TATA STEEL

TATA

EXCELLENCE FOR COMMON GOOD

13th Corporate Sustainability Report 2012-13

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LEADER 2013

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[IN THIS REPORT]

01

MANAGING DIRECTOR'S STATEMENT

"ULTIMATELY OUR VERY PURPOSE IS LONG-TERM STAKEHOLDER VALUE CREATION."

- MR CYRUS MISTRY
Chairman, Tata Group

Dear Stakeholder,

In line with our Founder J N Tata's principle of making the welfare of the communities the primary purpose of business, Tata Steel has since 1907 served the communities in and around its areas of operations. Consistent with the founder's philosophy, the Company has embedded its corporate responsibility in its Vision statement, to be the world's steel industry benchmark in "Value Creation" and "Corporate Citizenship". Underpinning this vision is a performance culture committed to aspirational targets, safety and social responsibility, continuous improvement, openness and transparency.

In his first communication to his colleagues as the new Chairman of the Tata Group, Mr Cyrus Mistry had stated: "ultimately our

very purpose is long-term stakeholder value creation."

This reinforces the fact that the Tata Group and Tata Steel, despite a generational shift in its leadership (from Mr Ratan Tata to Mr Cyrus Mistry), remains steadfast on the ethos of value creation for all stakeholders, which we believe has timeless relevance.

All organisations operate in multi-stakeholder environments. This plurality generates diverse, often competing, demands. Tata Steel has always appreciated the importance of this plurality, as engagements with diverse stakeholders have the power to distill individual benefits while multiplying the value for all.

Institutionalised processes exist in the Company for listening to and addressing stakeholder expectations. However, in recognition of the importance of this subject, this year we sought assistance from external experts to help review and fine-tune these processes, with the objective of improving the efficiency with which we extract material issues and tailor all future plans. Our efforts are designed to take forward our sustainability theme of "Excellence for Common Good".

In the past year alone, listening to our customers has allowed us to identify a new market segment - the Emerging Corporate Value (ECV) launched in 2012-13, progressively localize products imported into our country, besides offering low cost solutions for rural India through the Nest-In project and the Bio-toilets.

On the other hand listening to the concerns of our local community, which encircles our mining and manufacturing operations, allowed us to successfully transform the ambitious 2.9 million tonne brownfield expansion project into a key conduit for improving our future environmental performance and to set aspirational benchmarks in operational excellence.

I would like to acknowledge the invaluable contribution made by movements such as the UN Global Compact, of which Tata Steel is a founder member, in providing early and continuing impetus to our faith in a collaborative and responsible approach to business.

BROAD TRENDS INFLUENCING SUSTAINABILITY PRIORITIES:

The Indian steel market continued to grow albeit at the slowest rate since the global crisis of 2008. The sector also faces volatile raw material prices and systemic weakness in demand in key markets. Tata Steel's volume however remained steady despite seasonally soft quarters and weak macroeconomic conditions.

Steel is the key driver of the Indian

LISTENING TO OUR CUSTOMERS HAS ALLOWED US TO OFFER LOW COST SOLUTIONS FOR RURAL INDIA THROUGH THE NEST-IN PROJECT AND THE BIO-TOILETS.

TATA STEEL IS A MEMBER THE WORLDSTEEL ASSOCIATION (WORLDSTEEL) AND A SIGNATORY OF ITS SUSTAINABILITY CHARTER.

and global economy not only as a material provider but also because of its capability to convert a natural resource into wealth, moving the wheels of the economy through end use applications, while generating employment for a large number of people. However, the sustainability of the industry pivots on key elements of economic, environmental and social performance.

Tata Steel is a member the World Steel Association (worldsteel) and a signatory of its Sustainability Charter. All steel makers subscribe to the sustainability challenges identified by it. Responsible environmental practices and responsible resource management is a measure of our environmental sustainability, with up-skilling and training workmen as technologies evolve. In addition creating safe workplaces and caring for the communities where we operate are integral to the social license to operate.

The completion of the 9.7 MTPA brownfield project has put Tata Steel firmly on its path to meeting its goals of adding new eco-efficient products to its portfolio while using fewer natural resources, less energy and less water per tonne of steel produced.

STRATEGIC PRIORITIES

The immediate challenge ahead of Tata Steel is to continue to strengthen its manufacturing base with the completion of the Greenfield steel-plant project at Kalinganagar. The Company is also making big investments and significant efforts to ensure proper resettlement and rehabilitation of project-affected families.

The forthcoming demand for additional raw materials as an input to our growing operations greatly incentivizes the need to optimize raw materials consumption. The effort is even more compelling as domestic allocation of resources such as coal, a key ingredient in iron & steel making, is facing an uncertain future.

FOCUS ON SUSTAINABILITY ISSUES

The Tata Steel Board as well as top management addresses sustainability issues of the organisation and stakeholder value creation. As reported earlier we have reorganised our business planning process and institutionalised the Strategy Planning

process. Immediately prior to 2012-13 we created the Corporate Sustainability Vertical to enhance focus and align our areas of priority with our Corporate Vision and sustainability strategy.

Also since 2011-12 we have adopted a revised methodology for environmental expenditures, which has been reflected in this report.

VIEWS ON PERFORMANCE

Despite the inconsistencies seen in some environmental parameters whilst stabilising the 2.9 MTPA expansion, we believe that the best available technologies embedded by us in its design for resource efficiency, energy efficiency, waste utilization and emission abatement, besides future significant investments in air pollution control and effluent water treatment to be completed by 2014-15, will move our Jamshedpur operations closer to global benchmarks.

Tata Steel depends on imports to fulfill nearly half of its coal requirements. To bridge the gap between domestically available grades of coal and those required for steel production the Company aggressively pursued optimal use of local resources, waste utilization as well as breakthrough technologies to use Run of Mine. With the rupee declining in value, these efforts are even more critical to our cost competitiveness.

The reporting year saw sluggish market growth even as our new capacity came on-stream. With other producers also augmenting capacity, our differentiated products and service offerings will be the key determinant of our competitiveness. In a challenging business environment in 2012-13, Tata Steel performed well on all dimensions of sustainability. Improvement projects under the Kar Vijay Har Shikhar (KVHS) initiative, benchmarking and continuous improvements, aimed at investor value creation and robust cash generation through a focus on EBIDTA, are very important for supporting our investments of ~ Rs 40000 crores for our growth project in Odisha.

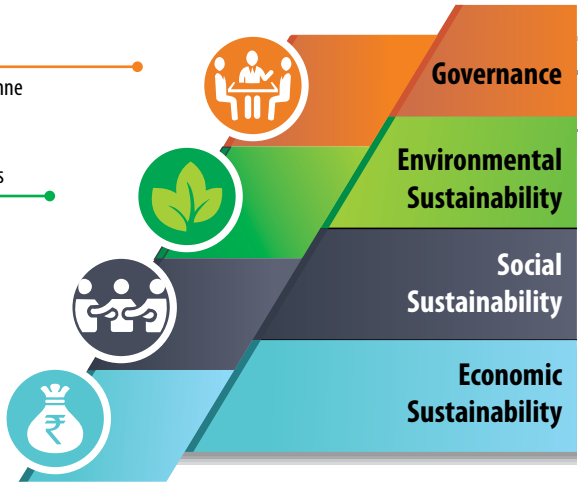
A healthy EBITDA of Rs 11698 crores and EBITDA margin of 31 per cent was achieved, making Tata Steel one of the most profitable companies globally. A sum of Rs 7026 crores was paid to the government in duties and taxes, ~ Rs 258.83 crores spent on Environment related equipment for our steel plant and Rs 171 crores on Community Development.

AN EBITDA OF RS 11698 CRORES AND EBITDA MARGIN OF 31 PER CENT WAS ACHIEVED, MAKING TATA STEEL ONE OF THE MOST PROFITABLE STEEL COMPANIES GLOBALLY.

A SUM OF ~ RS 258.83 CRORES WAS SPENT ON ENVIRONMENT RELATED EQUIPMENT FOR OUR STEEL PLANT

Major initiatives in 2012-13:

- First Indian company to be a part of the International Integrated Reporting Council (IIRC)
- Corporate Social Responsibility Advisory Council created
- Significant investment in Environment Management related areas along with our 2.9 million tonne brownfield expansion project to achieve benchmark levels in operational excellence
- Driving operational improvements through our Kar Vijay Har Shikhar initiative
- Project initiated with IUCN to implement best practices for maintaining biodiversity in our mines
- Skill development training imparted to non-officers
- Two new training institutes for employability training established, one each in Jharkhand and Odisha
- Significant marketing focus and penetration into the Small & Medium sized Emerging Corporates (EC) segment
- Offering budget solutions for rural India through initiatives such as Project NEST, Build Wise etc
- Sales growth by 13 per cent over FY12 at 7.48 million tonnes with EBIDTA margins of 31 per cent, amongst the highest in the Steel Industry.



FUTURE OUTLOOK

SAFE BEHAVIOR OR THE BEHAVIORAL ASPECT OF SAFETY REMAINS A CAUSE FOR CONCERN.

Despite the challenges we have faced, I am always buoyed by the enthusiasm of our shop floor employees to selflessly contribute to the Company, particularly through various improvement initiatives. In turn, my principal concern is always their Safety and Wellness. In the last year, we have seen an improvement in the wellness of employees, tracked by our health index.

Safe behavior or the behavioral aspect of safety remains a cause for concern. While initiatives at the mines and collieries have reduced safety incidents, fatalities across the Company are distressing. The learning from near misses and accidents is a pointer to the work that needs to be done to change mindsets. We are progressively introducing comprehensive Standard Operating Procedures in all areas and hope to witness the impact of this and other initiatives by meeting our target of a LTIFR of 0.19 with Zero Fatality by 2018.

We expect our partners to follow the same Safety metrics and standards as we do for Company employees because we believe that safety of contractor employees has a larger impact on society. Hence during the year several initiatives were taken at the Steel Works and mines to improve not just their Safety but also all aspects of the work climate like introducing free bus service within the plant for minimizing two-wheeler movement of contract workers and road safety risks.

We also intend to improve our environmental performance to achieve a Specific Water Consumption target of 4.85 m3/tcs and Specific CO2 emissions target of 2.35 tCO2/tcs by 2018. The greenfield project at Kalinganagar, Odisha will infuse the latest technologies and robust environment performance processes into the Indian steel industry

The enormous technical capability of our people is a key strategic strength. In 2012-13 Human Resource Management at Tata Steel was reorganized to focus on becoming a strategic partner in business as well as to maximize employee happiness.

To assess the effectiveness of its social initiatives Tata Steel innovatively devised a Human Development Index (HDI). In 2012-13, HDI assessment was completed for 230 villages. The Corporate Social Responsibility Advisory Council was also created. We hope that this apex body along with the results of the measurement of HDI will enable us to better direct our social initiatives and allocate resources more efficiently.

Our pursuit of Total Quality Management – a stakeholder-centric, dynamic management philosophy - sets in constant motion the wheel of change through the continuous loop of feedback and improvement. The processes we impacted and the successes that we achieved resulted in Tata Steel winning the Deming Grand Prize in 2012, which is one of the highest awards for TQM in the world. It demonstrates Tata Steel's commitment to Quality and Business Excellence in every aspect of its activities, encompassing the establishment of sustainable systems and processes for corporate governance, innovation, environment management, employee safety and welfare besides growth. Tata Steel is the only integrated steel company in the world outside Japan to have won the prestigious Deming Grand Prize till now.

In the coming year we hope to codify our learning from our processes and develop an improved approach for excellence driven by common good.

Hemant M Nerurkar
Managing Director
15th October 2013

HUMAN RESOURCE MANAGEMENT AT TATA STEEL WAS REORGANIZED TO FOCUS ON BECOMING A STRATEGIC PARTNER IN BUSINESS

OUR PURSUIT OF TOTAL QUALITY MANAGEMENT – A STAKEHOLDER-CENTRIC, DYNAMIC MANAGEMENT PHILOSOPHY - SET IN CONSTANT MOTION THE WHEEL OF CHANGE THROUGH THE CONTINUOUS LOOP OF FEEDBACK AND IMPROVEMENT.

[STRATEGY & ANALYSIS]

EXCELLENCE FOR COMMON GOOD

At Tata Steel the principle challenge is continuous value creation for all stakeholders such that the process of value creation serves common good. This is the legacy and comprises the DNA of the Company. The complexity of this challenge requires determined commitment to excellence. Hence Tata

Steel has chosen to leverage excellence on all fronts - governance, products & services, operations, people and in the sharing of the fruits of this excellence with society – to drive sustainability.

Tata Steel's Vision strikes a balance between economic value as well as ecological and societal value by aspiring to be "a Global Benchmark in Value Creation and Corporate Citizenship". It guides the Company in its race to excel in all areas of sustainability. Tata Steel's yardstick for judging its sustainability performance is the enduring long-term value it creates for all stakeholders.

SUSTAINABILITY IMPACTS

Among India's largest steel makers Tata Steel is constantly alive to the growth needs of the country through sustainable development.

Growth and Capacity Expansions : A focus area for Tata Steel in enabling sustainable economic growth, capacity expansion is aimed at aligning and expanding the Company's product portfolio in line with future market needs.

Operational Excellence : The Company focuses on the entire lifecycle of the product from mining to end use efficiency and disposal through resource efficiency, waste utilization, energy efficiency, mitigation of Climate Change and eco efficient products and services.

People as a Strategic Asset: Tata Steel's desire to grow is fuelled by the excellence of its people. To make them a strategic asset the Company creates an enabling environment founded on safety excellence, capacity and capability building, participative management and safeguarding their wellness.

Social License to Operate : The presence of the Company has made its operations centres of economic growth. The steel city of Jamshedpur is an urban agglomeration and among the largest industrial hubs in eastern India. The Company shares its excellence ethos through a range of interventions that focus on social sustainability. These enhance access to sustainable livelihoods through continuous improvements in agriculture development, employability training, entrepreneurship development and employment; access to quality education; increase the reach of promotive, preventive and curative health care facilities; foster leadership development through sports and adventure sports; and protect the unique identity and culture of indigenous communities.

THE COMPANY SHARES ITS EXCELLENCE ETHOS THROUGH A RANGE OF INTERVENTIONS THAT FOCUS ON SOCIAL SUSTAINABILITY.

ENABLERS DRIVING EXCELLENCE AT TATA STEEL

Sustainability Impacts
- Sustainable Development
- Ethical and transparent business practices
- Trusteeship

Challenges and Opportunities
- Enhancing reputation and stakeholder trust
- Stakeholder Engagement

ALL STAKEHOLDERS

Excellence Enablers
- Company Policies
- Tata Code of Conduct
- Management of Business Ethics
- TQM Methodology
- Policy Advocacy
- Voluntary reporting through GRI Reports, UNGC and worldsteel

Sustainability Impacts
- Growth & Expansion
- Robust Cash Generation for Growth
- Continued Competitiveness

Challenges and Opportunities
- Economic Performance
- Diversification of the customer base
- Continuous improvements
- Raw Material Security

SHAREHOLDERS

Excellence Enablers
- Brownfield expansion project
- Greenfield expansion project
- New Product Development
- Kar Vijay Har Shikhar

Sustainability Impacts
- Product Safety & Health
- Eco-efficient end products
- Improve product quality and deliver value added products
- Customer satisfaction

Challenges and Opportunities
- Safe Products
- Cost Competitiveness
- Products and Solutions based on market insight
- Achieving preferred supplier status

CUSTOMERS

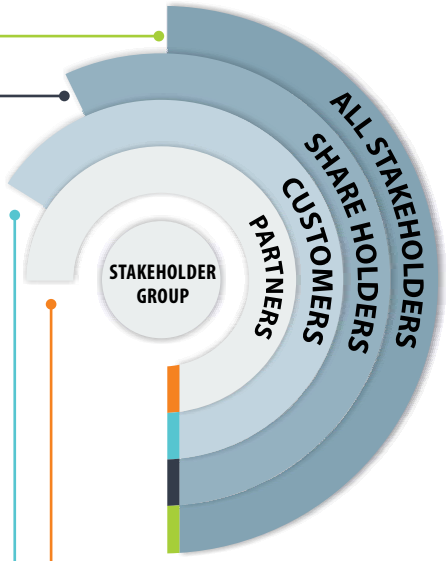
Excellence Enablers
- Augmenting the product range
- Promoting safe use of products
- Service innovation
- Ethical marketing communication practices

Sustainability Impacts
- Collaborative growth
- Non discrimination

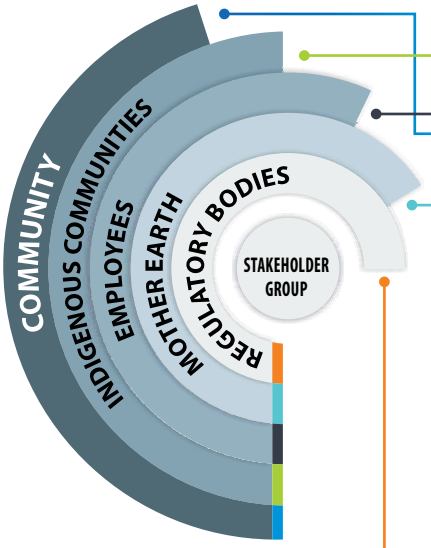
Challenges and Opportunities
- Development of strategic partners
- Benefitting the local economy
- Promoting human rights

PARTNERS

Excellence Enablers
- Supplier Value Management
- Affirmative Action
- SA 8000
- Human Resource support for External Processing Agents



Stakeholder identification is undertaken through processes such as the power influence matrix as detailed in the section on GOVERNANCE: Listening & Learning leads to Common Good.



Sustainability Impacts
- Benefits to the local economy through direct and indirect value creation

Challenges and Opportunities
- Localisation of the supplier base
- Improving the quality of life of the communities

COMMUNITY
Excellence Enablers
- Sustainable Livelihood programme
- Access to basic healthcare
- Access to Education
- Employability Training
- Employment
- Youth Empowerment through Sports
- Tata Parivar Scheme

Sustainability Impacts
- Protection of diversity
- Inclusion in mainstream

Challenges and Opportunities
- Preservation of the unique culture and languages
- Affirmative Action initiatives

INDIGENOUS COMMUNITIES
Excellence Enablers
- Employment
- Access to Education
- Employability Training
- Entrepreneurship
- Preserving Ethnicity

Sustainability Impacts
- Safety & Health
- Participative Management
- Training & Development
- Workforce Diversity and Inclusiveness

Challenges and Opportunities
- Become a strategic partner in business
- Safe and Healthy Workplace
- Deliver existing and future talent needs
- Employee Productivity
- Employee Happiness
- Equal Opportunity
- Contract Labour Management

EMPLOYEES
Excellence Enablers
- Safety Excellence Journey
- Wellness@Workplace Programme
- Suraksha Scheme for Contractors Employees
- People Development Architecture
- CLAP (Contractors Labour Awareness Programme)

Sustainability Impacts
- Minimise use of natural resource
- Reduce disruptive activities
- Mitigate environmental impacts of products
- Manage biodiversity impacts

Challenges and Opportunities
- Material efficiency
- Waste minimisation
- Energy Efficiency
- Emission Reduction
- Water Efficiency
- Eco efficient products & services
- Preservation of Biodiversity

MOTHER EARTH
Excellence Enablers
- BAT for material efficiency, energy efficiency, water efficiency and emissions reduction
- Deployment of 3R for Waste Management
- VAVE for customers
- Air Quality
- Logistics Efficiency

Challenges and Opportunities
Going beyond compliance

REGULATORY BODIES
Excellence Enablers
- Proactively improve ESG performance
- Write-off material and energy intensive facilities

FOR BETTER VISUALISATION OF THE BUSINESS OBJECTIVES & STRATEGIES CASCADE AN ONLINE SYSTEM HAS BEEN ADOPTED.

APPROACH TO PRIORITIZING CHALLENGES AND OPPORTUNITIES

The Company continued its pursuit of value creation for all stakeholders by systematically following the Total Quality Management (TQM) approach.

For better visualisation of cascading of the Business Objectives & Strategies an online system has been adopted. This system BO&S (Business Objectives & Strategies) is designed to visualise the linkage between objective, strategies and means and accomplishment of business KPIs (identified through Annual Business Plan) including the middle and lower level KPIs.

In 2012-13 as part of its annual process, Tata Steel's Tubes Division reviewed and revised its Risk register for 2013-14 to include sustainability related aspects. To add greater thrust on sustainability in the Division, it has taken on "Sustain Safety, Social and Environmental Responsibility" as a key objective in the 2013-14 BO&S. Accordingly strategy and action plans were detailed out in the document with relevant KPIs.

1 **Step 1 :** Using the TQM methodology Tata Steel develops Long Term Plans and Annual Plans with well defined KPIs and governance mechanisms. The planning framework captures stakeholder inputs, trend analysis and learning from the past to focus ahead on sustainability challenges and risks.

2 **Step 2 :** The Company undertakes Risk Workshops, Competitor Analysis, analysis of regulations and Profitability Analysis among other processes to prioritise challenges and opportunities.

3 **Step 3 :** The Long Term, Short Term and Annual Plans contain objectives at the Corporate level which are then cascaded down through evolved and structured processes to divisions and departments. Each objective has KPIs and targets defined, with necessary strategies at all the levels for meeting the objectives. Further, to meet the strategies, the planning process defines sub-strategies and means as necessary.

KEY CONCLUSIONS OPERATIONAL EXCELLENCE

The Company continued to invest substantially in short term material efficiency and waste utilisation research, equipment and processes along with medium term CO2 emission reduction and energy efficiency improvement programmes.

The CO2 emission level for Jamshedpur Steel Works in 2012-13 was 2.52 tCO2/tcs, which was along similar levels to the previous year. The Company is examining various means to reducing energy consumption and CO2 emissions to retain its position as the Indian benchmark in CO2 emissions in the Iron and Steel sector (BF-BOF route) by increasing process efficiency.

A new facility for waste storage and processing commissioned during the year enabled enhanced solid waste utilisation at Jamshedpur Steel Works. Projects under the 'Zero Effluent Discharge' project are being commissioned in phases to reduce discharges from operations of water substantially.

SOCIAL SUSTAINABILITY

Programmes to establish a strong safety culture by inculcating safe behaviour covered not only the Company's employees but also contractors' employees. The Lost Time Injury Frequency Rate was 0.48 in 2012-13, an improvement of 12 per cent over last year and the lowest in the last five years. Tata Steel's special drive on Fatality Risk Control Programme and elimination of commonly accepted unsafe practices enabled correction of more than 10,000 unsafe conditions and 969 unsafe practices.

Health initiatives driven through the Wellness@Workplace programme have a special focus on the health of women employees. The programme has resulted in a significant improvement in the health index of all employees.

In 2012-13 the HDI assessment for 230 villages served by Tata Steel Rural Development Society was completed.

To improve sustainable livelihoods the Company added 4192 acres under improved agriculture practices, 3177 acres under second and third crops, supported 750 self help groups as well as trained 2225 youth of who 597 were gainfully employed. About 35 per cent of the youth trained were from the AA communities.

Tata Steel primary health care interventions touched 370,000 lives while a targeted Maternal and Newborn Survival Initiative reduced the percentage of infant deaths from 6.15 to 1.58 and percentage of neonatal deaths from 5.9 to 1.15.

Training and mentoring by Tata Steel Adventure Foundation took India's first female amputee Arunima Sinha to the top of the world. Two tribal youth Binita Soren and Meghlal Mahato were also empowered by it to summit Mt Everest.

THE LOST TIME INJURY FREQUENCY RATE WAS 0.48. IN 2012-13 AN IMPROVEMENT OF 12 PER CENT OVER LAST YEAR AND THE LOWEST IN THE LAST FIVE YEARS.

TO IMPROVE SUSTAINABLE LIVELIHOODS THE COMPANY ADDED 4192 ACRES UNDER IMPROVED AGRICULTURE PRACTICES.

The Company supports 200 schools and colleges in Jharkhand and 183 in Odisha. Fellowships were granted to 2477 AA students and Adult Literacy programmes made 13000 adults functionally literate. The education of 127 children from vulnerable tribes was sponsored in mainstream schools.

Under a joint initiative with elected representatives of the area, Sir Dorabji Tata Trust and Tata Steel about 1800 Solar Lights were installed in villages of Jharkhand and Odisha. Safe drinking water reached 350 villages.

The effort to protect the ethnicity of the tribes indigenous to Jharkhand and Odisha was furthered with 8000 tribal youth being reintroduced to their traditional language and their script.

VALUE CREATION

ECONOMIC PERFORMANCE

TATA STEEL ACHIEVED ITS BEST EVER SALE OF 7.48 MILLION TONNES

Challenges with increasing imports impacted profitability of the Indian operations. Increasing share of bought out material, volatility in steel prices and increased cost due to stabilisation of the 2.9 MTPA brownfield expansion project at Jamshedpur in the first year of commissioning put further pressure on profitability.

Notwithstanding the enormity of the internal and external challenges faced, Tata Steel posted a robust EBITDA of Rs 11,698 crores as against Rs 11,559 crores in the previous year. Crude Steel production of 8.13 million tonnes in Financial Year 2012-13 registered a 14 per cent increase over the previous year allowing the Company to achieve best ever sales of 7.48 million tonnes.

The Company expanded its marketing efforts to sectors such as Lifting & Excavation, Railways, Shipbuilding and Defence. "Tata Astrum" the recent addition to the Company's branded portfolio was developed to penetrate the SME market. This is the first time the Company has made a foray into branding HR steel.

ADDRESSING PERFORMANCE CHANGES

The processes adopted by the Company to address performance focus on the Long Term, Short Term and Annual Plans. The Company's Corporate Strategy & Planning team is responsible for monitoring performance based on these plans for all Divisions and their departments.

RISKS AND OPPORTUNITIES

The sole purpose of risk management is the Sustainability of the organisation.

BACKGROUND	ACTION TO MITIGATE RISKS
RAW MATERIAL SECURITY The volatility of prices of critical raw materials for steel making like iron ore and coal has increased significantly in the last few years due to higher demand for steel and energy globally. Therefore mitigating the impact of the price volatility is a key objective of the Company.	• Efficient use of captive raw materials, the development of new technologies to enable the use of low-grade raw materials and driving greater energy efficiency and the use of alternative energy sources. • Ensure mining capacity to meet production requirements. As part of this strategy, various raw material growth projects are under development in Africa, Canada, Australia and India. • Supply contracts lasting typically between one and five years are entered into for majority of coking coal and pulverised coal injection (PCI) to provide security of supply.
ENVIRONMENTAL RISKS The Company's businesses are subject to numerous laws, regulations and contractual commitments relating to the environment and these rules and norms issued by the Ministry of Environment & Forests and respective pollution control boards are becoming more stringent.	• To meet environmental standards, dust and other emission levels are monitored to ensure they stay within permissible limits. The Company continues to invest in process and technologies that are more energy efficient and consequently CO2 efficient. • Benefits from electricity savings by reduction in energy consumption by 358000 KCal/tonne of chromite agglomerates as well as a reduction in CO2 emissions by 10000 tonne per annum.
INCREASING COMPETITION AND CUSTOMER EXPECTATIONS The steel segment in India is characterised by ever increasing customer expectations from both global and domestic players.	• Development of hi-tensile steels / optimum designs like Project NEST, RAISE for reducing specific steel consumption in construction and more fuel efficient vehicles through light-weighting of cars and localization efforts with automotive OEMs are examples of opportunities being pursued by Tata Steel.
GROWTH PROJECTS AND SOCIAL LICENSE TO OPERATE The Company continues to pursue its growth strategy, particularly in the Indian market where it sees significant market opportunities. Work is in progress to develop a 6.0 MTPA greenfield steel plant in the state of Odisha, India in two phases of 3.0 MTPA each	• Multiple need based community activities create an enabling environment for the Company to operate. • Tata Steel Parivar Scheme for the Resettlement and Rehabilitation of project displaced families ensures that the displaced families are adequately taken care of and our growth project adequately takes care of societal issues.

BACKGROUND	ACTION TO MITIGATE RISKS
TECHNOLOGY RISKS A key challenge for Tata Steel is to ensure that its plants are equipped with updated technologies in order to serve clients, secure cost competitiveness and maintain R&D leadership.	• New technology planning process for ideation, stratification and prioritisation of projects and their future implementation with the introduction of the Technology Roadmap. • Tata Steel has introduced a financial tracker to monitor impact from completed projects. The impact of 395 projects and initiatives completed from 2008 till 2012 has been estimated.
FINANCING RISKS Tata Steel's growth strategy is dependent on the internal cash generation levels and ability to draw external capital for growth projects. Financing for the Odisha project was a specific risk to the Company given the volatility in the global financial markets and the availability of credit.	• In May 2013, the Company achieved financial closure for its expansion project in Odisha for which it contracted long-term Rupee borrowing aggregating to Rs 22,800 crores in its subsidiary company, to be drawn over the next five years and to be repaid over a period of 12 years. • In addition to this, Tata Steel has been judiciously taking timely advantage of favourable credit and liquidity conditions by raising Rs 2,500 crores worth of Non-Convertible Debentures during the year.
FOREX, CREDIT, LIQUIDITY AND COUNTERPARTY RISK Through its global operations, the Company operates in several currency areas. Volatility in the currency markets can adversely affect the outcome of commercial transactions and cause trading uncertainties.	• The Group has foreign exchange hedging policies in place to protect its trading and manufacturing margins against rapid and significant foreign exchange movements.
MACRO ECONOMIC ENVIRONMENT During the Financial Year 2012-13, India's growth engine slowed considerably and advance estimates of GDP growth for FY14 suggest it may be below 5 per cent growth rate.	• Considering the fragile macro-environment, the Company has been pursuing an active operating risk management process that takes into account the market realities. • The challenges and opportunities posed by macro factors are being predicted, identified and aligned to the Company's objectives.

PERFORMANCE WITH RESPECT TO TARGETS AND MID-TERM OBJECTIVES

The pursuit of excellence is reflected in Tata Steel's long-term objectives.

Safety is a top priority with a target of zero fatality. Tata Steel achieved an LTIFR of 0.48 against a goal of 0.4. The long-term target is to meet an LTIFR of 0.19 by 2018.

Tata Steel's social interventions address the aspirations of two key stakeholder groups, the rural communities and the urban stakeholders in Jamshedpur. The thrust areas for the Company are education, sustainable livelihood – especially skill development and employability training – and health care, all of which are an element of the Human Development Index, a quality of life indicator. The Company's initiatives touched nearly two million lives last year. Tata Steel aims to maintain a leadership position in social responsibility – by driving HDI to levels higher than the national average in the areas where it operates.

CO2 emission maintained at 2.5 tCO2/tcs and Solid Waste utilisation improved from 75 per cent to 86.7 per cent within a year. The Company is pursuing the National goal of reducing GHG intensity of GDP by 20-25 per cent from the 2005 level by 2020 and intends to achieve ~ 100 per cent Solid Waste utilisation.

PRIORITIES FOR LONG-TERM VALUE CREATION

CO2 EMISSION MAINTAINED AT 2.5 TCO2/TCS AND SOLID WASTE UTILISATION IMPROVED FROM 75 PER CENT TO 86.7 PER CENT WITHIN A YEAR

The key long-term strategies of Tata Steel continue to remain:

- Growing responsibly and strengthening our position in emerging & fast growing markets
- Increasing the share of value added products in the portfolio including downstream products
- Sustaining cost competitiveness and gaining security of raw materials
- Becoming a world benchmark in safety
- Significantly improving environmental performance
- To attract & retain talent and have happy & proficient employees
- Socio-Economic empowerment of the community around us
- Continuous performance improvement initiatives in all of the above.

PRIORITIES FOR LONG-TERM

Spend on Research & Development was ~ Rs 60 crores in 2012-13 compared to ~Rs 53 crores in 2011-12 with a significant achievement in the area of coal leaching technology, organo refining process, improvement in surface quality, new product development etc.

In 2013-14 the Company shall continue with the objectives of process and product innovations, improving existing production processes, supporting new product development and building world class R&D to sustain and excel.

Tata Steel Limited has maintained robust profitability in spite of significant declines witnessed in steel prices after the global financial squeeze and higher costs on account of inflation.

Tata Steel will improve its domestic market share significantly after the successful completion of Kalinganagar facility by 2015 as the project is aimed at enabling Tata Steel to enter and have a significant presence in segments such as Oil & Gas, Lifting & Excavation, Infrastructure, Defence, Shipbuilding, Energy, Power, etc.

SPEND ON RESEARCH & DEVELOPMENT WAS ~ RS 60 CRORES IN 2012-13 COMPARED TO ~ RS 53 CRORES IN 2011-12

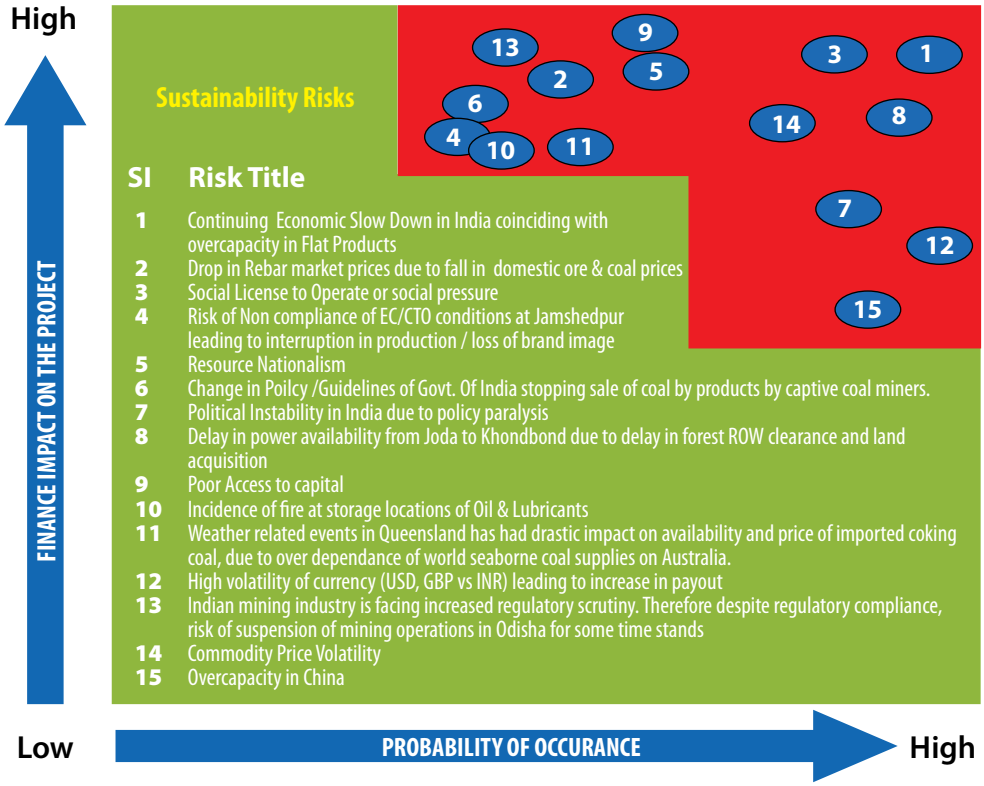
RISK MANAGEMENT AT TATA STEEL

The risk management process identifies the most significant and emerging risks as well as focuses management attention on the action plans identified to mitigate losses or maximize advantages. Tools to assess and analyse financial and business risks posed to Tata Steel are Risk Heat Map, Probability and Severity Analysis.

At a corporate level, risks and opportunities including physical ones to workplaces and supply chain, change in local, national, and international regulations, litigation, reputational and competitiveness, are tracked in addition to strategic reviews of operational excellence and environmental initiatives. An analysis of risks related to the reliability of financial information and asset protection and opportunities to enter new green businesses is performed every year.

Considering the volatile macro-environment, the Company has been pursuing an active operating risk management process that takes into account the market realities.

Overall Risk Heat Map



Monitoring of Risks

The risks and opportunities are assessed quantitatively whenever possible in order to evaluate the spectrum of possible effects on the business and value chain. Risks are quantified to the extent possible including impact on production cost, availability of mitigation solution, capital expenditure required for various mitigation options, softer financing options, project timing and reputational impacts. Inputs from various functions are drawn for this exercise. The results are consolidated and reported to the Audit Committee and Board of Directors at a regular interval.

In addition the Corporate Audit Division continuously monitors the effectiveness of the internal controls with the objective of providing the Audit Committee and the Board of Directors, an independent, objective and reasonable assurance on the adequacy and effectiveness of the organisation's risk management, control and governance processes.

Governance mechanisms

These risk are managed and monitored in some of the business review forums of the organization eg TQM Council, Board Meetings, etc. Some of the review forums for managing these risks and opportunities, and identification of other related risks and opportunities are as below:

- Board Meeting & ECOB
- Business Plan Meeting
- Investment Management Committee
- Apex TQM Council Meeting
- SHE Committee of the Board
- Environment Management Committee
- Apex Safety Council , HRD, R&D
- AGM & Managing Committee Meetings of TSRDS, TCS & TSFIF
- Social Audits
- Affirmative Action Committee meetings
- Communication Meeting
- Strategy & LTP Reviews
- New Product Development Sub-Committee
- Quality Board Meeting
- Study Group meetings
- Safety Excellence Journey Meeting
- Divisional TQM Council Meetings
- ABP Reviews
- Joint Works Council & Joint Departmental Council
- Management Review Meetings
- MD Diagnosis

ORGANISATIONAL PROFILE

Rs.381.99 billion
Turnover in 2012-13

9.7 MTPA
Crude Steel Production capacity by the end of 2012-13

20 %
Increase in Flat Product deliveries

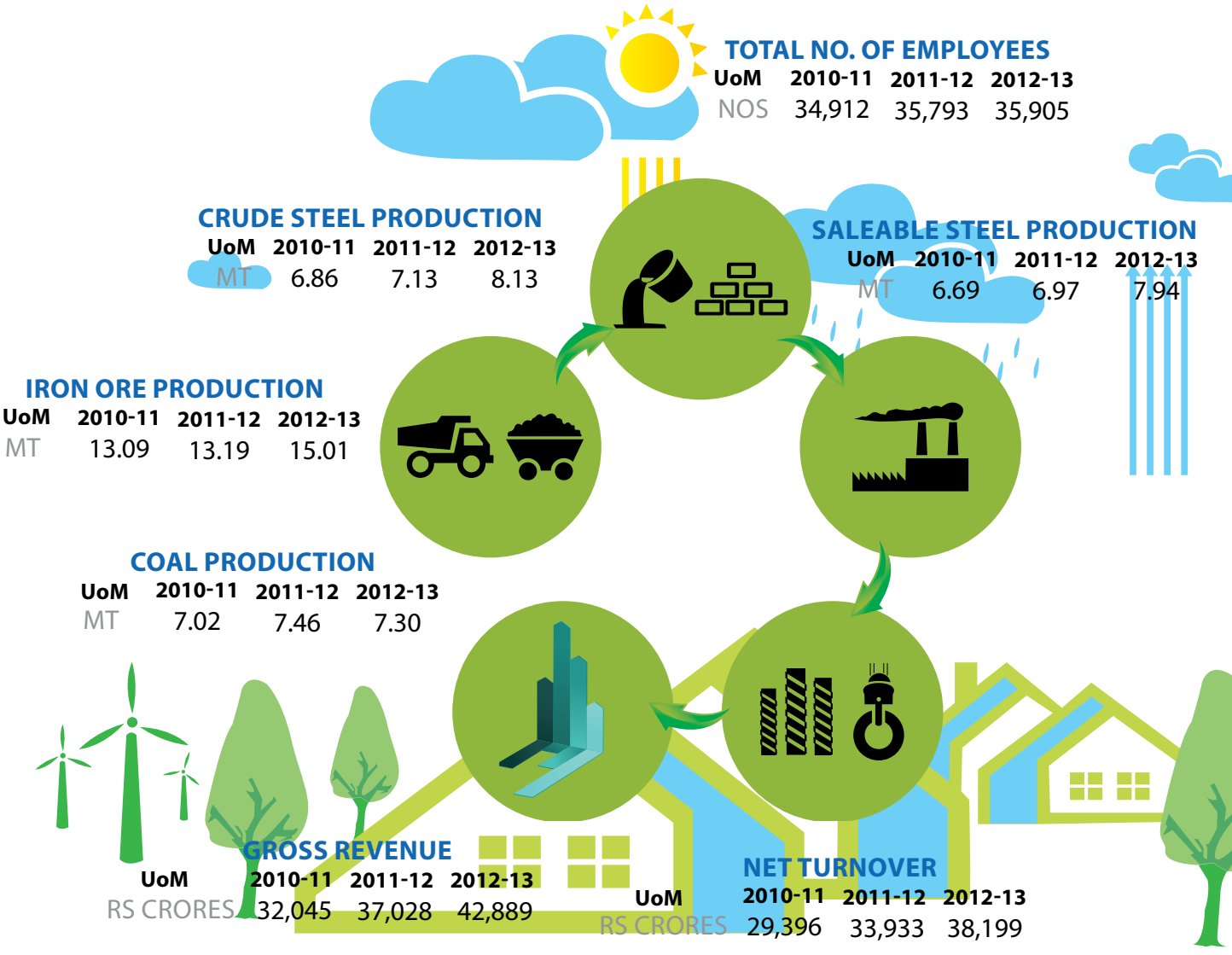
14 %
Increase in Long Products deliveries

31.35%
Voting strength owned by Tata Group of companies as on March 31, 2013.

22.39%
Share of individual shareholders

[02 - TATA STEEL AT A GLANCE]

Tata Steel Limited is one of the largest integrated steel producers in India. It is a part of the Tata Steel Group, which is one of the world's largest steel producers with a presence across five continents and an employee strength of 81,000 (www.tatasteel.com).



TOTAL NO. OF EMPLOYEES

UoM	2010-11	2011-12	2012-13
NOS	34,912	35,793	35,905

CRUDE STEEL PRODUCTION

UoM	2010-11	2011-12	2012-13
MT	6.86	7.13	8.13

SALEABLE STEEL PRODUCTION

UoM	2010-11	2011-12	2012-13
MT	6.69	6.97	7.94

IRON ORE PRODUCTION

UoM	2010-11	2011-12	2012-13
MT	13.09	13.19	15.01

COAL PRODUCTION

UoM	2010-11	2011-12	2012-13
MT	7.02	7.46	7.30

GROSS REVENUE

UoM	2010-11	2011-12	2012-13
RS CRORES	32,045	37,028	42,889

NET TURNOVER

UoM	2010-11	2011-12	2012-13
RS CRORES	29,396	33,933	38,199

Coal production in FY 2012-13 has decreased as compared to FY 2011-12 due to restricted mining in Jharia.

Growth - a part of the Company's business strategy - reflects its sustainability ethos as its capacity expansion and operational objectives are aimed at making the most efficient use of natural resources, through the most efficient manufacturing processes by skilled people to deliver eco-efficient products to its customers.

India's first private limited company, Tata Steel has its headquarters in Mumbai, India. Part of the wealth its creates is set apart in a pre budget exercise to improve the quality of life of the communities it serves.

Hence its Vision to be "a global steel industry benchmark in value creation" through excellence, at all levels of the value chain, results in the creation of wealth that has the power to deliver common good.

- The two key business verticals of the Steel Business Unit (SBU) are Flat Products and Long Products.
- Raw Materials and Coke, Sinter & Iron group are involved in key manufacturing functions.
- Shared Services is a support function for its only steel-producing unit in India.
- Tata Steel has operational captive Mines & Collieries in the state of Jharkhand and Odisha.
- Its downstream and allied business activities are structured into profit centres such as Ferro Alloys & Minerals Division, Tubes, Wires, Bearings, Agrico Divisions and Tata Steel Growth Shop.

