Setting the Pace Honesty and Integrity Respecting the Environment Continuous Improvement **TATA STEEL** Aspirational Targets Improvi



Social Responsibility

Acting with Responsibility and Respect Aspirational Targets
Openness and Transparency

Respecting the Environment Continuous Improvement Caring for our Communities Employer of Choice

Reducing the Employer of Claring the Environment Caring Supplies and S

Demonsta Pipe Philipate Ethical Values

Honesty and Margets Aspirational Targets Caring for our Communities

Continuous Improvement Employer of Choice

Openness and Transparency Aspirational Targets

Improving Safety Setting the Pace Reducing our Carbon Footprir

Reducing our Carbo

**Employer of Choice** 

Acting with Responsibility



Aspirational Targets Caring for our Communities

# TATA STEEL Improving quality of life

Tata Steel believes the real purpose of industry is the betterment of people. The measure of our success is thus not an administrative unit or economic unit but our impact on the overall quality of life of all our stakeholders, including the nations in which we operate. From a single-location company, Tata Steel now operates in 26 countries with a commercial presence in 50 countries - making it the world's second most diversified steel corporation.

#### **A Shared Vision**

The Vision of this global entity the Tata Steel Group is to become the world steel industry benchmark in value creation and corporate citizenship.

Tata Steel will make the difference through:

- Our people by fostering team work, nurturing talent, enhancing leadership capability and acting with pace, pride and passion.
- Our innovative approach by developing leading edge solutions in technology, processes and products.
- Our offer by becoming the supplier of choice, delivering premium products and services and creating value with our customers.
- Our conduct by providing a safe working place, respecting the environment, caring for our communities and demonstrating high ethical standards.

#### **2012 Goals:**

- Value Creation: Increase the return on invested capital (ROIC) to 30% from existing assets and generate strategic growth.
- Safety: Reduce Lost Time Injury Frequency (LTIF) to 0.4.
- Environment: Reduce CO<sub>2</sub> emissions to <1.7 tonnes per tonne of liquid steel (t/tls).





## Corporate Sustainability Report 2008

#### **Contents**

Managing Director's Statement
Independent Assurance Report by
M/s. Ernst & Young Pvt. Ltd.
Tata Steel and Sustainability
Economic Performance
Environmental Performance
Social Performance

South East Asia Report:
Nat Steel Holdings & Tata Steel Thailand
Sustainability reports 2007 - 08
Further Information
Glossary
Consolidated Index of GRI Indicators
Self-declaration on Application Level



### **CONTENTS**

IVI	lanaging Director's Statement	IV
In	ndependent Assurance Report by M/s. Ernst & Young Pvt. Ltd	vi
Ta	ata Steel and Sustainability	
	Strategy and Analysis: Risks, Challenges and Opportunities	03
	Organisational Profile	09
	Report Parameters	15
	Governance, Commitments and Engagements	17
E	conomic Performance	
	Management Approach	29
	Economic Impacts	30
	Market Presence	35
	Indirect Economic Impacts	36
	R&D : Technology and Innovation.	38
Er	nvironmental Performance	
	Management Approach	41
	Materials	41
	Energy	42
	Water	44
	Biodiversity	45
	Emissions, Effluents and Wastes	47
	Products and Services	52
	Environmental Compliance	52
	Transport	53
	Environmental Protection Expenditure	53
So	ocial Performance	
	Labour Practices	57
	Management Approach	57
	Employment	58
	Labour-Management Relations	59
	Occupational Health and Safety	60
	Training and Education	64
	Diversity and Equal Opportunity	66
	Human Rights	67
	Management Approach	67

Investment and Procurement Practices	68
Non-Discrimination	68
Freedom of Association and Collective Bargaining	69
Child Labour	69
Forced and Compulsory Labour	70
Security Practices	70
Rights of Indigenous People	70
Society	71
Management Approach	71
Community Impacts	71
Corruption	78
Public Policy	79
Anti-Competitive Behaviour	80
Compliance	80
Product Responsibility	81
Management Approach	81
Customer Health and Safety	81
Product Information and Labelling	82
Customer Satisfaction	83
Marketing Communications	84
Customer Privacy	84
South East Asia Report	
NatSteel Holdings Corporate Sustainability report 2008	87
Tata Steel (Thailand) Corporate Sustainability report 2008	116
Further Information Control of the C	
Tata Code of Conduct and Code for Non-Executive Directors	129
Tata Steel Policies	134
UN Global Compact Principles	137
Tata Corporate Sustainability (Group) Policy	137
Supplementary Environmental Information	138
Glossary	142
Consolidated Index of GRI Indicators	144
Self-declaration on Application Level	

# Managing Director's Statement



Dear Stakeholders,

Last year Tata Steel celebrated its centenary. With its long and distinguished history, the Company has demonstrated its ability to conduct business in a sustainable way, which guarantees its continued licence to operate and improves the quality of life of the people it touches.

In order to survive and grow, a company must be flexible and respond to change. Tata Steel is proud of its development over the years and its recent transformation into a multinational steel company - now the sixth largest in the world. It is equally proud of its rich heritage and its enduring ethos of corporate citizenship.

From its earliest days, Tata Steel has taken responsibility for the impact of its activities on all stakeholders. It has been a pioneer in employee welfare measures and social and community initiatives. Now, as climate change and depletion of the world's natural resources become key challenges, the Company is seeking to go beyond its legal mandate, to be a responsible environmental citizen and conserve precious global resources.

The acquisition of Corus, consummated in April 2007, was a major milestone in the Company's journey of becoming global. Our operations expanded significantly and became more geographically diverse. Production capacity increased to over 28 million tonnes. During the year 2007-08, Tata Steel Group undertook a major integration programme between its operations in the UK, Netherlands, India and South-East Asia. This resulted in a new structure and integrated Board of Directors for the Group and consolidated financials.

A shared Vision has been developed for Tata Steel Group, supported by four ambitious goals to be achieved by 2012. The Group aspires to be the world benchmark for value creation and corporate citizenship. It has prioritised key goals on safety, carbon dioxide emissions, value

creation and becoming an employer of choice. Our performance on these priority issues is already encouraging. This year Tata Steel's injury frequency rate reduced significantly and there was a 22% reduction in reportable accidents. Our CO<sub>2</sub> emissions reduced by 4.2% to 2.04 t/tcs. In addition, dust emissions from stacks were reduced from 0.96 kg/tcs to 0.88 kg/tcs. Across the Group, we will work hard in the coming years in order to achieve the challenging targets we have set for ourselves.

The Tata Steel and Corus operations are being run as one enterprise driven by one common Vision and goals. Performance improvement initiatives are underway at various locations and these are expected to bring substantial improvements in operating efficiencies and reduction in cost. In addition, good practices are being shared which will help us improve our safety and environmental performance and to further develop our programme of caring for our communities.

2007-08 was a historic year for Tata Steel. It was the hundredth year for the Company. It was the first year of integration with Corus. The Company's financial performance was its best ever. The Consolidated Group net turnover was Rs. 1,321 billion (USD 33 billion) with a profit after tax (after minority interest and share of profit of associates) of more than Rs. 123 billion (USD 3 billion), robust increases of 415% and 196% respectively. While there were cost increases in iron ore and coal, steel prices also increased and efforts in performance improvement and benefits due to integration also contributed to the healthy financial performance.

Looking into the future, we see continued demand for steel as a principal base material for most industrial products. Within India itself, the country's growing prosperity is expected to result in a dramatic increase in the demand for steel to meet the infrastructure needs associated with economic growth. Demand is also likely to grow in China and Brazil, as well as the emerging economies of South East Asia, Africa and the Middle East.

The demand for raw materials, and therefore price, will remain at levels higher than historical averages. Raw material security is a critical factor in ensuring the Company's long-term success. Recent price increases have only served to emphasise the importance of securing a steady and reliable supply of such materials to enable planned growth and increased production. Focused efforts are therefore being made by the Company to achieve higher levels of raw material security. We are actively exploring opportunities for joint ventures in resource-rich countries, and seeking fresh leases for new iron ore and coal operations to support the greenfield projects in Orissa, Chhattisgarh and Jharkhand. We will continue to work with mining companies to secure the availability of iron ore and coking coal for the Corus operations in the UK and the Netherlands. In 2007-08 Tata Steel Group announced major joint ventures in Mozambique, Ivory Coast, Oman and India.

In seeking new opportunities and expanding its operations, the Company will continue to follow its Founder's ethos of enhancing the quality of life of local people. We welcome the opportunity to work with diverse stakeholders across the globe and to play our part in sustainable development and inclusive growth. In 2007-08 the Company made social and community investments in India of Rs. 963.7 million. NatSteel Holdings pledged SGD 1 million over three years to community initiatives under its corporate social responsibility plan 'Building Beyond Borders'.

Our activities are always guided by responsible and ethical business principles. In July 2007, the Tata Code of Conduct was launched in Tata Steel (Thailand) and NatSteel. An initiation process has also commenced with Corus. The Code and supporting policies set out standards of ethical behaviour for the Company and its people and these are promoted to employees, suppliers and contractors during 'Ethics Month', and monitored at the highest level.

Transparency and accountability are fundamental to our business approach. We are committed to an open, regular and transparent reporting process, which helps our stakeholders to hold us accountable and thereby helps us to improve. I am delighted to present the Corporate Sustainability Report of Tata Steel for the year

2007/08. This has been prepared according to GRI G3 guidelines. Tata Steel was the first Indian company to adopt the stringent guidelines under the Global Reporting Initiative and this is our seventh consecutive report. I am particularly pleased this year to be able to present reports from our South-East Asian operations, NatSteel Holdings and Tata Steel (Thailand), presented as an annexure to the main report. Although these operations are not yet fully following GRI G3 guidelines in sustainability reporting, this is a first step in that direction.

This report represents a balanced and reasonable presentation of our organisation's economic, environmental and social performance for evaluation by our esteemed stakeholders. We welcome your feedback.

B. Muthuraman Managing Director Tata Steel Limited

Mullimanian

Date: December 2008 Place: Jamshedpur





The Board of Directors

Tata Steel Limited

Bombay House, 24 Homi Mody Street

Mumbai, India.

#### **OUR ENGAGEMENT**

Ernst & Young Pvt. Ltd. (EY) was retained by Tata Steel Limited (the Company) to provide an independent assurance on its Corporate Sustainability Report for the financial year 2007-2008. The Company's management is responsible for the content of the report, identification of key issues, engagement with stakeholders and its presentation. EY's responsibility is to provide independent assurance on the report content as described in the scope of assurance. Our responsibility in performing our assurance activities is to the management of the Company only and in accordance with the terms of reference agreed with the Company. We do not therefore accept or assume any responsibility for any other purpose or to any other person or organization. Any dependence that any such third party may place on the Report is entirely at its own risk. The assurance report should not be taken as a basis for interpreting the company's overall performance, except for the aspects mentioned in the scope below.

#### WHAT WE DID TO FORM OUR CONCLUSIONS

The assurance engagement was planned and performed in accordance with International Federation of Accountants' International Standard for Assurance Engagements Other than Audits or Reviews of Historical Financial Information (ISAE 3000). The main steps included interaction with key personnel of the Company to identify the processes in place; capture sustainability performance data as per GRI 2006 (GRI G3) guidelines; followed by reviews of the processes for collecting, compiling, and reporting these indicators at the corporate and operating unit levels.

#### Visits to the Company's locations

The EY team visited the Company's manufacturing and mining locations at Jamshedpur Steel Works and West Bokaro Collieries respectively to review the systems and processes in place for managing and reporting on sustainability activities. Evidence in support of claims made in the Report regarding the Company's sustainability performance was also reviewed. Assumptions made for arriving at final numbers against the sustainability performance indicators were understood and necessary clarifications obtained. Stakeholder engagement process was reviewed through interviews with concerned personnel.

Appropriate evidences to support the conclusions in this assurance report were obtained. Most of the information and data reviewed were supported with documentary evidence; wherever such documentary evidence could not be collected on account of confidential information, our team physically reviewed the documents.

#### **LEVEL OF ASSURANCE**

Our evidence-gathering procedures have been designed to obtain a limited level of assurance (as set out in ISAE 3000) on which to base our conclusions.

#### LIMITATIONS OF OUR REVIEW

The scope of the assurance covers sites and indicators considered relevant to the company and include:

- Data and information related to the Company's sustainability performance for the period 1 April 2007 to 31 March 2008:
- The Company's internal protocols, processes, and controls related to the collection and collation of sustainability performance data;
- Review of Sustainability specific data and information related to materials, energy, water, waste, workforce, safety

#### and training;

 Our visit to Jamshedpur Steel Works and West Bokaro collieries where our work comprised review of the above mentioned indicators for both these locations. Information pertaining to other locations was reviewed at Jamshedpur Steel Works.

#### **Exclusions**

The assurance scope excludes:

- Operations of Tata Steel outside India and greenfield operations within India;
- Aspects of the Report other than those mentioned above;
- Data and information outside the defined reporting period (1 April 2007 to 31 March 2008);
- The Company's statements that describe expression of opinion, belief, aspiration, expectation, aim or future intention provided by the Company;
- Data and information on economic and financial performance of the Company.

#### **OUR CONCLUSIONS**

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

- The Report presents the Company's sustainability performance covering the indicators as mentioned in the scope;
- The Company has reported on issues material to its operations.

#### **OBSERVATIONS AND AREAS FOR IMPROVEMENT**

Our observations on the Report are as follows:

- The Report presents detailed information on several key issues relating to Tata Steel India as stated in the Group Vision 2012;
- The Company has for the first time reported its safety performance by employing the relatively more stringent guidelines of the World Steel Association;
- GHG emissions have been calculated in a detailed manner; however, there is an opportunity for improvement to update emission factors where applicable or employ them as per actual as in the case of imported electricity;
- The Company makes significant efforts to train both its workers and managers; it is recommended that the Company may consider uniform reporting for both these categories of workforce.

#### **OUR ASSURANCE TEAM**

Our assurance team, comprising of multidisciplinary professionals, has been drawn from our climate change and sustainability network and undertakes similar engagements with a number of significant Indian and international businesses.

for Ernst & Young Private Limited

Sudipta Das

**Partner** 

29<sup>th</sup> July 2009

Kolkata

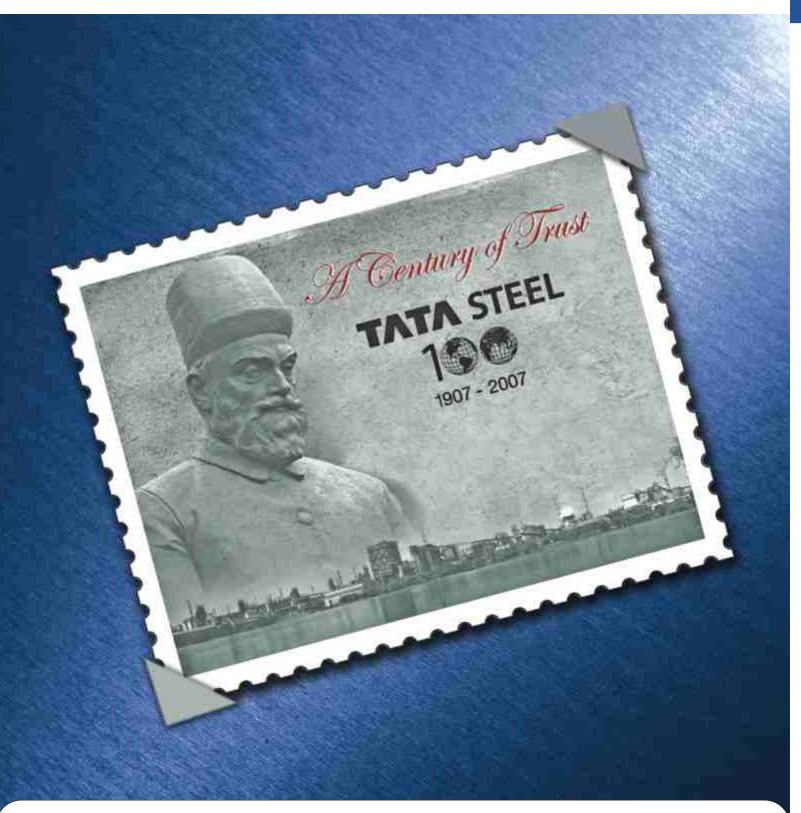
Floated in 1907, the Tata Iron and Steel Company celebrated its centenary in 2007. The establishment of this first Indian steel company owes itself to the pioneering vision and unstinting efforts of Jamsetji Nusserwanji Tata, a founding father of modern India.

The story of Tata Steel is the story of an industrious enterprise to create resources for a nation.

Now, with the acquisition of steel-making operations in South East Asia, Europe and across the globe, the company has entered into the next phase of its growth trajectory.



## Setting the Pace...



# TATA STEEL & SUSTAINABILITY

In a free enterprise, the community is not just another stakeholder in business, but is in fact the very purpose of its existence.

J.N. Tata, Founder

No success or achievement in material terms is worthwhile unless it serves the needs or interests of the country and its people.

J.R.D. Tata

I do believe that we in the Group have held a view and held a sense of purpose that our companies are not in existence just to run our business and to make profit and that we are responsible and good corporate citizens over and above our normal operations.

R.N. Tata



#### STRATEGY AND ANALYSIS

#### Sustainability at Tata Steel

Tata Steel's management approach to sustainability is to integrate consideration of the 'triple bottom line' - economic, environmental and social performance - into Company thinking and business practice. At Tata Steel, the purpose of the organisation is to go 'beyond business', to invest and develop for the benefit of society. This is achieved through the principles of Corporate Citizenship and Inclusive Growth. Acting with integrity and responsibility, and seeking to extend and share the benefits of its activities, has helped the Company to secure an excellent reputation and to enhance the trust of all stakeholders. This, in turn, has helped the business to flourish and grow.



The creation of Tata Steel Group was an essential part of Tata Steel's growth and globalisation strategy, and the Group has now developed a Vision and set of core goals.

#### Tata Steel Group Vision, Goals and Performance Culture

#### **Tata Steel Group Vision 2012**

"We aspire to be the global steel industry benchmark for Value Creation and Corporate Citizenship"

We make a difference through:

- Our people by fostering team work, nurturing talent, enhancing leadership capability and acting with pace, pride and passion
- Our offer by becoming the supplier of choice, delivering premium products and services and creating value with our customers
- Our innovative approach by developing leading edge solutions in technology, processes and products
- Our conduct by providing a safe working place, respecting the environment, caring for our communities and demonstrating high ethical standards

This Vision was developed and agreed in early 2008 by the management of Tata Steel Group. Two important ideas-Value Creation and Corporate Citizenship - make up the Vision for the Group. The Vision places equal emphasis on economic performance and Corporate Citizenship through social and environmental performance, thus truly integrating sustainability into the ethos and aims of the Tata Steel Group.

Value Creation will help the Group to thrive commercially in a testing and competitive climate, enhance customer relations, and contribute to economic development in the areas of operation.

Corporate Citizenship is inherent in the way the Company has always done business, with the welfare of society in mind. Tata Steel Group believes that, as a global citizen, it has a duty to take responsibility for the environment and communities it works in, and that this is also good business practice. Being a good corporate citizen will ensure the business's 'licence to operate', contribute to wider societal aims and will enhance the Group's reputation with all stakeholders.

#### **Tata Steel Group Goals 2012**

In support of the Vision, the Group has adopted a number of key goals, each with associated actions and targets to be reached by 2012. These address significant sustainability issues where the Group has prioritised performance improvement.

- Value Creation: Increase the return on invested capital (ROIC) to 30% from existing assets and generate strategic growth
- Safety: Reduce Lost Time Injury Frequency (LTIF) to 0.4
- Environment: Reduce CO<sub>2</sub> emissions to < 1.7 tonnes per tonne of liquid steel (t/tls)
- Employer of Choice: Rank top quartile across all industries

#### The following actions will help the Group progress towards achieving the goals:

#### **Economic Performance**

Value creation

- Increase earnings from current operations by optimising assets; differentiation in the marketplace; continuous improvement; and achieving synergies across all Business Units.
- Achieve strategic growth through capacity expansion; mining projects; enhanced Research and Development and innovation; in the area of construction and automotive; and new territories.



#### **Environmental Performance**

**Reduce Emissions** 

- Continuous process improvements, for example increasing energy efficiency of process units and maximising the recovery and utilisation of by-product gases
- Invest in breakthrough technologies
- Responsible product development
- Employee engagement
- Proactive role in global steel sector initiatives
- Implement identified Clean Development Mechanism (CDM) projects



#### **Social Performance**

Improve Safety

- Focus on high hazard facilities, for example in India by implementing Process Safety and Risk Management (PSRM) and reducing fatalities with a Fatality Risk Control Programme (FRCP)
- Increase occupational safety, for example with initiatives to further reinforce behavioural safety through observations, incident investigations and improving compliance
- Focus on overall health
- Improve safety management systems across the Group to achieve aims, developing appropriate benchmarking, tools, standards and improvement initiatives



- Embed a performance driven culture
- Build leadership capability
- Nurture talent, with a programme of training and development, motivation and coaching
- A continuous quest for global talent
- Build and enhance technical capability, share and learn

In addition to the specific goals on safety and environment, Corporate Citizenship is about caring for communities. Tata Steel is a trendsetter on Corporate Social Responsibility and the Company will be looking to extend its community credentials across the Tata Steel Group, building on the good work already done in the various operating locations across the globe.



#### **Tata Steel Group Performance Culture**

The new performance culture applies to all employees at all levels across the Group and underpins everything the Group does. The four pillars of the performance culture are:

- Safety and social responsibility
- Continuous improvement
- Aspirational target setting
- Openness and transparency

All four pillars of the performance culture will help Tata Steel Group to achieve its sustainability aims in particular Safety and Social Responsibility, which means acting with respect and integrity: providing a safe workplace, preventing injuries and harm, respecting the environment, caring for communities and demonstrating high ethical standards.

#### **Issues and Trends**

Significant economic, environmental and societal issues and trends influencing the long term business strategy are:

- Robust growth driven by China and progressively other developing economies, with steel demand primarily underpinned by construction
- China to remain net exporter of steel, whereas Europe and India to remain net importers
- Scarcity of resources, with raw materials remaining expensive
- Consolidation of business; including in the steel industry
- Environmental concerns; particularly climate change
- Competition for talent across all industries and geographies

#### Tata Steel's Strategy for Business Sustainability

In considering business strategy, the Company takes a holistic and long term view rather than seeking short term profits. Since 2005 Tata Steel has embarked on a journey to pursue growth and globalisation through organic and inorganic strategies, to increase its capacity to more than 50mtpa by 2015. In planning and undertaking this growth, the Company will seek to ensure that the benefits are shared by all its constituents and stakeholders. The Company has identified several strategic levers for growth and globalisation, including building a stronger base in India, acquisitions in both growing and developed markets, strategic investments in raw material assets and focussing on the product offering.



#### **Strong Base in India**

India is one of the best countries to produce steel at a competitive cost by virtue of availability of key raw materials viz. iron-ore, coal (to some extent) and skilled labour. Steel consumption in India is likely to increase at a rapid pace in the future due to large investments planned in infrastructure development, increased urbanisation and growth in key steel consuming sectors. As part of its strategy to retain its pre-eminent position in the Indian market, the Company will significantly enhance its presence in India in the near future through brownfield expansion and greenfield projects as follows:

- Brownfield: The Company is on its way to reaching a crude steel capacity of 10 million tonnes per annum in Jamshedpur by the year 2011.
- Greenfield: The Company has begun the process of building a new 6 mtpa integrated steel plant at Kalinganagar in Orissa. It has taken preparatory steps towards setting up steel plants in Chhattisgarh and Jharkhand. Hooghly Metcoke and Power Company Ltd has been established to manufacture 1.6 million tonnes per annum of coke to meet the future coke requirement on expansion.

A resettlement and rehabilitation programme known as Tata Parivar is in place to ensure that new developments will take the needs and rights of local communities into account and create positive opportunities and benefits for individual families affected by the operations. The programme ensures that affected families are informed and reassured, supported through the changes, resettled with care, and assisted to achieve more sustainable livelihoods for the future.

#### Overseas Acquisitions in Growing and Mature Markets

The steel industry has long been plagued with issues of cyclicality, pricing and supply-demand imbalances. Consolidation in the steel industry is likely to address issues of price stability and to foster further focus on technology and innovation, to enable the industry to serve its customers better, with new product offerings and better supply chain efficiencies. The global steel industry has started witnessing consolidation moves in the last few years and it is expected that the industry will witness a continued, or indeed increased, pace of cross border consolidation in the next few years. With the acquisition of Corus, which was completed in April 2007, and previous acquisitions in South East Asia, Tata Steel has demonstrated its proactive strategy for growth and globalisation. This has placed the Company in a better position to secure its future and safeguard the interests of stakeholders such as investors and employees.

#### **Ownership of Strategic Raw Materials**

As part of its long-term strategy, the Company is focused on developing raw material sources for its global operations. This will enable the Company to continue its competitive cost position in the global steel industry.

A Global Minerals Group has been formed, which is actively exploring opportunities to secure access to iron ore and coal in various geographies. The following considerations are being applied: political and socioeconomic condition of the countries/regions, resource size and quality, logistics and infrastructure, proximity to either European or Indian operations and expected timeline for execution of the project. During 2007 - 08, agreements and ventures were entered into for Mozambique Coal Project and Ivory Coast Iron Ore Project.



#### **Product Offering**

The Company remains focused on enriching its product mix and pursuing branding initiatives to move up the value chain. The Company has several well known brands in its portfolio, from Tata Steelium (India's first branded cold rolled steel) to, more recently, Tata Structura (steel hollow sections). Brands acquired through recent business acquisitions further strengthen and diversify the offer.

The Company is additionally focussing on developing advanced products and product solutions designed to offer environmental benefits, customer advantage and cost savings. These include, for example, Tata 800, whose fatigue properties are far superior to conventional multi-phase steels of similar strength. Group companies also provide product solutions like the prefabricated cages and cut and bend services offered to the construction industry by NatSteel Holdings and sustainable packaging solutions offered by Corus.



#### **Sustainability Risk Management and Opportunities**

Sustainability management is considered within the Company strategy-setting, risk analysis and business planning. Tata Steel's financial performance and risk management assurance is provided by an in-house Internal Audit function, reporting to the Managing Director and the Audit Committee of the Board.

#### **Risk Management**

In recent years, Tata Steel has been on a path of growth and development and, associated with this, there has been a change in the risk profile. The Company today faces greater complexities and challenges and even greater expectations from its stakeholders. Given the complexity of these needs, a new risk assessment process, termed Enterprise Risk Management (ERM), is being implemented in 2008 - 09. This process will assess sustainability risks that are considered integral to business risks, with a particular focus on financial risks.

#### Some of the key risks the company has been monitoring, reviewing and managing in 2007 - 08 are:

- Health and Safety Risks
  - Steel-making presents many dangers and too many accidents continue to occur in plants across the industry. Safety is a top priority for Tata Steel. Risk is managed through OHSAS 18001 and numerous initiatives are implemented to improve performance, from practical process and technology improvements to developing the safety culture amongst the workforce through training and awareness-raising.
- Environmental Risks

It is a challenge and responsibility for the steel industry to be a trustee in the conservation of nature for future generations. Steel is itself an environmentally friendly and recyclable product but steel-making generates emissions and waste which need to be managed. Of particular concern are CO<sub>2</sub> emissions, which are significant in the steel industry. A climate change strategy is in development and various measures are underway to improve performance both in the short and longer-term.

#### Attracting and Retaining Key Personnel

Employees are a vital resource in the Company's operations and measures to achieve top employer status and to nurture talent are being implemented to ensure that the Company continues to attract and retain the best people.

#### Raw Material Supply and Security

Steel-making is dependent on the use of non-renewable raw materials. Secure access to raw materials, improving efficiency, and developing new technologies of steel-making to reduce non-renewable resource use are measures for mitigating this risk.

#### Growth Execution Risk

Care is needed to balance local stakeholder needs in greenfield locations with the Company's growth plan - project teams ensure that they liaise with the government and with local communities to ensure that the right rehabilitation package is offered to those who offer their land and that industrial development will bring economic, environmental and social benefit to the community.

#### Financial Risks

The growth plans of the Company will need careful financial management to balance expenditure requirements with cash flow and the repayment of the Corus acquisition financing.

#### Market Risks

The effects of changing markets and the cyclicality of the steel industry are mitigated through careful planning, a focus on enriching the product mix and pursuing branding initiatives to move up the value chain. In addition, new and improved products, including those with sustainability benefits, are constantly sought through research, product development and improved production processes.



#### Business Integration Risk

Strategic and operational integration across the Group companies is required for optimum business performance. This has been addressed through an integration process in 2007 - 08 resulting in an integrated governance structure, shared vision, goals and performance culture.

#### Control Over Logistics

The Company is securing control over transportation of raw materials and products through projects such as Dhamra Port and shipping ventures.

#### Regulatory and Compliance Risks

Changing economic and environmental situations mean that statutory regulation is changing. This is addressed through an absolute commitment to compliance, quality management and the development of trust through regular communications with government and statutory bodies.

#### Technology Risks

Developing technology presents a risk and an opportunity. With its modernisation plan, the Company is ensuring that it deploys the best technologies to ensure quality, cost-efficiency and environment-friendly processes. The acquisition of the Research and Development department of Corus addresses the need for greater R&D capacity within the Company.

#### Other Risks

In addition, the Group is monitoring and managing specific risks in relation to operational activities such as for Corus: energy supply and costs, pension liabilities, impacts of exchange rates and other financial risks.

#### **Turning Challenges Into Opportunities**

Through its processes of managing risks planning; considering stakeholder feedback and applying quality and continuous improvement processes, Tata Steel has been able to identify new development opportunities on sustainability issues.

#### Using Integration to Improve Sustainability

Although the integration of the Tata Steel Group presented some risks and challenges, it has presented many opportunities for creating synergies, sharing best practice in operations and procedures. Already, collaborative projects, cross-fertilisation of better practices and the sharing of successful operational models are helping to improve performance. For example, in the operation of the hot strip mill, cold rolling mill, blast furnaces and coke ovens in Jamshedpur; and the improved production and reduced consumption of ferro-alloys and refractories at the South Wales Steel Plant.

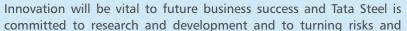


In terms of sustainability, the integration process has highlighted areas

both of strength and for potential development/improvement across the Group, such as in best employment practice, business ethics, process efficiencies, emissions reduction schemes, finance and community initiatives. Many of these issues have emerged as common priorities across the Group and are reflected in the new Vision and Goals for 2012. Achieving these will be part of Tata Steel's commitment to becoming a world-class organisation.

#### Research and Development

As a pillar of its performance culture, the Company seeks continuous improvement in all that it does. It undertakes a continuous assessment of quality, efficiency, productivity and marketability. The Company's philosophy is to look for opportunities to develop products and processes which combine sustainability with business benefits for example, being more efficient, saving input costs, creating a better product for the customer, earning a healthy profit margin and having environmental and/or social advantages.





challenges into opportunities to implement sustainability improvements. During this period, R&D successfully developed many opportunities with economic, environmental and social benefits, such as enhanced product features (greater durability and strength, lighter weight etc), resource-efficiency and reduced emissions. Some examples can be seen in the performance chapters.

#### Climate Change and Environmental Challenges

Tata Steel's approach is to challenge perceived boundaries to find new ways to address environmental issues such as energy use, waste and emissions, and it is committed to participating in alternative technology to meet this end.

Climate change and the impact of emissions on the environment are of increasing concern to all stakeholders and this is a major issue for the steel industry because, owing to its technological processes, it currently cannot avoid contributing to the problem. Tata Steel wants to be part of the solution and is addressing this issue proactively with a multipronged approach, looking at opportunities to reduce carbon



emissions in the short to medium-term and to support the development of carbon trading schemes. The Tata Steel Group is also, through projects such as the Ultra Low CO<sub>2</sub> Steelmaking project (ULCOS), engaged in cutting edge research to develop new technologies for the long-term future of the industry, which will break through existing technological barriers, to achieve a 50% reduction of carbon emissions by 2050.

#### Corporate Social Responsibility (CSR)

There is an increasing awareness that in order to address the major social problems facing communities around the world, business must play its part. Tata Steel is acknowledged as a benchmark in CSR. Through participation in international partnerships such as the UN Global Compact, it offers other organisations the opportunity to learn about its activities and encourages increased social engagement amongst businesses, to create more positive impacts for local communities. Already involved in a variety of networks, initiatives and partnership projects to promote CSR, Tata Steel is committed to continuing to set the pace in this field. Apart from achieving social benefits and an enhanced public perception, promoting CSR will also help to attract and retain top talent in the workforce.

#### **ORGANISATIONAL PROFILE**

#### **Major Operations**

Tata Steel is a large multinational company, with its headquarters and core operations in India. In April 2007, Tata Steel completed the acquisition of Corus Group plc, a steel company headquartered in the UK, for an Enterprise Value of USD 14.7 billion. Post the acquisition of Corus, Tata Steel Group is now the world's sixth largest steel company. Asia's first integrated steel plant and India's largest integrated private sector steel company, it is also now the world's second most geographically diversified steel producer. In addition to Corus, the company owns Tata Steel Thailand (previously known as Millennium Steel) and NatSteel Holdings, based in Singapore.



Tata Steel Group has operations in 26 countries and a commercial presence in over fifty countries. Major steel making operations are in:

- 1 Jamshedpur, India
- 2 IJmuiden, Netherlands
- 3 Port Talbot, Scunthorpe, Rotherham and Teesside, UK
- 4 Thailand
- 5 Singapore

Tata Steel produces steel using an integrated steel-making concept, utilising raw materials like iron ore, coal, limestone etc. to produce hot metal (liquid iron). This hot metal is converted into steel through a steel-making process. The liquid steel is then cast and rolled into a variety of products.

In addition to Steel Works, the Group has significant operations to support its steelmaking activities, including mines and collieries. It has in-market steel processing facilities and distribution and transportation operations, as well as a sophisticated R&D Centre at Rotherham, UK.

The Company has signed agreements to set up four greenfield steel projects in the states of Jharkhand, Orissa and Chhattisgarh in India and one in Vietnam. Tata Steel is also developing joint ventures as part of its collaborative growth strategy.

#### **Major Operational Divisions in India**

- Main Steel Works, Jamshedpur (Jharkhand)
- Tubes Division, Jamshedpur (Jharkhand)
- Growth Shop, Jamshedpur (Jharkhand)
- Agrico Division, Jamshedpur (Jharkhand)
- Ferro Alloys and Mineral Division, Joda, Sukinda and Bamnipal (Orissa)
- CRC (West), Tarapur (Maharashtra)

- Bearings Division, Kharagpur (West Bengal)
- Ore Mines and Quarries Division, Noamundi (Jharkhand) and Joda (Orissa)
- West Bokaro Division, West Bokaro (Jharkhand)
- Jharia Division, Dhanbad (Jharkhand)
- Wire Division, Mumbai (Maharashtra)

Brief details of other significant operations of Tata Steel Group are provided below. More information on these operations and a full list of subsidiary companies, associates and joint ventures is supplied in Tata Steel Annual Report 2007 - 08, available to download from the investor relations section of www.tatasteel.com.

#### **Principal Subsidiary Companies**

#### Corus

Corus is Europe's second largest steel producer with production of around 20 million tonnes per annum (mtpa) and annual revenues in 2007 - 08 of approximately GBP 12 billion. Corus's main steel making operations are located in the UK and the Netherlands with other plants located in Germany, France, Norway and Belgium. Corus produces carbon steel by the basic oxygen steel making method at three integrated Steel Works in the UK at Port Talbot, Scunthorpe and Teesside, and at one in the Netherlands at IJmuiden. Engineering steels are produced in the UK at Rotherham using the electric arc furnace method. Corus has three divisions; Strip Products, Long Products and Distribution and Building Systems.



The company has commercial operations across the world and supplies demanding global markets including construction, automotive, packaging, mechanical and electrical engineering, metal goods and oil and gas.

Following acquisition by Tata Steel, Corus Group plc continues to trade as Corus, operating within the integration philosophy of "One Enterprise Two Entities".

#### **NatSteel Holdings**

NatSteel Holdings Pte. Ltd. (NSH) is a leading long-product player in the Asia Pacific region with an approximate capacity of 2 mtpa. It has operations and joint ventures in Singapore, Malaysia, Thailand, China, Australia, Philippines and Vietnam. Its Singapore based operations serve as a hub for the NSH group, providing engineering, logistics, sourcing information technology and other support services.

NSH Singapore has upstream facilities for billet making, rolling bars and wire rods. The group produces construction grade steel which includes rebars, cut-and-bend, mesh, precage, bore pile, PC wire and PC strand. In Xiamen, China, the group has rolling operations, while in Australia manufacturing activities are focused on downstream production (cut and bend, mesh). In Thailand and China, the group has manufacturing facilities for wire drawing.

#### Tata Steel (Thailand)

Tata Steel (Thailand) Public Company Limited (TSTH), the largest long steel producer in Thailand, manufactures long steel products with an installed capacity of 1.7 million tonnes per annum. The company was established in 2002 as a holding company consisting of NTS Steel Group (NTS), The Siam Iron and Steel Company (SISC) and The Siam Construction Steel Company (SCSC). At present the company produces rebars, wire rods, small sections, special bars and cut and bend products.



#### Tata Steel (KZN)

A High Carbon Ferro Chrome plant with a capacity of 150,000 tpa is being established at Richards Bay, South Africa. The schedule for production is for furnaces to start in Spring/Summer 2008 with commercial production from July 2008.

#### **Principal Joint Ventures**

#### Tata Bluescope Steel

The 50:50 Joint Venture agreement with BlueScope Steel Limited to form Tata BlueScope Steel Limited became effective from 30th May 2006. The Building Solutions facilities at Pune, Bhiwadi and Chennai have been operational since 2006 - 07. The construction of the Coated Steel manufacturing facility at Jamshedpur is in progress and expected to open in 2010. The Company offers a comprehensive range of branded steel products for building and construction applications.

#### **Dhamra Port Company**

The Dhamra Port project is a Joint Venture with Larsen & Toubro Limited, building an all weather modern deep-water port in the state of Orissa on the Eastern Coast of India. The bulk cargo berths are being designed to accommodate up to 180,000 DWT vessels. A 62.7 km (route distance) rail link connecting the Port to the nearest railway station at Bhadrak on Chennai-Howrah line is included in the project scope.

