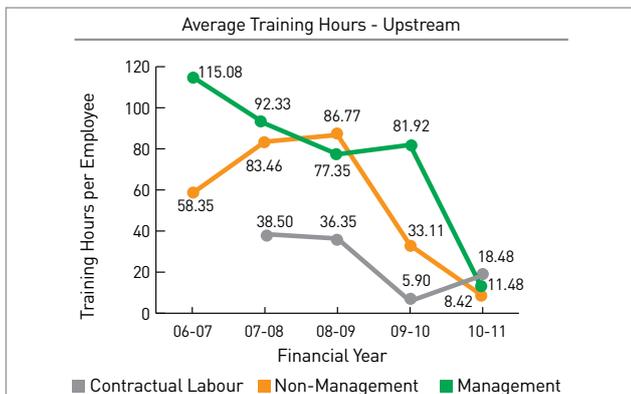
Our efforts are directed towards investing in our employees and we take responsibility in their development as is evident through our employee welfare programs. We emphasize the importance of training at every level. The budget allocated by us for per capita training man days is one of the highest in the steel industry.

Three exclusive Management Development Programs (MDPs) for senior and middle management have been conducted at Indian Institute of Management, Ahmedabad and Bengaluru. Development of e-learning modules for graduates for upgrading their professional qualifications is under progress. We also believe in upgrading the skill of the existent workforce to further enhance our talent pool and also equip them with lifelong employability opportunities. We have engaged with BITS Pilani to enable our diploma holder employees to pursue Bachelors of Engineering course. Our knowledge center subscribes to important journals and periodicals. Company and industry

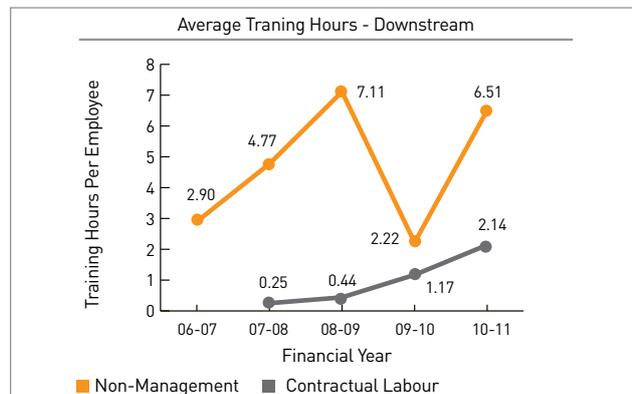
related information is provided through Intranet to all the employees aiding innovation and creative thinking. We provide a compressed induction training program of 15 days for all new recruits. This program comprises of in-depth technical and operational training at the shop floor level.

Besides theoretical concepts, the trainings are designed to give exposure on practical, behavioural, safety and environment aspects. Engineer trainees (Graduate Engineer Trainees) are also trained on advanced technical and operational subjects.

To keep a track of the trainings based on the senior management feedback as well as evaluation from the appraisal process, development needs are identified and a training calendar is available. In addition to professional training requirements, wellness programs are also provided. We regularly send teams to reputed global steel manufacturers to strengthen their insight into steel manufacture. Training effectiveness is evaluated comparing pre training performance with that of post training.



Average Training Hours - Upstream



Average Training Hours - Downstream

### Employee welfare

We have initiated various employee welfare activities aimed at enhancing motivation levels. We have also created a township for our associate employees, accommodating over 1,546 families.

In FY 2009-11, we provided employee wages and benefits worth ₹ 8996.7 million to our permanent employees through meal vouchers, maternity benefits, annual bonus, leave travel allowance, performance reward, conveyance reimbursement, vehicle and housing loan subsidies.

The workforce engagement of JSW Steel employees and associate employees is measured indirectly through employee perception survey conducted annually. During the year 2009-10, the survey was carried out by a professional agency, M/s Kirloskar Institute of Advanced Management Studies, Harihar.

### Employee Communication at JSW (Case Study)

We have implemented various modes of employee communication at various levels to enhance employee involvement and participation in our goal of an inclusive growth. Apart from informal gatherings to improve social interaction among various employees we have also instituted various formal platforms for the employees to participate in and voice their opinions.

As our HR policy we strive to reach out to all our employees even at their individual work locations. We also involve our employees in our business decision making through HOD meetings and executive committee meetings. We have undertaken a communication exercise called "SAMPARK" and "SAMOOH" to map and address various employee concerns. We have also instituted the 360 degree feedback system for GM and above which is aimed at enabling

leaders to get feedback on their leadership style as perceived by others and enable individuals to develop leadership potential by helping them to capitalize on their strengths.

### Engagement Survey

We have commissioned a study by Assess People, a pioneer in workforce assessments, to elicit the opinions of employees to gauge responses on various facets of engagement with the organization. The findings were shared with the employees and their views considered for the improvement plan.

### Employee Survey

A survey was conducted by McKinsey & Co. seeking employee views through a standard questionnaire. The employees' views then served as a source of input for organisation-specific interventions.

### Results of employee motivation survey

ORGANISATIONAL PURPOSE	MEASURES	NON - EXECUTIVES				EXECUTIVES			
		2007	2008	2009	2010	2007	2008	2009	2010
Management By Empowerment	Decision Making	88	89	91	91	86	86	87	90
	Empowerment	91	93	93	94	89	88	89	94
Motivated Manpower	Career Development & Growth Opportunities	90	92	93	94	86	87	89	92
	Equal Opportunity	84	88	90	90	78	85	87	89
	Job Satisfaction	95	95	94	96	92	93	94	95
	Facilities Educational	80	83	86	91	73	79	82	91
	Quality of Work Life	75	81	83	90	74	80	82	86
Trust	Grievance Redressal	82	89	90	91	80	88	91	93
Environment	Environmental Policy	75	81	85	90	67	68	71	80
Strong Social Commitment	Community and Society	91	92	92	94	94	93	92	92
Relationship	Communication	83	86	88	90	81	86	88	91

### Managing Human Rights

Respect for human rights is a part of our company's core values and is practiced all across our operations. We ensure that all our operations are free from the scourge of discrimination. We have proper screening mechanisms in place to make sure that we do not employ child labour.