Item	UoM	2010-11	2011-12	2012-13
EBITDA	Rs Crores	11,625	11,559	11,698
EBITDA %	%	39.55%	34.06%	30.62%
Exceptional Income/(Expenses)	Rs Crores	648	511	(675)
Profit Before Tax	Rs Crores	9,777	9,857	7,837
Profit After Tax	Rs Crores	6,866	6,696	5,063
Net Fixed Assets	Rs Crores	18,774	29,873	36,107
Capital Employed	Rs Crores	77,683	81,634	86,836
Net Worth	Rs Crores	48,445	54,491	57,485
Debt	Rs Crores	28,301	26,172	27,508
Equity #	Rs Crores	2,638	3,246	3,246
Net Debt Equity	Ratio	0.49	0.41	0.44
Research & Development Expenditure	Rs Crores	80.57	52.98	59.73
Market Capitalization	Rs Crores	59,720	45,808	30,383
Basic Earnings Per Share	Rs/share	75.63	67.84	50.28
Dividend Rate	%	120%	120%	80%
P/E Ratio		8.20	6.93	6.21

Equity = Equity Share Capital + Hybrid Perpetual Securities

PRIMARY BRANDS AND MARKETS SERVED

Business Verticals

Steel SBU

Profit Centres

Long Products

Market Segments

Distribution
Infrastructure/ Industrial Construction
Automotive
General Engineering

Products

Reinforcement Bars
High Carbon Wire Rods
Low Carbon Wire Rods

Brands

Tata Tiscon
Tiscon CRS
Tiscon 500
Tata Tiscon 500 D
Tata Wiron

Flat Products

Market Segments

Automotive
Steel Roofing
SME Segment

Products

Hot Rolled Products
Cold Rolled Products
Galvanised Products
Hot Rolled Sheets & Coils

Brands

Tata Steelium
Tata Shaktee
Galvano
Tata Astrum

Ferro Alloys & Minerals Division

Market Segments

Steel Manufacturing
Carbon & Stainless Steel
Stainless & Alloy Steel

Products

Chrome Alloys
Manganese Alloys
Chrome Concentrate
Fluxes

Tubes Division

Market Segments

Conveyance
Construction
Auto, Boilers and Engineering

Products

Commercial Tubes
Structural
Precision Tubes

Brands

Tata Pipes
Structura
Tata Amrit

Wire Division

Market Segments

Automotive,
Infrastructure, Power,
Annealed
Galvanising and Welding segments

Products

Tyre Bead Wire, Spring Wire, Spoke Wire, LRPC, PC Wire, Cable Armour, ACSR, Card Clothing Wire, Galvanised Wire, Welding Wire

Brands

Tata Wiron

INDIA'S MOST ADMIRED COMPANY*

Awards Received in 2012-13

- *India's Most Admired Company based on the Annual Study by Hay Group - Fortune India
- Prime Minister's Trophy (for 2008-09) & Certification of Excellence (2009-10) from the Government of India
- Ranked among World's Most Ethical Companies by Ethisphere Institute
- Best Managed Board in India - Aon Hewitt Study
- Deming Grand Prize from JUSE
- 'Award for Leadership' in HR Excellence from Confederation of Indian Industry (CII)
- Safety Award from Worldsteel
- Health Excellence and Climate Change Action from Worldsteel
- Global Independent Operating Unit (IOU)
- Most Admired Knowledge Enterprises (MAKE) Winner from Teleos, in association with The KNOW Network
- National Safety Awards from Directorate General of Mines Safety, Govt. of India
- CII-ITC Sustainability Prize 2012 from CII-ITC Centre of Excellence for Sustainable Development
- Best Company Promoting Sports at FICCI India Sports Awards 2013
- ASSOCHAM CSR Excellence Award 2012-13 conferred by Associated Chambers of Commerce & Industry of India

RANKED AMONG WORLD'S MOST ETHICAL COMPANIES

Dow Jones Sustainability Indices
In Collaboration with RobecoSAM

TATA STEEL CONTINUES TO BE A MEMBER OF DJSI INDEX IN FY'13

RECOGNITIONS FROM CUSTOMERS

- Inner Panel Localisation from Maruti Suzuki India Ltd (MSIL) for Product Development
- Performance Award for Excellence from Tata Motors Limited (TML)
- Gold Consistency Award from Bajaj Auto
- Toyota - TMC Global Award by Toyota Motor Corporation
- Bronze Quality Award from Bajaj Auto Ltd
- Automotive Axle Limited- Award from Automotive Axle Limited

ENVIRONMENT EXCELLENCE

- Recognition from Worldsteel for five successive year as Climate Action Member
- Recognised by CDP as Climate Change Disclosure Leader

RECOGNITIONS FOR BRANDS

- Best Pipe Brand award to Tata Pipes from Zee Business Channel
- RMAI Corporate Awards for Tata Shaktee from Rural Marketing Association of India
- Tata TISCON awarded the SUPERBRAND status by Superbrands India Pvt. Limited
- Tata Shaktee awarded the SUPERBRAND status by Superbrands India Pvt. Limited

CHANGES DURING THE REPORTING YEAR

Key facilities added to the Jamshedpur Steel Works on completion of the 2.9 MTPA brownfield expansion projects are detailed under *Operational Excellence for a Sustainable World.*

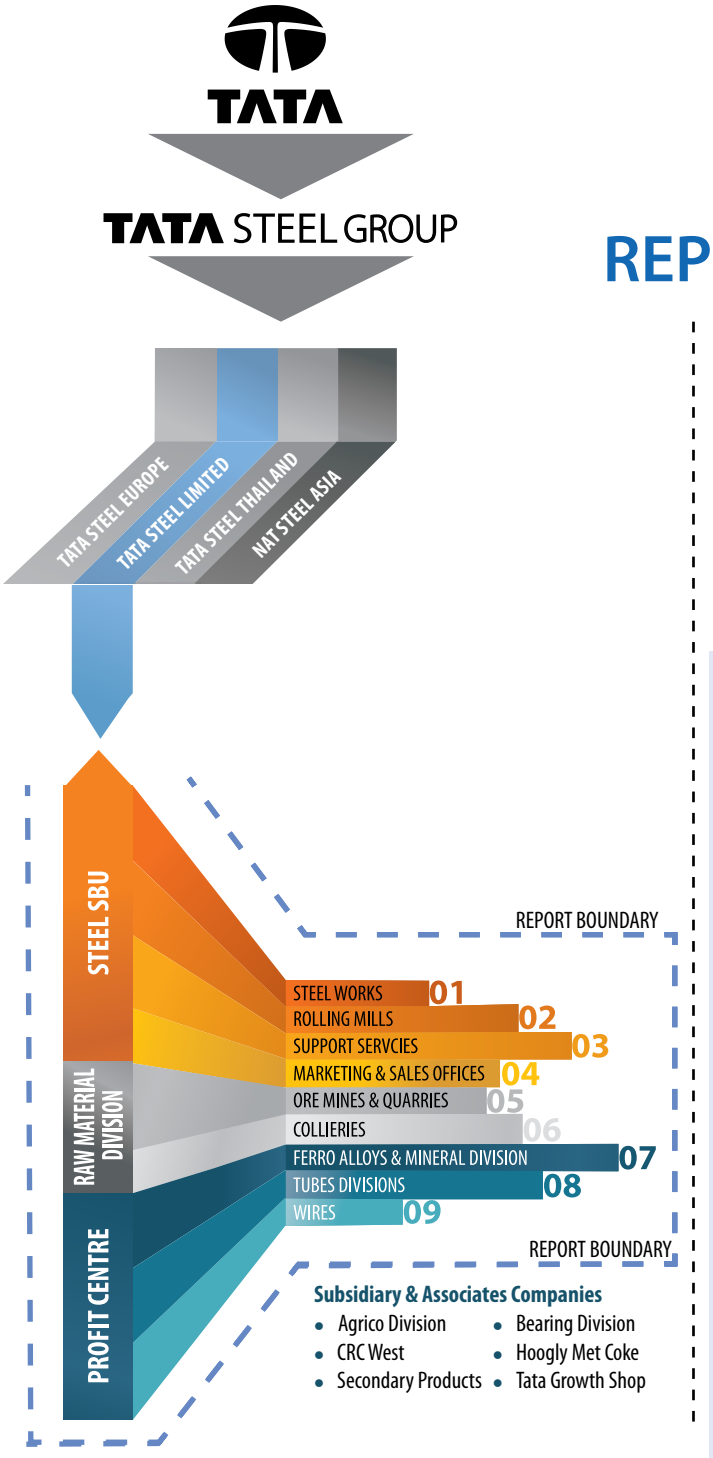
Along with the main production units, the expansion project also included setting up required support systems. The projects were executed in partnership with world-class technology suppliers.

Suitable environmental measures were also embedded within the expansion programme. Schemes continue to be implemented to upgrade pollution control equipment, install covered sheds for pellet & pulverized coal stockpiles, recovery and reuse of wastewater, increasing green cover and improving monitoring of effluents.

During the year the Company increased its investments in some subsidiaries, which includes Jamshedpur Continuous Annealing and Processing Company Private Limited, The Tinplate Company of India Limited and Tata Sponge Iron Limited (which became a subsidiary during the year).

REPORT BOUNDARY

Tata Steel Limited, Tata Steel Europe, NatSteel Asia and Tata Steel Thailand are four separate entities. The boundary of this report is the Indian operations under Tata Steel Limited.



Locations included in the report boundary

STEEL SBU

STEEL WORKS, JAMSHEDPUR

Raw Materials:

Coke Iron & Sinter

Steel Making

ROLLING MILLS

SUPPORT SERVICES

MARKETING & SALES OFFICES

RAW MATERIAL DIVISION

ORE MINES & QUARRIES AT:

Noamundi Mine, Jharkhand

Joda East Mine, Odisha

Khondbond Mine, Odisha

Katamati Mine, Odisha

COLLIERIES

West Bokaro Division, Jharkhand

Jharia Division, Jharkhand

PROFIT CENTRES

FERRO ALLOYS & MINERAL DIVISION

Sukinda Mine, Odisha

Joda West Mine, Odisha

Bameberi Mine, Odisha

Malda Mine, Odisha

Gomardih Quarry, Odisha

Tringpahar Mine, Odisha

Chrome Concentrate Plant Sukinda, Odisha

Ferro Alloys Plant Joda, Odisha

Ferro Alloys Plant Bamnipal, Odisha

TS Alloys Plant Athagarh, Odisha

TUBES DIVISION

Tubes Works, Jamshedpur

WIRES DIVISION

Wire Rod Mill (West), Tarapur, Maharashtra

Tarapur Wire Plant 1, Maharashtra

Tarapur Wire Plant 2, Maharashtra

Wire Rod Unit in Tarapur

Wire Rod Unit, Indore, Maharashtra

[03 -REPORT PARAMETERS]

HOW TO READ THE REPORT

- All headings in upper case correspond to aspects / indicators of the GRI protocol
- Subtitles in titlecase indicate supporting information on programme / initiatives specific to Tata Steel
- Text highlighted in blue corresponds to the Mining & Metals Sector Supplement

This sustainability report is **Tata Steel's 13th consecutive annual sustainability report** and includes the Company's 'Communication on Progress' report. The Company supports and propagates the principles of the United Nations Global Compact as a Founder Member; is a signatory to the Worldsteel Sustainability Charter as well as supports the Affirmative Action programme of the Confederation of Indian Industry.

REPORT PROFILE

This Corporate Sustainability Report for Tata Steel Limited standalone covers the period April 1, 2012 to March 31, 2013. It has been prepared as per the Global Reporting Initiative (GRI) G3.1 guidelines and the Mining and Metals Sector Supplement. It also captures the UNGC principles and worldsteel sustainability indicators. The last report was published for 2011-12.

SCOPE AND BOUNDARY

This report includes Tata Steel Limited's Steel Business Unit - Long Products and Flat Products - Raw Materials operations, and three profit centres - Ferro Alloys & Minerals Division, Tubes Division and Wire Division. These account for over 99 per cent of total GHG emissions by Tata Stel Limited and ~ 90 per cent of the profits of the Company. The individual profit centres included contribute 5 per cent or more of the Company's revenue.

While compiling this report, the GRI principles of Materiality, Stakeholder, Inclusiveness, Sustainability Context, Accuracy, Balance, Clarity, Comparability, Timeliness, Reliability and Completeness have been applied.

MATERIALITY

The report focuses on the operations, economic, environmental and social impacts with sustainability trends for two previous years. Prior to preparing this report the gaps regarding the previous report were analysed.

The Company initiated a fresh materiality mapping exercise and completed Phase 1 of the process in 2012-13. The results of the engagement will be reflected in 2013-14.

The initiatives included in this Report are based on materiality assessments through stakeholder engagement and feedback on sustainability issues from stakeholders that gave rise to its Vision, Mission, Values and policy statements. These issues were prioritized for 2012-13 through structured risk management and planning processes. Inclusion in this report reflects the current criticality of individual issues.

Materiality testing for environment issues

Sustainability issues related to Environment impacts at Jamshedpur and social impacts at all twelve locations were prioritised based on a systematic materiality process. The materiality of risks and opportunities and priorities are assessed based on the type of risk/opportunity, potential losses and profits, the timescale, business impact, and corporate reputational value. Reviews were done by Environment and Energy Management Departments in collaboration with Corporate Planning and related departments including Technology Groups to prioritise and pursue implementation of identified action with respect to climate change only.

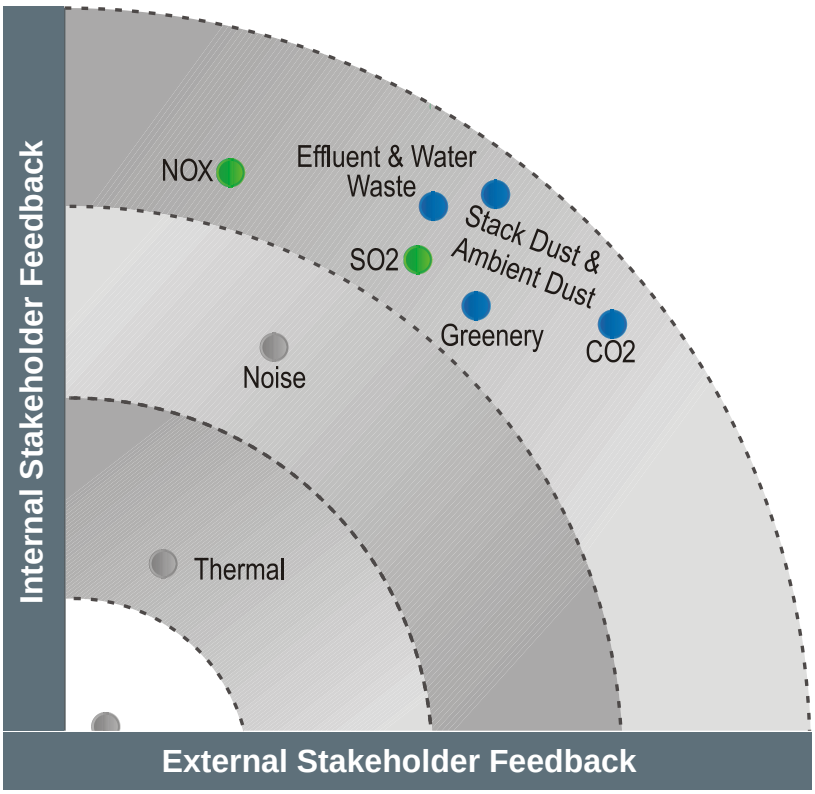
The inputs of stakeholders are obtained through a questionnaire-based survey. Distribution of questionnaires was based on stratified random sampling.

Environment issues identified by the community were mapped against issues articulated by internal stakeholders to identify the high priority issues.

METRICS

Tata Steel has identified Key Performance Measures, which are globally accepted standards in areas of priority against which it measures performance. As part of its membership of worldsteel, Tata Steel adheres to the worldsteel sustainability charter and monitors performance based on the latter's sustainability indicators.

Material Issues: Pollution Sources



INDEPENDENT ASSURANCE

Tata Steel continues to seek independent assurance for its Corporate Sustainability Report. Accordingly since 2008, Tata Steel appointed Det Norske Veritas AS (DNV), as the independent assurance provider.

CONTACT PERSONS:

Mr Shubhenjit Chaudhuri
Chief, Corporate Sustainability
Tata Steel Limited

Mr Kulvin Suri
Chief, Corporate Affairs & Communications
Tata Steel Limited
Email: sustainability@tatasteel.com

GRI INDEX

Refer pages: 167 to 174

Sustainability Indicators of Worldsteel
(Methodologies cover only steel making)

LISTENING AND LEARNING LEADS TO COMMON GOOD

"THE TATA GROUP ITSELF IS OVER A 100 YEARS AND CLEARLY ONE OF THE KEY DIFFERENTIATOR FOR US I BELIEVE IS OUR VALUE SYSTEM. IT IS THE ETHICS, THE VALUES THAT WERE INGRAINED BY THE FOUNDER AND THAT WE AND THE LEADERSHIP ACROSS THE LAST CENTURY HAS ACTUALLY CONTINUED WHICH CREATES A DIFFERENTIATION FOR US. I THINK IT IS CORE TO THE VALUE SYSTEM OF THIS GROUP AND IT IS SOMETHING THAT I WOULD NOT ONLY LIKE TO MAINTAIN BUT ALSO LIKE TO BUILD UP."

– MR CYRUS P MISTRY
CHAIRMAN, TATA STEEL

04 - GOVERNANCE

TATA STEEL WAS RANKED, ONCE AGAIN, AMONG THE "WORLD'S MOST ETHICAL COMPANIES" IN 2013 BY ETHISPHERE INSTITUTE.

INTERNAL GOVERNANCE COMPASS

The Tata principles of integrity, full transparency and accountability in all business transactions are the legacy Tata Steel received from the Founder of the Tata Group, Jamsetji Tata. These ethical principles have been articulated in the Tata Code of Conduct and are embedded in the way Tata Steel conducts its business, with the singular objective of protecting the interests of its stakeholders.

Along with providing guidance through its Vision, Mission, Values, Tata Code of Conduct and its policies *(http://www.tatasteelindia.com/corporate/ethics/ethics-policies.asp)*, Tata Steel has also created structured mechanisms to ensure that the Company extends itself beyond business to fulfill the purpose envisaged for it by the Founder, that is to serve the common good of all stakeholders.

The Board therefore considers itself a Trustee of all stakeholders, acknowledges its responsibilities towards them to enhance and safeguard their well-being as well as maintains high focus on embedding Environment, Social and Governance (ESG) metrics in its performance evaluations.

In 2012-13 the Company wrote its Sustainability Policy to provide clarity on the approach to sustainability. The policy reflects the purpose of the Tata Group along with key areas of focus for individual stakeholder groups.

EXTERNAL STANDARDS ADOPTED

Tata Steel has adopted Environment, Safety and Occupational Health systems governed by ISO14001 and OHSAS 18001. The Company's Steel Works is certified to SA 8000 and ISO 14001. The Sukinda Chromite Mines of FAMD and Ore Mines and Quarries (OMQ) Division of the Company are SA 8000 compliant.

REACH OF ETHICAL PRACTICES AND ANTI-CORRUPTION POLICIES

The Tata Code of Conduct *(available on www.tatasteel.com and www.tata.com)* serves as the ethical roadmap for all Tata companies, including Tata Steel. Compliance to the Code is a condition of service for 100 per cent of the employees at Tata Steel as well as a prerequisite for entry and continuation as a supplier to the Company.

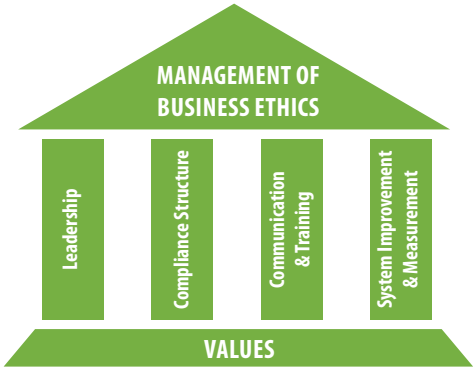
The Company ensures that non-managed operations / licensees / third-party manufacturers / JV partners / outsourcing partners comply to the Tata Code of Conduct, policies and Corporate guidelines as well as conducts due diligence prior to all mergers and acquisitions.

These clear guidelines along with all supporting policies - repeatedly and continuously reaffirmed at all levels and among all stakeholder groups - has led to Tata Steel being ranked, once again, among the "World's Most Ethical Companies" in 2013 by Ethisphere Institute. It has also received the award for the 'Best Managed Board' based on the Aon Hewitt – Mint Study 2012.

Tata Steel believes the award recognises its continuous commitment to the core values of corporate governance by maintaining transparency and taking forward the legacy of the Tata brand.

INSTITUTIONALISATION OF BUSINESS ETHICS

Besides a Corporate Ethics Department responsible for the Management of Business Ethics, the Company drives inclusive growth and its agenda of common good through social agencies mentioned in: *Society-Serving the Common Good of the Community.*



Improvements in business practices introduced in 2012-13 as a result of listening include:

- E-billing system that allows for invoice tracking and streamlining job certification
- Horizontal deployment of 'travel system' across the locations
- A uniform policy for providing communication facilities to officers across the organisation including out locations

FOUR-PILLARED CONCEPT OF MBE

THE MANAGEMENT OF BUSINESS ETHICS FOCUSES ON

- PROACTIVE ACTION
- CORRECTIVE ACTION
- MEASUREMENT OF THE MBE PROCESS

The mechanism created to institutionalise the business ethos into processes has been designated as the Management of Business Ethics.

A UK-BASED THIRD PARTY OPERATED WHISTLE BLOWING LINE "SPEAK-UP" WAS ESTABLISHED TO ENCOURAGE EMPLOYEE ACTIVISM AGAINST MALPRACTICES AND MISCONDUCT.

PROACTIVE ACTION ON THE TATA CODE OF CONDUCT

- Spreading awareness of TCOC amongst stakeholders
- Support to associated companies in implementing the MBE process
- Formulation of Policy & guidelines: Gift Policy, Whistle Blower Policy etc
- Reward and recognition

An integral part of all Employee Induction programmes, training and awareness on the Code is mandatory for Contractors' employees, vendors, distributors, vocational trainees and interns, spouses of employees. Relevant sections of the Tata Code of Conduct are placed on the Company's e-procurement site and all suppliers are required to make an electronic undertaking on compliance with this Code. In 2012-13 a total of 7212 persons were trained against 6382 in 2011-12 and 2267 in 2010-11.

An evaluation of the MBE Programme is conducted once in two years via employee and supplier perception surveys by an independent third party. The results are analysed for self-evaluation. Subsequently gaps identified are used for new initiatives. Any employee can directly raise his concerns with the Ethics Counsellor/ Head Vigilance or escalate it to the level of the Board through the Chairman of the Board's Audit Committee.

In 2012-13 no personnel was denied access to the Ethics Counsellor/Chairman of the Audit Committee. The theme for Ethics Month in 2012-13 was "Ethics is our Conscience."

Apart from having various internal channels, a UK-based third party operated Whistle Blowing line "Speak-up" was established to encourage employee activism against malpractices and misconduct.

IN 2012-13 A TOTAL OF 7212 PERSONS WERE TRAINED AGAINST 6382 IN 2011-12 AND 2267 IN 2010-11.

CORRECTIVE ACTION FOR NON-COMPLIANCE TO THE CODE

Tata Steel has a zero tolerance policy towards corruption and unethical behaviour (Tata Code of Conduct). All officers have to submit a Conflict of Interest declaration (COI) on the intranet and update it as and when a new COI situation emerges in their employment period.

Corrective actions encompass:

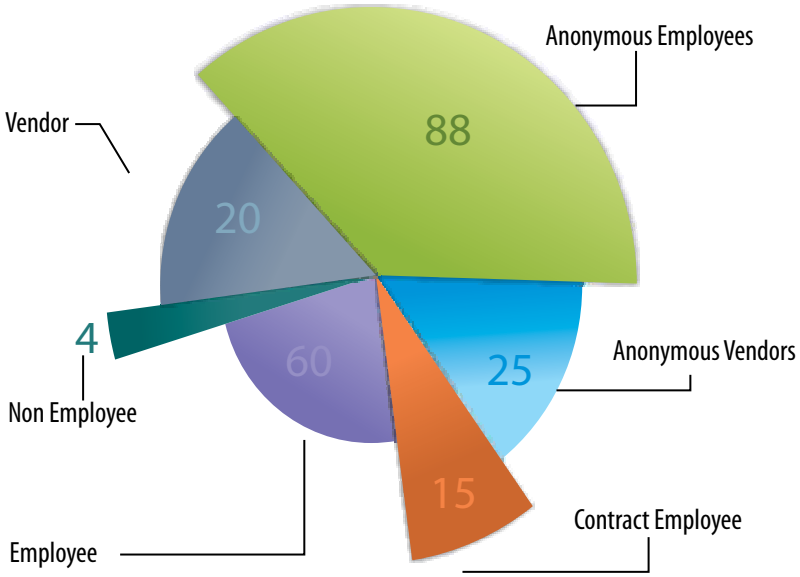
- Receiving and resolving concerns
- Counselling and recommending disciplinary action
- Identifying System/ Process improvement opportunities

Measurement of MBE

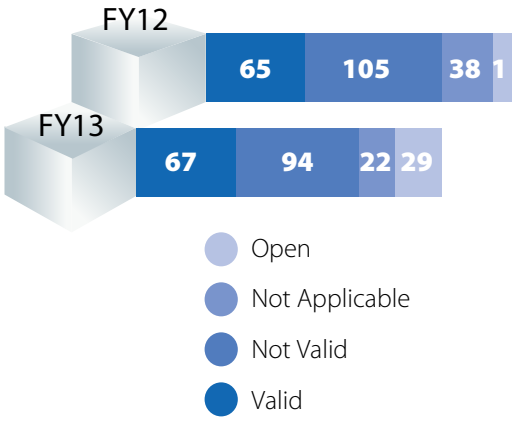
The effectiveness of the MBE process is measured through stakeholders perception based on a MBE assurance survey, measurement of training effectiveness and analysis of concerns received.

The Managing Director submits an annual TCOC Compliance declaration to the Chairman disclosing the steps taken by the Company during the year.

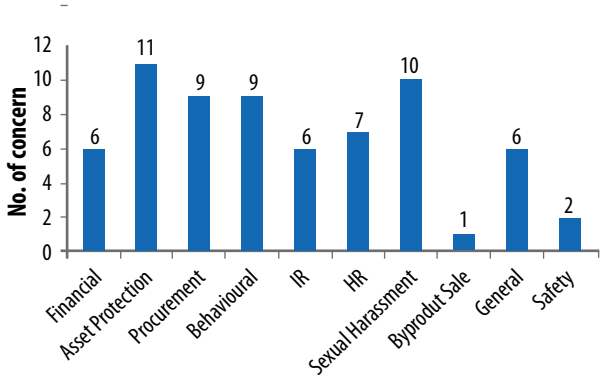
STAKEHOLDER WISE CONCERN RECEIVED



CONCERN ANALYSIS – STAGE WISE



CATEGORY WISE VALID CONCERN



The total number of concerns raised in 2012-13 was 212 as opposed to 209 in 2011-12 and 105 in 2010-11 due to special workshops conducted to make employees aware of interpretations with respect to ethical and unethical conduct.

REGULATORY COMPLIANCE AND MONITORING

Regulatory compliance: In addition to the business practices articulated in the Tata Code of Conduct (TCoC), all employees have a continuing obligation to familiarise themselves with all applicable laws, company policies, procedures and work rules as well as to meet them.

Tata Steel has always aimed to remain fully compliant with all legal requirements & conditions that apply within its areas of jurisdiction. When a breach occurs it is investigated rigorously and transparently in order to establish root cause and undertake corrective actions.

Frequency of monitoring: Tata Steel's Corporate Audit Division continuously monitors the effectiveness of the internal controls.

The Company deployed a customised online compliance tracking software, "Legatrix", on a trial basis at Wires Division and CRC (West) from March 2013. After a midterm appraisal, the software is to be rolled out across various divisions. "Legatrix" is a single window for (a) tracking compliances, (b) conduct of reviews (c) identifying areas of concern (d) generating automated compliance reports (e) repository of documents related to statutory compliances.

Responsibilities, accountabilities and reporting lines are systemically defined in all divisions and group companies. Dedicated help desks, focal points, ombudsman, hot lines are provided and disciplinary actions is taken in case of breach, i.e. warning, dismissal and zero tolerance policy.

No fines/ non-monetary sanctions were imposed on the Company or any adverse judgments on the Company's ESG performance; anticompetitive behavior, anti-trust and monopoly practices and their outcomes were passed in 2012-13.

GOVERNANCE STRUCTURE

Details with respect to the structure of the Board, details of directors, changes during the year, responsibilities and qualifications of individuals, Committees of the Board, mandate of the Committees, decisions during the year, other disclosures and resolution of conflict of interest contained in the Corporate Governance Report are available on pages 81-100 of the Annual Report 2013, along with the Certificate for Compliance.

On assuming charge as Chairman designate of the Tata Group and Tata Steel, Mr Cyrus Mistry demitted all responsibilities from the Shapoorji Pallonji Group to avoid any Conflict of Interest.

On pages 101 to 108, immediately after the Governance Report, the Company has published its Business Responsibility Report.

"LEADERS NEED TO LIVE BY EXAMPLE NOT BY EXCEPTION."
- MR RATAN N TATA
CHAIRMAN EMERITUS,
TATA GROUP

LEADERSHIP CHANGE

Mr Ratan N Tata, who joined the Board as a Non Executive Director in 1977 and was appointed Chairman in 1993, stepped down as the Chairman and Director of the Company on 28th December 2012 on reaching the age of 75 years. The Board appointed him 'Chairman Emeritus' on the same date. The Board of Directors have placed on record their sincere appreciation of Mr Tata's relationship of nearly five decades with the Company during which his visionary leadership, strategic direction and stewardship contributed immensely in the growth of the Company and the Tata Steel Group.

Mr Cyrus P Mistry, Chairman Designate, was appointed as Chairman of the Board with effect from 28th December 2012. In addition to being Chairman of the Company, Mr Mistry is also the Chairman of all major Tata Group companies. A graduate of Civil Engineering from Imperial College, UK, he has a M Sc in Management from London Business School. The London Business School has bestowed its Alumni Achievement Award on Mr Mistry. As Managing Director of Shapoorji Pallonji Group, Mr Mistry was responsible for several landmark projects.

ON ASSUMING CHARGE AS CHAIRMAN DESIGNATE OF THE TATA GROUP AND TATA STEEL, MR CYRUS MISTRY DEMITTED ALL RESPONSIBILITIES FROM THE SHAPOORJI PALLONJI GROUP TO AVOID ANY CONFLICT OF INTEREST.

OVERSEEING THE SUSTAINABILITY PERFORMANCE

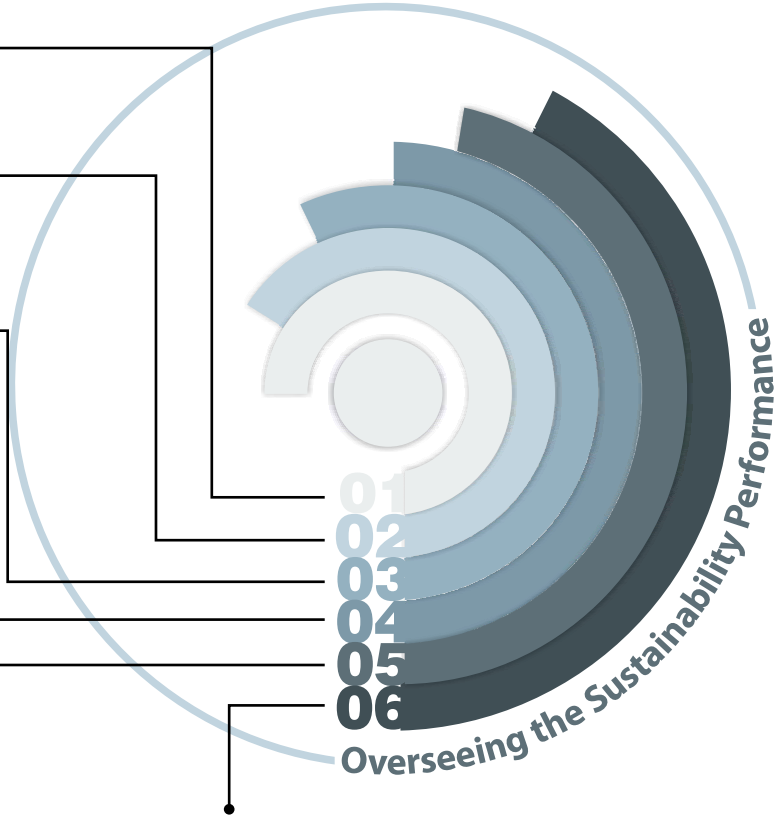
The **COMMITTEES OF THE BOARD** oversee the sustainability performance of the Company.

The **SAFETY, HEALTH & ENVIRONMENT COMMITTEE** oversees the occupational health, safety and environmental issues.

The Board level **ETHICS AND COMPLIANCE COMMITTEE** monitors the Tata Code of Conduct for Prevention of Insider Trading and the Code of Corporate Disclosure Practices.

The **AUDIT COMMITTEE** is responsible for overseeing the Whistle Blower Policy, while others meet periodically to review their respective terms of reference, including economic, environment and social performance.

TATA STEEL WAS THE FIRST GRI BASED SUSTAINABILITY REPORTER in India and since 2011 became one of the very few corporates to disclose its sustainability performance based on the National Voluntary Guidelines, even before it was mandated from 2012-13 onwards.



At the **CORPORATE LEVEL**, the Managing Director chairs apex governance committees instituted to drive key business-linked ESG objectives.

SELECT APEX GOVERNANCE COMMITTEES CHAIRED BY THE MANAGING DIRECTOR

ESG OBJECTIVE	KEY BUSINESS-LINKED ESG OBJECTIVE	BENEFICIARY GROUP
AFFIRMATIVE ACTION To assist indigenous communities in combating marginalisation	Increase share of business of underprivileged & tribal (SC/ST) community	Indigenous Community
ENVIRONMENT HEALTH & SAFETY Reduction in CO2 emissions	Introduction of processes and technologies that are more energy efficient and CO2 efficient.	All stakeholders

The Apex Committee for Affirmative Action chaired by the Managing Director maintains oversight over the programme, which is also regularly reviewed by the Board for direction setting and policy decisions. To facilitate the development and implementation of sustainable processes for Affirmative Action a 13-member cross functional team – drawn from the Office of Vice President (Corporate Services), Procurement, Corporate Sustainability Services, Industrial Relations, Human Resources, Corporate Planning & Industrial Research and Corporate Affairs & Communications - has been formed.

COMMITMENT TO EXTERNAL INITIATIVES

PRECAUTIONARY APPROACH

Tata Steel adopts a precautionary approach to the Opportunities and Challenges faced by both the nation as well as the global and Indian steel industries while aggressively focusing on utilising resources and waste, minimising energy consumption and reducing emissions.

In the area of energy efficiency it supports the development and shortlisting of positive technologies under bilateral initiatives between India and Japan, besides engaging with academic & research institutions namely Indian Institute of Technology, Kharagpur, Indian Institute of Science, University of Sheffield / UK Institutes etc. across the world for studying, working on related projects and addressing Climate Change issues.

ADOPTION OF INTERNATIONAL GUIDELINES, PRINCIPLES AND STANDARDS

Tata Steel was the principal sponsor of the UN Global Compact's CEO Water Mandate international conference held in Mumbai, India during the reporting year. Approximately 160 leaders from business, civil society, UN agencies, and other groups gathered to discuss collaborative approaches to water and sanitation problems.

Tata Steel is the first Indian company to be a part of the International Integrated Reporting Council (IIRC) – an international initiative towards voluntary communication on how an organisation's strategy, governance, performance and prospects lead to the creation of value over the short, medium and long-term.

TATA STEEL WAS THE PRINCIPAL SPONSOR OF THE UN GLOBAL COMPACT'S CEO WATER MANDATE INTERNATIONAL CONFERENCE HELD IN MUMBAI, INDIA

MEMBERSHIPS IN INDUSTRY ASSOCIATIONS

The Company is an active member of industry associations with an international and nationwide presence, including World Steel Association (worldsteel), Confederation of Indian Industry (CII), Federation of Indian Chambers of Commerce and Industry (FICCI) and Federation of Indian Mineral Industries (FIMI). The Managing Director, Mr Nerurkar, is the President of Indian Institute of Metals.

As a member of the industry associations Tata Steel participated in stakeholder consultations with Governments in 2012-13.

Collaborative initiatives are pursued with various industry associations including worldsteel, national industry and IIM.

- It is a member of the Steel Manufacturing, Mining and Environment committees in CII and FICCI, as well as an executive committee member of FIMI.
- The Managing Director of Tata Steel was the Chairman of the Sustainable Mining Initiative undertaken by FIMI, which in 2012-13 advocated modifications to policies relevant to the steel and mining industry.
- The Vice Chairman of Tata Steel, who is the Chairman of the Tata Affirmative Action Programme, served as the Chairman of the Affirmative Action Committee of CII.
- The Managing Director of the Company was appointed Chairman of the HR Committee of CII in FY13.

worldsteel ASSOCIATION

INTEGRATED REPORTING <IR>

TATA STEEL HOSTED THE GOLDEN JUBILEE EDITION OF NATIONAL METALLURGISTS' DAY.

Given the strategic importance of its membership of worldsteel, Tata Steel is a signatory to its Sustainable Development Charter. During the year Tata Steel Group's association included the following:

- Performance disclosure to worldsteel as a Climate Action Member.
- Chairing the Environmental Policy Committee (EPCO).
- Membership of other committees including Technology & Environment Committee (TECO), Climate Change Policy Group, Data Collection Task Force, Expert Group on Sectoral Approach for Climate Change, Sustainability Committee (SUSCO), Sustainability Reporting Expert Group (SREG).
- Tata Steel is working alongside Water Footprint Network (WFN)

Tata Steel is also a part of an effort initiated by Indian Institute of Metals and the Government of India, led by Indian Institute of Technology, to develop an energy efficiency roadmap for the country. It offers insights into steel business operations, data on emissions at process levels, providing clarification on related issues, implications of some strategies of fuel switch or process reconfiguration on integrated operations and current / available technology status.

STAKEHOLDER ENGAGEMENT
STRATEGIC PLANNING & RISK MANAGMENT PROCESSES

Tata Steel's strategic planning and risk management processes systematically collect and analyse information on existing and emerging stakeholders and continually realign organisational priorities. In addition to outcomes from the Company's reviews being acted upon, some action points flow back as learning into the planning process through the institutionalisation of the PDCA cycle.

IN 2012-13 TATA STEEL INITIATED A STUDY TO MEASURE THE EFFECTIVENESS OF ITS STAKEHOLDER ENGAGEMENT PROCESSES, TO PROVIDE BEST PRACTICES FOR ADOPTION AND PREPARE A STANDARD FOR ENGAGEMENT.

STAKEHOLDER ENGAGEMENT PROCESSES

In 2012-13 Tata Steel has initiated a study to measure the effectiveness of its stakeholder engagement processes, to provide best practices for adoption and prepare a standard for engagement. Select stakeholder inputs, which could harm Company's reputation, are immediately taken up with the Board including with the Chairman by Managing Director's Office for appropriate actions and communication to stakeholders.

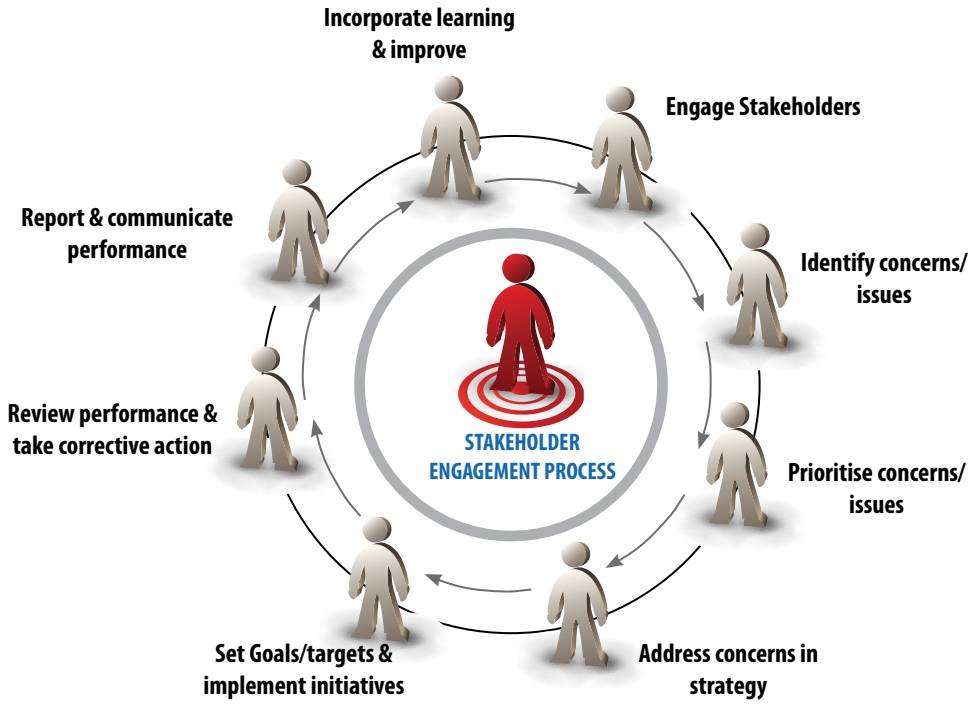
Stakeholder Identification

Tata Steel identifies its stakeholders based on voluntarily accepted obligations and those whose interests it must address in the value creation process. The Company includes those who have the potential to impact its operations and those who it may in turn impact. It includes internal and external as well as primary and secondary stakeholders through strategic engagement. Priority is accorded on the basis of Power Influence Matrix. To prioritise villages for its community

engagement activities the Company also uses the Impact/ Proximity and Influence Matrix. All stakeholders are covered by the Decadal Social Audit conducted by the Company. Their feedback provides inputs for immediate, short-term and long-term actions. The fourth audit is underway.

In 2012-13 Tata Steel also initiated the process for establishing a CSR Advisory Council comprising experts from various areas of social intervention.

BASED ON THE FEEDBACK FROM BOTH INTERNAL AND EXTERNAL STAKEHOLDERS, INCLUDING THE THIRD-PARTY ASSESSMENT OF THE SUSTAINABILITY REPORT ON THE COMPANY'S DISCLOSURES, IN 2012-13 FURTHER EFFORTS WERE MADE TO EMBED SUSTAINABILITY IN THE COMPANY'S BUSINESS PROCESSES.



Tata Steel has internal mechanisms to track stakeholder engagement date-wise and location-wise. It allows officers to upload information and review inputs. Environment Management and Corporate Sustainability Services also seek questionnaire- based feedback on concerns, expectations and priorities.

Weekly meetings with opinion makers and monthly village meetings at outlocations yield information and determine local area developments plans that are integrated into the annual business plan of the unit.

Based on the feedback from both internal and external stakeholders, including the third-party assessment of the sustainability report on the Company's disclosures, in 2012-13 further efforts were made to embed sustainability in the Company's business processes.

ALL SUSTAINABILITY CONCERNS RAISED BY STAKEHOLDERS WERE ADDRESSED DURING THE YEAR UNDER THE GUIDANCE OF THE TOP MANAGEMENT AND BOARD BY THE CONCERNED DEPARTMENTS.

Important initiatives to embed sustainability in the Company's Business Processes

- Broadening of sustainability criterion in the assessment of capital projects in the Investment Management Process.
- Introduction of sustainability evaluation criterion in the process of new product development
- Emphasis on environmental and social gains while assessing improvement projects
- Extension of social impact assessment by measuring HDI at the village level
- Improving the robustness of tracking social and environmental related expenditure at source in the IT system
- Company wide budgeting and aggregation for CSR and Environmental expenses

EMPLOYEE RELATIONS

About 85 per cent of Tata Steel's employees are represented by 26 labour unions across all locations. All policies, standards and strategies are undertaken in consulation with the Workers' Unions at all locations through joint consulations.

Tata Steel's proactive approach to stakeholder engagement and open door policy allows employees to freely express their opinion and raise rights-based issues through forums for two-way communication, participative management, joint consultations and mechanisms for conflict resolution.