#### **Tata NYK Shipping**

In a joint venture with Nippon Yusen Kabushiki Kaisha (NYK Line), the Company has commenced shipping activities for Tata Group companies and other clients, with five ships. Tata NYK handled around 2.4 million tonnes of dry cargo and projects, to service more than 20 million tonnes per year within five years through a fleet of owned and chartered ships.

#### **Vietnam Steel Project**

Memoranda of Understanding have been signed with VN Steel for a proposed steel complex and for development work on the Cold Rolling Mill project.

#### Iron Ore Project in Ivory Coast

Tata Steel and SODEMI entered into an agreement in December 2007 for the development of Mount Nimba iron ore deposits.

#### **Coking Coal Project in Mozambique**

Tata Steel entered into an agreement in November 2007 with Australian-listed company Riversdale for interests in licences and a 40% share of the coking coal produced.



#### **Oman Limestone Project**

In January 2008 a joint venture was agreed with members of the Al Bahja Group for mining limestone in Salalah province of Oman.

#### Carborough Downs Coal Mine, Australia

This is a joint project with Vale and other partners, for expanding a coking coal mine in Central Queensland.

#### Tata Steel - Steel Authority of India (SAIL)

Four medium coking coal blocks in Jharkhand are under assessment for coal mining. On allotment of the blocks, the Joint Venture will develop and carry out mining operations for captive use by both SAIL and Tata Steel.

#### Scale of the Organisation - Facts and Figures

In 2007 - 08 Tata Steel grew to have a total Group steel production capacity of over 28 million tonnes, producing steel in many different forms and for different markets. In 2007 - 08 Tata Steel Limited in India produced just over 5 million tonnes of crude steel in Jamshedpur, and significant production also came from operations in United Kingdom and Netherlands through Corus (around 20 million tonnes liquid steel) and South East Asian operations of NatSteel Holdings and Tata Steel (Thailand) (just over 3 million tonnes of finished steel produced).

In line with its growth and development strategy, the Jamshedpur Steel Works in India is increasing its capacity from its earlier 5mtpa to 10 mtpa by the end of 2011. The new H Blast Furnace which commences production in 2008<sup>1</sup> is a major step in this expansion process, increasing production capacity at Jamshedpur to 6.8 mtpa.

In 2008 Tata Steel Group employed 82,700 employees across four continents: in the largest operations, 35,870 people were employed by Tata Steel Limited; 41,900 by Corus 1196 by Tata Steel (Thailand) and more than 3000 by NatSteel Holdings.

In 2007/08 consolidated net sales revenues stood at Rs. 1,315.36 billion (USD 33 billion).

Financial Performance					
ltem	2006 - 07 (Rupees Million)	2007 - 08 (Rupees Million)			
Gross Revenue	201,962.4	225,268			
Profit Before Taxes	62,616.5	70,663.6			
Profit After Taxes	42,221.5	46,870.3			
Capital Employed	253,949.7	469,204.1			
Net Worth	138,936.2	271,456.2			
Borrowings	95,453.3	180,216.9			
	As on 31.3.07 (Rupees Million)	As on 31.3.08 (Rupees Million)			
Total assets	255,975.0	470,755.2			
	Ratio 2006 - 07	Ratio 2007 - 08			
Net debt:Equity	(0.12)	0.58			

NB: 1 USD=40.02 INR as at 31.03.08

#### **Nature of Ownership and Legal Form**

Tata Steel is a Public Limited Company. The Company had 687, 564 different shareholders as on 31st March 2008, with the vast majority being individuals. Tata Sons Limited is the largest single shareholder with just under 28% shareholding. Around 66% of all profits received by Tata Sons through its shareholding are invested in philanthropic activities to benefit society, through the Sir Dorabji Tata Trust, Sir Ratan Tata Trust and other trusts.

#### **Markets Served and Primary Products and Services**

Tata Steel is a global steel producer with a balanced presence in developed European and fast growing Asian markets. The Group produces a range of products for global markets, and in particular the Indian, European and South East Asian markets, including a wide range of steel products used for transport, construction, automotive, packaging and other industries.

Tata Steel Limited serves mainly the domestic Indian market. In India, production is segmented into two main categories - Flat and Long Products - at a balance of approximately 67% and 33% of production respectively. Whilst the focus of business is steel making, the Company also seeks to maintain control of downstream and upstream operations and control its business environment, with raw material production, transportation and processing operations.

<sup>&</sup>lt;sup>1</sup>Formally blown in May 31st 2008

The de-commoditisation of steel and the development of specialised and differentiated products through branding have been important elements of business strategy in recent years.



















Markets, Products and Services in India						
Products	Descriptions	Market Segment	Key Customers			
	Rebars	Large construction projects, Individual houses	L&T, AFCONS, DLF, Gammon, HCC, individual house builders			
Long Products	High and Low Carbon Wire Rods	Wire drawing industries for applications like fasteners, tyre beads, construction, electrodes, springs etc.	Wire Division, Bansal, ESAB, Miki Wires			
Flat Products	Hot and Cold Rolled Sheets, Hot and Cold Rolled Coils, Galvanized Coils and Sheets, Hot Rolled Plates	Auto, Construction industries, General Engineering, Appliances, Industry and housing applications	Tata Motors, Ashok Leyland, Toyota, Honda, Ford, Maruti, Hyundai, Bajaj, TVS			
Semi Finished Steel Products	Billets, Slabs					
Tubes	Standard pipes, Precision Tubes, Closed Structural					
Bearings Wires	Rolled Rings, Forged Rings, Machines Rings, Bearings Plain and Coated Steel Wires					
Minerals	Coal and Coke, Iron Ore, Dolomite, Chrome Ore and Chrome Concentrate					
Others	Ferro Alloys, Agriculture Implements, Services like project studies, Design and Engineering, Personnel and Technical Training, Automation, Information Technology, Power and Water.					
Branded Products	Tata Shaktee GC Sheets, Tata Steelium Cold Rolled Steel, Tata Tiscon Construction Rods, Tata Pipes, Tata Bearings, Tata Wiron and Tata Agrico, Tata Structura					

The Flat Product business in India is dominated by five big companies and in this market, Tata Steel ranks second in terms of size with about 18% market share. The Long Product business, in contrast, is highly fragmented. In this market, Tata Steel has positioned itself to meet the needs of quality conscious, highly demanding customers. These customers are the large reputed infrastructure project companies and individual house builders. Tata Steel's market share in this target segment is the highest at 23%.

Tata Steel constantly strives to provide high quality products to the high-end market segment. It also differentiates its offer by tailoring the product and service to meet the exact needs of customers. While Tata Steel has established itself as a national leader in addressing the needs of customers with cutting edge technology in auto and construction industries, it also penetrates deep into rural India, with over ten million customers of its galvanised corrugated sheets across the country. Tata Steel believes in building relationships with its customers and over 70% of its sales are through long-term contracts.

#### **Continuous Improvement**

Over the years Tata Steel has placed a continuous emphasis on improving processes, with a view to consistently increasing efficiencies, enhancing quality, and thereby achieving better performance benchmarks in all areas. Performance Improvement Teams and a Performance Improvement Committee have been established to systemise Process Improvement in the Tata Steel Group, leverage synergies and accelerate improvement through learning and sharing.

Tata Steel has a strong improvement framework known as ASPIRE T3, which is an integration of three models:

- Theory of Constraints (TOC): develop a competitive edge based on reliable delivery service, thereby creating value for customers
- Total Quality Management (TQM): a structure for customer and quality focussed continuous improvements comprising the following key elements - Policy Management, Daily Management, Problem Solving and Task Achieving
- Technology: foster a technology mindset amongst a cross section of employees through a Knowledge Management Programme

The ASPIRE framework has helped the Company to improve its performance in many areas, including economic and environmental performance. Tata Steel has worked extensively on applying TQM the Deming way, implementing the management/improvement cycle of 'Plan, Do, Check, Act' (PDCA) through departments, leading to distinct performance improvements.

#### Awards and Accolades in 2007 - 08

- Health from US-Indian Business Council (USIBC), Population Services International (PSI) and the Center for Strategic and International Studies (CSIS), 2007
- CII-ITC Sustainability Award for outstanding Most Admired Knowledge Enterprise (MAKE) Asia achievement in sustainable development from Confederation of Indian Industry (CII), 2007
- Conferred Global Business Coalition Award for Business Excellence in the Community for outstanding work in field of HIV/AIDS
- Outstanding award for Corporate Social Customer satisfaction: Best Vendor Award in Raw **Responsibility** for NatSteel Xiamen
- 7th Annual Greentech Safety Award in the Metals and Mining Sector awarded to Noamundi Iron Mine
- West Bokaro Division conferred National Energy Conservation Award by the President of India
- Amity Corporate Excellence Award from Amity International Business School
- Top 10 Best Employer Award for NatSteel Xiamen
- Singapore Health Award Gold for NatSteel (held for 3 consecutive years)
- Business Today and Ernst & Young surveys rated Tata Steel as India's Best Managed Company in Metals and Mining
- Ranked first as the Largest and Most Profitable Steel Company in India by World Magazine

- Award for Corporate Social Responsibility in Public Golden Standard Certificate 2008 by Truckers Corporation of India Foundation, in March 2008, for one of the best project implementing units in India in **HIV** interventions among Truckers
  - Award from World Knowledge Forum 2007
  - The Department of Scientific and Industrial Research Award for R&D efforts for 2007 awarded to R&D for indigenous technology for removing hexavalent chromium from chrome ore concentrate
  - Material Category from Honda Motorcycles and Scooters, India in 2007



#### REPORT PARAMETERS

#### **Report Profile**

Tata Steel's Sustainability Reports are produced annually and this report covers the Company's financial year 1st April 2007 to 31st March 2008.

The report is produced to communicate to stakeholders:

- Tata Steel's approach to corporate sustainability
- Its management of sustainability issues
- Performance on Global Reporting Initiative G3 indicators and on reaching Company goals

We hope that this report meets the needs of the majority of our stakeholders. Many of our stakeholders such as employees and local communities receive communication on relevant issues primarily through other sources.

#### **Contact Person**

The Company is delighted to hear stakeholders' views on this report, the Company's approach to sustainability and its performance. Please email sustainability@tatasteel.com or contact:

Mr. Sanjay Choudhry

Chief, Corporate Affairs and Communications Telephone: +91 657 2431142

TATA STEEL Limited Fax: +91 657 2425182

Jamshedpur, INDIA email: sanjay.choudhry@tatasteel.com

Tata Steel seeks to develop and improve its reporting process and will be considering all feedback received to ensure that the report meets stakeholder needs.

#### Additional information

Additional information on economic, environmental and social performance of the organisation can be made available on request from the contact person indicated above. This report will also be made available on Tata Steel's Internet website www.tatasteel.com.

#### **Report Scope and Boundary**

#### Report content

The Company's sustainability reporting uses the Global Reporting Initiative (GRI) G3 guidelines as a basis. The information within this report has been compiled through a dedicated committee with representatives from different departments within Tata Steel. In deciding content, the committee members have considered and applied the GRI G3 principles on report content - materiality, stakeholder inclusiveness, sustainability context, completeness and on report quality - balance, comparability, accuracy, timeliness, clarity and reliability. As far as possible, all relevant disclosures and performance indicators set out in the GRI G3 guidelines have been supplied, with additional reference to Company goals and targets where appropriate.

The committee has recognised in 2008 that there is a need to consider the reporting process in terms of prioritising report content, particularly in light of the growth of the Tata Steel Group to include varied international operations and therefore the increasingly complicated nature of the process and the large amount of information to be reported upon. Plans are underway to develop and improve the reporting process both strategically, in terms of determining materiality and focusing on priority issues, and operationally in terms of managing the reporting process across the Tata Steel Group.

#### Boundary of the report

Entities included within the scope of this report are all units of Tata Steel in India. The report also includes, in relevant sections, information on JUSCO (Jamshedpur Utilities and Services Company; erstwhile Town Division, Jamshedpur a wholly owned subsidiary of Tata Steel) and on Tata Steel Rural Development Society (TSRDS), Tribal Cultural Society (TCS) and Tata Steel Family Initiatives Foundation (TSFIF). TSRDS, TCS and TSFIF are societies/trusts promoted by Tata Steel to which the Company provides significant funding.

Tata Steel has recently grown, acquiring subsidiary companies and developing its joint ventures and associations. The

#### Boundary of the report

Entities included within the scope of this report are all units of Tata Steel in India. The report also includes, in relevant sections, information on JUSCO (Jamshedpur Utilities and Services Company; erstwhile Town Division, Jamshedpur a wholly owned subsidiary of Tata Steel) and on Tata Steel Rural Development Society (TSRDS), Tribal Cultural Society (TCS) and Tata Steel Family Initiatives Foundation (TSFIF). TSRDS, TCS and TSFIF are societies/trusts promoted by Tata Steel to which the Company provides significant funding.

Tata Steel has recently grown, acquiring subsidiary companies and developing its joint ventures and associations. The subsidiary companies have their own varied management and implementation systems in place in relation to sustainability and therefore it has not been possible to provide one integrated report on all major Tata Steel Group entities in 2007 - 08. However, in line with GRI G3 guidelines on boundary setting, and as part of the Tata Steel Group's integration process, the company is working to develop the Tata Steel Group sustainability governance, management approach and benchmarking and reporting system for the future. As an initial step in this process, this year the Tata Steel Sustainability Report includes informal, ad-hoc sustainability reports from NatSteel Holdings and Tata Steel

#### Data measurement techniques

This report has been prepared in accordance with GRI G3 guidelines. It represents a balanced and reasonable presentation of the organisation's economic, environmental and social performance. The deviations, if any, have been explained adequately at appropriate places.

Green House Gas (GHG) protocol guidelines of World Business Council for Sustainable Development are used for GHG emission reporting.

Financial and Economic data are reported as per the guidelines provided in the Company Law of India and Indian GAAP Standards.

USD (US dollar) conversion rates used are as at noon on 31st March 2008:

1 USD = 40.02 INR (Indian Rupee)

- = 1.3786 SGD (Singapore Dollar)
- = 31.44 THB (Thailand Baht)

1 GBP (United Kingdom Pound) = 1.9855 USD

Monitoring, measurement and calibration is carried out as per relevant Indian standards. Documentation and communication are undertaken as per the requirement of ISO 9001 & ISO 14001, OHSAS 18001 & SA8000.

Tata Steel follows the norms and procedures prescribed for workplace Safety and Environment by Ministry of Environment, Ministry of Labour & Welfare (Factories Act). In 2008 the LTIF measure was brought into line with global industry guidelines to become more stringent than Indian Factories Act requirements.

#### **Independent Assurance**

Tata Steel continues to seek independent assurance for its Corporate Sustainability Report. Accordingly in 2008, Tata Steel appointed Ernst & Young Pvt. Ltd. as the independent assurance provider. Ernst & Young has conducted a limited assurance as per ISAE 3000 standards. Their independent assurance statement has been included at the beginning of this report.

#### Additional sustainability auditing

• Economic Performance Assurance

The Quarterly, Half Yearly and Annual books of account are audited by internal and external auditors. The 2007 - 08 accounts were audited by Deloitte Haskins & Sells, Chartered Accountants, Mumbai. The scope of external audit includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. The audit is undertaken in accordance with auditing standards in India.

• Environment, Health and Safety

The independent 3rd party audits are conducted by M/s. IRQS for Divisions certified to Environmental Management System, ISO 14001:2004 and Occupational Health and Safety Management System, OHSAS 18001:1999 once in a year.

Society

Social audits are conducted once in every 10 years by a bench of external auditors comprising eminent personalities from the judiciary, social organisations and financial institutions appointed by Tata Steel's Board of Directors. The

last audit was conducted in 2004.

The Steel Works at Jamshedpur and Sukinda Chromite Mines were certified to SA8000 in 2004. M/s. Det Norske Veritas conducted the external audit of the system in 2007 - 08 for the Jamshedpur Steel Works.

Tata Steel's Resettlement and Rehabilitation programme 'Parivar' is to be independently audited to provide an objective assessment of how families displaced by the Company's greenfield projects - and therefore assisted by the Parivar programme - are affected over the years.

#### GOVERNANCE, COMMITMENTS AND ENGAGEMENTS

#### Governance

#### The Company's Corporate Governance Philosophy

Tata Steel has set itself the objective of expanding its capacities and becoming globally competitive in its business. The Company has always prioritised sound corporate governance and aspires to go well beyond legal requirements to be an exemplar of good governance.

The Board considers itself as a Trustee of its shareholders and has robust systems in place to deliver its responsibilities for creating and safeguarding shareholder wealth. During the year under review, the Board pursued these objectives through monitoring major risks to the Company's business, prudent business planning, implementing appropriate corporate strategies, monitoring for compliance and ensuring that integrity and corporate responsibility are inherent in all activities.

The Company emphasises the need for full transparency and accountability in all its transactions, in order to protect the interests of its stakeholders. A detailed Corporate Governance Report is provided in Tata Steel's Annual Report 2007 - 08.

#### **Governance Structure**

As part of its growth strategy, and the integration of group companies, a new governance structure has been agreed for the Tata Steel Group from early 2008, which is shown below.

THE GOVERNANCE STRUCTURE					
	Chairman				
	Deputy Chairman				
Tata Steel Executive Committee	Joint Executive Committee	Corus Executive Committee			
Managing Director	Group Corporate Functions	Chief Executive Committee			
Chief Operating Officer	Group Director Technology and Integration	Chief Operating Officer			
Director South East Asia	Group Chief Financial Officer	Strip Products Division Director			
Vice President Engineering and Projects	Group Director Strategy	Long Products Division Director			
Vice President Corporate Services	Group Director Communications	Distribution and Building Systems Division Director			
Chief Human Resource Officer	Group Director Global Minerals	Director Finance			
Chief Financial Controller Corporate		Director Human Resources			
Strategy and Integration Committe	oe.	Director Legal, Compliance and Secretariat			

#### **Board of Directors**

As on 31st March 2008 the Company has fourteen Directors on its Board of which eight Directors are independent. The number of Independent Directors is more than one-third of the total number of Directors and the number of Non-Executive Directors is more than 50% of the total number of Directors.

The Independent Directors are those who, apart from receiving Director's remuneration, do not have any material or pecuniary relationship or transaction with the Company, its promoters, its management or its subsidiaries, which may affect the independence of the Director's judgment. A financial institution nominee is considered to be an Independent Director in all cases.



The Company is in compliance with the recent amendment of Clause 49 of the Listing Agreement pertaining to compositions of Directors. None of the Directors on the Board is a member of more than ten committees and Chairman of more than five committees across all companies in which he is a Director. The necessary disclosures regarding committee positions have been made by the Directors.

Tata Steel has adopted the Tata Code of Conduct for Executive Directors, Senior Management Personnel and other Executives of the Company. The Company has received confirmations from the Executive Directors as well as Senior Management Personnel regarding compliance of the Code during the year under review. It has also adopted the Tata Code of Conduct for Non-Executive Directors of the Company. The Company has received confirmations from the Non-Executive Directors regarding compliance of the Code for the year under review. Both the Codes may be found on pages 129-134.

The Board periodically reviews compliance reports of all laws applicable to the Company. Steps are taken by the Company to rectify instances of non-compliance, if any.

#### **Committees of the Board**

#### **Audit Committee**

The Audit Committee reviews compliance with internal control systems, ensures effective external audit procedures, reviews the financial results of the Company before submission to the Board and makes recommendations to the Board on any matter relating to the financial management of the Company.

#### **Remuneration Committee**

The Remuneration Committee reviews the performance of the Managing Director and the Whole-time Directors, after considering the Company's performance, and recommends remuneration and benefits.

#### Shareholders' Committee

An Investors' Grievance Committee was constituted in 2000 to specifically look into the redressal of investors' complaints like transfer of shares, non-receipt of balance sheet and non-receipt of declared dividend, etc.

#### **Executive Committee of the Board**

The terms of reference of the Executive Committee of the Board are to approve capital expenditure schemes and donations, within the stipulated limits, and to recommend to the Board capital budgets and other major capital schemes, to consider new businesses, acquisitions, divestments, changes in organisational structure and also to periodically review the Company's business plans and future strategies.

#### **Nomination Committee**

This committee was constituted in 2006 with the objective of identifying Independent Directors and taking steps to review and refresh the constitution of the Board periodically.

#### **Committee of Directors**

The role of the Committee of Directors is to authorise certain routine matters such as the Opening and Closing of Bank Accounts of the Company, granting limited Powers of Attorney to the Officers of the Company, appointing proxies to attend general meetings on behalf of the Company, etc. The business of the committee is transacted by passing Circular Resolutions, which are placed before the Board at its next meeting.

#### **Ethics and Compliance Committee**

In accordance with the Securities and Exchange Board of India (Prohibition of Insider Trading) Regulations, 1992, the Board of Directors of the Company adopted the Tata Code of Conduct for Prevention of Insider Trading and the Code of Corporate Disclosure Practices (the Code) to be followed by the Directors, officers and other employees. The Code is based on the principle that Directors, officers and employees of a Tata Company owe a fiduciary duty to, among others, the shareholders of the Company, to place the interest of the shareholders above their own and conduct their personal securities transactions in a manner that does not create any conflict of interest situation.

The Board appointed the Group Chief Financial Officer as the Compliance Officer to ensure compliance and effective implementation of the Regulations and the Code across the Company.

#### **General Body Meetings**

An Annual General Meeting is held each year and occasional Extraordinary General Meetings are held when necessary. The last Annual General Meeting was held on 29th August 2007.

#### **Linking Compensation with Achievement**

The Non-Executive Directors (NEDs) are paid remuneration by way of Commission and Sitting Fees. In accordance with the shareholders' approval obtained at the AGM held on 5th May 2006, the Commission was paid at a rate not exceeding 1% per annum of the profits of the Company (computed in accordance with the Companies Act, 1956). The distribution of Commission amongst the NEDs is placed before the Board. Sitting fees are paid at an agreed set rate for attending meetings of the Board and its committees.

The Company pays remuneration by way of salary, perquisites, fixed allowances and variable commission to Managing and Whole-time Directors. Specific amounts payable to such Directors are based on the performance criteria laid down by the Board, which takes into account the performance of the Company and annual profits earned. Such payments are made based on the recommendations of the Remuneration Committee, within the range approved by the Shareholders and the ceiling fixed by the Board, which is compliant with stipulations of the Companies Act, 1956.

The annual variable pay of senior managers is linked to the performance of the Company in general and their individual performance for the year, measured against specific Key Result Areas, which are aligned to the Company's objectives. Thus compensation is affected by performance on issues such as safety. From 2008, such compensation will be linked to the Tata Steel Group Vision and Goals and to associated personal objectives.

#### **Managing Conflicts of Interest**

The Tata Code of Conduct adopted by all Directors, Senior Management and Employees of Tata Steel ensures that personal interests do not conflict with the interest of the Company. The Code explains clearly when such a conflict may occur and stipulates that any such conflicts or potential conflicts must be disclosed in writing to higher management for guidance and appropriate action. Disciplinary action will be taken if management becomes aware of a conflict of interest which has not been disclosed.

Financial transactions in which Directors are interested, if any, are required to be placed before the Board for approval. The Company has a policy of prevention of insider trading in securities of the Company. Purchase or sales of shares of

The Tata Code of Conduct adopted by all Directors, Senior Management and Employees of Tata Steel ensures that personal interests do not conflict with the interest of the Company. The Code explains clearly when such a conflict may occur and stipulates that any such conflicts or potential conflicts must be disclosed in writing to higher management for guidance and appropriate action. Disciplinary action will be taken if management becomes aware of a conflict of

#### **Selection of Board Members**

The Board of Directors is guided by the organisation's Vision and Values. The composition of the Board of Directors is a mix of full time executives and non-executives representing business houses and financial institutions, with requisite experience in handling economic, environmental and social issues. The Board members regularly review the compliance status of the organisation on these issues. There is a guideline for selection of Board Members, with criteria covering individual skills that add to the composite perspective of the Board, as well as ensuring capacity for full participation. The Nomination Committee of the Board is responsible for identifying Independent Directors to be included on the Board.

#### Procedures for Managing Economic, Environmental and Social Performance

Economic, environmental and social performance is managed through integrated performance improvement planning and monitoring systems throughout Tata Steel. A Total Quality Model, involving Policy Management and Daily Management, guides a planning process which cascades strategy through the organisation and embeds the associated goals and targets into business processes.

Economic, environmental and social performance of the Company is overseen by the Board. A status report on economic, environment and social performance, along with relevant Board papers, is sent in advance to all the Board Members before Board meetings for review, comments and suggestions during the meeting. The Board monitors both compliance and performance on achieving the targets the Company has set itself. Feedback from the Board members is analysed by the top management and considered for business decision-making.

#### **Mechanism for Providing Recommendations to the Board**

The mechanism for shareholders to provide recommendations to the Board is primarily through the Annual General Meeting and communication with the Shareholders Committee, as well as via Investor Satisfaction Surveys and meetings with investors. The suggestions, comments and feedback provided by the shareholders during the Annual General Meetings are carefully recorded and discussed in the Board Meetings. After reviewing the various points raised by shareholders, the Board directs the management to integrate the results in its business decisions.

Employees have to the opportunity to communicate directly with the Managing Director through a monthly interactive webcast 'MD Online' and a drop box 'Hotmail' and indirectly through joint council mechanisms, regular dialogues and employee suggestion schemes. Suggestions can be made to the Board via the Managing Director.

#### Internally Developed Vision and Values, Code of Conduct and Guiding Policies

Tata Steel has for many years planned its operations and development in consultation with its stakeholders and produced clear statements of Vision, Guiding Principles and Policy.

Tata Steel has five core values: Trusteeship, Integrity, Respect for Individual, Credibility and Excellence. These values guide and drive business decisions, building on the Tata Group's beliefs and convictions from the Company's earliest days. The Tata Group and its enterprises have been steadfast and distinctive in their adherence to business ethics and their commitment to corporate social responsibility. This is a legacy that has earned the Group the trust of many millions of stakeholders in a measure few business houses anywhere in the world can match.

Tata Steel's recognition of its wider responsibility towards society is demonstrated through its Articles of Association and its Social Accountability, Environmental and Corporate Social Responsibility policies. Specific guidelines on conduct are supplied through the Tata Code of Conduct, which applies to both the Company and the standard of behaviour on a range of salient issues across the various operations. including National Interest; Competition; Equal

Opportunity; Health, Safety and Environment; Quality of Products and Services; Ethical Conduct; Regulatory Compliance etc. The Code of Conduct applies to all Tata Steel Limited operations in India and rollout to Tata Steel Group companies is underway. Many further policies guide activity on specific issues and these are referenced throughout this report as appropriate.

The policies and Code of Conduct are well publicised to all stakeholders. Full details of the Code of Conduct and these guiding policies are provided in the Further Information (Page 129 - 136) with relevant policies such as the Human Resource Policy, Affirmative Action Policy, Safety and Occupational Health Policy, HIV and AIDS Control Policy, Alcohol and Drugs Policy, Energy Policy and Research Policy.

In 2008 the Tata Steel Group has demonstrated its commitment to sustainability issues in its new Vision for 2012 - to be the world steel industry benchmark for value creation and corporate citizenship - and the associated goals. Planning and activity is already underway to ensure behaviour of individual employees. The Code sets a the Vision and Goals are implemented appropriately

#### **Commitments to External Initiatives**

#### **Precautionary approach**

The precautionary approach is the underlying spirit of every policy or guideline formulated at Tata Steel. It is the Company's policy to assess whether its actions or policies might cause severe or irreversible harm to the public or to the environment and to adopt a cautious approach and take steps to protect from harm where scientific evidence suggests there may be a risk, even where this is not certain.

The Company is a signatory to the Global Compact which stipulates a precautionary approach to environmental challenges. The Tata Code of Conduct addresses the fundamental importance to the Tata Group companies of ensuring Health, Safety and Environment (Clause 8) and Tata Steel's policies, including its Environmental Policy and Corporate Social Responsibility Policy, reflect its ethos of prioritising quality of life and the protection of the environment (see Further Information Page 129 - 136).

The merit of every proposed activity, project or process is evaluated for financial performance, environmental and social performance before adoption. Environmental impact assessments are carried out for all projects to be implemented and necessary environmental management plans are integrated in the project to internalise the cost. Life Cycle Assessment has been carried out for the integrated iron and steel making route. The outputs on emissions, discharges, resource usage and global warming are analysed; targets are taken for continual improvement under the Environmental Health and Safety Management system. Only those proposals which ensure compliance with these policies are selected.

#### **Adoption of external charters and principles**

Tata Steel is a founding member of the United Nations Global Compact and abides by its principles. The principles of UN Global Compact address Human Rights, Labour Rights, Environment and Anti-corruption (Page 137). The Managing Director of Tata Steel is a Board Member of the UN Global Compact, helping to lead this global strategic policy initiative.

Tata Steel also respects the Tata Corporate Sustainability (Group) Policy agreed on 29th July 2007 (Page 137).

The commitments to such external charters, principles, policies, etc are implemented by integrating the requirements in business through various systems implemented by Tata Steel such as ISO 14001, ISO 9001, OSHAS 18001, SA8000 and Total Quality Management. This embeds the principles into the way things are done. The systems are meticulously reviewed on a regular basis and corrective actions are taken to meet the requirements.

#### Participation in associations and partnership commitments

Tata Steel considers it vital to work together with other organisations to learn and share and work towards common goals. The Company is an active member of many reputed professional bodies such as the World Steel Association (previously known as the International Iron and Steel Institute (IISI), Confederation of Indian Industry (CII), Indian Institute of Metal, etc., with Tata Steel's executives occupying significant positions in the Technical and Executive committees.

Tata Steel is one of the founder members of the Global Business Coalition on AIDS, and a member of the CII-Social Development Community Affairs Committee. It is an active member of the TERI Business Council for Sustainable Development, India (a regional partner of the World Business Council for Sustainable Development), with its Managing Director having a leadership role as an executive committee member of the Council in 2007.

The Company has increasingly been undertaking partnership projects in collaboration with NGOs, Industry Associations and National / International advocacy organisations.

Tata Steel has enthusiastically participated in the Steel Task Force initiatives of Asia Pacific Partnership on Clean Development and Climate under the aegis of the Government of India Ministry of Steel. Corus, a subsidiary company of Tata Steel, is involved in some major partnership initiatives to address CO<sub>2</sub> emissions and climate change, including:

- Global steel sector initiatives in partnership with IISI
- EU Emissions Trading Scheme on CO<sub>2</sub> emissions caps, allowances and trading
- A European research project to investigate new technologies for steel making

Social organisations established by Tata Steel are working with a variety of partners on health, social and cultural activities. Some examples of recent partnership initiatives are with:

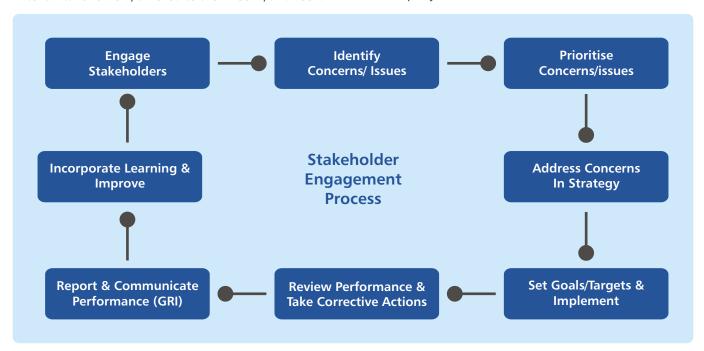
- Transport Corporation of India Foundation, for Kavach HIV/AIDS project
- Sir Ratan Tata Trust Central India Initiative, for rural development
- Integrated Wasteland Development Programme, in association with District Rural Development Agency
- NGOs and government, using the Tata Steel Family Initiatives Foundation Resource Centre in Jamshedpur

#### Stakeholder Engagement

shareholders, the financial community, customers, surveys, employee satisfaction surveys, community employees, suppliers, partners, local communities and need analyses and social audits are undertaken the external public (government, media, industry and periodically. The feedback received from stakeholders is civic society).

Tata Steel aims to provide full and transparent reporting to its stakeholders, tailored to their needs, and seeks in

Tata Steel believes that engaging with stakeholders turn to know, understand and act upon the views of about their concerns is the way to improve business for those stakeholders. A genuine dialogue with everyone's benefit. The Company identifies stakeholders stakeholders is considered vital for business of the organisation as those who are affected by its development and engagement takes place through products, services and activities or those whose two-way communication using a variety of concerns can affect the performance of business. The mechanisms, including structured, formal and informal main stakeholder groups engaged by the Company are: processes. Investor surveys, customer satisfaction a significant input into the strategic plan development and the consequent strategic objective setting of the Company.



In addition to communicating through the Company website, tailored publications and formal reports (e.g. Annual Report and financial reports to shareholders, Corporate Sustainability Report etc), Tata Steel engages with stakeholders in more dynamic, interactive mechanisms to enter into dialogue and develop uses and responses from stakeholder feedback.



Tata Steel believes in creating value for all its stakeholders

#### STAKEHOLDER ENGAGEMENT APPROACH, ISSUES AND COMPANY USE/ RESPONSE

#### Stakeholder **Approach** Issues Shareholders and **Annual General Meeting** Strong financial management, strategic planning and business **Financial** Investors meet-across the performance: overall performance Community alobe and its implication on market Updating major shareholders capitalisation and creation of Initiatives: Shareholder Relations Meet shareholder value. **Optimising assets** Shareholder Committee Corporate governance Differentiation of product in market place meetings Rusiness ethics Continuous improvement from acquisitions **Investor Satisfaction Survey** Sustained value creation

## **Customer meets**

Investor calls

Retail Loyalty programme Retailer meets

Performance reports and

Sustainability reporting

**Product Groups Customer Satisfaction Surveys** 

Knowledge Sharing' engagement programme

Trust to supply what is needed in efficient and ethical way. User needs, customer satisfaction,

Remaining an EVA + company

Sustainability performance

Complaint/conflict handling

Risk management

Seizing new opportunities to grow

**Product features** 

**Product quality** 

Cost and delivery

Product development

#### **Use/Response**

Objective and Target settings, investment decisions, diversifications/merger/ acquisition, company perception with analysis, emerging strategic issue identification.

Capacity expansion at greenfield locations

Investments and joint ventures for raw material security

**R&D** and innovation

Establishing presence across markets and steel value chain

Managing business ethics and the principles of UN Global Compact

#### Customer

**Customer visits Customer Service Team** Cross-functional teams for Customer Contact Programme Steelium LINKS - 'Learning Interaction Networking

product quality and functionality.

Product value

Quality of service

Product improvement, product development, customer retention, market penetration, emerging demand scenario and price sentiments, development of short and long term business plans, identification of customer related issues.

Initiatives:

New steel grades and advanced products for the automotive market

Enhancement of in-shop experience; exclusive shops

Loyalty programmes

Product and service enhancements

Due Date Performance System (DDP)

Steel N Style

#### Suppliers and Partners

**Vendor Dialogues** Vendor Meets and Recognition

Meetings with Key Suppliers as per plan Safety awareness programmes

SA8000 Awareness

programmes and audits

Joint improvement initiatives with key suppliers

**Supplier Relationship** 

Trust to procure fairly and reliably, communicate clearly and develop ongoing supply relationship.

Identification of areas for

improvement.

Health and safety of workers

Fairness in pricing

Fair business practices

Value creation

Compliance with statutory

requirements

Supplier relationship management

Initiatives:

Safety training

Supplier Value Management

Monitoring compliance to SA8000 Standard Registration of vendors after fulfillment of statutory requirements

Monitoring payments of minimum wages, ESI, PF of contractor workmen

#### External Public/ Government/ Media/ Industry/ Society

As needed, meetings with: Government, Steel Ministry, Trade Bodies, Industry Associations, NGOs, Ministry for Environment and Forests,

Press Briefings and Releases Participation in networks **Events** 

Contact mechanisms with prospective employees

Corporate responsibility, business ethics and global citizenship.

Requirements under statutes

Compliance status

Threats to business

Licence to operate **Environmental impacts** 

Issues raised in relation to specific

operations

New operations and collaborations

Innovations

Contribution to Millennium **Development Goals** 

Management programmes for compliance and resource conservation, management programmes for community development. Initiatives:

Brand research and corporate identity development

Understanding of external business environment and issues

Review policy and process

Public policy development and participation in collaborative initiatives e.g. with IISI

#### **Approach** Stakeholder **Use/Response** Issues Community Senior Citizens Forum - Half Managing operations in balance with Impact management and CSR Plan for the needs of the community, seeking development of community. to enhance quality of life and Initiatives: Spouses' Dialogue - Yearly contribute to nation-building. Sustainable Livelihood through land and Joint Community Meeting Feedback on business impacts and water management, rural enterprise Community Needs Survey/ performance development and vocational training Feedback on community and civic Health and sanitation - Preventive promotive Village level institutions e.g. infrastructure e.g. Tata Main Hospital and curative health initiatives. Drinking Village Development Needs of local peoples in greenfield water, Disability Management, Life line Committees and Self Help project areas express, HIV/AIDS prevention programme, Groups CSR project developments Projects on mother and child health Informal dialogue through Education - Early childhood education, Adult **New initiatives** activities of JUSCO, Sports Literacy, Camp School and financial centres and social clubs, Tata assistance for higher education Steel Rural Development Empowerment empowering youth through Society, Tribal Cultural Society and Tata Steel Family Preservation and promotion of ethnicity of Initiatives Foundation. primitive tribes like Birhor and Sabar Environment - Renewable Energy Project and afforestation **Employees** Workplace issues and employment employee related issues. pay and benefits. MD Online - monthly Initiatives:

Hotmail intranet suggestion/ comments Management: Senior, General and Ladies Dialogues - 4-6 per annum Unionised employees: Dialogue with Union Committee Members (JCCM, JWC, and JDC) - (3,6,2 per annum)

BE Facilitators Meet - 6 per annum Joint Works Quality Committee

Monthly Department/Section

**Communication Meetings** 

- quarterly

Health and safety

Diversity, human rights and equal opportunity inc gender equality

Freedom of association

Collective bargaining Participative management

Benefits and welfare

Quality of life

Learning, development and individual growth

Respect, reward and recognition Transparency, fairness and equity

Learning

Labour relations and employee satisfaction

Plant/Company performance Vision, values, policies and strategies Continuous improvement **Employee suggestions** 

Employee Satisfaction Index, identification of

Du Pont safety programme for zero accidents Monitoring of quality of life with targets

Management of Business Ethics activities -

employee conduct and protection Remuneration benchmarking

Small group activities

HIV/AIDS awareness

Knowledge management

ASPIRE - quality system

Community initiatives - employee involvement planning and volunteering e.g. disaster relief



Some specific sustainability issues emerged from engagement with stakeholders during this year. The issues and Tata steel's response are as follows:

#### **Greenfield Projects**

The expansion plan of Tata Steel is underway, with Memoranda of Understanding signed for three greenfield steel plant projects in the states of Jharkhand, Orissa and Chhattisgarh. The issues being faced by Tata Steel relate mainly to land acquisition from villagers and mines allotment by the state government. The Company has encountered some apprehensions from villagers due to their past experiences with the rehabilitiaton programmes for industrial projects. Tata Steel's approach:

- Communicating the CSR initiatives of Tata Steel to involved stakeholders
- Creating awareness about the advantages of industrialisation and employment opportunities to the beneficiaries
- Regular meetings and interactions with the local bodies and the political leaders to tell them about the importance of industrialisation and the impact on the standards of living and levels of income
- Initiating and conducting coaching and training sessions in various trades to improve employability at the project sites and for the project affected families for all age groups, including women
- Publicising the concept of Tata Steel Parivar, which is Tata Steel's Resettlement and Rehabilitation programme that includes livelihood options along with land, housing and employment opportunities for the beneficiaries

#### **Dhamra Port**

Environmentalists have expressed concern that the construction of the Port would affect the nesting of Olive Ridley Turtles.