All our investment agreements and procurement policies adhere to local legal requirements on aspects of human rights. Although we do not have any trade unions we actively engage with our employees, whether permanent or contractual, to ensure their welfare. All our security personnel are trained in human rights aspects.

At JSW Steel, we have issued company-wide health and safety control guidelines as the foundation of basic work procedures for all personnel including both JSW and our business partners. We have established a safety framework based on the principle of achieving excellence through discipline.

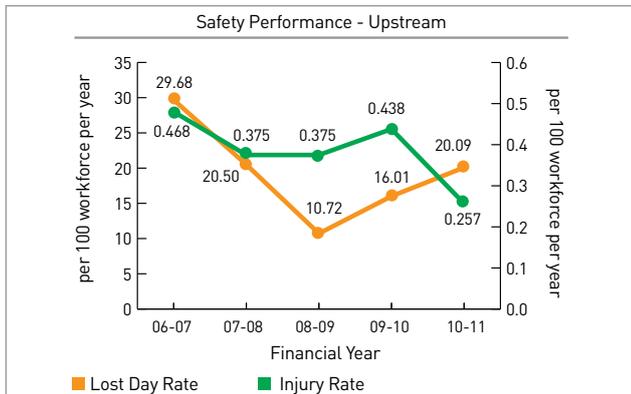
The framework is supported by several building blocks like process hazard analysis, operating procedures and related best practices, safety reviews, technology management, training, incident reporting and investigation, personnel management, contractor safety, on-site and off-site emergency response and planning, safety audits and linkage with quality.

Frequent trainings regarding occupational health and safety for employees, lorry drivers, contractor's workmen and supervisors are provided to ensure best safety practices. At present, we have health and occupational safety management systems in line with OHSAS requirements at all the locations.

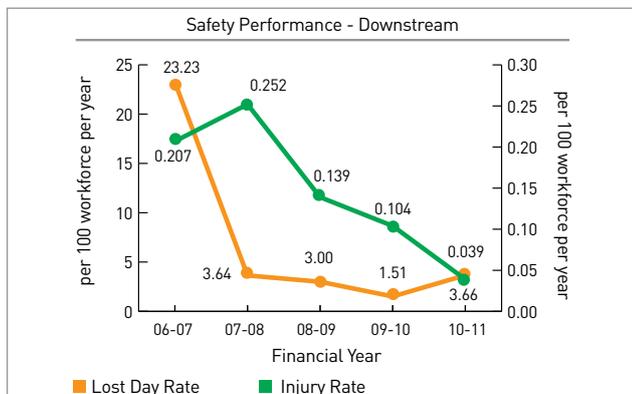
All our units are governed by departmental safety committees which ensure compliance to the safety measures and create awareness to help employees abide by the organization's health, safety and environment policy. For all the identified emergencies, mock-drills are conducted periodically to assess the preparedness and response in case of any incidents.

Employees can make a significant contribution to staying fit by leading a healthy lifestyle and undergoing preventive check-ups.

We support our staff with variety of customized offerings for specific groups of employees across different health care aspects. These comprehensive programs help us to raise awareness among employees and enhance the staff's personal accountability.



### Safety Performance - Upstream



### Safety Performance - Downstream





### Safety management through extensive employee involvement: (Case Study)

Our Vijaynagar plant can boast of one of the most comprehensive safety management systems. The plant has elaborate procedures in place to ensure the safe working conditions for all individuals present within the plant's boundary. Starting with the mapping of all risks and hazards related to all the processes in the plant, the safety management system also focuses on maximum employee involvement in all the safety processes. Following are some of the important features of Vijaynagar's safety management system:

- Regular training programs are conducted for all employees as well as contract workers to upgrade their knowledge of safety at work area.
- A safety pledge marks the start of the day for all shop floor level workers to maintain a high level of awareness and enthusiasm for safe working practices
- Safety campaigns are conducted every alternative month and are aimed at covering all the employees including people working in separate shifts
- Road safety campaigns are given a special impetus as a lot of accidents are observed mostly during moving of materials and personnels
- Safety patrolling by heads of departments are conducted on a regular basis to maintain the level of seriousness amongst workers
- Mock drills are conducted on a monthly basis to ensure that all safety systems are working perfectly and to maintain high awareness levels among the employees
- Safety suggestion scheme is being conducted to encourage maximum employee involvement
- Reward schemes such as safety captains, best worker award and best safety person worker award have been instituted



Empowering communities and enabling them to grow hand in hand with us is deeply ingrained in our business approach.



### Community Development

At JSW we believe that a company's prosperity is linked with the overall development of its neighbouring communities. We touch the lives of the communities that surround our operations either on our own or in partnership with NGO's, government bodies and the community at large. Headed by Mrs. Sangita Jindal, the JSW Foundation drives all community development on behalf of JSW Steel.

Empowering communities and enabling them to grow hand in hand with us is deeply ingrained in our business approach. The overarching philosophy is to emerge as a responsible corporate citizen.

Through our social initiatives we have invested a total of INR 280 million during the reporting period towards accelerating inclusive and participatory societal growth.

The JSW Foundation believes in the policy of 'People First' for its developmental vision. The objective is to make a difference in the socio-economic environment where JSW Steel has operations, either individually or in partnership with government bodies, NGOs and the community at large.