Non-officers of the Company interact with the top management through the monthly MD Online and a minimum of 56 meetings of the Joint Departmental Council were held to ensure that issues related to operational changes, production, productivity, quality, safety, welfare, training, etc. are addressed in a timely and effective manner. Employee Happiness Surveys help the Company prioritise these issues.

STAKEHOLDER GROUP	APPROACHES FOR ENGAGEMENT	FREQUENCY	KEY CONCERNS RAISED	RESPONSES
EMPLOYEES • Permanent • Unionised • Contractors • Union	• Labour Unions • Three Tier Joint Consultation Process • Apex/ Divisional and Departmental Committee Meet • Dialogues • Communication Meetings • MD Online • Happiness Survey • Annual Appraisals • Round Table • Internal newsletters	• Proactive • Quarterly and Half Yearly • As and when • Quarterly • As and when • Monthly • Annual • Annual • As and when • Weekly	• Remuneration • Housing and other amenities • Healthcare benefits • Safety • Workplace benefits • Skill Upgradation • Career Development • Training & Development • Grievance Redressal • Employment for wards	• Reorganisation of HRM • Safety Excellence Journey • Wellness@Workplace • HR Helpdesk • Sexual Harassment Policy • Whistle Blower Policy • Reskilling programme • People Development Architecture • Talent Appreciation Process • Two-way communication • Grievance Redressal Mechanism • Apprentice Training Programme/ R D Tata Technical Institute

INVESTOR RELATIONS

Transparency through communication, especially related to return on investment, governance and future prospects to address shareholder concerns related to profitability, creating value for investors, strengthening the Balance Sheet and ensure timely implementation of projects create value for the investor.

The interest of the minority shareholder mainly lies in receiving regular dividend income and seeing their investments appreciate in the long term. All financial and non-financial reports including the analyst's meet report are available on *www.tatasteelindia.com*.

STAKEHOLDER GROUP	APPROACHES FOR ENGAGEMENT	FREQUENCY	KEY CONCERNS RAISED	RESPONSES
INVESTORS • Institutional • Long-Term • Small Investors • Analysts	• Annual General Meeting • Analysts Meets • Roadshows • Shareholder/ Annual and Sustainability Reports	• Annual • Half Yearly • As and when required • Annual	• Investors trust • Continuity of business • Improvement in Profitability • Timely implementation of projects • Strengthening of Balance Sheet	• Transparency • Return on Investment • Future prospect for investors • Secured money

COMMUNITY AND SOCIETY

Tata Steel's social strategy is revisited annually to respond to the aspirations of the community. The progress of the plans is jointly monitored and reviewed. Funds for the implementation of the plans are part of the pre - budget exercise.

STAKEHOLDER GROUP	APPROACHES FOR ENGAGEMENT	FREQUENCY	KEY CONCERNS RAISED	RESPONSES
COMMUNITY RURAL	• Units and Societies under Corporate Services • Interactions with zila parishads and panchayats, village mukhiyas, opinion leaders, members of PRIs and Self Help Groups	• Day-to-day at the departmental level • Local Area interventions by head of locations	Socio- Economic uplift through: • Sustainable Livelihoods • Empowerment • Education • Employment • Employability • Access to social and physical infrastructure	Interventions under Tata Steel Rural Development Society for inclusive growth • Vocational Training programmes • Women Empowerment • Mid Day Meal • Early Learning • Sports and Cultural activities
URBAN	• Corporate Services • Urban Services • Jamshedpur Utilities & Services Company Limited • Public Private partnerships	• Day-to-day at the departmental level	• Access to social and physical infrastructure • Environment Management and Climate Change • Township maintenance	Embedding BAT in expansion and greenfield projects Investments in improving civic amenities and services

Aware that the role of grassroots workers such as members of Panchayati Raj Insititutions, Village Panchayats, Self Help Groups is vital for the overall development of the rural areas, the Company organises training-cum-orientation programmes for them. The initiative focuses on improving public welfare and ensuring that stakeholders participate in various developmental interventions undertaken by the Company in its operational areas. Deliberations focus on facilitating inclusive development, long-term development and implementation strategies, environmental safety, rehabilitation and resettlement undertaken by Tata Steel and the role of these institutions and their members in sustainable and inclusive growth.

INDIGENOUS COMMUNITIES

Tata Steel's top leadership champions the cause of indigenous communities. The Managing Director holds one-on-one dialogues with community leaders and their representatives. Systematic engagement with village opinion leaders, youth and women of indigenous communities capture their social and material aspirations.

This consultative approach has ensured an enduring and peaceful relationship with indigenous communities with no disputes with indigenous people where it operates. Focus Group reviews and meetings of the Affirmative Action Core Committee ensure timely compliance with plans. Tata Steel also undertakes strategic alliances with governmental and non-governmental organisations to fulfill these aspirations. AA strategies and means are embedded in both the long-term and annual business plans, and are cascaded down to the operational level, with well-defined KPIs and targets.

Tata Steel is focusing on enabling indigenous communities safeguard their rights which include intellectual property, land rights, language and traditional knowledge as further explained in *Serving the Common Good of the Community*.

APPROACHES FOR ENGAGEMENT	FREQUENCY	KEY CONCERNS RAISED	RESPONSES

• Meeting with Community leaders and key stakeholders
• Annual Report of Societies
• Employee Volunteerism
• Focussed publications
	• Day-to-day at the departmental level	• Mainstreaming of the community
		• Socio-Economic Development through:
		  • Education
		  • Employability training
		  • Entrepreneurship development
			• Affirmative Action Programme
			• Interventions under Tata Steel Rural Development Society (TSRDS), Urban Services (US), Tribal Cultural Society (TCS), Tata Steel Family Initiatives Foundation (TSFIF), and Tata Steel Skill Development Society (TSSDS)

DISPLACED FAMILIES

As part of the third-party social audit of its Rehabilitation and Resettlement measures a group of eminent persons called the Grievance Redressal Group (GRG) has been

invited to periodically review Tata Steel's resettlement activities and probe into the grievances of the people.

Since it was formed in June 2008 the GRG has on an on-going basis meticulously reviewed/audited Tata Steel's efforts to make displaced and affected families partners in development and has facilitated improvements in policy implementation as well as practices so that the interest of the people are best protected.

STAKEHOLDER GROUP	APPROACHES FOR ENGAGEMENT	FREQUENCY	KEY CONCERNS RAISED	RESPONSES
 DISPLACED FAMILIES Tata Steel Parivar	• Resettlement and Rehabilitation teams • Public Hearings • Grievance Redressal Group	• Day to day	• Resettlement and Rehabilitation to make affected families partners in development	• Tata Steel Parivar programme for Resettlement and Rehabilitation of displaced communities

SUPPLIERS

Regular monitoring, relationship meetings and identifying joint improvement initiatives through structured processes improve the vendor value chain through capacity building, business resource development and adoption of green supply and ethical practices. In 2012-13, the Supplier Relationship Management programme was rolled out to 20 of the 68 Suppliers selected under the "Strategic Partner" category across various buying segments in Tata Steel.

STAKEHOLDER GROUP	APPROACHES FOR ENGAGEMENT	FREQUENCY	KEY CONCERNS RAISED	RESPONSES
SUPPLIERS	• Supplier Relation-ship Management • Dedicated Micro Site • Suppliers Meet	• Day-to-day • Online	• Transparent and Ethical Practices • Transactional Issue • Safety	• Whistle Blower Policy and Helpline • mjunction • ProCare • Six-Step Contractors Safety Management
VENDORS AND TRANSPORTERS	• Vendor Meets/ Transporters Meets • Dedicated Micro Site			

CUSTOMERS INCLUDING CHANNEL PARTNERS

The process of customer engagement and value creation at Tata Steel is based on five key actions. These include: customer need identification through a number of active listening and learning mechanisms; analyses and prioritisation of inputs; evaluation of potential value for customers and feasibility checks; implementation of pilot projects through cross-functional teams; and monitoring of projects.

Customer Service Teams (CST) work closely with the customer teams, which has led to multiple ideas on the product & service front.

STAKEHOLDER GROUP	APPROACHES FOR ENGAGEMENT	FREQUENCY	KEY CONCERNS RAISED	RESPONSES
CUSTOMERS • Institutional • Retail	• Plant Visits • Customers Meet/ Influencers Meet • Customer Service Team • Customer Visit Report/ Consumer Visit • Senior Management Contact • Events for Focus Groups and End Users • Reviews • Call Centre • Surveys and Studies • Customer Service Division	Regular/ As per plan	• Quality • Cost • Delivery • Stability in supplies • Return on investment • Growth • Training programme for dealers	• Customer Value Management • Retail Value Management • Emerging Customer Value Management • Value Analysis and Value Engineering • Cost Down Weight Down programme • New Product Development • Reengineering of Supply Chain Processes

GOVERNMENT AND PUBLIC POLICY

Tata Steel's endeavour is to bring an understanding of sector-specific, local and global sustainability concerns to local and national policy making processes.

A "thought" partner of the Government during policy formulation and modification, all Ministries of the Government of India accepted Tata Steel's inputs. These included:

Environmental Clearances: The Ministry of Environment and Forests exempted environmental clearances from being co-terminus with the expiry of mining leases when clearance is obtained under EIA, 2006. The Ministry also agreed to give two years to those who took environmental clearance under EIA 1994 to obtain fresh environmental clearance and the same period to those holding mining leases partially covering a forest area to obtain forest clearances.

Mining resolutions: Tata Steel actively participates in professional bodies like FIMI, FICCI and CII. Through these professional bodies issues such as resolutions by the state government aimed at reserving all minerals for public sector units (OMC); a limit of 30 years for the second and subsequent renewal of mining leases based on present capacity; and the requirement to supply at least 50 per cent of the demand of Odisha based mineral industries are raised at the appropriate platform for which Ministry of Mines issued three advisories to the Government of Odisha.

Coal allocations: Suggestions made by Tata Steel such as timelines, reserve price etc. were considered by the Committee formed by the Coal Ministry to frame procedures for the allocation of coal blocks through "Competitive Bidding".

A "THOUGHT" PARTNER OF THE GOVERNMENT DURING POLICY FORMULATION AND MODIFICATION, ALL MINISTRIES OF THE GOVERNMENT OF INDIA ACCEPTED TATA STEEL'S INPUTS.

Policy Legislation: In 2012-13 the Company presented its views to the Standing Committee of the Parliament on Steel and Coal for the MMDR Act through industry associations. It is working with the Ministry of Steel on the National Steel Policy and has provided inputs to the Empowered Group of Ministers (EGoM) on the LARR Bill.

Energy Efficiency: Through the Ministry of Steel, Government of India Tata Steel is engaged in the bilateral initiative with Japan under the Bilateral Offset Credit Mechanism (BOCM). Two separate initiatives being pursued aim to identify technologies relevant to Steel Industries in India and the development of case studies to demonstrate application of methodologies for emission reduction assessment.

OTHER STAKEHOLDERS AND MEDIA

The top management participates and features in both print and electronic media frequently to candidly state their opinion in the best interest of the sector in particular and the nation in general. It ensured information access on the sector and compliance with the disclosure obligations of listed-companies status.

STAKEHOLDER GROUP	APPROACHES FOR ENGAGEMENT	FREQUENCY	KEY CONCERNS RAISED	RESPONSES
ACADEMIA AND SCIENTIFIC COMMUNITY	• Conferences/ Seminar/ Workshops • Scientific Studies • Chairs • Collaborative Projects	• As and when	Sustainability issues in the short-term and long-term	Sustainability intitiaves
NGOS	• Conferences/ Seminar/ Workshops • Collaborative Projects	• As and when	ESG performance	ESG intitiaves
MEDIA	• Press Meets • Interactions with facing department • Surveys	• As and when • Day-to-day	Financial and ESG performance	• Transparency and communication of Financial and ESG performance • Participation in initiatives launched by industry and undertaking policy advocacy
INDUSTRY ASSOCIATIONS	• World Steel Association • CII • IIM • FIMI	• As and when • Day-to-day	• Climate Change • Affirmative Action • Government Policy	
LOCAL INDUSTRIES	Chambers of Commerce	• As and when • Day-to-day	Local Area Development	Localisation of the supplier base and promotion of the local economy

GROWTH THAT ADVANCES COMMON GOOD

2.9 MTPA
Expansion project completed

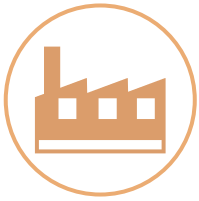
Rs 1016 Crores
in cumulative savings under the KVHS programme from FY11 to FY13

Rs 2588 Million
Spent on Environment Management

Rs 1708 Million
spent on community development

Rs 100946 Million
paid in taxes and duties to the Government

05 -ECONOMIC PERFORMANCE



MANAGEMENT INITIATIVES TARGETED AT THE CORE OPERATIONS INCLUDED INVESTMENTS IN AUGMENTING CAPACITY AND IN SELECT FACILITIES, PRODUCT RATIONALISATION AND RIGHT SIZING OF MANUFACTU-RING PRODUCTS.

MANAGEMENT APPROACH

Tata Steel continued to pursue its strategy of growth. The Company's growth and expansion projects are aimed at enhancing volumes to meet the country's current and emerging needs as well as progressively localising steel grades to substitute imports. Stakeholder value creation is enhanced through product and service innovations to differentiate itself from competition through a greater understanding of customer requirements.

Management initiatives targeted at the core operations included investments in augmenting capacity and in select facilities, product rationalisation and right sizing of manufacturing products. The Company prioritised its capital expenditure to maximise value creation in the future. In 2012-13 Tata Steel spent about Rs.2588 million in addition to pollution control measures under the brownfield expansion project and over Rs 1708 million for initiatives pursued as part of its social strategy. India is not a signatory to the Extractive Industries Transparency Initiative (EITI) but Tata Steel reports on all taxes, royalties, fees and land use payments paid to individual governments under the country's legal and constitutional framework to manage the mineral sector.

ECONOMIC PERFORMANCE

Despite challenging market conditions and weak steel prices in India, the Company sold an additional 850,000 tonnes during 2012-13. In the fourth quarter, the highest quarterly volume in the history of the Company was reached with sales of around 2.2 million tonnes of steel.

Brownfield Expansion: The Financial Year 2012-13 marked a major milestone in the operating history of Tata Steel as the capacity expansion project at its Jamshedpur Works was completed, and most facilities were commissioned for production. The 2.9 MTPA project took the crude steel capacity of Tata Steel from 6.8 million tonnes per annum to 9.7 million tonnes per annum.

The facilities have been ramping up and an incremental 1 million tonne of steel was produced during the year taking the total production to 7.94 million tonnes. The Jamshedpur Works recorded its highest levels till date in the production of Hot Metal, Crude Steel and Saleable Steel.

Tata Steel saw a significant increase in EBITDA/tonne due to focused efforts under its TQM programme, Kar Vijay Har Shikhar (KVHS). Of the total savings achieved by the Company, the KVHS improvement initiative contributed a cumulative savings of approximately Rs 1,016 crores from 2010-11 to 2012-13. A key area of cost saving was a reduction in fuel consumption at the Sinter Plant due to process optimization. Initiatives to improve throughput and production by the Raw Materials Division along with rationalization of buying decision also generated high savings.

Projects under KVHS aim at improving earnings and all operational parameters in the production process through generation of new ideas and deploying them through a structured framework. It is a multi-unit, multi-location and a cross functional improvement programme.

OF THE TOTAL SAVINGS ACHIEVED BY TATA STEEL THE KVHS IMPROVEMENT INITIATIVE CONTRIBUTED A CUMULATIVE SAVINGS OF RS 1,016 CRORES FROM FY 11 TO FY 13.

LOCALISATION OF THE SUPPLIER BASE

Among key contracts awarded to local suppliers for Tata Steel's 2.9 MTPA Expansion Project were two Flux & Ferro Alloy (FAFA) systems for the BOF Convertors in LD Shop-3. Both systems were installed by TRF Ltd, a locally-based Tata Steel associate company. Its scope of work included engineering, manufacturing supply, equipment erection, commissioning and load trial of the FAFA System. The first system was installed in March 2012 and the second during the reporting year.

A sourcing success achieved during 2012-13 was the localization of Copper procurement. Till 2011-12 it was sourced from M/s Sterlite from its manufacturing plant in Silvasa. It was transported by road to Jamshedpur over a distance of about 1800 kilometres. A local vendor "Metal Mantra" was developed in 2012-13 at Jamshedpur resulting in triple bottom-line impacts that included an addition of Rs 5.5 crores in business to the local community, reduction of three to four tonnes in CO2 emission per trip and a saving of Rs 5000 per tonne on LCNC basis.

POLICY OF POSITIVE DISCRIMINATION

The socio economic condition of scheduled caste and schedule tribes, which constitute a considerable percentage of the population above the national average where Tata Steel operates, is being accorded national importance. Tata Steel has held the belief that positive discrimination in favour of Affirmative Action communities, who surround its operations, is in the interest of socio economic change in its local communities. The Managing Director spearheads an Apex Committee on Affirmative Action which has in the last year focussed on preserving tribal culture and mainstreaming the tribal communities around Tata Steel's operations.

DIRECT ECONOMIC VALUE GENERATED AND DISTRIBUTED

Diversification of the customer base across sectors

Tata Steel continued to enhance its focus on the LCA and SME segments even as market conditions remained challenging. Both the auto sector and export markets remained under pressure.

The Company launched Astrum, a new brand for HR sheets and coils to serve the large SME segment. For Astrum, Tata Steel has segment specific TDCs, authorised service partners and brand marked sheets for Emerging Corporate Account (ECA) customers.

The Company has during the year acquired and expanded large commercial accounts in tubing, cold rolling, packaging and LPG segments; developed international markets for the products; and initiated new product development processes for securing customer approvals in the automotive segment.

Products and Solutions based on market insight

Tata Steel's various listening and learning posts including Apna home meets for Individual House Builders (IHB), Mason Meets and Dealer Meets, which were added to the wide range of existing forums in 2012-13, yielded opportunities for value creation.

During the year the Company commercialised Micro-Alloyed rebars, installed 31 NEST-IN housing solutions, commercialised the Nest-In Bio-toilet, roofing solutions under Roof Junction, introduced innovative self-healing organic coating to create superior coating resistance, replaced 8 mm rebars with 6mm rebars to drive the steel saving behavior in Indian construction industry and commercialized the Fe600 Rebar to help customers reduce specific consumption of steel.

Creating value for customers

Tata Steel's ability to achieve sequential volume growth in a difficult market reaffirms the strength of its distribution channels and customer orientation strategy. Under its Customer Value Management initiative it continued to create value for its key customers. A Simplified Drum Buffer and Rope (S-DBR) supply chain model for rebars improved customers rate delivery and order execution, realising 'lost sales' opportunities and improving the return on capital employed (ROCE) for distributors of these products.

Make To Availability (MTA) fulfills Tata Steel's commitment to maintaining availability at a specific warehouse thereby ensuring timely supplies to the customer.

Under its Vendor Managed Inventory (VMI) Partnership programme for S-DBR for Wire Rod And Low Carbon Wire Rod (LCWR), an important product category for the Long Products Division, the Company guaranteed >99 per cent availability at low inventory to the customer by frequent replenishment as per consumption.

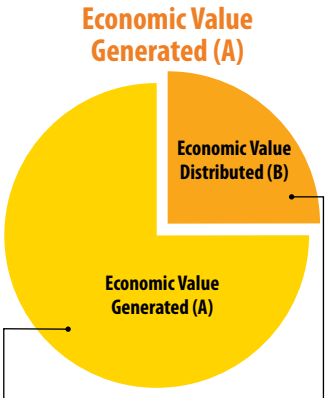
UNDER ITS CUSTOMER VALUE MANAGEMENT INITIATIVE TATA STEEL CONTINUED TO CREATE VALUE FOR ITS KEY CUSTOMERS.

Securing Raw Material Availability

Iron ore and Coking Coal are the two principal inputs and the largest spend for Tata Steel. These raw materials are obtained from mines located within a 200 kilometres radius of the steel plant. During the year operations at Noamundi and Joda Iron Ore Mines were augmented along with expansion of the Jamadoba Coal Processing Plant (JCPP). Raw materials consumed saw an increase in 2012-13 in line with higher production volumes. The increases were partly offset by a reduction in the cost of imported coal during the year.

Under the KVHS programme a target of 7 MTPA raw coal throughput has been undertaken at Tata Steel's West Bokaro from the existing mines without any major investment, while at Jharia the focus is on improving clean coal throughput, and hence, minimising overall coal imports.

RAW MATERIALS CONSUMPTION SAW AN INCREASE IN 2012-13 IN LINE WITH HIGHER PRODUCTION VOLUMES.



Economic Value Generated (A)

2010-11	2011-12	2012-13
3,30,027	3,83,076	4,43,600

Economic Value Distributed (B)

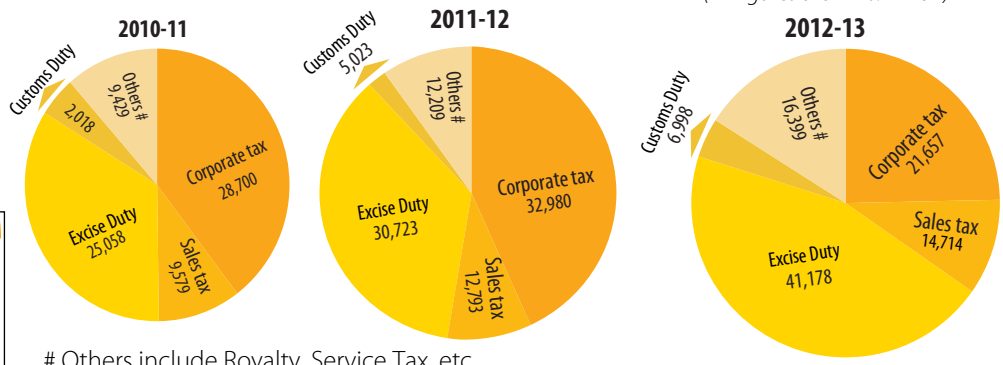
2010-11	2011-12	2012-13
2,74,515	3,32,147	4,04,690

Economic Value retained (A-B)

2010-11	2011-12	2012-13
55,511	50,929	38,911

(All figures are in Rs.Million)

(All figures are in Rs.Million)



Others include Royalty, Service Tax, etc

Taxes and duties paid to government	2010-11	2011-12	**2012-13**
	74,784	93,726	**1,00,946**

(All figures are in Rs.Million)

KEY ECONOMIC INDICATORS	2010-11	2011-12	2012-13
Economic value generated (A)	3,30,027	3,83,076	4,43,600
a) Revenues [Note - 1]	3,30,027	3,83,076	4,43,600
Economic value distributed (B)	2,74,515	3,32,147	4,04,690
a) Operating Costs	1,45,016	1,81,649	2,40,058
b) Employee Wages and Benefit [Note - 2]	28,375	30,473	36,085
c) Payment to providers of Capital	25,078	24,836	25,893
d) Payment to Government (taxes & duties)	74,784	93,726	1,00,946
e) Community Investments	1,263	1,464	1,708
Economic value retained (A-B)	**55,511**	**50,929**	**38,911**

Note - 1: Revenue figure includes sales tax
Note - 2: From FY 2010-11, Employee Compensation includes Staff Welfare expenses which was earlier included in Other Expenses

Rise in Operating Cost

Higher production volumes as well as rates, higher consumption of purchased coke and increase in freight and handling of own materials led to a rise in raw material consumed by Rs 18,630 million during 2012-13. The increase was however partly offset by reduction in cost of imported coal during the year.

Higher volume of despatches along with increase in rates and change in destination mix led to a 33 per cent increase in freight and handling charges amounting to an increase in Freight and Handling Charges by Rs 5,570 million.

There was an increase in conversion activities at Ferro Alloys and Minerals Division and Long Products as well as a rate increase in Long Products, Flat Products and Ferro Alloys & Minerals Division. Higher volume and rates for tin coating activities resulted in a further increase in the conversion charges by Rs. 4,410 million.

The increase in purchase of power by Rs. 5170 million was mainly due to an increase in cost for own use and higher purchases for outside sales. Increase in own use was both on account of rate and volume to support higher production of hot metal.

Impact of Impairment on Tata Steel India

The Company has made a provision in the financial statement of Rs 687 crores towards impairment in respect of equity investment in and loans granted to Tata Steel KZN Pty. Limited, South Africa.

PAYMENTS TO EMPLOYEES

The payments to and provisions for employees increased by 18 per cent on account of normal salary increases and consequential increase in retiring benefits provisions. Retiring benefits provisions increased further during the year due to change in actuarial assumptions.

RISKS DRIVEN BY CHANGES IN REGULATION

Assessment and identification of Climate Change related regulatory or physical risks and opportunities and contingency planning are an integral part of enterprise risk management and business planning.

In the midst of the low-carbon, green growth movement and anticipated regulatory mandate to reduce CO2 emissions, the importance of strategic decision making and carbon management performance is growing and assessment of risks and opportunities as accurately as possible at a site level is needed. Tata Steel's carbon accounting is a process for calculating the costs and benefits of carbon management activities. The results are then specified according to product and process to provide decision makers and stakeholders with relevant information.

Tata Steel monitors possible financial impacts under the target oriented energy efficiency enhancement programme launched by Government of India under Perform-Achieve-Trade and the RPO as mandated under the State Regulatory Authority. Indirect impacts such as increased cost of power, raw material, fuels, other consumables and transportation are also continuously tracked. Actions taken to reduced fuel costs and Greenhouse Gas emissions have been reported in the relevant sections of this report.

TATA STEEL'S CARBON ACCOUNTING IS A PROCESS FOR CALCULATING THE COSTS AND BENEFITS OF CARBON MANAGEMENT ACTIVITIES.

COLLABORATING WITH SUPPLIERS

Tata Steel's Strategic Outsourcing partnerships with global suppliers such as IBM for IT infrastructure requires them to align their staffing with Tata Steel's Affirmative Action programme. In 2012-13 nine persons recruited by IBM for the contract met the AA criteria. M/s Nalco and GE have committed to employ > 75 per cent from the AA community at the CO2 injection facility at LD 1 & 2.

To meet stringent customer requirements, Tata Steel continues to strengthen its strategic partnerships with suppliers for long-term sustainable relationships. A Governance mechanism through Supplier Relationship Management (SRM) and quality assurance (QA) system has been implemented by Tata Steel's Procurement Division in both the product and services delivery segments.

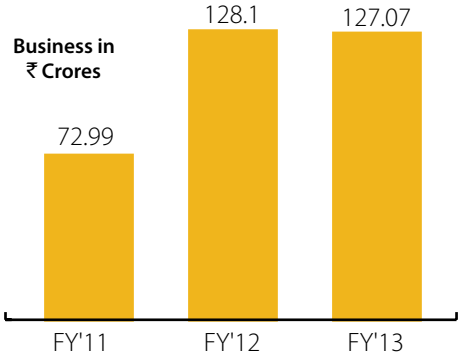
In 2012-13, SRM was rolled out to 20 of the 68 Suppliers selected under the "Strategic Partner" category across various buying segments in Tata Steel. Regular monitoring, relationship meetings and identifying joint improvement initiatives are undertaken.

IN 2012-13, SRM WAS ROLLED OUT TO 20 OF THE 68 SUPPLIERS SELECTED UNDER THE "STRATEGIC PARTNER" CATEGORY ACROSS VARIOUS BUYING SEGMENTS

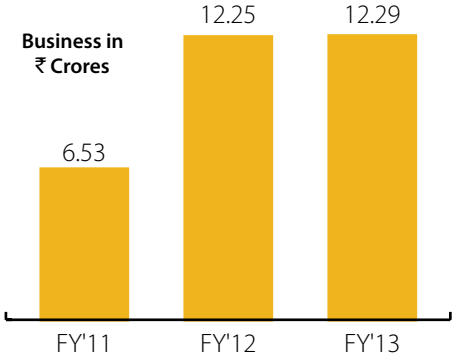
AFFIRMATIVE ACTION

In 2012-13 a total of 5864 SC/ST employees were on the rolls of the Company. A conscious effort was also made to have a higher percentage of members of the SC/ ST community in the Trade Apprenticeship category. In 2012-13 this was extended to the recruitment of utility hands where again 217 out of 672 of the candidates or 33 per cent were from the SC/ST community.

Business in Rs. Crores of vendors with 75% SC/ST ownership



Business in Rs. Crores of vendors with 50% SC/ST ownership



INVESTMENTS IN LOCAL INFRASTRUCTURE

Tata Steel assigns local area development funds to augment infrastructure, such as school buildings, roads, as well as to create drinking water projects and community

centres. This is in addition to its pre-budget exercise to allocate funds for initiative aimed at inclusive growth as well as positive economic and social change.

Total expenditure for its inclusive growth efforts touched Rs 1708 million in 2012-13, which is 3.37 per cent of Tata Steel's PAT excluding spend on Environment Sustainability. The activities on which this expenditure is incurred include improvements in the quality of life of the community; Community Development; Health & Medical support; and support to charities, NGOs and Government for social causes. Tata Steel did not receive any financial assistance from the Government.

The use of these funds is guided by stakeholder consultations with representatives of grassroots democratic organisations such as Panchayati Raj Institutions and Village Panchayats.

TATA STEEL ASSIGNS LOCAL AREA DEVELOPMENT FUNDS TO AUGMENT INFRASTRUCTURE

FOCUS AREAS FOR LOCAL AREA DEVELOPMENT

- Agriculture Development and Irrigation
- Schools Buildings
- Colleges
- Professional Institutions (Nursing College/ ITI/XIT)
- Community Halls
- Drinking Water Projects
- Roads
- Solar Lights

TOTAL EXPENDITURE FOR TATA STEEL'S INCLUSIVE GROWTH EFFORTS TOUCHED RS 1708 MILLION IN 2012-13, WHICH IS 3.37 PER CENT OF TATA STEEL'S PAT EXCLUDING SPEND ON ENVIRONMENT SUSTAINABILITY.

INDIRECT ECONOMIC IMPACT

The average distance that Tata Steel's premium high-end products travel to reach its customers is 1700 kilometres. Tata Steel's Customer Service Division is responsible for Despatch Planning & Shipment of FG & SEMIs through contract management of outsourced partners. They include 30 partners - 18 Transporters with ~ 20000 drivers and 12 Handling and Consignment Agents with about 600 employees.

The drivers and other personnel who come to the Steel Works typify the employee profile of the Indian Logistics Industry: 70 per cent drivers have no formal training, 65 per cent drivers have no training on safety, 15 per cent drivers have experienced accidents while 55 per cent drivers have only received primary level education.

The Division therefore conducts Safety training for the drivers along with regular health checkups – given their greater level of risk to sexually transmitted diseases - as well as monitors the Transport Parks to ensure that basic amenities are provided to them.

OPERATIONAL EXCELLENCE FOR A SUSTAINABLE WORLD

30% capacity growth

achieved in India. Facilities under the 2.9 million tonne brownfield expansion project commissioned

2005-2013

Installed best in class technologies

2.5 tCO2/tcs

emission maintained

86.7% Solid Waste utilisation

improved from 75 per cent within a year

06 -ENVIRONMENT PERFORMANCE

MANAGEMENT APPROACH

Tata Steel's Vision and that of Worldsteel - of making steel a major foundation of a sustainable world - can be achieved through resource efficiency and reduction of the environmental impact over the life-cycle of the products.

The Company's approach to the Environment Management is guided by Tata Code of Conduct, Tata Climate Change Policy, Tata Steel's Vision, Tata Steel's Sustainability Policy – enunciated in 2012-13, Environmental Policy and the UN Global Compact Principles.

Improvement in environment performance is a corporate goal and protection of the environment is an integral way of doing business. The policy framework ensures that objectives and strategies pursued lead to continual improvement of environmental performance and environmental sustainability of Tata Steel's operations.

Tata Steel's manufacturing and mining operations have implemented environmental management system certified to ISO 14001. The overall environment performance, including mitigating and controlling environmental impacts, is subject to continuous and detailed scrutiny by the Board of Directors of the Company, with the Board's Safety, Health and Environment Sub Committee providing direction on environmental performance.

The Brownfield steel expansion to raise total capacity to 9.7 MTPA at the Jamshedpur Steel Works was completed.

KEY FACILITIES ADDED UNDER THE 2.9 MILLION TONNE EXPANSION PROGRAMME OVER 2011-13

- 6 MTPA Pellet Plant was ramped up in 2012-13
- 3.05 MTPA Blast Furnace (I Furnace) with high level of Automation, Pulverised Coal Injection begins production
- TRT, Electric Blowers with LCI Drives, cast house granulation of slag and Waste Heat Recovery at Stoves
- 2.4 MTPA LD#3 with 2.54 MTPA Thin Slab Caster & Rolling; Stream-2 commissioned in 2012-13 for Efficient Steel Making
- One 0.7 MTPA Coke Ovens Battery (No.10) along with the By-Product Plant commissioned
- Two new Lime Kilns (Nos. 8 & 9) (600 TPD each) added to facilities

On initiating the 2.9 MTPA project to raise, its capacity to 9.7 MTPA, Tata Steel's goal was to align environment performance with levels recorded at half that capacity or at 5 MTPA. The Company therefore made large capital investments in Air Pollution Control Equipment (APCE) for new & existing plants, especially to significantly reduce overall dust and CO2 levels.

As anticipated, stabilization of the new facilities including production and APCE performance had inconsistencies in performance. The reporting year has therefore seen processes being fined-tuned under ramp up and stabilization to address adverse trends in performance parameters though they remained well within the prescribed norms. As facilities under the 2.9 MTPA project stabilized the Steel Works saw month-on-month improvements in both production and environment performance.

The environment performance of the Steel Works in the last quarter has shown a decreasing trend for Dust, CO2, NOx, SOx, Solid Waste and Fresh Water Intake against annualised levels reported.

The Steel Works closed the year with a CO2 intensity of 2.43 tCO2/tcs, dust emissions of 0.78 kgs/tcs, SOx emission of 0.91 kg/tcs, NOx emission of 1.44 kg/tcs, effluent discharge of 2.2 m3/tcs, Fresh Water Intake of 5.46 m3/tcs and Solid Waste Utilisation of 96 per cent.

Commissioning of Best Available Technology for Air Pollution Control at Sinter Plant No.3 in 2011-12 stabilised its emission performance to within statutory limits during the year. Further, close monitoring, regular wall maintenance and capacity adjustments led to reductions in stack emissions (particulate matter) to within statutory limits at Coke Oven Battery No.3. The Central Pollution Control Board thus revoked directions in this regard and returned the bank guarantee following mandated verifications.

AS FACILITIES UNDER THE 2.9 MTPA PROJECT STABILIZED THE STEEL WORKS SAW MONTH-ON-MONTH IMPROVEMENTS IN BOTH PRODUCTION AND ENVIRONMENT PERFORMANCE.

REDUCTION OF CO2 INTENSITY IS A CORPORATE-LEVEL KEY PERFORMANCE INDICATOR FOR TATA STEEL. THE COMPANY ACTIVELY PURSUES THE STRATEGY OF USING BEST AVAILABLE TECHNOLOGIES AND CONTINUOUSLY IMPROVING THE EFFICIENCY OF ITS OPERATIONS TO REDUCE THE CARBON RATE.

RESOURCE EFFICIENCY

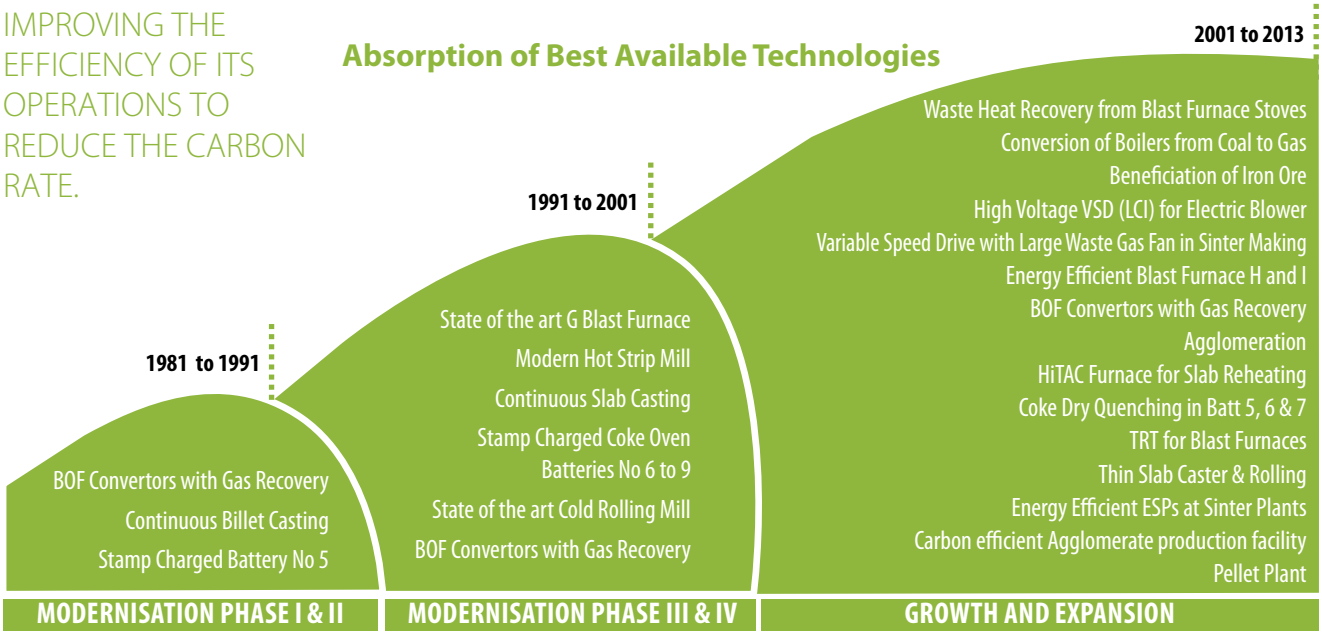
Principle inputs in the manufacture of steel are iron ore, coal and limestone, all natural resources. India is endowed with abundant iron ore resources and has among the largest reserves of coal in the world.

The high alumina content in Indian iron ore and ash content in coal render them inferior to the raw materials available from assets overseas. The presence of alumina and ash is detrimental to resource productivity and energy efficiency in steel making. The amount of CO2 emissions emanating from the steel industry also varies depending on the quality and quantity of raw material consumption and process efficiency. Tata Steel continued to pursue projects both during mining and manufacturing to improve raw material quality, sufficiency and the efficient manufacture of iron and steel.

The future availability of high-grade iron ore is also of great concern. Only a small number of technologically advanced domestic steel manufacturers, such as Tata Steel, are currently able to use iron ore fines.

Additional projects include alternate use of BHJ in blast furnace to reduce quartzite and sized ore consumption, replacing Pyroxenite in sinter making and recycling of waste materials to reduce consumption of iron ore per tonne of hot metal.

Absorption of Best Available Technologies



ENERGY EFFICIENCY, EMISSIONS AND CLIMATE CHANGE

Coal, a carbonaceous fuel, is used in the form of coke to reduce iron ore. Emission of Carbon dioxide is therefore a natural consequence of iron and steel manufacture and a key concern for the global steel industry.

The responsibility to "reduce carbon emissions per tonne of steel produced" rests with the Safety, Health and Environment Committee of the Board, chaired by an Independent, Non-Executive Director. Additionally at the Tata

Group level , the Sustainability Steering Committee, Sustainability Working Group and Sustainability Cell have been driving Sustainability initiatives e.g. Climate Change and water related initiatives.

During 2012 the Climate Change Steering Committee, Climate Change Working Group and Climate Change Cell at Tata Quality Management Services (TQMS) became the Sustainability Steering Committee, Sustainability Working Group and Sustainability Cell to focus on broader aspects of Sustainability challenges the business faces today.

ENERGY EFFICIENT AND CARBON EFFICIENT

Projects for an energy-efficient and carbon efficient future are embedded in Tata Steel's Long Term Plan. Key investments in the brownfield expansion programme, completed in 2012-13, along with continuous improvement and modernization efforts such as the upgrade of the 'F' Blast Furnace in 2013 reflect the Company's focus on emission abatement.

Research in collaboration with global steel majors and institutions is aimed at developing breakthrough technologies to replace or reduce use of coal and achieve significant reductions of emissions in the future.

Tata Steel supplies carbon friendly steel products to its customers to reduce their carbon footprint while raising the overall competitiveness of the steel industry.

THE RESOURCE AND ENERGY EFFICIENT 3.05 MTPA "I" BLAST FURNACE, BLOWN-IN DURING 2012-13, PRODUCES IRON IN A LEAN CARBON MANNER.

Iron Making:

The resource and energy efficient 3.05 MTPA "I" Blast Furnace, blown-in during 2012-13, produces Iron in a Lean Carbon manner. Additional features of the furnace viz. TRT, PCI, INBA, WHR etc. are aimed at attainment of higher energy efficiency and abatement.

THE COMBINED IMPACT OF ENERGY EFFICIENT AND POLLUTION PREVENTION TECHNOLOGIES WILL BE VISIBLE IN YEARS TO COME THROUGH IMPROVEMENT IN ENVIRONMENTAL PERFORMANCE.

Steel Making & Rolling

The second stream of the 2.4 MTPA LD3 with Thin Slab Caster & Rolling was operationalised during the year. Thin Slab Caster & Rolling is an efficient steel making process compared with the conventional route requiring lower fuel consumption for production of Hot Rolled Coil. Motors with Variable Speed Drives for the Induced Draught Fans at LD3 (new Steel Making Shop) enable electricity saving during non-blowing periods.

Coke Making

Use of Coke Dry Quenching (CDQ) is aimed at enhancing waste heat recovery, improving coke quality and reducing dust emissions. The new 0.7 MTPA New Coke Oven Battery No.10 with efficient, modern controls for heating and combustion was added in 2012-13 under the 2.9 MTPA expansion project.

The combined impact of these energy efficient and pollution prevention technologies will be visible in years to come through improvement in environmental performance.

Waste Utilization

Equipment and processes to mitigate the impact of greater waste generation as a result of the expansion of steel-making capacity in Jamshedpur were made a natural corollary to the expansion of capacity at the Steel Works.

To reduce waste at the Mines, the following initiatives were taken:

(a) Trials of Shale from West Bokaro for use in the Power Plants at the collieries
(b) Trials for utilization of Open Cast Rejects at Jharia collieries
(c) Improved recovery of Ultra fines from Washery discharge at West Bokaro collieries

Environmental Risks and Emergency Preparedness

To meet environmental standards, dust and other emission levels are monitored for prompt corrective actions to ensure they stay within permissible limits. Besides ongoing operational and maintenance initiatives the capacity increase coincides with a planned improvement in environmental performance including CO2 emissions per tonne by installing waste energy recovery, energy efficient equipment, upgradation of pollution control equipment and several other measures.

Management Systems at Tata Steel constitute the framework for managing compliance and achieving continual improvement. It has implemented environmental management systems that are certified under ISO 14001. Safety, Health and Environment Committee of the Board reviews overall health, safety and environment performance.

Tracking environment performance

In addition to its carbon accounting system (MoniCA) for monitoring and benchmarking CO2 emission performance, implementation of an IT platform for a centralised environmental database went online in 2012-13.

Overall Environment Performance

Key environmental performance indicators for the Jamshedpur Steel Works are raw material consumption, specific energy consumption, dust emission from stacks, fugitive dust emissions, effluent discharge, water consumption, solid waste utilisation, CO2 emissions and green cover.