Environmental clearance for the project was obtained from the Empowered Committee for Environment Clearance and upheld by the National Environment Appellate Authority in 2000. The Environmental impact assessment of this project conducted by M/s Kirloskar Consultants Ltd. in 1997 and an additional assessment in 1998, found that the risks to the nesting of Olive Ridley turtles are insignificant, and this was reiterated in the National Environment Appellate Authority judgement. The turtles have never nested in the Dhamra port area because there are no sand beaches for the turtles to dig pits and lay their eggs; the beaches in the area have clay which is not suitable for nesting. However, in keeping with its policy of a precautionary approach, Tata Steel is making every effort to ensure that there will be no possible adverse effects on Olive Ridley Turtles.

#### Tata Steel's approach:

- Since the inception of the project, Tata Steel has engaged with conservationists, scientific organisations and NGOs.
- Tata Steel invited concerned organisations to undertake scientific study of the environmental impacts of the port.
- The Company appointed the renowned International Union for Conservation of Nature (IUCN) as advisers to ensure
  that the port operations do not negatively impact the turtles. Tata Steel is actively following their recommendations
  and has put in place extra safeguards to address this concern for example installing deflectors in the dredgers and
  running social awareness campaigns to protect the turtles.

#### **Environmental Issues - Case Study Sukinda Mines**

An old Blacksmith Institute Pollution Report alleged that Sukinda chrome ore bearing area in Orissa was one of the most polluted areas due to the presence of hexavalent chrome polluting nearby water bodies. Tata Steel's own chrome mines fall in this area. Down To Earth, India's foremost environment related magazine as well as the State Pollution Control Board visited the Tata Steel mine and confirmed that this problem did not exist in these mines.

#### Tata Steel's approach:

- Tata Steel used its R&D expertise to develop an economical method to neutralize the harmful effects of hexavalent chrome
- This resulted in the hexavalent Cr levels being reduced from 0.4ppm to 0.001ppm in Cr ore concentrate
- Tata Steel's R&D Department won the Department of
- Scientific and Industrial Research (DSIR) Award for this remarkable achievement
- Even though pollution was found not to be a problem at Tata Steel's mines, the Company is contemplating upgrading the waste water treatment facilities of the existing mines

#### **Raw Material Security**

Exploration and location of iron and coal mine deposits globally.

Tata Steel's approach:

• Tie-ups for long term supply of these minerals for future sustainability of the Company's operations in Europe, India and other locations

#### Indian Cable Company, Jamshedpur

Indian Cable Company is a sick unit in Jamshedpur whose closure has resulted in its workers and employees becoming jobless and without any source of income. Tata Steel has offered to revive this unit and provide employment and livelihood to the people who have been affected by the closure in order to maintain the industrial harmony of Jamshedpur. Tata Steel is closely monitoring the issues around the revival of the unit.

#### **Municipal Corporation**

The issue of Jamshedpur being maintained by a municipal corporation has been raised on occasion. However, the citizens of Jamshedpur have rejected the proposal through referendums.



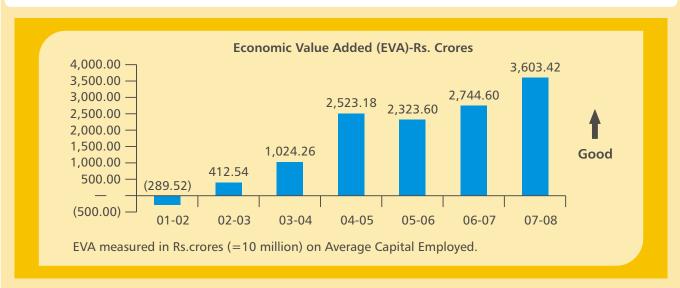
# Creating Value...



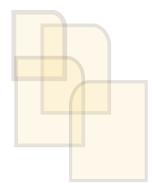
# ECONOMIC PERFORMANCE

# **Creating value**

Tata Steel is proud of its strong economic performance over recent years, particularly in 2007 - 08. The Company has enjoyed a general trend of growing 'Economic Value Added' in the last few years.



From 2008 the prime measure of value creation for Tata Steel Group will be Return on Capital Invested (ROIC). To achieve this, the Company will be seeking to optimise assets and to invest in various initiatives to create value through new technology, efficiencies, upstream integrations, marketing, new operations and capacity expansion.



# **Management Approach**

Tata Steel constantly strives to be a significant creator of wealth for all its stakeholders, not just its shareholders. Its business philosophy is derived from the Tata Group Purpose:

At the Tata Group our purpose is to improve the quality of the life of the communities we serve. We do this through leadership in sectors of national economic significance, to which the group brings a unique set of capabilities. This requires us to grow aggressively in focused areas of business.

Tata Steel believes in managing its business with a focus on the long term rather than on short-term opportunism. The Company combines a shrewd financial planning and management system with its commitment to investing in the wellbeing of all its stakeholders, and sees this as the best way to achieve sustainable business and enhance economic performance.

As an emerging international player, its strategy in recent years has been one of growth and globalisation through organic and inorganic routes, with several greenfield sites and brownfield expansion underway. In growing and developing, the Company is ever mindful of the need for inclusive growth, and therefore takes a responsible and caring approach to business planning and practice, ensuring it extends the benefits of its operations to all stakeholders, including employees, local communities and society at large.

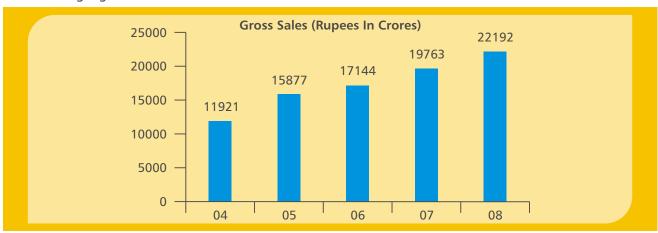
The main management strategies to create value and provide sustainable economic performance are:

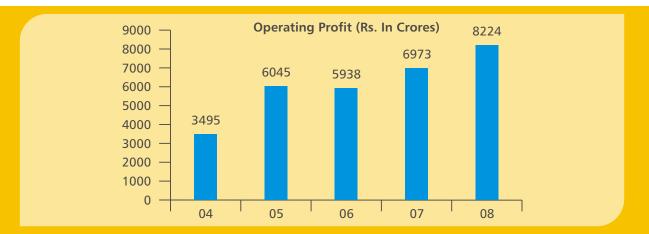
- Secure appropriate raw material resources
- Effective logistics
- Innovative products, branding and positioning in the marketplace
- Lowest cost steel producing through energy efficient technology and improved operating practice

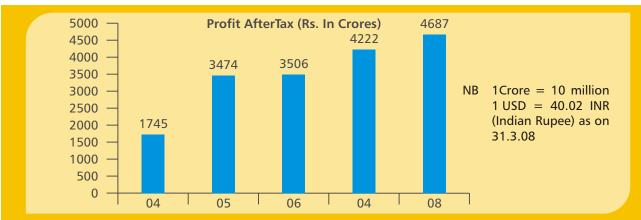


# **Economic Impacts**

#### **Financial Highlights**









#### **Economic Performance Highlights 2008 (Tata Steel Stand-Alone)**

- Gross Earning increased by 12% at Rs. 225,268 million (USD 5,629 million)
- EBITDA up by 16% at Rs. 85,585 million (USD 2,139 million)
- Profit After Tax up by 11% at Rs. 46,870 million (USD 1171 million)
- Highest ever dividend to shareholders of 160%
- Gross Steel sales (Including Semi-finished/Scrap/Tubes) up by 0.37% at 4.96 million tonnes
- A total of Rs. 963.7 million (USD 24 million) was invested in community activities, including municipal, community and medical services, grants and donations

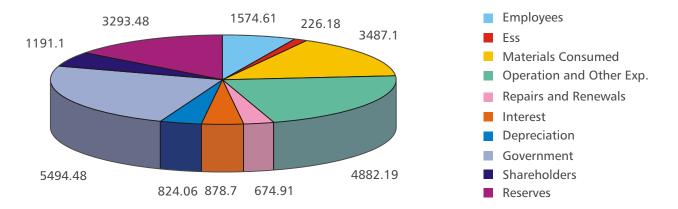


#### **Economic Value Generated and Distributed**

Financial Performance	Rs. Million 2006 - 07	Rs. Million 2007 - 08
Net Sales Income	175510.9	196932.8
Total Expenditure	105778.2	114697.4
Operating Profit	69732.7	82235.4
Add: Dividend and Other Income	4336.7	3350.0
Profit before Interest, Depreciation, Exceptional items and Taxes	74069.4	85585.4
Less: Interest	1739.0	8787.0
Profit before Depreciation, Exceptional items and Taxes	72330.4	76798.4
Less: Depreciation	8192.9	8346.1
Profit before Exceptional items and Taxes	64137.5	68452.3
Less: Exceptional items	1521.0	2211.3
Profit before Taxes	62616.5	70663.6
Less: Provision for Current Taxation	20760.1	22520.0
Less: Provision for Deferred Taxation	525.1	1083.3
Less: Provision for Fringe Benefits Tax	160.0	190.0
Profit after Taxes	42221.5	46870.3
Add: Balance brought forward from the previous year	29761.6	45939.8
Balance	71983.1	92810.1
Which the Directors have appropriated as under to:		
Proposed Dividend (Including Div on CCPS Rs.221.9 M 07-08)	9439.1	11911.2
Tax on Dividend	1604.2	2024.3
General Reserve	15000.0	15000.0
TOTAL	26043.3	28935.5
Leaving a balance to be carried forward	45939.8	63874.6

Balance Sheet		Rs. Million	
Funds Employed	31.03.07	As on 3	0.03.08
Share Capital	5806.7	62033.0	
Share Warrants	1470.6		
	7277.3		62033.0
Reserves and Surplus	133684.2		210974.3
Total shareholders' funds	140961.5		273007.3
Secured Loans	37589.2	35205.8	
Unsecured Loans	58864.1	145011.1	
Total Loans	96453.3		180216.9
Deferred tax liability (net)	7489.4		6818.0
Provision for employee separation compensation	11070.8		10713.0
TOTAL FUNDS EMPLOYED	255975.0		470755.2
APPLICATION of FUNDS			
Fixed assets			
a) Gross Block	185269.3	208470.4	
b) Less-Impairment	1004.1	1004.7	
c) Less-Depreciation	73859.6	81230.1	
d) Net Block	110405.6		126235.6
Investments	61061.8		41031.9
A. Current assets			
a) Stores and spares parts	5054.4	5576.7	
b) Stock-in-trade	18275.4	20473.1	
c) Sundry debtors	6316.3	5434.8	
d) Interest accrued on investments	2.0	2.0	
e) Cash and Bank balance	76813.5	4650.4	
	106461.6	36137.0	
B. Loans and advances	30557.3	333487.4	
	137018.9	369624.4	
Less: Current Liabilities and Provisions			
a) Current Liabilities	35232.0	38552.6	
b) Provisions	19304.6	29135.2	
	54536.6	67687.8	
Net Current Assets	82482.3		301936.6
Miscellaneous expenditure-Employee Separation Compensation	2025.3		1551.1
TOTAL ASSETS (Net)	255975.0		470755.2

#### Distribution of Revenue 2007 - 08 (Rs. Million)



## Expenses

Manufacturing and Other Expenses (Rs. Million)				
Items	2006 - 07	2007 - 08		
Purchase of finished, semi-finished steel and other products	4,506.0	4,469.5		
Raw materials consumed	31,214.6	34,295.2		
Payments to and provisions for employees	14,548.3	15,897.7		
Operation and other expenses	46,472.8	50,688.8		
Freight and handling charges	11,174.5	10,981.9		
Provision for doubtful debts and advances	119.9	121.6		
Excise duty	927.0	385.0		
Accretion/(reduction) in stocks of finished and Semi-finished products and work-in-progress (deducted)/added	(824.7)	(387.3)		

#### Payments and Provisions to Employees

The staff cost increased to Rs. 15,897 million, as compared to Rs. 14,548 million in the previous year. The increase is mainly due to annual increments, dearness allowance and a consequential increase in provisions for gratuity and leave salaries.



Particulars of Payments to Employees	Rs. Million 2006-07	Rs. Million 2007-08	Change in Rs.	Change %
Payments to and provisions for employees	14548.3	15897.7	1349.4	8
Employee Separation Scheme (ESS) compensation	1521.0	2261.8	740.8	49

#### **Donations to Community, Civil Society and Other Groups**

During 2007 - 08 Tata Steel distributed a total of nearly Rs. 964 million in payments for municipal, community and medical services, grants for rural activities undertaken by Tata Steel Rural Development Society and other grants.





SERVICE	Rs. Million Actuals 2006 - 07	Rs. Million Actuals 2007 - 08
Municipal Services	309.0	380.9
Community Services	263.0	274.5
Medical Services	91.4	97.0
TSRDS Grants	87.8	97.5
Grants and Donations	80.4	113.8
Totals	831.6	963.7

#### Taxes paid to the Government

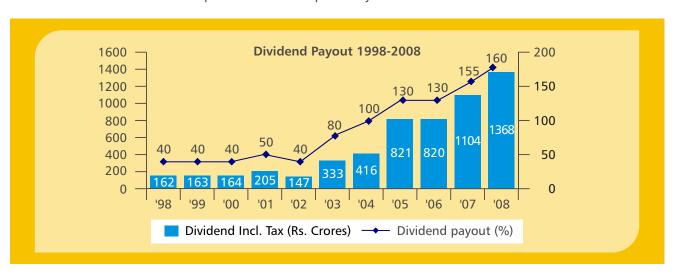
The total amount of taxes like sales tax, excise duty, wealth tax, etc. paid by the Company during 2007 - 08 was Rs. 56 billion, against Rs. 49 billion during 2006 - 07.

Return on Invested Capital (ROIC)		
Return on Invested Capital		
Particulars	2006 - 07	2007 - 08
Return on Invested Capital	74%	98%

ROIC is Net Operating Profit Before Tax and Extraordinary Items  $\div$  Fixed Assets (exc. WIP) + Net Current Assets Performance on ROIC is strong for Tata Steel. This is because the Company is fully integrated in its operations, with control of raw materials contributing to better operating margins. The Company's low capital base and improved working capital levels also contribute to ROIC performance. ROIC will be a prime measure for value creation across the Tata Steel Group in the coming years.

#### Dividend

The Board of Directors of the Company recommended a dividend @ 160% (Rs. 16 per share) for the year ended 31st March 2008. The dividend cash-outgo (including tax on dividend) was Rs. 13.94 billions. The dividend payout as % of Net Profit works out to 30% as compared to 26% in the previous year.



#### **Risks and Opportunities Due to Climate Change**

Tata Steel believes climate change is one of the biggest issues facing the steel industry today. The consequences of climate change could be highly detrimental to economies and societies as well as the environment, and the Company believes it must adopt a responsible and proactive precautionary approach to managing its operations in order to reduce impacts which could contribute to this problem. Tata Steel's own operations could be affected through the practical impacts of climate change (e.g. rising sea levels at areas of operation). There are also political and commercial risks as stakeholders seek low CO<sub>2</sub> products and services, and consequent financial risks. So there is a clear business case for addressing this issue too.

As India is a Non Annex I Country, it currently has no Green House Gas (GHG) emission reduction targets in the

first Kyoto commitment period up to 2012. However, being a part of UNFCCC, India has taken the initiative to participate in Clean Development Mechanism (CDM) under the Kyoto Protocol. CDM has opened up new opportunities for achieving revenue from carbon trading and these opportunities will be pursued vigorously by the Company into the future, working with Corus in Europe, who face more immediate regulatory pressures and have already developed several responses. Tata Steel is working actively on a number of CDM projects, at various stages of approval and development. These, along with other efforts in this area, have a potential of reducing more than 2 million tonnes of CO<sub>2</sub> per annum and will bring in substantial revenue by way of carbon trading in the near future.

#### **Market Presence**

#### **Entry Level Wages**

Tata Steel employees at entry level are paid wages which are amongst the best in their industry category. The ratio of entry level wage of the lowest level worker of Tata Steel to minimum wages prescribed by state law is 3.75 to 1.

Most of the entry level employees are income tax payers. In addition, the Company also ensures that the contractors engaged by the Company pay minimum guaranteed wages to the labourers as per applicable government legislations.

#### **Spending on Local Suppliers**

The Procurement Division endeavours to understand the requirements of its customers and strives to fulfill them through knowledge-based and value-driven buying principles. Since procurement at the "right cost" and at the "right time" is fundamental to business success, the Company conducts sourcing across the globe.

Nevertheless buy from local vendors is significant. The proportion of spending on Jharkhand based vendors during 2007 - 08 was 24% of the total buy.

#### Social responsibility initiatives in procurement

In accordance with its Affirmative Action Policy, Tata Steel encourages business entrepreneurs from socially disadvantaged communities and monitors and includes them in its supply chain on the basis of equal merit.

As a social responsibility initiative, social organisations and small-scale local industries are given preference when placing orders, whenever they are able to supply the Company to a standard which otherwise would be serviced by larger units. In order to assist social organisations and small-scale industry units to supply the Company, raw materials are issued on 'conversion' basis for the supply of finished goods, spares, and consumables. This reduces the burden of 'working capital' management of these small units.

As a matter of practice, only local vendors are engaged in the services area, except for the jobs requiring a higher degree of specialisation and sophistication and a skill set which is not available locally. Additionally, the Company has identified certain items which are to be sourced from local NGOs such as AIWC, Seva Sadan, School of Hope, Bal Vihar.

#### **Local Hiring**

The Company has a policy of hiring the best available talent in the country for a job. However, local candidates are considered favourably if they possess the required qualification, skills and talent, and the Company's Affirmative Action Policy helps to ensure scheduled castes and tribal communities are provided opportunities for recruitment. The unskilled and semi-skilled workforce is primarily sourced from adjacent towns and villages in order to promote their wellbeing. At senior level no distinction or categorisation is made on the basis of geographical location.

# **Indirect Economic Impacts**

#### **Impact of Community Infrastructure Development and Services**

The happy and prosperous community and workforce in and around its operations is a living testimony to Tata Steel's corporate sustainability initiatives. The Company's policy builds goodwill within the community and enables sustainable operations. More information about Tata Steel's unique policy of corporate social responsibility and investment for inclusive growth are provided in the chapter on Society performance.

Economic contribution to the community is so extensive it is difficult to put a value on the contribution the company makes. Put simply Jamshedpur town would not exist without Tata Steel; the town has been built by the Company. 75% of local residents are not employees of the Company but Tata Steel considers them to be vital stakeholders in the Company and is dedicated to ensuring the continuing economic, environmental and social welfare of the town. In other locations of operations the

Company also seeks to ensure that a strong community infrastructure exists, to support the healthy operation of the business.

As part of Tata Steel's Centenary Celebrations, the Company announced a Rs. 1 billion mega initiative, through which it will implement programmes targeted towards social and environmental sustainability. One focus is land and water management in the deprived tribal communities of the states of Jharkand, Chhattisgarh and Orissa. Through this, the Company aims to positively impact the livelihood of 40,000 poor tribal households and create models of excellence that can be replicated by the Government and corporate entities. Another major initiative is in the field of education where Tata Steel will increase its support to schools and technical institutes for the children of tribal communities to assist them to become self-reliant.

Some highlights of the Company's contribution to local community infrastructure development and services are provided below:

#### **Municipal services**

Provided to Jamshedpur Township through the Tata Steel subsidiary company JUSCO (Jamshedpur Utilities and Services Company) – making a clean and green city with improved quality of life. Services provided to the population of around 1 million people include water, electricity, roads and transport infrastructure, public spaces and horticulture. Jamshedpur has reliability of water and power services amongst the highest in India; Jamshedpur's tap water quality exceeds World Health Organisation norms for drinking water.



#### **Educational infrastructure and services**

Tata Steel runs 3 primary schools, 6 high schools, and one college and supports nearly 500 further schools

#### **Health facilities**

- 890 bed Tata Main Hospital provides quality health services to employees and citizens of Jamshedpur
- 2 super dispensaries and 9 dispensaries
- Sneh Kendra HIV/AIDS support centre
- TSFIF resource centre which has the goal of improving reproductive health through integrated capacity building and development programmes
- Community health projects such as Kavach HIV/AIDS project at Tatanagar

### **Sports facilities**

The JRD Tata Sports Complex, an international stadium with an 8-lane polyurethane track and football field, was inaugurated in 1991. The complex also houses facilities for handball, tennis, volleyball, hockey, basketball, boxing, table tennis, swimming and a modern gymnasium. The Keenan Stadium hosts international cricket matches and there is accommodation for visiting sportspeople





- The Tata Archery Academy provides a platform for young archers to excel at the international level
- India's first football academy, the Tata Football Academy established in 1987, imparts world-class training to budding footballers
- The Tata Athletic Academy trains athletes for international events
- The Tata Steel Adventure Foundation engages employees, their families and residents of Jamshedpur in adventure sports

#### **Cultural facilities**

- Centre of Excellence town and company heritage centre
- Tribal Cultural Centre showcasing tribal culture and heritage and providing facilities for tribal groups

#### **Environment**

- TSRDS has been instrumental in the protection of over 2000 hectares of regenerated forests
- Zoo in Jamshedpur and several Botanical Parks in locations of operations

#### Infrastructure for disaster relief

At times of natural calamities, the Company has rushed immediate relief and offered long-term assistance to tsunami-hit Tamil Nadu, earthquake-torn Gujarat, flood ravaged Orissa and other such affected areas



Tata Steel has not valued its indirect economic impact, but by virtue of the nature of its operations and its extensive social initiatives, it makes an enormous indirect economic contribution to society. In addition to the economic opportunities offered directly by the business, the Company's activities in and around its areas of operation have promoted the economic wellbeing of people through indirect employment and business opportunities. In India, Jamshedpur has among the highest per capita income and the highest per capita expenditure by consumers.

There are many institutions and organisations in and around Tata Steel including clubs, health services, schools, sports groups, Credit Societies, Tata Steel Zoological Society (TSZS), Tata Steel Rural Development Society (TSRDS), Tribal Cultural Society (TCS), RD Tata

Technical Institute etc - which are supported by the Company financially and through the contribution of skilled manpower (employees volunteering as members, executives and directors), as well as through sourcing of goods and services. The thousands of stakeholders of these organisations are indirectly benefited by the Company's products and services.

Tata Steel's CSR programme develops local economies through initiatives which enhance the health, knowledge, skills and aspirations of local communities and increases their ability to achieve sustainable livelihoods. The success of participating individuals creates further community wealth and wellbeing, beyond the immediate family, though the 'trickle-down' effects of local spending and of shared learning.





# **Research and Development: Technology and Innovation**

Research and Development is a vital part of the Company's plans for creating value for all stakeholders through its innovative approach. In 2007 - 08 Tata Steel continued its increasing investment in R&D, focusing on major projects designed to improve efficiency and enhance product.

#### **Expenditure on Research and Development (Rs. million)**

	2006 - 07	2007 - 08
Capital	64.0	58.3
Recurring	268.5	363.7
Total	332.5	422.0
Total R&D expenditure as a % of total turnover	0.24	0.21

#### R & D Projects 2007 - 08

- Economic mineral beneficiation:
  - 8% ash in coal maintaining yield
  - Complete beneficiation of iron ore
- Stretch the raw materials envelope:
  - Lowering phosphorus in steel making
- Heavy end of the future:
  - Improving blast furnace productivity
  - CO<sub>3</sub> reduction in steel making

- Next generation light weight high strength steels:
  - Flat products for automobiles
- Advanced coatings development
- Low energy process for the production of Ferro-chrome
- Hydrogen Harvesting
- Viable photovoltaic coating system
- Energy efficient fluids
- Construction

Projects and their benefits are numerous (further information can be found in the 2007 - 08 Annual Report). Many of these projects involve shared working and will enhance knowledge and production across the industry. Others will provide specific competitive advantage to Tata Steel, but these will also bring benefit to stakeholders in the form of improved life and qualities of the product, reduced energy and materials use (i.e. saving natural resources), reduced emissions, lower cost etc. Some examples include:

- Raw materials: use of Jhama Coal as an alternative to Raw Petroleum Coke (RPC) in Sinter mix will increase the mine life from 14 years to 32 years.
- Performance optimising: technology upgrades in Fluidised Bed Combustion (FBC) Power Plant in West Bokaro enabled peak load to be achieved and a consequent annual saving of 22.5 million rupees.
- Development of flux through collaborative project with NML to reduce by-product generation during hot dip galvanising resulted in savings of approximately 10 million rupees per year.
- Development of many improved products such as galvanised wires with a doubled lifespan and Tata Structura with low temperature impact properties and weather resistance grade.

#### Intellectual Property Rights (IPR)

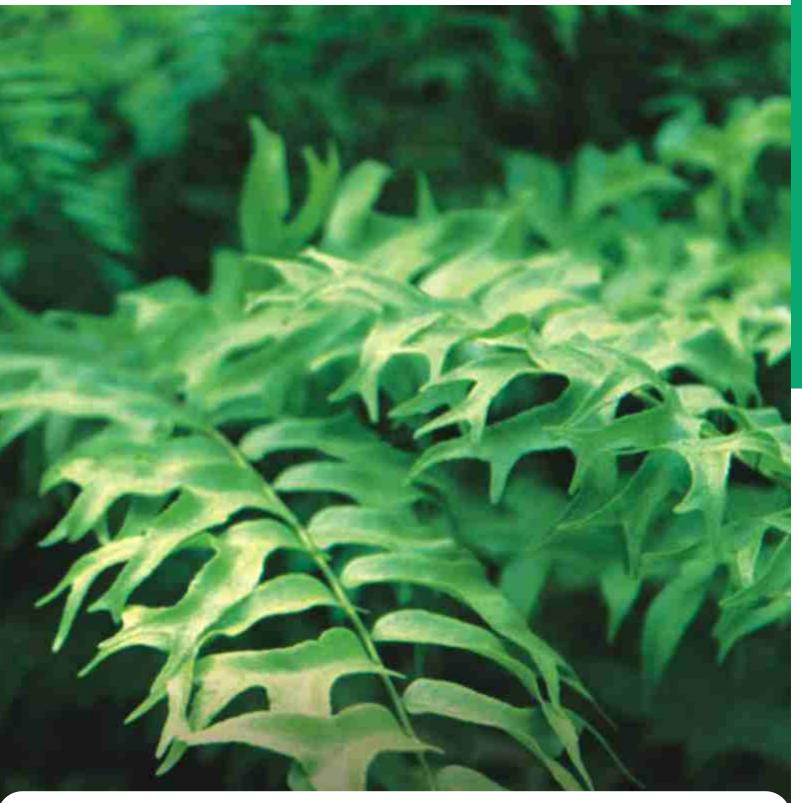
Developing innovations and intellectual property is an important element of Tata Steel's approach to creating value. The Company has been increasing its IPR cumulatively since 1999. In 2007 - 08 the Company had 138 IPR granted and a further 390 in process; this constituted an increase of 41 and 35 respectively since April 2007.



We make the difference through our innovative approach, by developing leading edge solutions in technology, processes and products

# ENVIRONIMENTAL PERFORMANCE

# Respecting the Environment...

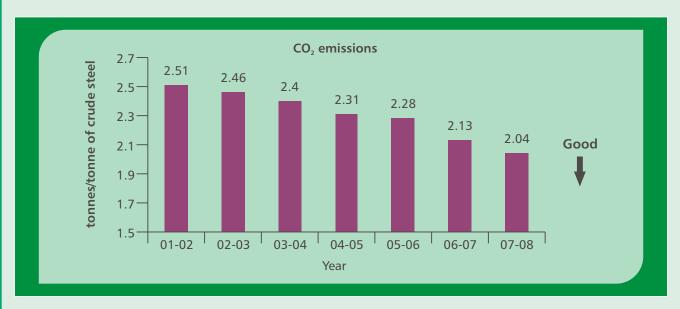


# **ENVIRONMENTAL PERFORMANCE**

# **Respecting the environment**

Tata Steel is progressing well towards its key goal of  $CO_2$  emission reduction. Its further efforts in this area, which include pursuing Clean Development Mechanism (CDM) projects, are expected to further reduce  $CO_2$  emissions by more than 2 million tonnes per annum.

#### CO<sub>2</sub> emissions reduction performance



NB Tata Steel has previously measured its  $CO_2$  emissions in tonnes per tonnes of crude steel, as shown here. For Tata Steel operations, the figures are multiplied by 0.98 to give an indication of emissions in tonnes per tonne of liquid steel, the new Tata Steel Group performance measure.



# **Management Approach**

Tata Steel's approach to environmental management has been guided by the Tata Code of Conduct (Clause 8: Health, Safety & Environment), the Tata Steel Environmental Policy and the UN Global Compact Principles (see Further Information pages 129-137). The Company is absolutely committed to providing a healthy working environment and to complying with all relevant environmental regulations in its operations, seeking to improve environmental performance well beyond norms and statutory duties wherever possible.

To ensure that the policy is put into practice, key performance parameters have been identified, and are monitored and reported to various stakeholders in a transparent manner, addressing the requirements of GRI and UN Global Compact. The Company has adopted an ISO 14001 based Environmental Management System to achieve excellence in environmental performance and ensure continual improvement. The divisional/ departmental heads are responsible for implementation of the Environmental Management System in their respective areas. Top Management reviews the performance periodically and provides necessary guidance and resources for the implementation of improvement initiatives. Training and awareness is an integral part of the system and covers all the employees, contractors and others concerned. Tata Steel is certified to ISO 14001:2004 by M/s. IRQS. Surveillance audits are conducted by IRQS annually to ensure compliance to the prescribed standard.

Tata Steel recognises the fact that the global steel industry, as a sector, contributes 4-5% of all man-made CO<sub>2</sub> emissions (as estimated by the World Steel Association). The Group's Vision 2012, challenges the Company to drastically reduce its CO<sub>2</sub> emission from operations, reflecting the Company's commitment to play its part in responding to the global concern for climate change. In February 2007, a high level task force was established to define a climate change strategy for the Tata Steel Group. The Climate Task Force will also invest in long-term breakthrough technologies to reduce the carbon footprint. The Group has committed an additional GBP 1.2 million (nearly USD 2.4 million) annually to fund climate change research at Corus Research Development & Technology. The Company will also develop opportunities for the future in energy conservation and carbon trading and is actively exploring these through its climate change strategy.



# **Materials**

#### **Materials Used**

The Indian activities of Tata Steel use a variety of materials for producing steel and other related products. The major materials consumed are indicated in the table below:

Major Input Materials across India operations			
Materials consumed (Tonnes)	2006 - 07	2007 - 08	
Iron Ore	8,724,458	8,681,492	
Coal (used to manufacture coke)	713,982	706,076	
Coke	3,133,450	3,088,582	
Limestone and Dolomite	1,729,070	1,865,223	
Ferro Manganese	15,824	16,165	
Input materials (for manufacturing ferro-manganese)	195,765	234,830	
Zinc and Zinc Alloys	19,299	17,903	
Spelter, sulphur, and other materials	784,802	1,161,517	
Total	15,316,650	15,771,788	
Crude Steel Production-tpa	5,046,000	5,014,000	

#### **Recycled Input Materials**

Steel is a recyclable material and iron/steel scraps are used in Steel Melting Shops as an input material. During the year 2007-2008, approximately 7% of iron/steel scrap from internal sources was used in production. No scrap was purchased from external sources.

In addition to iron/steel scrap, other wastes such as slag, sludge, fines, flux dust, etc. are reused in the Steel Works and details of which are provided in the 'Solid Waste Management' section of this chapter.



# **Energy**

## **Direct and Indirect Energy Consumption by Primary Energy Source**

Tata Steel is committed through its Energy Policy (page 136) to conserving scarce energy resources. Details of energy consumed in Tata Steel are disclosed in the Annual Report of the Company, and the direct and indirect energy consumption values are provided below:

Energy consumption at Tata Steel				
Particulars	200	6 - 07	2007 - 08	
Power and Fuel Consumption	Quantity	Joules (10 <sup>15</sup> )	Quantity	Joules (10 <sup>15</sup> )
Electricity				
Purchased Units (MWh)	1980	7.128	2031	7.312
Own Generation	978	3.520	1011	3.640
Coal				
Coking Coal (Million Tonnes)	3.15	90.65	3.37	96.41
Injection Coal (Million Tonnes)	0.42	12.31	0.39	11.43
Middling coal (Million Tonnes)	0.34	6.34	0.20	3.73
Furnace oil (Kilo Litres)	12079.17	0.473	12701.73	0.497
Others				
LDO (Kilo Litres)	9238.63	0.335	7920.11	0.287
LPG (Tonnes)	3835.40	0.494	4292.69	0.553
NG (Tonnes)	2814.56	0.106	2217.40	0.084
*Middling coal is predominantly used for power generation at Steel Works				

Consumption per unit of production in 2007 - 08 for other units is provided in Further Information page 138

The specific energy consumption of Integrated Iron and Steel Works at Jamshedpur was 27.86 GJoule/tonne of crude steel during 2007 - 08, which was approximately 1 % less than that of the previous year. The specific energy consumption has been calculated as per the World Steel Association's balanced energy model, which takes into account all forms of energy, brought within the Steel Works boundary.



#### **Energy Saved Due to Conservation and Efficiency Improvements**

Tata Steel is continually developing and implementing conservation and efficiency measures. Energy conservation measures taken in 2007 - 08 include:

- Conversion of coal-fired boiler no.7 and 8 at Power House-3 to by-product gas firing. All the four boilers at this power house now have by-product gas firing
- Installation of Variable Frequency Drives at LD Shop and Hot Strip Mills
- Measures for reducing electrical power consumption

The impact of energy conservation measures during 2007 - 08 was:

- Lowest ever Plant Specific Energy Consumption of 6.655 Gcal/tcs
- Lowest ever boiler coal consumption of 38.97 kg/tss
- Higher LD Gas Recovery of 66.80 Nm³/tcs
- Higher combine boiler efficiency of 83.67%

Ferro-chrome: following laboratory experiments, a pilot scale rotary hearth furnace has been designed, installed and commissioned. The power consumption is expected to reduce to 2,800 KWh/tonne from 3,500 KWh/tonne.

Initiatives under implementation for the reduction of energy consumption include:

- Installation of Top recovery turbine at 'G' and 'H' Blast Furnace
- Recovery of sensible heat of coke by installation of Coke Dry Quenching system in Batteries 5, 6 and 7 at Coke Plant
- Enhancement of waste heat recovery at Sinter Plants
- BF Gas fired re-heating furnace at Hot Strip Mill
- Improvement in LD Gas recovery



#### Renewable Energy and Product Energy Efficiency Initiatives

In the main steel making process, use of renewable energy is highly limited due to techno-commercial non viability. However, Tata Steel encourages and promotes the use of renewable energy in the form of solar electricity, biogas, etc in the CSR activities that it undertakes in the communities around its operations. In the Renewable Energy for Rural Livelihood Project, deprived villagers have been assisted to adopt solar lighting and bio-gas plants; this has reduced the need for the use of wood as a fuel and it will also enable farmers to switch from fertilisers to biogas manure in the future.

Additionally Tata Steel is considering energy sourcing and energy efficiency very carefully in its product development. It is developing and producing a range of high specification product solutions with attractive, more sustainable qualities - for example products which are lighter, stronger and more durable. These products meet customer needs and will allow them to develop better, cheaper and more environmentally friendly products for the end user. Stronger and more durable products will facilitate more advanced uses and less frequent replacement (reducing further impacts of production) whilst other features, such as lighter weight, can mean the end product is more energy-efficient or effective. For example light-weight steel designed for cars allows the automotive customer to produce a lighter-weight vehicle, which will have a greater fuel efficiency and will be less polluting throughout its life.

#### Activities in 2007 - 08:

- Advanced coatings are being developed across the Company with properties such as corrosion resistance
- Next generation High Strength Steels (HSS) are being very successfully developed
- High strength tubes using ERW process have been produced for auto vehicle weight reduction

# Water

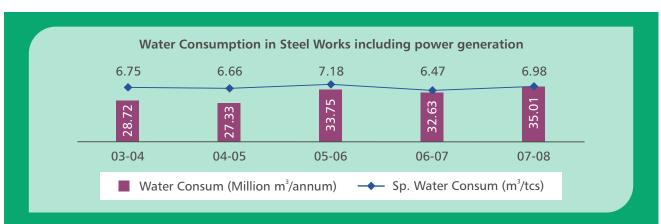
#### **Water Withdrawal by Source**

Water for industrial and domestic usage at Jamshedpur and other units is mainly drawn from surface water resources as indicated in table below. The other source of water at Jamshedpur is a captive reservoir at Dimna having capacity of 34.224 million m³, covering 92.6 sq. km. It is situated on the North-eastern side of the Jamshedpur at a distance of about 10 kms and is meant for emergency water supply during the lean season.