The Foundation aims to touch upon all aspects of the individual's life through focus areas of education, health, livelihoods and capacity building (with special attention to women's empowerment), natural resource management, sports, arts and culture.

Its activities stem from the leadership's firm belief that business is dependent on society for its growth and prosperity and those islands of prosperity will not survive for long in the vast sea of poverty and unfulfilled basic needs



## CSR VISION

- Empowered communities with sustainable livelihoods.

## CSR MISSION

- Outreach of government programs in health and employment generation through gap filling support
- Our townships and communities to move towards carbon efficient management systems
- In- situ conservation of at least one major monument at all project locations and promote national cooperation for conservation of all monuments.
- Collaborative earth care initiatives
- Need based social development interventions in our mining locations

The social activities for every year are derived on the basis of the annual survey outcome by the external agencies, continued observation and community consultation by the dedicated professional CSR staff and specific requests by gram panchayats and community leaders. The activities are prioritised looking at the maximum outreach for implementation in a phased manner.

The areas wherein we develop a positive impact are education, health, livelihoods and capacity building, women empowerment, natural resource, sports, arts and culture. We have aligned our focus of CSR initiatives to the Millennium Development Goals which is illustrated below. There are a total of eight MDGs, out of which we have subscribed to five goals.



**ACHIEVE UNIVERSAL  
PRIMARY EDUCATION**

- Building school infrastructure
- Mid-day Meal Schemes
- Training of Teachers
- Aid for Science, Mathematics, English and Computer Education
- Giving Scholarships to Rural Youth to enable them to continue education in Technical, Medicine, Fine Arts and Management fields
- Mentoring of students

**PROMOTE  
GENDER EQUALITY  
& EMPOWER WOMEN**

- Formation of Self Help Groups (SHG)
- Enterprise Promotion
- Training in Non-Conventional Operations

**ENSURE  
ENVIRONMENTAL  
SUSTAINABILITY**

- Adaptation and mitigation of Climate Change
- Water Conservation
- Conversion to Renewable Energy Sources
- Conservation of Biodiversity

**REDUCE CHILD  
MORTALITY  
IMPROVE  
MATERNAL HEALTH  
COMBAT HIV/AIDS/  
MALARIA & OTHER  
DISEASES**

- Child Mortality
- Maternal Health
- Malnutrition
- HIV – AIDS

## FOCUS AREAS

### EDUCATION

We lay strong emphasis on Primary, Secondary and Vocational Education for all, and especially for the girl child. Our aim is to support the Right to Education and other Government Sponsored projects to ensure all children in age group 6 to 14 years are in school and get decent education.

We also assist in:

- Building school infrastructure, providing a healthy and cheerful environment for learning.
- Mid-day meal schemes.
- Training of teachers
- Aid for Science, Maths, English and Computer Education.
- Giving scholarships to rural youth to enable them to continue education in technical, medicine, fine arts and management fields.
- Mentoring of individuals or group of students.

### HEALTH

Our focus is to strengthen Public Health System of the Government in its surrounding villages by enhancing infrastructure and encouraging medical and para-medical staff to perform better.

Our aim is to reduce the prevalent bench marks in:

- Child mortality
- Maternal health
- Malnutrition
- HIV – AIDS

### LIVELIHOOD

We recognize the urgent need to raise the standard of living and accelerate economic growth.

We have begun the movement for improving:

- Vocational training
- Agricultural practices
- Cattle development

### WOMEN EMPOWERMENT

We are aware that in most rural areas women are major source of support to families.

We are helping them through:

- Formation of Self Help Groups (SHG)
- Enterprise promotion
- Training in non-conventional operations

### SANITATION

Our aim is to provide clean, hygienic, garbage free Habitat for all.

We have taken up various projects to improve:

- Sanitation
- Hygiene
- Garbage disposal
- Solid waste management

### SPORTS

We are keen to make modern sport facilities available to all.

We are currently working to:

- Encourage participation of local teams.
- Organise sport talent hunts.
- Start academies for different sports.

### ENVIRONMENT

We initiated the Earth Care Awards to support environment protection.

We are also collaborating with well reputed NGO's towards:

- Adaptation & mitigation of climate change.
- Conservation of water.
- Conversion to renewable energy sources.
- Conservation of biodiversity.

### ART, CULTURE & HERITAGE

JSW is working to preserve and nurture our art and cultural heritage.

We undertakes:

- Conservation of historic sites & monuments.
- Promotion of art education and upcoming artists.
- Revival of local art and traditional craftsmen.

The Foundation works on the premise that every school going aged boy and girl who is not attending school is either into child labour or social exploitation.



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**Computer aided learning centres**

This is a collaborative project between the JSW Foundation, the Azim Premji Foundation and the Village School Management Committees. The Azim Premji Foundation has developed multiple language interactive CDs for children and the JSW Foundation establishes computer education in rural schools, trains teachers and gives them a stipend. The local school management committees are persuaded to build facilities required for computer education.

This project has led improved attendance in schools in turn requests from schools from neighbouring villages, and, increased computer literacy as the school management committees have permitted local girls and boys to avail of this facility and get trained. Our coverage or the reporting year includes schools in our mining villages in Bellary, Thane and Kurnool districts.

**Children mobile libraries**

On pilot basis, mobile libraries have been set up in 25 villages to encourage and sustain a reading habit among children is another important programme in the educational field. As an initial activity, potential local girls-volunteers who have studied at least high school and already conducting evening tuition classes are identified. They are trained in book-keeping and maintaining of relevant records. The system of collecting nominal membership fees by the children for the library is discussed with them.

An honorarium is fixed based on performance and membership strength. Total 2,500 children’s books and other materials are provided by the library to the rural students. A monthly review meeting of volunteers is conducted to ensure each and every child has completely read and properly under stood the contents of the borrowed book. The books are rotated among the centers so that children get variety of books. This has encouraged and sustained a reading habit among more than 3,240 children. Also this has provided an earning source for 18 local girls who run these centers.