FOCUS AREA (GOOD IS)	COMMITMENTS	PROGRESS IN 2013
RAW MATERIAL OPTIMIZATION (▼)	Minimize consumption with focus on maximizing indigenous sourcing	Beneficiation process optimisation continuing
ENERGY EFFICIENCY (▲)	Retain national benchmark level	Specific Energy Consumption at Jamshedpur Steel Works decreased by 0.1 per cent in 2012-13 over 2011-12
DUST EMISSIONS (▼)	Reduce specific dust emissions by over 50 per cent	Commissioned new ESP as part of the upgradation project of Sinter Plant No.2; old ESPs are being revamped
EFFLUENT DISCHARGE (▼)	Reduce by ~100 per cent	Augmented infrastructure for capture and recycling of effluent.
SOLID WASTE UTILIZATION (▲)	Strive towards 100 per cent Solid Waste Utilization at the Steel Works	Facility for storage & processing of LD Slag operationalized
EMISSION ABATEMENT (▼)	Achieve the National goal of reducing GHG intensity of GDP by 20-25 per cent from the 2005 level by 2020	More than 15 per cent reduction of emission intensity in Steel Works between 2005 & 2013
GREEN COVER(▲)	Continual Improvement	Continued with plantation drives

TATA STEEL ADDRESSES THE FINITE NATURE OF NATURAL RESOURCES BY:

- ENHANCING MINE YIELD THROUGH INNOVATIVE BENEFICIATION AND EXTRA-CTION TECHNIQUES
- INNOVATIVE TECHNOLOGIES AND PROCESSES TO USE LOWER GRADES OF IRON ORE & COAL
- RESOURCE EFFICIENT MANUFACTURING
- REDUCE, RECOVER, REUSE AND RECYCLING OF WASTE

RESOURCE EFFICIENCY AND RAW MATERIAL OPTIMIZATION

Tata Steel is preparing for the challenge posed by the finite nature of natural resources and simultaneously the depletion of high-grade ore deposits. The Company imports part of the coal requirement due to the non-availability of low ash coking coal in India. The high secondary and tertiary demands for steel products limit the availability of scrap for steel making.

No purchased scrap is used in the steel manufacturing process at Tata Steel. However all steel scrap with iron values produced within the Steel Works is recovered for reutilisaiton during steel making.

RAW MATERIAL REQUIRED FOR STEEL-MAKING

Material	UoM : LTPA
Iron Ore	117.37
Coke	35.65
Limestone and Dolomite	23.92
Spelter, Sulphur and other materials	11.16
Coal	11.99
Sand (Jharia)	5.83
Ferro Manganese	0.24
Zinc and Zinc Alloys	0.21

Material	UoM : LTPA
Iron Ore	121.89
Coke	38.15
Limestone and Dolomite	24.46
Spelter, Sulphur and other materials	13.25
Coal	11.15
Sand (Jharia)	6.49
Ferro Manganese	0.25
Zinc and Zinc Alloys	0.22

Material	UoM : LTPA
Iron Ore	**141.59**
Coke	**45.43**
Limestone and Dolomite	**28.89**
Spelter, Sulphur and other materials	**15.49**
Coal	**10.65**
Sand (Jharia)	**7.49**
Ferro Manganese	**0.22**
Zinc and Zinc Alloys	**0.22**

Tata Steel addresses the finite nature of natural resources by:

- Enhancing Mine Yield through innovative beneficiation and extraction techniques
- Innovative technologies and processes to use lower grades of Iron Ore & Coal
- Resource efficient manufacturing
- Reduce, recover, reuse and recycling of waste

Enhancing Mine Yield through Beneficiation

Improvements in clean coal throughput at the Washeries:

Indian coals have a relatively high fraction of non-energetic minerals finely dispersed through it. This ash is difficult to remove with conventional physical techniques. An alternative is to leach the coal with chemicals that selectively react and dissolve the mineral matter leaving behind clean coal.

Tata Steel is pursuing two chemical leaching methods to substantially reduce the ash in domestic coal from 35 per cent to 8 per cent. It constitutes the Company's largest Research & Development effort as the project has the potential to double usable coal output from Tata Steel's mines by substantially improving the yield of clean coal. At the same time low ash coal will exponentially improve Blast Furnace productivity and energy efficiency.

After successful trials were completed on a pilot plant in 2011-12, during the reporting year the Company is working on designing, erecting and operating the world's first continuous demonstration plant on a semi-commercial scale. The project is to be completed in the next three years. Simultaneously operational practices for ore beneficiation and the coal washing circuit are being improved.

THE COMPANY IS WORKING ON THE WORLD'S FIRST CONTINUOUS DEMONSTRATION PLANT TO PRODUCE LOW ASH COAL

TO USE ALL AVAILABLE MATERIAL WITH IRON VALUES TATA STEEL HAS ADOPTED A VARIETY OF TECHNIQUES

Reducing alumina in Iron Ore

Pilot scale demonstrations have successfully led to the recovery of concentrate with <2.5% alumina from iron ore ultra-fines rejects (<25 micron). The process, which also reduces energy consumption, has been included in the Company's iron ore total beneficiation scheme.

Extending Mine Life

Coal mine wastes (such as Jhama coal, coal fines), iron ore fines and by-products from the Steel Works including Blast Furnace and LD slag from Steel Making all have potential for value added applications. Technological breakthroughs being pursued to recover these values will substantially improve material efficiency and extend the life of the mineral reserve.

Recovery of iron value from slimes through flocculation

The mined ore after processing produces sized ore, fines and slime. To use all available material with iron values Tata Steel has adopted a combination of techniques for mining, beneficiation, sintering and pelletization of ore, resulting in the reduction of fines generation in the mines and increasing usage of fines in Iron making. Beneficiation of Slime, containing 20 per cent of the mined material, is difficult and uneconomical because the particle size contained in slimes is lower than 150 microns. Tata Steel is piloting the development of novel ore beneficiation techniques to recover iron values from slimes and ultra-fine mine tailings through flocculation.

Resource Efficiency in Iron & Steel Making

Tata Steel's operational thrust continues to be
(i) maximising yield at all processes and (ii) recovery & recycle wastes.

Large energy and resource efficient blast furnaces

Large size blast furnaces capable of using pulverized coal and ore agglomerates have improved productivity, consumption norms and hot metal quality. The installation of the H and I Furnaces increased Tata Steel's capability to use agglomerated burden - sinter and pellets. Improvements in burden quality will facilitate higher injection of coal fines, reducing metallurgical coke requirement and the overall fuel rate.

Coke Making

Built with a production capacity of 0.7 million tonnes per annum, the Coke Oven Battery #10 and By-Product Plant operates using 88 ovens and is the largest battery at the Jamshedpur Works. Commissioned in 2012-13 its design is based on Stamp Charging and Coke Dry Quenching technologies to use inferior/lower grade coal in coke making.

Reduction in Coke rate through Pulverised Coal Injection

At Jamshedpur Steel Works, D, F, G, H and I Blast Furnaces produce >90 per cent of the Hot Metal. They are capable of using pulverised coal. Injection of low ash non-coking coal into the blast furnace can save coking coal used in steel making.

Process Dust

Process Dust is reused in Sinter making to extract benefits from the iron and carbon contents to maximize resource conservation and exercise control over raw material costs.

Innovative technologies to use agglomerated iron ore fines

To judiciously consume iron ore fines and ultra-fines in steel making, Tata Steel uses two ferrous agglomerates, Sinter and Pellets.

The Company's 6 MTPA Pelletizing Plant - using the latest technology from Germany - was ramped up in 2012-13. The first of its kind in the country to use inverter driven fans, it feeds agglomerated iron ore fines in the form of pellets to the new Blast Furnaces.

Research is also focussed on building a state-of-the-art pilot pelletizing and pellet testing facility to further improve productivity through improvements in pellet technology.

TATA STEEL HAS SET A TARGET OF APPROACHING 100 PER CENT SOLID WASTE UTILISATION AT JAMSHEDPUR STEEL WORKS THROUGH THE PRINCIPLE OF REDUCE, REUSE AND RECYCLE.

SOLID WASTE UTILISATION

Steel is positioned as a product that fits into a sustainable future because steel is 100 per cent recyclable and can be recycled an infinite number of times. Also the high iron content in steel making slag in any integrated steel plant makes solid waste utilisation critically important to optimum resources use.

Tata Steel has therefore set a target of approaching 100 per cent solid waste utilisation at its Jamshedpur Steel Works through the principle of reduce, reuse and recycle.

TYPE OF WASTE AND WASTE RECOVERY

The most voluminous material of the total solid waste generated is Blast Furnace Slag followed by Steel Making (LD) slag. Metal recovery from LD slag reduces raw material requirement, energy and emission load during steel production.

4.35 million tonnes of Slag waste was generated at the Blast Furnace and Steel Melting Shops during 2012-13. From this 1.57 million tonnes of the LD slag, containing 15-20 per cent of steel was further processed in the Metal Recovery Plant to achieve better utilisation. Recovered metallic components are recycled back along with part of the Steel Making Slag to the Sinter plants replacing Iron Ore and Lime.

WASTE REDUCTION AND DISPOSAL

Blast Furnace Slag

More than 94 per cent of the Blast Furnace Slag at Tata Steel is Granulated Blast Furnace Slag. It is used as a clinker substitute in slag cement, saving mineral resources such as limestone needed in clinker production, and reducing emissions in the downstream activity. Some BF Slag is used for filling low land.

During mining Tata Steel also beneficiates iron ore to reduce gangue material and washes coal to reduce ash content so as to minimise generation of blast furnace slag.

LD Slag

A major portion of leftover LD slag after recovery of its metallic components is used for agglomerate production.

Other Wastes

Other Wastes include Tar Sludge is used in the Coke Plant, while generation of Waste Oil and Oily Sludge are reduced through Oil Conservation and utilisation is ensured through reuse in the Sinter Plant. Hazardous wastes are sent to secured land fills and TSDF, send to authorised resellers or bought back by suppliers.

No Hazardous Waste is being imported or exported by Tata Steel India. The objective remains reduction of hazardous waste generation wherever possible from the perspective of operational efficiency.

TOTAL WEIGHT OF WASTE BY TYPE

MATERIAL	Sites	UoM	2010-11	2011-12	2012-13
NON HAZARDOUS WASTE[3] :	16 sites[4]	Tonnes	69,47,300	70,82,248	78,85,520
HAZARDOUS WASTE[5]:	2 sites	Tonnes	2,769	2,705	3,945
HAZARDOUS WASTE: USED OIL	28 sites	KL	739.25	952.08	756.2
	Steel works	Tonnes	256	1,886	237
HAZARDOUS WASTE: USED BATTERIES	24 sites	Nos	5,489	8246	6296

3 Current report above contains: BF Slag, Bottom Ash, FeCr Slag, Fly Ash, GCP Sludge, LD Slag, Mill Scale and Sludge, Process Dust, Others non-haz Wastes of Steel Works

4 16 sites = Steel Works – 1, Tubes Works – 1, Jharia – 9 and West Bokaro - 5

5 There are other categories of wastes – sludge, dross, used / waste oil reported separately; This item needs to be better defined. Excludes HMC Coking Coal but includes Coke from HMC

While Specific Solid Waste Utilisation rate at Jamshedpur Steel Works increased from 477 kg/tcs in 2011-12 to 540 kg/tcs in 2012-13, percentage Solid Waste utilisation increased from 75 per cent in 2011-12 to 86.7 per cent in 2012-13 following commissioning of LD slag storage and future processing plant, the site for which was operationalised during 2012-13.

EFFICIENT ENERGY USE

Energy Usage in Tata Steel Limited, 2012-13 (Good is :▼)

MATERIAL	UoM	2010-11	2011-12	2012-13
COKING COAL & COKERIES[6]	MT	5.17	5.39	5.57
COAL BF INJECTION	MT	0.84	0.87	0.95
COAL - MIDDLING & ROM	MT	0.10	0.10	0.11
FURNACE OIL	m^3	16,226	15,424	13,064
LDO	m^3	4,853	2,390	2,619
LPG	Tonnes	6,576	7,624	7,645
HSD OIL	m^3	59	50	45
PURCHASED ELECTRICITY	GWh	2,355	2,546	3,348

6 Excludes HMC Coking Coal but includes Coke from HMC

Energy Intensity in Steel Making (Good Is: ▼)

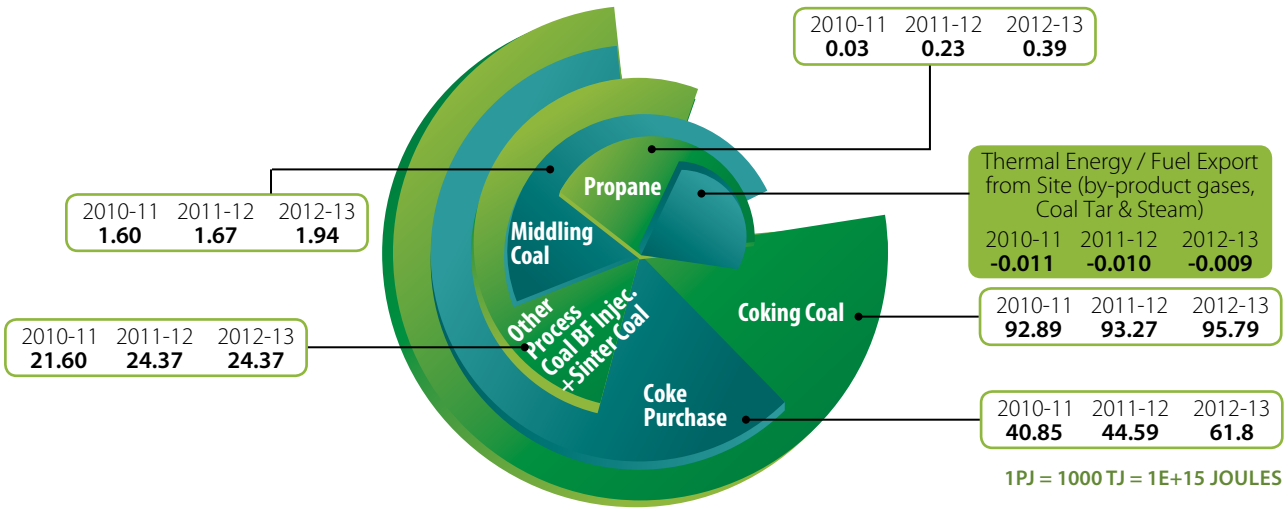
MATERIAL	UoM	2010-11	2011-12	2012-13
STEEL WORKS, JAMSHEDPUR	GJ/tcs	25.15	25.49	25.47

ENERGY EFFICIENCY PROGRAMMES

Over half of Tata Steel's total operational spend is on account of energy costs. Hence energy conservation and use of energy efficient equipment and processes is a priority for Tata Steel.

ENERGY CONSUMPTION AT JAMSHEDPUR STEEL WORKS

(UNIT: PJ, GOOD IS: ▼)



1PJ = 1000 TJ = 1E+15 JOULES

By addressing opportunities in its focus areas Tata Steel has achieved a > 40 per cent reduction in specific energy consumption in the last 30 years.

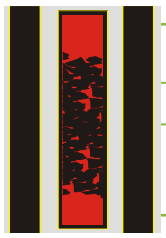
A significant move forward towards low carbon energy installations as well as energy efficient processes was taken through the brownfield expansion. They have led to in a drop in the overall energy consumption from 6.088 Gcal/tcs in 2011-12 to 6.083 Gcal/tcs in 2012-13.

Energy efficiency programmes during iron and steel making focus on three principal areas:

- **Energy conservation & recovery of waste heat and energy from the processes**
- **Process efficiency enhancements through installation of energy efficient processes & technologies like TRT at G, H & I Blast Furnaces, Coal Dry Quenching (CDQ) at Coke Oven Battery No.5, 6 & 7 etc.**
- **Cost control**

Energy Conservation at Jamshedpur Steel Works (Good is: ▲)

Energy Efficient Process adopted	Location of installation	Energy Conserved (TJ)		
		2010-11	2011-12	2012-13
Power generation using Top gas pressure Recovery Turbine (TRT)	G, H & I Blast Furnaces	1,410	1,057	**1,299**



Energy Efficient Process adopted	Location of installation	Energy Conserved (TJ)		
		2010-11	2011-12	2012-13
Ramping up Steam Recovery from Coke Dry Quenching	Coke Oven Battery 5, 6 & 7	-	395	1,043

Energy Efficient Process adopted	Location of installation	Energy Conserved			
		UoM	2010-11	2011-12	2012-13
Energy savings due to L.D.Gas % Gain / (Drop) over previous year	LD Shops (1 & 2)	%	-0.3%	-18.4%	21.3%

Energy Efficient Process adopted	Location of installation	Energy Conserved (TJ)		
		2010-11	2011-12	2012-13
Enhanced CO Gas Recovery	Coke Oven Batt.3, 5-10	387	111	40

TJ = Tera Joules = 10^{12} Joules

THE COAL MINES AT JHARIA AND WEST BOKARO GENERATE THE MAJORITY OF THEIR POWER NEEDS FROM COAL REJECTS.

ENERGY CONSERVATION AT FINISHING MILLS: (Good is: ▼)

MILLS	UoM	2010-11	2012-13
WIRE ROD MILL	Gcal/t	0.201	0.184
NEW BAR MILL	Gcal/t	0.211	0.207
HOT STRIP MILL	Gcal/t	0.292	0.270
MERCHANT MILL	Gcal/t	0.318	0.316

REDUCTION IN POWER CONSUMPTION:

Three Finishing Mills at Jamshedpur Works achieved their best specific power consumption during 2012-13. Three Sinter Plants at Jamshedpur Works also achieved an improvement in specific power consumption during 2012-13. The overall efficiency of boilers at Tata Steel's Captive Power Plants touched 85.55 per cent against 85.22 per cent in 2011-12 and 85.13 in 2010-11.

The Coal Mines at Jharia and West Bokaro generate the majority of their power needs from coal rejects, allowing the them to continuously improve their economic performance and the environmental sustainability of their operations.

Initiatives taken at Hooghly Met Coke to reduce Electricity consumption through energy efficiency and introduction of

renewable energy based lighting during 2012-13 included :

1. 300 LED lights installed resulting in savings of 15.2 KWH and Rs 8 lakhs
2. 75 Solar street lights resulting in savings of 1.15 KWH

A rooftop Solar PV of 1 KW for the office and road lighting with LED lights to reduce electricity consumption by 4 KW were installed at the Jamshedpur Steel Works.

INSTALLATION OF SOLAR LIGHTS ACROSS LOCATIONS HAS RESULTED IN ENERGY CONSERVATION

Raw Material Locations

Rapid Loading systems installed in the iron ore mines at Noamundi and Joda East under the brownfield expansion programme have reduced the wagon loading time from three to five hours to just over an hour. Besides saving time it has reduced power consumption through a faster rake turnaround time.

The Ore Mines & Quarries Division (OMQ) of the Company brought about a reduction in Specific Energy Consumption by installing a variable frequency drive in its gyratory crusher.

A solar light plant at the Central Camp supplies 4 KW of Solar Power to the rainwater harvesting park at Noamundi Iron ore Mine. Light pipes at the Central Workshop and Motor Garage now illuminate these facilities with solar power.

Innovative projects implemented at the Joda East Iron Mine to conserve energy include upgradation of the primary crusher for wet and dry processing, modernization of the belt conveyor drive to install a VVF drive, reduction in the loading time from about three hours to just over an hour and replacement of standard motors with energy efficient motors.

HIGH STRENGTH FLAT PRODUCTS MANUFACTURED BY TATA STEEL ENABLE DOWNSTREAM CONSUMERS TO REDUCE THE QUANTITY OF STEEL IN END APPLICATIONS

ENERGY EFFICIENT PRODUCTS

As part of its commitment to producing energy efficient products Tata Steel invests its best efforts to mitigate GHG emissions through the supply of energy-efficient steel and by-products as well as the solutions proposed for construction material.

High Strength Flat Products manufactured by Tata Steel enable downstream consumers to reduce the quantity of steel in applications such as automobile, household components (Flat Products), making their product lighter, without compromising on their safety and structural strength.

Higher strength rebar (Fe 600 instead of Fe500 or Fe 500 instead of Fe415) in civil construction leads to saving of steel in construction also without compromising safety and structural strength.

Both transportation and use of the products allows reduction of emission since the product is lighter in weight and less steel by weight is consumed.

EMISSION ABATEMENT

While it is imperative that all the steel makers across the country ramp up steel production to meet domestic demand, it is equally urgent that energy efficient and environment friendly technologies be adopted in all areas of iron and steel making to mitigate the impact of a rise in emissions.

The Company believes that continuous improvement of energy efficiency and resource conservation in the iron and steel works is the most fundamental way to reducing GHG emissions. Tata Steel pursues an energy and resource efficient future through smaller schemes as well as major expansion programmes.

Best available technologies were selected and commissioned for all units in the Steel Works.

Efforts to reduce Scope 1 emission included:

- Commissioning of the new 'I' Blast Furnace, Waste Stove Heat Recovery systems for the Blast Furnace,
- Utilization of dry coke from CDQ and capacity building. Battery No.10 with computer aided combustion control with 100 per cent Coke Oven Gas recovery & utilization has been commissioned in December 2012.
- Battery nos. 5, 6, & 7 employ the carbon efficient CDQ technology.
- Coke produced via the carbon efficient route at Jamshedpur is currently at 34 per cent.
- Scope 2 emissions were reduced through the installation of TRT at the new Blast Furnace, CDQ in coke oven batteries, Variable Frequency Drives for Fan-Motors, reduction in plant idling and Level-III automation.
- Online granulation enables achievement of high granulation rates (~95%) of the slag produced compared to offline granulation (~50-60%). This enables higher utilisation of BF Slag for cement making wherein the slag

replaces clinker. Clinker production requires calcination of Limestone and therefore emits CO2. Reducing clinker consumption therefore enables cement companies to reduce emission which is reflected in the Scope-3 emission performance of the Company.

Actions towards GHG Abatement and Climate Change mitigation at Jamshedpur Steel Works (Good is: ▲)

Project commissioned and ramp up	Location	Commissioned	CO2 emission abated ('000 tCO2)	
			2011-12	2012-13
Efficient production of Hot Metal	"I" Blast Furnace	Apr 2012	-	321
Online granulation of Blast Furnace Slag	"I" Blast Furnace	Apr 2012	-	398
Ramped up agglomeration through Pelletization	Pellet Plant	Nov 2011	6	223
Waste Heat Recovery from hot waste gases of Stoves	"I" Blast Furnace	Apr 2012	-	74
Ramped up Coke Dry Quenching (CDQ)	Battery Nos. 5, 6 & 7	Nov 2011	28	73
Power generation using Top gas pressure Recovery Turbine (TRT)	"I" Blast Furnace	Dec 2012	-	12
LCI Drive with Electric Blower	"I" Blast Furnace	Apr 2012	-	18
Ramped up 1st Stream of Thin Slab Caster & Rolling	LD3 and TSCR	Oct 2012	Small (0.002)	4
Efficient casting & rolling: 2nd Stream of Thin Slab Caster & Rolling	LD3 and TSCR	Oct 2012	-	3
Ramped up 1st Stream of LD3: ID Fan with Variable Speed Drives	LD3 and TSCR	Oct 2012	Small (0.01)	1
Installed 2nd Stream of LD3: ID Fan with Variable Speed Drives	LD3 and TSCR	Oct 2012	-	0.8

Further, energy conservation has direct bearing on CO2 emission intensity due to high dependence on fossil fuel.

There is an on-going initiative to capture the GHG Footprint of various sites, identification of abatement potential, marginal cost assessment of abatement levers and exploration of strategies for various business models.

CO2 Emission from Steel Works* (Good is: ▼)

Specific Generation (tCO2/tcs)		
2010-11	2011-12	**2012-13**
2.31	2.27	**2.31**
Absolute Quantity ('000 tCO2)		
2010-11	2011-12	**2012-13**
15,804	16,283	**18,803**

Specific Generation (tCO2/tcs)		
2010-11	2011-12	**2012-13**
0.11	0.12	**0.07**
Absolute Quantity ('000 tCO2)		
2010-11	2011-12	**2012-13**
744	747	**544**

Specific Generation (tCO2/tcs)		
2010-11	2011-12	**2012-13**
0.10	0.11	**0.14**
Absolute Quantity ('000 tCO2)		
2010-11	2011-12	**2012-13**
682	789	**1,175**

Specific Generation (tCO2/tcs)		
2010-11	2011-12	**2012-13**
2.51	2.50	**2.52**
Absolute Quantity ('000 tCO2)		
2010-11	2011-12	**2012-13**
17,231	17,819	**20,522**

*Link to methodology (Worldsteel Association)

The Company has virtualized servers to reduce its Carbon footprint, introduced new fuel-efficient and higher capacity vehicles in contracts, influenced suppliers to pursue green processes and is exploring, developing and deploying green packaging for steel products. Tele-presence, webex and video conferencing have been made available and are extensively used for conducting business during interactions requiring Company employees from multiple locations to participate. Steel Works provides free bus services to employees and contractors to encourage mass transportation.

Worldsteel CO2 Reporting Methodology, V6

OTHER GREENHOUSE GASES

The Company has adopted worldsteel methodology for tracking its GHG performance which is based on emissions. The methodology focusses on emissions since represents significant portion of the GHG emissions from Iron & Steel Works. While the Kyoto Protocol lists six gases (UNFCCC) under this category, the worldsteel methodology does not cover Nitrous Oxide, HFC, PFC, SF6 or Methane emissions.

OZONE DEPLETING SUBSTANCES

The Company is continuously working in compliance of the Montreal Protocol to phase out usage of identified ODS. It has completely phased out utilisation of R11, R12 and R114 from all operating units. At Jamshedpur Steel Works, efficiency of refrigerant use has improved significantly.

Refrigerant Consumption at Jamshedpur Steel Works

PARAMETER	UoM	1997-98	2002-03	2011-12	2012-13
SPECIFIC REFRIGERANT CONSUMPTION (▼)	kg/tonnes of refrigeration	0.99	0.50	0.184	0.182

AMBIENT AIR QUALITY, EMISSION ABATEMENT

The capital outlay for the brownfield 2.9 MTPA expansion project included a detailed dust emissions reduction strategy from major stacks besides strategies to control fugitive emissions from processes, material handling & transportation, etc. Emission of oxides of sulphur is controlled through use of raw material low in sulphur, desulphurization of Coke Oven Gas and usage of scrubbers. Adoption of low NOx burners, with temperature control and excess air control has reduced the emission of Nitrogen Oxides.

THE STEEL WORKS CLOSED THE YEAR WITH DUST EMISSIONS OF 0.78 KGS/TCS, SOX EMISSION OF 0.91 KG/TCS AND EMISSION OF 1.44 KG/TCS

Emissions from Jamshedpur Steel Works (Good is: ▼)

Unit : kg/tcs

Dust (Particulate Matter)		
2010-11	2011-12	**2012-13**
0.84	0.79	**1.00**

Unit : Tonnes

Dust Emission		
2010-11	2011-12	**2012-13**
5,761	5,660	**8,162**

Unit : kg/tcs

SOx (Oxides of Sulphur)		
2010-11	2011-12	**2012-13**
0.67	0.74	**0.89**

Unit : Tonnes

SOx Emission		
2010-11	2011-12	**2012-13**
4,608	5,268	**7,203**

Unit : kg/tcs

NOx (Oxides of Nitrogen)		
2010-11	2011-12	**2012-13**
0.96	1.10	**1.21**

Unit : Tonnes

NOx Emission		
2010-11	2011-12	**2012-13**
6,601	7,841	**9,853**

Ambient dust in the ore mines witnessed a drop with the use of the chemical mixed water in mobile water sprinklers during the reporting year and the installation of fixed sprinklers along haul roads. West Bokaro continues to use Wet drilling in the mining operations.

DATA ON WATER CONSUMPTION INCLUDES 36 SITES IN 2012-13 COMPARED TO 28 SITES IN 2011-12

WATER MANAGEMENT

Tata Steel draws water required for industrial use from surface water sources, primarily perennial rivers and streams, internal reservoirs and water from municipal sources. The Company does not encourage use of ground water with no ground water being used within the Steel Works.

The Company has been progressively integrating data on water from a larger number of sites each year for reporting in the Sustainability Report. The data for 2012-13 covers 36 inputs points compared to 28 in 2011-12.

Water Footprint assesses impact

For the first time in India, a Water Footprint exercise was undertaken at an integrated steel plant in collaboration with Water Footprint Network (WFN) and International Finance Corporation (IFC, World Bank Group). In 2012-13, Tata Steel collaborated with IFC and WFN to conduct the Water Footprint assessment exercise for the Steel Value Chain covering the Steel Works at Jamshedpur and Raw Material Division (Iron & Coal Mines). The Water Footprint of the Company has established that no sources of water are adversely affected by its operations. Also the Company operations will not be adversely affected in the event of a severe drought extending for two to three years, even with the expanded capacity. Tata Steel was the principal sponsor of the UN Global Compact's CEO Water Mandate international conference held in March 2013 in Mumbai, India.

THE WATER FOOTPRINT OF THE COMPANY HAS ESTABLISHED THAT NO SOURCES OF WATER ARE ADVERSELY AFFECTED BY ITS OPERATIONS.

Water Withdrawal (Good is: ▼)

(All units are in m³)

Source of Water - **Surface Water**

Location - Steel Works Jamshedpur

Purpose - Industrial

2010-11	2011-12	**2012-13**
4,14,34,400	4,16,01,424	**4,81,52,697**

Source of Water - **Surface Water**

Location - Coal Mines, Jharia

Purpose - Industrial & Domestic

2010-11	2011-12	**2012-13**
56,09,794	54,13,513	**56,83,079**

Source of Water - **Surface Water**

Location - Tubes Division

Purpose - Industrial

2010-11	2011-12	**2012-13**
1,05,079	1,05,835	**1,75,647**

Source of Water - **Surface Water**

Location - Cold Rolling Complex

Purpose - Industrial

2010-11	2011-12	**2012-13**
1,68,797	5,92,488	**7,87,963**

Source of Water - **Municipal Water**

Location - Hooghly Met Coke

Purpose - Industrial & Domestic

2010-11	2011-12	**2012-13**
6,93,662	9,24,160	**10,22,113**

Source of Water - **Surface Water**

Location - Ore Mines Quarries

Purpose - Industrial & Domestic

2010-11	2011-12	**2012-13**
45,50,809	47,47,197	**48,69,631**

Source of Water - **Surface Water**

Location - Coal Mines, West Bokaro

Purpose - Industrial & Domestic

2010-11	2011-12	**2012-13**
26,42,924	26,57,008	**19,42,983**

Source of Water - **Surface Water & Underground**

Location - Ferro Alloys & Minerals Division (FAP Bamnipal, TS Alloys)

Purpose - Industrial & Domestic

2010-11	2011-12	**2012-13**
19,79,699	20,97,891 (+FAP Joda)	40,83,002 (+MGM, Sukinda & FAP Joda)

Source of Water - **Underground**

TOTAL WATER WITHDRAWAL

2010-11	2011-12	**2012-13**
5,76,01,358 (27 sites)	5,75,77,482 (28 sites)	**6,39,98,894** (36 sites)

USE OF RECYCLED WATER IS CONTINUOUSLY RISING AT THE JAMSHEDPUR STEEL WORKS.

Total Water discharge by destination
(Significant locations only)

LOCATION	UoM	2010-11	2011-12	2012-13
STEEL WORKS, JAMSHEDPUR	m^3	1,30,17,360	3,25,39,449	2,90,06,812

Discharge Destination: Swarnarekha & Kharkai Rivers

Discharge Quality: The quality of the effluent discharged conformed to prescribed limits

LOCATION	UoM	2010-11	2011-12	2012-13
FAMD / SUKINDA CR ORE MINES & BENEFICIATION, ORISSA	m^3	48,24,753	50,97,160	44,77,128

Discharge Destination: Damsala Nallah

Discharge Quality: The quality of the effluent discharged conformed to prescribed limits

Tata Steel's long-term plan is reduce its water footprint and makeup water consumption at its Steel Works by completely eliminating effluent discharge. There is no effluent discharge at the mining locations.

The plan is currently under implementation and is to be completed in next two years. A new 8 MGD (2 x 4 MGD) Effluent Treatment Plant is being set up in two phases. It will significantly reduce the water consumption of the Steel Works by converting effluents into service quality water for use in cooling and quenching.

Use of recycled water is continuously rising at the Jamshedpur Steel Works. Water is drawn from existing drains for low-end applications such as for dust suppression, slag granulation and slag quenching. Water recovery & recycling from the drains are poised to rise two-fold in the near future. Jamshedpur Steel Works achieved 17 per cent reduction in specific water consumption over a ten-year span from 7.1 m3/tcs in 2002-03 to 5.92 m3/tcs in 2012-13.

Water consumption of Jamshedpur Steel Works

PARAMETER	UoM	2010-11	2011-12	2012-13
SPECIFIC WATER CONSUMPTION (▼)	m^3/tcs	6.04	5.83	5.92
ABSOLUTE WATER CONSUMPTION (▼)	m^3/tcs	4,14,34,400	4,16,01,424	4,81,52,697
EFFLUENT RECOVERED & RECYCLED (▲)	m^3	55,82,266	70,56,725	47,89,041
EFFLUENT RECOVERED & RECYCLED AS PERCENTAGE OF GROSS MAKE-UP WATER REQUIREMENT (▲)	%	12	15	9

The new BOT plant commissioned in 2012-13 is capable of treating up to 115 m^3/hour of effluent from the Coke Plant to achieve organic removal through nitrification and de-nitrification. The Company is implementing large-scale rainwater harvesting projects to improve collection of run-off and use it as process water or to recharge the ground table.

More than a dozen departments earlier shared all responsibilities for water management. These have now been integrated under the Water Management Cell created in 2011-12 and operationalized in 2012-13 to effectively manage current and future challenges.

Water Conservation at the Raw Material Locations

A new water clarifier in the Bottom Bin at Noamundi using Micro Sand Ballasted technology with coagulation, flocculation, settling and variable speed drives to take care of slow response and high reaction time, are among key water conservation initiatives by OMQ Division. Supplier evaluation based on water efficiency has been completed and it is the process of being hooked up with the SAP based supply chain system.

Use of chemicals in mobile water sprinklers at the Ore Mines and Quarries and the installation of fixed water sprinklers on the haul roads has achieved considerable conservation of water in addition to improving the air quality.

Large quantities of water are also used in the mining industry in order to separate valuable ore from its gangue. Water is recovered and reused by separating the solids from the liquid.

EXPERTS FROM IIT, KHARAGPUR MONITOR GROUND WATER QUALITY AT THE IRON ORE MINES EVERY QUARTER

PROTECTION OF WATER SOURCES AT THE MINES

Mining operations across the Iron mines are restricted above the ground water table ensuring that there is no intersection of the ground water table. No natural watercourse or water resources are obstructed due to the Company's mining operations where they exist. Surface water sources such as the Balijhore Nallah in Noamundi are left undisturbed and protected. Baitarani river is about 18 Km from the mine and is not affected due to mining operations. No natural streams exist in Joda East Iron Ore Mine. Experts from IIT, Kharagpur monitor ground water quality at the iron ore mines every quarter and the results are submitted to Ministry of Environment and Forests, Government of India and respective State Pollution Control Boards twice a year.

In other areas such as the Manganese Groups of Mines there is no washing / beneficiation of ore except for manual breaking and dry screening, therefore treatment / disposal of water from processing operations are not required.

Close analysis of water quality data shows that there is no adverse effect on water quality of both surface and ground water due to the mining activities. Tata Steel is progressively ensuring that mining operations will not require water in the future except for small quantities of water for dust suppression only.

Zero Water Discharge at the Collieries

No wastewater is discharged from the collieries. Water from tailing ponds is reused in the Power Plant for Ash handling, Washeries and low-end applications. West Bokaro Collieries have implemented multiple projects over the recent years that include Mechanical Dewatering Plant, which was commissioned in 2012.

TATA STEEL TOOK THE LEAD IN IRON ORE MINES BY INITIATING A DETALED STUDY ON HYDROGEOLOGICAL CONDITIONS.

Artificial Recharge of Ground water at Noamundi Iron ore Mine

Lack of innovative and scientific systems of rainwater harvesting in mining locations across India prompted Tata Steel to take the lead by initiating a detailed study to understand the hydrogeological conditions and ground water status encompassing the quantity and quality of the mines and its peripheral areas. A detailed Master Plan for the implementation of a rainwater harvesting scheme was prepared to implement the project in a phased manner. The success and benefit of the project constitutes a benchmark for other mining industries in India.

Salient features of the project

- Study the rainfall pattern and analyse the drainage of runoff water in and around the mining area.
- Detailed study of satellite imageries and lineament maps to identify and map the watershed area, recharge and discharge zones, establishing a hydraulic continuity between the zones for smooth flow of rainwater.
- Identification of ground water flow lines & construction of site specific Rain Water Harvesting structures along the flow lines.

- Implementation of micro catchment principle (construction of small saucer ponds) to avoid cutting of trees and reduction of green belt in the catchment area.
- Construction of structures to retain rainwater at strategic locations as well as reduce the velocity of rainwater flows for gradual infiltration of rainwater. The attendant benefits are improvements in soil moisture content enabling the vigorous growth of plants for creating permanent green barriers.
- Construction of scientifically designed and cost-effective storage cum percolation ponds to facilitate percolation of water into the substratum and also recovery of stored water.
- Introduction of special aerators, fountains and waterfalls for continuous aeration of water to enhance quality of water before recharge activities.

Benefits of Rainwater Harvesting Scheme

Rainwater harvesting with a capacity of 140 cum/hour has also been successfully implemented at the Company's mine in Joda. These simple Rainwater Harvesting Structures have been replicated at different sites across Noamundi and now serve as model projects for horizontally deployment at other divisions of Tata Steel including West Bokaro, Jharia, FAMD and the Jamshedpur Steel Works.

RAIN WATER HARVESTING AREA	CAPACITY
Kurtha Spring	35 Cum per hour
Balijharan Dam	70 Cum per hour
Bottom Bin Area	55 Cum per hour
Total Capacity	**160 Cum per hour**

The improvement project was recognized at internal forums, as well as by both FICCI and CII. It was recognised with the First Prize at the National Water Award 2013.

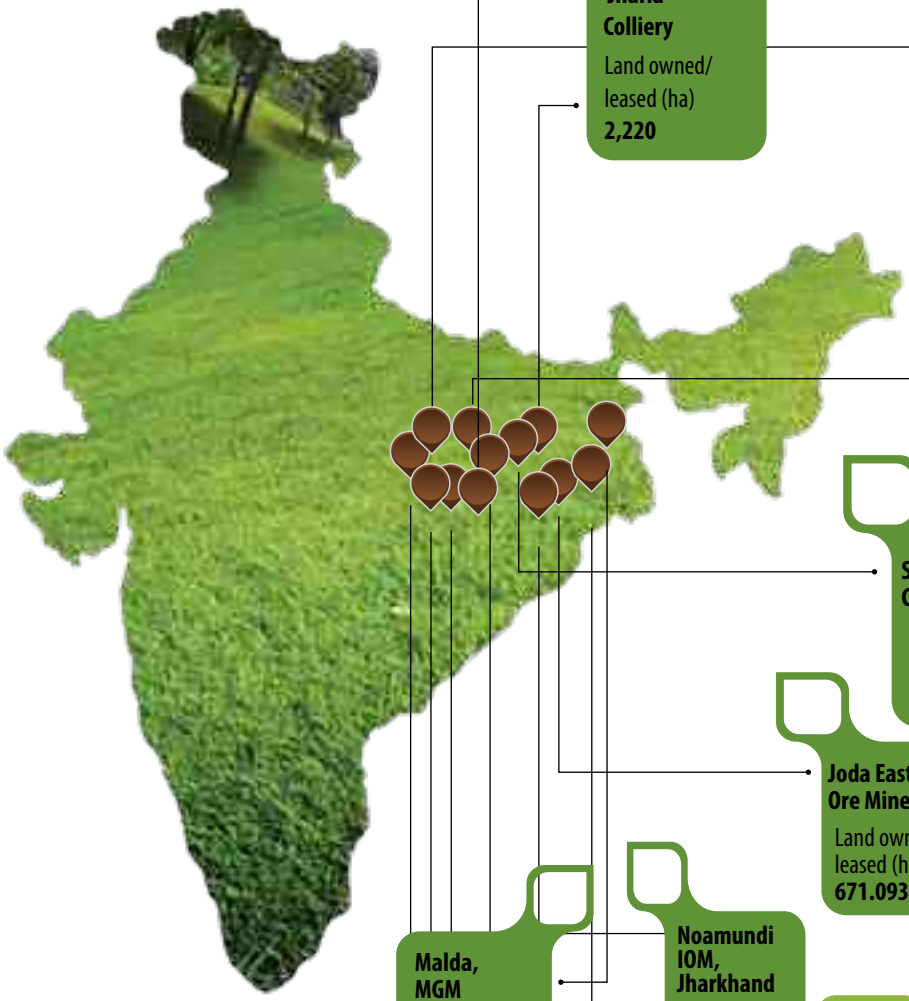
THERE HAS BEEN AN IMPROVEMENT IN THE YIELD OF WATER AFTER THE GROUND WATER HAS BEEN RECHARGED THROUGH RAINWATER HARVESTING.

RESPONSIBLE MINING

Tata Steel's operates ore mines, quarries and collieries in the eastern states of Jharkhand and Odisha.

LAND OWNED & LEASED

No national park, wild life sanctuaries, elephant corridor and tiger reserves exist within a 10 kilometre radius of the core zone around Tata Steel's operational locations.



Bamebari, MGM
Land owned/ leased (ha) **464**
Forest Area (ha) **382.269**

Jharia Colliery
Land owned/ leased (ha) **2,220**

Joda (W), MGM
Land owned/ leased (ha) **1437.719**
Forest Area (ha) **1167.313**

West Bokaro Colliery
Land owned/ leased (ha) **1,740**
Forest Area (ha) **906.83**

Sukinda, Chromite Mine
Land owned/ leased (ha) : **406**
Forest Area (ha) **73.697**

Joda East Iron Ore Mine, Odisha
Land owned/ leased (ha) : **671.093**
Forest Area (ha) **608.906**

Noamundi IOM, Jharkhand
Land owned/ leased (ha) : **1160.06**
Forest Area (ha) **762.43**

Katamati IOM, Odisha
Land owned/ leased (ha) : **403.3228**
Forest Area (ha) **199.172**

Malda, MGM
Land owned/ leased (ha) : **822**
Forest Area (ha) **578.859**

Gomardih Dolomite Quarry
Land owned/ leased (ha) : **372.796**

Tiringpahar, MGM
Land owned/ leased (ha) : **169**
Forest Area (ha) **68.914**

Khondbond IOM, Odisha
Land owned/ leased (ha) : **978**
Forest Area (ha) **836.757**

Manmora, MGM
Land owned/ leased (ha) : **16.35**
Forest Area (ha) **9.373**

IOM: Iron Ore Mine;
MGM: Manganese Group of Mines

Minimising Biodiversity Impacts

Besides actions to comply with statutory requirements, Tata Steel pursued voluntary initiatives to assess and mitigate potential impacts of mining on sensitive ecosystems. An engagement with IUCN (International Union for Conservation of Nature, a Quasi-Governmental International Organisation) is under consideration to explore the possibility of working on biodiversity in collaboration with IUCN.

THERE IS NO IUCN RED LISTED SPECIES FOUND IN & AROUND TATA STEEL'S AREAS OF OPERATION.

A Green World at the Mines

Tata Steel takes all precautionary measures towards the conservation and protection of endangered flora and fauna. Endangered species such as, wolf, sloth bear etc. are very rarely seen in the forests where its mines are located.

Sir Dorabji Tata Botanical Park at Noamundi, spread over an area about 45 acres and established in a mined out land, is a model for mined out land reclamation. The park supports the development of herbal and medicinal plants, provides saplings for afforestation activities and has resuscitated species such as Basak, Sarpagandha, Satavari and Safed Musli, Chitrak, etc. In addition an area of 511 hectares known locally as the Blue Hill has been reclaimed at Noamundi.

The vast and verdant Sir Dorabji Tata Park at Jharia, once a goaf or mined out area, has been reclaimed by developing a park and growing local varieties of fruit trees. Entire hills have also been reclaimed at the West Bokaro collieries.

The Company's afforestation activities, botanical parks at mining locations and the Tata Steel Zoological Park at Jamshedpur aim to protect and restore the natural habitat of local species, including butterflies and local species of plants and fruit trees.