Details of Water Sources				
Name of location	Water source Purpose			
Steel works Jamshedpur	Subarnaekha river/Dimna	Industrial and Domestic		
N	Baitarni River	Industrial		
Noamundi	Jojo Nalla	Domestic		
Joda	Kundra Nalla	Industrial and Domestic		
Community	Nakati Nalla	Domestic		
Gomardih	Mine Drainage	Industrial		
Jharia	Damodar River	Industrial and Domestic		
Sukinda	Mines Drainage	Industrial and Domestic		
West Bokaro	Mines drainage+Raw River	Industrial and Domestic		

The total water withdrawal during the period was 36.67 Million m<sup>3</sup> for Jamshedpur Steel Works which also includes water used for expansion activities. Water re-circulation and conservation efforts are in place at process units and the new processes that will come online in the coming years are likely to reduce specific water consumption.



In addition, the entire domestic consumption of the city of Jamshedpur, that is 63.14 million m³/annum of water (59.82 million m³/annum in 2006-07), is supplied and managed by JUSCO (a 100% subsidiary of Tata Steel).

#### **Water Sources Affected**

As per the REIA report by NEERI, the rivers from which water is mainly drawn are perennial in nature and water abstraction is not known to have any significant adverse impact on the eco-system.

Details Of Water Sources				
Water Abstraction from River Subarnarekha	Post Monsoon	Winter	Summer	
River flows at Jsr. cum/sec	9.40	4.50	5.93	
Water pick up, cum/sec	2.494	2.608	2.423	
Percentage of river flows	26.53	57.96	40.86	

**NB flow at water abstraction point, 500 metres downstream from confluence of rivers Subarnarekha and Kharkai** Source: Regional Environmental Impact Assessment Study Report for Jamshedpur Region by NEERI, Nagpur

#### **Recycling and Reuse of Water**

Gross make-up water requirement for Steel Works was 95,917 cum/day (average) during the reporting period. Approx 900,000 cum/day of water remain in circulation in steel manufacturing processes through the close circuit system and cooling ponds.

## **Bio-Diversity**

#### **Land Owned, Leased or Managed**

The Steel Works is situated at Jamshedpur in the state of Jharkhand, India. The lease area for various units and the details of forest and non-forest land are furnished below. The mine leases are in areas rich in bio-diversity.

Land Owned, Leased Or Managed				
Units	Lease area (hectare)	Forest area in lease (hectare)	Non-forest area in lease (hectare)	
Jamshedpur	5094	Nil	5094	
West Bokaro	1740	910	830	
Jharia	2230	Nil	2230	
Noamundi	1160	762	398	
Joda East	671	522	149	
Gomardih	373	Nil	373	
Khondbond	978	837	141	
Katamati	403	199	204	
Sukinda	331	74	257	
CRC West	10	2	4	
WIRE Div	32		32	

#### **Impact on Protected and Sensitive Areas**

When undertaking significant new activities or expanding operations, the Company undertakes Environmental Impact Assessment studies, conducted by independent consultants. These have reported no significant changes to natural habitats resulting from the Company's activities. Recent studies have have assessed the impact of plans for development and expansion at Jamshedpur and Noamundi, Joda and West Bokaro mines.<sup>1</sup>

There are no World Heritage sites, sensitive areas or Biosphere Reserves or Protected areas within the operational areas of the company. No sensitive areas, as defined by the Environment Protection Act 1986 in India, fall within a 10 km radius of the company's operations. However, Dalma Wildlife Sanctuary, which is a protected area, is situated at a distance of 10 km from Jamshedpur. The Regional Environmental Impact Assessment (EIA) and carrying capacity study conducted by NEERI in May 1995 and 2000 and EIA studies conducted in 2005-06 indicate that there is no significant environmental impact on Dalma Wild Life Sanctuary.

<sup>1</sup>2005 - 06, M/s. M N Dastur & Co. EIA Jamshedpur; 2006 - 07, M/s. Minmec Consultants EIA Noamundi and Joda Iron Ore Mines; 2006 - 07, M/s. CMPDIL EIA West Bokaro.

#### **Habitats Protected or Restored**

Tata Steel takes measures to minimise any eventual damage to nearby habitats.

- A reclamation and afforestation programme ensures that habitats are restored and improved with extensive tree plantation where appropriate. More than 240 hectares of mined out areas have been reclaimed with plantations so far.
- 25,000 saplings were planted at various locations during 2007 08.

#### **Managing Impacts on Bio-diversity**

Through its Environmental Policy, Tata Steel is committed to:

- Identifying, assessing and managing environmental impacts
- Developing and rehabilitating abandoned sites through afforestation and landscaping
- Protecting and preserving bio-diversity in the areas of operation

Bio-diversity is assessed during the preparation of Environmental Impact Assessment Reports and forms part of the Environmental Clearance Process. The recommendations given in EIA Reports are implemented during the construction and operation of projects.

Tata Steel has extensive reclamation and afforestation programmes in place, and implements new programmes if appropriate in new greenfield developments. Initiatives are underway to improve and develop these schemes and, through protection measures, survival rates of saplings have been improved from 30% to 85% in the past 10 years. The Company has a total capacity of raising 400,000 saplings every year across various locations, and involves the local community in this process.



Tata Steel Rural Development Society has created and supported many 'Save Forest Groups' in Noamundi and Joda, to safeguard existing forests and encourage local people to protect the forest as a valuable sustainable resource. Groups have been

trained on the development of orchids, saplings and other forest products to encourage sustainable use of the forest as a source of livelihood, and thereby protect the habitat.

Tata Steel has adopted a holistic approach to understanding its local eco-system. The Company established a zoo at Jamshedpur to protect animals and to create awareness about wildlife among the citizens of Jamshedpur and the surrounding community. To showcase and protect flora, Sir Dorabji Botanical Parks have been developed at Jamshedpur, West Bokaro, Dhanbad, Noamundi and Joda during the last 8 - 10 years. These parks house ornamental plants, fruit trees, more than 300 varieties of cacti, 100 varieties of roses, rare flowering plants, rock gardens, spices, condiments and medicinal plants.

#### **Red List Species within Operational Areas**

Noamundi and Joda mining lease areas contain habitats for the following species from Schedule - I & II of the Wildlife Protection Act 1972:

Schedule - 1 Sloth Bear

Schedule - 2 Indian Python

There are also some stray incidents of elephants passing by at Noamundi and Joda mining areas. At this point the Company has not ascertained the presence of IUCN Red list species at its sites.



# **Emissions, Effluents and Wastes**

Reducing emissions is a priority for the Company. Operational investments, such as the new H Blast Furnace in Jamshedpur, seek to employ state-of-the-art equipment, which improves efficiency and reduces pollution.

#### Tata Steel has adopted a multi-pronged approach to reducing Green House Gas (GHG) Emissions:

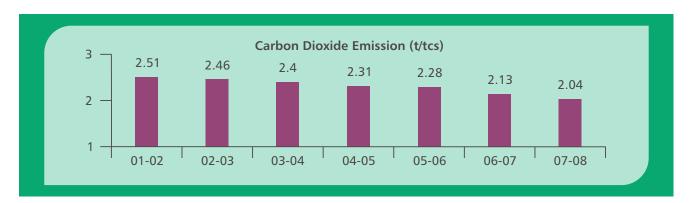
- Policy Initiative Energy Policy, Environment Policy
- Benchmarking
- Closure of energy intensive and pollution prone processes
- Adoption of energy efficient technology
- Up-gradation of equipment and process
- Waste heat recovery
- Maximum utilisation of by-product fuel
- Waste Management Reduce, Recycle and Reuse
- Monitoring and measurement
- Regular energy/environment audit and review

#### Recent initiatives to reduce Green House Gas emissions:

- Commissioning of Top Recovery Turbine for H Blast Furnace
- Commissioning of Heat recovery system from stoves of H Blast Furnace
- Installation of Variable Frequency drives at various places in the plant
- Conversion of all Coal Fired Boilers to By-product Gas Fired Boilers (7 Nos.)
- Retrofitting of Coke Dry Quenching facility at existing Coke Batteries 5, 6 and 7 (Under construction)
- Top Recovery Turbine for G Blast Furnace (Under construction)
- Detailed carbon footprint exercise at the Steel Works
- Awareness campaign among employees, in the township and schools, etc

## **Emission of Green House Gases**

Following specific measures to address Green House Gas emissions, there is a steady downward trend in specific  $CO_2$  emissions from Steel Works. In 2007 - 08,  $CO_2$  emissions were reduced by 4.2% to 2.04 t/tcs, equating to 2 t/tls.  $CO_2$  emissions calculations are based on GHG protocol guidelines.





CO <sub>2</sub> Emission as per GHG Protocol					
Emissions	Unit	2005 - 06	2006 - 07	2007 - 08	
Process+Stationary Combustion	t	12,685,398	12,748,927	11,130,970	
Mobile Emissions	t	18,722	21,092	20,179	
HFC Emissions	t	1,358	1,436	2,441	
Total Emissions	t	12,705,479	12,771,455	11,153,590	
Crude Steel Production	t	4,730,592	5,045,795	5,014,005	
Specific CO <sub>2</sub> emission	t/tcs	2.68	2.53	2.22	
Slag credit	t	922,970	1,130,104	1,256,848	
Emission including slag credit	t	11,782,509	11,641,351	9,896,742	
Specific CO <sub>2</sub> emission including slag credit	t/tcs	2.49	2.31	1.97	
Total emissions (Imported Elect.+Mobile+HFC)	t	1,001,586	936,688	941,796	
Total emissions excluding (Imported Elect.+Mobile+HFC)	t	11,703,891	10,727,190	10,211,794	
Specific CO <sub>2</sub> emission excluding imported Elect. +Mobile+HFC	t/tcs	2.28	2.13	2.04	

#### **Indirect GHG Emissions**

The indirect GHG emissions are emitted from sources like the refrigerators and air conditioning units supplied by the organisation or owned by employees at their residences, GHG emissions on account of purchase of oxygen, etc. Currently indirect GHG emissions are not calculated and reported.

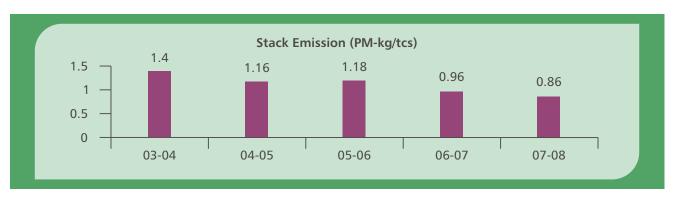
#### Other Significant Emissions

Total Emission Load from Steel Works at Jamshedpur (tonnes)						
Parameter (tpa)	2005 - 06 2006 - 07 2007 - 08					
Particulate Matter	5570	4666	4318			
Sulphur Dioxide	7287	6639	4669			
Oxides of Nitrogen	6215	8264	5994			

The Emission loads do not include fugitive emissions.

Visible fugitive emissions from coke oven batteries at Coke Plant and worker exposure to organic compounds were all well within legal norms (page 141).

Tata Steel has undertaken several initiatives in recent years which have resulted in a considerable reduction in stack emissions. These measures are ongoing and will be developed further to improve performance and ensure absolute compliance with norms.



Indian norms for SO<sub>2</sub>, NOx and PM emissions from stacks in steel plants are furnished in the table below along with actual values monitored during the reporting period.

Emissions from Process Stacks					
Process Stacks Attached to	Air Pollutant	Indian Standard	Actual Value 2006 - 07	Actual Value 2007 - 08	
	PM	150 mg/Nm³	17.2-20.5	17.1-24.5	
Blast Furnace Stoves	SO <sub>2</sub>	No Standard	89-156	87-148	
	NOx	No Standard	112-186	118-158	
	PM	150 mg/Nm <sup>3</sup>	88.4-151.9	80.6-148.7	
Sinter Plant	SO <sub>2</sub>	No Standard	165-268	93-469	
	NOx	No Standard	28-578	145-470	
	PM	150 mg/Nm <sup>3</sup>	32.5-62.6	36.4-56	
Refractories Production Department	SO <sub>2</sub>	No Standard	10-235	08-167	
	NOx	No Standard	66-402	42-252	
Steel Melting Shops	PM	150 mg/Nm <sup>3</sup>	58.2-112.6	58.9-110.1	
	PM	50 mg/Nm <sup>3</sup>	19.3-88.1	17.5-98.5	
Coke Plant Waste Gas	SO <sub>2</sub>	800 mg/Nm <sup>3</sup>	77-262	82-258	
	NOx	500 mg/Nm <sup>3</sup>	174-368	138-376	
Captive Power Plants	PM	350 mg/Nm <sup>3</sup>	16.1-63.2	16.2-28.6	
	PM	350 mg/Nm <sup>3</sup>	99.2-117	98.8-118	
Captive Power Plant-West Bokaro	SO <sub>2</sub>	No Standard	61-130	102-109	
	NOx	No Standard	3.5-9.0	3.8-5.7	
Aquatherm Stack (Pickling and	SPM	150 mg/Nm <sup>3</sup>	18.00	19.3	
Cleaning Line) Tarapore	SO <sub>2</sub>	228 kg/day	31.00	70	
Pickling Scrubber, Tarapore	HCl Mist	35 mg/Nm³	12.10	16.9	

#### **Ozone-depleting Substances**

The Steel Works used 3.741 tonnes of refrigerant during the reporting period compared to 4.723 tonnes of refrigerant used during previous year. The organisation uses R134 and vapour absorption systems.

#### **Total Water Discharge**

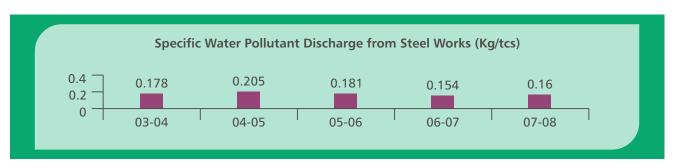
The Company discharges its treated effluent from the Works and treated domestic sewage from the township of Jamshedpur to the rivers Subarnarekha and Kharkai. Two Sewage Treatment Plants provided in the township of Jamshedpur have adequate capacity to treat the entire sewage of the town. Studies carried out by NEERI in the year 1993 and 2000 at Jamshedpur to assess impact on eco-systems/habitats of rivers found no significant impact on the aquatic eco-system.

Noamundi and Joda Mines, West Bokaro, Jharia Collieries and Sukinda Mines have achieved zero discharge. The domestic effluent is discharged through the septic tank soaking pit route at the mines and collieries.

Wastewater from process was treated with the best available physio-chemical methods and recycled in the process. Wastewater from the coke plant is treated biologically where organic pollutants are oxidized and decomposed by micro-organisms. The absolute effluent quantities and pollution loads from the Steel Works are on the next page:

Effluents and Pollutants Discharged from Steel Works						
Parameter	Unit	2005-06	2006-07	2007 - 08		
Effluent Quantity	Million m³	11.20	13.56	14.38		
TSS	Tonnes	726.20	690.60	709.18		
Oil and Grease	Tonnes	23.98	19.28	18.91		
Ammonia	Tonnes	103.98	64.59	70.53		
Cyanide	Tonnes	1.20	1.33	1.25		
Phenol	Tonnes	1.24	1.38	1.00		

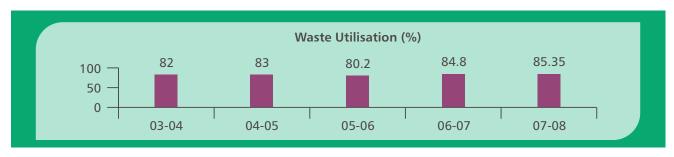
Specific pollutant discharge is calculated based on total mass of ammonia, TSS, cyanide, phenol and oil and grease in kg discharged, divided by total crude steel produced.



Noamundi and Joda Iron Mines and the West Bokaro Collieries and Jharia do not discharge any overflow from the Slime/Tailing Dams.

#### **Solid Waste Management**

Tata Steel generates around 659 kg of various kinds of solid wastes (excluding fly ash) for every one tonne of crude steel produced. About 85% of these wastes are utilised either through recycling and reuse in own processes or sold as input materials to other industries. Remaining wastes are sent for safe land filling.



The detail of various types of wastes and its utilisation are shown below. Improving the utilisation of LD slag remains a challenge; this accounts for a major portion of the non-utilised solid wastes.



Steel is 100% recyclable. It can be recycled infinitely without losing quality

Major Hazardous and Non-Hazardous Waste Utilisation at Steel Works, Jamshedpur*					
	Usage Details	2006 - 07		2007 - 08	
Item		Tonnes Utilisation	% of generation**	Tonnes Utilisation	% of generation**
B F Slag	Cement making	1307719	84.92	1453921	94.27
L D Slag	Sinter making	1046073	77.18	912587	74.13
B F Sludge	Domestic fuel	46465	90.6	47240	84.32
L D Sludge	Sinter making	184927	136.8	107737	69.09
Mill Scale	Sinter making	65106	96.41	67743	92.38
Flue Dust	Sinter and dom. fuel	76536	81.36	75883	83.46
Lime Fines	Sinter making	101747	100	125800	100
Dolo Dust	Sinter making	9947	100	4301	100
Ref. Waste	Sale	8326	100	4348	100
Tar Sludge	Coke making	4507	100	4633	100
BOD Sludge	Coke making	248	100	-	-
U/S Lime Stone	Sinter making	12730	100	10392	100
Mill Sludge	Sinter making	11193	100	9329	96.34
Total		2875524	84.77	2823914	85.35

<sup>\*</sup> These major waste types are typically generated and utilised at Steel Works, Jamshedpur. Some of this waste is also utilised by non-Tata Steel entities.



<sup>\*\* %</sup> of generation indicates the quantity of the waste generated that was utilised in the given year.

#### **Hazardous Wastes and Bio-medical Wastes**

Major Hazardous Wastes Disposed through External Agencies at Steel Works, Jamshedpur					
Wests	Waste Class/Category (Indian Law) 20	Qua	ntity	Markhard of discount	
vvaste		2006 - 07	2007 - 08	Method of disposal	
Zinc Dross	12.3	1554 t	1505.8 t	Sold to authorised agencies	
Chrome Sludge	12.9	8.05 t	14.5 t	Protected landfill	
Lead acid batteries	41.3	817 nos	428 nos	Auctioned to registered recycler	
Bio-medica	l Wastes (Tata Ma	in Hospital) Ge	neration and I	Disposal	
Human anatomical wastes	1	7950 kg	7752 kg	Incineration	
Micro-biological/ bio-technology waste	3	286 kg	222 kg	Autoclaving	
Waste sharps	4	7575 kg	7167 kg	Incineration	
Solid Waste (Infective Waste)	_	8793 kg	8391 kg	- 1	

Hazardous wastes generated at the mines and collieries were auctioned to registered recyclers and oily waste/sludge is land filled in secured landfills.

#### Significant Spills

There was no reported incidence of any oil spill or chemical spillage in the organisation during the reporting period.

#### Water Bodies and Related Habitats Significantly Affected by Discharges of Water and Run-off

There are no significant impacts on water bodies and nearby habitats from Company operations. The impacts have been assessed in the Environmental Impact Assessments undertaken by independent consultants<sup>2</sup> and water quality is regularly monitored by the Company (see Further Information page 139) for river water analysis information.

#### **Products and Services**

#### **Initiatives to Mitigate Environmental Impacts**

As a product, steel does not have any adverse environmental impacts. Steel products are 100% recyclable in their life cycle and this quality is promoted. Tata Steel recycles all scrap steel generated in the plant.

#### Percentage of Products Sold and Their Packaging Materials That Are Reclaimed

Most of the products are dispatched without any packing material. A small quantity of gunny bags, wooden blocks, steel straps etc. are used in packaging and transportation wherever essential or desired by the customer. These packing materials are not recycled by Tata Steel as the quantity is insignificant.

## **Environmental Compliance**

During the reporting period no monetary penalty, fines or non-monetary sanctions were imposed for non-compliance with Environmental Laws & Regulations.

<sup>&</sup>lt;sup>2</sup>2005 - 06, M/s. M N Dastur & Co. EIA Jamshedpur; 2006 - 07, M/s. Minmec Consultants EIA Noamundi and Joda Iron Ore Mines; 2006 - 07, M/s. CMPDIL EIA West Bokaro.

# **Transport**

#### Significant Environmental Impacts of Transporting Products and Other Goods

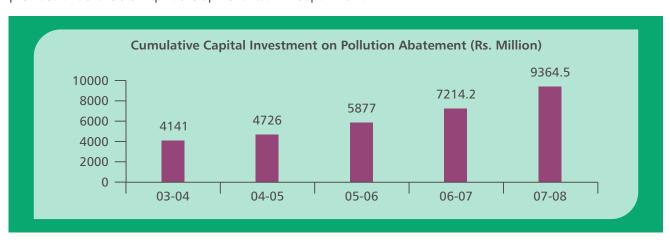
Diesel and Petrol consumed for transport of raw materials and by in-house vehicles are accounted for in the calculation of CO<sub>2</sub> emission as per GHG protocol. The company is promoting the use of fuel-efficient vehicles and contractors are encouraged to use fuel efficient and safe vehicles.

Company vehicles including locomotives are monitored for vehicular emission (CO, HC for Petrol and smoke density for Diesel vehicles) every six months. All the contractors' and suppliers' vehicles are checked for Pollution Under Control Certificates at the Factory's entry gate.

# **Environmental Protection Expenditure**

#### **Capital Investment on Pollution Abatement**

Under different phases of modernisation, several state-of-the-art pollution control systems have been installed to prevent and control pollution. Expenditure during the reporting year on pollution abatement includes facilities provided under the 6.8 mtpa development at Jamshedpur Works.





#### **Operating Cost of Environmental Protection**

The operating costs include expenditure on power consumption, consumable chemicals and spares, water cess paid and the revenue expenditure like cost of chemicals, glassware, etc.

Operating Expenditure Steel Works Jamshedpur					
Cost Element	2003 - 04	2004 - 05	2007 - 08		
Power Consumption	347	419	428	434	440
Consumables	300	216	277	281	301
Revenue Expenses	12.0	16.0	17	18	19.5
Water Cess and Other Charges	11	15.0	16	17	15.5
Total Costs	670.0	666.0	738	750	776
Total Crude Steel production (mtpa)	4.224	4.104	4.730	5.046	5.014
Operating Costs, Rs./tcs	159	162	156	149	155



Tata Steel recognises that climate change is a major issue for the steel industry. As well as implementing process improvements to reduce CO<sub>2</sub> emissions, the Company is investing in long term breakthrough technologies to reduce the carbon footprint.

# Safety and Social Responsibility...



SOCIAL PERFORMANCE

SOCIAL PERFORMAI

# **Improving safety**

Tata Steel is progressing well towards its core goal of reducing injuries. Safety improvement initiatives have been developed for 2008 - 09 with the help of DuPont, world leader in safety performance, and there will be a focus on contractor safety.





# **Employer of choice**

Tata Steel's goal is to be an employer of choice in the top quartile of all industries and to this end the Company will be undertaking initiatives to further enhance its leadership capability, nurture talent, source global talent and develop technical capability.



# **LABOUR PRACTICES AND DECENT WORK**

# **Management Approach**

Tata Steel's Human Resource policy recognises its people as the primary source of its competitiveness. The Company ensures that the full potential of employees is realised by designing work systems and processes which encourage achievement, providing opportunities for personal development and career growth, and motivating employees through recognition and reward. There is an ongoing focus on updating and challenging the intellectual capabilities of staff to enable them to excel. Special efforts are made to enhance strategic thinking skills and analytical abilities of managers and workers.

All employees are valued at Tata Steel. The Company aims to ensure transparency, fairness and equity in all its interactions with its employees, to create an enthused and happy workforce. Human Resource policies comply with labour laws and international best practices and promote diversity and equity in the workplace. Tata Steel provides equal opportunities to all its employees and all qualified applicants for employment without regard to their race, caste, religion, colour, ancestry, marital status, sex, age or nationality. An Affirmative Action Policy helps to ensure that individuals from scheduled tribes and scheduled castes are provided with opportunities for employment on a merit basis and without regard to ethnicity. Measures are also in place to protect and

support female employees. Employee policies and practices are implemented in a way that ensures that decisions are merit-based and equal opportunity is effective in practice.

Tata Steel looks after the physical wellbeing of its employees. The Company strives to provide a safe and healthy working environment and ensures compliance to all health, safety and environmental regulations in each area of operation. Safety and occupational health responsibilities are driven by the commitment to ensure zero harm to the workforce and society at large. Tata Steel has policies and processes in place to manage health and safety and is certified to ISO 14001 and OHSAS 18001 guidelines, in order to ensure continual improvement. The Company also provides a range of employment benefits and initiatives to ensure the health and wellbeing of workers, such as free healthcare.

Tata Steel is committed to working constructively with unions and facilitating collective bargaining. It is a pioneer in the area of Joint Consultation in India and has had a joint consultation system in place for more than 50 years. This is a unique system in which both management and employee representatives consult each other at all levels on matters relating to the progress and prosperity of the organisation.



# **Employment**

#### **Workforce Details**

The number of permanent employees on roll in the Company as on 31st March 2008 was 35,870, as compared to 37,205 as on 31st March 2007. The majority of the workforce is located in the states of Jharkhand and Orissa in India.

Tata Steel Workforce, India						
Location	Officers	Non-Officers	Number			
Jamshedpur (including Tubes)	2496	16630	19126			
Noamundi (Iron Mines)	159	1693	1852			
Jamadoba (Collieries)	163	6456	6619			
West Bokaro (Collieries)	164	3413	3577			
Kolkata (M&S)	354	506	860			
Mumbai (Head Office)	31	22	53			
CRC West and Wire Division	205	1113	1318			
Adityapur	110	521	631			
Kharagpur	53	499	552			
FAMD	133	1029	1162			
CRE Offices- Delhi, Bhubaneshwar, Ranchi	11	13	24			
Greenfield Projects	96	0	96			
Total	3975	31895	35870			

#### **Employee Benefits**

Tata Steel is recognised as a trendsetter in employee benefits in India and provides exemplary services and measures to enhance the wellbeing of its employees. Some of the many benefits are:

#### **Medical Facilities:**

Free medical facilities for employee and family, including after retirement.

#### **Housing Facilities:**

Subsidised electricity, water and housing facilities to all employees in Jamshedpur and raw material locations. Preferential housing allotment to working couples.

#### **Higher Studies:**

Monetary incentives to employees acquiring higher qualification in related field. Study leave, scholarships etc.

#### **Early Separation Scheme:**

A generous monthly pension (depending upon age and length of service) till the time the employee would have attained the age of 60.

#### Family Benefit Scheme:

In case of fatality in the Works, a monthly pension equal to the amount of the last drawn salary of the deceased is given to the legal heir until the time the deceased would have attained the age of 60.

#### **Special Leave To Women:**

15 days of additional leave is given to female executives with children of less than 5 years of age, to take care of their children in case of sickness.

#### **Holiday Homes:**

Tata Steel has four holiday homes for the benefit of workers, supervisors and their families. In 2008 another guest house will be established in Goa.

#### Tata Steel Officers' Beach Club:

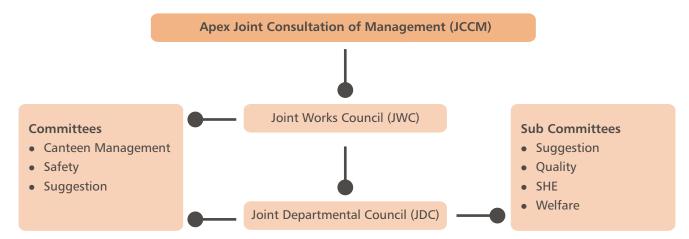
All officers of Tata Steel are eligible to be a member of the Beach Club. The Beach Club offers "Tata Executive Holiday Plan" with select hotels and resorts across the country. In addition there is a horse-riding school and water sports facilities at Jamshedpur.

# **Labour-Management Relations**

Tata Steel has an impeccable record of industrial harmony. In the year 2003, Tata Steel celebrated 75 years of industrial harmony and mutual co-operation, coordination and understanding between the Management and the Union. During 2007 - 08 industrial relations remained good at all locations.

The Company has a firm belief that a healthy union is an asset for the Company. Trade Unions are active at all locations, with 100% of employees (other than officers) represented by independent trade unions. Collective bargaining issues are discussed with the recognised unions at different locations on a regular basis.

Tata Steel has a long-established system that allows employees to participate in decision-making. The Joint Consultation System enables employees to raise and discuss issues related to production, productivity, quality, safety, environment, welfare, training, planning for sustainable growth etc. excluding issues of collective bargaining and individual grievances. The three-tier system is made up of the Joint Consultative Council of Management, Joint Works Council & Joint Departmental Councils supported by various sub-committees, as shown below:



**Structure of Joint Consultation System** 

Office Bearers of respective unions are members of Joint Consultative Committees of Management and it is in this forum that they can discuss issues other than issues of collective bargaining.



# **Occupational Health and Safety**

#### Safety

Concern for human safety has been the top most priority at Tata Steel and is now a core goal for Tata Steel Group. The Company is continuously striving to reach the world benchmark in safety performance by institutionalising world-class systems and processes and promoting safe behaviour. These efforts have led to a significant reduction in Lost Time Injury Frequency rate, a reduction in first aid cases and an improved awareness amongst employees, evidenced by the improvement in 'safe acts' by employees. Lost Time Injury Frequency rate is the number of lost time injuries per million man-hours worked. Lost time injuries are those where the injured person is not able to attend his/her next scheduled shift duty. 'Safe act' means understanding the hazard/risks involved in activities, following safety rules and safe work procedures, using required personal protective

appliances, taking necessary work permits wherever applicable and also helping others to do the same.

The Lost Time Injury Frequency rate has been brought down to 1.7 in 2007 - 08. This rate has been on a steady decline for several years and the Company is on track to reach its ambitious 2012 goal of 0.4. Improvement in behavioural safety can be easily judged by the increase in the percentage of 'safe acts' over the years, which is captured in an IT based system. 'Safe acts' recorded in 2007 - 08 were 40% of total acts.

Unfortunately, despite the positive trend in safety performance, there were 8 fatalities in 2007 - 08 and too many man days lost. Lost Time Injury Frequency rate, Fatalities and Employee Man Days Lost are shown in charts below.







Tata Steel India's LTIF rate measure has been brought in line with World Steel Association guidelines and the global operations, with 'injured employee not reporting in next schedule shift' being counted as lost time injury. This explains the higher LTIF rate numbers reported as compared with the 2006 - 07 Corporate Sustainability Report. For each fatal accident, 6000 man-days loss is considered for calculation.

Tata Steel is committed to reducing severity as well as frequency of accidents and this is addressed in the Safety Management System.

#### **Safety Management System**

In managing safety, the OHSAS 18001 Safety Management System is complemented with "Safety Principles". The safety organisation has been restructured under a three-tier system operating from Apex Safety Council down to operational levels. The system involves managers at all levels in carrying out safety observation visits on all the line functions with an objective to identify and correct unsafe acts. All such observations are being tracked through an online "Safety Excellence Management System". All the frontline employees are being trained to develop skills on action to be taken when they see any unsafe act.



In order to improve ownership towards safety, line functions have been

made accountable for safety performance. Safety performance features in the individual's Key Result Areas, and 20% of the variable pay for all executives depends exclusively upon achievement of the safety targets. A monthly safety performance listing is circulated indicating Departmental and Divisional safety performance.

The workforce is represented in the Apex Safety Council, in which the Chief Operating Officer of the Company is the Chairman and Members are Management and Workers Union representatives. The Apex Safety Council is supported by Ten Apex Safety Sub-Committees on Training, Safety Standards, Incident Investigation, Observation, Occupational Health, Isolation Policy and Procedures, Communication, Contractor Safety Management, Road & Rail Safety and Fire Prevention and protection. Each Sub-committee has representation from the Workers Union as well as management. They have a defined charter and a documented plan of action, with performance reviewed periodically.

Tata Steel has initiated a safety excellence journey under the guidance of DuPont, a world-class leader in safety. The safety programmes, which began at the Steel Works, have been rolled out across all locations including the mines. These initiatives have led to a perceptible change in the behaviour of employees - including that of contractors - within and outside the place of work. Specific emphasis is now being given to improve contractor safety management due to a concern about skills, literacy and hazard knowledge levels among contractors' employees and also due to the increase in construction activity arising out of expansion activity. Besides specifying criteria for the award of contracts, a system to communicate and clarify the requirement on compliance to safety standards, as well as that for reward and penalty for non-compliance, has been instituted. Orientation and training is an integral part of contract management and no contract employee is allowed to enter the plant unless he/she is trained at the training centre. Specific training on job safety analysis and safety inductions are also imparted on-site.

In order to provide direction on critical safety issues, 73 safety standards are applied across the organisation. All the departments and divisions have identified the standards applicable to them and have upgraded their safe operating procedures in line with the safety standards. A scheme to recognise these efforts has also been put in place.

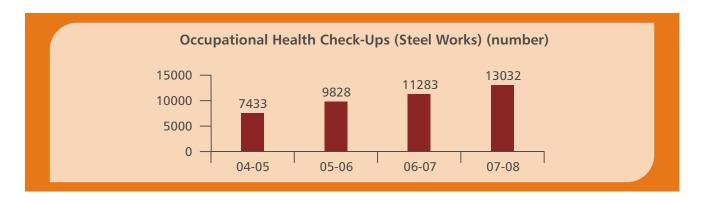
To bring the safety performance to the benchmark level, the following key initiatives are being undertaken, along with other initiatives, which will further improve the Lost Time Injury Frequency rate and eliminate fatalities:

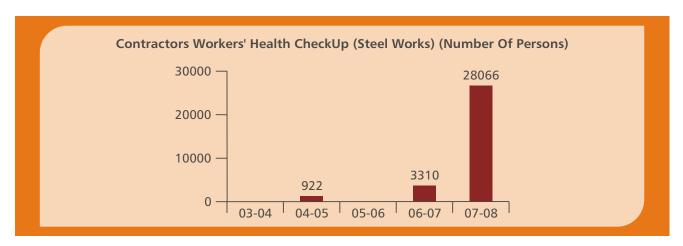
- A system for positive isolation of energy sources, through individual and group locking arrangements, now being piloted in hazardous operations.
- Traffic control, track maintenance and enhanced vehicle safety features to improve road and rail safety.
- Increased Personal Protective Equipment (PPE), including mandatory use of eyewear in the plant area.
- Implementation of Process Safety and Risk Management for hazardous operations to eliminate high consequences risks.
- Identification of fatality situations throughout the plant and rectification through engineering solutions.

#### **Occupational Health**

Tata Steel aims to promote and maintain the highest degree of physical, mental and social wellbeing of workers. The main objective of Occupational Health Services is to protect the health of workers against the stress and potential health hazards of the work environment and to place employees in work commensurate with their physical and emotional capacities.

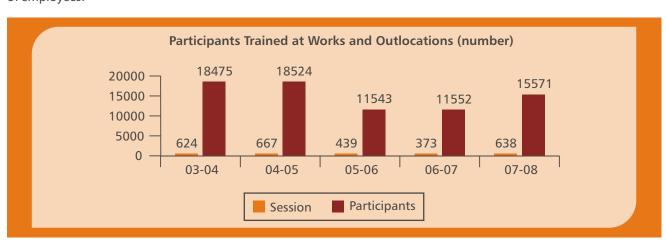
The health of workers is maintained and promoted through awareness, individual and group counselling and other preventive health measures including fitness and wellness programmes, and periodic clinical reviews of health status.





#### **Education, Training, Counselling and Prevention**

Health education and awareness is one of the major preventive tools for improving the occupational health status of employees.



Health Education Training and Awareness Occupational Health Services			
Tonics	2007 - 08		
Topics	Sessions Taken	<b>Employees Covered</b>	
CPR and First Aid	201	5497	
Health and Healthy Lifestyle	33	948	
AIDS Awareness	14	282	
Counselling	31	713	
Occupational Health	11	422	
Noise Hazards	11	323	
Cardiac Risk Reduction	4	100	
Stress Management	2	29	
Gas Hazard	5	74	
Ergonomics	3	79	
Diabetes and Hypertension	3	270	
OHSAS-18001	31	517	
Heat Stress	23	356	
Total	372	9610	

In addition to the sessions above, during 2007 - 08, health education programmes like Cardiac Risk Management, Healthy Lifestyle and Stress Management were organised for employees, to encourage behaviour change, leading to better individual and family health. A modular training programme of three days duration was organised to groom Occupational Health Coordinators and Safety Co-ordinators to facilitate Occupational Health related activities in their departments.

#### **HIV/AIDS**

Tata Steel is committed to contributing to the global effort towards halting and reversing the course of HIV/AIDS. In accordance with its HIV/AIDS Policy (page 135), the Company:

- Seeks to prevent the spread of HIV and AIDS by actively disseminating information and education, both within the workplace and amongst local communities
- Ensures a safe working environment, confidentiality and non-discrimination of affected employees
- Provides appropriate medical facilities for affected employees and their families, both for physical and emotional wellbeing

Tata Steel's HIV/AIDS programme is award-winning and extends beyond direct employees to wider stakeholders. The programme covers the local community and suppliers and contractors, for example truck drivers, who were identified as a high-risk community in terms of contracting and spreading the disease in operational areas. Tata Steel has voluntarily taken on a programme for East and West Singhbhum as part of the UN Business Coalition against HIV/AIDS.

#### Risk control programmes related to health in 2007 - 08

- Occupational Health Surveillance
  - Employees were subjected to routine clinical examination and investigations like lung function tests, X-ray examination of chest and blood examination for haemoglobin, blood urea, blood sugar, total and differential white blood cell count.
- Hearing Conservation
   Audiometric examination of employees was conducted with state-of-the-art Madsen Computerised

Audiometer in a sound treated room. 3221 employees, exposed to high noise level from 30 works departments, were examined, counselled and motivated to wear PPE.

• Preventive Health Screening of Food Handlers

There was 100% coverage of 257 Food handlers of the Works and Tube Division canteen for Special Medical examination.

Proactive Health Screening

Proactive Cardiac risk assessment by Cardio Profiler, which measures the atherosclerotic process in blood vessels, was undertaken for 1091 officers and employees. They were counselled and educated on lifestyle to prevent the most common killer diseases: heart disease and stroke.

High Tech Health Screening

An epidemiological study of Oventop workers and control group of Coke Plant, consisting of bio-toxicological

analysis, was conducted to assess the impact of hazards.

Counselling

Individual and group counselling was undertaken for employees who were detected as diabetic and hypertensive during routine health surveillance, to ensure proper medication and lifestyle modification.

Fitness

The sports department conducted a 'Lifestyle Management' programme for more than 11,500 employees.



# **Training and Education**

Training and development strategies and objectives are formulated through a systematic planning process aligned to the Company's business objectives. Tata Steel believes that it must develop a continuously learning workforce in order to be able to make the most of new technology so that it can develop effective processes to deliver customer value and achieve superior results.