**Early childhood education project**

This project involves development of playful and interactive teaching material at pre-school level and training of government staff working in the integrated child development scheme of the government of India on the one hand, and, facilitating women in difficult domestic situations to start child development centres on the other.

It was realized from the needs assessment that the Integrated Child Development Project which aims towards the holistic, all round development of children has ended up developing just the feeding centers for children at village level. The opportunity to impart education to 3 to 6 year old children is practically lost because the anganwadi worker is not trained in this aspect.

No doubt malnutrition amongst children is alarming, but apart from health and nutrition initiatives, anganwadi centers



also provide a wonderful opportunity to initiate child centred educational activities that will prepare child for the reading and writing skills that she would learn in primary school.

Through this initiative Anganwadi workers are provided with 10-day training organized in three slots spread in the year. The anganwadi workers are also given training material, which they can use to interactively educate children between 3 to 6 years. They are also taught how to use locally available material and develop low cost educational material. Around 6,864 village students are covered under this programme

### Adolescent health education

This project reaches out to young adolescent students to discuss with them issues related with their physical growth and related anatomical changes. This is focussed upon in rural schools and handled by trained professionals. Sessions required these young students to maintain anonymity while asking questions related with internal organ development, hormonal changes and methods of contraception. Feedback from adolescents, parents and schools indicates reduction in eve teasing and use of obscene language. We have covered 3,821 students under this activity.

### Mid-day meal

In collaboration with two civil society institutions the Foundation supports outreach of mid day meal to over 200,000 children covering 964 villages and schools. It has donated land to establish the kitchen and supports operations through a recurring grant.

Rural schools where this service is provided have reported increase in attendance and better health of their children. Some children have got educational scholarships from



concerned employees while vendors of JSW and other small and medium enterprises have extended financial support to this project.

### Scholarships

The Foundation awards a scholarship to meritorious students of JSW employees as well as from the community. These scholarships are given for the entire duration of their studies in engineering, management, arts, architecture and accountancy related subjects. We have also initiated rural meritorious students scholarship where we awarded the first three toppers of the tenth grade at all locations. Till this year we have awarded 131 children. This year we awarded 82 students under this scheme from schools that are in immediate vicinity of our operations.

### Village Learning Centres

At the onset, the Foundation conducts house-to-house surveys through its volunteers to identify out of school children in the age group of 6 to 14 years. Volunteers then identify the suitable place to run the centre and operate on flexible schedules to suit the availability of children. Residential camps are conducted for selected (for those children whose parents give consent) children to motivate them to revert back to formal schooling.

Understanding the need for handholding, the Foundation undertakes further training and counseling through subject specialists. Once the child reaches a certain level of competency, the Foundation approaches local school authorities to facilitate the student to rejoin school. Every child has a volunteer back up to minimize incidences of dropping out. Different motivational activities for school dropouts are conducted in the evening hours. These centres play the 'parent role' in their schooling process. Special residential camps are being organised to motivate these children to go back to school. So far 269 children have been mainstreamed through this program and 1,600 children are recovered.

### Career guidance Programs

The Foundation facilitates JSW staff and career experts to visit rural schools and speak on career options with students studying in grades 9, 10, 11 and 12. It also participates in careers fairs organised through various academic institutions. Till date 16,000 children have benefited of this workshops and exhibitions.

**We aim to facilitate detection and diagnosis of health ailments and mitigate the increasing prevalence of HIV-AIDS through our initiatives.**

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### Camps

Every location organises periodic health camps for the community and also operates mobile health facility. Often, hospitals and charities such as rotary and lions collaborate in this initiative. Anaemia is largely prevalent and specific instances of cleft lips are referred to doctors and plastic surgeons that perform surgeries gratis as their repayment to society. Around 155,000 rural patients are covered under these camps.

### Work on mitigating HIV-AIDS

Every location conducts awareness sessions and street plays in the villages. At plant level, certain employees have

been identified as trained as peer educators. Condom vending machines have been installed at the truck terminals and over 500 condom sachets are refilled every month. The Foundation is also setting up voluntary testing and counselling facility through mobile units to begin within Vijayanagar. Around 15,000 individuals and families are covered under this programme. We are now upscaling this work to include testing and counselling with truckers

### Hospitals

Jindal Sanjeevani, a 75 bedded, modern and centrally air-conditioned hospital provides best of health care. Caters to the health needs of JSW employees, their dependents and the surrounding communities. The Jindal Sanjeevani Hospital (JSH) runs a free OPD once in a week and the underprivileged get the opportunity to use the facilities there. All health camps held in the villages are free of cost and the equipment from JSH is used for the same.

### Upgrading PHCs

As a demonstration project, the Foundation has upgraded water and sewerage systems in the government run Primary Health Centres. Many of these have been upgraded to PHC level from dispensaries and lack basic infrastructural



amenities in the general and maternity wards. As part of this initiative, a new water supply and storage system has been installed for the centre and accommodation for nurses, sewerage system have been renovated and operation theatre and other rooms have been sanitised.

The foundation has also provided new equipment and together with the state health departments hopes to ensure upgraded and comfortable health outreach to a large rural population that avails the facility at the PHCs. Its radius is around 27 villages covering 55,000 population.

### Sanitation

A comprehensive sanitation package that includes tree plantation, cleaning of the village and construction of waste management pits in addition to the toilet block is explained to the community. This is applicable presently for individual toilets. The local self government in two of the project villages was recently felicitated by the President of India with the Nirmal Gram Puraskar. We constructed 1,000 toilets which benefited around 20,000 population.