The Rare Plant Park at Noamundi is the only park of its kind in the state. Spread over an area of 1,720 square metres it helps create awareness on rare plant species and the need to conserve biodiversity.

Demonstration Plantation Plots have been developed as per the guidelines of the Ministry of Environment & Forests at the Chromite Mines at Sukinda.

Restoring land to its pristine status

Plantation is the chosen route for the reclamation and rehabilitation of mined land. A total area of 165.4 hectares within the lease area at Noamundi has already been covered with plantation under its Reclamation and Rehabilitation plan. Additionally, Vetiver plantation drive was undertaken in Iron Mines in 2012 -13.

Tree Plantation in Iron Mines during 2012-13

Noamundi
- Trees planted (in '000) 5
- Area Covered (Ha) 1.5
- Survival Rate (%) 91

Khondbond
- Trees planted (in '000) 12
- Area Covered (Ha) 3.75
- Survival Rate (%) 90

Katamati
- Trees planted (in '000) 5
- Area Covered (Ha) 2.0
- Survival Rate (%) 93

Joda (East)
- Trees planted (in '000) 19
- Area Covered (Ha) 4.0
- Survival Rate (%) 92

NB: Above numbers are excluding Vetiver plantation at Iron Mines and Mulberry Plantation at West Bokaro.
Ha : Hectares

Green Cover enhancement (Good is: ▲)

PARAMETER	UoM	2010-11	2011-12	2012-13
GREEN ENHANCEMENT STEEL WORKS*	Nos	7,408	15,630	44,794
GREEN COVER STEEL WORKS	Ha	4.62	9.76	27.99
TOTAL PLANTATION ACROSS MANUFACTURING SITES (▲)	Nos	3,51,365	4,17,910	4,14,124

* Including Jugsalai Muck Dump during 2012-13 (which was excluded in previous years).

At Katamati, fencing and plantation work over a 7.5 m wide area around the mining lease is in progress. 1300 trees were planted in the safety zone, which is inside the leasehold area of Katamati.

Vetiver plantation at Iron Mines during 2012-13

Iron Mine : Noamundi	
Plantation (in '000)	Area Covered (Ha)
30	0.4

Vetiver plantation : Katamati	
Plantation (in '000)	Area Covered (Ha)
20	0.3

Vetiver plantation : Joda (East)	
Plantation (in '000)	Area Covered (Ha)
100	1.0

Digital processing of the entire lease area under the Noamundi Iron Ore Mines using high-resolution satellite imagery was completed during 2012.

In 2012, West Bokaro planted 96,000 saplings to cover an area of 29.10 hectare comprising mostly out pit dump, in pit dump area, avenue plantation, green belt, slope stabilization. 14,000 Mulberry plantation on OB dump has been successfully tried.

Tata Steel is also creating green belts around its mines. They fulfill the following purposes:

- **Compensate the loss of vegetation due to setting up of the mine**
- **Prevent the spread of fugitive dust generated due to mining and allied activities**
- **Attenuate noise generated by the mine**
- **Reduce soil erosion**
- **Help to stabilise the slope of external soil and over-burden dumps**
- **Increase green cover and improve aesthetics**
- **Once the mine is abandoned the green belt will accelerate recolonisation of the area**

The waste generated during beneficiation of iron ore does not have value added utilisation.

Tata Steel has rolled out the following programmes to recover iron from iron ore slimes. They include :

a) Use of iron ore slime for making cold bonded briquettes as an alternative to lump ore addition in LD furnace

b) Iron ore nuggets from iron ore slime by Rotary Hearth Furnace (RHF)

c) Ore-binding programme at Noamundi for higher recovery of water and faster settlement of slime.

APPROACHES TO MINIMISING WASTE

Continuous improvement projects focus on reducing overburden and tailings through better operation and maintenance practices of related equipment and infrastructure, segregation as well as handling. Colliery tailings are sold to brick manufacturers.

Zero water discharge slime dams

No wastewater is discharged from the mines. Water is decanted from the zero discharge slime dam and the entire quantity is recycled back to the beneficiation plants. Slime is stored in the zero discharge slime ponds.

Maintenance & capacity enhancement of slime ponds

Based on the quality of ore, 15 to 25 per cent of the waste is generated when raw ore is beneficiated. It is mandatory to store Slime inside the leasehold area of the mine. Once filled up the mined out pit requires capacity enhancement by either making it deeper, shifting of old slime to other places or raising the bond on all four sides. Regular maintenance of slime dams is ensured to protect the environment.

The height of the slime dam at Noamundi was raised in October 2012 and a HRT installed to conserve the slime dam. Over 401,000 m^3 in water savings was achieved by these measures during the year.

Overburden dumps

Garland drains with sedimentation pits and toe walls with settling pits have been made at the OB dumps to prevent run - off of water and flow of sediments directly into the natural stream. Sedimentation pits take care of run-off water during the months with the highest rainfall and are de-silted regularly during and after the monsoon.

Reclamation work of Jugsalai Muck Dump at Jamshedpur was continued during 2012-13 and is nearly complete. Overburden dump management is being considered for optimisation at one location in West Bokaro. Generally, overburden dumps are reclaimed as per mining plan after they are no longer in use.

Eco-friendly air decking during blasting

In a joint experiment with PCRA, Joda East Iron Ore Mine used empty plastic bottles in blast holes to improve the explosive energy factor. Each bottle used has replaced one kilogram of the explosive and has the potential to reduce use of explosive material by eight to ten per cent. It will also reduce Carbon dioxide emission. With a projected consumption of 400,000 plastic bottles a year, it can prove to be an effective method to clean up sewers and the environment.

Canteen Waste to Manure and Cooking Gas

After it was commissioned at the Steel Works in April 2012, Canteen Waste Management systems were also implemented in Joda. The gas generated from waste is used for cooking.

Waste Generation in Mining (Good Is :▼)

MATERIAL	Sites	UoM	2010-11	2011-12	2012-13
OVERBURDEN	12 Sites	Million m3	32.21	35.16	35.02
REJECT COAL	14 Sites	'000 Tonnes	1,141	1,321	985
TAILINGS	Washeries*	'000 Tonnes	1,786	1,717	1,749

* Washeries at both Jharia and West Bokaro Divisions

PACKAGING MATERIALS

Tata Steel has completely replaced wood by recyclable and reusable EPS saddles for stuffing export containers. This is the first time an Indian Steel maker has used recyclable material for stuffing containers. This move resulted in savings of 50 m (linea) of timber per container. It has also increased the efficiency by increasing the container floor area, allowing for significant savings in freight costs.

A joint project with a supplier led to Recyclable Poly Cradles replacing wooden cradles in the shipment of steel coils via rail. Green practices were also incorporated in warehousing standards and all new stockyards.

GREEN FLEET AND GOO-FAR

Fleets at all mining locations have seen a transition to higher class, fuel-efficient machines to reduce their specific fuel consumption and CO2 emissions. In addition Nano-technology based fuel additives and Goo-far devices have brought about a reduction in specific fuel consumption of six to eight per cent across various mining locations.

Customer Service Division commissioned a 100 tonne custom-designed trailer in the Central Hub, reducing the number of trips between mills. An In-Plant tracking system for road vehicles made in-plant movement more efficient.

The Out-Bound Logistics team under Customer Service Division has worked on a new network design for its hubs and stockyards. When implemented, it will increase the share of railways in total dispatches besides increasing the distance travelled by rail. This will help reduce the Company's carbon footprint significantly.

For complete visibility of the business footprint an initiative to quantify carbon emissions associated with business travel has been undertaken. Once the exercise is completed quantification of business travel will be available for review and reporting and provide better visibility on carbon lean options while raising a travel request.

Environmental Expenditure including Energy Conservation

AREA (TATA STEEL LTD.)	2010-11	2011-12	2012-13
EXPENDITURE UoM (Rs Crores)	*304.85	379.71	258.83

* Indicative unaudited expenses for 2010-11 as per revised methodology adopted in 2011-12

EMPLOYEE ENGAGEMENT MAXIMISES PEOPLE COMMITMENT

2012-13

HR & IR organisation redesigned with a specific focus on bringing Strategic Business alignment

35905

The strength of full-time employees of the Company, up from 2011-12

2.93%

Attrition Rate reduced

[07 - LABOUR]

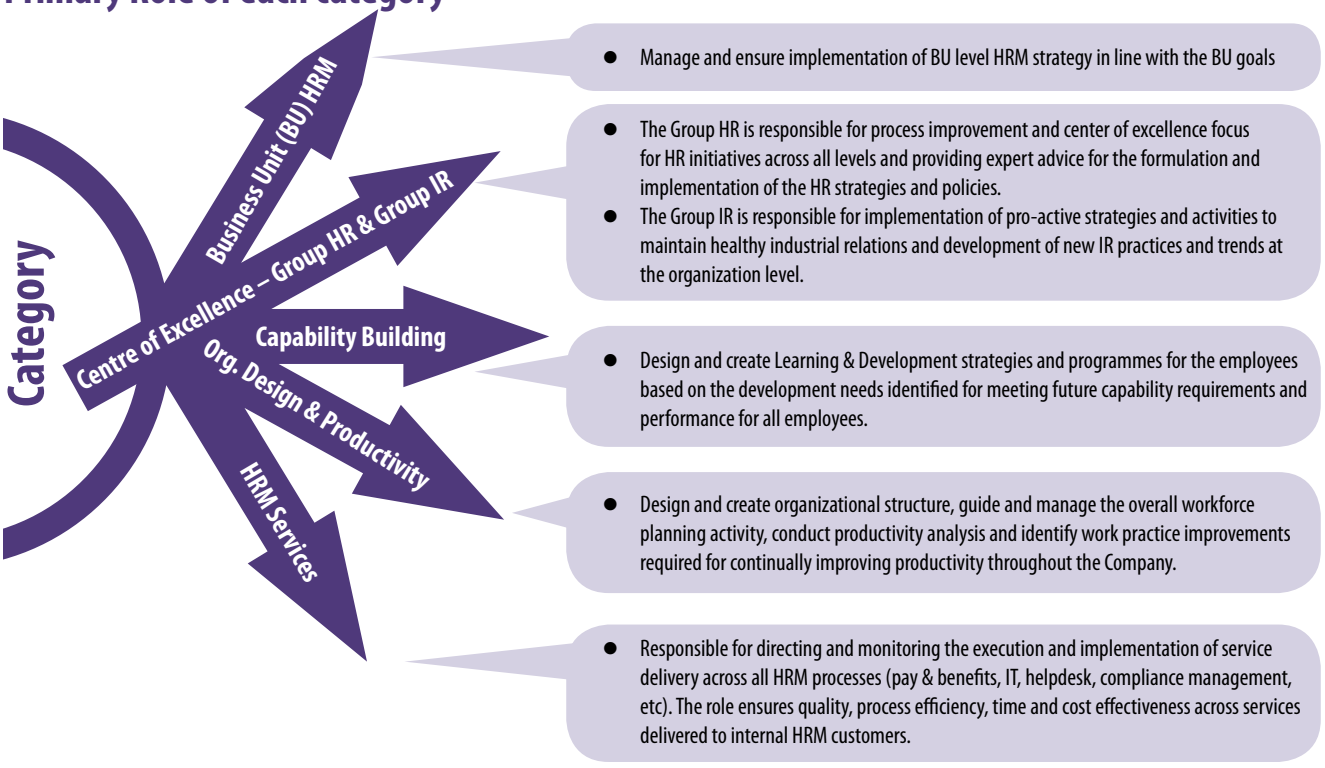
MANAGEMENT APPROACH

The Human Resources Management function in Tata Steel is divided into two separate departments. Human Resources (HR) deals with issues related to the officers and Industrial Relations (IR) caters to the needs of the unionized employees.

The expansion in Jamshedpur and other growth projects in new locations has given rise to a strategic need to design a Human Resource Management (HRM) Operating Model/ Organization Structure, which could arm HRM with the reach, speed and expertise required to drive the people agenda across the Company.

In 2012 a project was undertaken to redesign the HR & IR organisation with a specific focus on bringing Strategic Business Alignment and creating the HRM expertise to deliver the existing and future talent needs, under a single umbrella.

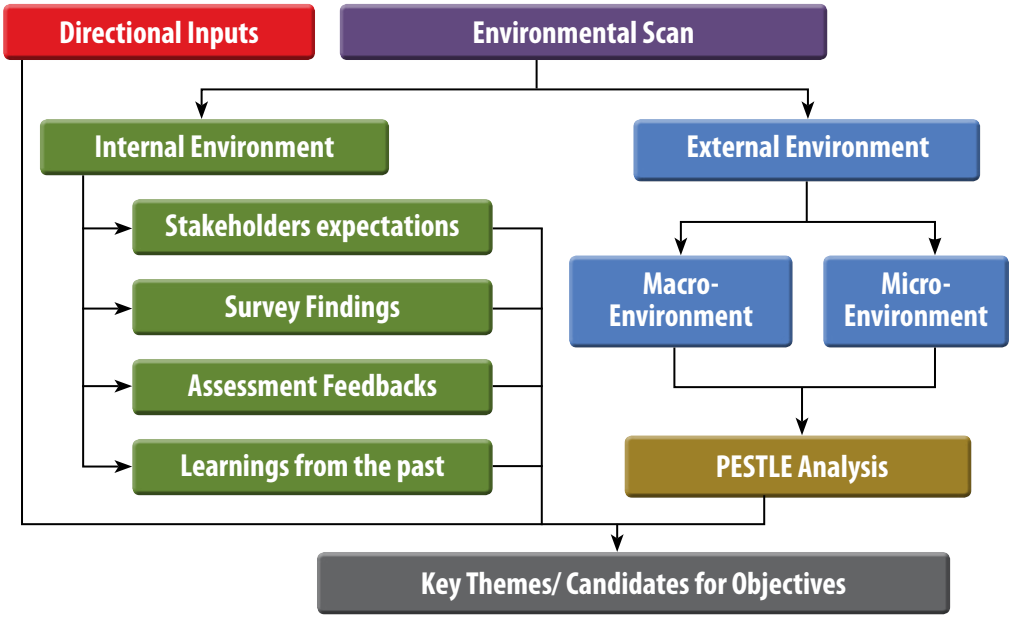
Primary Role of each category



The recommended HRM structure, which is now under implementation, enables:

- HRM to be a strategic partner in business
- Provide a single window service to customers on all aspects of HRM
- Build HRM competencies
- Undertake proactive research on strategic issues in the HRM Function
- Create shared services to cater to all HRM service needs of employees

Framework for HRM environment Analysis : External & Internal



The HRM Division uses the framework to proactively align the function with the business needs of the organisation and changes in the external environment, as well as to derive its Business Objectives & Strategies for the short and medium term. The key focus areas for Human Resouce Management in 2012-13 were:

- Promoting a culture of caring & nurturing through Employee Engagement & Happiness Initiatives
- Improving employee productivity
- Capability development – through focussed initiatives to build a talent pipeline for critical roles and functions
- Talent availability through internal & external sources on time to support existing operations and the Growth projects – at Odisha & other places
- Contract Labour Management through system controls and focus on further augmenting provision of amenities such as Canteens, Rest Rooms etc. and facilities such as bank payments.

Organisational sustainability rests on practices that win the professional and personal commitment of people. In creating an ideal work climate people practices at Tata Steel are governed by clearly articulated policies such as HR

Total number of employees

2010-11	2011-12	**2012-13**
34912	35793	**35905**

Number of Officers

2010-11	2011-12	**2012-13**
4562	4974	**5358**

Number of Non Officers

2010-11	2011-12	**2012-13**
30350	30819	**30547**

THE BOARD OF THE COMPANY HAS BEEN RECONSTITUTED TO INCLUDE ONE WOMAN AS AN INDEPENDENT NON-EXECUTIVE DIRECTOR.

Policy, Environmental Policy, Alcohol and Drugs Policy, Safety Principles and Occupational Health Policy, Whistle Blower Policy, Affirmative Action Policy and Sexual Harassment Policy. The impact of placing people before profits is borne out from the rise in the retention rate and the higher levels of employee productivity achieved during the year.

EMPLOYMENT

The strength of full-time employees of the Company increased from 35793 to 35905 primarily due to an increase in the number of officers at the Kalinganagar Greenfield project site. The number of women employees rose to 2018 and four women are now members of the top management. Further the Board of the Company has been reconstituted to include one woman as an independent non-executive director. The number of members of the marginalized communities employed by the Company also saw a rise. The Company does not have part-time or temporary employees.

The Company engages contractors' employees for project execution and utility maintenance through service contracts. Policies, standards and practices are extended to all contractors' employees within the SA 8000 framework for the Steel Works and FAMD. It also ensures that entry-level wages paid to all contractors' employees meet the minimum wage requirements. Entry-level wages of permanent employees at Tata Steel are reviewed to ensure that they are market-linked, while minimum wages are assured for contractors' labour.

Total number of male employees

2010-11	2011-12	**2012-13**
33253	34048	**33887**

Total number of women employees

2010-11	2011-12	**2012-13**
1659	1745	**2018**

Total number of women employees in top management

2010-11	2011-12	**2012-13**
2	2	**4**

Total number of employees with disabilities

2010-11	2011-12	**2012-13**
56	56	**70**

KEY PERFORMANCE INDICATORS	2010-11	2011-12	2012-13
Attrition rate	4.43%	3.52%	2.93%
Number of employees who took parental leave	-	26	35
Number of employees still employed to work after parental leave	-	25	34
Number of employees who continued to work 12 months after parental leave	-	25	34
Return to Work Rate	-	96*	97*
Retention Rate	-	96*	97*
Percentage of employees trained	35%	41%	53.17%
Training (hours per employee per year)	25	35	36.88

* It is 100 per cent in the case of non officers.

NEW EMPLOYEES HIRED IN 2012 - 13

Officers

	Age Group (in years)				Rate (in %)
	Less than 30	30-50	Above 50	Total	
Male	**346**	**242**	**10**	**598**	**12.77**
Female	**66**	**18**	**2**	**86**	
Total	**412**	**260**	**12**	**684**	

Non Officers

	Age Group (in years)				Rate (in %)
	Less than 30	30-50	Above 50	Total	
Male	**478**	**691**	**2**	**1171**	**4.15**
Female	**45**	**51**	**0**	**96**	
Total	**523**	**742**	**2**	**1267**	

Grand Total

	Age Group (in years)				Rate (in %)
	Less than 30	30-50	Above 50	Total	
Male	**824**	**933**	**12**	**1769**	**5.22**
Female	**111**	**69**	**2**	**182**	**9.02**
Total	**935**	**1002**	**14**	**1951**	**5.43**

Attrition rate in 2012 - 13

%

	Age Group (in years)			
	Less than 30	30-50	Above 50	Total
Male	**6.27%**	**2.09%**	**0.55%**	**2.77%**
Female	**14.24%**	**2.14%**	**0.00%**	**4.55%**
Total	**6.99%**	**2.09%**	**0.50%**	**2.93%**

EMPLOYEE ENGAGEMENT & HAPPINESS INITIATIVES

Tata Steel's focus on people development emanates from the culture of caring for people and working towards the wellbeing of its own employees and that of its contractors' workers.

DIFFERENT MOTIVATIONAL APPROACHES ARE USED FOR EACH EMPLOYEE SEGMENT TO ACHIEVE A CLIMATE OF HIGH PERFORMANCE.

EMPLOYEE MOTIVATION

The top management adopts various approaches, such as services, benefits and policies, to continuously understand the factors that motivate its people. Different motivational approaches are used for each employee segment to achieve a climate of high performance.

To identify the right factors and measure employee engagement / happiness levels the HRM Division uses employee happiness surveys. In 2012-13 surveys were carried out for Officers (4047 respondents) and for Non Officers (4250 respondents).

The Employee Happiness Survey (EHS) was repeated company-wide in 2012-13 on the identified factors. Employee Happiness was measured on a 4 - point scale and the weighted average Employee Happiness Index (EHI) was 3.29.

This is a significant improvement over the EHI score of 2010 of 3.17. Corporate level action plans were developed & deployed on the four weak parameters of Physical Environment (Canteen, Amenities) and Social Environment (Housing, Hospital). There has been a significant improvement in scores in these four areas. However two new areas of concern emerged in 2012 associated with Reward & Recognition and Grievance Redressal. Action plans have been developed in these new areas and are being deployed during the current year.

In 2012-13, an online survey was conducted for all Officers across the Company along with the help of a third party M/s Aon Hewitt, which had a response rate of 77 per cent. The Engagement Score for Tata Steel was 67 per cent, which is in the High Performance zone.

EMPLOYEE HAPPINESS WAS MEASURED ON A 4 - POINT SCALE AND THE WEIGHTED AVERAGE EMPLOYEE HAPPINESS INDEX (EHI) WAS 3.29.

Employee Support and Services:

Further improvement in employee services was done during 2012-13 through introduction of new policies. Some of the key ones are Insurance Policy for Employees' children located away from their parents for education purpose, Mediclaim for employees and their families and a process for administering the Special Foreign Perk trip for executives.

Some specific Human Resource Policies were introduced for Tata Steel's Greenfield sites. These included a Housing policy for the Kalinganagar Project Operations (KPO) and Mediclaim for Diploma Engineer Trainees (DETs) at KPO.

Employee Connect:

A unique initiative has been taken to address informal issues for both Officers and Non-Officers. While the initiative has been established for Officers through an IT based system called Employee Contact Programme (ECP); a similar programme has been piloted in 2012-13 for Non-Officers and measured as a KPI in the Annual Business Plan.

EMPLOYEE BENEFITS

Tata Steel's compensation philosophy does not differentiate between male and female employees. The remuneration is linked to responsibility levels and performance. For the same work or work of similar nature male and female employees are paid equal remuneration.

Committees comprising representatives of the Union and Management jointly monitor benefits available to all employees, which include financial benefit plans, insurance, medical and sickness benefits, disability coverage, higher education and sabbaticals, maternity leave, Family Benefit Scheme, Tisco Employees' Pension Scheme (TEPS), Holiday Homes, Tata Steel Executive Holiday Plan (TEHP) and Early Separation Scheme (ESS).

REMUNERATION IS LINKED TO RESPONSIBILITY LEVELS AND PERFORMANCE

VALUE OF EMPLOYEE BENEFITS	UoM	2010-11	2011-12	2012-13
STATUTORY	Rs Crores	402.96	438.2	482.5
NON STATUTORY	Rs Crores	316	381.8	430
TOTAL	Rs Crores	718.9	820.0	912.5

LABOUR MANAGEMENT RELATIONS

All policies, standards and strategies adopted to meet the challenge of creating a worldclass labour force were undertaken in consultation with the Workers Union through joint consultations. The Joint Consultation system has matured from a consultative mode to a partnership mode enabling the Labour and Management to collectively strive to achieve common goals. It covers 85.07 per cent of its employees across all locations through 26 recognized labour unions.

Tata Steel's proactive approach to stakeholder engagement, joint consultative process and mechanisms for conflict resolution has been rewarded with over eight decades of industrial harmony and the continued license to operate in the very communities it began operations in over a century ago. The Company takes pride in being the employer of choice in several instances to four generations of the same family.

Tata Steel respects the employees' right to exercise freedom of association and collective bargaining. It has ensured that

LABOUR UNIONS COVER 85.07 PER CENT OF TATA STEEL'S EMPLOYEES ACROSS ALL LOCATIONS THROUGH 26 RECOGNIZED LABOUR UNIONS.

FREE AND FAIR ELECTIONS VIA SECRET BALLOT ARE PERIODICALLY HELD ACROSS ALL LOCATIONS FOR UNIONS REPRESENTING THE WORKFORCE.

every employee is able to exercise this right without fear. A minimum of 56 Joint Departmental Council meetings were held to ensure that issues related to operational changes, production, productivity, quality, safety, welfare, training, etc. (excluding issues of collective bargaining and individual grievances) are addressed in a timely and effective manner. Policies and initiatives to improve employee work environment, climate and satisfaction are then deployed through the Joint Departmental Councils at unit levels.

Joint Consultative Council of Management (JCCM)
Management Representatives+Employees' Representatives
(Chairmanship alternates between MD, Tata Steel & President, TWU every year)

- Joint Works Quality Committee
- Joint Committee for Employee Training & Development
- Hospital Advisory Committee
- CD&SW Advisory Committee
- Joint Amenities Committee
- Sports Coordination Advisory Committee

Joint Works Council (JWC)
Management Representatives+Employees' Representatives
(Chairmanship alternates between VP, Tata Steel & General Secretary, TWU every year)

- Suggestion Box Committee
- Central Canteen Managing Committee

Joint Departmental Council (JDC)
Management Representatives+Employees' Representatives (Equal Representation)

- Suggestion agenda and follow up Sub Committee
- Quality and Training Sub Committee
- Welfare and Amenties Sub Committee
- Safety, Health & Environment Sub Committee

Free and fair elections via secret ballot are periodically held across all locations for unions representing its workforce. The last such election of the Tata Workers' Union, the largest representative body, was held in early 2012-13.

Officers are free to express their opinion at the quarterly General Dialogue. Issues, concerns and suggestions related to career planning, compensation and growth, training and development, infrastructure, amenities for employees and creating a safe and healthier work environment are addressed through these meetings.

The organizational changes are in line with the policies of the Company, agreements with the various Unions and Works Standing Orders. In all the cases, basic requirement such as, minimum notice period as specified is given and the employee is also rehabilitated through new assignments based on a standardized procedure of training and awareness.

EQUAL OPPORTUNITY EMPLOYER

An equal opportunity, merit-oriented, gender-neutral employer, remuneration and career progression is based entirely on responsibility and performance at Tata Steel.

The Company has leveraged its growth projects to diversify its workforce through positive discrimination in favour of local, marginalised communities and women.

A noticeable uptrend has been seen in 2012-13 in the number of new hires from indigenous tribes or socially backward classes. During a recent recruitment drive of Utility hands from amongst the employee wards & locals a conscious effort was made to improve the gender diversity and affirmative action profile by inducting 8 per cent females and 33 per cent SC&ST candidates.

THE COMPANY HAS LEVERAGED ITS GROWTH PROJECTS TO DIVERSIFY ITS WORKFORCE THROUGH POSITIVE DISCRIMINATION IN FAVOUR OF LOCAL, MARGINALISED COMMUNITIES AND WOMEN.

Female Employees

UOM	2010-11	2011-12	2012-13
Nos.	1645	1721	**2018**
%	4.7 %	4.8 %	**5.6 %**

SC / ST Employees

UOM	2010-11	2011-12	2012-13
Nos.	5489	5622	**5864**
%	15.7 %	15.7 %	**16.3 %**

Disabled Employees

UOM	2010-11	2011-12	2012-13
Nos.	56	56	**70**
%	0.2 %	0.2 %	**0.2 %**

Total Employees

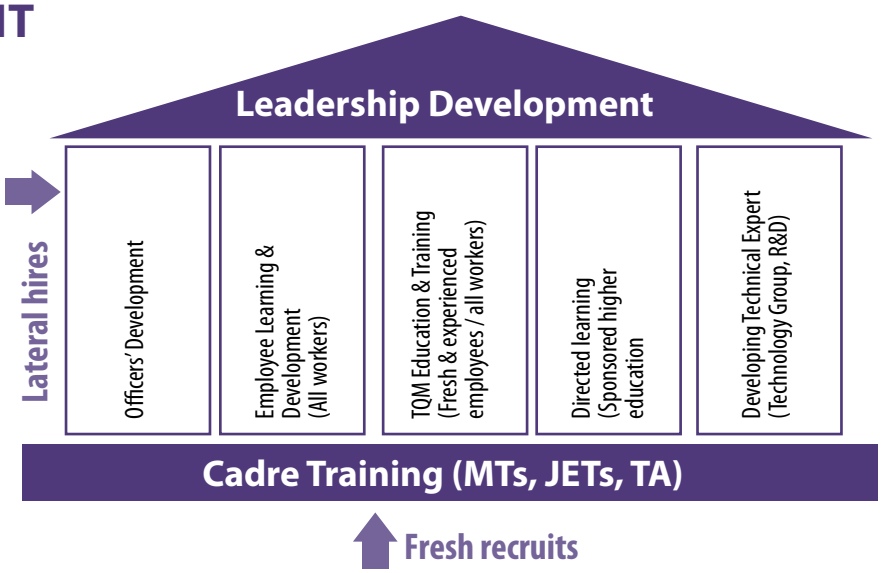
UoM	2010-11	2011-12	2012-13
Nos.	**34912**	**35793**	**35905**

All female employees who took maternity leave during 2012-13 opted to return to work and reoccupied comparable positions.

SKILL DEVELOPMENT & CAPABILITY BUILDING

Based on its People Development Architecture and requirements of excellence enabling mechanisms such as Total Quality Management (TQM), Tata Steel has established six processes, namely Officer Development, Employee Learning and Development, Leadership Development, TQM Education & Training, Directed Learning (Study Leave) and Developing Technical Experts.

People Development Architecture



ADDITIONAL MECHANISMS FOR REGULAR REVIEWS COVERING ALL CATEGORIES OF EMPLOYEES WERE INTRODUCED IN 2012-13

STRUCTURED MECHANISMS TO CAPTURE TRAINING NEEDS

Mechanisms to share regular performance reviews, capture competency gaps and provide feedback covering all Officers, including senior leaders, and Non Officers are aimed at meeting the existing and future need for talent. In addition to established mechanisms, such as the annual Talent Review for officers and 4Q Method for non officers, in 2012-13 new mechanisms introduced for regular reviews of all categories of employees included the Enterprise Capability Building System-ECBS for Non Officers, Talent Appreciation Process as well as the Technical Competency Development framework for Officers and Executive Coaching for Senior Leaders.

EMPLOYEE SEGMENT	COMPETENCY GAP IDENTIFICATION	BRIDGING THE GAP
NON OFFICERS	• Training Need Survey (TNS) • 4Q Method • Enterprise Capability Building System- ECBS (new)	• Cluster training • Positional training • Right skilling • Other technical / behavioral training
OFFICERS	• Talent Review • Talent Appreciation Process (new) • Technical Competency Development framework (new)	• Competency Development Training as 70:20:10 framework • Job Rotation & Career Planning (JRCP) • Directed Learning
SENIOR LEADERS	• Talent Review • Development Centre • 360 Degree Feedback	• Global Leadership Development Program (GLDP) • Challenging Assignments • Executive Coaching (new) • Leadership Development programs (CEDEP, TMTC)

Talent review: Annual talent revisit & discussion, **Development Center:** Workshop based talent assessment, **360 deg feedback:** from superiors, peers and subordinates, **TNS:** Structured capturing of training needs, **Leadership development & succession planning:** Personal & interactive development, **Job rotation & career planning:** Change of job at same level, **70:20:10:** Individual development with 'on job' focus, **Right skilling:** Focused training for skill development, **Directed Learning:** Focused training through company initiated / self initiated programmes, **4Q model:** Practice adopted from Toyota for skill gap identification

For an objective assessment of skill under the 4Q model, the Enterprise Capability Building System (ECBS) was introduced as a concept in FY'11 and piloted in one mill (Wire Rod Mill) at the Steel Works. The same was rolled out and implemented in the Steel Works (Shared Services Division) in 2012-13.

Programmes continued to build the capability of the Company's employees at all levels, augment organisational capability in functional and project management areas, fulfill the technical skill requirement arising out of advanced mechanisation and preparing bench strength for skilled manpower in critical positions for existing operations as well as for planned future requirements.

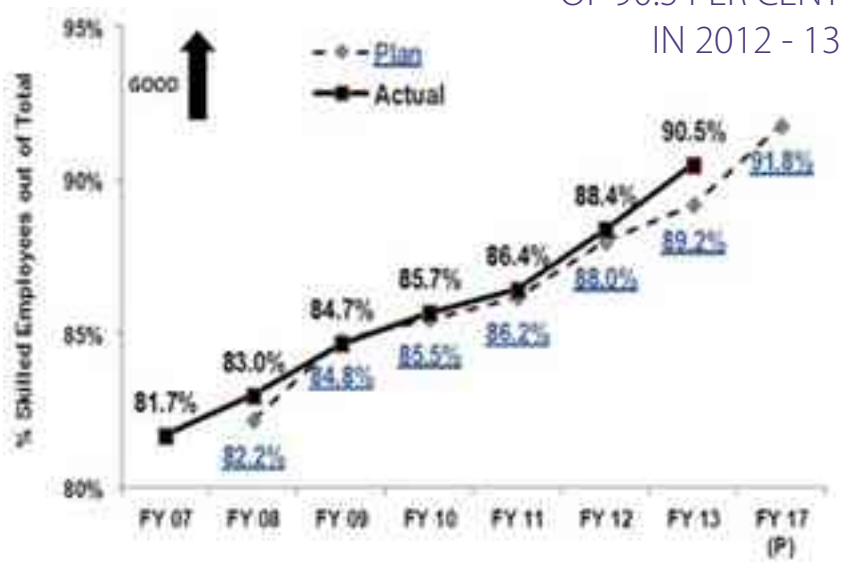
FOCUSSED TRAINING FOR SKILL DEVELOPMENT

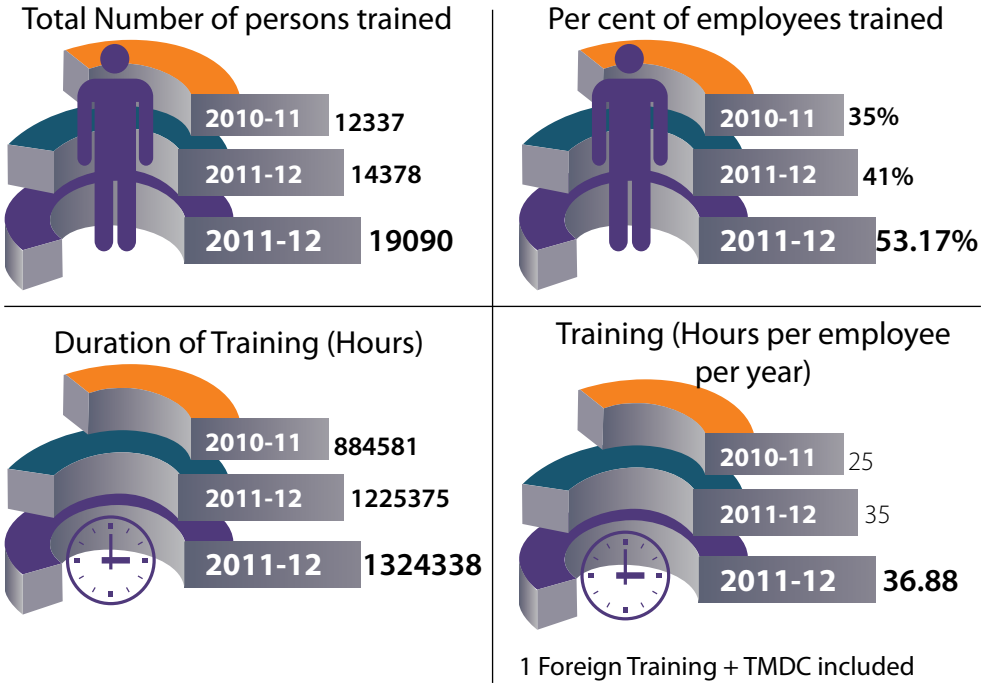
Shavak Nanavati Technical Institute (SNTI), an in-house technical training institute for engineers & technicians, along with the Tata Management Development Centre (TMDC) for imparting behavioral / managerial, training support not only Tata Steel but all its subsidiaries and other industries in the region.

THE PERCENTAGE OF SKILLED EMPLOYEES TOUCHED A HIGH OF 90.5 PER CENT IN 2012 - 13

Skill Mix Improvement

In 2012-13 structured training programmes were also designed and delivered for focus area/groups covering Management Trainees at KPO, External Processing Agencies (EPAs) of Long Products Division and employees of Jamshedpur Continuous Annealing and Processing Company Private Limited (JCAPCPL).





1 Foreign Training + TMDC included

Further improvements in the 4Q model have been initiated by the KPI linked 4Q system. This includes linking 4Q training system to business KPIs at the department level. After a successful pilot of this initiative earlier, it has been implemented in all the departments of Steel Works (in identified sections).

SUSTAINABILITY TRAINING & AWARENESS

To improve the awareness and knowledge of employees on sustainability the Corporate Sustainability team conducted 33 sessions while external experts conducted five sessions in 2012-13. A total of 1037 employees were covered by these sessions. During the year, the number of Certified Sustainability Assurance Practitioners saw a rise to a total of five.

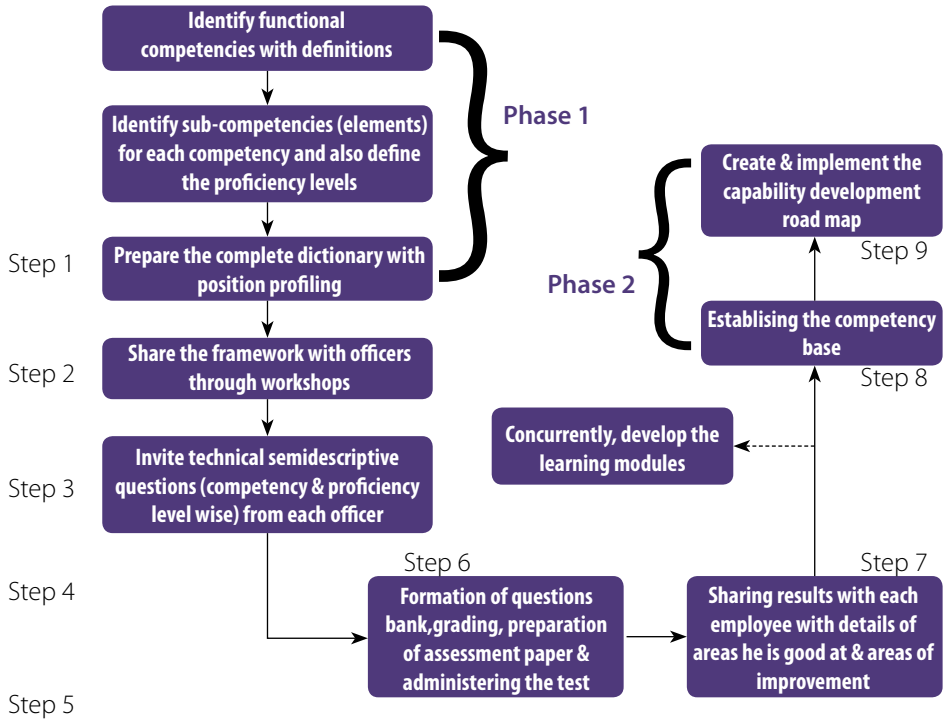
TALENT APPRECIATION PROCESS

To meet future capability requirements, 85 top leaders of Tata Steel participated in a Talent Appreciation Process (TAP) in 2012-13. Further, the Global Leadership Development Programme (GLDP), a Tata Steel Group initiative conducted for 40 leaders, included 20 officers from India and South East Asia.

FUNCTIONAL COMPETENCY FRAMEWORK

To ensure participation of all employees a Functional Competency Framework was developed. In 2012-13, Phase I of the competency framework was initiated and completed for officers in areas of Steel Making (Sinter Plant & Blast Furnace); Raw Materials (Coal & Iron ore) and Profit Centres. Phase II is planned in 2014-15 for the above areas while Phase I will be initiated in Wires, CRC (West) & FAMD among others.

Deployment of the Functional Competency Framework



Apart from the above capability development initiatives, focused approaches including manpower & process benchmarking, reorganization, mechanization and automation led to an improvement in employee productivity from 457 tonnes of crude steel (tcs)/ man/year in 2011-12 to 513 tcs/man/year in the 2012-13.

LIFELONG LEARNING AND COUNSELLING

'Search for Meaning Together' - a two-day workshop launched in 2012-13 - is designed to help married working couples enrich their lives. Through experience sharing, role play, simulations and instrumented feedback it helps them enhance the quality of their family life, enabling them to identify choices available to make their lives purposeful and meaningful.

The role that Tata Steel's learning centres increasingly play as 'Counselling Centres' was extend in 2012-13 to cover families of employees' as well. Several programmes like 'Psychology of Life' for employee wards in Class XI and XII were conducted during the year. TMDC also supported 'Samarthya', a workshop- based forum launched by XLRI students to help children deal with their emotions. These have arisen out of the concern over the rising number of suicides among youth in the steel city.

In addition, Stress Management programmes and Life Style management courses were conducted for employees.

Knowledge Sharing

A unique knowledge-sharing platform, 'The Round Table', is a forum for individuals to get together, share their ideas with each other, and join in thoughtful conversation with knowledgeable persons in the pursuit of holistic learning. 'Window to the World' provide employees with an insight on developments in various fields, including personal development and spiritual growth.

OCCUPATIONAL HEALTH & SAFETY

Safe Work Environment

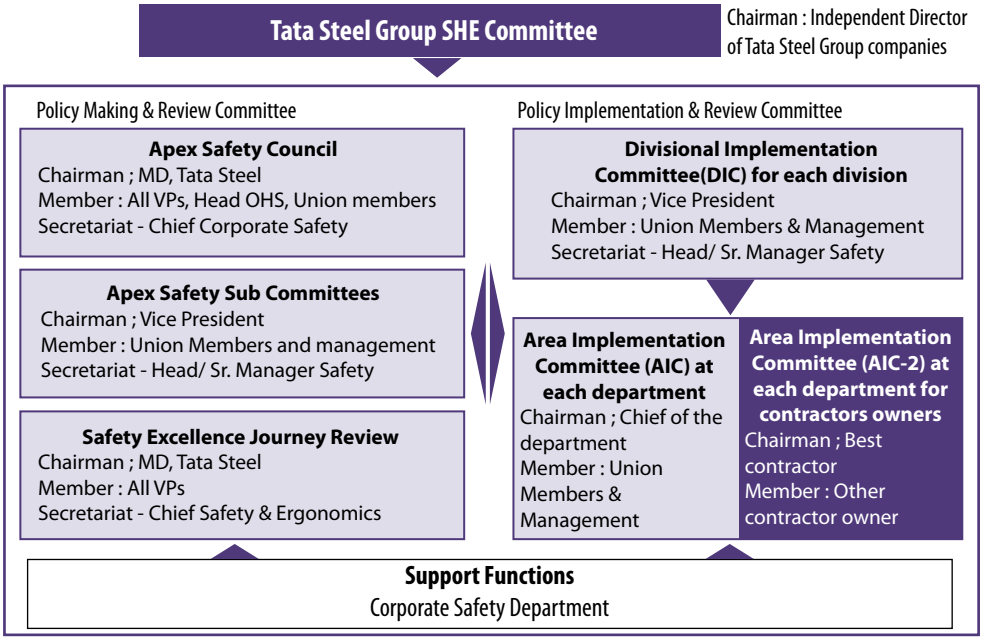
Tata Steel's Safety Principles and Occupational Health Policy guide it in ensuring zero harm to people. The policy is deployed across the organization through its Environmental Management System, Occupational Health (OHS) & Safety Management System, ISO-14001 and OHSAS-18001.

Tata Steel has not had any incidence of Occupational Diseases in the last five year. It has bolstered its Preventive Health Surveillance of employees (which includes both statutory & non-statutory health check-ups), with its Wellness@Workplace programme.

A joint committee on Occupational Health comprising representatives of union and management monitors the effectiveness of the initiatives taken by Occupational Health Services and recommends corrective & preventive actions. In addition, the Company has eight policy-making joint committees, seven Divisional Committees and about 40 Area Implementation Committees at the departmental level on Safety & Health to address diverse stakeholder groups and facets of Health and Safety.

TATA STEEL HAS NOT HAD ANY INCIDENCE OF OCCUPATIONAL DISEASES IN THE LAST FIVE YEARS

CORPORATE SAFETY GOVERNANCE STRUCTURE



A member of its top management heads each of these Committees, which represent all areas of priority for the Company.

ANNUAL SAFETY, HEALTH AND ENVIRONMENTAL PLAN

Every unit prepares an annual SHE plan, which is integrated with its Annual Business plan. The SHE (Safety, Health & Environment) Committee consisting of union and management representatives reviews all aspects of Safety & Environmental Management.