Employee Training	2006 - 07	2007 - 08
Average number of employees on roll	37,205	35,870
No. of employees trained	15,088	16,762
Training man-days	429,767	394,383
Man-days per employee per annum	11.36	10.85
Total man-hours for non- officers at SNTI	1,468,750	2,401,053
Total man-hours for officers at TMDC	57,186	57,486
Programme days	13,687	13,698
Total number of new programmes	54	83
Programme Quality index (5 point scale)	4.68	4.68
Faculty Quality index (5 point scale)	4.71	4.61
Training expenditure per employee	Rs.5408	Rs.6462
No. of summer trainees	343	996
No. of officers nominated for external training programme	452	500
No. of participants in one year Foremanship programme	55	55

#### **Programmes for Skills Management for Employees**

Unionised employees in the Company are organised into clusters in the departmental hierarchy. Departments may have three or four clusters depending on the operational needs. Each cluster is a combination of jobs, necessitating multi-skilling of employees. Employees move up within and between clusters on attaining the requisite skill. The Technical Training Institute imparts vocational and basic skills, whilst departments impart on-the-job training.

Skill enhancement is a continuous process. Skills training, which begins at the time of an employee joining the Company, continues throughout his or her career. Reinforcement takes place by way of promotion within and between clusters in a department. In order to promote self-learning, the Company has introduced e-learning,

whereby employees can access e-learning courses from their departmental e-learning centres. Many of the unionised employees, by virtue of their technical skill and experience, find gainful engagement after their retirement from the Company

Delivery of technical training by the Company's Technical Training Institute and managerial training by the Tata Management Development Centre (TMDC) enable the Company to enrich the mix of its workforce in terms of its managerial and technical competence. Higher-end training requirements are met through external programmes.

Tata Steel Management Development Centre conducts a number of



Managerial and functional skills programmes, involving courses such as 'Strategic Thinking' and 'Supply Chain Management', help to build a leadership pipeline in the organisation, to prepare the workforce to meet the challenges of growth, globalisation and change.



All officers in Tata Steel are part of the Performance Management System (PMS) enabled through the SAP-HR intranet portal; through this system all officers receive regular feedback on performance. PMS has an inherent Talent Review System where all officers of a department discuss and finalise the performance, growth and development needs of an officer. The training needs of all officers are identified through Personal Development Plans and for all other employees by Training Need Surveys.

Officers trained on the managerial topics find them useful for their career growth as well as continued employability, even after superannuating. Many employees manage career endings at a faculty in Management Institutes or with assignments on contract with local companies. Equipped with managerial and technical skills, some entrepreneur employees also start their own consultancy firms.

#### Tejaswini

Tejaswini - a unique training initiative for women whose jobs were at risk of becoming redundant through automation, was established in 2002 and has been successful in retraining women in skills such as crane operating, and vehicle driving, leading to more secure and better paid employment in plant operations.





# **Diversity and Equal Opportunity**

Tata Steel is an equal opportunity employer and equal opportunity is implemented in practice. Remuneration is linked to responsibility levels and performance. For the same work, or work of a similar nature, male and female employees are paid equal remuneration. Violation of the equal opportunity policy is redressed through the grievance redressal mechanism and Ethics Counsellor.

At the end of the year 2007 - 08, just less than 5% of the workforce was female, with a higher figure of 8% for officer positions. Nearly 16% of the total workforce was from scheduled castes and scheduled tribes, although representation amongst officers was much lower at approximately 2%. The age breakdown of workers was as follows:

Age Profile (Non-Officers)	0>30	30>35	35>40	40>45	45>50	50>55	55>=61	Total
Numbers	1950	2960	4833	5484	6611	6262	3796	31896
%	6.1%	9.3%	15.2%	17.2%	20.7%	19.6%	11.9%	100.0%
Ago Drofilo								
Age Profile (Officers)	0>30	30>35	35>40	40>45	45>50	50>55	55>=61	Total
Numbers	390	546	637	694	551	533	623	3974
%	9.8%	13.7%	16.0%	17.5%	13.9%	13.4%	15.7%	100.0%

The Company ensures it complies with legislation through its HR Policy. However, it is motivated not only by legal duty, but perhaps more by its philosophy of respect and fairness, a commitment to nurture talent and reward merit, and the belief that different types of employees bring unique experience and capabilities to the Company. Thus, implementing equal opportunities and diversity is seen as good business sense, providing improved team performance and encouraging the formation of a modern and varied workforce capable of delivering in the global twenty-first century market.





Tata Steel believes its people are a key component of its business success.

Their safety, well-being, motivation and development are a company priority.

# **HUMAN RIGHTS**

# **Management Approach**

Tata Steel is proud of its reputation as a fair and caring employer and respects and protects human rights both within and outside the workplace. Working conditions for employees and supply chains are managed through the application of standards and conventions based on the Universal Declaration of Human Rights (UDHR) and ILO Conventions such as SA8000 and the UN Global Compact Principles. Tata Steel also promotes human rights more widely through its policy of inclusive growth, and CSR initiatives, as the Company believes that socio-economic security is a precondition to a safe and dignified existence.



The Tata Code of Conduct (see Further Information page 129) specifies that every employee of a Tata Company shall preserve the human rights of every individual and shall strive to honour commitments.

Tata Steel provides equal opportunities to all its employees and all qualified applicants for employment. Practices in dealing with employees are fair and respect the rights and differences of individuals. Employees of the Company are treated with dignity and in accordance with the Tata policy to maintain a work environment free of sexual harassment, whether physical, verbal or psychological.

Tata Steel ensures the protection of Fundamental Rights of individuals provided by the Constitution of India. It has a well-established Employee Grievance Redressal System, which provides a procedure for employees to raise any concerns on personal issues in relation to their employment. To ensure that employees feel able to raise wider concerns about suspected instances of improper or unethical behaviour with impunity, a Whistle Blower Protection Policy has been implemented in the Company. The policy encourages employees to make protected disclosures about any genuine concerns over conduct, which are then investigated by the Ethics Counsellor/Audit Committee.

# "Quality Management" Approach to Workplace

Tata Steel is working in collaboration with Social Accountability International (SAI), the human rights organisation and the guardian of the SA8000 standard, which manages ethical workplace conditions throughout global supply chains, to address the implementation challenges faced in creating local and regional processes within a global context. Both the employee and contracted labour are considered customer groups in the workplace context.

#### The Tata Steel Approach

Tata Steel's early and pioneering adoption of many personnel and operational management practices, such as the 8-hour working day, workers' compensation and maternity leave, among others, have gone on to become the law of the country.

With a well-structured human rights system already in place, Tata Steel Works attained SA8000 certification in 2005 (and re-certified in 2007). The Company's Sukinda unit is the first mine to be SA8000 certified.

In its efforts to improve further, Tata Steel is working with stakeholders to develop methods to assess performance. In addition, ensuring the wellbeing of workers involved in the supply chain is being addressed through seeking written commitments from suppliers, followed by visits and audits of key suppliers.

Information taken from an article by *E. Kaufman, Social Accountability International, and P. Sharma, Tata Steel Limited*, United Nations Global Compact Quarterly, April 2006

# **Human Rights in Investment and Procurement Practices**

Tata Steel's commitment to human rights extends to all its significant investment decisions. Investments are made with consideration to satisfactory performance in the areas of safety, health, environment, human rights and good labour practices.

Significant capital expenditure such as machinery and technology is sourced from reputed technology and equipment suppliers who follow internationally accepted norms and standards on human rights.

The Procurement Division of Tata Steel has designed and deployed a robust process for ensuring human rights by suppliers and contractors:

- A comprehensive Vendor Registration format ensures that the information related to suppliers and contractors on various parameters including finance, environment, and registration details with various statutory authorities like Sales Tax, PF, Excise, PAN No. etc. are furnished before registration of the vendor.
- Financial status is verified by the bankers, if required.
- Independent vigilance report is obtained before the registration to verify the credentials of the vendor, if required.
- Acceptance of Tata Steel's Code of Conduct is a pre-requisite for dealing with Tata Steel.
- Submission of compliance against various clauses of SA8000 standard is mandatory for all vendors.
- Sample audits are done at vendors' premises to check compliance with various requirements.

Vendor performance is monitored on human rights, labour laws, safety etc. in addition to price, quality, and delivery parameters. A system is being designed to capture the scores of SA8000 compliance during the social assessment, either internally or through the help of external agencies. This score will appear along with other parameters in the vendor performance evaluation.

In order to sustain the relationship with vendors, the following actions have been taken in 2007 - 08:

- Refresher training on SA8000 to contractors: 120 conducted.
- 6 Vendor Meets, chaired by the Senior Management Team.
- Supplier Value Management programme ensuring value creating partnerships with vendors: 24 (cumulative) sessions.

The Procurement Division has created a "single window" system to address concerns of vendors. The Ethics Counsellor & Procurement Division closely monitor adherence to the Tata Code of Conduct by suppliers and take appropriate action in cases of non-compliance.

#### **Employee Training on Relevant Aspects of Human Rights**

All recruits in Tata Steel sign the Tata Code of Conduct and are oriented to SA8000, covering human rights issues. The Jamshedpur Works and FAMD Unit of Tata Steel are certified to SA8000 and classes on SA8000 are conducted at the Technical Training Institute. The Company has institutionalised SA8000 training as part of new employee orientation. In 2008 alone, three training sessions for lateral hires, four for trade apprentices and trainees and two for associate company recruits (upon request) were conducted. Over 1150 employees have been trained through ongoing programmes between 2004 and 2008, with a high level of satisfaction among participants.

#### **Non-discrimination**

Applying transparency, fairness and equity in all its dealings with employees is fundamental to Tata Steel. Accordingly the Company does not directly or indirectly discriminate on grounds of caste, religion, disability, gender, age, race, colour, ancestry, marital status or affiliation with a political, religious, or union organisation or a minority group. It also encourages a non-discriminatory, merit-based approach in all external business dealings which the Company and its employees undertake, e.g. with suppliers and customers.

Tata Steel has an Ethics Counsellor to monitor any discrimination in its activities, services and products. The number of 'equal opportunity employer' concerns addressed in 2007 - 08 was 16 (as compared to 8 in



2006 - 07 and 13 in 2005 - 06) but of these only 3 were found to be valid. The actions taken in response to valid concerns were the settlement of payments due and employee counselling on behaviour.

# Freedom of Association and Collective Bargaining

Collaborative relationships and strong employee engagement have been integrated into Tata Steel's culture and the new performance culture specifically encourages independent expression and fearless debate.

Tata Steel respects the employees' right to exercise freedom of association and collective bargaining and provides necessary support for this. There is an established system of joint working and collective bargaining, which ensures that every employee is able to exercise this right without any fear. The issues for collective bargaining with the Union are clearly identified and many other welfare measures are identified, discussed and implemented at various joint working committees. Worker representatives are respected at all levels and are encouraged to discuss various issues concerning production, productivity and welfare.



Tata Steel works with Social Accountability International to ensure that human rights are respected in the workplace, amongst suppliers and contractors as well as the company's own employees. The Steelworks and Sukinda mine have been SA8000 certified.

# **Child Labour**

Tata Steel engages no child labour. The minimum age required for employment in Tata Steel is 18 years and proof of age must be supplied at recruitment.

The Company's SA8000 Manual expressly states that no persons below the age of 18 years may be engaged by contractors, suppliers or vendors at any point, within or outside the Company premises. In the event of discovery of such a case, liabilities for the education of the child until completion of high school would accrue to the defaulting party. This guideline precedes Government of India rulings restricting the hours of work and kinds of jobs where child labour may be engaged. With the strengthening of the Child Labour Abolition and Control

Act of 1986, the penalties stipulated by the State will additionally be upheld. Information is being disseminated accordingly to all stakeholders.

The Company communicates from time to time with its employees not to engage child labour domestically and to actively discourage it. Several programmes are supported in the community to educate the children of domestic staff residing in Company accommodation so that they are able to seek a better future. In 2007, Tata Steel was called upon by the Department of Labour to utilise its stakeholder engagement processes to raise awareness against domestic engagement of child labour in the community.



# **Forced and Compulsory Labour**

Tata Steel does not permit any form of forced or compulsory labour. The Grievance Redressal Committee and Ethics Counsellor monitor violation of this requirement.

There is an established three-tier Grievance Management System, which ensures that workers are able to raise grievances and that these are resolved in a fair and transparent manner. The system also ensures that there is no retaliation by any party after the resolution of grievances.

# **Security Practices**

There is a special Training Centre dedicated to the training of security personnel on issues such as security practices and human rights. Trained security and district administration trainers impart training to the security personnel. Human rights aspects and various other important aspects on security procedures are covered under the following topics during training:

- Right of search
- Right of arrest according to CRPC Sec. 43
- Safety
- Weapon handling
- Rescue (Fire fighting)

- Domestic enquiry
- Motivation and positive attitude
- OSHAS and SA 8000
- Customer orientation
- Works Standing Order

# **Rights of Indigenous People**

While the government of India refers to indigenous peoples as "Scheduled Tribes", Adivasi has become the popular term for India's indigenous or tribal peoples. It is a Sanskrit word meaning "original people". There are more than 30 distinct Adivasi communities listed as "scheduled tribes" living in Jharkhand.

It is Tata Steel's policy to respect and promote Adivasi communities. In order to do this, specific initiatives are in place including a Community Development & Social Welfare Department to serve the communities in Jamshedpur. In 1979, Tata Steel established an independent Rural Development Society which helps to address the needs of the tribal communities in and around sites of operations and, later, a Tribal Cultural Society.



These organisations have established community grievance management systems. Local representatives from the community are involved and consulted though various stakeholder engagement systems such as Senior Citizens Forum, Spouses Dialogue, Joint Community Meeting and Community Needs Analysis. The concerns of members of society are discussed, prioritised and addressed appropriately. There were no significant issues relating to violations of rights of indigenous people in 2007 - 08.

The Company goes beyond the purely 'responsible' approach of avoiding the violation of rights and seeks to actively promote and enhance the wellbeing of tribal peoples through carefully developed business planning and community initiatives which seek to protect tribal culture, whilst encouraging appropriate economic development and opportunities for a sustainable future.



# **SOCIETY**

# **Management Approach**

"In a free enterprise, the community is not just another stakeholder in the business but in fact the very purpose of its existence" - J.N Tata, Founder Tata Group

Successive generations of Tata Steel leaders have believed that no success in material terms is worthwhile unless it serves the interest of the nation and enhances the quality of life of people. This legacy has been institutionalised as Company Policy and is embedded in the Company's Articles of Association. The Tata Code of Conduct (TCOC) (page 129) ensures that the Company and its employees conduct business in an ethical and responsible way, enhancing the wellbeing of society. The process of implementation of the TCOC among stakeholders is known as the Management of Business Ethics (MBE) and is deployed through a four-pillar concept: Leadership, System & Processes, Training & Awareness and Measurement. MBE is managed with an ethics counsellor reporting directly to the Managing Director.

The Tata ethos has also provided the guidelines for Tata Steel's Corporate Social Responsibility (CSR) initiatives. CSR is an integral component of business strategy and supports the Group aims on Corporate Citizenship. The Company works to create a favourable and conducive social environment by improving the health, education and economic status in its areas of operation. In addition to acting ethically and in compliance with regulations, and planning and monitoring activities to ensure that any negative impacts on communities are addressed, Tata Steel goes much further by proactively engaging with local communities to identify their needs and develop

initiatives to enhance community wellbeing and strengthen society for the future.

Tata Steel's aims of Corporate Citizenship go beyond direct responsibility for business operations to a commitment to Inclusive Growth, to nation building and to addressing global socio-economic and environmental issues. To this end, the Company is always mindful of the national interest in all that it does (TCOC Clause 1) and is guided by frameworks such as the UN Millennium Development Goals (see www.un.org/millenniumgoals) which are advanced through its CSR initiatives.

Today, Tata Steel's CSR activities encompass the Company's Steel Works, iron ore mines and collieries, the city of Jamshedpur, its peri-urban areas and over 800 villages in the states of Jharkhand, Orissa and Chhattisgarh. Tata Steel works in partnership with the government, national, international development organisations, local NGOs and the community to ensure sustainable socio-economic development of the communities. The Company implements its CSR initiatives primarily through its Corporate Sustainability Services Division and three independent notfor-profit organisations it has established: Tata Steel Rural Development Society (TSRDS), Tribal Cultural Society (TCS) and Tata Steel Family Initiatives Foundation (TSFIF). Many other departments of Tata Steel, such as Sports and Medical Services Division, are also involved in Company initiatives to benefit local communities. The many and varied activities address the broad range of needs that have been identified in collaboration with local communities, and enhance economic, environmental and social wellbeing of the communities.

# **Community Impacts**

Tata Steel considers the effects of its activities when entering, operating within and exiting communities, and makes plans to manage risks and any adverse impacts. In changing and developing its operations, the Company considers the impacts of its operations on employees and their families, as well as the local community.

During recent acquisitions the Company's policy has been to respect and preserve the local workforce. When developments in Tata Steel India operations mean there is surplus manpower, the Company seeks to redeploy staff where possible.



# **Greenfield Projects - Tata Steel Parivar**

During the year under review there was development on several capacity expansion plans in greenfield sites. Many of the communities living near these sites are tribal communities. The Company recognises that its plans and activities will have significant socio-economic and psychological impact on such local people. To address the sentiments and concerns of the people living in the vicinity of these sites and the families that may get displaced by the projects, and to ensure that negative impacts are minimised and positive impacts created, the Company is implementing its Parivar programme.

This Rehabilitation and Resettlement programme is one of India's most pragmatic. The programme is designed to help to increase income levels and create opportunities for sustainable livelihood, improving people's quality of life while preserving and promoting their culture. The focus of the programme is on creating 'a better tomorrow' and reassuring relocated families that life will not only be the same, but much better. Tata Steel Parivar includes tracking of each affected family vis-à-vis their income and quality of life for at least five years.

#### Activities under the Parivar programme include:

- fair and just compensation packages
- managed move to rehabilitation colonies which have been developed in collaboration with villagers with basic civic amenities, drinking water, power, street lights, sewerage, schools, dispensaries, access to education, community areas and places of religious worship
- psychological and emotional impact management
- self-help groups
- employment opportunities for one nominee of each displaced family in the Company plant or associate companies
- tailor-made training programmes to improve the employability of local youths
- micro-credit and micro-enterprise projects, especially for women
- basic health and hygiene services
- cultural preservation schemes and educational scholarships

Given the potential for community concern about local industrial development, the Company is proud to have fostered positive community relationships and sees this as a sign of the success of its approach. Specific achievements in 2007 - 08 include:

- Training: 178 youths from families affected by Jharkhand Steel Project undertook vocational training in
  computer literacy, masonry, electrical skills and tailoring. 540 people from families affected by Tata Steel's
  Orissa greenfield project received CAP Foundation Training in vocational skills like customer relations, sales and
  services, hospitality, electrical skills, automobile repairs, accounting, etc and as bedside attendants. 65 women
  from project-impacted families have been trained as health facilitators. The employment and income of the
  training participants will be monitored into the future. 282 trained youths are already engaged with
  construction partners in Orissa.
- Resettlement: Resettlement of displaced families is progressing well. 640 families have now been comfortably resettled in two rehabilitation colonies and five transit camps in Kalinganagar, with care taken to ensure social ties are intact and self-help groups to support with any issues arising from the move.
- Capacity Building for Sustainable Livelihood: Several micro-enterprises and more than 800 self-help groups of various levels of development are now functional, following training of women in local areas.

Independent impact assessments will be conducted annually in affected communities to monitor and report developments in socio-economic status achieved through Tata Steel Parivar; these have commenced from 2007 - 08.



Tata Steel believes that the primary purpose of a business is to improve the quality of life of people.

# **CSR Programme**

The Company's community services and social welfare initiatives remain unparalleled and go well beyond the immediate responsibility for the impacts of its own business operations, demonstrating Tata Steels commitment as a good corporate citizen. In areas where Tata Steel has been operating for many years, there is a continued commitment to taking a proactive role in economic, social and community development, with innovative and wide-ranging programmes to meet the broad sector of needs identified in conjunction with the community. The following gives just a flavour of the many activities and some performance highlights from this year.

#### **Sustainable Livelihood**

Tata Steel has been viewed by the community as a source of employment for over one hundred years as it was one of the first large scale private sector industries in India. Since the demand for unskilled and semi-skilled labourers is reducing within the Company and other industries, Tata Steel works to help local people to harness the resources available to them, to develop these resources and their own skills towards sustainable livelihood opportunities, in both rural and urban areas. This helps individuals and also improves the local economy in areas of operation.

#### **Improving Agricultural Productivity**

Through land and water management, more land has been brought under irrigation, making wider areas available for cultivation. In the year 2007 - 08, 2455 acres of wasteland were treated and 1763 acres of land were brought under second cropping. In order to encourage skill development and resource building, agricultural training sessions, demonstrations and distribution of farm implements are regularly organised, benefiting 3136 farmers in 2007 - 08. Community based organisations, such as watershed committees, have been formed to build a sense of ownership among the village community and ensure long term sustainability of the resources created.

#### Enhancing the livelihoods of the rural poor in Jharkhand through the creation of water resources

This Tata Steel Rural Development Society project, run in collaboration with Sir Ratan Tata Trust and the Government, aims to enhance the livelihoods of the rural poor, especially tribal peoples in villages of Seraikela-Kharsawan district, by improving the irrigation capacity of the area.

Engagement of the local communities through 'Peoples Institutions' is considered to have been a critical factor in ensuring success through:

- Making sure that practical considerations relating to local people's needs, customs and norms are taken into account.
- Achieving a sense of ownership in the projects and thus ensuring both initial participation in the project and future sustainability through local management systems.

16 Village Development Committees, with 212 members, have been formed to plan, implement and monitor the village level activities of the project. 20 Self Help Groups were formed to provide support on enterprise and credit. Informal village based Water User Groups ensure optimum utilisation of the water resources created and renovated. These groups have a bank account and collect funds for operating the pump set.

#### Achievements:

- 87 acres of wasteland has so far been turned into cultivable land by planting fruit and timber plants, with a plan to cover 271 acres by 2009. Villagers will provide post care management of the plantation work.
- Second and third cropping has been achieved in the area with the introduction of water harvesting structures. Approximately 285 acres of land has been covered under second and third cropping and well over 100 water harvesting structures were created and renovated, creating an additional irrigation potential of 606 acres of land over different seasons.
- Farmers have changed their traditional practices and adopted better practices of paddy cultivation. Due to such efforts, the yield of paddy has gone up by 35%, which has improved food security in the region.



#### **Encouraging Rural Enterprise**

Enterprise development has been promoted as a way to create sustainable development within villages. This approach provides an alternative source of economic stability and opens new employment avenues for rural youths. Tata Steel provides financial and other assistance for setting up small business units (Pisciculture, Grocery shop, etc) and training on allied activities, such as animal husbandry, dairy nursery raising etc.



Tata Steel has also encouraged rural enterprise development through the formation of Self Help Groups, the majority of which comprise women from poor families. This not only improves the economic status of the family but also contributes towards capacity building and empowerment among rural women, who often experience social exclusion. Regular training is organised to develop the necessary skills for various enterprises such as vermicompost, rice processing, nursery raising, jute products, stone carving and artificial jewellery. Approximately 700 Self Help Group members received skills development during the year. 800 groups are now functional in various rural locations.

#### **Vocational Training**

This initiative aims to develop marketable skills among young people, women and other community groups, such as local artisans, to increase their ability to compete in the market. Vocational Training programmes are regularly conducted for a variety of trades, which include motor driving, welding, computer hardware and software, tailoring and handicrafts, etc. Special long-term training programmes in Software Management, Office Management and Community Health Provider Training are conducted for youths from scheduled castes and



scheduled tribes (SC/ST). Amongst many other achievements in 2007 - 08, more than 1100 youths received vocational training; 44 SC/ST 'community health provider' trainees graduated; 10 were selected for Operation Theatre Assistant training and 16 secured employment.

#### Education

The Company's efforts in improving literacy rates in operational areas have been promising. Primary education is provided to children from underprivileged sections of society. This year the Company continued several initiatives to attain 'education for all' with a specific focus on rural and urban slum children, girls and youths from scheduled castes and tribes (SC/ST). Camp schools are organised to encourage dropouts, especially girls, to continue their education. During this financial year about 200 children benefited from a Camp School held at Noamundi. In addition 51 Early Childhood Education Centres catered to 1250

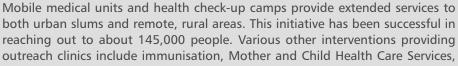


children, with 50 tribal girls motivated to rejoin school. Adult literacy classes are also held to improve the literacy status in the rural and peri-urban areas of Jamshedpur. In 2007 - 08 more than 4350 adults achieved functional literacy through 147 centres.

During the financial year 2008, the Jyoti fellowship and Moodie Endowment programme for science students provided financial assistance to 621 SC/ST students for higher studies. This is an annual programme where scholarship assistance worth over 30 lakhs (3 million rupees) is disbursed to enable meritorious SC/ST students to continue their education. As well as assisting the individuals, the programme also helps to create successful role models for other young students.

#### **Health and Sanitation**

Tata Steel provides curative, promotive and preventive healthcare services to improve the health status of local communities in its areas of operation. Healthcare to non-employees is provided through the Medical Services Division.





tuberculosis control, eye cure camps, blood donation, cleft lip/cleft palate operations and disability management, etc. The Lifeline Express, the world's first hospital on rails, offers on-the-spot diagnostic and advanced medical and surgical interventions to address disabilities. Using the Indian Railway Network it reaches out to inaccessible rural areas where advanced medical services are scarcely available. Tata Steel is a major corporate sponsor of the Lifeline Express and has

hosted it 13 times since 1991, enabling approximately 60,000 cases to be treated. During this year the Lifeline Express visited Joda, benefiting 2477 people.

The Company also runs initiatives to improve sanitation and hygiene for rural communities. In order to increase rural access to safe water and improve sanitation, 161 drinking water structures and 9227 low cost toilets have been constructed.

#### **HIV/AIDS**

The health and safety of employees and the community is critically interlocked with productivity and the threat posed by HIV/AIDS was recognised by the Company with the development of a dedicated HIV/AIDS Policy. The Company has taken proactive steps in AIDS prevention by spreading awareness not only amongst its employees, but also the community at large, so that the inhabitants of Jamshedpur and at other locations remain safe.

Tata Steel has received much global acclaim for its interventions in HIV/AIDS. This year TERI acknowledged Tata Steel for its HIV/AIDS initiatives.

Ground-breaking HIV/AIDS initiatives include:

- 'Sneh Kendra' a centre that provides regular counselling, referrals and support services for people living with HIV/AIDS
- Projects such as "Kavach", concentrating specifically on high risk groups such as long distance truck drivers
- 'Kushi' static clinic and four extension clinics reaching out to many thousands of people
- Events, rallies, street plays, pamphlets, condoms distribution, etc for HIV/AIDS awareness

The Company has also successfully reached out to the community youth and schools through Adolescent Reproductive and Sexual Health (ARSH) programmes.

#### Family planning and reproductive health

The first corporation in the country to launch a family welfare programme, Tata Steel has been promoting family planning since the 1950s. JRD Tata realised the social need for population control and pioneered population stabilisation projects before the Indian Government started to address the issue. Temporary and permanent methods of contraception are provided through clinics and awareness raising programmes.

During the year 5120 couples were protected with permanent methods of family planning. Sustained efforts have also succeeded in ensuring male involvement, with approximately 250 vasectomies performed in the current financial year.

#### **Disability Management**

Physical and mental disability is a problem in society, which if not properly managed, can lower quality of life and exacerbate poverty. A number of new initiatives have commenced to help people with disabilities, in addition to existing work like the Lifeline Express and cleft lip and cleft palate surgery undertaken by the Company.



- Urban Services has initiated a camp for people who have a disability, in collaboration with the district administration, to distribute Certificates of Disability and Railway Concession Certificates under one roof. This is expected to help many people.
- Mobile Court for 'Differently-abled': The first Mobile Court for people with disabilities is being set up in Jamshedpur.
- In association with the 'Parent Association of Mentally Handicapped of Jamshedpur' a Day Care Centre is being established for children who have learning difficulties and mental health disabilities.

#### **Affirmative Action - Empowerment of Tribal Communities**

Tata Steel fully supports the need for growth and development of Indian Scheduled Castes and Scheduled Tribes (SC/ST) through its Policy on Affirmative Action adopted in 2006 (Further Information page 134.)

The Company has for many years supported the Tribal Culture Centre (created in 1993 from a dedicated Company department for tribal and harijan welfare), which works to promote and preserve indigenous art and culture; improve health and hygiene and the aspirations and livelihood opportunities of marginalised and



economically weaker tribal communities. Promotional events such as the 'Gram Shree Mela' are organised to encourage rural artisans and craftsmen. Other initiatives revive traditional sports, dance forms and herbal medicines.

A socio-economic study of primitive tribes like Sabars and Birhors was conducted in four selected villages of East Singhbhum district. The findings of the study have formed the framework for various interventions in the areas of preservation and promotion of ethnicity of these tribal groups, who are on the verge of extinction, and this work will receive priority over the coming year. For example, the Company is already supporting many Birhor families in West Bokaro with rope making projects, which will help the families to achieve sustainable livelihoods building on their existing skills and culture.

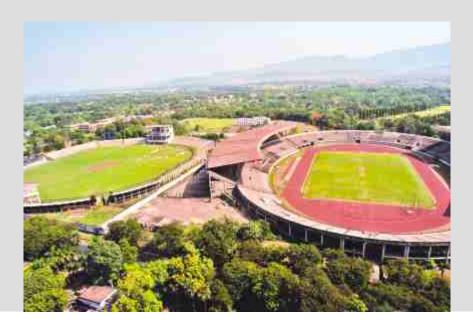
Some of the specific achievements in promoting socio-economic development of people from scheduled tribes (as well as scheduled castes) have been reported above.

#### **Sports and Adventure**

Believing strongly as it does, that sport is an activity that enables a healthy mind and body, Tata Steel has always actively encouraged and supported sport in multiple ways, from corporate sponsorship of promising sportspersons, to making available sporting facilities to people across socio-economic groups.

Cadets coached at the Tata Athletics Academy, Tata Archery Academy and Tata Football Academy (TFA) continue to perform at the state, national and international level, developing their own skills, enhancing community aspirations and creating civic pride. During the year, amongst many other achievements:

- Sinimole Paulose of Tata Athletics Academy won 9 medals including a Gold Medal in the Asian Indoor Athletics Championship in Macau
- Tata Archery Academy, the home for archery in India, had many successes, winning the Asian Archery Championship and achieving several awards, including the Arjuna Award conferred by the President of India
- TFA had 100% placements of its cadets with premier football clubs of India and won several tournaments, including the All India Gaustopal Memorial Tournament
- Many sporting events and seminars were held and more than 500 community children were trained in nine different sports



#### **Adventure Programme**

Tata Steel Adventure Foundation (TSAF) aims to develop the spirit of adventure and enterprise among children, youth, corporate employees and senior citizens - men and women of all age groups and from all walks of life. In order to build confidence, promote self belief and develop a "Can Do" attitude in participants, TSAF runs a full programme of events each year including parasailing, rock climbing, river rafting, kayaking and trekking in the Himalayas. The Foundation runs its activities for socially disadvantaged groups including deprived rural groups, people with sensory impairments and people with mental health disabilities.

#### **Employee Services**

Tata Steel has created a benchmark in employee relations by providing counselling services for familial disputes. The Employee Services section brings together separated spouses, parents and children, distributing employee salaries amongst their dependents with mutual consent. This year 200 applications were received, out of which 184 cases were settled.

#### **Employee Volunteering**

Tata Steel cannot succeed in its aims without its employees and encourages all employees to engage with the aim of achieving better quality of life for the community. An 'Employee Voluntarism' project has been initiated this year to encourage Company employees and their families to contribute in the areas of education and vocational training.

#### **Disaster Management Through Tata Relief Committee**

Whilst most of Tata Steel's community activities are geographically focused on its areas of operation, as part of its Corporate Citizenship, the Company is also committed to providing assistance in the event of natural disasters wherever they occur in India. The Company spearheads the work undertaken by Tata Relief Committee (East) and for 2007 - 08, Tata Steel has contributed a total of Rs. 39 million (nearly USD 1 million) for Bihar and Orissa flood relief work. The Company matched the Rs.19.5 million contribution made by employees, who donated one day's salary¹. More than 50 volunteers from Jamshedpur and Sukinda/Orissa Project took part in the distribution of polythene sheets to be used as temporary shelters for the flood victims in Orissa. In Bihar, as a short term measure dry food was distributed to the flood victims. The longer term reconstruction and rehabilitation programme will be planned based on Government of Bihar advice on locations.

Tata Steel is justifiably proud of its extensive community programmes and welcomes opportunities for collaborative working to develop activity into the future. More information on the extensive range of activities and achievements can be found in the annual reports of TSRDS, TCS and TSFIF.



 $^{\rm 1}\text{NB}$  Company payment committed in 2007 - 08 but actually made in 2008 - 09

# Corruption

In order to ensure that all business activities and units are assessed for any risk of corruption, the Tata Code of Conduct (TCOC page 129) and corporate values are deployed in the Company through a process known as Management of Business Ethics (MBE).

Tata Code of Conduct has a specific clause (5: Gift and Donations) pertaining to bribery and corruption. The clause stipulates that the "Company and its employees shall neither receive nor offer or make, directly or indirectly, any illegal payments, remuneration, gifts, donations or comparable benefits, which are intended to or perceived to obtain business or un-competitive favours for the conduct of its business and shall participate in efforts to eliminate such forms of bribery,

fraud and corruption." Some forms of nominal gifts are allowed and the organisation has issued a detailed Gift Policy, which clearly articulates to employees the gifts which are permitted, values, required procedures and

All the officers of Tata Steel have signed the Tata Code of Conduct and this year there was a focus on reinforcing knowledge and compliance with the TCOC amongst all stakeholders. The Company has an Ethics Counsellor to ensure that all the issues pertaining to ethics are dealt with according to the Code. During the year, 88 written concerns were received, out of which an average of only about 25% of concerns were valid.

	Concerns received against TCOC Clauses							
		Concerns						
Clause No.	TCOC Clause	200	2005 - 06		2006 - 07		2007 - 08	
		received	valid	received	valid	received	valid	
4	Equal Opportunity Employer	13	4	8	3	16	3	
5	Gift & Donation (Bribery & Corruption)	1	-	-	-	-	-	
13	Third Party Representation	16	8	30	20	29	12	
17	Ethical Conduct	33	8	40	9	28	5	
18	Regulatory Compliance	1	-	1	-	7	1	
19	Concurrent Employment	4	-	-	-	-	-	
20	Conflict of Interest	4	1	-	-	-	-	
22	Protecting Companies Assets	3	-	12	-	2	2	
Others	Other clauses (1,2,3,8,14,16,19,21,24,25)	6	3	3	-	6	2	
	TOTAL		24		32		25	

Tata Steel takes a very serious view of any involvement of its employees and associates in bribery and corruption and, where necessary, punitive action is taken for unethical conduct. The Vigilance Group of the Company deals with bribery and corruption issues. In 2007 - 08 strict actions were taken against 16 vendors, 10 officers and 5 employees; the actions included suspension and discharge, blacklisting, transfers, recovery of money and loss of increment.

In order to enhance employee awareness and confidence in the Whistle Blower Policy of the Company, many activities including ethics skits and posters were organised during the regular 'Ethics Month' held in July. In order to generate confidence in the system, the importance of whistle blowing was emphasised and employees were encouraged to report any misconduct they observe, without any fear of retribution. A major step in employee involvement has been achieved through signing up the office-bearers of Tata Workers' Union to the Tata Code of Conduct.

Senior management also reinforce the ethical behaviour message on an ongoing basis in their communications with employees and insist that instances of unethical behaviour should be brought to their attention.

Other stakeholders like vendors, dealers and distributors were also included in the MBE process by involving them in various dialogues and workshops. In order to involve the community, a workshop was organised in collaboration with CII and the importance of Business Ethics was discussed.

During the year, the necessary support was extended to the associate companies of Tata Steel to facilitate uniform deployment of policies like the Whistle Blower Policy and Gift Policy. An Eastern Region Ethics Conference was organised with CEOs and Regional Ethics Counsellors of the Tata Companies in order enhance understanding of various aspects of MBE. Eminent speakers in this field were invited to share their knowledge. The MBE process was rolled out in Tata Steel Thailand.

The effectiveness of the MBE process is periodically evaluated, through self-assessment of the concerns received during each period and various assurance surveys conducted by internal and external agencies. These results are analysed and the necessary steps are taken to improve the system and processes.

# **Public Policy**

#### **Engagement in Politics and Public Policy**

Tata Steel, in accordance with the Tata Code of Conduct (Clause 7), does not support directly or indirectly any specific political party or candidate for political office and does not make donations to specific political parties, candidates or campaigns. The Company specifically avoids any conduct or activity that could be interpreted as mutual dependence or favour with any political body. However, in accordance with the Group initiative, Tata Steel does sometimes contribute to Tata Group Trust, which makes contributions to political parties.

Tata Steel, as a responsible corporate citizen, does hold views on public policy. Where there is a link with business interests and no conflict of interest, the Company actively engages with governments and with trade associations and other bodies, including social service groups, which seek to influence public policy. On a case-by-case basis the Company provides appropriate technical input into governmental policy development in the national interest.

Examples of public policy involvement by Tata Steel include:

- CO<sub>2</sub> reduction to address climate change: the Company is working with others to develop policies and practical initiatives to address the problem.
- Nuclear energy: the Company participated in a committee under the aegis of CII on a request by the Government of India to propagate the benefits of nuclear energy to meet the power requirements of the country.
- Iron ore: Tata Steel believes that because iron ore deposits are finite, current export practice in India is not responsible and that technology investment is needed to exploit iron ore finds more efficiently. The Company presented its views on Hoda Committee under the Ministry of Steel.
- Resettlement and rehabilitation: Tata Steel has contributed to Jharkhand, Orissa and Chhattisgarh state governments' policy development.
- Affirmative Action: this is promoted as a way to develop a more equitable society. Tata Steel believes that
  everyone benefits from nurturing talent and rewarding merit amongst disadvantaged groups. The CII
  Affirmative Action Committee is headed by a Board member of the Company.
- Healthcare. Tata Steel works in a public/private partnership on many projects to improve public health, in
  particular the Immunisation programme, in which the Company provides government vaccinations at its
  clinics, and the HIV/AIDS initiative which raises awareness and runs programmes to prevent spread of the
  disease, using Information, Educational and Communication materials, Antiretroviral Therapy support and
  Voluntary Testing and Counselling Centre testing facilities. Other collaborative programmes include Pulse Polio,
  TB Control, Eye Care, Malaria, Leprosy etc.