### Disability assessment and intervention

The Foundation conducts household surveys in select villages around its plant locations to ascertain prevalence and intensity of physical and mental disability. It is presently creating collaborations with vocational training providers for this segment.

Tamanna School is functioning with 33 students out of which 2 are physically challenged with learning disability and 1 hearing impaired, one physically challenged with hearing impairment and low IQ. School has good infrastructure like class room furniture, play equipment and Bus for Specially-abled Children. Newly joined students undergo psychiatrist consultation and regular medical checkups are conducted every week.

## We strive to facilitate sustainability of crops and cattle and develop community capability in acquiring alternate skills.

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### Vocational centres

The two vocational training centres in Vijayanagar and Vasind are progressing well and have been documented in the case study section. The Shramsadhana Vocational Training Centre (SVTC) started in March 2003 with the first batch of 30 students. A need assessment study, which preceded the start of this centre, determined the trades to be offered. Subsequently, the engagement with students has broadened to include input that would enable students to improve their confidence. From 30 students in 2003 the facility has expanded to cover 1,393 students.

The O P Jindal Centre for Vocational Training started in 2008, and a world class training provider, Nettur Technical Training Foundation (NTTF), Vijayanagar has been engaged for technical subject delivery. From 5 students in 1999 the strength has increased to 584 (265 NTTF Vocational Training + 319 Training Centre for Textile and Apparels), in 2008. So far 282 women have been trained in tailoring, 78 for Arc Welding and Gas Cutting, 72 in Electrical Courses and 450 in the BPO on data processing skills. The Vocational Training Centre for differently - abled focuses on production of paper products. The training for the differently abled is also conducted by NTTF.

### Women on heavy jobs

Rural girls who have studied up to higher secondary level are encouraged to pick up unorthodox skill of operating heavy earth-moving machines. These women are employed as pay loaders and now earn much higher than what they would have normally earned.

Apart from this, the girls are being trained and placed in other unorthodox jobs like power-tiller operation, pump



operation, mechanical maintenance, electrical, driving job etc. These women are being imparted 3 to 6 months of training and during the period, they are given a stipend of ₹ 1500 per month, Group Personal Accident benefit/ Workmen's Compensation benefit and are extended with the benefit of all safety equipments.

Some of the needy trainees' are being provided with transport facility also. After the successful completion of the training, these women are placed with the associate companies, which can fetch them a salary in between ₹ 2500 - 6000 per month depending upon their qualification and the type of work they carry out. So far about 80 women from the surrounding villages have been facilitated for placement with the Associate Companies.





### Self help groups

JSW Foundation formed Mahila Dairy Development Group (MDDG) with the sole objective of reaching out to the poor women in villages around Vijayanagar Works through collateral free credit programmes aimed at income generation and thereby promoting sustainable livelihood opportunities to them. This objective is being achieved by organizing these women into Self Help Groups (SHGs), which assist them to build their capacities by enabling them to identify and prioritize their needs and resources.

### BPO

A non voice rural BPO for women has been established as a pilot project in our Karnataka operations. This aims to:

- Improve the knowledge and skills of rural women to make them IT savvy
- Provide the opportunity to rural women to earn their livelihood through gainful employment
- Improve the socio-economic condition of the rural women



This initiative that was started in 2005, has aided to the development of nearly 400 high school pass out girls. Some of these women are now recognized as bread earners and few others are augmenting the family income to lead a better life.

### Participation in Public Private Partnership for development of Industrial Training Institutes

JSW Steel has adopted nine ITI s under the public private partnership opportunity provided by the central government.

It has initiated training of faculty and student exposure to modern technology and proposes to develop each of these ITI's into a centre for excellence in particular trades. The government has provided a one-time grant of ₹ 25 million and through an infusion of its own resources, JSW proposes to fulfil its commitment to the Institute Development Plans it has formulated with other industry partners.

### Agriculture and Livestock

On pilot basis, JSW Foundation has started crop and cattle breeding projects. With respect to the crop improvement project, farmers are helped to understand the crop economics by the use of biofertilisers and biopesticides.

Also farmers are acquainted about the seed treatment with bio-inputs and gypsum application. The input cost has thus reduced by ₹ 900 per acre for groundnuts. The seed produced is being sold in the same villages to other farmers and a part of it is conserved for future use. This has not only reduced the cost of production but has also led to the production of quality food crops like jowar, maize, banana, cauliflower, onion, tomato, chilies, peanut, cabbage and commercial crops like cotton and sunflower.

Cattle breeding programme in surrounding villages has been implemented in association with BAIF Institute for Rural Development-Karnataka (BIRD-K) basically to improve genetic potential of cows and buffaloes for milk production and draft capacity. 18 villages are covered under BIRD-K Project for cattle breeding.

During the year, sustainable agriculture practices introduced along with cattle breeding in the proposed villages.

29 farmers have been identified from 5 villages namely Kurekuppa, Nagalapura, Basapura, Doddanthapur and Kodal for the programme and organised exposure visit on sustainable agriculture practice, plantation of trees (horticulture and forest species) in the selected farmers' field and trained farmers on composting, Vermicomposting and preparation of panchagavya.

For the advancement of agriculture, the application of SAP was introduced wherein an exposure visit was organized to Mudrigiri village where 23 farmers practiced SAP.

**We are consciously working towards reducing our impact on the environment through various community initiatives.**

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**Earth care awards**

Earth Care Awards were initiated in 2008-2009 and received wide participation and encouragement from the Society for acknowledging and awarding Innovation and good practices in Mitigation and adoption practices of Climate Change. JSW have decided to continue with ECA every year.

Awards for the industry category have been divided into big industries that move beyond Clean Development Mechanism (CDM) and medium and small industries for their effort to move towards CDM. The category for water conservation and forest development has been divided into community initiatives and those by government institutions. A fourth category namely, conservation of our cultural heritage from climate change impact is being added to the Earth Care Awards.