In the interest of offering a safe workplace Tata Steel's management has voluntarily ascribed to its duties and responsibilities for the Safety and Health of its workforce.

Health & Safety Topics covered in formal agreements with the Unions

The Company provides the necessary environment for the health and safety of all the employees at their work place and strives to:-

i. Provide and maintain a safe plant and healthy working atmosphere and to take appropriate measures to improve quality of work and work-life of all employees;

ii. Train and supervise employees with respect to safe working procedures and health care;

iii. Provide all information to employees and the Union regarding hazards to health and safety at work;

iv. Provide health assessment and surveillance of all employees on a continuing basis;

v. Provide safe systems of work;

vi. Provide safe place of work;

vii. Provide required safety appliances; and

viii. Ensure implementation and compliance of the statutory provisions on safety, health and environment and the ILO Health and Safety recommendations

SAFETY PERFORMANCE

The Company has set a target of 0.19 LTIFR with Zero fatality by 2018.

SAFETY PERFORMANCE BY LOCATIONS	UoM	2010-11	2011-12	2012-13
JAMSHEDPUR WORKS	Fatality	2	5	3
	LTIFR	0.42	0.51	0.72
RAW MATERIAL DIVISION	Fatality	4	2	1
	LTIFR	0.49	0.67	0.28
OTHER LOCATIONS & PROFIT CENTRES AT INDIA	Fatality	2	0	2
	LTIFR	0.17	0.50	0.26
TATA STEEL LIMITED	Fatality	8	7	6
	LTIFR	0.44	0.51	0.48

(Note: Lost time injury is an injury when a person does not join back duty in his next scheduled shift and Injury Frequency Rate is number of injury per million man-hours worked).

Online Incident Reporting System

Tata Steel's Online Incident Reporting System encourages employees to capture incidents or near-misses, so that their cause(s) could be identified, and suitable preventive and corrective measures taken.

Fatality Risk Control Programme (FRCP)

Tata Steel has an established FRCP programme covering the process flow, checking, corrective and preventive actions along with monitoring and review. The purpose of the Fatality Risk Control Program is to identify the hidden hazards having fatality or serious injury potential which is normally not visible to line managers and mitigation of the hazards through engineering control.

FRCP is the responsibility of all Safety professionals of Tata Steel and all Departments in the Company. Once the FRCP is identified the Chief/ Head is responsible for mitigating the risk within an acceptable timeframe. Delayed or pending FRCPs are immediately escalated.

Road Safety

Road Safety was a key concern during the expansion programme with more than 60,000 employees working inside the Steel Plant. Major interventions brought down road incidents considerably. These included shuttle bus services, surveillance camera to monitor road safety violations, speed monitoring, installation of visibility devices on vehicles and major road infrastructure development including construction of peripheral roads, foot overbridges, widening of roads, etc. To motivate heavy vehicle drivers to adopt a culture of Safety a two-day training programme has been designed for the drivers.

Process Safety Management

Pre Start-up Safety Review (PSSR) system has been instituted for all new facilities after the smooth start-up of the new facilities under the brownfield expansion project.

Mining Safety

All activities at Tata Steel's mines are governed by the Mines Act ensuring that safety measures are in compliance with DGMS norms. Technology breakthroughs led to the safety measures being progressively introduced to combat the challenges in underground mines. These yielded rich dividends as evident from zero fatality in the mines in the last two years.

THE FIRST MAN RIDING SYSTEM INTRODUCED IN INDIA BY TATA STEEL FERRIES 25 MINERS AT A TIME IN THE UNDERGROUND MINES, REDUCING THE NEED FOR THEM TO WALK ABOUT 2.5 KILOMETRES IN DEGREE-3 GASSY MINES AT GRADIENTS OF 1 IN 7.

Strengthening of Roof & Side Support

R&D carried out jointly with CIMFR helped modify practices such as: 1) assessing the Rock Mass Rating of the roof on the basis of the section instead of the seam, 2) use of Resin Capsules in place of cement capsule, increasing the length of roof bolts to 1.94 metre with conical tip, 3) mechanization of compressed air drilling to ensure verticality of roof bolting 4) increasing the depth of more than 300 metres for side bolting and 5) usage of hydra bolts

In addition, five Load Haul Dumpers were inducted to replace the Side Discharge Load, which were then deployed at Sijua colliery to replace manual loading. Thus 210 miners were shifted away from hazardous locations.

The first Man Riding System was introduced in India by Tata Steel. It ferries 25 miners at a time in the underground mines, reducing the need for them to walk about 2.5 Kilometres in Degree-3 gassy mines at gradients of 1 in 7.

Tata Steel took the first Positive Isolation initiative in the world in underground mines for the safety of its miners. The Company also began degassing at its underground mines in 2012-13.

Initiatives for open cast mines

Bigger blasts to prevent fly rocks, reduce ground vibration & noise, training on simulators, better Ergonomics and online control of Mining Operations, along with daily review of Risk & Hazard identification and actions to be taken by the General Manager has improved safety standards in Tata Steel's Opencast Mines at West Bokaro.

An officer has been appointed to head the Internal Safety Organisation to oversee safe practices in all spheres of activities, identify the gaps and propose recommendations to bridge the gap. Compliance to proposed recommendations is tracked to close the loop.

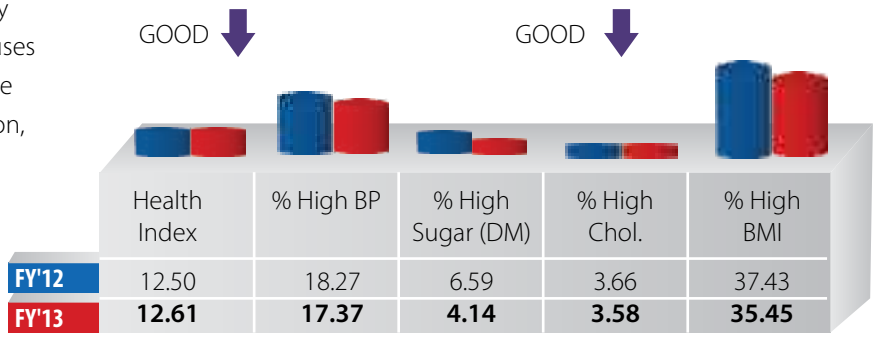
WELLNESS@WORKPLACE

Tata Steel's **'Wellness @ Workplace'** programme aimed at promoting a healthy lifestyle among employees and their spouses attained a substantial reduction in life-style related diseases like Diabetes, Hypertension, High Cholesterol, etc. and Anaemia cases amongst women employees.

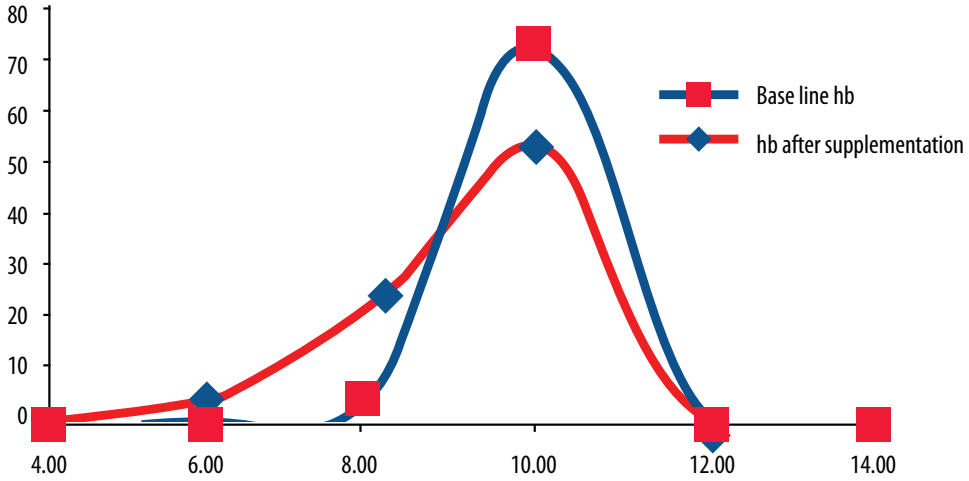
The effectiveness of the Comprehensive Stress Management Programme and Weight Reduction Campaign across the organisation was monitored through a Health Index.

The cases of high sugar, high blood pressure, high cholesterol and high BMI in employees are treated through medication and counselling for life style disorders.

Comparative Analysis of the health Index 2011-12 vs 2012-13



	Health Index	% High BP	% High Sugar (DM)	% High Chol.	% High BMI
FY'12	12.50	18.27	6.59	3.66	37.43
FY'13	**12.61**	**17.37**	**4.14**	**3.58**	**35.45**



Working Women's Health Improvement Project

Tata Steel's "Working Women Health Improvement Project" is aimed at combatting common health problems faced by Working Women, like Anaemia, Osteoarthritis, Hormonal Imbalance, Cancers, Hypertension & Diabetes etc. The project covers female employees of contractors as well.

The objectives of the programme are to:

- Improving the health status of Working Women
- Early Identification & management of health issues amongst Working Women
- Intervention in common diseases like Anaemia, lifestyle related disease and Job stress

The high incidence of Anaemia led to the Anaemia Control programme being taken up as the first. Women employees were given iron & folic acid supplements resulting in a significant improvement in their haemoglobin status. The test was conducted on 1785 women employees 1237 of who are contractors employees.

In 2012-13, OMQ Division became the first out - location where the programme was rolled out.

MEAN RISE OF THE HAEMOGLOBIN AFTER SUPPLEMENTATION WAS 0.86GM/DL AND THE DIFFERENCE WAS STATISTICALLY SIGNIFICANT

Health of the Miners

Pre-placement medical examination and periodical examination of all workers is conducted regularly. The schedule of Periodical Medical Examination is once in every three years for the employees of age more than 40 years and once in five years for the employees less than 40 years. Employees undergo Lung Function Tests during the Periodical Medical Examination. All chest radiographs are being classified for detection of pneumoconiosis, diagnosis and documentation made in accordance to ILO classifications.

It is mandatory for all employees and contractors' employees to wear dust masks and ear protection in dusty areas and noisy areas, aside from all Personal Protection Equipment. Regular checks are conducted and communication meets are conducted to ensure that they use them. The employees also attend regular awareness training on safety and health aspects as part of implementation process of OHSAS – 18001 systems.

CARING FOR THE LOCAL WORKFORCE

Contractor Safety Management

Tata Steel's Contractor Safety Management has led to a culture of Safety that has touched thousands of contractors' workers and pervaded into the local community.

The system ensures selection of contractors compatible with Tata Steel's safety standards, and more importantly fair and equal treatment of contractors' employees. An institutionalized process, it aims at complete adherence to the generic and specific safety norms, besides meeting the same safety metrics Tata Steel has set for itself. Training imparted to contract employees covers safety, skill development and on the job training. Reviews to assess management of the job at the construction sites are regularly undertaken, with findings and safety performance communicated.

The Safety Excellence Centre is an initiative by Tata Steel to improve safety and health awareness among its contract employees. The activities of the Centre include Safety Training and Health Screening of contractors' employees with the objective of effecting behavioural change, ensuring a healthy and fit workforce and proactively controlling lifestyle diseases.

Wellness Centre for Contractors' Employees

To address the incidence of occupational and lifestyle diseases among contractors' workers, in 2012-13 a 'Wellness Centre' was established to make them aware of the need to adopt a healthy lifestyle. Tips to reduce their life risk are shared with them to enable them to control life style related diseases.

Canteen at Safety Excellence Centre for Contract Employees

The initiative to control lifestyle diseases also led to the setting up of a canteen to offer healthy and fresh snacks and meals to staff, faculty and participants at affordable cost in a clean and hygienic area.

PPE corner at Safety Excellence Centre

A PPE Corner has been set up in the Safety Excellence Centre to constantly promote safety awareness among contractors' workers.

TATA STEEL'S WOMEN'S EMPOWERMENT TEAM, SWATI CONDUCTS SPECIAL AWARENESS SESSIONS FOR FEMALE EMPLOYEES OF CONTRACTORS TO APPRISE THEM OF THEIR LEGAL RIGHTS AND TO CREATE AWARENESS MECHANISMS AVAILABLE TO THEM TO PREVENT SEXUAL HARASSMENT.

Safety Communication Meetings and Mass Meetings

Communication Meetings are scheduled by Tata Steel with its contractors under the aegis of the Standards and Contractor Safety Safety Sub Committee to identify gaps in knowledge and execution of safety measures by them.

A review of their safety statistics is shared along with common causes of injury to contractor workers with the aim of driving improvements in behavioral safety among contractor' workmen. The review is based on the Six Step Contract Management process. Consequence Management is reiterated, along with safety rules for working at height, positive isolation along with simple PPE rules.

Suggestions are also invited from the contractors during the communication meetings. Mass Meetings and Tool Box Meetings with contractors' employees ensure effective communication and a commitment to compliance.

HIV/AIDS Awareness

HIV/AIDS is a significant threat due to the large floating population in all locations. In 2012-13 workplace interventions benefitted regular as well as contract labour. A special drive has been launched by the Company's Customer Services Division to educate fleet drivers engaged particularly in the outbound movement of finished products and effect behaviour change.

Awareness on Ethical Conduct

A training capsule on Tata Code of Conduct and Prevention of Sexual Harassment has been developed. Since 2012-13 it comprises a part of the training imparted to each employee of a service contractor who enters a Tata Steel establishment. Tata Steel's Women's Empowerment team, SWATI conducts special awareness sessions for female employees of contractors to apprise them of their legal rights and to create awareness mechanisms available to them to prevent sexual harassment.

SAFEGUARDING THE POWER OF PEOPLE

SA8000

adopted at Ore Mines & Quarries Division

Sensitisation of Employees

Increase in number of employees sensitised

Significant suppliers

audited for compliance to SA 8000

[08 - HUMAN RIGHTS]

IN TRANSLATING THE PRINCIPLES OF THE UNGC AND UDHR INTO PRACTICE, TATA STEEL IS GUIDED BY THE TATA CODE OF CONDUCT

MANAGEMENT APPROACH

To create a climate that promotes Common Good, Tata Steel is committed to the propagation of fundamental rights of human beings, non-discrimination and promotion of social progress across its operations such that its actions create a positive impact on the community it serves. All constituent units of Tata Steel and all operational locations place the highest value on endorsing the universal, inalienable and incontrovertible nature of human rights.

A founder signatory to the United Nations Global Compact (UNGC), Tata Steel supports relevant principles of the UNGC and the principles of the 1948 Universal Declaration of Human Rights (UDHR).

To translate these principles into practice, Tata Steel is guided by the Tata Code of Conduct, which explicitly states: 'Every employee of a Tata company shall preserve the human rights of every individual and the community, and shall strive to honour commitments.' Human Rights oversight is maintained through formal structures, including that for the Management of Business Ethics (MBE).

Tata Steel's commitment to the International Labour Organization's (ILO's) Declaration on Fundamental Principles and Rights at Work has been streamed into the expectations it has set for itself as a Corporate Citizen. These expectations are articulated in its Corporate Social Responsibility (CSR) & Accountability Policy, Human Resource Policy, Affirmative Action Policy, Sustainability Policy, Sexual Harassment Policy, Whistle Blower Policy, transparency and fairness in procurement systems and vendor management process.

Advancing human rights in the Supply Chain

Low levels of literacy and inadequate awareness of legal and human rights in the labour force is a concern in the areas where Tata Steel operates. The Company's Procurement Division has therefore aligned its policy to incorporate Social Responsibility into its business objective and strategies.

The SA 8000 auditable framework has been adopted by the Company to ensure compliance with human rights across the value chain. It has constituted a Management Review Committee, chaired by the Managing Director, for different requirements under the Social

Accountability Management System (SAMS).

The Committee consists of DEHs from different functional areas and SA 8000 worker representatives. In addition to the regular third party external audits, internal audits are planned and carried out at least once every six months under SA 8000 to evaluate the effectiveness of the implemented system and to ensure compliance with human rights standards.

Further, the Managing Director also reviews the status of implementation once every three months and advises or initiates necessary corrective and preventive action, if required.

IN ADDITION TO REGULAR THIRD PARTY AUDITS, INTERNAL AUDITS ARE CARRIED OUT AT LEAST ONCE EVERY SIX MONTHS

Advancing Human Rights in the Community:

Tata Steel's community engagement mechanisms are aimed at influencing Common Good such that the fundamental human rights of the less privileged sections of society and marginalised communities are protected. It drives socio-economic empowerment to allow them to proactively take charge of decision making so that its inclusive growth agenda brings about social progress.

Engagements with Indigenous Communities

The Company's operations are predominantly based in the Indian states of Jharkhand, Odisha and Chhattisgarh. These States are plagued by both poor social as well as physical infrastructure. With high levels of illiteracy and inadequate access to health care, education or livelihood opportunities, the socio-economic development of the population is a matter of great concern.

The population of these states also has a much higher percentage of scheduled caste (SC) and scheduled tribe (ST) communities, than the national average. In Jharkhand, Scheduled Tribes constitute 27 per cent of the population, in Odisha 22 per cent and in Chhattisgarh they account for 32 per cent of its people against a national average of eight per cent.

The mechanisms developed by Tata Steel to engage with the community are detailed both on the sections on Governance and Society in this report.

Indigenous communities around Tata Steel's operations include the following:

Munda: Divided into a number of exogamous clans known as `Killi', all members of the family participate in the common economic and social activities. Primarily agriculturists, some earn their livelihood as daily labourers. Collection of forest products is a subsidiary occupation. They sometimes migrate to distant places to work as labourers in mines and quarries.

Kolha: Numerically the most important tribe of Keonjhar and the Kolhan region because of their lack of education they mostly work as field labourers, collect minor forest produce or work as unskilled labour in industry to supplement their income.

Santals: Makers of beautiful houses, the Santals are settled cultivators or work as agricultural labourers. Once the agricultural season is over, they generally migrate in search of work as daily wagers because of their lack of education.

Bhuyan: Primarily cultivators and agricultural labourers, they practise shifting cultivation on hilltops or slopes. Women weave mats from the wild date palm and make broomsticks, while men are know for their rope making skills. Collection of forest produce is the major occupation of the community.

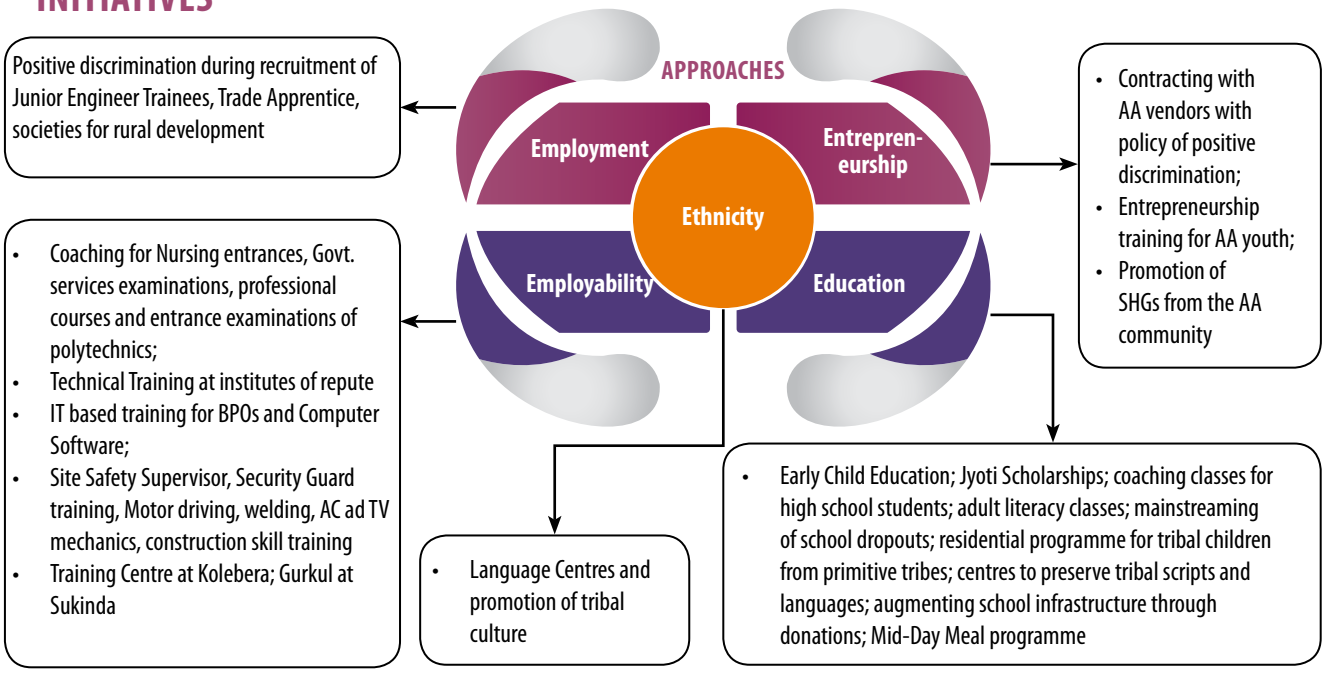
Gond: Good at negotiating steep climbs, they often carry heavy luggage. They are mostly settled cultivators. They collect forest produce for their own use.

Largely dependent on rain-fed agriculture, allied activities and other ancestral occupations based on traditional skills and locally-available natural resources, members of indigenous communities are perpetually caught in the cycle of excruciating poverty.

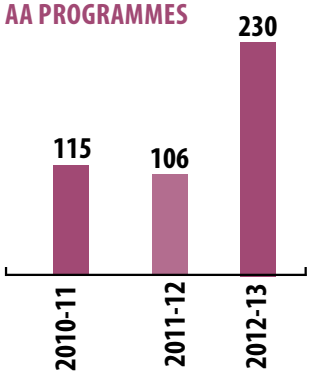
To break the cycle of poverty plaguing indigenous communities, Tata Steel pursues the following approaches through its Affirmative Action programme:

- Employment
- Entrepreneurship
- Education
- Employability
- Ethnicity - a fifth 'E'

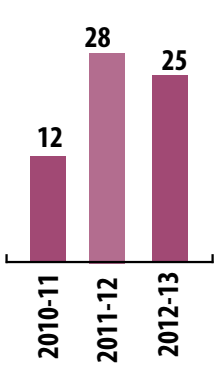
INITIATIVES

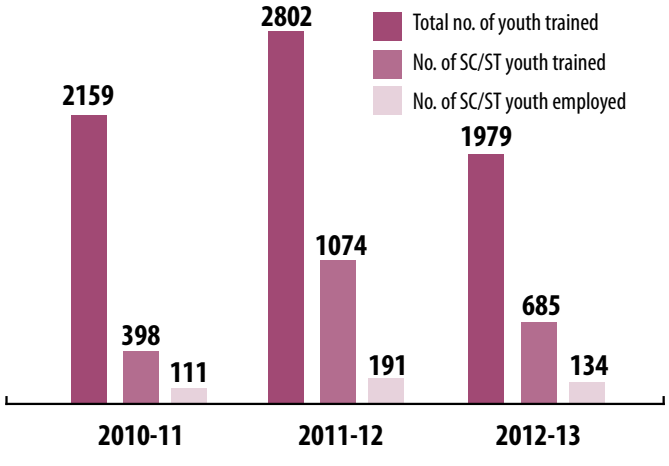


NUMBER OF SC/ST YOUTH TRAINED THROUGH EXCLUSIVE AA PROGRAMMES



PERCENTAGE OF TRADE APPRENTICES FROM SC/ ST COMMUNITIES

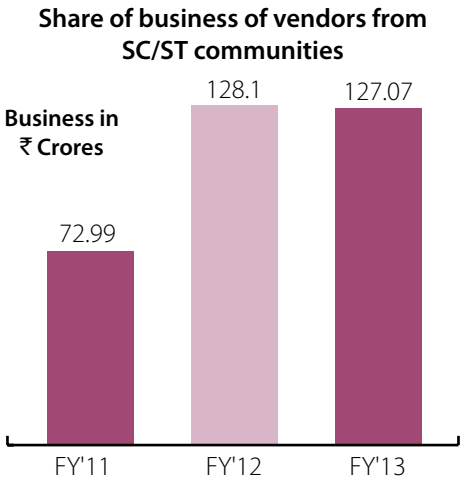




LOCAL RIGHTS AND AFFIRMATIVE ACTION IN PROCUREMENT

Under the focused and ambitious AA initiative driven by its top management, the Company aims at enhancing the share of business of SC/ST entrepreneurs across a range of products and services like civil works, maintenance, transportation, conversions and supplies. A policy of Positive Discrimination in favour of vendor organisations that have 50 per cent or more SC/ST ownership or 75 per cent or more work-force comprising SC/ST workers is in place. It also includes entrepreneurial support through immediate financial assistance, as well as specific financial and contractual waivers.

Through these initiatives Tata Steel continuously improves the vendor value chain. Year on year it also raised the target for business to be allocated to SC/ ST entrepreneurs besides local and small vendors.



Graph: Business in Rs. Crores of Vendors with 75% SC/ST workers

Human Rights due diligence is conducted prior to undertaking joint ventures or significant investments. With operations integrated from mining to end products, about 67 per cent of inputs (based on spend) were sourced sustainably in 2012-13.

COMPLIANCE ACROSS THE SUPPLY CHAIN

All supply chain partners are screened on human rights compliances and must provide a written consent on compliance to SA8000 clauses, Tata Code of Conduct and participate in the supplier audits. Also, Tata Steel chooses organisations aligned to its Affirmative Action Policy as its Strategic Sourcing partners. Compliance to the code and health & safety standards stipulated by the Company in the Six-Step Contractor Safety Management process is a prerequisite for vendor registration. In 2012-13 Tata Steel conducted Supplier Compliance Audits based on the SA 8000 social principles on its strategic suppliers.

The nine SA8000 clauses and the UNGC Human Rights clauses are among the primary criteria for new vendor selection. Tier-2 service providers i.e. sub-contractors of the Company's principle service providers have also been brought into the SA8000 fold.

TATA STEEL'S FOUR IRON ORE MINES, WHICH COLLECTIVELY CONSTITUTE THE ORE MINES & QUARRIES DIVISION, WERE CERTIFIED TO SA 8000 IN 2012-13

After Tata Steel's Ferro Alloys Mineral Division was certified to SA8000 in 2011-12, during the current reporting year Tata Steel focussed on its upstream activities. Its four Iron Ore Mines, which collectively constitute the Ore Mines & Quarries Division, were certified to SA 8000 in 2012-13, significantly increasing the percentage of employees sensitized to its standards.

The scope of the certification is applicable to all activities related to Mining, Processing and Despatch of Iron Ore of Mines Division and covers all employees, contractors, vendors and suppliers. For effective implementation of the systems, roles, responsibilities and authorities of the respective key functions in relation to Social Accountability Management System have been defined.

Training on SA 8000

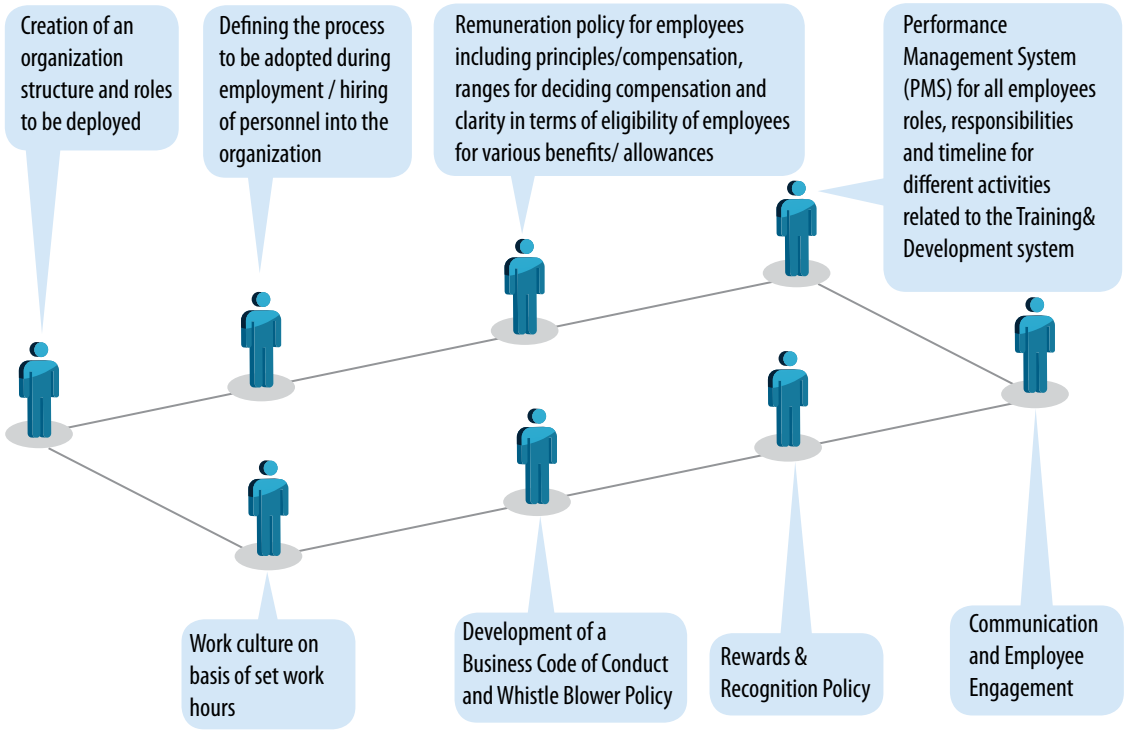
To sensitise employees and facilitate deployment of processes that safeguard fundamental human rights, specific training programmes are conducted at regular intervals on all requirements of Tata Code of Conduct and the SA 8000 standard for new as well as temporary employees, upon recruitment. Initiatives such as Ethics Month, quizzes and competitions aim at assessesing and improving the understanding of all employees on human rights.

Management Representatives and Heads of Department also provide guidance, apart from organising training and refresher sessions, and interactive events such as quizzes to ensure that all the permanent and contractors' employees are continuously sensitised to their human rights and responsibilities.

HR Toolkit developed for External Processing Agents of Long Products Division

In 2012-13, Tata Steel developed and rolled out a Human Resources Toolkit for External Processing Agents (EPAs) to drive institutionalised processes for various aspects of Human Resource Management in their organisations. At the heart of the toolkit are the rights of the employees of the EPAs.

The modules of the HR Tooklit enable EPAs to take forward HR processes such as:



To prevent child, forced or compulsory labour, the Company also ensures stringent application of laws and regulation such as Mines Act, 1952, Service Rules for Officers (Rule No. 5), Certified Standing Orders (Clause 6(a)), Child Labour (Prohibition & Regulation) Act, 1986, Children (Pledging of Labour) Act, 1933 and Bonded Labour Act 1976. It covers all employees including the labourers engaged by contractors. No instances of forced or child labour were reported among strategic partners audited by the Company.

A TOTAL OF 123 PERSONS WERE TRAINED AT TATA STEEL'S SECURITY TRAINING CENTRE ACCOUNTING FOR A TOTAL OF 832 MANDAYS OF TRAINING AND 4992 TRAINING HOURS.

NON-DISCRIMINATION WITHIN THE WORKFORCE

Tata Steel aims to guarantee conditions necessary for the development of individuals across locations by providing equal opportunities to all its employees and all qualified applicants for employment without regard to their race, caste, religion, colour, ancestry, marital status, gender, age, ethnic origin, different ability or sexual orientation. It exercises positive discrimination in favour of socially disadvantaged communities, provided potential employees fulfill its merit-based criteria.

SUPPORTING THE GENDER AGENDA

Tata Steel's commitment to gender parity is indicated through positive signals, such as a Women Empowerment Cell, creation of the Sexual Harassment Redressal Committee as well as deterrents driven by zero tolerance to violations of the Tata Code of Conduct and its Sexual Harassment Prevention Policy.

MECHANISMS TO SAFEGUARD HUMAN RIGHTS

All employees of the Company, as well as other stakeholders such as vendors and customers, have access to the Ethics Counsellor both directly and through a third party helpline. They are free to raise rights-based issues through forums for two-way communication, including joint consultations, Contractors Cell, ProCare - a dedicated helpline to resolve vendor disputes, Grievance Redressal Group for greenfield locations, Supplier Social Audit, annual stakeholder surveys and decadal Social Audits.

In 2012-13, no human rights violations were reported by members of indigenous communities, contractors' employees or by members of the community.

SECURITY PRACTICES

In 2012-13, the Security Department of the Company sought to and was certified to ISO 9000 for security systems and practices. This was done to ensure alignment of security practices with the code of conduct and policies of the Company.

A total of 123 persons were trained at Tata Steel's Security Training Centre accounting for a total of 832 mandays of training and 4992 training hours.

FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING

Tata Steel recognizes that workplace dialogue is a key component of social accountability. Employees at all Company locations have formed Unions. They have elected the Presidents and Secretaries of their Union as the Non-Management Representative who are authorized to facilitate communication with Senior Management on any corrective and preventive action needed for improvement of working conditions.

In July 2012 elections to the Tata Workers' Union were held through secret ballot. Mr P N Singh along with the new committee of Office Bearers was elected as the President of the Tata Workers Union.

PROMOTING DEMOCRATIC INSTITUTIONS IN THE COMMUNITY

Local area engagements to achieve convergence between the aspirations of the communities and the actions of the Company is undertaken through Village Committees, Self Help Groups, opinion makers, youth organisations and the like in the states of Jharkhand, Odisha and Chhattisgarh.

These engagements are aimed at sensitising the grassroots organisation of their rights and empowering them to assume roles and responsibilities in democratic institutions. In the state of Odisha where Panchayati Raj Institutions have been created Tata Steel trains and empowers PRI members.

SERVING THE COMMON GOOD OF THE COMMUNITY

230 villages
assessed to determine their Human Development Index in 2012-13

2477 scholarships
awarded to SC/ST students

> 1800 solar lights
installed in 500 villages

49,000 school children
served nutritious mid day meals

09 - SOCIAL PERFORMANCE

MANAGEMENT APPROACH

THE COMPANY DERIVES DIRECTION FROM THE PURPOSE OF THE TATA GROUP, "TO IMPROVE THE QUALITY OF LIFE OF THE COMMUNITIES" IT SERVES

Tata Steel has operated in the communities where it is based for over a century. Its mines and collieries are among the oldest operating units of their kind. It therefore has an intimate and long-standing association with its communities and places great priority on their well-being.

The Company's ethos continues to remain strongly influenced by the legacy of the Founder of the Tata Group, Jamsetji Tata with his beliefs being carried forward by successive generations of leaders. Thus a critical element of the Vision of Tata Steel is "Corporate Citizenship" – drawn from the beliefs and the direction provided by Jamsetji Tata.

The Company also derives directions from the Purpose of the Tata Group, "to improve the quality of life of the communities" it serves - a task Tata Steel has been committed to since its inception. This social purpose has been integrated with the Company's Business Objectives & Strategies.

A formal Corporate Social Responsibility & Accountability Policy was articulated in 2009 to reaffirm its commitment to voluntarily investing resources towards positively impacting the quality of life of the communities its serves. The Sustainability Policy released in 2012-13 has further detailed this purpose as being to "Engage with the local community in the vicinity of our operations to improve the overall quality of their lives in areas like Education, Employability, Entrepreneurship, Health and Sanitation in line with community priorities. We will also support the preservation and promotion of indigenous cultures and values."

The Company tracks key performance indicators (KPIs), sets targets, budgets, assigns responsibilities, has instituted review forums as well as long term plans to sharpen its focus on the areas where it intends to create a positive impact.

THE ANNUAL PLAN FOR TATA STEEL'S SOCIAL INTERVENTIONS IS FORMULATED ON THE BASIS OF NEED ASSESSMENT SURVEYS

The Annual Plan for Tata Steel's social interventions is formulated on the basis of need assessment surveys covering both external as well as internal stakeholders. This offers clear objectives that serve the overall well-being of the community based on its inclusive growth philosophy such as creation of a pool of well-trained potential employees and the social license to operate.

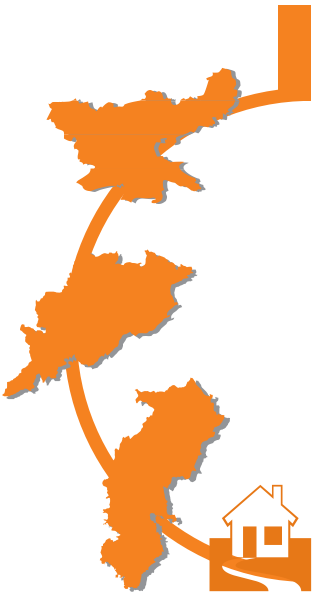
The mechanisms through which Tata Steel furthers its social agenda, objectives and strategies are organisations that have for decades enjoyed the trust of the stakeholder and the local community. They include:

SOCIAL ORGANISATIONS	TARGET GROUPS
TATA STEEL RURAL DEVELOPMENT SOCIETY	Its twelve units serve rural communities – each located where Tata Steel has operations who focus on sustainable livelihoods, Health, Education
TATA STEEL FAMILY INITIATIVES FOUNDATION	Serves the community in the urban and peri-urban areas of Jamshedpur to provide family planning services
TRIBAL CULTURAL SOCIETY	Indigenous tribes across the states of Jharkhand, Odisha and Chhattisgarh. Focusses on five 'E's
TATA STEEL SKILL DEVELOPMENT SOCIETY	Youth at all operational locations are trained in vocational trades to allow them to benefit through inclusive growth
URBAN SERVICES	Serves underprivileged communities of Jamshedpur to effect socio-economic change and empowerment
SPECIALITY AND SUPER SPECIALITY HEALTHCARE INSTITUTIONS SUCH AS TATA MAIN HOSPITAL (TMH)	A speciality hospital is located at every mining location equipped with state of the art facilities such as an ICU. Tata Main Hospital at Jamshedpur is a super speciality hospital catering to a much wider community beyond the city
SPORTS DEPARTMENT	Three academies, 14 training centres and four feeder centres mainstream sporting talent from rural and urban areas
TATA STEEL ADVENTURE FOUNDATION (TSAF)	Offers Leadership Development Programmes. A key focus area is empowerment of youth, especially from tribal communities
JAMSHEDPUR UTILITIES & SERVICES COMPANY (JUSCO)	Serves the city of greater Jamshedpur with a population of over 10 lakh and the district of Seraikela Kharsawan
TATA RELIEF COMMITTEE (TRC) EAST	Undertakes Disaster Management across states of Eastern India, namely Odisha, Jharkhand, Bihar and West Bengal
SOCIETIES SUPPORTED BY TATA STEEL	Niche services especially to provide specialised health care are supported by Tata Steel

Areas of Impact

The Managing Committees of these organisations comprise members of the senior management with the Managing Director serving as the Chairman of Tata Steel Rural Development Society.

Long-term and annual business plans for social interventions are made in consultation with various stakeholders. Based on the inputs of the stakeholders whose interests it wishes to serve, the Company has developed a long-term plan (till FY 18) to achieve its targets. The overall objective is to improve the quality of life of communities in and around its areas of operation.



THE ANNUAL PLAN FOR TATA STEEL'S SOCIAL INTERVENTIONS IS FORMULATED ON THE BASIS OF NEED ASSESSMENT SURVEYS

Community Engagement Mechanisms

The stakeholders and the representatives within the community that the Company engages with are those residing around its operations, elected representatives of people, particularly grassroots institutions such as Panchyati Raj Institutions (PRIs), Community Leaders (Munda Maanakis) to Zilla Paarshads, MLAs and MPs, government officials at district and state level, community based organisations, NGOs and the Media. For each, the Company has structured mechanisms and has defined the frequency of these meetings. For instance the Company has created a Grievance Redressal Group to conduct third-party social audits of its Rehabilitation and Resettlement measures by an eminent group of people.

Formal mechanisms at all Divisions, locations and profit centres implement structured programmes for sustainable livelihoods, healthcare, employment, employability training and empowerment, along with the environment protection, safety and management of business ethics. Twelve units of Tata Steel Rural Development Society implement the Company's community development programmes at its out - locations.

The Company has also constituted the Advisory Council on CSR to help it upscale the deployment of its social strategy through their inputs on planning, review and implementation. Each member of the Advisory Council is a highly respected expert in their respective field having spent decades in their particular area of work.

Focus Areas

The KPI adopted by Tata Steel to measure the effectiveness of its interventions in rural areas is the **Human Development Index (HDI).** Its key strategy and sub strategies are targeted at improving the Human Development Index of its stakeholders in designated villages by providing:

- Access to sustainable livelihoods through employability training, enterprise development and agriculture interventions
- Access to health care services
- Support for education initiatives

In addition to fulfilling the aspirations voiced by its communities Tata Steel develops **Physical Infrastructure** in rural areas around Jamshedpur, mining and Greenfield locations. The infrastructure created by it includes:

- Roads, Bridges, Culverts
- School buildings, as well as donations for improving school infrastructure
- Community Centers
- Check dams
- Electrification

Sports and Adventure Sports mainstream and empower youth connecting them to alternative avenues of personal advancement as well as helps build the character of the nation.

The Company measures the **satisfaction of communities** with its services in urban areas through the eQ^{TM} index (a proprietary index developed by A C Nielsen). The key strategy and sub-strategies to serve the urban stakeholders in Jamshedpur and maintain good satisfaction index by:

- Increasing coverage of water supply
- Increasing coverage of power supply
- Decongesting roads
- Augmenting facilities/infrastructure in town to meet raised satisfaction levels

Impact Assessments

The Company conducts periodic impacts assessment to assess the progress made in implementing its strategies. The processes followed by it include:

Social Audit

As a socially responsible corporate citizen, Tata Steel commissions social audits through independent and eminent professional persons to get an authentic and comprehensive review of the impact of its operations and actions, including social and environmental impacts. The Social Audit is conducted once in ten years and the Managing Director periodically reviews the Company's response through an Action Taken Report. The committee for the fourth Decadal Audit was constituted in 2012-13.

Aspiration Surveys: These are conducted among communities residing in operational areas of Tata Steel across Odisha.

Village-level study of Human Development Index (HDI): Initiated in 2010-11 a team of researchers from Xavier Labour Research Institute (XLRI), Jamshedpur have till 2012-13 assessed the HDI in 230 villages served by Tata Steel Rural Development Society.

XISS JRD Tata Chair: The 'JRD Tata Chair' has been instituted at Xavier Institute of Social Service, Ranchi with the objective of conducting a study on 'Contributions of Tata Steel towards Sustainable Development'.

Closure Plans

All Tata Steel's mines are fully operational. However Progressive Mine Closure Plans approved by Indian Bureau of Mines are in place for all Tata Steel's Mines. The Company's collieries are as mandated preparing closure plans. As required by regulation a Final Mine Closure Plan along with detail of Corpus Fund shall be submitted to the Ministry of Environment & Forests five years in advance of final mine closure for approval.

SUSTAINABLE LIVELIHOODS FOR INCLUSIVE GROWTH

The three principal areas that Tata Steel focuses on to create Sustainable Livelihoods are Agriculture Development, Skill Development and Enterprise Development.