# **Anti-competitive Behaviour**

Tata Steel fully supports the development and operation of competitive open markets and promotes the liberalisation of trade and investment in each country and market within which it operates. The Company does not engage in restrictive trade practices or activities that generate or support the formation of monopolies, dominant market positions, cartels and similar unfair trade practices (Tata Code of Conduct Clause 3). There is no case pending in any Court pertaining to anti-competitive behaviour or violation of anti-trust and monopoly regulations.

# **Compliance**

Tata Steel is committed to complying with all applicable laws and regulations and insists that Company employees follow these, both in letter and in spirit, through its Code of Conduct (Clause 18).

On obtaining confirmation from the various units of the Company of having complied with all the statutory requirements, a declaration regarding compliance with the provisions of the various statutes is made by the Managing Director at each Board Meeting. The Company Secretary ensures compliance with SEBI regulations and provisions of the Listing Agreement. The Group Chief Financial Officer, as the Compliance Officer for prevention of insider trading, ensures compliance with the Tata Guidelines on Insider Trading.

In 2007 - 08 there were no fines or instances of non-monetary sanctions for non-compliance with laws and



Tata Steel has always upheld business ethics. A code of conduct sets out the commitments for organisational and employee behaviour.

# **PRODUCT RESPONSIBILITY**

# **Management Approach**

Tata Steel competes in the open marketplace on the basis of the benefits and quality of its products. The Company's reputation and passion for innovation and customer service are what make the difference and enable the Company to gain the trust of consumers and loyalty of customers.

In line with the Tata Code of Conduct (Clause 9: Quality of products and services) Tata Steel is committed to supplying goods and services of the highest quality standards, backed by efficient after-sales service consistent with the requirements of customers, to ensure their total satisfaction. The quality standards of the Company's goods and services meet the required national standards and the Company endeavours to become world-class.

The main Steel Works at Jamshedpur is certified to ISO 9000, ISO 14000 and SA8000. The manufacturing process is designed in a robust manner to deliver consistent quality products that meet the required specifications. Customer complaints with regard to product quality are properly investigated in the shortest possible time and are resolved to the customer's satisfaction.

The Company's products and services do not pose any significant health and safety or environmental risk to the customer or user. Appropriate information and labelling is supplied in order to ensure product features are distinguishable and known and that they are used correctly.

In line with Clause 3 of the Tata Code of Conduct, Tata Steel markets its products and services on its own merits and does not make unfair and misleading statements about competitors' products and services. Any collection of competitive information is made only in the normal course of business and is obtained only through legally permitted sources and means.

# **Customer Health and Safety**

Steel products are environment friendly and do not pose any health or safety hazard as a result of their use. There were no instances of non-compliance with regulations related to health and safety of products and there were no complaints on this issue during the reporting period.

To enhance health and safety awareness amongst customers, Flat Products have initiated a unique Safety Excellence Programme called "Suraksha" for the key customers of TATA Steelium brand. Under this programme, one day workshops are organised where trained safety experts brief and explain the importance of



safety to employees of key customers. The primary objective of conducting this programme is to prevent occurrence of accidents and injuries at customers' premises which will in turn prevent loss of productivity and profit. The safety experts, accompanied by Tata Steel officials, visit customers' premises the following day and assess the safety situation on the ground. Besides distributing safety equipment such as hand gloves on that day, Tata Steelium team also prepares a safety work plan for its customers and monitors subsequent compliance.

#### **Life Cycle Assessment**

Tata Steel participated in a Life Cycle Assessment study for the steel sector, which was sponsored by the Ministry of Environment & Forests, Government of India in 2002-2003. Life Cycle Assessment provides a holistic approach to evaluate performance by considering the potential impacts of all stages of manufacture, product use and end-of-life stages; commonly known as "cradle-to-grave" approach. A life cycle inventory was carried out to quantify resources used, energy and environmental emissions associated with the various processes of steel manufacturing up to the steel factory gate. Steel is a commodity product and it is almost impossible to track the end use of the steel. Steel is also a 100% recyclable material. Therefore the study was limited to the factory gate.

Based on the various inputs of the study and its analysis with the help of National Metallurgical Laboratory, Jamshedpur, Tata Steel has benchmarked several issues related to raw material consumption, energy consumption,

solid waste utilisation and green house gas emissions. The implementation of the recommendations from this study has led to improvements in performance on various parameters disclosed in this report.

#### Seismic Resistant High Ductile TATA Tiscon

Following earthquakes in different parts of India, particularly in the earthquake-prone North-East India, Tata Steel decided to study the reasons for building collapse during earthquakes. This study was undertaken in collaboration with the prestigious Indian Institute of Technology, Kharagpur. The results of the study highlighted faults in construction leading to weaknesses in the buildings: rebars were breaking under seismic forces. With this in mind, super ductile TATA Tiscon rebars were developed and launched in seismic zones of India. The distinguishing feature of the super ductile rebar is



its capacity to absorb the large amounts of energy released during earthquakes and bend without breaking. These reinforcement bars are seismic resistant and offer Tata Steel customers the opportunity to build safer and stronger constructions in earthquake zones, thus saving money and lives.

### **Product Information and Labelling**

Tata Steel illustrates adequate labels, caveats and other necessary health and safety information on its product packaging. Flat Products sold to retail consumers have standard labelling, packaging and information, whilst the products sold to institutions and original equipment manufacturers have customised labelling, packaging and information according to requirements. For example, a standard booklet containing the proper handling, storage and maintenance methods is provided to the consumer of the branded product GC Shaktee, at the point of purchase.

Information about Long Steel products is provided through the product brochures, point of sales materials etc. For enhanced and new products, multiple channel/ touch points are used. Any new product launch starts with influencer meets (with architects, engineers, masons) and media communications. The Long Products team ensure that distributors, dealers and area sales officers are well equipped to communicate product features.

Packaging materials and product branding also help to distinguish the product and its features. Long Products manufacture different categories of rebars, which are embossed differently with different brand names so that the customer can easily identify the product even at congested sites, thereby minimising the chance of using the wrong product.



Tata Steel is developing products which are lighter, stronger and more durable, some with special properties. These allow our customers to create better, safer, cheaper and more environmentally friendly products for the end user.

# **Customer Satisfaction**

The key processes for determining customer satisfaction and building relationships for retention are undertaken through the "Manage Customer Accounts" and "Measure Customer Satisfaction" processes. Specific customer acquisition plans are developed as part of the annual business planning process, and reviewed periodically.

The determination of customer satisfaction is established by conducting annual surveys, using a segment-wise approach, with products/service attributes as parameters. The surveys are conducted by external agencies (M/s A C Neilsen for



Year 2007). The overall customer satisfaction is captured through a designed questionnaire - both quantitative and qualitative - during the field survey. The satisfaction index is a relative score of the Company's overall score over the nearest competitor.



The Company applies the Theory of Constraints as part of its ASPIRE improvement programme, to develop a competitive edge based on reliable delivery, creating value for customers. So far, two specific market offers have been rolled out based on this model:

- Pull based Replenishment offer for distributors, enabling a proactive response to final customer needs and control of price structure on a real-time basis
- Vendor Managed Inventory offer for Original Equipment Manufacturer customers, helping to ensure high availability to key customers



# **Marketing Communications**

Tata Steel markets its products and services on its own merits and does not make unfair or misleading statements about competitors' products and services. Any collection of competitive information is made only in the normal course of business and is obtained only through legally permitted sources and means.

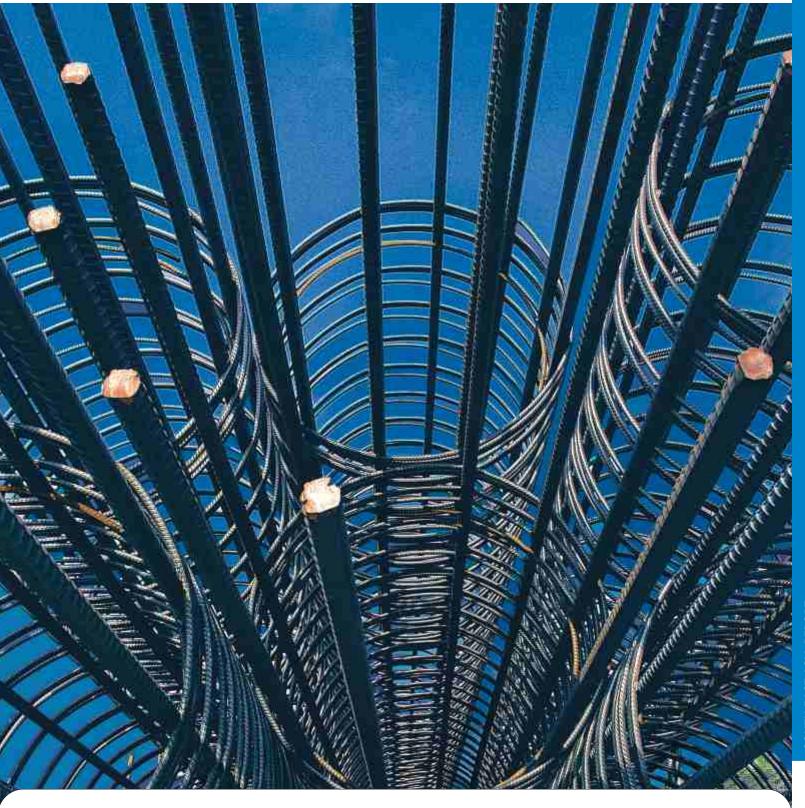
Tata Steel advertises for its corporate image during the reporting year and undertakes product promotion. The advertising agencies subscribe to the ethical standards advocated by Advertising Standard Council of India. No breach of advertising and marketing regulations was brought to the notice of Tata Steel during the reporting period.

# **Customer Privacy**

Tata Steel values the rights of its customers and takes all appropriate steps to protect their data and ensure their privacy. Confidentiality of consumer information, such as the specifications of special products developed for customers, is protected through confidentiality agreements. Customer information confidentiality especially in cases of 'Early Vendor Involvement' is ensured through non disclosure agreements with the customer. There was no substantiated complaint regarding breach of consumer privacy against Tata Steel in 2007 - 08.



# NatSteel Holdings & Tata Steel Thailand...



SOUTH EAST ASIA REPORT

OUTH EAST ASIA REPOR

# South East Asia Overview Sustainability Report 2007 - 08



This is the first time that Tata Steel's operations in South East Asia, NatSteel Holdings and Tata Steel Thailand, have reported on sustainability. We are on a learning curve, both to build the principles of sustainable development into our management systems and business operations, and to develop our sustainability reporting. We plan to improve our systems in line with the Tata Steel Group Vision, priorities and goals and to report on our sustainability performance according to GRI G3 guidelines in the future.

Fortunately we have a firm foundation on which to build. Our financial performance is strong, with recent growth in turnover and EBITDA and improvements in operational efficiencies. For example the energy consumption in the Singapore operation's Meltshop and the Rolling Mills have reduced by over 10% in the past two years. Thailand has undertaken initiatives to reduce power cost, nut coke consumption and alloy consumption. Our operations also have excellent records on important performance measures such as good practice in employment, occupational health

and safety, environmental standards and caring for the community. Both organisations already have corporate social responsibility initiatives and a strategy for targeted community investment.

Being a part of the Tata Steel Group provides us with a strategic framework for our sustainability commitments and this year NatSteel Holdings has made an external commitment to sustainability by adopting the United Nations Global Compact. Both organisations have also adopted the Tata Code of Conduct which provides us with an ethical framework and sets the terms for responsible behaviour in our business. During 2007 - 08 various promotional and awareness activities took place to ensure that the Code is well known and is applied by all employees.

Listening to our stakeholders is a vital component of our business success. We will work with stakeholders to develop our sustainability performance into the future and we welcome your views on these reports.



# NATSTEEL HOLDINGS PTE LTD CORPORATE SUSTAINABILITY REPORT 2008

# **OVERVIEW**

# **Strategic Perspective**

NatSteel Holdings Pte Ltd (NSH) started as the National Iron and Steel Mills Ltd in 1961, manufacturing and supplying reinforcement bars and wire rods to the local construction industry through a network of six local distributors. In its 47-year history, NSH has been the sole steel producer in Singapore having a major share of the domestic reinforcement bar market. Its rebars and wire rods are used in most projects in residential, institutional, commercial and industrial buildings, civil engineering projects (such as the Mass Rapid Transit metro system and the Changi Airport Terminals) and other major infrastructural developments, earning the Company the title of the country's "Nation Builder".

In the 1980s, NSH embarked on an aggressive programme to develop its steel business to participate in the growth markets of this region. Today, NSH has steel operations in Malaysia, the Philippines, Thailand, Vietnam and Australia. This report does not cover the operations of these investments.

Alongside the geographical expansion, NSH also embarked on a major move to go downstream towards the promotion of off-site fabrication of reinforcement products and provide better solutions for its customers. It started off with the manufacturing of steel wire-mesh (steel fabrics) for flooring reinforcements using drawn wires from its wire rods. The use of wire-mesh replaces the tedious and labour intensive on-site tying of wires or small bars (to form the mesh) for flooring reinforcements. Wire-mesh manufacturing was followed subsequently by the setting up of off-site fabrication of reinforcement bars covering a whole range of pre-fabricated steel profiles that are customised to each individual customer's specific requirements and project.

The full product range and service is given in Fig 1

NSH Products		Delivery Mechanisms		
		Local Sales	Internal Transfer	
Upstream	Reinforcement bars (Rebars)	Direct, Resellers	CAB	
Орзпеат	Wire rods	Negligible vol.	MESH	
	Cut-and-bent Rebars (CAB)	Direct	PCG, BPC, Couplers	
	Welded Mesh (MESH)	Direct	PCG	
Downstream	Prefabricated Cages (PCG)	Direct		
	Bored Pile Cages (BPC)		Direct	
	Couplers		Direct	

Fig 1: Products, services & delivery mechanisms

The strategy to move downstream is motivated by the need for the Company to:

- Add value to its standard reinforcement bar and wire rod products
- Localise competition and protect its market share by product differentiation
- Promote efficient use of labour in the construction industry
- Minimise site material wastages through the use of technology

The move also has significant implication for space and labour-short Singapore, improving immediately the working environment and safety of the construction site and surrounding areas, in addition to reducing site congestion.

# **Challenges and Opportunities**

NSH operates in a free market economy. It is highly dependent on scrap and electricity, both of which are currently subject to severe price volatility. The small domestic market in which NSH operates is easily saturated by just a few players and disturbed by cheap imports. Its tradition of selling on project basis with long tenure (some up to three years) at fixed prices opens the Company to undue exposure especially in the current situation of severe price and demand swings. The Company is also highly dependent on the health of the domestic construction industry, which has seen slow growth over the last few years but now shows signs of modest expansion.

From a steel application point of view, NSH faces competition both from within the reinforcement steel industry as well as from outside, such as structural steels. However the structural steel market has not expanded significantly in Singapore and NSH's share of the reinforcement steel market of more than 60% is expected to be sustainable for the foreseeable future.

In light of the demanding environment in which it operates, NSH has over the years, evolved into a very nimble and agile company:

- Ready to take on the challenges posed by a highly competitive international steel environment
- With a very clear focus on competitiveness, improvement culture, suppliers and partners, and customer relationships
- Having due regard for regulatory compliance, environment and the social fabric within which it operates

#### Competitiveness

NSH's key success factors include:

- Closely coupling cost-competitive operations
  - Locally-collected scrap to feed melt shop
  - 80-85% billets hot-charged to Rolling Mill to reduce energy costs
  - 20-25% special length reinforcement bars to optimise yields in CAB
  - provision of wide range of downstream products and capabilities, that captures market of most large projects
  - reduce fixed price period of contracts from 13 months to 3 months
- Flexibility in source and market diversification through network of mills and service centres across the region
- Equity with customers built over decades of quality and reliable supply

Key changes that could affect competitiveness include:

- Downswings in the cyclical construction industry
- Adverse movement of scrap-reinforcement bar gap caused either by higher scrap costs or lower scrap availability, or falling selling prices of reinforcement bars and wire rods
- High oil prices pushing up electricity prices

# **Organisational Strategy Setting**

NSH continuously faces challenges but it also enjoys advantages by virtue of its long history in Singapore, technological expertise acquired and the fact that it is part of Tata Steel. Over the years it has effectively localised competition for commodity reinforcement bars by providing downstream off-site fabrication solutions directly to customers. While import levels are not currently of concern, management remains conscious of the adverse impact of future cycles of cheap imports on the cost-benefits of off-site solutions. To diversify its markets, NSH has established a strong presence in Australia through its network of fabrication plants in all major cities there.

Areas	Strategic Challenges	Advantages to NSH
Business	<ul> <li>Mismatch of tenure of sales revenues (3-12 months) vs costs (spot)</li> <li>Pricing for fabrication service</li> <li>Demand &amp; supply volatility</li> </ul>	<ul> <li>Better supply responsiveness for rebars with only local steel mill</li> <li>Single management for upstream &amp; downstream increases effectiveness, saves cost</li> <li>Local scrap sweet-spot</li> <li>Tata Steel owns Corus, gives opportunity to expand offering in longer term to structural steel by using fabrication knowledge for rebars</li> </ul>
Operational	<ul> <li>Protect present market leadership position with right technology</li> <li>Environment &amp; safety levels need further improvement</li> <li>Inadequate safety culture</li> </ul>	<ul> <li>MSP &amp; MBM performance already world class</li> <li>Considerable knowledge for fabrication of reinforcement products available for Group</li> </ul>

Fig 2: Strategic Context

Senior management is actively engaged in the strategic and operational planning process, analysing and reviewing macro and micro inputs to arrive at long-term and short-term plans for communication and implementation across all functional groups. In addition to operational planning, succession planning is crucial to NSH to ensure there is sufficient bench strength for the roles of senior management, key functional decision makers and key process owners. The Company introduced the mentoring scheme during the period for management and professional staff to mentor and groom potential employees for future leading roles.

# **Organisational Objectives and Performance Measures**

Organisational performance measures are derived from NSH goals and strategic objectives, which will be achieved through long and short term plans.

Areas	Key Organisational Performance Measures
Financial	Long Term-ROIC Short Term-EBITDA Margin, Profit before tax margin, Net Debt/Equity, Average Debtors Velocity, Average Inventory Turnover
Operational	Rebar scrap spread, Average fixed price period of contracts, Margin for each product, Plant production volume, Sales volume per month, Variation of Forecast vs Actual Sales volume, Internal transfer cost/month, Electricity consumption per tonne of steel produced
HR: Employer of choice	Training utilisation
Safety	Frequency Rate Severity Rate Lost Time Injury Frequency-LTIF
Environmental	Tonnes of CO <sub>2</sub> emitted /tonne of liquid steel

Fig 3: NSH Organisational Objectives and Performance Measures

The main goals and Key Performance Measures as agreed with Tata Steel Group are summarised below:

GOALS 2012	Key Performance Measures		
ROIC (increase to 30%)	<ul> <li>Scrap-Rebar gap</li> <li>Average margin for each product</li> <li>Sales &amp; Production volume of each product</li> <li>Inventory turnover days</li> <li>Debtor days for accounts receivables</li> </ul>		
LTIF (reduce to 0.4)	Lost Time Injury Frequency (LTIF)		
CO <sub>2</sub> emission (reduce to <1.7 t/tls)	<ul> <li>Tonnes of CO₂ emitted per tonne of liquid steel</li> </ul>		
Employer of choice (top quartile)	<ul><li>Training utilisation</li><li>Overtime hours (as surrogate measure of work-life balance)</li></ul>		

Fig 4: Key measures reveiwed by senior leaders

These strategic objectives support the Tata Steel Group 2012 Vision and goals. Strategic challenges specific to NSH are addressed through the long and short-term plans developed for NSH. These are closely tied to and continuously reviewed against the 2012 goals of Tata Steel. NSH has embarked on a process of Gap Analysis for each of the goals enumerated. The results of the Gap Analysis will be further incorporated into the long and short term plans of the Company. Coordination and alignment within the Company are achieved through constant interaction, in particular, during fortnightly Exco meetings. The main mechanisms for development and deployment of Action Plans are through the annual business plan process and various task forces such as Total Operational Performance (TOP), and SAP implementation.

## Benchmark for Improvement

NSH benchmarks its performance and productivity using a variety of means to ensure it remains competitive on a number of fronts, including as Best Employer.

NSH has constantly improved its processes through review of performance by senior management and by assigning functional and cross-functional teams to brainstorm and discuss changes required. The Company has also adopted tools such as TOP. The Reinforcement Technology was set up in 2006 to capitalise and maximise competitive advantage of knowledge painfully gained over the developing two decades of fabrication capabilities. NSH is now working to develop a more structured approach to these successful improvement initiatives.

# Regulatory Compliance

Singapore is a highly regulated society and because of this, is an international benchmark on governance, labour practice, environment and safety, intellectual property and industry and product standards. NSH complies strictly with all regulations governing the operation of a steel plant in the country, and in some cases, exceeds national requirements, such as waste emissions, which are well below regulatory limits. Product standards adopted are relevant to the local construction market as well as export markets served.

NSH's processes are further certified to ISO 9001 (Quality Management System), ISO 14001 (Environmental Management Standard) and OHSAS 18001 (Occupational Health and Safety Management System), in addition to other certifications relevant to target export markets.

Regulatory area	Legislative Acts & Industry Standards	
General	Companies Act; Frustrated Contracts Act; Goods and Services Tax Act; Land Titles Act; Property Tax Act	
Manpower	Central Provident Fund Act; Employment Act; Industrial Relations Act; Manpower Management; Worker's Compensation Act; Work Injury Compensation Act; Workplace Safety and Health Act	
Environment & Safety	Environmental Protection and Management Act; Fire Safety Act; Radiation Protection Act; Smoking Act	

Regulatory area	Legislative Acts and Industry Standards
IT	Computer Misuse Act; Singapore Copyright Act
Industry Standards	Singapore Standard SS2:1999:Part 1: Specification for Steel for the Reinforcement of Concrete; SS2:1999:Part2: Specification for Steel for the Reinforcement of Concrete - Ribbed Bars (Steel grade 500); SS2:1987:Part3: Specification for Steel for the Reinforcement of Concrete - Plain and Ribbed Bars (Steel Grades 250 & 460); SS18:Part 1:1999: Specification for Welded Steel Fabric for the Reinforcement of Concrete (Steel Grades 300 & 500); SS32:1999:Part1: Specification for Welded Steel Fabric for the Reinforcement of Concrete (Steel Grades 300 & 500); AS/NZS 4671:2001: Steel Reinforcing Materials; BS4466:1989/BS8666:2000: Specification for scheduling, dimensioning, bending and cutting of steel reinforcement for concrete; BS4449:1997: Specification for carbon steel bars for the reinforcement of concrete; ASTM International (ASTM); Australian Certification Authority for Reinforcing Steels (ACRS); UK Certification Authority for Reinforcing Steels (CARES)

Fig 5: Regulatory Areas & Industry Standards

# **Corporate Responsibility and Business Ethics**

NSH operates in a country known to strongly emphasise morals and ethics, with a clear lead from the Singapore government. Conducting business ethically and with integrity has been ingrained into NSH from its incorporation and continues to be practiced diligently. NSH has defined policies and a legal framework to ensure that organisations and individuals act with professionalism and integrity at all times. During this year NSH started to develop a formal structure to promote legal and ethical behaviour through its formal adoption of the Tata Code of Conduct (TCOC) (Appendix page 129) through which the conduct of its business is guided. Just after the reporting period NSH signed up to the ten Principles of the UN Global Compact (UNGC) (Further Information page 137).

NSH has appointed an Ethics Counsellor to plan and execute ethics activities. Senior management participates in the Ethics Committee to oversee these activities.

Activities	Senior Leaders' Involvement
Official Launch of TCOC	<ul> <li>CEO's address in NSH in-house publication "NatSteel Bulletin" on TCOC</li> <li>Senior management sign on the TCOC poster during launch event.</li> <li>Senior management joined employees in TCOC game (identifying TCOC key terms in word puzzle)</li> </ul>
TCOC Committee	Senior management in steering committee.
UN Global Compact	<ul> <li>CEO signed UN Global Compact in April 2008, to express support &amp; to advance principles (human rights, labour standards, protection of environment, anti- corruption).</li> </ul>

Fig 6: Senior Leaders' involvement in activities to promote legal and ethical behaviour in NSH

# **Environmental and Social Responsibility**

Compliance with ISO standards and regulations demonstrates that NSH processes are able to address major adverse impacts, as required, such as the performance of the fume extraction system for the protection of employees and the environment. Very often, the Company goes beyond regulatory requirements engaging in active dialogue with the public to anticipate current and future concerns relating to site environment and safety and manpower issues. NSH also continuously explores the effective use of energy, raw materials, water and effective management of waste generation, zero soil fill and slag.



In addition the Company implements a programme of social projects. In its early days, NSH was a strong contributor to society through its support for organisations such as the Singapore Science Center and the Singapore Symphonia Company. Today NSH continues to subscribe to its philosophy of giving back to society.

# Stakeholder Engagement

The major stakeholders of the Company are those who have one way or another have an impact on the business of the Company. They include the shareholders, employees, banking and financial institutions, government bodies, customers, suppliers and partners, community and society.

In developing its goals and action plans, NSH identifies the groups and parties that it will interact and engage with. An analysis is undertaken to assess appropriate stakeholder engagement. For example for customers, NSH uses a database of information, developed over more than a decade of direct sales to customers, applying the criteria and considerations below to determine whether or not the Company establishes a customer relationship with a contractor.

Criteria	Key Considerations
Background/Profile	<ul> <li>Key Stakeholders</li> <li>Financial Standing</li> <li>BCA Grading indicates size of projects a contractor can cope with</li> <li>Insurance credit limit</li> </ul>
Key Requirements/ Needs	NSH products previously used, with customer requirements & needs
Potential For Growth	<ul><li> Quality of Key Personnel</li><li> Organisational Maturity</li></ul>

Fig 7: Customer Identification Criteria

Stakeholder engagement is both internal and external to the Company and engagement methods include employee and customer surveys, informal and formal meetings and discussions, performance reviews and interaction with government bodies and community leaders.

#### **Employees**

Senior management communicates with different groups of NSH employees through different methods on both general issues and key decisions of the Company, including those relating to the Vision and goals for economic, environmental and social performance (Figure 8).

Workforce Segment	Communication & Engagement Methods		
All	<ul> <li>Senior leaders conduct "Steel A Moment" (SAM) communication sessions on Company issues &amp; key decisions with a significant representation of the population, &amp; video of session screened to others during lunch breaks.</li> <li>CEO lunch with small groups of employees from various departments.</li> <li>Publish articles on Company direction &amp; development in Company internal circulation "NatSteel Bulletin".</li> <li>Update workforce of NSH with "News Flash".</li> <li>Senior leaders attend Sports &amp; Recreation Club (SRC) activities to interact with staff to reduce distance between management &amp; staff.</li> </ul>		
Union	<ul> <li>CEO &amp; relevant senior leaders conduct quarterly union meeting with NatSteel Employee Union (NEU) to share Company direction &amp; to understand issues of union members.</li> </ul>		
Middle management	<ul> <li>Senior leaders conduct "My SAM" with middle management for communicating &amp; discussing Company issues specific to the group in a more intimate setting.</li> <li>After Exco meetings, senior leaders disseminate decisions &amp; directions in respective operational meetings conducted for their divisions.</li> </ul>		
Senior Management	Senior leaders meet fortnightly as Exco for Company strategic issues.		

Fig 8: Senior leaders' communication and engagement methods with different segments of workforce

During and after these communication sessions, employees are given opportunities to clarify doubts and voice suggestions or concerns. In key performance review meetings, middle management staff who are not directly reporting to the CEO are encouraged to raise operational issues.

Frank two-way communication takes place because employees, whether singularly and in private, or in groups publicly, feel comfortable that their management staff will deal objectively with their feedback and opinions.

Every two years, NSH conducts an Employee Perception Analysis developed by Hewitt. Information collected using the Employee Opinion Survey (EOS) instrument is designed to gauge the level of employee engagement and employee perceptions of the work environment.

Other informal ways used to measure workforce satisfaction are through feedback channels such as line supervisors, managers as well as the workers' union. Based on Hewitt's research and findings, the following six factors have been identified as key drivers of Company-wide workforce engagement:

- Company reputation
- Senior leadership
- Performance assessment

- Policies
- Career
- Resources

#### **Suppliers and Partners**

NSH's critical partners and suppliers include NatFerrous, transporters, electricity suppliers and various melt shop consumables suppliers. The status and role of these partners is summarised below.

Relationship	Party/Parties	Role in work systems	Role in competitiveness	Communication mechanisms
Partner	Natferrous Pte Ltd (NATF)	<ul><li>Critical, must ensure:</li><li>Right quantity &amp; timing</li><li>Right grade &amp; mix</li><li>Right price</li></ul>	Critical, forms 80% of cost of rebar & wire rods. NATF also manages local scrap market (pricing & export outflows).	NSH's wholly owned subsidiary, therefore board & management control, regular weekly mutual-communication among MSP & NATF executives.
Partner	Transporters	<ul> <li>Right no. of trucks, trailers &amp; truckmounted cranes to transport goods to sites</li> <li>Trailers to act as mobile Finished Goods staging floor, without which fabrication process is disrupted</li> </ul>	Limited, because tonnage loaded & routing are planned by Production Planning.  NSH owns one-third of fleet with drivers to check cost incurred by external suppliers.	All trucks have GPS tracking device installed by NSH. Communicate through multiple interchanges daily, usually over telephone or mobile phone.
Supplier	Electricity supplier	Critical, cannot afford power outages, which rarely occurs with Singapore's reliable infrastructure	Critical, forms 6 to 8% of cost of producing rebar & wire rod, depending on product produced	Forward supply contract signed based on tenure selected at NSH's option, & monthly maximum load setting by email.
Supplier	Various MSP Consumables	Critical, cannot run out of supply, so contract forward. Best assurance is keeping physical inventory	Limited, but affects ROIC because physical inventory uses up working capital	Regular telephone & email exchanges to ensure delivery reliability

Fig 9: Critical Partners & Suppliers

The Company's performance is very vulnerable to failure of any of these parties to perform their role and therefore a focused engagement programme, linked to a risk management system, is in place.

Suppliers' data needs are identified by purchasing department for spares and consumables through interactions with suppliers and engineering departments. Goods received and outstanding status, payment status and delivery performance of each supplier could be obtained from the Oracle ERP by NSH staff, who in turn communicate with suppliers through phone, faxes and email. Needs for partners closely integrated in our products and services cycle, such as NATF, are addressed through frequent meetings between the two entities.

#### Customers

Regular and cordial communication is critical to partnering relationships with customers, as with suppliers. Through proper project management and trust built over years of repeat contact, NSH is now entrusted to forecast many customers' needs on their behalf, thus minimising their effort, ensuring timely deliveries without disruption to site progress, while internally avoiding last minute fabrication orders. For other customers, regular contact between specific after-sales staff dedicated to particular sites ensures orders are processed according to site pace of work.

Listening Methods	Frequency	Determine customer's requirement	Usage
Singapore			
Senior Management to key decision makers	Quarterly	<ul> <li>General expectation of service level and quality of products</li> <li>Demand for NSH products and services</li> <li>Identify new product &amp; services</li> </ul>	<ul> <li>Share customer-facing Vision &amp; Values</li> <li>Formulate pricingstrategies</li> <li>Expansion plan</li> <li>Inputs for Annual Business Plan (ABP)</li> <li>Identify niche in market</li> <li>Determine type of projects/contracts to secure</li> </ul>
Segment/Account Managers to all levels of organisation (key decision makers, contracts manager, project manager, project staff)	As required	<ul> <li>Improve product quality &amp; service</li> <li>Ground assessment of demand for NSH products and services</li> </ul>	<ul> <li>Gather competitors' strategy and market information</li> <li>Improvement to work processes</li> <li>Recommend expansion plan</li> </ul>
After-Sales Team	Weekly or more frequent as required	Customers' specific project requirements	<ul> <li>Feedback info for Production planning.</li> <li>Planning for both upstream &amp; downstream activities including resource allocation</li> <li>Liaise with site to ensure smooth deliveries</li> <li>Improvement to work processes</li> </ul>
Multi-Dept Visits (Sales/After sales/ Technical/Planning/ Production)	Weekly	<ul> <li>Improve product quality &amp; service</li> <li>Identify new products and services</li> </ul>	<ul> <li>MQC/QA improvement plans</li> <li>Correction action plans</li> <li>Feedback for Production Planning for both Upstream &amp; Downstream including resource allocation</li> <li>Improvement to work processes</li> </ul>

Listening Methods	Frequency	Determine customer's requirement	Usage
Annual Customer Satisfaction Survey	Annually	Areas of improvement to whole spectrum of product and services including invoicing	<ul> <li>Examine areas of improvements</li> <li>Compare performance with previous years</li> <li>Benchmarking</li> <li>Highlight requirements that are important to customers</li> </ul>
Daily Customer Feedback	Daily	<ul><li>Delivery Schedule</li><li>Non-conformance of products</li></ul>	<ul><li>Delivery planning</li><li>MQC/QA corrective action plans</li></ul>
Australia			
Directors' Meeting	Monthly (NSAU) and Quarterly (Best Bar Pty Ltd)	<ul> <li>Update on actual requirements of products as compared to ABP</li> <li>Update on any changes in expectations and needs of products and services</li> </ul>	<ul> <li>Input for capacity planning and resource allocation</li> <li>Determination of additional import requirements to meet demand.</li> <li>MQC/QA improvement plans</li> </ul>
Key Operational Managers Meeting	Monthly and as required	<ul> <li>Specific product requirements.</li> <li>Delivery Schedule</li> <li>Non-conformance of products</li> </ul>	<ul> <li>Delivery and Shipment Planning</li> <li>MQC/QA corrective action plans</li> </ul>

Fig 10: How NSH determines customer's requirements and redirects to internal processes

Treating Australian subsidiaries as customers, NSH listened to the voice of the customer by improving the packing of reinforcement bars (more ties per bundle) and mesh (wrapping with tarpaulin and spaced with treated timber dunnages).

To keep customer and market listening and learning methods current with changing business needs and directions, including changes in the marketplace, Commercial Department engages in the following activities:

Approaches to improve listening & learning methods	How it contributes to improving process
Regular visits to customers at all levels to gather information	Keep updated on changing customer requirements
Secondary research-media, publications	Be updated on new market practices
Plant visit for customers	Getting first hand feedback & suggestions on process improvement
Visit to authorities (Building and Construction Authority, Housing and Development Board)	Be updated on changing statutory requirements

Fig 11: NSH approaches to improving listening & learning methods

Through these approaches, Commercial Department evaluates the effectiveness and currency of each listening mechanism. From feedback it appears there is a growing need for customers to have a quick and direct access to the Company for enquiries/feedback and transaction needs. A call centre to facilitate this listening/learning mechanism is being explored. A web-based feedback system will also be looked into to provide easy and quick access for customers to provide unbiased feedback on NSH and its products and services. NSH uses a multi-pronged/multi level approach to gauge customers' satisfaction, dissatisfaction and loyalty level, which allows all levels of customers to voice their satisfaction or dissatisfaction to NSH. Customer feedback is discussed in cross-functional meetings to identify shortcomings in processes and formulate action plans for improvement.

# **Memberships of Associations**

NSH is a member of several reputed professional bodies such as the IISI (now World Steel Association), the South East Asia Iron and Steel Institute (SEAISI) and the ASEAN Iron and Steel Industry Federation (AISIF). NSH has contributed significantly to the development of some of these associations and NSH's CEO is currently the President of the AISIF. Membership of these bodies enables NSH to interact and network with the steel business community at international and regional levels. NSH, as a member of AISIF also maintains constant dialogue sessions with the China Iron and Steel Association (CISA) and previously with the Japan Iron and Steel Federation, the Korean and Steel Association and the Taiwan Iron and Steel Association, to discuss ASEAN trade cooperation with these countries.

# **Accolades Received**

- Work-Life Excellence Award for helping staff harmonise their work, family and personal commitments (NatSteel is a three-time winner of this award, which was originally called Singapore Family-friendly Employer)
- Singapore HEALTH Award (Gold) three consecutive times demonstrates organisational commitment to improved quality of life and health of staff
- People Developer Standard Award which recognises the existence and use of a comprehensive system for developing staff



# **ECONOMIC PERFORMANCE**

# **Management Approach**

NSH's business strategy, customer needs and core competencies are interrelated. For sustainability in the 1990s, the Company set a strategy to overcome the onslaught of imported steel by establishing itself as a world-class manufacturer of reinforcement bars and wire rods.

Key to a sustainable business is the Company's ability to:

- maintain a pool of loyal customers appreciative of the Company's reliable and high quality product and service support
- ensure a stable supply of key raw material such as scrap from domestic generation
- meet or exceed high standards of regulatory requirements on labour practices, environment and safety
- perform its moral obligations to community and society

NSH has been able to develop a good understanding of the needs of the construction industry and found the means to provide fabricated solutions on a sizeable scale to service the industry. The Company has transformed Singapore into a market that adopts and promotes off-site fabrication on a national scale, contributing in no small way to the high growth of building and infrastructural development of the country, minimising material wastages and creating a safer and cleaner environment, as the local economic development gathers momentum.

The pioneering effort for NSH to introduce off-site fabrication to the nation many years ago was challenging but today the Company leads the world in many aspects of its operation.

Area	Description
MSP	<ul> <li>NSH is one of fewer than 5 in the world to have a stable finger shaft furnace operations, saving more than 25% of electricity consumption</li> <li>Few around the world are able to produce 750kTpy of billets from an 80T/heat Electric Arc Furnace (EAF)</li> <li>Few around the world hot-charge 80-85% of billets into rolling mill</li> </ul>
MBM6	Few international rolling mills are able to produce 750kTpy of rebars & wire rods from one mill even with about 25% of special lengths rolled
САВ	One of the only CAB operators in the world with a capacity of 350kTpy in one facility with 6 shear lines
MESH	One of a few mesh players who converted market into tailor-made size mesh to order, where no other market in the world uses 100kTpy of mesh that is tailor-made, although not all is NSH's market share

Fig 12: Operation Track Record



# **Financial Highlights 2008**

#### **EBITDA Margin**

The higher EBITDA in FY2006 and FY2008 was a result of higher profit margin due to better spread between reinforcement bars and scrap.