**Earth Watch Programme**

JSW has identified environment and climate change as strategic priority areas. Therefore to introduce the employees at JSW with key climate change and sustainability issues 5 field workshops were organized at the Earth Watch Research and Learning Centre at Sirsi (Western Ghats). Earth Watch Institute is one of the largest environmental engagement and research organizations in the world with over 20 years of working with business. They have constructive and professional approach, founded on the belief that NGO/Business partnerships can create value for both business and the environment.

**Garbage management**

This is a pilot project to determine community involvement in collection, disposal and management of village waste. This has been established following a prolonged dialogue with the community. Village shops have been persuaded to purchase two used drums and every household is given two waste bins for segregating their waste.

The community has nominated village men and women for daily collection of waste. From the collection point is transported to a nearby dump where it is composed using biological methods. Total population covered under this programme is 37,200. Total five tons of garbage is collected in a day. Five villages are covered under this programme.





### Summer camps

The foundation observed young children around its plants express concern about the smoke emerging from its chimneys and about the longevity of their river because of the plant effluents, and developed this project. As part of this project, children get to see the plant, discuss their concerns and carry back a sense of awe and comfort in the operations.

For many their concerns of pollution have been addressed, others have been awestruck by the sheer size and operation of the heavy machines; a few in their feedback have even stated that they would work hard to get employment at JSW. For the Foundation, this has proved to be an important ice breaking activity in subsequent work with the parents of these children. 785 students covered under these camps.

### Township carbon footprint studies

The foundation strives to upgrade its standards for quality and energy efficiency. As a result of these efforts, one of our townships was awarded the Prime Minister Trophy for Urban Design.

### Model village development

This is a pilot project in collaboration with a local village panchayat. As a first step, a detailed study was undertaken to map all the socio-economic condition of the village. Over two phases, the first focussing on physical rehabilitation and the second, on social rehabilitation, the project will address issues of drainage, roads, sanitation, water and education, health and community organisation.

The foundation has insisted upon provision of community library and roof water harvesting facility. The village panchayat has mediated on occasions where land required for a common activity (such as community toilets) is in possession of individuals or private trusts / groups and has convinced them to hand it over for this project. There are several other instances where encroachment by shops / individuals on common property has been cleared.

This year Basapura village was selected for holistic infrastructure development wherein concrete roads were constructed of 2km and 1 km for main as well as internal roads respectively. In addition a new school building was build for the old primary school. 1000 individual houses were constructed in villages for the flood affected victims in Gadag and Koppal districts.

### Sports development

JindalSquashAcademyisthesecondbiggestsquashacademy in the country and the hub of Squash in Maharashtra. Jindal Squash Academy has seven international Squash players, 22 national players and 46 state players. This academy also encourages excellence in Squash and provides exposure to rural youth in neighbouring villages. It has been a constant endeavour to create a Squash culture by identifying talents from within the company and to foster competitive spirit amongst them.

### Talent Hunt

In order to source sporting talents from an early age and give them requisite training JSW Foundation and Thane District Sports Office has initiated a unique partnership to foster the development of sports at the national as well as international level. A four month long campaign was initiated at Rivera Global Foundation School, to identify sports aptitude in the age group of 8 to 14 years. A total of 6000 schools were covered in Thane district to source out talents.

### Women's self defense camp

JSW Steel Ltd along with Thane district sports council organized a ten- day women self defense camp for rural women. The camp provided training to women to defend themselves. From 13 talukas 40 women participated in the camp during which they were introduced to basic skills of Karate, Taekwondo, Judo, Lathi – Kathi, Yoga, fire fighting, swimming, first aid training and aerobics.



We endeavour to restore pride in our cultural heritage and promote dialogue in contemporary and performing arts



### Temple restoration at the UNESCO World Heritage Site at Hampi

The Krishna temple is among the most impressive of monuments within the UNESCO world heritage site of Hampi, built through the royal patronage of the Vijayanagara empire © 111 AD. The temple complex consists of a major shrine with a garbhagriha, passage, rangamandapa, mahamandapa and alters. It is a nationally protected site.