Sub-Strategy	*2010-11	*2011-12	*2012-13
Improving Productivity through scientific agriculture	3224 acres	3906 acres	4192 acres
Area under 2nd Crop	1256 acres	2027 acres	3177 acres
Wasteland Development	3350 acres	750 acres	1035 acres

Sub-Strategy	*2010-11	*2011-12	*2012-13
Creation and support to Self Help Groups	9795 members	9089 members	Nearly 9500 members
	757 SHGs	727 SHGs	750 SHGs

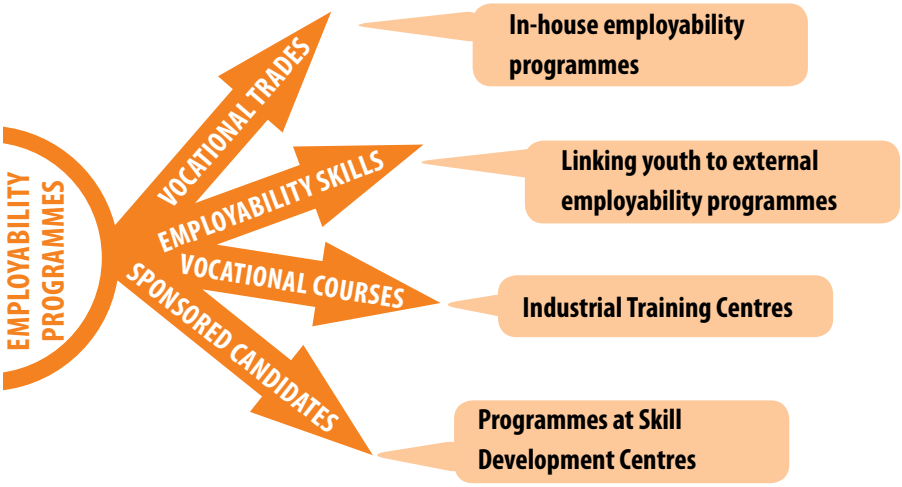
Sub-Strategy	*2010-11	*2011-12	*2012-13
Employability Training	2159 trained 430 employed	2807 trained	2225 trained
		833 employed	597 employed

*The figure indicates the annual impact in the respective year

Employability Training

The Company intervenes as an employability enabler by bridging the gap between the demand for and availability of vocational training programmes for youth. These programmes are designed to train youth for entry-level positions in the organised sector. The objective is to convert the potential talent pool into a trained and readily employable force.

Tata Steel's employability programme are structured as follows:



In-house employability programmes: These programmes utilise its pool of in-house resource persons and offer training on vocational trades such as site safety supervision, motor driving, construction training, assorted training programmes, IT based trainings and technical training.

Linking youth to external employability programmes: The Company partners with Indian Hotels, PRATHAM, Anudip Foundation, PanIIT Alumni Reach for India (PARFI), Aide-et-Action and TBSS (Tata Business Support Service) to run employability training programmes for the youth.

Industrial Training Centre

In 2012-13 Tata Steel set up an Industrial Training Centre at Tamar in partnership with the Government of Jharkhand and NTTF (Nettur Technical Training Foundation). The institute offers two-year vocational courses in Fitter and Electrician trades.

IN ODISHA THE COMPANY INAUGURATED A NEW TRAINING CENTRE 'PRERANA' TO IMPART MODULAR EMPLOYABILITY SKILLS TO YOUTH FROM RELOCATED FAMILIES.

In Odisha the Company inaugurated a new training centre 'Prerana' to impart Modular Employable Skills to youth from relocated families. The training centre has been set up to up-skill illiterate and semi-literate persons.

The Company's R D Tata Technical Education Centre at Jamshedpur and J N Tata Technical Education Centre at Gopalpur, Odisha are also run in collaboration with Nettur Technical Training Foundation (NTTF).

In 2012-13, nearly 2200 youth were trained in various vocational trades across locations with 597 of them finding immediate gainful employment. Of those trained, 781 youth (i.e. 35 per cent) are from SC/ST communities.

IN 2012-13, NEARLY 2200 YOUTH WERE TRAINED IN VARIOUS VOCATIONAL TRADES ACROSS LOCATIONS WITH 597 OF THEM FINDING IMMEDIATE GAINFUL EMPLOYMENT.

UOM	2010-11	2011-12	2012-13
No. of Persons	2159	2807	2225

UOM	2010-11	2011-12	2012-13
No. of Persons	298	1074	781

UOM	2010-11	2011-12	2012-13
No. of Persons	430	833	597

Programmes at Skill Development Centres

Tata Steel sponsors candidates from its operational areas for Diploma Course in institutes such as Nettur Technical Training Foundation (NTTF), Murbad in Mumbai and J N Tata Technical Education Centre (JNTTEC), Gopalpur. The sponsored candidates in 2012-13 also included girls from mining locations such as Joda.

Challenges in skill development and ensuring gainful employment

Tata Steel collaborates with training institutes and other organisations to provide employable skills to thousands of young men and women and link them up to gainful employment.

These have however not achieved the desired outcome due to following constraints:

- Establishment of skill development centers in mines and collieries is time consuming and not as per the desired pace
- During the pilot projects, the youth obtained placements but away from their homes mostly in class I cities, where remuneration offered is not at par with the cost of living of the particular location. Youth when placed outside their state also face language and cultural challenges. Hence many opt to return home.
- Also before initiating a new programme at a particular location, the need to understand the market demand and interest areas of youth is paramount. The identification of youth with basic educational qualification (required as per eligibility criteria) has also been found to be a constraint.

MORE THAN 700 SHGS ACCOUNTING FOR 9000-PLUS MEMBERS FUNCTION WITH THE SUPPORT OF TATA STEEL.

Enterprise Development

The core interventions adopted by Tata Steel to promote enterprise development include:

- Self Help Groups
- Promoting entrepreneurs

Self Help Groups:

Proactive efforts are made by Tata Steel to link SHGs to income generation activities, establish bank as well as market linkages. The purpose is to secure alternative and sustainable livelihood opportunities. The small business units operated by them include poultry farming, piggery and goatery, soap making, phenyl making, mushroom cultivation, nurseries to raise sapling, seedless tamarind making, tailoring, Soura painting, paper bag making, etc. SHG women keen to establish enterprises are trained in association with Entrepreneurship Development Institute of India (EDII).

The SHGs linked to entrepreneurship development earn an average income of about Rs 28,000 per member per annum.

Engagements with SHGs include:

- Empowerment of women to give them a greater say in decision making within the family
- Income generation and entrepreneurship development
- Facilitating credit linkages and marketing of products
- Trained to adopt a more professional approach and improving the quality, packaging and branding of their products
- Competitions to encourage creativity and promote leadership

Promoting entrepreneurs from the SC/ ST communities

In addition to promoting SHGs with members from the SC/ST communities, under its Affirmative Action programme Tata Steel actively promotes the proportion of business awarded to vendors/ suppliers from these communities.

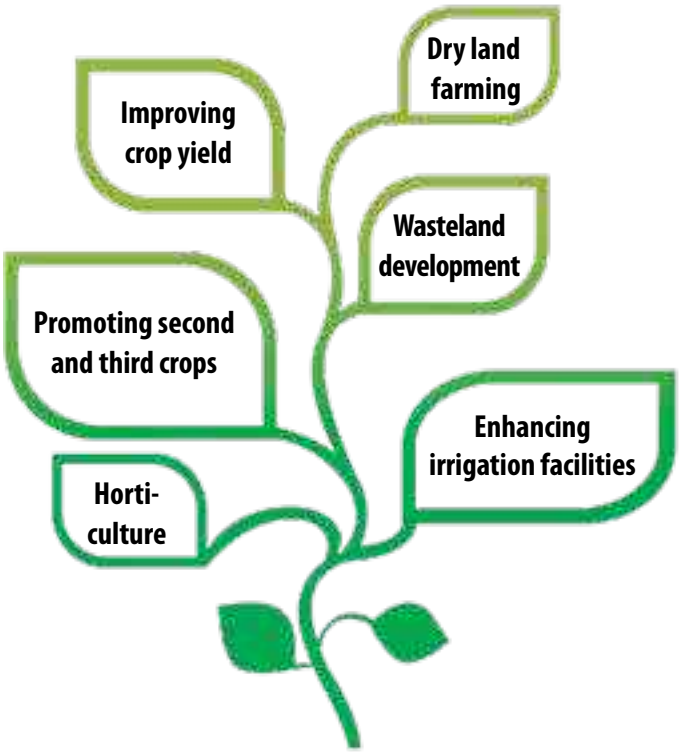
Agriculture Development

Of the 80-lakh hectares in the state of Jharkhand only 30 lakh hectares is cultivable and as little as 28 percent of this area is cropped *(Source: Department of Agriculture, Government of Jharkhand, Annual Plan)*. In Odisha, another state where Tata Steel has a strong presence, the average value of the yield is far below India's leading states.

Hence, Tata Steel's Agriculture Development interventions aim at improving agricultural productivity and cropping intensity by increasing the acreage under paddy cultivation. The outcome is an increase in farmer income.

During the year, the Jamadoba unit of TSRDS conducted a study to formulate a long term agricultural plan under which in the next five years it will develop all agriculture land in the leasehold villages so as to cultivate three crops a year. The Company will create infrastructure such as Lift Irrigation Projects (using waste mine water for irrigation), check dams and irrigation drains under the long-term plan.

Agriculture Development aims at:



TATA STEEL'S AGRICULTURE DEVELOPMENT INTERVENTIONS AIM AT IMPROVING AGRICULTURAL PRODUCTIVITY AND CROPPING INTENSITY BY INCREASING THE ACREAGE UNDER PADDY CULTIVATION.

1,200 FARMERS WERE TRAINED IN THE SYSTEM OF RICE INTENSIFICATION (SRI) METHOD OF CULTIVATION TO ENHANCE YIELD TO OVER 2 TONNES PER ACRE

PADDY AND VEGETABLE SEEDS WERE PROVIDED TO MORE THAN 1,800 FARMERS IN 2012-13

Activities aimed at agriculture development include providing farmers with good quality seeds and fertilisers, as well as, necessary technical knowhow by engaging scientists from reputed agriculture institutes.

Improving crop yield

Farmers have been trained on the SRI (System of Rice Intensification) method of paddy cultivation and are encouraged to adopt it on a section of their land to compare its benefits against traditional methods of cultivation used by them. The average yield per acre under the SRI method is 2.07 tonnes compared to less than a tonne under the traditional form of cultivation. The Company was responsible for training about 1,200 farmers in the System of Rice Intensification (SRI) method of cultivation.

Promoting second and third crops

By utilising existing additional irrigation infrastructure and creating new facilities Tata Steel enables farmers to raise cropping intensity by increasing areas under second and third crops.

Timely availability of seeds of high yielding wheat seeds during winter, mustard seeds and paddy seeds, paddy threshers, paddy fans, 1 and 2 HP pump sets boosts agricultural productivity. Tata Steel Rural Development Society (TSRDS) provided paddy and vegetable seeds to more than 1,800 farmers last year in addition to distributing agricultural implements to more than 200 farmers in the Kalinganagar, Joda, Bamnipal, Gopalpur and Sukinda areas.

Mustard is an early rabi crop that yields substantial returns but requires careful sowing and rearing. In the last few years TSRDS has been trying to get farmers to cultivate this early rabi crop, an effort that met with quantum success during the current year.

Wasteland development

To enhance the land area under cultivation the Company brings Wasteland under horticulture crops in partnership with National Horticulture Mission. This has yielded a notable increase in the acreage under horticulture crops and benefits farmers as the land brought under the horticulture crops would have remained fallow as it is not considered suitable for agriculture crops.

WASTELAND DEVELOPMENT HAS YIELDED A NOTABLE INCREASE IN THE ACREAGE UNDER HORTICULTURE CROPS

Enhancing irrigation facilities

To further increase agricultural productivity, the Company created more than 100 irrigation structures including lift irrigation facilities, creation/renovation of ponds etc. Across the state of Jharkhand, Odisha and Chhattisgarh, on an average 700 acres of land was brought under irrigation in 2012-13.

OVER 700 ACRES OF ADDITIONAL FARM LAND WAS BROUGHT UNDER IRRIGATION IN JHARKHAND AND ODISHA

AGRI DEVELOPMENT INITIATIVES	2010-11	2011-12	2012-13
Improving the productivity of the crop through scientific agriculture (acres)	3224	3906	**4192**
Area under second and third crop (acres)	1256	2027	**3177**
Wasteland Development (acres)	3350	750	**1035**

NURTURING A HEALTHY SOCIETY

Tata Steel's hospitals, dispensaries, medical centres and mobile medical vans provide healthcare facilities to its communities in Jharkhand, Odisha and Chhattisgarh. Its services cover preventive, promotive and curative health care.

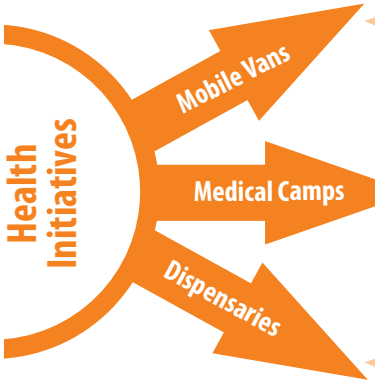
Tata Steel's health care infrastructure includes:

- Tata Main Hospital with 890 beds
- Nine dispensaries and a super dispensary in Jamshedpur
- Hospitals at mining locations
- Mobile Medical Vans

Tata Steel's focus areas for health care are:

- Maternal and Infant mortality
- Family Planning & Population Stabilization
- Adolescent reproductive and sexual health
- HIV / AIDS
- Safe drinking water
- Specialized hospitals for Cancer, Leprosy, Eye, Blood Bank, etc

PRIMARY HEALTH CARE SERVICES TOUCHED 3,70,000 BENEFICIARIES IN 2012-13



Primary Health Care Services

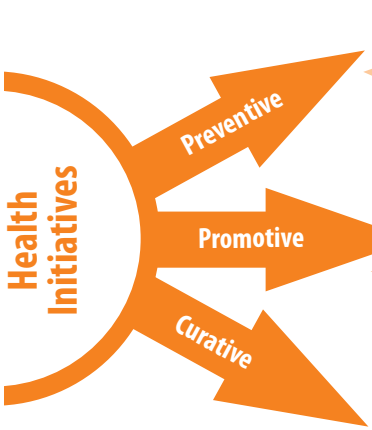
UOM	2010-11	2011-12	2012-13
No. of Persons	2,13,208	2,89,517	3,70,000

Family Planning Services

UOM	2010-11	2011-12	2012-13
No. of Persons	8783	6633	7198

Ante-Natal Check-ups (ANC)

UOM	2010-11	2011-12	2012-13
No. of Persons	12,931	11,629	12000



Child Immunisation

UOM	2010-11	2011-12	2012-13
No. of Persons	9914	12717	14006

HIV/AIDS Awareness – coverage

UOM	2010-11	2011-12	2012-13
No. of Persons	35,659	3,10,000	3,10,000

Eye Care Services (Cataract Operations)

UOM	2010-11	2011-12	2012-13
No. of Persons	1818	3000	2890

Maternal and Infant Mortality

Maternal mortality in India continues to remain high, a cause of great concern. Tata Steel takes several measures to address the problem in the states of Jharkhand, Odisha and Chhattisgarh.

SOCIO–ECONOMIC INDEX	UOM	JHARKHAND	BEST IN THE COUNTRY
INFANT MORTALITY RATE	Deaths per 1000 births	44 (22nd out of 35 states)	11 (Goa)

Tata Steel focusses on proper antenatal, natal; post natal care, newborn care and immunization as well as improving the number of institutionalised deliveries through awareness.

Project MANSI

The objective of Project MANSI (Maternal and Newborn Survival Initiative) is to reduce infant mortality in 167 villages in Seraikela-Kharsawan district of Jharkhand, part of the Company's operational area to match the Indian benchmark by 2016-17 through Home Based Newborn Care (HBNC).

It is undertaken in partnership with American India Foundation and the Department of Health and Family Welfare, Government of Jharkhand.

The challenges faced during implementation included inadequate institutional healthcare services and constraints in data collection due to:

- A project area spread across 120 sq kms
- The large number of health indicators to be tracked
- High levels of ignorance among the community

The project, which is in its fourth year, has had the following impact:

- **Nearly 90 per cent of pregnant women have received Ante-Natal Check-ups (ANC) and Iron Folic Acid (IFA) tablets**
- **Institutional deliveries have increased from 58.5 per cent to 79 per cent**
- **Percentage of infant deaths has come down from 6.15 to 1.58 while percentage of neonatal deaths has come down from 5.9 to 1.15.**

Antenatal checkups

These encompass 'care before birth', including education, counseling, regular medical and nursing care recommended for women during pregnancy. Antenatal care is an important preventive health care service offered by Tata Steel to women within its operational areas. The availability of routine prenatal care plays an important part in reducing maternal death rates and miscarriages as well as birth defects, low birth weight, and other preventable health problems.

Adolescent Reproductive Health

A collaborative project with Packard Foundation and Government of Jharkhand, Project RISHTA focuses on Adolescent Reproductive and Sexual Health issues.

Population Stabilisation

Family planning services for permanent methods of contraception is implemented in partnership with Department of Health and Family Welfare, Government of Jharkhand.

Leprosy

SPARSH is a collaborative project on disability care management undertaken by Tata Steel Rural Development Society (TSRDS) Jamadoba unit and LEPRA India. A small footwear unit set up by SPARSH to manufacture Micro Cellular Rubber footwear supplies this product for those afflicted with Leprosy to the states of Jharkhand, Bihar, Uttar Pradesh, Uttrakhand, Assam, West Bengal and Madhya Pradesh.

Health care services through camps

Mega health camps are organised to deliver primary health care services as well as curative interventions such as detection and removal of cataract, distribution of aids and appliances to the disabled, as well as to treat anaemia, psychosomatic disorders, dermatological conditions, Diabetes and general ailments. Tata Steel places immense emphasis on empowering communities through health awareness.

Auxiliary Nursing and Mid-Wifery training for tribal girls

Under Project 'ROSHNI', a joint initiative by Government of India and Tata Steel tribal girls from extremist affected areas are trained as nurses. They are trained in batches of 30 through ANM (Auxiliary Nursing and Mid-Wifery) courses at two nursing institutes in Jharkhand and Chhattisgarh.

TRIBAL GIRLS FROM EXTREMIST AFFECTED AREAS ARE TRAINED AS NURSES UNDER PROJECT 'ROSHNI'

EDUCATION TO ENABLE EXCELLENCE

The Company supports 183 schools and 13 colleges in Jharkhand. Some pioneering institutes of professional education supported by the Company are Xavier Institute of Tribal Education, Shavak Nanavati Technical Institute, RD Tata Technical Institute, Jamshedpur School of Arts etc.

In the state of Odisha Tata Steel has built or aided in the building of more than 200 schools. Among the Tata Steel-sponsored higher educational and research institutes in the state are J N Tata Technical Education Centre, Gopalpur, Xavier Institute of Management, Bhubaneswar, Pathani Samanta Planetarium, Nabakrushna Choudhury Centre for Development Studies at Bhubaneswar, Institute of Mathematics and Applications, Bhubaneswar and Rating Training Institute for Seamen at Paradeep.

The range of Tata Steel's interventions under Education encompass:

- Mainstreaming tribals in formal schools
- Jyoti Fellowships
- Pre Matric Coaching for high school students
- Mid day Meal programme
- Adult Literacy programme
- Camp schools for school dropouts - girls
- Early Child Education

The Company implements these interventions independently as well as in collaboration with state governments development partners, community-based organisations etc.

IN THE STATE OF ODISHA TATA STEEL HAS BUILT OR AIDED IN BUILDING MORE THAN 200 SCHOOLS

THE COMPANY SUPPORTS 183 SCHOOLS AND 13 COLLEGES IN JHARKHAND.

Students impacted over the last three years

INTERVENTIONS	UOM	2010-11	2011-12	2012-13
Jyoti Fellowships awarded to SC/ST students	Nos.	673	1956	2477
Pre Matric Coaching for students	Nos.	120	370	5006
Adult Literacy (Women)		2555	5600	~13000
Girls attending Camp Schools	Nos.	200	100	200
Mid-Day Meals for school children	Nos.	-	-	49000
Mainstreaming children from primitive tribal groups	Nos.	-	10	127

Mainstreaming tribal children

127 students from particularly vulnerable tribal groups like Birhores and Sabars were mainstreamed with the Company sponsoring their education both in mainstream schools as well as those run by Adivasi Vikas Samity.

Jyoti Fellowship for SC and ST students

Tata Steel awards Jyoti Fellowship to meritorious students from Scheduled Castes (SC) and Scheduled Tribes (ST) to ensure that they continue to pursue their dreams.

Tribal Cultural Society (TCS) collaborates with Tata Steel Rural Development Society (TSRDS) to distribute Jyoti Fellowships in mining locations. The scholarships are awarded on the basis of a merit test.

The Jyoti Fellowship endows a sum of Rs 2500 each per annum on students of Classes 7 and 8, while students of Classes 9 and 10 receive Rs 3000 each from the fellowship awards. Students pursuing Plus 2 are awarded Rs 3500 per annum while the larger financial needs of the students of Plus 3 are met through a fellowship award of Rs 4000 per annum.

More than 2400 meritorious students from the SC / ST community were awarded scholarships to enable them to pursue education. These include students from villagers in the operational areas of all twelve units of Tata Steel Rural Development Society across the states of Jharkhand, Odisha and Chhattisgarh.

MORE THAN 2400 MERITORIOUS STUDENTS FROM THE SC / ST COMMUNITY WERE AWARDED SCHOLARSHIPS TO ENABLE THEM TO PURSUE EDUCATION

Pre Matric Coaching Classes:

The classes, offered free of charge, are designed to help economically less privileged students prepare for the matriculation examination. The classes have benefited more than 5000 students of Classes VIII, IX and X in 2012-13. They focus on subjects such as Mathematics, English and Science.

Residential coaching for tribal students is planned in 2013-14.

PRE MATRIC COACHING CLASSES BENEFITED MORE THAN 5000 STUDENTS OF CLASSES VIII, IX AND X IN 2012-13.

Mid-day Meal

The purpose of the mid day meal is encourage students to attend school so that education helps them improve their quality of life.

The effort to achieve this includes a mid-day meal programme. About 49000 students of government schools in East Singhbhum and Seraikela-Kharsawan were served nutritious meals from Tata Steel's Central Kitchen.

ABOUT 49000 STUDENTS OF GOVERNMENT SCHOOLS IN EAST SINGHBHUM AND SERAIKELA-KHARSAWAN WERE SERVED NUTRITIOUS MEALS FROM TATA STEEL'S CENTRAL KITCHEN.

Adult Literacy

More than 13000 women learners attended 278 basic adult literacy classes and 243 advance literacy classes. The programmes are run at centres based within operational villages.

During the year, the Company also collaborated with XLRI to train 50 teachers engaged in the Adult Literacy Programmes (ALP) in Jamshedpur, Patamda, Potka and Gamharia blocks to make the programmes more effective.

Early Child Education

To improve the quality of Bal Vikas Kendras functioning within its community centers in the 'basti areas' (urban settlements) of Jamshedpur, Tata Steel sought technical support from Aide et Action (AEA), a leading development organisation.

The agreement brings technical support on capacity building of teachers, active involvement of parents and the community in the education process and best utilisation of the available resources to make the space within Tata Steel's Bal Vikas Kendras more child-friendly in nature.

Initially three Bal Vikas Kendras will be strengthened based on the ECCE (Early Childhood Care and Education) processes.

Camp School

Through residential school education, the camp school programme aims to mainstream girls, who have earlier dropped out from regular schools, within the formal education system. A nine-month bridge course at the camp schools at Noamundi and Pipla helps underprivileged girls who have dropped out of school return to mainstream school.

A NINE-MONTH BRIDGE COURSE AT THE CAMP SCHOOLS AT NOAMUNDI AND PIPLA HELPS UNDERPRIVILEGED GIRLS WHO HAVE DROPPED OUT OF SCHOOL TO RETURN TO MAINSTREAM SCHOOL.

YOUTH EMPOWERMENT THROUGH SPORTS

Tata Steel's sports interventions are aimed at universalising access to sports across all sections of society and the community so that talented persons are able to take the opportunity to change their lives.

It has therefore created sports infrastructure in rural and urban locations. The facilities

IN 2012-13, NEARLY 1800 SOLAR STREET LIGHTS HAVE BEEN INSTALLED COVERING VILLAGES IN OPERATIONAL AREAS OF JHARKHAND AND ODISHA.

created by Tata Steel to help accelerate excellence in sports has at its apex three academies - Tata Football Academy, Tata Archery Academy and the Tata Athletics Academy, a multi-disciplinary and well-equipped JRD Tata Sports Complex.

In 2012-13, youth trained by Tata Steel's Sports Department added 17 international and 78 national medals to its existing record tally of medals. Regular health and fitness programmes conducted at the sporting facilities in Jamshedpur and feeder centres across out-locations help thousands of budding talents hone their sporting skills.

The training and mentoring provided by Tata Steel Adventure Foundation to Binita Soren and Meghlal Mahato allowed these tribal youth from villages of Jharkhand to successfully conquer Mt Everest in May 2012.

Also Premlata Agrawal became the first woman mountaineer – and one of the oldest internationally – to conquer all Seven Summits in 2013. TSAF also mentored Arunima Sinha, a differently-abled woman. She went on to become the first female amputee to conquer Mt. Everest after her successful expedition to 21,110 feet Mt. Chamser Kangri in September 2012.

PHYSICAL INFRASTRUCTURE

Solar Lights

Tata Steel has initiated a drive to illuminate remote villages using renewable sources of energy like solar energy. The solar street light initiative is a public private partnership between the Sir Dorabji Tata Trust, elected representatives (Members of Parliament and Members of Legislative Assembly) and Tata Steel. It is being implemented through Tata Steel Rural Development Society.

Under this ambitious initiative, in 2012-13, nearly 1800 solar street lights have been installed covering villages in operational areas of Jharkhand and Odisha.

Drinking Water and Irrigation Infrastructure

To eliminate the water crisis in rural areas especially during summers Tata Steel continued to install bore wells for communities living in rural and peri-urban areas. A single borewell has the capability to benefit as many as 250 households or several villages. Drinking water facilities i.e. handtube wells were installed in 350 villages while deep borewells were installed in 89 villages benefitting thousands of households.

Lack of water for irrigation affects agricultural productivity as well as adversely impacts the livelihood of farmers deprived of it in rural areas. Farmers across 23 villages of Seraikela-Kharsawan and Kolhan are poised to usherer in a green revolution in 2012-13 through the effective utilisation of irrigation facilities provided by Tata Steel.

Tata Steel Rural Development Society (TSRDS) dedicated 100 lift irrigation systems

and rainwater harvesting structures during the year. Each lift irrigation system can cover 30 acres while each rainwater harvesting structure not only stores about 12 cubic metres of water but also recharges the ground water table.

School and College Buildings

Tata Steel has always placed emphasis on and access to quality education not only across its operational areas but also far beyond it. It has built or facilitated the construction of more than 200 educational institutions in different parts of the Odisha in the past. Its principle objective is to ensure the spread of literacy leading to the empowerment of communities.

During the year the Company committed a signifcant amount of funds exclusivley for builting new school and college infrastructure. Among those who received support was St. Xavier's High School Lupungutu in Chaibasa to construct a new

Inter college block, Baba Ramdas Shishu Vidya Mandir at Champua in Keonjhar district of Odisha, Adivasi Vikas Samiti, Kainshi Vidyamandir, St Mary English High School in Jamshedpur and DBMS School in Jamshedpur.

TATA STEEL HAS BUILT OR FACILITATED THE CONSTRUCTION OF MORE THAN 200 EDUCATIONAL INSTITUTIONS IN DIFFERENT PARTS OF ODISHA

All measurements in Nos.

PHYSICAL INFRASTRUCTURE DEVELOPMENT	2010-11	2011-12	2012-13
Solar Lights in Jharkhand and Odisha	Project initiated in 2011-12	700	1800
Hand Tube Wells	175	241	372
Deep Bore Wells	19	15	89
Rooftop Rainwater Harvesting structure	-	2	4

Civic Infrastructure in Jamshedpur

Jamshedpur Utilities & Services Company (JUSCO) is the urban civic amenities provider across the leasehold area of the Company in Jamshedpur. Its civic services cover 1.6 million residents. Urban Services reviews and proposes the development of infrastructure in the non-leasehold areas of Jamshedpur with representatives of civil society.

MORE THAN 8000 YOUTH LEARNED TRIBAL SCRIPTS AT 101 TRIBAL LANGUAGE CENTRES IN THE KOLHAN REGION IN 2012-13.

ETHNICITY

The large tribal community, who comprise some of the country's most marginalised sections of society, are a prominent part of the population in locations where Tata Steel operates. Therefore the Company's commitment to an empowered and prosperous community also includes finding sustainable solutions to the unique ethnic heritage of indigenous people.

The Company works on various facets of tribal culture to integrate the tribal population with the mainstream population including:

- Tribal music and dance
- Tribal scripts like Santhali and Ho.

To achieve this objective it has forged close collaborations with tribal community based organisations such as the Jaher Than Committee, Adivasi Ho Samaj Mahasabha, Oraon Samaj Samiti, Bharat Munda Samaj, etc.

Tribal Languages

In its endeavour to preserve tribal languages and create greater awareness on the rich cultural heritage of tribes indigenous to where it operates, Tata Steel continued to launch new learning centres to teach tribal languages. More than 8000 youth learned tribal scripts at 101 tribal language centres in the Kolhan region in 2012-13.

Tribal Culture and Sport

In addition to organising cultural events during the year to promote and popularize tribal music, dance forms and sports such as Kati, Chhur, Bahuchor and Sekor in 2012-13, the Company revived another sport called Ramdel. Over 1500 players participated in five tournaments organised at the grassroots level to promote tribal sports.

ETHNICITY	2010-11	2011-12	2012-13
Tribal Culture	Organised cultural events to promote tribal dance and music		
Tribal Sports Meets		800 players	1500 players
Students learning tribal scripts		900 youth	8000 youth

Land use, customary rights of local communities and indigenous peoples

Tata Steel is committed to ensuring that the quality of life of the relocated people is better in their new settlement than before. The Company's Resettlement and Rehabilitation Programme for those affected by its Greenfield project in Kalinganagar, Odisha - Tata Steel Parivar - has been designed in consultation with those affected and guarantees a "better tomorrow" since the very purpose of the Company is use to leverage growth for Common Good. The programme name is indicative of the sensitivity with which it wishes to manage the process by

considering the project-impacted people a part of its own family or parivar

The programme provides a fair compensation package, every kind of support and more than adequate opportunities for personal and community development based on Tata Steel's Resettlement and Rehabilitation Policy.

In addition to interventions such as skill development and technical training targeted at enabling them to take advantage of industrial growth, Tata Steel's Community Development Plan is aimed at enhancing their income levels. The income of these families is tracked to monitor the change in incomes to drive inclusive growth

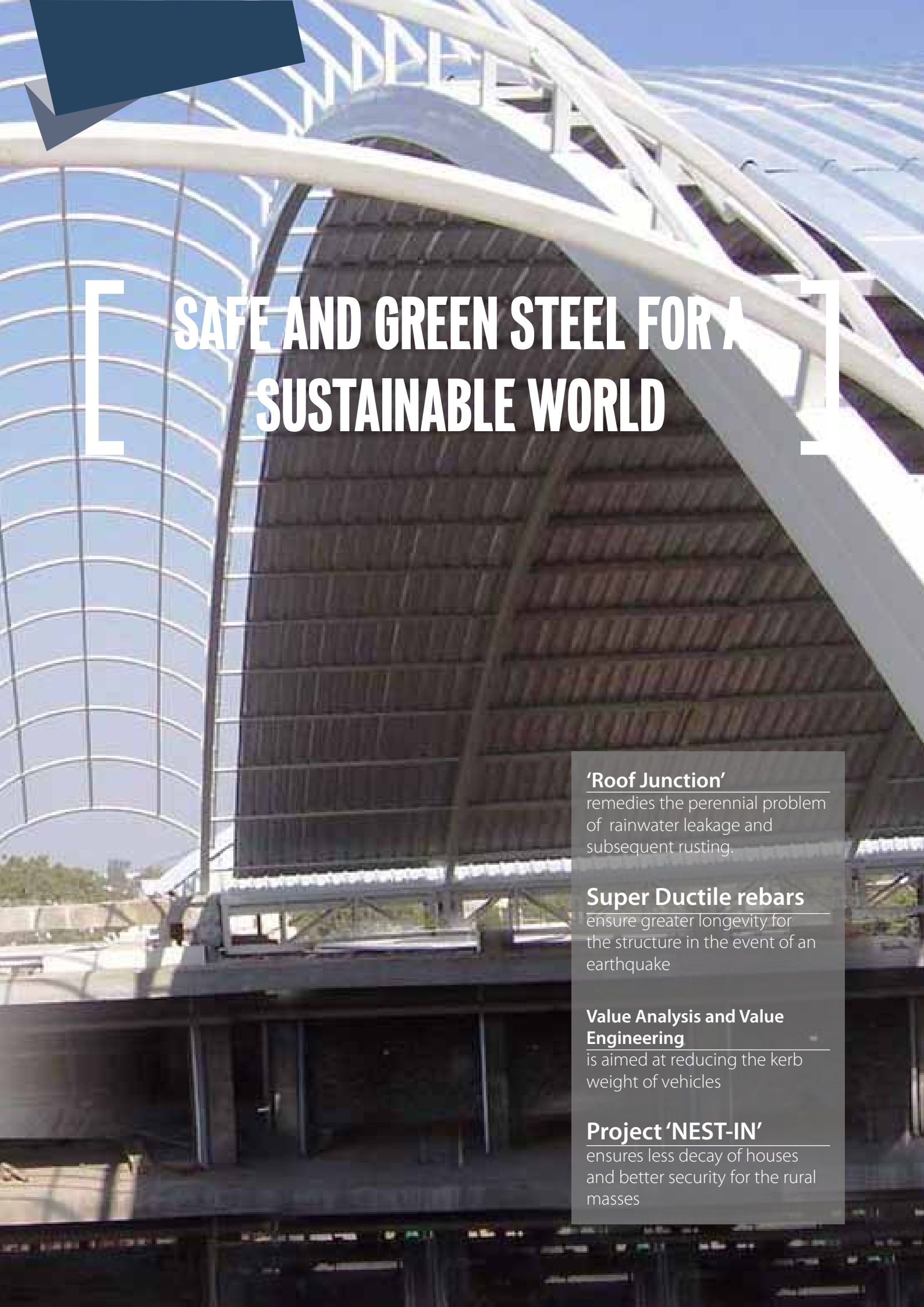
Self-help groups are a means of beneficial involvement in economic activities.

The Grievance Redressal Group for two-way communication visited the site in 2012-13 to assess the activities of the Company. Also the Company welcomes inputs from local journalists, opinion makers and government officials on the resettlement and rehabilitation programme.

Self-audits are regularly conducted to align actions with the expectations of the people and the spirit of the programme. In 2012-13, the Chief Minister of Odisha, Shri Naveen Patnaik inaugurated "Prerana" a centre for skill development established exclusively for youth from project-impacted families.

Artisanal and Small-Scale Mining

While India has a long tradition of artisanal and small-scale mining, the socio-economic impacts have not been enumerated and its does not form part of policy making. Artisanal mines are largely illegal in the coal and iron ore segment, which are major minerals. There is no clear statistical information on small-scale coal and iron ore mines in India. The uncertain nature of operations, with the difficulty in assessing the social and environmental impact has made Tata Steel discourage "illegal" mining. The Company meets the fuel needs for community activities and special occasions. Almost all its employees are drawn from the local community hence a benefit offered by the Company is allocation of a fixed quantity of coal on a regular basis.



SAFE AND GREEN STEEL FOR A SUSTAINABLE WORLD

'Roof Junction'
remedies the perennial problem of rainwater leakage and subsequent rusting.

Super Ductile rebars
ensure greater longevity for the structure in the event of an earthquake

Value Analysis and Value Engineering
is aimed at reducing the kerb weight of vehicles

Project 'NEST-IN'
ensures less decay of houses and better security for the rural masses

10 - PRODUCT RESPONSIBILITY

MANAGEMENT APPROACH

Steel products form the building blocks for achieving health & safety excellence in a wide range of end applications. Tata Steel therefore considers itself responsible for the performance of its steel in these end applications and works closely with its customers to improve product design and ensure structural integrity. Tata Steel's Technology Roadmap has interpreted product responsibility and quality to include the entire lifecycle of its products, from the cradle to the grave, mandating the development of safe product designs, efficient use of resources as well as deployment of eco-friendly technologies and processes.

It has also set the tone for consistency in purpose – of serving common good - by focussing on new developments and improvements in three core areas namely Cost, Environment and Safety. This Technology Roadmap, along with the Tata Code of Conduct, Technical Delivery Conditions of materials as well as mandatory standards for the products, constitutes the product responsibility framework for the Company.

Tata Steel's focus on addressing the needs of the end user have ensured Customer Satisfaction levels that are higher than those for competition.

The Company's products are divided in two principal segments, Flat Products and Long Products.

Together they serve the needs of a wide range of applications including those in high growth segments of the Indian economy, such as the construction segment and infrastructure industry as well as the automotive industry, where steel is an input material.

In 2012-13 "Tata Shaktee" the leading steel roofing brand was awarded the 'Superbrand 2011-12' status. A council, usually comprising industry experts and practitioners, selects Superbrands in each country.

TATA TISCON has been acknowledged as a consumer Superbrand for 2011-2012 in the survey by Superbrands India Pvt. Limited across 82 countries to adjudge brands which have transcend beyond the market place to consumers' lives, TATA TISCON scored within the top 20 per cent of all brands across all segments and all categories. Tata TISCON had won the Superbrand status in the last edition of 2009-10 also.

Creating a product segment based on safety and product quality

A pioneer in decommoditising steel and new product development in India, Tata Steel made a foray into branding HR steel for the first time in 2012-13. A pan-India market mapping exercise was carried out to understand consumption pockets, patterns and needs of HR steel users. The Company has identified this segment with requirements for small tonnages as an Emerging Corporate Account (ECA).

The needs of this segment were understood through a structured pilot programme called Emerging Corporate Value Management (ECVM). The outcome was a mapping of 4500 customers in 37 application-based segments. To substitute the on-site processing of HR steel by the customers, "Tata Astrum" is now being supplied to them in processed form through service centres. These centres have a tie-up with distributors and must conform to the Tata Steel's quality standards. It has led to safer usage of steel along with less wastage of material.

The Astrum product range finds application in the Automotive, Earth Moving Equipment, Railways, Fabrication, Construction and Industrial Machinery segments. The value offerings of the brand include segment specific grades, processed material, source authenticity, technical support and timely delivery.

Augmenting the product range

Ideas for new products captured by Customer Service Teams led to the development of the international grade ER70S6 Wire Rods. It has increased the throughput of Continuous Welding Electrode producers by >35 per cent thereby saving power and water. Roofing solutions introduced by Tata Shaktee under the brand name of 'Roof Junction' remedies the perennial problem of improper fixing which results in rainwater leakage and subsequent rusting. Use of improper and poor quality fasteners and accessories that are often the source of rusting have been eliminated, as has the use of heavier structural materials. The outcome is a safer and cheaper roof for customers.

The Nest-In Bio-toilet, an integrated solution, was commercialised in 2012-13. It comprises a Bio-toilet system and Nest-In super structure capable of being installed at any location without the need for a sewage-line connection to carry away the waste. Each unit consumes around 300 Kg of steel and can be installed in four days. The first pilot, 4.5 feet X 6 feet in size, was installed in Chandigarh. The bio-toilet system was developed under license from DRDO. The bio digester disposes human waste in a 100 per cent eco-friendly manner, generating colourless, odourless water with an inflammable gas.

Inspired by nature, Tata Steel R&D has developed an innovative self-healing organic coating to create superior coating resistance. A cut in the coating triggers a

nature-like stimulus response and releases active repairing agents that heal the damage.

Minute capsules of 200 to 800 nanometre were synthesized in the laboratory through an intricate process of chemical emulsification. These capsules were added to a functional organic coating and applied to steel samples. Upon being scratched, the samples exhibited self-healing within three hours of damage as shown by scanning electron microscope studies. The coated samples also performed well in corrosion tests.

Safety initiatives in Steel Handling

Steel handling outside the premises of the manufacturing site requires care. Tata Steel has introduced v-bed trailers to reduce the centre of gravity of steel coils while in transit. Coils mounted on v-bed trailers are unlikely to fall or destabilise the vehicle in the event of an accident or unsafe road conditions.

To its project customers the Company offers ready to use Cut-and-Bend (CAB) rebars, eliminating unsafe work practices on site as well as wastage of steel. CAB products are also capable of improving the quality of construction, enhancing its structural safety. Retailed under the TISCON ReadyBuild brand name it is a high quality product for complex designs. Tata Steel ensures that the right quantity is delivered at right time to customers at the construction site. In 2012-13 Tata Steel grew its Cut and Bend business by 55 per cent. Five new Cut & Bend service centres were added, taking the total number of centres to nine in India.

IN 2012-13 TATA STEEL GREW ITS CUT AND BEND BUSINESS BY 55 PER CENT

STEEL IS A THERMO - DYNAMICALLY STABLE PRODUCT

Safe use of products

Steel is a thermo-dynamically stable product. However, Tata Steel provides, when required by the customer, Material Safety Data Sheets (MSDS) on its products to communicate physical data on working with the products in a safe manner.

As a source of input material to various end products, Tata Steel's focus lies in meeting and improving passive safety requirements such as the tensile strength of steel material used in various car applications.

Passive safety initiatives are aimed at minimizing the injuries and damage that may occur in the event of an accident. As a steel maker Tata Steel's role is to focus on technology initiatives that aid this process.

EFFORTS FOCUS ON DEVELOPING A FAMILY OF NEW GENERATION HIGH STRENGTH STEELS

Efforts underway at Tata Steel are aimed at developing a family of new generation high strength steel with high ductility, ultra-high strength TRIP assisted steel for crash and structural components as well as several nano-precipitate strengthened steel grades with a combination of high strength, high ductility and superior weldability.

The strength of these automotive steels is tested well beyond the norm prescribed for their usage. For instance 'Impact Testing' of steel used in the under carriage of a car is conducted at sub zero temperatures though this it is not required for India.

Tata Steel manufacturers Super Ductile rebars for use in earthquake prone areas. These rebars, the only kind that Tata Steel consciously markets and sells in earthquake zone prones (zones 4 and 5) in India, such as Uttarakhand, North-East, North Bengal and Gujarat, ensure greater longevity for the structure in the event of an earthquake. Reinforced Cement Concrete (RCC) structures embedded with Super ductile – earthquake resistant rebars can provide a little extra-time for inhabitants to flee before the collapse of buildings in the event of a major earthquake compared to RCC structures with normal rebars.

India has a long coastline where the corrosion protection of steel structures is of paramount importance. The CRSD (Corrosion Resistance Steel with Fe500D properties) rebar from Tata TISCON is a breakthrough innovation by Tata Steel to help builders fight the deadly menace of corrosion. This rebar is 30 per cent more corrosion resistant compared to normal rebars.

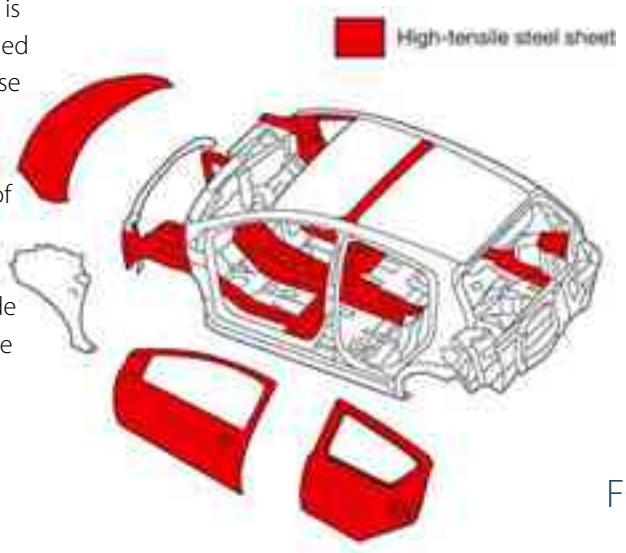
Tata Steel's efforts led to a rise in sales of safer products

Product Responsibility	UoM	2010-11	2011-12	2012-13
High strength C-MN 440 steel	Tonnes/year	11780	15600	22900
NEST-IN housing	Numbers	1 (pilot)	15	31
Low Carbon Wire Rods (LCWR) - ER70S6	Tonnes/year	5061	13546	18493
CAB	Tonnes/year	30011	50013	79161
6mm TMT rebar	Tonnes/year	20167	28200	35914
Fe600 high strength rebar	Tonnes/year	-	-	2080
Lead free GALVANO	Ktpa	107	111	93*

** Lower availability of product due to higher sale of Galvannealed sheets for auto industry from same line*

Resource Efficiency and Material Stewardship

Tata Steel's Technology Roadmap, which is strategic in nature, identifies projects aimed at technological breakthroughs to increase the yield of high quality raw materials, stretch the life of its mines and effect reductions in energy use and emissions of its products over their entire lifecycle.