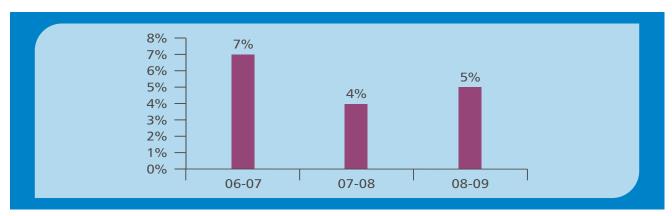


Fig 13: Profitability-EBITDA Margin

#### **Profit Before Tax Margin**

FY2006 posted a high profitability of 10.9% due to investment income. Profit before tax improved marginally from FY2007 to FY2008 mainly due to better gross profit margin.

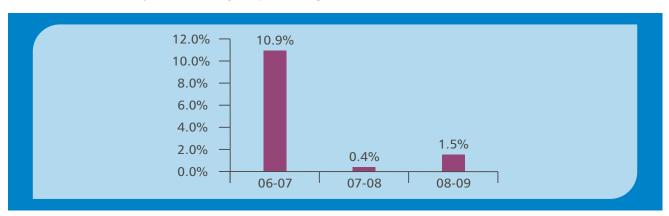


Fig 14: Profitability-Profit before tax margin

# **Debt/Equity**

Net debts over equity improved due to smaller debt size and with increase in equity. Net debts over EBITDA increased from 2.2 times to 3.6 times due to lower profitability in FY2007 and reduced to 2.4 times in FY2008 due to smaller debt size and higher profitability as compared with FY2007.

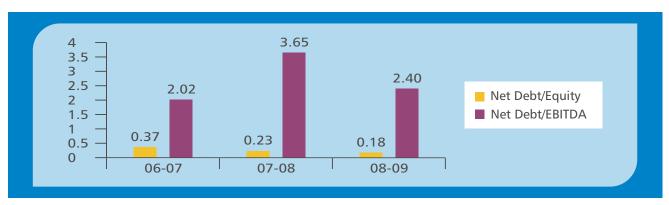


Fig 15: Stability

# **Return on Invested Capital (ROIC)**

NSH's ROIC of 10% in FY 2006 was mainly due to higher gross profit margin compared with FY2007 and FY2008. Operating profits were reduced by 57% in FY2007 and increase 78% in FY2008, whereas the invested capital increased only marginally to between 5 to 7%.

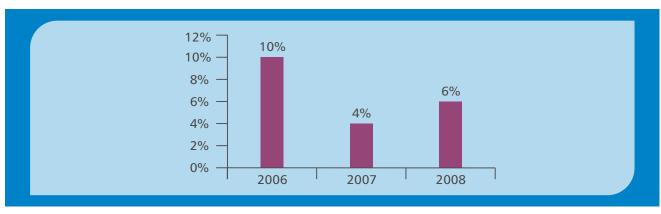


Fig 16: ROIC

# **Risks and Opportunities Due to Climate Change**

NSH is mindful of the emissions from operations such as  $CO_2$  that may have a possible impact on climate change, and the financial impact this may have on business in the future and is taking active steps to manage its  $CO_2$  emissions.

# Significant Financial Assistance From Government

NSH receives no significant financial assistance from the government.

# **Market Presence**

Spending on local suppliers

In general, NSH procures its requirements on a global basis wherever prices are competitive and delivery performance is reliable. A major part of the Company's purchases are scrap and electricity, both of which are available locally. The Company has a policy of procuring its scrap requirement locally whenever possible. Together with electricity, local purchases account for a high percentage of total purchases. Where services are concerned, these are almost always from local service providers unless the skills required are not available locally.

Local hiring

In view of the very tight local labour market for unskilled and semi-skilled labour, the Company had to employ these categories of employees mainly from overseas, usually from neighbouring countries.

The Company has a policy of employing the best talent for the job for management positions and in this regard is more flexible as to the origin of talent. However, because Singapore already has a sizeable talent pool for management positions, the Company has many locally-hired individuals filling these positions.



# **ENVIRONMENTAL PERFORMANCE**

# **Management Approach**

NSH is guided by Clause 8: Health, Safety & Environment of Tata Code of Conduct and the relevant principles of the UN Global Compact in the management of all aspects of its operations. The Company has also adopted and implemented an environmental management system, which is certified to ISO 14001:2004 and complies with relevant local and international environmental regulations and good practices.

Activities are regularly reviewed to identify significant impacts on the environment. Management receives regular feedback from employees, unions and national regulatory body (NEA) on working environment and environment pollution issues. Safety and environment have become a top priority in NSH and senior management's concerns on these have been communicated and emphasised on many occasions and through different media. Top Management is personally involved in the major initiative of engaging DuPont consultancy to improve NSH's safety management system in 2008.

As a socially responsible company, NSH has installed other control processes to limit adverse impacts caused by production. Various sub-committees and functions carry out these processes. The processes and their measures are reviewed in monthly safety council meetings and twice-yearly Environmental, Safety and Health (ESH) Management Committee meetings chaired by a senior leader.

Adverse Impact	Key Control Process	Key Compliance Measures & Goals
Energy consumption	<ul> <li>Keep scrap dry &amp; clean to minimise inclusion of soil when scrap charged into furnace, reducing electricity consumption, reducing tap-to-tap time, &amp; increasing steel-making yield.</li> <li>Preheat scrap in shaft furnace before each change. Reducing 30% energy consumed.</li> <li>Charge hot billets from Continuous Caster to Rolling Mill, saving 20% - 30% of fuel oil consumed.</li> <li>Install &amp; use Virtual Lancing Burners to introduce chemical energy to replace electricity &amp; fuel in electric arc furnace.</li> <li>Implement office energy saving measures (e.g. Air Con auto switch off after office hours, energy saving lights etc)</li> </ul>	Utility consumption of fuel oil, electricity & water
Raw Material Consumption	<ul> <li>Minimise remnant generation in Rolling Mill by tailoring billet lengths to diameter &amp; lengths of bars produced.</li> <li>Minimise scrap generation in Downstream through material optimisation &amp; second order recycling of remnants from both Rolling Mill &amp; CAB.</li> </ul>	<ul> <li>Raw material consumption</li> <li>Steel production &amp; recycle material record</li> </ul>
Water Consumption	<ul> <li>Use of closed-loop cooling water recycling</li> <li>Use of NEWater in processes to reduce production cost &amp; free up potable water.</li> <li>Use of thimble &amp; Flow Regulator to reduce water flow in taps</li> </ul>	Utility consumption of fuel oil, electricity & water

Adverse Impact	Key Control Process	Key Compliance Measures & Goals
Waste Generation	<ul> <li>Segregate all waste in production centres under "General", "Electrical", "Waste Oil &amp; Grease" &amp; "Waste Chemicals" to facilitate waste control.</li> <li>Sell "Electrical", "Waste Oil" &amp; "Waste Chemicals" waste to licensed collectors for recycling. Send "General" &amp; "Waste Grease" via proper channel for proper disposal.</li> <li>Monitor amount of waste generated. Review processes &amp; implement measures to reduce the amount of waste generated.</li> </ul>	General & toxic waste generation
Zero Fill of Soil & Slag	Use of Electric Arc Furnace slag as road stones to surface roads.	
Air Pollution	<ul> <li>Bag House Fume Extraction System to reduce particulate content in emissions from Meltshop.</li> <li>Air quality compliance with limits stipulated in Environmental Protection &amp; Management (Air Impurities) Regulations 2001.</li> </ul>	Emission of smoke, particulates, carbon monoxide & carbon oxides, nitrogen monoxide & nitrogen oxides, sulphur monoxide & sulphur oxides. Well within stipulated standard limits stipulated in Environmental Pollution Control
Radioactivity	<ul> <li>Screen incoming scrap for radioactivity level.</li> <li>Monitor steel &amp; slag contamination level by collecting samples of molten steel &amp; slag at regular frequencies.</li> <li>Develop contingency plans for radioactive level exceeding limit as stipulated in Radiation Protection Act.</li> </ul>	Radiation contamination level of molten steel sample, steel slag & dust generated.
Soil, Drainage Pollution	<ul> <li>Dispose toxic waste by licensed contractors as stipulated by Environmental Public Health (Toxic Industrial Waste) Regulation 1988.</li> <li>Use secondary containment for chemical containers to prevent leak to soil as required by Environmental Pollution Control Act 2002.</li> <li>Environmental Baseline Study complying with 2000 Dutch Standards adopted by Jurong Town Corporation carried out in 2006 to confirm underground water quality under land used for prolonged period of time as open scrap yard suffers no contamination.</li> <li>Concrete flooring installed at MSP scrap yard to separate scrap from soil.</li> <li>Regularly monitor Legionella bacteria level in water in cooling towers &amp; use chemical treatment to ensure bacteria count falls below limits stipulated in Environmental Public Health (Cooling Towers &amp; Water Fountains) Regulations 2001 &amp; Sewage &amp; Drainage (Trade Effluent) Regulations 1999.</li> </ul>	<ul> <li>Legionella count in cooling water systems</li> <li>The level of the following items in discharged sewage:         <ul> <li>oil &amp; grease level</li> <li>chemical oxygen demand</li> <li>biochemical oxygen demand</li> <li>total suspended solids</li> <li>pH level</li> </ul> </li> </ul>

Fig 17: How NSH addresses adverse impact of products. services and operations on society

Although ISO 14001 and OHSAS 18001 certification ensures systems to address most adverse impacts of NSH's major processes, the Company continues to actively communicate with the public and other stakeholders to anticipate current and future concerns. One such issue raised by employees was a growing concern about the performance of the fume extraction system (bag-house) for the protection of employees and to comply with government regulations to minimise atmospheric pollution.

Possible Concerns	How it is addressed
Site Manpower (Ministry of Manpower (MOM) controls foreign workers in Singapore through a quota system)	NSH provides customised pre-fabricated reinforcement products on a mass scale to Singapore's construction industry.  By using NSH products, construction sites are able to:  • reduce man-hours required to produce the same product relative to site
Site Space Shortage	free up precious space on-site for other purposes by fabricating off-site
Site Safety for Fabrication	<ul> <li>reduce risk of accident for site workers when they do not need to fabricate on-site</li> </ul>
Material Saving	<ul> <li>ensure steels are radioactivity free</li> <li>save material as NSH products are manufactured to order vs fabricating from standard-sized raw materials</li> </ul>
Time Saving	<ul> <li>reduce elapsed real time by fabricating off-site which more effectively operates in parallel with site activities</li> </ul>

Fig 18: How NSH products and services address concems of customers

NSH holds discussions with its customers, the Building and Construction Authority (BCA) and the Singapore Contractors' Association (SCAL) to understand all concerns from various perspectives. Feedbacks are taken into consideration during the setting of requirements and the design of the process. Besides feedback from statutory bodies, NSH's pool of civil engineers, after sales executives and managers constantly communicate with customers to understand their current needs and constraints, ensuring timely deliveries and to anticipate their concerns for future products and services.

# **Raw Material Consumption**

In steel making, various alloys (CaO, MgO, FeSi, and SiMn) are used. The combination of coke and oxygen provides the chemical energy for exothermic reaction with iron and iron oxides in scrap. The raw material usage per tonne of billets is generally constant. The usage of oxygen increased with the installation of the Virtual Lancing Burner (VLB) but after the system has stabilised, the consumption rate is controlled and improved.

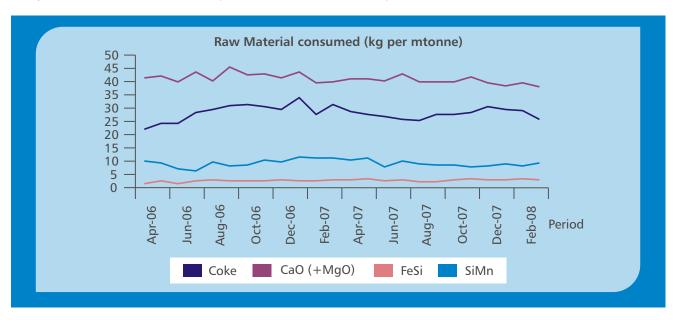


Fig 19: Consumables used in MSP

# **Energy Consumption**

Electricity costs account for about 15% of the production cost, and the Meltshop's (MSP) Electric Arc Furnace (EAF) comprises 80% of the entire plant's electricity consumption. Actions to reduce electricity consumption include operating the VLB which injects oxygen and carbon substituting cheaper chemical energy for electrical energy and allows closing of all openings during operation to retain heat. This is evidenced by the decreasing consumption rate of electricity per tonne of billets produced.

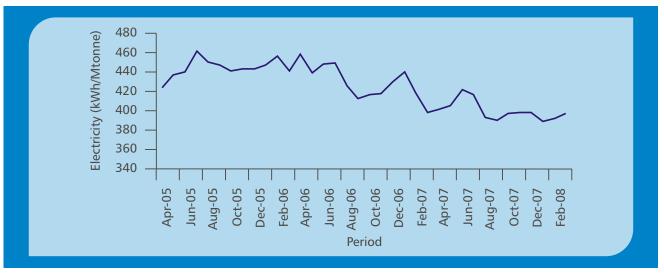


Figure 20: MSP electricity consumption per tonne produced

Fuel oil consumption is used mainly at the reheating furnace in the Merchant Bar Mill (MBM). The close coupling of MSP and MBM production enables a high percentage of billets produced at MSP to be hot-charged to MBM6 at about 1000° C. Much less fuel oil is consumed for hot-charging billets to the suitable temperature for rolling compared with reheating cold billets; the trend of fuel oil consumed by the reheating furnace is inversely proportional to the percentage of billets hot charged.

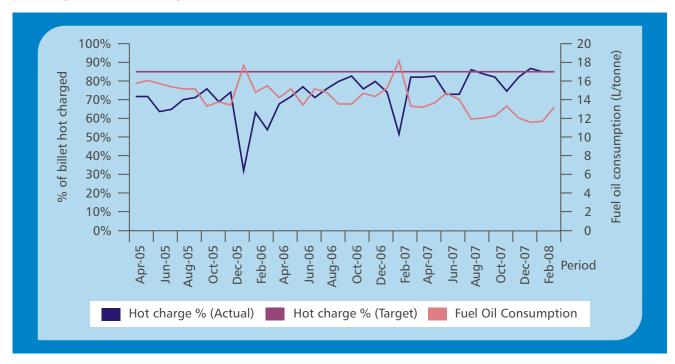


Fig 21: Hot charging & fuel oil consumption at MBM reheating furnace

# **Water Consumption**

Water is mainly used in the cooling towers of production systems (e.g. EAF, Continuous Casting Machine, the rolling stands of MBM) and production processes (e.g. cooling of billets in the casting process). NSH has switched from using potable water to NEWater in January 2008. NEWater is wastewater (sewage), which is purified using dual-membrane and ultraviolet technologies. This is in support of the Singapore government's move to reduce the use of potable water for industrial purposes.

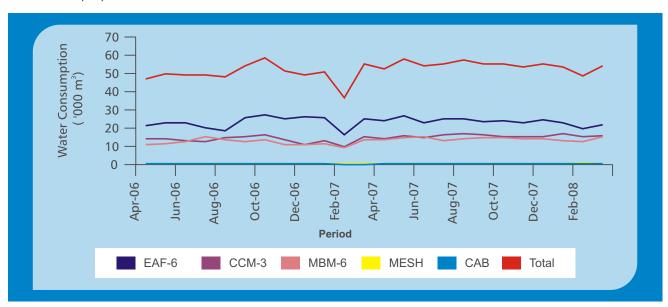


Fig 22: Water consumption of production areas

# **Emissions, Effluents and Waste**

NSH has key control processes to ensure compliance to regulatory and legal requirements.

# **Air Pollution**

The emission level of smoke, particulates, carbon monoxide, oxides of nitrogen are regularly monitored at the two main sources of air pollution, EAF and MBM. Results of the monitoring shows that the Company is well within standard limits stipulated in the Environmental Pollution Control Act.

Parameter	Std	2004	2005	2006	2007
Smoke	1	<1	<1	0	0
Particulate (g/m³)-MSP	0.2	0.056	0.069	0.042	0.035
NOx (mg/Nm³)-MSP	700	19.11	9.24	<1	47.3
CO (mg/Nm³)-MSP	625	61.25	232.9	203	401
NOx (mg/Nm³)-MBM	700	156.4	10.5	324	163
CO (mg/Nm³)-MBM	625	47.6	110.05	2	63.6

Fig 23: Environmental Emissions

# CO<sub>2</sub> Emissions

NSH operates an EAF, where the main contributors to CO<sub>2</sub> emission are: electricity in operating the facilities (60%), adding of coke and pig iron (23%) and burning of fuel oil in the MBM reheating furnace (17%).

Although the current CO<sub>2</sub> emission level is well below the group target, NSH has set itself a goal of reducing CO<sub>2</sub> emission further by 25% by 2012 through process improvements. The emission level of smoke, particulates, carbon monoxide, oxides of nitrogen are regularly monitored at the two main sources of air pollution, the arc furnace where the melting of scrap and adding of coke and pig iron occurs, and at the rolling mill where fuel and diesel oil are used in

the reheating furnace. Results are found to be within standard limits as stipulated in the government's Environmental Pollution Control Act.

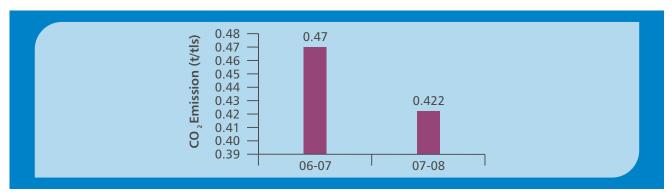


Fig 24: CO<sub>2</sub> Emission (per tonne of liquid steel)

# **Drainage Effluent**

The discharge from the various cooling towers is treated to reduce the concentration of oil and grease before they are discharged in the sewers. A certified laboratory is engaged annually to take samples of the discharge for analysis. The analysed results meet stringent criteria set forth in the Sewage and Drainage (Trade Effluent) Regulations 1999.

Parameter	2004	2005	2006	2007		
Oil & grease, mg/L (Std: 60)						
Arc Furnace No. 6 system 2	23	<5	<5	<5		
Continuous Casting Machine 3 system 14	<5	<5	<5.8	<5		
Merchant Bar Mill 6 system 6	<5	8	<5	5		
Chemical oxygen o	demand, mg/L	(Std: 600)				
Arc Furnace No. 6 system 2	25	11	13	8		
Continuous Casting Machine 3 system 14	17	20	30	24		
Merchant Bar Mill 6 system 6	21	19	15	22		
Biochemical oxygen	Biochemical oxygen demand, mg/L (Std: 400)					
Arc Furnace No. 6 system 2	4	2	<1	4		
Continuous Casting Machine 3 system 14	7	<2	<1	5		
Merchant Bar Mill 6 system 6	7	4	<1	4		
Total suspended	solids, mg/L (S	5td: 400)				
Arc Furnace No. 6 system 2	17	44	<5	<12		
Continuous Casting Machine 3 system 14	13	9	19	<10		
Merchant Bar Mill 6 system 6	45	129	46	104		
PH (Std: 6 - 9)						
Arc Furnace No. 6 system 2	8.2	8.0	7.9	7.6		
Continuous Casting Machine 3 system 14	8.4	8.6	8.5	8.1		
Merchant Bar Mill 6 system 6	7.6	7.6	7.2	7.5		

Fig 25: Trade Effluent Analysis Table

## **Water Bacteria**

Water in cooling towers is a breeding ground for Legionella bacteria. Chemical treatment is used to ensure bacteria count falls below limits (10cfu/ml) as stipulated in Environmental Public Health (cooling towers and water fountains) Regulations 2001. It is monitored quarterly by a certified laboratory that takes samples of the water and analyses content. For systems whose Legionella bacteria level is above the limit, they are brought to the attention of the ESH Management Committee to take corrective action. Legionella bacteria count was brought down after much experimentation on the dosing intervals of chemical treatment.

## **Material Recycling**

To conserve resources, remnants from production process (cut ends) and rejected products (cobbles) are recycled by adding to the scrap for melting. EAF slag is collected by a third party to be treated and used for roads and aircraft runway paving.

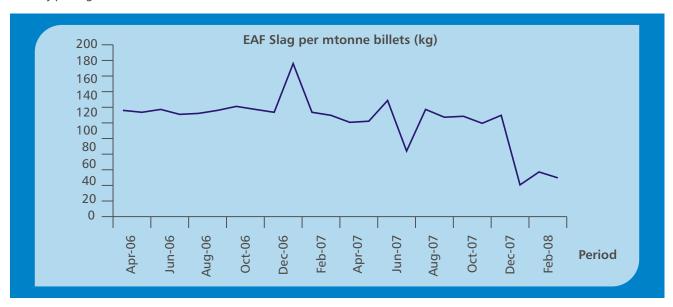


Fig 26: Steel making by-product slag sent for recycling



# **SOCIAL PERFORMANCE**

# **Management Approach**

NSH strongly believes that employees are its most valuable assets. As an organisation operating in a highly regulated environment, it strives to comply with all local labour laws (e.g. Central Provident Fund Act; Employment Act; Industrial Relations Act; Manpower Management; Worker's Compensation Act; Work Injury Compensation Act; Workplace Safety and Health Act), as well as the applicable principles of the TCOC, UN Global Compact and other best practices. Becoming employer of choice is an important goal and this will be achieved through the key Human Resource Plans to enhance leadership capability, strengthen human capabilities to support business needs and enhance employer brand among stakeholders.

The Company will also be ensuring the safety and wellbeing of stakeholders impacted by its operations. NSH is a strong supporter of human rights and its policy is to ensure that its activities benefit local communities and society. NSH will use the Tata Code of Conduct to ensure its conduct is in the national interest, is fair and equitable, non-partisan and ethical and that it is transparent and accountable and complies with regulation.

# **Workforce Engagement and Satisfaction**

NSH conducts an Employee Perception Analysis every two years to gauge the level of employee engagement and employee perceptions of the work environment. NSH also has informal assessment methods, which are used to collect feedback on employee engagement and satisfaction, such as the 'SAM' sessions. In addition, HR holds regular meetings with the Unions to obtain feedback from workers. HR also tracks other indicators such as absenteeism and staff turnover. The Company tracks the correlation between workforce engagement and business results, and is continuously seeking to improve on workforce engagement.

SAM Sessions	Number of Participants
November 2007	241

Fig 28: SAM Sessions Attendance



# **Employment**

NSH has a workforce of 1397, segmented into four levels with associated key requirements and expectations.

Only Schedule 2 staff is covered by two Collective Agreements: an in-house NatSteel Employees' Union for upstream local workers and the Metal Industries Worker's Union, affiliated to National Trade Union Congress for downstream local workers. 87% of this workforce is deployed in production. Besides complying with statutory safety and health requirements, NSH has provided more than the basics stipulated by employment laws, such as group insurance and generous annual leave. Schedule 3 workers were housed in proper dormitories well before this requirement was legislated.

	Segments	Man	ager	S	chedule	1	S	chedul	2	Sche	dule 3
	Headcount	65		340		285		707			
Total Head	% Female	2	5	30		3		0			
Count 1397	% Local	9	6		30		58		0		
	% Office	10	00		58		6		0		
Ago Group	Age Band (Year)	25-35	35-45	25-35	35-45	45-55	35-45	45-55	>55	< 25	25-35
Age Group	% Headcount	31	45	30	33	21	30	28	22	34	48
Qualification	Qualification Bands of largest majorities	Diploma, Degree	Masters, PhD	Secondary, Trade Cert		Diploma, Degree	Primary Secondary, Trade Cert		5	riiilaiy	
	% Headcount	71	28	39	39 46		25		55	10	00
	<2 years	2	.1	32			20			7	0
Service Length	2-10 years	2	7	18		17		29			
	>10 years	5	2	49		64			1		
Requirements &	Key Requirement									Basic H	lousing
Expectation	Key Expectations	Job Satisf	Job Satisfaction		Work Life Balance, Job Satisfaction		Job Security		Earns as much within stay		

Fig 28:NSH Workforce Profile



NSH's staff also enjoys a multitude of benefits and family-friendly policies as summarised below:

D (1)	Target Group				
Benefit	Mgr	Sch 1	Sch II	Sch III	
In-house Clinic	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
Outpatient Consultation Services	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
Maternity Leave Benefits		All Fema	ale Staff		
Paternity Leave	$\checkmark$	$\checkmark$	$\checkmark$		
Hospitalisation and Surgical Insurance	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
Personal Accident Insurance	$\checkmark$	$\checkmark$	$\checkmark$	_	
Group Term Life Insurance	$\checkmark$	$\checkmark$	_	_	
Subsidised Catastrophic Medical Insurance	$\checkmark$	$\checkmark$	_	_	
Travel Insurance	Staff who are required to travel overseas on work duties				
Dental Consultation subsidy	$\checkmark$	$\checkmark$	$\checkmark$	_	
Renovation Loan	$\checkmark$	$\checkmark$	$\checkmark$	_	
Housing Loan	$\checkmark$	$\checkmark$	$\checkmark$	_	
Computer Loan	$\checkmark$	$\checkmark$	$\checkmark$	_	
Festival Loan	$\checkmark$	$\checkmark$	$\checkmark$	_	
Long Service Awards	$\checkmark$	$\checkmark$	$\checkmark$	_	
Company Chalet	$\checkmark$	$\checkmark$	$\checkmark$	_	
Company Cafeteria	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
Education Bursaries	$\checkmark$	$\checkmark$	$\checkmark$	_	
Academic Development Scheme	$\checkmark$	$\checkmark$	$\checkmark$	_	
Training Sponsorship Scheme	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
Sports and Recreation Club	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	

Fig 29: Workforce Benefits and Target Segments

# **Occupational Health and Safety**

NSH's Workplace Safety and Health function is organised in two levels as given below:

Level	Role
Decision-Making Level	Safety Council comprises representatives from various Sub- Committees to review safety statistics & decide on follow-up actions
Sub-Committee Level	Working group that is responsible for implementation, as well as feedback gathering. Constituents are representatives from various production centres

Fig 30: Roles of NSH's Workplace Safety and Health

The Company has tracked Frequency Rate and Severity Rate as indicators for overall safety of the organisation. NSH has also engaged DuPont as safety consultant with the aim of attaining world-class standards in safety. In line with the Tata Group Vision, the Company is working towards re-defining its safety statistics to measure LTIF (Lost Time Injury Frequency) and to achieve the target rate of 0.4.

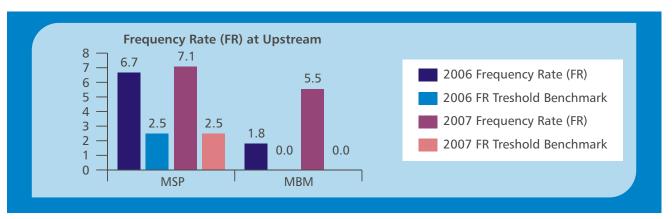


Fig 31: Frequency Rate at Upstream Operations

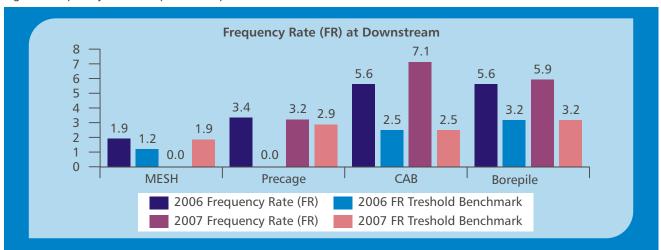


Fig 32: Frequency Rate at Downstream Operations

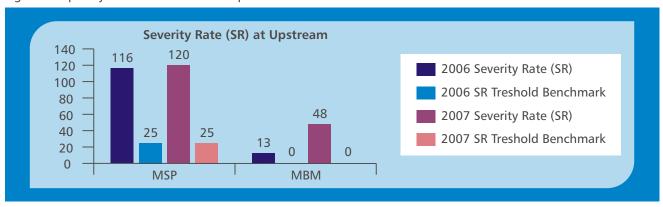


Fig 33: Severity Rate at Upstream Operations

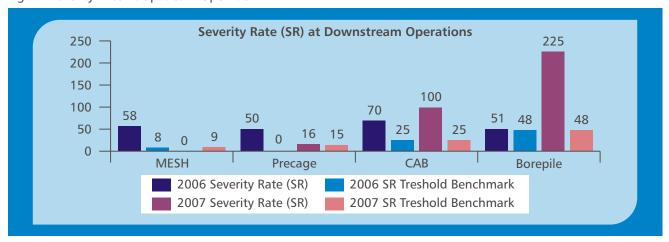


Fig 34: Severity Rate at Downstream Operations

All new NSH employees and contractors undergo safety orientation to familiarise them with safety policies and measures. There is a system of demerit points for safety violations and employees are liable to face disciplinary actions, which can result in dismissal for very severe breaches.

NSH is a winner of the Singapore HEALTH Award (Gold), which is a government certification that gives national recognition to organisations that help their employees live a healthy and vibrant life. One of the many initiatives in this area is the annual health and fitness tests, which measures health indicators of the employees. Based on these results, NSH conducts workshops and talks to minimise health risks and improve the overall health profile.

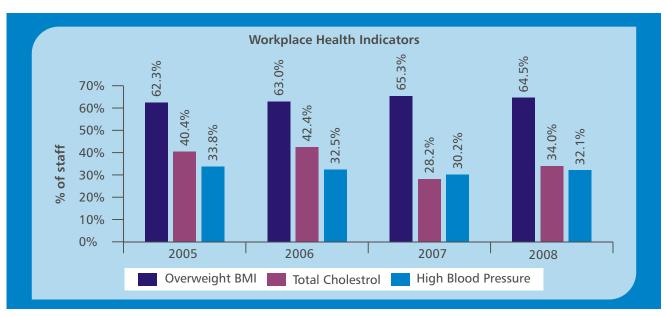


Fig 35: Workplace Health Indicators



Fig 36: Workplace Health Indicators

In addition, overall indicators are monitored, such as absenteeism from work due to sickness and hospitalisation, as well as safety related indicators such as loss of man-days due to accidents. The Company's recreation club is also very active in promoting healthy lifestyle and bonding among employees. NSH's Work-Life Excellence Award, which is conferred by the government, is testimony to the Company's strategy of helping employees harmonise work and personal commitments. Initiatives in this area include the introduction by the government of two additional days of childcare leave for parents with young children below the age of 7.

# **Training and Education**

Each individual employee's learning needs are identified and planned by appointed department coordinators in consultation with the Department Heads and HR. Department coordinators are briefed on training expectations in line with the department's annual business plan and strategies for the year ahead.

Employees are encouraged to undertake at east one functional and one competency training. Departments carry out the functional training identification, as they know best the specialised skills training they require. The competency training identification is undertaken by HR.

In addition, NSH employees benefit from the Academic Development Scheme, which is a company sponsorship scheme for upgrading academic qualifications through courses leading to a professional Certificate/Diploma/Degree/Master level qualification.

Each department is responsible for compiling its Department Learning Plan (DLP). The Human Resource department reviews and combines all DLPs to create a Total Company Learning Plan (TCLP) for evaluation and setting of learning places and hours targets for the whole company. HR also monitors learning hours, places, functional and competency training every month. Mid-year and final-year reviews of the training progress are sent to Heads of Department and Department coordinators.

NSH is a winner of the People Developer Award, a national quality standard with a framework which is similar to business excellence frameworks adopted for the US Malcolm Baldrige Quality Award, European Quality Award, Japan Quality Award and the Australia Business Excellence Award. To track the progress and accomplishment of the Total Company Learning Plan, NSH established a People Developer Steering Committee.



Fig 37: Number of Learning Hours

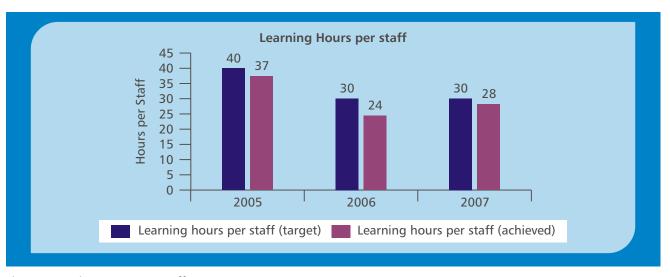


Fig 38: Learning Hours per staff

# **Human Rights**

NSH emphasises equal opportunity for all employees regardless of race, nationality and gender. For career progression, the Company adopts the Hay Job Evaluation methodology. This links salary to job worth, which allows for competitive pegging of salaries to market through the Hay Salary reports. As a company with a high performance driven culture, it has put in place a robust performance appraisal system, which links individual goals to objectives of a department and ultimately, that of the Company.

To ensure that NSH can continue to tap into the wealth of experience from matured workers, eligible retired employees are rehired via the Post Retirement Employment (PRE) scheme. NSH's hiring policy is non-discriminatory and there is no gender, nationality or race bias in its recruitment and selection processes.

NSH does not use child labour or forced labour.

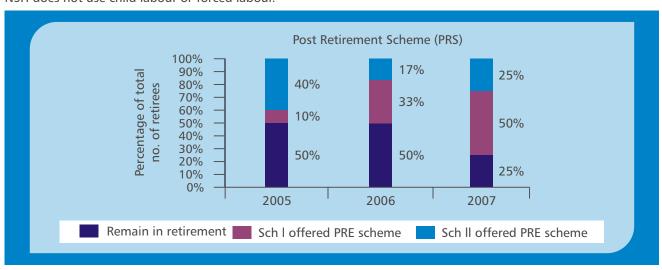


Fig 39: Post-Retirement Employment

# **Society**

From its early years NSH has subscribed to a philosophy of social responsibility through sponsoring and supporting social and community organisations. Today the community it chooses to serve is strategically targeted. For the reporting period, key communities identified by the Corporate Social Responsibility (CSR) team and approved by the Board are environmental and charitable organisations.

With the start of the CSR programme in 2007, a more structured approach has been developed for supporting environmental and charitable causes. The Company has pledged to contribute SGD 1 million towards chosen community initiatives over the next three years in its Building Beyond



Borders (B3) initiative. B3 was launched with cheques presented for SGD 50,000 each to the Society for the Physically Disabled and St Joseph's Home. CSR plans have been drawn up for the next three years to ensure time, effort and resources are in place to establish and maintain a wide spectrum of community development initiatives. The anchor community programmes will start in Singapore and will cascade eventually to the communities surrounding other operations. There are plans to widen the reach to include other segments of the identified community. To ensure that such programmes are sustainable, senior management has strongly supported these initiatives by allocating relevant organisational resources to manage these. Through the volunteering programme, employees can utilise CSR leave to participate in NSH organised CSR activities during working hours.

Key communities	Reasons for emphasis	Support from NSH
Environment	While NSH uses scrap to produce steel, all its environmental impact needs to be actively reduced.	<ul> <li>Pledge support for official / national events through sponsorship etc &amp; adopt environmentally friendly practices.</li> <li>Voluntary work to contribute to improvement of the environment e.g. "clean the beach" exercise.</li> <li>Raise awareness of employees on importance of protecting environment &amp; conserving resources through educational tours to water recycling plants &amp; involvement in promotional events.</li> <li>Host visits from educational bodies, environmental groups to understand how scrap is recycled in NSH's production processes.</li> </ul>
Elderly	<ul> <li>Singapore being an ageing nation, government has appealed to companies to contribute to improving the situation.</li> <li>48% of NSH workers are 40 years old and above, so employees feel for this cause.</li> <li>Needs are wide &amp; varied, which allows employees to use their own varied expertise to assist.</li> </ul>	<ul> <li>Specific donations that would benefit the recipients directly, such as purchase of a mobility van for the wheelchair bound residents of old folks home.</li> <li>Workforce do voluntary work to benefit recipients directly, such as using the mobility van to bring wheelchair bound residents for outings &amp; using the varied expertise of the employees to organise activities for the residents.</li> </ul>
Youth Education	<ul> <li>Singapore depends on highly qualified human resources to sustain a competitive edge in the world, so there is need to allow young people to reach their potential.</li> <li>NSH aims to help disadvantaged children/youth (poor &amp; disabled) through education so they can reach their full potential &amp; contribute effectively to society. Also for the disabled to be able to integrate back into society.</li> </ul>	<ul> <li>Offer scholarships to students applying for local tertiary education to provide pipeline of future talent to NSH, who are required to join NSH to serve bond after graduation.</li> <li>Offer education bursaries to children of staff.</li> <li>Specific donations that would benefit the recipients directly, such as scholarships &amp; bursaries for the disabled youth &amp; children of disabled family members.</li> <li>Workforce does voluntary work to benefit recipients directly, such as employees being helpers in the bursaries award ceremony &amp; other educational activities.</li> </ul>

Fig 40: How NSH identifies its key communities & the support given.

# **Product Responsibility**

NSH operates in an open market environment where competing products from all over the world are free to sell and serve into this market. However, NSH enjoys certain advantages by virtue of its long history, its reputation and track record as a "nation builder" and its physical presence in Singapore as a manufacturer and service provider where customers' complaints can be immediately addressed and resolved.

NSH's major imported materials such as scrap are scanned for explosives and radioactivity before receipt to ensure a safe working environment and a safe finished product.

As NSH's reinforcement steel products are one of the major components in construction, fulfilling customers' requirements is important to facilitate the construction process, as well as the long-term performance of the reinforced concrete structures. The Company ensures it fulfills customers' needs through a system of quality, safety and environmental control.

# **Customer Satisfaction**

An annual customer satisfaction survey is conducted by a third-party company to determine customers' assessment of the quality of products and services that NSH and competitors offer. The areas covered include products and services, delivery, pre-sales service and after-sales services. The survey results take the form of number of complaints received. Results gathered are segregated for own and competitors' customers to provide a relative level of satisfaction comparing NSH with competitors.

NSH also monitors customers' satisfaction and dissatisfaction through frequent interaction between the sales and after-sales team with customers. Being the market leader in an open market with fierce competition shows customers appreciate the value-added solutions that NSH is able to provide, as revealed by the number of appreciative letters and positive referrals that the Company receives. The number of customers who repeatedly buy from NSH is an indicator of their satisfaction with the Company's products and services, and their loyalty to NSH. Results indicate more than 50% of NSH's customers are repeat customers.