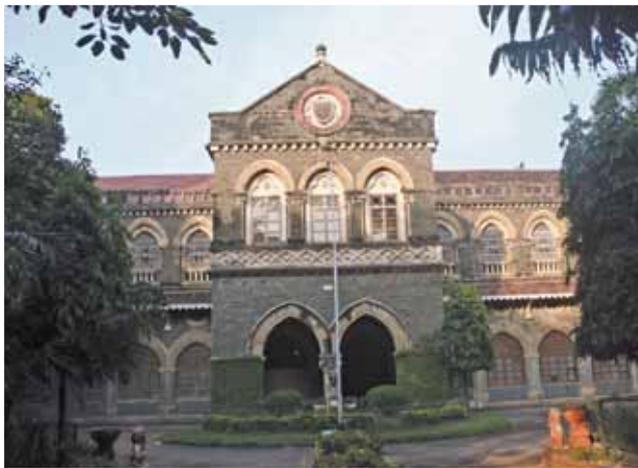
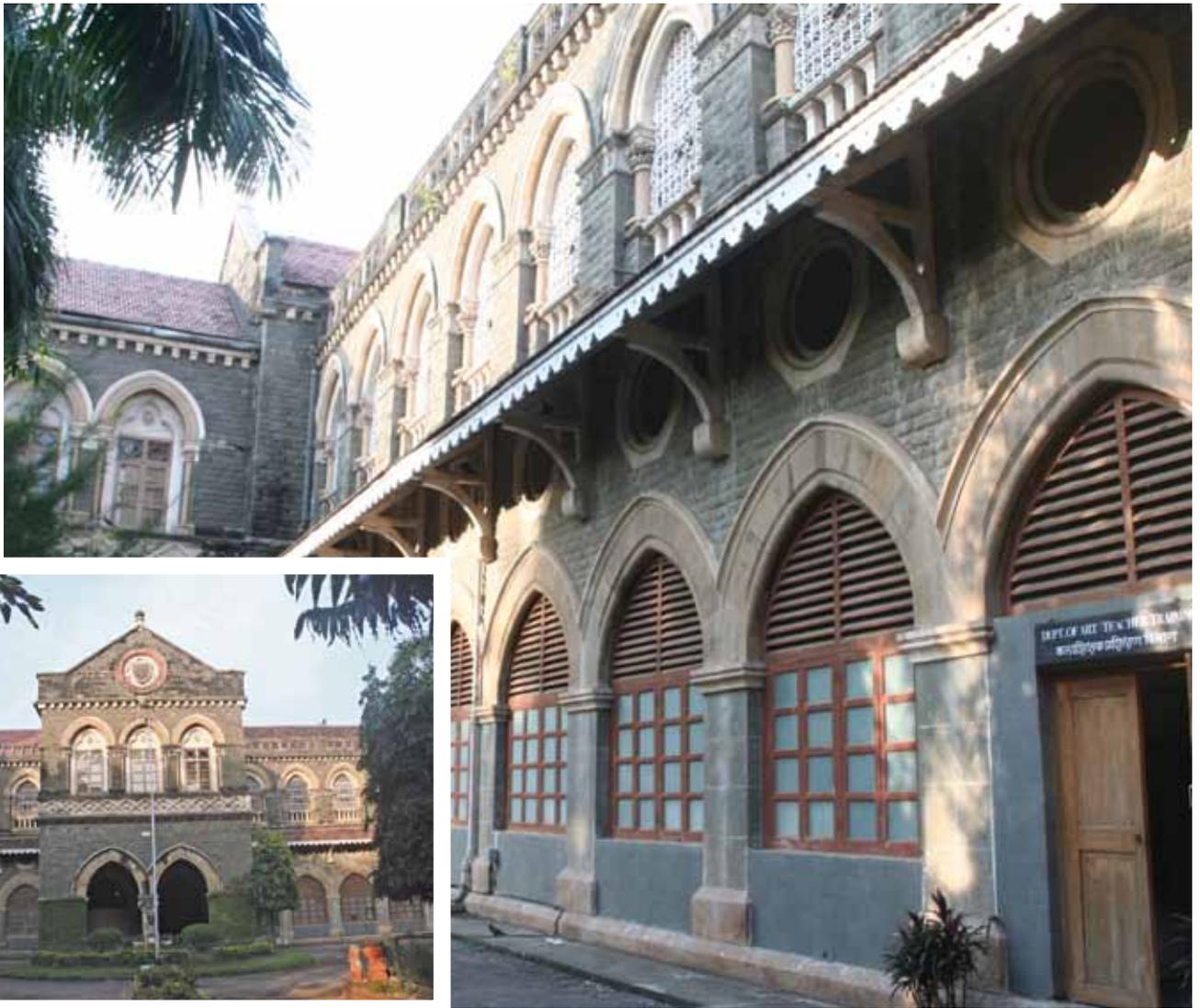
For the first time, the Archaeological Survey of India has permitted a private foundation to undertake restoration work.

### Restoration work at the Sir JJ School of Art

This is a premier art institution in the country established in 1858. It is also a heritage site. The foundation has restored the external section of the art school and is presently restoring the interiors of the Fine Arts building on the campus.

The project includes documentation and conservation of the invaluable collection of paintings and sculptures, and displaying these in a museum. This museum is being established in an existing bungalow on the campus. The JSW Foundation is working with noted conservation architects on this partnership initiative with the State Government.

## CORPORATE SOCIAL RESPONSIBILITY



### Art India

ART India has been India's premier art magazine over the last fourteen years; it has been responsible for the promotion of a critical discourse around diverse art forms and disciplines. It has won several national awards for printing and content and is recognized internationally as the most important independent voice on contemporary art from India.

### Publications

The Foundation periodically supports publications in various topics. These have been absorbed by connoisseurs and find place in national and international bookstores. 'Hampi' a coffee table book is a recent publication

### Collaboration with Princes' Charities

The Prince Drawing School was founded by The Prince of Wales and is based in the Kensington Palace, UK. It is one of the schools under The Prince Charities that offers Fine Art students in depth training in drawing & observational skills.

The aim of the drawing school is to raise the standard & profile of drawing through teaching and practice. JSW Foundation along with The Prince's Drawing School has offered a ₹ 1,000,000 PDS scholarship to Ms. Vaishali Dalvi. Drawing School on their commitment to art will be providing subsidized tuition fee and accommodation to the scholar.



Jindal Squash Academy is the second biggest squash academy in the country and the hub of Squash in Maharashtra. Jindal Squash Academy has produced seven international Squash players, 22 national players and 46 state players.

This academy also encourages excellence in Squash and provides exposure to rural youth in neighbouring villages. It has been a constant endeavour to create a Squash culture by identifying talents from within the company and to foster competitive spirit amongst them.

## ▶ INDEPENDENT ASSURANCE STATEMENT

JSW Steel Limited (the Company) has requested KPMG to provide an independent assurance on its 2009-2011 Corporate Sustainability Report. The company's management is responsible for content of the report, identification of the key issues, engagement with stakeholders and its presentation.

KPMG's responsibility is to provide "limited assurance" on the report content as described in the scope of assurance. 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. 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.