Projects that continued in 2012-13 include the Weight Down Cost Down programme (Value Analysis and Value Engineering) to reduce the carbon footprint in the life cycle of a vehicle through a reduction in steel consumption in the vehicle and conservation of natural resources.

Steel finished goods have minimum ecological impact during usage or disposal. Tata Steel has always used customer feedback to address possible deviations. In 2012-13 improvements in packaging and dunnaging of products during transportation to the consumer was undertaken based on their feedback.

"IN ABSOLUTE TERMS, THE UPSTREAM SUPPLY CHAINS FOR SHEET STEEL AND BLANKS HAVE THE BIGGEST IMPACT ON CO2 EMISSIONS AT THE PRODUCTION STAGE."

-SOURCE: VOLKSWAGEN SUSTAINABILITY REPORT

Eco-friendly products

Developments in the automobile sector, a focus area for Tata Steel, are driven by fuel efficiency, eco-friendliness, safety and cost. This is measured through the mileage and kerb weight of the automobile. Sales of C-MN 440 steel, a high strength steel grade, saw a > 30 per cent growth in 2012-13. This is part of Tata Steel's drive to help Auto OEMs progressively localise various grades of steel used to manufacture lighter

PROJECT 'NEST-IN' PROMOTES USE OF LOCALLY AVAILABLE MATERIAL WITH STEEL

vehicles. It will lead to low carbon usage in India over the whole lifetime of these vehicles.

Project 'NEST-IN' – an aesthetically attractive good quality house - is Tata Steel's construction solution initiative that promotes the use of locally available material such as jute for insulation within the wall. This solution, which can be built in just nine days, can be used for various applications like residence, site office, clinics, waiting rooms, storerooms, classrooms and even community centres. The outer steel panels as well as the structure ensure less decay of houses and better security for the rural masses.

Nest-in House Locations

NEW SERVICE PLANS FOR PRODUCTS WERE ANALYSED FOR SAFETY AND HEALTH BENEFITS

Service Innovation for customer satisfaction

With superiority in product quality expected to cease to be the winning factor in gaining customer loyalty and price premium, solutions beyond the product, that can extract value for customers from their own business processes is proving to be the next big differentiation. The appreciation received by the Company's efforts in this direction from customers is indicative of the potential benefits of extending this service spectrum.

During the year the Company conceptualised new service plans for its Long Products and Flat Products customers to be initiated in 2013-14. These service ideas were also analysed to identify expected safety and health benefits.

Marketing Communication Practices :

All product brochures and information shared by Customer Service Teams go beyond technical and commercial aspects of the product. For example, these include details such as characteristic values for the fatigue life of steel for auto makers and advice to fabricators not to use Galvanised sheets for fertiliser and onion storehouses as the oxides of sulphur cause degeneration in the galvanised coating of the steel sheet.

Customer Value Management

Tata Steel's Customer Value Management initiative is aimed at it B2B customers, mainly the automotive sector. The team comprises personnel from the customer's organisation and those from different functions at Tata Steel. These cross functional teams interact with each other on a regular basis to address issues related to hygiene, operational and new development issues through idea generation, evaluation and implementation. It not only provides Tata Steel a platform to capture and address customer needs but also strengthens relationships across functions in the customer's organisation.

Wired2 Win

The Wired2Win engagement programme for wire rod customers has strengthened the Company's relationship with customers through knowledge sharing sessions and various interactions. Professionals from various leading firms discussed Best Wire Drawing practices including Plant and Office Safety, current scenario and future trends in welding industry at sessions organised by Tata Steel during the year. Customers appreciated this unique initiative and expressed their desire to be part of such forums on a regular basis.

Buildwise

In India, more than 85 per cent of small residential buildings (Individual House Builders – IHB segment) are non-engineered. This may have a significant bearing on the safety and soundness of the construction. To cater to this important market segment, Tata Steel has introduced an initiative solution under the Buildwise brand name. Engineered designs and drawings including estimations on the cost of construction and bill of materials are provided to customers from the IHB segment.

'LINKS (Learning, Interaction, Networking, Knowledge Sharing)'

- LINKS is a structured customer engagement initiative for Steelium customers.

'Suraksha - Safety Excellence Programme'

Tata Steelium Suraksha – a Safety Excellence programme facilitates safety awareness in the customers' organisations as well as distributors' service centres. Over 44 Suraksha meets were organised for key customers of Steelium and Galvano.

"Value-in-Use"

A Customer engagement programme undertaken by the Flat Products Division

it extracts better value from Galvano for the small and fragmented customers (SME Segment), being served through the distribution route. Major EVI carried out for Tata Motors, TVS and Bajaj have reported cost savings. A VAVE workshop was for the first time held with Volkswagen globally.

A three-step process has been designed for creating and sharing value with the customers. These steps are

This process culminates in a sign-off with the customer, followed by implementation of the ideas.

~10,000 HOURS HAVE BEEN INVESTED IN TRAINING AND DEVELOPMENT OF CHANNEL PARNTERS

Training and Product Awareness

Through institutionalised Human Resource practices, close to 10,000 hours have been invested in the training and development of channel partners, key influencers and customers in the last five years. Product design books for various rebars are on the anvil to ensure appropriate usage of the grades offered by the Company.

Customer Satisfaction

Customer Satisfaction Surveys and other forms of feedback are used to determine customer needs and expectations for both products and services. The primary approach to listening and learning is visiting the current/potential/former/ competitors' customers. The learning, feedback and action points from these customer visits are captured through Customer Visit Reports (CVRs) that are centrally logged and monitored. The current customer complaints are taken from the IT based CRM system. There is a robust process for capturing customer needs and requirements in the form of a Management System Chart with roles and responsibilities defined. The various stages of capturing customer needs and taking actions are shown below.

Customer contact requirements are determined through well-defined processes. Tata Steel's various Listening & Learning posts include:

Process for capturing contact requirements

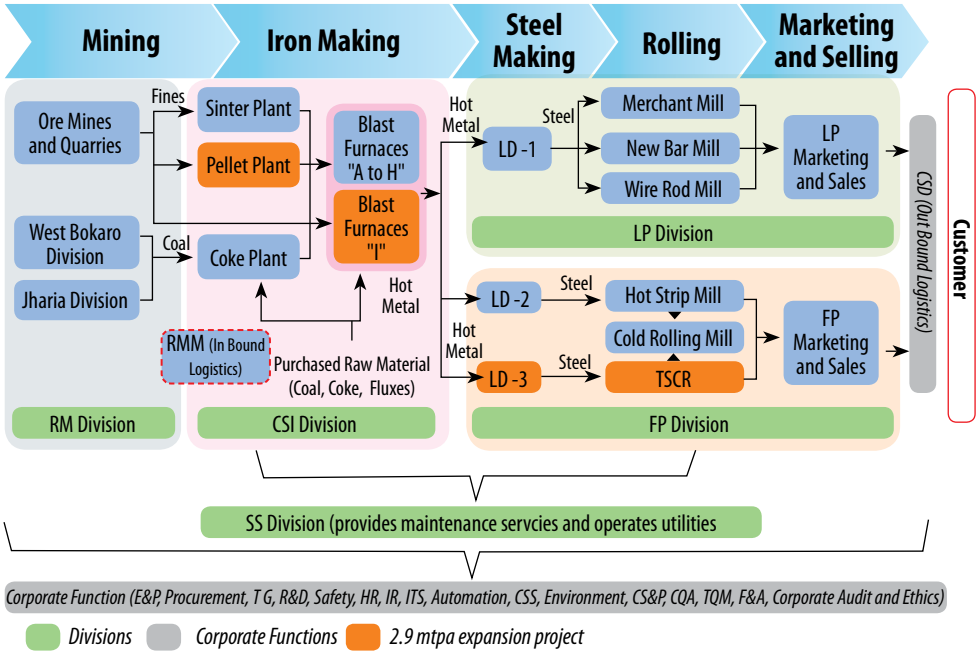
DISTRIBUTORS & CHANNEL PARTNERS	LARGE OE CUSTOMERS
• Distributor/Retailer Meets feedbacks • Focus Group Discussion • End users (Haat and Mela, mason / fabricators / mistry) meets • Influencer Meets like architect meets / fabricator meets • Consumer Meets • Distributor /Retailer visits • Customer Satisfaction Survey – distributors, retailers, fabricators • Call Centers	• Customer Value Management • Customer page • Customer visits by Sales Managers, Application Engineers, plant personnel, Senior Management • Visits by customer champions • Customer meets/customer forum / customer visits feedbacks • Customer Satisfaction Survey • Customer Service Team

Review of the Brand Health is obtained through feedback from various studies that in turn are inputs for improving the brand, channel and communication related to the brand.

QUALITY AIMED AT SAFE & RESOURCE EFFICIENT PRODUCTS

Tata Steel's Technology Roadmap requires its products to have safe and resource efficient designs. The technologies and processes used to manufacture them must optimise resources and be carbon efficient. The Company's Total Quality Management processes are aimed at continuously monitoring the safety and efficiency of its products through their lifecycle. While every process of Tata Steel from mining to manufacturing is reviewed under the Total Quality Management process, each product must undergo extremely stringent Technical Delivery Conditions, mandatory standards of customers aside from the applicable BIS standards.

The schematic diagram of the value chain (from mining to customer) is shown below:



The Company identifies the ecological and social impacts arising out of the value chain for the products / services of the organisation.

Listening to the stakeholders across the value chain helps to identify the issues apart from other internal analysis pertaining to OHSAS, SA8000 etc.

The Corporate Quality Assurance system has brought about a steep improvement in quality as it integrated existing Divisional quality assurance systems.

Product Rejections

Tata Steel tracks customer rejections and analyses the cause of such incidents.

Product and Service information

Tata Steel offers advisory services to its customers on the grades of steel to be used in various applications through a wide range of marketing communication practices.

Practices related to customer satisfaction

Tata Steel conducts product and market segment surveys to use the results as inputs and guidance for new product development, service innovations and solutions.

Customer Satisfaction is evaluated through regular Customer Satisfaction Studies done for each segment of the market through renowned third party agencies, in addition to other forms of feedback used to determine customer needs and expectations for products and services.

CUSTOMER SATISFACTION SURVEY (EXAMPLE: FLAT PRODUCTS)

	Overall		Overall		Overall
Auto	82->80	LCA	82->74	Steelium	89->87
	76->80		75->74		75->87
Galvano	88->86	Shaktee (Dealers)	40->76	Shaktee (Consumers)	6.9/10
	81->86				

STANDARDS, AND VOLUNTARY CODES RELATED TO MARKETING COMMUNICATIONS

Clause 3 of the Tata Code of Conduct requires products to be sold on their own merit. Product claims are syndicated prior to being communicated to customers.

Training and awareness for marketing and sales personnel covers the Tata Code of Conduct.

No incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services, non-compliance with regulations and voluntary codes concerning product and service information and labeling, regulations and voluntary codes concerning marketing communications, breaches of customer privacy or data, monetary claims for non-compliance was reported in 2012-13.

GLOSSARY OF TERMS

A		
AA	:	Affirmative Action
ABP	:	Annual Business Plan
AIDS		Acquired Immune Deficiency Syndrome
AHSS	:	Advanced high strength steels
Apprentices	:	Persons who have undergone a 3 year technical training course in specific skills or trades e.g. fitter, electrician, machinist etc. at institutes after passing high school.
Ash	:	Impurities consisting of silica, iron, alumina, and other incombustible matter that are contained in coal. Ash increases the weight of coal, adds to the cost of handling. Ash content is measured as a percent by weight of coal on an "as received" or as "dry" (moisture-free) basis.
B		
BO&S	:	Business Objectives & Strategies
Brown-field Expansion Capacity	:	expansion within existing manufacturing plant area.
BF	:	Blast Furnace
BF-BOF	:	Blast Furnace - Basic Oxygen Furnace (Steel Making)
C		
CAPL	:	Continuous annealing and processing line
Captive reserves	:	Tata Steel's own raw materials mines (both Iron Ore and Coal)
CC	:	Clean Coal
CDQ	:	Coke Dry Quenching
CGL	:	Continuous Galvanizing Line
Chosen Segments	:	Intended Market Segment (Automotive, Re-bar etc.)
Clean Coal	:	Final product after beneficiation of Raw Coal.
Cluster Training -	:	Training imparted to employees so that can acquire skills to perform a group / cluster of jobs
Co.	:	Company
Coal Beneficiation	:	Process of Cleaning the raw coal coming from mother earth and making ready for next process.
CO2	:	Carbon dioxide
Coke	:	A hard lumpy form of coal after heating at very high temperature to release moisture and volatile matter
Coking Coal	:	A type of coal used for making Coke
CRM	:	Cold Rolling Mill
CSD	:	Customer Service Department
CSI	:	Customer Satisfaction Index
CSR	:	Corporate Social Responsibility
CSS	:	Corporate Sustainability Services
CST	:	Customer Service Team
CTO	:	Consent To Operate
CVM	:	Customer Value Management
CVR	:	Customer Visit Report

D		
DAP	:	Deming Application Prize
DM	:	Daily Management
DGP	:	Deming Grand Prize
E		
EBIDTA	:	Earnings Before Interest, Taxes, Depreciation and Amortization
EC	:	Environmental Clearance
EPA	:	External Processing Agent
eQ Index Measurement index -	:	Trademark of AC Nielsen (independent survey agency)

E		
EVA	:	Economic Value Addition
EHI	:	Employee Happiness Index
ESI	:	Employee Satisfaction Index
F		
FAP	:	Ferro Alloys Plant
FAMD	:	Ferro Alloys & Minerals Division
Fe	:	Iron
FP	:	Flat Products
FY or fy	:	Financial Year (Starts with 1st April of one year and ends with 31st March of next year)
G		
GHG emission	:	Green House Gas emission
GI	:	Galvanized (Zinc Coated Steel Sheets)
Green Field	:	New Expansion Projects in locations where there was no industry earlier.
H		
High End Product	:	High tensile strength, high surface quality skin panel, high ductility re-bars etc.
HR	:	Human Resources
HDI	:	Human Development Index -Is a composite index that measures a country's, district /province or village level average achievements in three basic aspects of human development
HIV		Human Immunodeficiency Virus
High Tensile	:	Tensile Strength greater than 500 MPa
HM	:	Hot Metal
Highly skilled	:	Highly skilled work means work which calls for a degree of perfection and full competence in performance of certain task, acquired through extensive technical or professional training or practical work experience for long years and also required of a worker to assume full responsibility for the judgment or decision
HRC	:	Hot Rolled Coil

I		
IF	:	Interstitial Free
IF-HS	:	Interstitial Free High Strength Steel
IMR	:	Infant Mortality Rate: No. of infant deaths within 1 year of age for 1000 live births
ILO	:	International Labour Organization
IR	:	Industrial Relations
J		
Jharia	:	Coal Mine – under RM Division
JWQC	:	Joint Works Quality Council
Jigging Process	:	Process of Separating iron ore fines by density differentiation.
K		
KM	:	Knowledge Management
KPI	:	Key Performance Indicator. KPI and KPM are used in the same context
KPM	:	Key Performance Measure, KPM and KPI are used in the same context
KT	:	1000 Tonne
KVHS	:	"Kar Vijay Har Shikhar" one Hindi word and its meaning is conquering all peaks
kg/tcs Kg/	:	tonne crude steel
L		
LD	:	Linz Donawitz
LD#1, LD#2, LD#3	:	Name of Steel Making Facility
LD3 & TSCR	:	LD3 and Thin Slab Casting & Rolling
LP	:	Long Products
LTIFR	:	Loss Time Injury Frequency Rate. Any injury at work site that makes a person to remain away from duty for more than 48 hours is counted as loss time case.

L		
LTP	:	Long Term Plan
M		
m^3	:	Cubic metre
M&S	:	Marketing and Sales Manning Staffing or providing manpower as per requirement.
MASS	:	"Manthan ab Shop Floor Se" a copy right process in Knowledge Management to horizontally deploy the organizational knowledge through involvement of shop floor employees.
MD	:	Managing Director
MGD	:	Million Gallons per Day
MOU	:	Memorandum of Understanding
MT, mt	:	Million Tons
mtpa or MTPA	:	Metric Ton Per Annum
MoEF	:	Ministry of Environment & Forest
MW	:	Mega Watt

N		
NPD	:	New Product development
O		
OE / QEM	:	Original Equipment Manufacturer
OHI	:	Occupational Health Index
OMQ	:	Ore Mines and Quarries, a group of captive iron ore mines of Tata Steel.
P		
PAG	:	Product Application Group
PCI	:	Pulverised Coal Injection
PPP	:	Public Private Partnership
Profit Centre	:	Autonomous Division of Tata Steel with independent Corp. Functions and department. They have their own Profit & Loss Account.
PDCA	:	Plan-Do-Check-Act
PSRM	:	Process Safety & Risk management- A systematic approach to address the hazard having potential to create multiple fatality and sever
PSTA	:	Problem Solving & Task Achieving
Q		
QM	:	Quality Management
QA	:	Quality Assurance
R		
ROIC	:	Return on Invested Capital
R&D	:	Research & Development
Ref.	:	Reference
RM or RMD	:	Raw Materials, a division of Tata Steel which supplies coal and iron ore to Jamshedpur works for steel making.
RVM	:	Retail Value Management
S		
SGA	:	Small Group Activity
Skilled	:	Skilled work is one which involves skill or competence acquired through experience on the job or through training as an apprentice in a technical or vocational institute and performance which calls for initiative and judgment
SOP	:	Standard Operating Procedure
SS	:	Shared Services
SVM	:	Supplier Value Management
Slabs	:	Input for Hot Rolling, Steel Casted into a material stock of length 6 - 11 meter, width 900- 1550 mm, and thickness 210 mm
SME	:	Small & Medium Enterprises
SNTI	:	Shavak Nanavati Technical Institute
SS	:	Shared Services

T		
Tics, tics	:	Tons Crude Steel
TG	:	Technology Group
TMDC	:	Tata Management Development Center
TOC	:	Theory of Constraints
TQM	:	Total Quality Management
TRT	:	Top Gas Recovery Turbine
TS Alloys	:	TS Alloys Ltd, a subsidiary
TSCR	:	Thin Slab Casting and Rolling
TSL	:	Tata Steel Limited
Toss	:	tonnes of saleable steel
TPM	:	Total Productive Maintenance
TQM	:	Total Quality Management
U		
Ultimate tensile strength	:	The maximum load which a material can withstand before necking in while stretching
UOM or UoM	:	Unit of measurement
	:	Up skilling Skill training imparted to employees so that they can perform jobs that need skills of one level higher than their current job.
V		
VIU	:	(Value in use) Concept to decide on the clean coal ash based on crude steel cost model. Clean coal is taken for the year, which gives minimum steel cost.
VMI	:	Vendor Managed Inventory
VP	:	Vice President
VOC	:	Voice of Customer
W		
West Bokaro Coal Mine	:	under RM Division
WHR	:	Waste Heat Recovery
WRM	:	Wire Rod Mill
WSA	:	World Steel Association (worldsteel)
Y		
Yield	:	Output of process divided by Input to the process.
YS	:	Yield Strength (measure of mechanical properties)
OTHERS		
4Q	:	4 Quadrant
9.7 mtpa	:	Brown-field expansion project at Jamshedpur Works for increasing capacity by 2.9mtpa (from 6.8 mtpa)

GRI G3.1 CONTENT INDEX - MINING & METALS SECTOR SUPPLEMENT (APPLICATION LEVEL A+)

STANDARD DISCLOSURES PART I

	Description	Reported	Page	2013 Response / UNGC CoP
1. Strategy and Analysis				
1.1	Statement from the most senior decision-maker of the organization.	●	Page 2	DA / Statement of continuing support
1.2	Description of key impacts, risks, and opportunities.	●	Page 8	Direct Answer
2. Organizational Profile				
2.1	Name of the organization.	●	Page 22	Direct Answer
2.2	Primary brands, products, and/or services.	●	Page 24	Direct Answer
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.	●	Page 22	Direct Answer / www.tatasteel.com/ www.tatasteelindia.com
2.4	Location of organization's headquarters.	●	Page 22	Direct Answer
2.5	Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.	●	Page 22	Direct Answer
2.6	Nature of ownership and legal form.	●	Page 22	Direct Answer
2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).	●	Page 24	Direct Answer
2.8	Scale of the reporting organization.	●	Page 22/ 23	Direct Answer
2.9	Significant changes during the reporting period regarding size, structure, or ownership.	●	Page 26	Direct Answer/ Annual Report - page 98
2.10	Awards received in the reporting period.	●	Page 25	Direct Answer
3. Report Parameters				
3.1	Reporting period (e.g., fiscal/calendar year) for information provided.	●	Page 28	Direct Answer
3.2	Date of most recent previous report (if any).	●	Page 28	Direct Answer
3.3	Reporting cycle (annual, biennial, etc.)	●	Page 28	Direct Answer
3.4	Contact point for questions regarding the report or its contents.	●	Page 30	Direct Answer
3.5	Process for defining report content.	●	Page 28	Direct Answer
3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers). See GRI Boundary Protocol for further guidance.	●	Page 27-28	Direct Answer
3.7	State any specific limitations on the scope or boundary of the report (see completeness principle for explanation of scope).	●	Page 28	Direct Answer
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations.	●	Page 28	Direct Answer
3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report. Explain any decisions not to apply, or to substantially diverge from, the GRI Indicator Protocols.	●	Page 30	Direct Answer

3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g.,mergers/acquisitions, change of base years/periods, nature of business, measurement methods)	●	Page 28	Direct Answer
3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.	●	Page 28	Direct Answer
3.12	Table identifying the location of the Standard Disclosures in the report.	●	Pages 167-174	Direct Answer
3.13	Policy and current practice with regard to seeking external assurance for the report.	●	Page 30	Direct Answer
4. Governance, Commitments, and Engagement				**UNGCCoP 1-10**
4.1	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight.	●	Page 36	Cross-reference/ Annual Report pages 79 to 100
4.2	Indicate whether the Chair of the highest governance body is also an executive officer.	●	Page 36	Cross-reference/ Annual Report pages 79 to 100
4.3	For organizations that have a unitary board structure, state the number and gender of members of the highest governance body that are independent and/or non-executive members.	●	Page 36	Cross-reference/ Annual Report page 83
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	●	Page 40	Direct Answer / Annual Report Page 88
4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and environmental performance).	●	Page 36	Cross-reference/ Annual Report pages 79 to 100
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	●	Page 33/ 36	Cross-reference/ Annual Report pages 79 to 100
4.7	Process for determining the composition, qualifications, and expertise of the members of the highest governance body and its committees, including any consideration of gender and other indicators of diversity.	●	Page 36	Cross-reference/ Annual Report pages 79 to 100
4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.	●	Page 32	Direct Answer
4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.	●	Page 37	Direct Answer
4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.	●	Page 36	Cross-reference/ Annual Report pages 79 to 100
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization.	●	Page 38	DA / Principle 7
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.	●	Page 39	Direct Answer
4.13	Memberships in associations (such as industry associations) and/or national/international advocacy organizations in which the organization: * Has positions in governance bodies; * Participates in projects or committees; * Provides substantive funding beyond routine membership dues; or * Views membership as strategic.	●	Page 39	Direct Answer
4.14	List of stakeholder groups engaged by the organization.	●	Page 40-48	Direct Answer
4.15	Basis for identification and selection of stakeholders with whom to engage.	●	Page 40-48	Direct Answer

4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	●	Page 40-48	Direct Answer
4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting.	●	Page 40-48	Direct Answer

STANDARD DISCLOSURES PART II & PART III				
ECONOMIC				UNGCCoP 1, 4, 6, 7
DMA	Economic performance	●	Page 50	Direct Answer
DMA	Market presence	●	Page 51	Direct Answer
DMA	Indirect economic impacts	●	Page 8-9	Direct Answer
EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.	●	Page 54	Direct Answer
EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change.	●	Page 55	DA / Principle 7
EC3	Coverage of the organization's defined benefit plan obligations.	●	Page 55	Direct Answer
EC4	Significant financial assistance received from government.	●	Page 54	None
EC5	Range of ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation.	●	Page 101	Cross referenced to LA 14/ Equal Opportunity Employer / 1
EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.	●	Page 55	Direct Answer
EC7	Procedures for local hiring and proportion of senior management and workforce hired from the local community at significant locations of operation.	●	Page 56	Direct Answer / Principle 6
EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.	●	Page 56	Direct Answer
EC9	Understanding and describing significant indirect economic impacts, including the extent of impacts.	●	Page 58/ 112	Direct Answer
ENVIRONMENTAL				UNGCCoP 7, 8, 9
DMA	Materials	●	Page 62	Direct Answer
DMA	Energy	●	Page 63	
DMA	Water	●	Page 80	
DMA	Biodiversity	●	Page 86	
DMA	Emissions, effluents and wasteCOMM	●	Page 63	
DMA	Products and services	●	Page 76	
DMA	Compliance	●	Page 35	
DMA	Transport	●	Page 92	
DMA	Overall	●	Page 65	
EN1	Materials used by weight or volume.	●	Page 66	DA / Principle 8
EN2	Percentage of materials used that are recycled input materials.	●	Page 66	DA / Principle 8,9
EN3	Direct energy consumption by primary energy source.	●	Page 71	DA / Principle 8

EN4	Indirect energy consumption by primary source.	●	Page 71	DA / Principle 8
EN5	Energy saved due to conservation and efficiency improvements.	●	Page 73	DA / Principle 8,9
EN6	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.	●	Page 76	DA / Principle 8,9
EN7	Initiatives to reduce indirect energy consumption and reductions achieved.	●	Page 73	DA / Principle 8,9
EN8	Total water withdrawal by source.	●	Page 80	DA / Principle 8
EN9	Water sources significantly affected by withdrawal of water.	●	Page 80/ 84	DA / Principle 8
EN10	Percentage and total volume of water recycled and reused.	●	Page 80/ 84	DA / Principle 8,9
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	●	Page 86	DA / Principle 8
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	●	Page 86	DA / Principle 8
MM1	Amount of land (owned or leased, and managed for production activities or extractive use) disturbed or rehabilitated.	●	Page 86	DA / Principle 8
EN13	Habitats protected or restored.	●	Page 87	DA / Principle 8
EN14	Strategies, current actions, and future plans for managing impacts on biodiversity.	●	Page 87	DA / Principle 8
MM2	The number and percentage of total sites identified as requiring biodiversity management plans according to stated criteria, and the number (percentage) of those sites with plans in place.	●	Page 87	DA / Principle 8
EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.	●	Page 87	DA / Principle 8
EN16	Total direct and indirect greenhouse gas emissions by weight.	●	Page 76	DA / Principle 8
EN17	Other relevant indirect greenhouse gas emissions by weight.	●	Page 79	DA / Principle 8
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.	●	Page 76	DA / Principle 7, 8, 9
EN19	Emissions of ozone-depleting substances by weight.	●	Page 79	DA / Principle 8
EN20	NOx, SOx, and other significant air emissions by type and weight.	●	Page 79	DA / Principle 8
EN21	Total water discharge by quality and destination.	●	Page 82/ 84	Only at Steel Works/ Zero Discharge at Mines and Collieries / 8
EN22	Total weight of waste by type and disposal method.	●	Page 70	DA / Principle 8
MM3	Total amounts of overburden, rock, tailings, and sludges and their associated risks.	●	Page 89	DA / Principle 8
EN23	Total number and volume of significant spills.	●	_	None / Principle 8
EN24	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally.	●	_	Not applicable / Principle 8
EN25	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff.	●	Page 90	DA / Principle 8
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	●	Page 76	Direct Answer / Principle 7, 8, 9
EN27	Percentage of products sold and their packaging materials that are reclaimed by category.	●	Page 91	Direct Answer / Principle 8, 9
EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.	●	Page 35	None / Principle 8

EN29	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.	●	Page 92	Direct Answer / Principle 8
EN30	Total environmental protection expenditures and investments by type.	●	Page 92	Rs 258.83 crores / Principle 7, 8, 9
SOCIAL: LABOUR PRACTICES AND DECENT WORK				UNGCCoP 1, 3, 6
DMA	Employment	●	Page 94	
DMA	Labor/management relations	●	Page 94	
DMA	Occupational health and safety	●	Page 94	
DMA	Training and education	●	Page 94	
DMA	Diversity and equal opportunity	●	Page 94	
DMA	Equal remuneration for women and men	●	Page 94	
LA1	Total workforce by employment type, employment contract, and region, broken down by gender.	●	Page 96	35905
LA2	Total number and rate of new employee hires and employee turnover by age group, gender, and region.	●	Page 97	1951 and 5.43 per cent / Principle 6
LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.	●	Page 98-99	Direct Answer
LA15	Return to work and retention rates after parental leave, by gender.	●	Page 97	35 and 97 per cent "Retention Rate is 100 per cent in the case of non officers"
LA4	Percentage of employees covered by collective bargaining agreements.	●	Page 99	~ 85 percent" / Principle 1, 3
LA5	Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements.	●	Page 100	Direct Answer / Principle 3
MM4	Number of strikes and lock-outs exceeding one week's duration, by country.	●	Page 99	None / Principle 1
LA6	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs.	●	Page 107	Direct Answer / Principle 1
LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region and by gender.	●	Page 108/ 164	LTIFR of 0.48 and six fatalities / Principle 1
LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	●	Page 111	Direct Answer / Principle 1
LA9	Health and safety topics covered in formal agreements with trade unions.	●	Page 108	Direct Answer / Principle 1
LA10	Average hours of training per year per employee by gender, and by employee category.	●	Page 103	36.88 hours per employee per year / Principle 1
LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	●	Page 106	Direct Answer
LA12	Percentage of employees receiving regular performance and career development reviews, by gender.	●	Page 102	Direct Answer
LA13	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity.	●	Page 96/ 101	Direct Answer / Principle 1, 6

LA14	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation.	●	Page 101	Direct Answer/ Principles 1, 6
SOCIAL: HUMAN RIGHTS				UNGCCoP 1 - 6
DMA	Investment and procurement practices	●	Page 116	
DMA	Non-discrimination	●	Page 116/ 123	
DMA	Freedom of association and collective bargaining	●	Page 116/ 124	
DMA	Child labor	●	Page 116	
DMA	Prevention of forced and compulsory labor	●	Page 116	
DMA	Security practices	●	Page 116	
DMA	Indigenous rights	●	Page 117	
DMA	Assessment	●	Page 116	
DMA	Remediation	●	Page 116	
HR1	Percentage and total number of significant investment agreements and contracts that include clauses incorporating human rights concerns, or that have undergone human rights screening.	●	Page 120	Significant Suppliers / Principles 1 - 6
HR2	Percentage of significant suppliers, contractors and other business partners that have undergone human rights screening, and actions taken.	●	Page 120	Significant Suppliers / Principles 1 - 6
HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.	●	Page 121	All employees are covered through training on Tata Code of Conduct. / Principles 1 - 6
HR4	Total number of incidents of discrimination and corrective actions taken.	●	Page 34/ 123	Number of concerns raised have been reported with breakup of categories under Chapter 4/ Management of Business Ethics / 1, 2, 6
HR5	Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights.	●		Direct Answer / Principles 1, 2, 3
HR6	Operations and significant suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor.	●	Page 123	Direct Answer / Principles 1, 2, 5
HR7	Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor.	●	Page 123	Direct Answer / Principles 1, 2, 4
HR8	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.	●	Page 124	Direct Answer / Principles 1, 2
MM5	Total number of operations taking place in or adjacent to Indigenous Peoples' territories, and number and percentage of operations or sites where there are formal agreements with Indigenous Peoples' communities.	●	Page 117	Direct Answer
HR9	Total number of incidents of violations involving rights of indigenous people and actions taken.	●	Page 34	Number of concerns raised have been reported with breakup of categories under Chapter 4/ Management of Business Ethics / Principles 1, 2
HR10	Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments.	●	Page 120	Direct Answer / Principles 1 - 6

HR11	"Number of grievances related to human rights filed, addressed and resolved through formal grievance mechanisms."	●	Page 34	Number of concerns raised have been reported with breakup of categories under Chapter 4/ Management of Business Ethics / 1 - 6
SOCIAL: SOCIETY				UNGCCoP 10
DMA	Local communities	●	Page 9/ 126	Direct Answer
DMA	Artisanal and small-scale mining	●	Page 151	Direct Answer
DMA	Resettlement	●	Page 46/150	Direct Answer
DMA	Closure planningCOMM	●	Page 130	Direct Answer
DMA	Grievance mechanisms and procedures	●	Page 43/45/98/128	Direct Answer
DMA	Emergency Preparedness	●	Page 64	Direct Answer
DMA	Corruption	●	Page 33	Cross referenced to Chapter 4/ Management of Business Ethics
DMA	Public policy	●	Page 47	Direct Answer
DMA	Anti-competitive behavior	●	Page 163	Direct Answer
DMA	Compliance	●	Page 35	Direct Answer
SO1	Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting.	●	Page 126-127	Direct Answer
SO1 (G3.1)	Percentage of operations with implemented local community engagement, impact assessments, and development programs.	●	Page 128	Direct Answer
MM6	Number and description of significant disputes relating to land use, customary rights of local communities and Indigenous Peoples.	●	Page 150	Direct Answer
MM7	The extent to which grievance mechanisms were used to resolve disputes relating to land use, customary rights of local communities and Indigenous Peoples, and the outcomes.	●	Page 150	Direct Answer
MM8	Number (and percentage) or company operating sites where artisanal and small-scale mining (ASM) takes place on, or adjacent to, the site; the associated risks and the actions taken to manage and mitigate these risks.	●	Page 151	Direct Answer
MM9	Sites where resettlements took place, the number of households resettled in each, and how their livelihoods were affected in the process.	●	Page 150	Direct Answer
MM10	Number and percentage of operations with closure plans.	●	Page 130	Direct Answer
SO9	Operations with significant potential or actual negative impacts on local communities.	●	Page 58/ 129	Direct Answer
SO10	Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities.	●	Page 112	Direct Answer
SO2	Percentage and total number of business units analyzed for risks related to corruption.	●	Page 33	Cross referenced to Chapter 4/ Management of Business Ethics / 10
SO3	Percentage of employees trained in organization's anti-corruption policies and procedures.	●	Page 34	Cross referenced to Chapter 4/ Management of Business Ethics / 10
SO4	Actions taken in response to incidents of corruption.	●	Page 34	Number of concerns raised have been reported with breakup of categories under Chapter 4/ Management of Business Ethics / 10

SO5	Public policy positions and participation in public policy development and lobbying.	●	Page 47	Direct Answer / Principle 1 - 10
SO6	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.	●	Page 47	None / Principle 10
SO7	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes.	●	Page 35	None
SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.	●	Page 35	No pending non-monetary actions
SOCIAL: PRODUCT RESPONSIBILITY				UNGC CoP 1-8
DMA	Materials stewardship	●	Page 153	Direct Answer
DMA	Customer health and safety	●	Page 153	Direct Answer
DMA	Product and service labelling	●	Page 162	Direct Answer
DMA	Marketing communications	●	Page 153	Direct Answer
DMA	Customer privacy	●	Page 153	Direct Answer
DMA	Compliance	●	Page 153	Direct Answer
MM11	Programs and progress relating to materials stewardship.	●	Page 157	Direct Answer
PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.	●	Page 161	Direct Answer / Principle 1
PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.	●	Page 163	Direct Answer / Principle 1
PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.	●	Page 162	Direct Answer / Principle 8
PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.	●	Page 163	Direct Answer / Principle 8
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.	●	Page 162	Direct Answer
PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.	●	Page 163	Direct Answer
PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes.	●	Page 163	Direct Answer
PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.	●	Page 163	Direct Answer / Principle 1
PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.	●	Page 163	Direct Answer

KEY

● : Fully Reported

DA : Fully Reported/ Direct Answer

UNGCCoP: United Nations Global Compact Communication on Progress

INDEPENDENT ASSURANCE STATEMENT

Introduction

Det Norske Veritas AS ('DNV') has been commissioned by the management of Tata Steel Limited ('Tata Steel' or 'the Company') to carry out an independent assurance engagement on the Company's Corporate Sustainability Report 2012 -13 ('the Report') in the printed format. This assurance engagement has been conducted against the Global Reporting Initiative 2011 Sustainability Reporting Guidelines Version 3.1 (GRI G3.1) and DNV Protocol for Verification of Sustainability Reporting. The verification was conducted during October to December 2013, for the year of activities covered in the Report i.e. 1st April 2012 to 31st March 2013.

The intended users of this assurance statement are the management of Company and readers of the Tata Steel's Corporate Sustainability Report 2012-13. The management of Tata Steel is responsible for all information provided in the Report as well as the processes for collecting, analyzing and reporting the information. DNV's responsibility regarding this verification is to the Company only and in accordance with the agreed scope of work. The assurance engagement is based on the assumption that the data and information provided to us is complete and true. DNV expressly disclaims any liability or co-responsibility for any decision a person or entity would make based on this Assurance Statement.

Scope, Boundary and Limitations of Assurance

The scope of work agreed upon with Tata Steel includes verification of the following:

- The scope of work agreed upon with Tata Steel includes verification of the following:
- The content of the Corporate Sustainability Report 2012-13 i.e. review of the policies, initiatives, practices and performance described in the Report as well as references made in the Report to Tata Steel's Annual Report 2012-13;
- Review of Tata Steel's Corporate Sustainability Report for 2012-13 so developed as per Application Level A of the GRI G3.1 Guidelines and GRI 'Mining and Metals Sector Supplement' (MMSS);
- Review of the Report against the requirements of VeriSustain (DNV Protocol for Verification of Sustainability Reporting) with a moderate level of assurance:
  - Information relating to company's sustainability issues, responses, performance data, case studies and underlying systems for the management of such information and data as presented in the Report;
  - Information relating to company's materiality assessment and stakeholder engagement processes;
- Confirmation that the report meets the GRI G3.1 Application Level A+, as declared by the Company.

The reporting boundary is as set out in the Report and covers production and manufacturing operations from its assets in India operations i.e. Steel Works and Tubes division at Jamshedpur, Raw Materials Division, and Profit Centres located at various locations in India; no limitations on the scope of the assurance engagement were encountered during the verification process.

Verification Methodology

This assurance engagement was planned and carried out in accordance with the DNV Protocol for Verification of Sustainability Reporting. The Report has been evaluated against the following criteria:

- Adherence to the principles of Stakeholder Inclusiveness, Materiality, Responsiveness, Completeness Neutrality and the reliability of the specified sustainability performance information as set out in DNV's Protocol, as required for a moderate level assurance engagement;
- The principles and requirements of the GRI G3.1 for an application level A+.

1 www.dnv.com/services/assessment/corporate_responsibility/services_solutions/sustainabilityreporting/order/

As part of the engagement, DNV has verified the statements and claims made in the Report and assessed the robustness of the underlying data management system, information flow and controls. In doing so, we have:

- Reviewed the Company's approach to stakeholder engagement and its materiality determination process;
- Verified the sustainability-related statements and claims made in the Report and assessed the robustness of the data management system, information flow and controls;
- Examined and reviewed documents, data and other information made available by Company;
- Visited the Jamshedpur Steel Works, Noamundi and Joda Mines, Tata Tubes – Jamshedpur, and Wire Division, Mumbai;
- Conducted interviews with key representatives including data owners and decision-makers from different divisions and functions of the company;
- Performed sample-based reviews of the mechanisms for implementing the Company's sustainability related policies, as described in the Report;
- Performed sample-based checks of the processes for generating, gathering and managing the quantitative data and qualitative information included in the Report.

Conclusions

The Tata Steel Corporate Sustainability Report 2012-13, provides a fair representation of the Company's sustainability policies, objectives, management approach and performance during the reporting year. We confirm that the Report, along with the referenced information in the Annual Report, meets the general content and quality requirements of GRI G3.1 and the requirements for GRI application level A+. We have evaluated the Report's adherence to the following principles on a scale of **'Good', 'Acceptable' and 'Needs Improvement':**

Materiality: The materiality determination process is based on inputs from stakeholder engagement i.e. employees, leadership team and peer reporting of material issues related to global metal and mining sector and the report focusses on fifteen (15) key material aspects at macro level. The report does not bring out the relative materiality of aspects and issues in the sustainability context in an explicit way. In our opinion, the level at which the Report adheres to this principle is **'Acceptable'.**

Stakeholder Inclusiveness: The Company has built up robust internal mechanism and had engaged themselves in strategic dialogue with identified stakeholders during the year through different channels. The material issues emerging from the stakeholder engagement were continually validated by the top management team and realigned with organizational priorities and the results are reflected in the Report. In our opinion, the level at which the Report adheres to this principle is **'Good'.**

Responsiveness: We consider that the Company has adequately responded to identified key sustainability aspects and challenges in the local sustainability context including aspects related to metal and mining sector, within the reporting boundary; Tata Steel has implemented management systems with sustainability as focus, related to social, environment, health and safety to manage its key risks and opportunities. In our view, the level at which the Report adheres to this principle is **'Good'.**

Completeness: The scope of the Report covers disclosures on economic, environment and social aspects and performance indicators related to GRI 3.1 and Mining and Metal sector supplement for application level A; the reporting boundary has been systematically selected to cover the entities over which it has operational control. The Report adequately responds to the disclosure requirements for application level A. In our opinion, the level at which the Report adheres to this principle is **'Good'.**

Reliability: The majority of data and information verified at Steel Works and Mines at Jamshedpur and Wire Division at Mumbai site were found to be accurate. Some of the data inaccuracies identified during the verification process were found to be attributable to transcription, interpretation and aggregation errors and the errors have been communicated for correction and corrected. We consider the methodology and process for gathering information developed by the Company for its sustainability performance reporting is appropriate and the qualitative and quantitative data included in the Report, was found to be identifiable and traceable; the personnel responsible was able to demonstrate the origin and interpretation of the data and its reliability. In our opinion, the level at which the Report adheres to this principle is **'Good'.**

Neutrality: This Report presents a balanced account of the Company's sustainability performance, related issues and performance indicator, in terms of content and tone. In our opinion, the level at which the Report adheres to this principle is **'Good'.**

Opportunities for Improvement

The following is an excerpt from the observations and opportunities for improvement reported to the management of Company and are considered for drawing our conclusion on the Report; however they are generally consistent with the management's objectives:

- Further strengthening the materiality determination process and linking them to sustainability drivers will help to improve the organisation's sustainability performance, including timely detection of emerging issues and opportunities;
- Designing and implementing further checks and balances to monitor environment management and corporate sustainability practices can bring synergy between operational practices and resource augmentation and utilisation programme;
- Reinforcing the Company's occupational health and safety programmes may safeguard its Policy on ensuring zero harm to diverse stakeholder groups;
- Integration of sustainability performance data verification as part of the Company's existing system of internal audits of management systems can further improve the quality of quantitative and qualitative data for future reporting;

DNV's Competence and Independence

DNV is a global provider of sustainability services, with qualified environmental and social assurance specialists working in over 100 countries. DNV states its independence and impartiality with regard to this assurance engagement. While DNV did conduct other third party audits work with Tata Steel in 2012-13, in our judgement this does not compromise the independence or impartiality of our assurance engagement or associated findings, conclusions and recommendations. DNV was not involved in the preparation of any statements or data included in the Report, with the exception of this Assurance Statement. DNV maintains complete impartiality toward any people interviewed.

For Det Norske Veritas AS,

Prasun Kundu
Project Manager,
Det Norske Veritas AS, India.

Antonio Astone
Assurance reviewer,
Global Sustainability Manager
DNV Business Assurance, Italy.

Kolkata, India, 31st December 2013.

TATA STEEL ADJUDGED THE BEST PERFORMING INTEGRATED STEEL PLANT FOR 2011-12 AWARDED IN 2012-13

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