### Scope of Assurance

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

- Data and information related to the Company's sustainability performance in the period 01 April 2009 to 31 March 2011.
- The sustainability specific data and information covering the Company's downstream works at Vasind and Tarapur and upstream works at Toranagallu and Salem.
- The Company's internal protocols, processes, and controls related to the collection, collation, and reporting of sustainability performance data.
- The Company's approach to identify material issues and engage with its stakeholders.

### Exclusions

The assurance scope excludes;

- 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 provided by the Company;
- Issues related to Intellectual Property Rights and other competitive issues;

### Methodology adopted for Assurance:

We conducted our review in accordance with International Standard on Assurance Engagements (ISAE 3000), "assurance engagements other than audits of review of historical information" issued by International Audit and Assurance Standards board. The process of assurance involved -

- Discussion with Senior Executives at upstream and downstream works and at corporate office to understand their perspectives on sustainability, their expectations, and future plans
- Site visits to the downstream and upstream works at Tarapur, Salem, Vasind and Toranagallu for
  1. Testing reliability and accuracy of data on a sample basis

2. Understanding assumptions / thumb rules considered
3. Assessment of the stakeholder engagement process through interviews with concerned personnel and review of relevant documentation
4. Review of the processes deployed for collection, compilation, and reporting of sustainability performance indicators at corporate and works level.

Appropriate documentary evidence was obtained to support our conclusions on the information and data verified. Where such documentary evidence could not be collected on account of confidential information our team physically verified the documents.

### Observations

Our observations are as follows:

- The Sustainability policy rolled out by JSW Steel comprehensively covers its sustainability agenda.
- JSW Steel has demonstrated serious efforts towards creating a sustainability governance framework through the Corporate Sustainability Cell.
- The report elaborates on JSW Steel's performance on material sustainability issues as identified in consultation with its internal and external stakeholders;
- The report articulates JSW Steel's approach towards stakeholder engagement with a special focus on suppliers and vendors.
- JSW Steel has initiated deployment of IT systems to measure and monitor its GHG emissions.
- There is a scope for improvement for bettering the sustainability management systems at Salem works.
- JSW Steel has deployed internal processes to ensure that performance indicators are checked for completeness and accuracy. However, the data management systems have scope for improvement in terms of integrating sustainability KPIs in to mainstream MIS.

### Conclusions

On the basis of our assurance methodology, nothing has come to our attention that would cause us not to believe that:

- The Report presents JSW Steel's sustainability performance covering its operations as mentioned in the scope.
- Material issues that have impact on JSW Steel and are of interest to its stakeholders have been highlighted in the Report.
- The process of engaging with key stakeholders to map their expectations and its subsequent outcome has been reported.



Arvind Sharma  
Director - KPMG

## GRI APPLICATION LEVEL

To indicate that a report is GRI-based, report makers declare the level to which they have applied the GRI Reporting Framework via the “Application Levels” system.

To meet the needs of beginners, those somewhere in between, and advanced reporters, there are three levels in the system. They are titled C, B, and A. The reporting criteria at each level reflect a measure of the extent of application or coverage of the GRI Reporting Framework.

REPORT APPLICATION LEVEL		C	C+	B	B+	A	A+
STANDARD DISCLOSURES	<b>G3 Profile Disclosures</b> OUTPUT	Report 1:1 2.1 - 2.10 3.1 - 3.8, 3.10 - 3.12 4.1 - 4.4, 4.14 - 4.15	REPORT EXTERNALLY ASSURED	Report on all criteria listed for Level C plus: 1:2 3.9, 3.13 4.5 - 4.13, 4.16 - 4.17	REPORT EXTERNALLY ASSURED	Same as requirement for Level B	REPORT EXTERNALLY ASSURED
	<b>G3 Management Approach Disclosures</b> OUTPUT	Not Required		Management Approach Disclosures for each Indicators Category		Management Approach Disclosures for each Indicator Category	
	<b>G3 Performance Indicators &amp; Sector Supplement Performance Indicators</b> OUTPUT	Report on a minimum of 10 Performance Indicators, including at least one from each of Economic, Social and Environmental.		Report on a minimum of 20 Performance Indicators, at least one from each of Economic, Environmental, Human Rights, Labour, Society, Product Responsibility.		Report on each core G3 and Sector Supplement* Indicator with due regards to the Materiality Principle by either: a) reporting on the indicator or b) explaining the reason for its omission.	



## Statement GRI Application Level Check

GRI hereby states that **JSW Steel Limited** has presented its report "JSW Steel - Corporate Sustainability Report (2009-11)" 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 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 Guidelines.

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

Amsterdam, 13 January 2012

A handwritten signature in black ink, appearing to read "Nelmara Arbex", is written over a light blue circular background.

Nelmara Arbex  
Deputy Chief Executive  
Global Reporting Initiative



The "+" has been added to this Application Level because JSW Steel Limited 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](http://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 29 November 2011. GRI explicitly excludes the statement being applied to any later changes to such material.*

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### Additional Information Sources

#### JSW Steel Limited Annual Report 2010-2011

JSW Steel Annual Report 2010-11 is available at [http://www.jsw.in/investor\\_zone/pdf/Annual\\_Results/JSW\\_Steel\\_Annual\\_Report\\_2010\\_11.pdf](http://www.jsw.in/investor_zone/pdf/Annual_Results/JSW_Steel_Annual_Report_2010_11.pdf)

#### JSW Steel Limited Corporate Sustainability Report 2007-09

JSW Corporate Sustainability Report 2007-09 available at [http://www.jsw.in/JSW\\_SUSTAIN\\_REPORT\\_FINAL.pdf](http://www.jsw.in/JSW_SUSTAIN_REPORT_FINAL.pdf)

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JINDAL MANSION

5A, Dr. G. Deshmukh Marg, Mumbai - 400 026.

Tel: (022) 23513000 Fax: (022) 23526400. [www.jsw.in](http://www.jsw.in)