Customer complaints are fed back through NSH's after-sales team who ensure complaints are resolved effectively and promptly, following through the complaint management process to final resolution. For example, the replacement of non-conforming products is typically resolved within 24 hours.

Risk Control Approach	Deployment
Quality	<ul> <li>Quality check for adherence to product specification and proper work procedures at all stages of workflow.</li> <li>Ensure traceability of heat number of products starting from steel production through to end products used as reinforcement products.</li> <li>Annual internal ISO 9001 audits conducted by trained staff.</li> <li>Annual external ISO 9001, ACRS (Australia) &amp; CARES (UK) audits conducted by external auditors.</li> <li>Audit findings reviewed by the Management Representative to ensure the concerns raised are being followed up before closure.</li> </ul>
Safety & Environmental	<ul> <li>External audit for ISO 14001 &amp; OSHAS 18001 conducted every two years.</li> <li>Production centres perform self-risk assessments (Hazard Identification Risk Assessment HIRA &amp; Environmental Impact Evaluation Table EIET), reviewed by ESH Department &amp; approved by Production Centre Head.</li> <li>If risks above tolerable level are identified, corrective actions are designed &amp; control measures installed.</li> <li>ESH Management Programmes initiated by the Production Centres to improve the ESH aspects of their processes.</li> <li>Engaging DuPont Safety consultants to assist NSH to improve current safety management system, by complementing current processes which are mostly originating from regulatory requirements, with processes that emphasise changing employees' mindset and behaviour towards safety.</li> </ul>

Fig 41: NSH risk control approach to ensure customers' requirements are fulfilled





# TATA STEEL (THAILAND) PUBLIC COMPANY LTD CORPORATE SUSTAINABILITY REPORT 2008

# **OVERVIEW**

Tata Steel (Thailand) (TSTH) is the largest steel producer in Thailand. Headquartered in Bangkok, its three main subsidiaries are Siam Iron and Steel (2001) Company (SISCO), NTS Steel Group Public Company (NTS) and the Siam Construction Steel Company (SCSC).

TSTH manufactures long steel products and has an installed capacity of 1.7 million tonnes of finished steel per annum. Products serve mainly the construction industry and include: rebars, Low and High Carbon Wire Rods and small sections. Special bars are also produced for the automotive industries. In 2007 - 08 TSTH registered sales of 1.4 million tonnes. The Company's predominant market is in Thailand and its market share in 2008 was 31% of long product business.

The Company has been improving continuously in the past few years with its various initiatives focused on reducing cost and improving productivity and quality. As a result of all these efforts, in 2007 - 08 TSTH recorded its highest ever production, both in terms of billets and wire rods.

During the period of this report the only significant change in the Company was its progress on its new Mini Blast Furnace project at the NTS plant.

Tata Steel (Thailand) is a member of the Federation of Thai Industries and the Thai Chamber of Commerce.

# **Sustainability Reporting**

This is the first time the Company has reported on sustainability. Contact person for sustainability issues:

Mr. Sawai Kunentrasai

Chief of Corporate Communication & CSR Rasa Tower II 20th Floor, 555 Phaholyothin Road, Chatuchak, Bangkok 10900, Thailand

Tel. 66-2937-1000 Ext. 1610

E-mail: sawaik@tatasteelthailand.com



# Tata Steel (Thailand)'s Strategy for Sustainable Development

TSTH has identified significant trends, risks, challenges and opportunities which will impact upon sustainability and uses these to plan its approach to managing sustainable development:

- Trends: Environmental awareness of government sector and community
- Risks:

Risk	Mitigation Strategy
Risk from excessive capacity more than demand	Increase export market
Risk from fluctuation in domestic demand of rebars	Increase export market
Risk from steel price volatility	Reduce inventory, raw materials, finished goods and work in process
Risk from higher raw material cost and capability to produce its raw material	Reduce inventory, raw materials, finished goods and work in process
Risk from tariff reductions for importation under the AFTA (ASEAN Free Trade Area)	Increase operational efficiency and reduce operating cost
Risk from foreign currency fluctuation due to fact that most raw materials must be imported and paid for in US Dollar or currency of selling country	Increase export market

- Challenges: Environmental activism by local or external parties
- Opportunities:
  - Growth of automobile industry in Thailand
  - Clean Development Mechanism (CDM)
  - Availability of knowledge and technology

# Vision

From 2008 TSTH has identified its vision in alignment with Tata Steel's 2012 vision to be the global steel industry benchmark for value creation and corporate citizenship.

Tata Steel (Thailand) aspires to be a profitable 5 million tonnes steel producer. The Company will create value by positioning itself as a solution provider for the construction sector and supplier of high end steel products for automotive and white goods sectors.

The pillars for achieving the above will be our keen focus on people development, customer intimacy and good corporate citizenship.

Progress against targets is analysed monthly and reported to the Board of Directors and Executive Committee.

## Goals

TSG Goals 2012	TSTH aligned goals
Value Creation: Increase the return on invested capital (ROIC) to 30% from existing assets and generate strategic growth	Value Creation by increasing Return on Invested Capital (ROIC) to 20% from the current 9.5%
Safety: Reduce Lost Time Injury Frequency (LTIF) to 0.4	Safety target to Reduce Lost Time Injury Frequency (LTIF) to 0.4 from the current 2
<b>Environment:</b> Reduce CO <sub>2</sub> emissions to <1.7 tonnes per tonne of liquid steel (t/tls)	<b>Environment goal</b> to maintain Carbon Dioxide (CO <sub>2</sub> ) emissions at less than 1.0 from current 0.48 t/tls, after Mini Blast Furnace Project
<b>Employer of Choice:</b> Rank top quartile across all industries	<b>Employer of choice:</b> Rank top quartile across all industries

#### **Continuous Improvement**

Last year the Total Operational Performance Program (TOP®) was rolled out in the three plants. The Company also launched the YATRA project for business process improvement and SAP implementation.

In order to improve the business processes, the Tata Business Excellence Model (TBEM) has been adopted and the entire top management team has been trained on TBEM by professionals from Tata Quality Management Services.

This year the Company plans to review its brand strategy and launch the initiatives of Retail Value Management and Channel Finance for increasing the net realisation of its products and its market share.

## **Initiatives to Manage Sustainability**

The Company has implemented some specific initiatives to manage its impacts on economic, environmental and social sustainability:

- Investment in dust reduction projects
- Investment in Continuous Emission Monitoring systems (CEMs)
- Focused activities for Corporate Social Responsibility (CSR) depending on local needs

#### **Associated Standards and Awards**

Standards & Awards	SISCO	scsc	NTS	Remarks
TIS/ ISO 9001: 2000	$\checkmark$	$\checkmark$	$\checkmark$	Quality Management
TIS/ ISO 14001		$\checkmark$		Environmental Management
TIS/ ISO/ IEC 17025		$\checkmark$	$\checkmark$	Laboratory Accreditation
TIS/ 18001	$\checkmark$	$\checkmark$		Occupational Health and Safety Management
OHSAS 18001:1999	$\checkmark$			Occupational Health and Safety Management
TISI Accredited Laboratory		$\checkmark$		
The Prime Minister's Award		$\checkmark$		For Outstanding Industries 1998

## **Stakeholder Engagement**

TSTH's stakeholders are both internal and external to the company. The main stakeholders are: customers, suppliers, government, shareholders, analysts, media, local community, employees.

Stakeholders are engaged through a variety of methods including face to face meetings, relationship sessions, focused briefings, site visits, etc.

The key stakeholders impacted and the key issues raised are as follows:

#### Employee:

- Consider safety and health of employees as a top priority for TSTH group and intend to achieve a zero accident target
- Improve employees' quality of life by upgrading employee welfare standards, introducing better reward schemes, and facilitating career advancement
- Improve work systems
- Focus on training and development of all categories of employees (Managerial, Supervisory & Professional, Operational) in the areas of functional, business, and management development

#### Supplier:

- Maintain good relationships with existing raw material providers, scrap in particular, and also keep looking for secondary sources of raw material from other countries to fulfill needs, as well as to satisfy the demands of its customers
- Invest in machinery advancements and new Mini Blast Furnace plant to produce more billet and decrease dependence on scrap

#### Customer:

- Strengthen distribution network, solution provider, superior product and service quality, downstream value addition, for example cut & bend
- Strong focus to invest in research and development of higher value products such as high quality wire rods and special bars to serve for vehicle parts. These types of product are totally independent from the construction industry and have proven to have a better growth rate than rebars for the construction sector.

These issues have been addressed in the following ways:

- Targets taken on all macro aspects
- Cascaded into Key Performance Indicators through Total Preventive Maintenance (TPM), ISO & OHSAS
- Specifically integrated into the Vision aligned with the Tata Steel Group Global Vision

Information generated through engagement with stakeholders has also been used to develop CSR projects and to improve Environment controls especially relating to dust emissions.

# **ECONOMIC SUSTAINABILITY**

Inputs with respect to economic trends, risks and opportunities are considered as a part of the annual strategic planning process. The main concern is to ensure profitable growth. Inputs are collected on the basis of the following:

- Economic Indicators: GDP Growth Rate, Interest Rate, Domestic Demand and Demand Growth
- Government: Policies, Taxes and Duties, Major Projects
- Customer: Growth Plans, New Products and Services
- Employees: Morale, Satisfaction, and Training & Development Needs
- Community: Use inputs to identify support needed by community
- Suppliers: New Technology, Competitor Plans

The company also tries to find new export customers in other parts of the world e.g. Africa, Middle East, Korea, so that contribution to economic sustainability can be maintained.

## **Direct Economic Value Generated and Distributed 2007 - 08**

	Million baht
Revenues	31,182.62
Operating Cost	28,160.31
Employee Compensation	575.38
Donation & other community investment	2.32
Retained earnings	4,029.25
Payment to capital providers & government	1,401.89

Note: 1 USD = 31.44 THB (Thailand Baht) as at 31.3.08

# Ratio of Standard Entry Level Wage Compared to Local Minimum Wage

	Minimum Wage (Baht/Day)	Total Compensation (Baht/Day)	% Difference
Bangkok-TSTH	203	295	45%
Saraburi-SISCO	180	295	64%
Chonburi-NTS	179	418	134%
Rayong-SCSC	173	418	142%

## **Local Hiring and Procurement**

TSTH benefits the local communities in its locations of operation through employing local people and providing business to local suppliers and contractors. TSTH selects its suppliers based on competitive price and quality of services. Although the company does not prioritise local companies per se, inevitably many local suppliers benefit from being able to do business with TSTH. The company recruits most of its staff from the local community, apart from a few positions where it is found that the local community does not have suitably qualified candidates and recruitment has to be made from other locations.

# **ENVIRONMENTAL SUSTAINABILITY**

TSTH takes its responsibility for managing any environmental impacts very seriously. The company is aware that it is subject to scrutiny and to environmental audit both from statutory bodies and more informally from NGOs and the local community. There is a general trend for increased environmental awareness in both governments and the community generally and the company is conscious of the risks to its reputation if it is not seen to be responsive on the issues of concern. Therefore TSTH aims not just to comply with duties and norms but to show its concern and related actions. Recently community leaders were taken to visit a Mini Blast Furnace Plant in China to allay any fears they might have about the effects of the blast furnace under construction.



TSTH has policies and a management system in place, overseen by the Managing Director of each plant and the Vice President-Corporate Affairs. The main focus of efforts is:

- Focus on plant efficiency improvement in the environmental related areas
- Create good citizenship in all companies by promoting CSR activities on environmental themes in communities around the plants

SCSC applies the TIS/ISO 14001 Environmental Management standard.

The main environmental goal is to maintain Carbon Dioxide (CO<sub>2</sub>) emissions to less than 1.0 Tonnes/tonne of liquid steel after the Mini Blast Furnace Project.

Environmental performance data supplied below is from SISCO plant for 2007 - 08:

## **Total Material Use Other Than Water**

SI. No.	Category	Item	UOM	Consumption
1	Scrap	Pig Iron	Tonne	1,303.69
2	Scrap	Ssms B100	Tonne	813.89
3	Scrap	Local 1	Tonne	101,267.21
4	Scrap	Local 2	Tonne	37,951.69
5	Scrap	Cast Iron	Tonne	1,286.26
6	Scrap	Turning Scrap	Tonne	255.63
7	Scrap	Bundle No.1	Tonne	50,515.69
8	Scrap	Bundle No.2	Tonne	38,745.15
9	Scrap	Process	Tonne	58,282.41
10	Scrap	Own Scrap	Tonne	8,177.40
11	Scrap	Ssms Scrap	Tonne	3,669.09

SI. No.	Category	Item	UOM	Consumption
12	Scrap	Special Skull	Tonne	361.77
13	Scrap	Return Scrap	Tonne	(1,082.84)
14	Alloy	Silico Manganese	Kg	1,743,062.40
15	Alloy	Ferro Silicon	Kg	377,855.00
16	Alloy	Ferro Manganese	Kg	350,191.00
17	Alloy	Ferro Chromium	Kg	109,597.00
18	Alloy	Ferro Vanadium	Kg	14,465.00
19	Alloy	Ferro Niobium	Kg	18,895.00
20	Alloy	Calcium Silicon	Kg	116,681.00
21	Alloy	Carbon Wire	Kg	24,199.00
22	Alloy	Ferro Calcium	Kg	124,108.00
23	Alloy	Ferro Boron	Kg	6,319.00
24	Alloy	Aluminium	Kg	566,013.90
25	Coke	Coke Nut	Kg	3,217,353.00
26	Coke	Coke Breeze	Kg	4,227,804.00
27	Additive	Burnt Lime	Kg	10,529,515.00
28	Additive	M Fet Mix	Kg	1,985,750.00
29	Additive	Fluorspar	Kg	561,035.00
30	Additive	Aluminium Dross	Kg	120,720.00
31	Energy	Natural Gas	m3	3,648,013.24
32	Energy	Oxygen	m3	11,609,592.70
33	Graphite electrodes	Electric Arc Furnace	Kg	459,217.60
34	Graphite electrodes	Ladle Furnace	Kg	151,700.00
35	Refractory	Electric Arc Furnace	Kg	467,610.84
36	Refractory	Ladle	Kg	1,286,404.60
37	Refractory	Tundish	Kg	937,138.27
38	Refractory	Sand	Kg	661,567.00
39	Refractory	Stopper Rod-Submerged Entry Nozzle	Kg	69,596.00
40	Refractory	Gunning	Kg	531,000.00
41	Refractory	Ladle Shroud	Kg	35,366.32
42	Gas	Argon	m3	255,972.00

# **Percentage of Materials Used That Are Recycled Inputs**

Items 2 and 10 to 13 in the table of materials used are recycled material, totalling just over 13,022.15 tonnes. This constitutes 4.3% of total scrap.

# **Energy Use**

Month	Direct Electrical Energy (kWh)	Indirect Electrical Energy (kWh)
Apr 07	143,338,767	3,114,743
May 07	12,179,520	2,717,020
Jun 07	13,658,128	2,866,892
Jul 07	14,808,613	2,985,707
Aug 07	13,492,529	2,802,891
Sep 07	14,441,186	2,960,584
Oct 07	14,950,480	3,042,890
Nov 07	15,049,306	2,935,944
Dec 07	15,359,666	3,039,304
Jan 08	12,051,475	2,573,265
Feb 08	14,271,229	2,760,051
Mar 08	14,954,033	3,145,627
Total	169,550,042	34,944,918

TSTH undertakes Initiatives to improve energy use. By installing a new Cooling Tower for Indirect Water, TSTH achieved an energy saving of around 5%. The company has also applied Natural Gas (NG) to its Electric Arc Furnace. The consequent energy saving is around 3% (or 17 kWh/tonne billet).

# **Water Use**

Month	Direct Water (m³)	Indirect Water (m³)	Withdrawal by Source (m³)
Apr 07	1,163,400	1,742,700	95,975
May 07	927,100	1,586,300	18,500
Jun 07	1,082,700	1,765,144	10,500
Jul 07	1,130,130	1,814,222	26,400
Aug 07	14,790,201	23,019,116	79,600
Sep 07	675,876	1,836,457	11,000
Oct 07	2,153,837	2,034,395	49,500
Nov 07	1,244,142	1,738,146	90,000
Dec 07	1,322,253	1,888,941	39,000
Jan 08	1,079,020	1,624,371	112,500
Feb 08	1,316,020	1,776,523	90,286
Mar 08	1,485,241	1,977,421	100,800
Total	28,369,920	42,803,736	724,061

## **Emissions**

Air Pollutant	Standard	Actual Value
PM	240 mg/Nm³	43 mg/Nm³
SO <sub>2</sub>	800 ppm	55 ppm
NOx	200 ppm	20 ppm

In 2007 - 08 SISCO  $CO_2$  direct emissions were 36,585 kg; i.e. 131 kg per tonne of crude steel.  $CO_2$  indirect emissions were 97,117 kg; i.e. 349 kg/tcs.

The  $CO_2$  emissions across the TSTH companies, measured in tonnes per tonne of liquid steel (the associated key performance indicator for Tata Steel Group), were an average of 0.51 t/tls in 2007 - 08. TSTH has measures in place and will be monitoring performance closely to ensure that emissions remain below 1 t/tls following the Mini Blast Furnace project, in line with the 2012 goal.

# **Water Discharge**

	Standard	Actual Value
PH	5.5-9.0	6.77
SS	50 mg/L	8.8 mg/L
Oil & Grease	5 mg/L	0.7 mg/L
Pb	0.2 mg/L	< 0.1 mg/L

# **Total Weight of Waste by Type and Destination**

Туре	Destination	Tonnes
Dust	Sale	3,750
Scale	Sale	3,795
Slag	Sale	45,246
Used Oil	Sale	28,200



# **SOCIAL SUSTAINABILITY**

Tata Steel (Thailand) ensures human rights and good employment practices by strictly complying with labour laws and following the TATA Code of Conduct (TCOC) Guidelines. The Company enjoys good employee relations and has set up a number of initiatives to ensure this. An HR Committee takes care of quality of life improvement of employees and their families. An Employee Welfare Committee has been established to act as the employees' representative for welfare management. The company also motivates employees to set up sport & recreation clubs to organise activities for employees and their families. The company considers that all organisations should consider the interest of society by taking responsibility for the impact of their activities on customers, suppliers, employees, shareholders, communities and other stakeholders, as well as the environment and the needs of future generations. TSTH supports various activities in the community e.g. religious activities, cultural activities, local government activities, etc. The company has set up a Corporate Communication and Corporate Social Responsibility (CSR) Department separately from its Marketing Department to be directly in charge of corporate communication and CSR activities.

#### **Employment**

#### Staff numbers

Management staff	55
Supervisory staff	259
Operational staff	882
Total	1,196

#### Occupational Health & Safety

Safety is a top priority for TSTH. In 2007 - 08 the Lost Time injury Frequency rate (a key performance indicator for Tata Steel Group) was 2.07 across the TSTH operations. This needs to be improved to reach the target of 0.4 by 2012 and a number of important measures are in place to minimise accidents and improve safety performance:

- Audits of safety signs, sounds and lights; crane; electrical system; machine ground resistance; fire equipment etc
- Identify hazard and risk assessment
- Implement safety observation, unsafe act and condition survey
- Implement emergency response activity
- Implement safety training programmes
- Initiate safety projects e.g. visual control, safety man, lessons learned from accident report
- Promote safety activities e.g. safety talk etc
- Incentive reward for achievement of zero accident target
- Communicate safety and sanitation information and activities
- Safety benchmarking visits to companies with best practice in safety
- Annual health examination
- Fire procedure practices

16% of workers and staff are represented in decision making on health and safety.

#### Benefits

Employees receive medical welfare (OPD, IPD, Dental), health check up, uniform, provident fund, group accident, death/disability allowance, shift allowance, hardship allowance, up-country allowance, settling-in allowance.

#### Unions

All companies in TSTH group are non-unionised.

#### • Training and education

Employees received the following average training hours per employee:

Management staff	28.64 hrs/employee/year
Supervisory staff	42.40 hrs/employee/year
Operational staff	13.68 hrs/employee/year

## • Performance/career development reviews

70% of employees received a career development review.

#### • Turn-over

Number of turn-over	67
Rate of turn-over	5.6%

## • Diversity and opportunity

	Management	Supervisory	Operational	Total
Male	51	186	811	1,048
Female	4	73	71	148
Total	55	259	882	1196

Average Salary	Management Staff	Supervisory Staff	Operational Staff
Male	137,445 baht	36,458 baht	14,317 baht
Female	135,900 baht	29,378 baht	16,606 baht

## **Human Rights**

All employees are trained in TCOC concept and guidelines for three hours and all are trained in human rights. TSTH recruitment policy stipulates that all companies must recruit only those candidates aged 18 years plus.

There were no incidents of discrimination in 2007 - 08 and no incidents of violation of the rights of indigenous people.

## Society

The company supports Corporate Social Responsibility (CSR) activities by focusing on three key areas:

- Supports the community around the plants in the areas of cultural activities, children's development activities and activities relating to local government initiatives.
- TSTH initiates "Grow Smart with TATA STEEL" project, or "เสริมปัญญากับทาทา สตีล" (Serm-Panya-Kub-Tata Steel) in Thai, by providing a learning channel for underprivileged children in remote areas of all regions; with a specific goal of constructing book corners in 400 schools by the year 2012.
- TSTH helps victims of natural disasters; runs a volunteer camp, social service activities with University students
  and employee-initiated projects; and sponsors non-profit organisations, such as the Royal-Initiated Project of
  H.M. the King.



## **Product Responsibility**

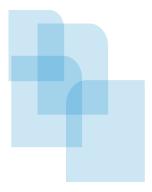
All products of TSTH group are produced under Thailand Industrial Product Standard and all plants determine to reinforce the management to be international standard certified to ISO 9001:2000. Furthermore we have set up our quality assurance system to ensure that all products will meet our specification and standard.

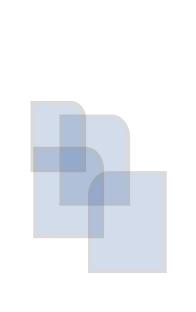
Our products are on the list of government's controlled products and cannot be sold to customers at higher cost than the controlled price.

## **Customer Satisfaction**

An annual survey is conducted to measure customer satisfaction. The results of the 2007 - 08 survey on total satisfaction were as follows:

- Rebar 75.9%
- Small Section 70%
- Wire Rods 72.5%





# Tata Code of Conduct Effective 2008

#### **Foreword**

The values and principles which have governed the manner in which the Tata Group of Companies and their employees have conducted themselves have never been articulated. It was therefore considered worthwhile to prepare a clearly defined document which could serve as a guide to each employee on the values, ethics and business principles expected of him or her.

I urge each employee to read this document and take pride in upholding the high standards of corporate and personal behaviour on which the Tata Group's reputation and respectability have been built over the past 120 years.

Caron J. Lata

Ratan N. Tata

#### Clause 1: National Interest

The Tata Group is committed to benefit the economic development of the countries in which it operates. No Tata Company shall undertake any project or activity to the detriment of the wider interests of the communities in which it operates. A Tata Company's management practices and business conduct must benefit the country, localities and communities served to the extent possible and affordable, and shall be in accordance with the laws and economic development policies of the government of each country.

A Tata Company, in the course of its international business activities, shall respect the culture, customs and traditions of each country and region in which it operates. It shall conform to international trade procedures, including licensing, documentation, and other necessary formalities as applicable.

#### Clause 2: Financial Reporting and Records

A Tata Company shall prepare and maintain its accounts fairly and accurately in accordance with the accounting and financial reporting standards which represent the generally accepted guidelines, principles, standards, laws and regulations of the country in which the company conducts its business affairs.

Internal accounting and audit procedures shall reflect, fairly and accurately, all of the company's business transactions and disposition of assets, and shall have internal controls to provide assurance to the Company's Board and shareholders that the transactions are accurate and legitimate. All required information shall be accessible to company auditors and other authorized parties and government agencies. There shall be no willful omissions of any company transactions from the books and records, no advance income recognition and no hidden bank account and funds.

Any willful, material misrepresentation of and / or misinformation on the financial accounts and reports shall be regarded as a violation of the Code apart from inviting appropriate civil or criminal action under the relevant laws. No employee shall make, authorize or collude in an improper payment, commission or bribe.

#### **Clause 3: Competition**

A Tata Company shall fully support the development and operation of competitive open markets and shall promote the liberalization of trade and investment in each country and market it operates in. Specifically, a Tata Company shall not engage in restrictive trade practices and activities that generate or support the formation of monopolies, dominant market positions, cartels and similar unfair trade practices.

A Tata Company shall market its products and services on its own merits and shall not make unfair and misleading statements about competitors' products and services. Any collection of competitive information shall be made only in the normal course of business and shall be obtained only through legally permitted sources and means.

## Clause 4: Equal-Opportunities Employer

A Tata Company shall provide equal opportunities to all its employees and all qualified applicants for employment without regard to their race, caste, religion, colour, ancestry, marital status, sex, age, nationality, disability and veteran status.

 $Human\,Resource\,policies\,should\,promote\,diversity\,and\,equity\,in\,the\,work place,\,as\,well\,as\,comply\,with\,all\,labour\,laws$ 

and international best practices. Employees of a Tata Company shall be treated with dignity and in accordance with the Tata policy to maintain a work environment free of sexual harassment, whether physical, verbal or psychological. Employee policies and practices shall be administered in a manner that would ensure that in all matters equal opportunity is provided to those eligible and the decisions are merit-based.

#### **Clause 5: Gifts and Donations**

A Tata Company and its employees shall neither receive nor offer or make, directly or indirectly, any illegal payments, remuneration, gifts, donations, or comparable benefits, which are intended to or perceived to obtain business or uncompetitive favours for the conduct of its business and shall participate in efforts to eliminate such forms of bribery, fraud and corruption. However, a Tata Company and its employees may accept and offer nominal gifts which are customarily given and are of commemorative nature for special events.

## **Clause 6: Government Agencies**

A Tata Company and its employees shall not offer or give any company funds or property as donation to any government agencies or their representatives, directly or through intermediaries, in order to obtain any favourable performance of official duties. A Tata Company shall comply with government procurement regulations, and shall be transparent in all its dealings with government agencies as applicable.

#### **Clause 7: Political Non-Alignment**

A Tata Company shall be committed to and support functioning democratic constitutions and systems with transparent and fair electoral systems. A Tata Company shall not support directly or indirectly any specific political party or candidate for political office. The Company's conduct shall preclude any activity that could be interpreted as mutual dependence / favour with any political body and shall not offer or give any company funds or property as donations, directly or indirectly, to any specific political party, candidate or campaign.

## Clause 8: Health, Safety and Environment

A Tata Company shall strive to provide a safe, healthy and ergonomic working environment for its people. It shall comply with all health, safety and environmental regulations in each jurisdiction, in which it operates.

A Tata Company shall be committed to best practice in minimizing its impact on the environment, prevent the wasteful use of natural resources, and properly and safely control any hazardous aspects of its business.

A Tata Company shall have policies and processes in place to address issues of safety, health and environment, and shall also have a disaster management system to address any natural calamities or business contingencies that may arise.

A Tata Company, in the process of production and sale of its products and services, shall strive for economic, social and environmental sustainability.

## Clause 9: Quality of Products and Services

A Tata Company shall be committed to supply goods and services of the highest quality standards backed by efficient after-sales service consistent with the requirements of customers to ensure their total satisfaction. The quality standards of the Company's goods and services should meet the required national standards and the Company should endeavour to become world-class.

A Tata Company shall illustrate adequate labels, caveats and other necessary health and safety information on its product packaging.

#### Clause 10: Corporate Citizenship

A Tata Company shall be committed to be a good corporate citizen not only in compliance with all relevant laws and regulations but also by actively assisting in the improvement of the quality of life of the people in the communities, in which it operates with the objective of making them self reliant. Such social responsibility would comprise, to initiate and support community initiatives in the field of community health and family welfare, water management, vocational training, education and literacy and encourage application of modern scientific and managerial techniques and expertise. This will be reviewed periodically in consonance with national and regional priorities. The Company would also not treat these activities as optional but would strive to incorporate them as an integral part of its business plan. The Company would also encourage volunteering amongst its employees and collaboration with community groups. Tata Companies are encouraged to develop social accounting systems, carry out social audit of their operations, and support public policies that promote social and economic development.

## **Clause 11: Cooperation of Tata Companies**

A Tata Company shall cooperate with other Tata Companies by sharing knowledge, physical, human and management resources as long as this does not adversely affect its business interests and shareholder value. In the procurement of products and services, a Tata Company shall give preference to another Tata Company, as long as it can provide these on competitive terms, relative to third parties.

## Clause 12: Public Representation of the Company and the Group

The Tata Group honours the information requirements of the public and its stakeholders. In all its public appearance with respect to disclosing company and business information to public constituencies such as the media, the financial community, employees and shareholders, a Tata Company or the Tata Group shall be represented only by specifically authorized directors and employees. It will be the sole responsibility of these authorized representatives to disclose information on the Company.

#### **Clause 13: Third Party Representation**

Parties which have business dealings with the Tata Group but are not members of the Group such as consultants, agents, sales representatives, distributors, contractors, suppliers, etc shall not be authorized to represent a Tata Company, if their business conduct and ethics are known to be inconsistent with the Tata Code. The third parties are expected to abide by the Code in their interaction with the company.

#### Clause 14: Use of the Tata Brand

The use of the Tata name and trademark owned by Tata Sons shall be governed by manuals, codes and agreements to be issued by Tata Sons. The use of the Tata Brand is defined in and regulated by the Tata Brand Equity and Business Promotion Agreement. No third party is expected to use the Tata brand to further its interests without specific authorisation.

#### **Clause 15: Group Policies**

A Tata Company shall recommend to its Board of Directors the adoption of policies and guidelines periodically formulated by Tata Sons.

#### Clause 16: Shareholders

A Tata Company shall be committed to enhance shareholder value and comply with all regulations and laws that govern shareholders' rights. The Board of Directors of a Tata Company shall duly and fairly inform its shareholders about all relevant aspects of the Company's business and disclose such information, in accordance with the respective regulations and agreements.

## **Clause 17: Ethical Conduct**

Every employee of a Tata Company, which shall include whole-time directors and the chief executive, shall deal on behalf of the Company with professionalism, honesty, integrity as well as high moral and ethical standards. Such conduct shall be fair and transparent and be perceived to be as such by third parties.

Every employee of a Tata Company shall preserve the human rights of every individual and shall strive to honour commitments.

Every employee shall be responsible for the implementation of and compliance with the Code in his / her professional environment. Failure to adhere to the Code could attract the most severe consequences including termination of employment.

#### Clause 18: Regulatory Compliance

Every employee of a Tata Company, in his / her business conduct, shall comply with all applicable laws and regulations, both in letter and in spirit, in all territories in which he or she operates. If the ethical and professional standards set out in the applicable laws and regulations fall short of the Code, then the standards of the Code shall prevail.

#### **Clause 19: Concurrent Employment**

An employee of a Tata Company shall not, without the prior approval of the chief executive of the Company accept employment or a position of responsibility (such as a consultant or a director) with any other company, nor provide "free-lance" services to anyone. In the case of a whole-time director or the chief executive such prior approval must be obtained from the Board of Directors of the Company.

#### Clause 20: Conflict of Interest

An employee or director of a Tata Company shall not accept a position of power / responsibility / board nomination in any other non Tata Company or not for profit organisation.

The above will not apply to-

- Nominations to the Boards of Tata Companies, joint ventures or associate companies
- Memberships / positions of responsibility in professional bodies wherein such association will benefit the employee/Tata Company.
- Nominations/memberships in Government committees/bodies or organisations.
- Exceptional circumstances as determined by the competent authority.

Competent authority in case of an employee shall be the chief executive who in turn shall report all such exceptional cases to the Board of Directors on a quarterly basis. In case of the chief executive and directors, the Group Corporate Center shall be the competent authority.

An employee of a Tata Company shall not engage in any business, relationship or activity which might detrimentally conflict with the interest of his/her Company or the Group. A conflict of interest, actual or potential, may arise where, directly or indirectly, (a) an employee of a Tata Company engages in a business, relationship or activity with anyone who is party to a transaction with his/her Company, (b) an employee is in a position to derive a personal benefit or a benefit to any of his/her relatives by making or influencing decisions relating to any transaction, and (c) an independent judgment of the Company's or Group's best interest cannot be exercised.

The main areas of such actual or potential conflicts of interest would include the following:

- Financial interest of an employee of a Tata Company or his / her relatives including the holding of an investment in the subscribed share capital of any company or a share in any firm which is an actual or potential competitor, supplier, customer, distributor, joint venture or other alliance partner of the Tata company. (The ownership of up to 1 per cent of the subscribed share capital of a publicly held company shall not ordinarily constitute a financial interest for this purpose.)
- An employee of a Tata Company conducting business on behalf of his / her Company or being in a position to influence a decision with regard to his / her Company's business with a supplier or customer of which his / her relative is a principal officer or representative resulting in a benefit to him/her or his/her relative
- Award of benefits such as increase in salary or other remuneration, posting, promotion or recruitment of a relative of an employee of a Tata Company where such an individual is in a position to influence the decision with regard to such benefits.
- Acceptance of gifts, donations, hospitality and / or entertainment beyond the customary level from existing or potential suppliers, customers or other third parties which have business dealings with the Company.

Notwithstanding that such or other instances of conflict of interest exist due to any historical reasons, adequate and full disclosure by the interested employees should be made to the company's management. It is also incumbent upon every employee to make a full disclosure of any interest which the employee or the employee's immediate family, which would include parents, spouse and children, may have in a company or firm which is a supplier, customer, distributor of or has other business dealings with his/her Company.

Every employee who is required to make a disclosure as mentioned above shall do so, in writing, to his/her immediate superior who shall forward the information along with his/her comments to the person designated for this purpose by the chief executive and / or the Board of Directors / executive committee appointed by the Board and, upon a decision being taken in the matter, the employee concerned will be required to take necessary action as advised to resolve/avoid the conflict.

If an employee fails to make a disclosure as required therein and the management of its own accord becomes aware of an instance of conflict of interest that ought to have been disclosed by the employee, the management would take a serious view of the matter and consider suitable disciplinary action against the employee.

## Clause 21: Securities Transactions and Confidential Information

An employee of a Tata Company and his / her immediate family shall not derive any benefit or assist others to derive any benefit from the access to and possession of information about the company, Group or client which is not in the

public domain and thus constitutes insider information.

An employee of a Tata Company shall not use or proliferate information which is not available to the investing public and therefore constitutes insider information for making or giving advice on investment decisions on the securities of the respective Tata Company on which such insider information has been obtained.

Such insider information might include the following:

- Acquisition and divestiture of businesses or business units
- Financial information such as profits, earnings and dividends
- Announcement of new product introductions or developments
- Asset revaluations
- Investment decisions / plans
- Restructuring plans
- Major supply and delivery agreements
- Raising finances

An employee of a Tata Company shall also respect and observe the confidentiality of information pertaining to other companies, their patents, intellectual property rights, trademarks and inventions; and strictly observe a practice of non-disclosure.

## **Clause 22: Protecting Company Assets**

The assets of a Tata Company should not be misused but employed primarily for the purpose of conducting the business for which they are duly authorized. These include tangible assets such as equipment and machinery, systems, facilities, materials, resources as well as intangible assets such as information technology and systems, proprietary information, intellectual property rights, relationships with customers and suppliers, etc.

#### Clause 23: Citizenship

An employee of a Tata Company shall in his / her private life be free to pursue an active role in civic or political affairs as long as it does not adversely affect the business or interests of the Company or the Group.

#### Clause 24: Integrity of Data Furnished

Every employee of a Tata Company shall ensure at all times, the integrity of data or information furnished by him to the Company.

## **Clause 25: Reporting Concerns**

Every employee of a Tata Company shall promptly report to the Management when she / he becomes aware of any actual or possible violation of the Code or an event of misconduct, act of misdemeanour or act not in Company's interest, which could affect the business or reputation of his / her or any other Tata Company.

Any employee can make a protected disclosure under the Whistle Blower Policy. The Protected Disclosure should be forwarded under a covering letter, which shall bear the identity of the Whistle Blower.

# **Code of Conduct for Non Executive Directors**

Non-Executive Directors of a company will always act in the interest of the company and ensure that any other business or personal association which they may have, does not involve any conflict of interest with the operations of the company and his role therein.

Non-Executive Directors will comply with all applicable laws and regulations of all the relevant regulatory and other authorities as may be applicable to such Directors in their individual capacities.

Non-Executive Directors will safeguard the confidentiality of all information received by them by virtue of their position.

This Code was approved by the Board of Directors on 23rd January 2006.

# TATA STEEL POLICIES

#### TATA STEEL SOCIAL ACCOUNTABILITY POLICY

Tata Steel, in accordance with its founding principles, will continue to improve the quality of life of its employees and the communities it serves.

Tata Steel will conduct its business ever mindful of its social accountability, respecting applicable laws and with regard for human dignity.

Tata Steel will positively impact and influence its partners in fostering a sense of social commitment for their stakeholders.

B Muthuraman Managing Director

December 20, 2003

#### TATA STEEL SAFETY & OCCUPATIONAL HEALTH POLICY

Tata Steel's safety and occupational health responsibilities are driven by our desire to ensure zero harm to people we work with and society at large and is integral to the way we do business.

- 1. Our fundamental belief is that all injuries can be prevented. This responsibility starts with each one of us.
  - We will identify, assess and manage our Safety & OH hazard/risks.
  - We will regularly monitor, review the progress and report.
  - We will ensure WILL & SKILL buildup among employees/contractors partner to demonstrate their involvement, responsibility and accountability to achieve sound Safety & OH performance.
- 2. We are committed to continual improvement in our Safety & OH performance.
  - We will set objectives targets, develop, implement and maintain management standards and systems, and go beyond compliance with relevant industry standards, legal and other requirements.
- 3. We will truly succeed when we achieve our Safety & OH goals and are valued by the communities in which we work.

**B** Muthuraman

May 21, 2005 Managing Director

# TATA STEEL HUMAN RESOURCE POLICY

Tata Steel recognizes that its people are the primary source of its competitiveness.

It is committed to equal employment opportunities for attracting the best available talent and ensuring a cosmopolitan workforce.

It will pursue management practices designed to enrich the quality of life of its employees, develop their potential and maximise their productivity.

It will aim at ensuring transparency, fairness and equity in all its dealings with its employees.

Tata Steel will strive continuously to foster a climate of openness, mutual trust and teamwork.

B Muthuraman Managing Director

October 1, 2001

#### TATA STEEL ALCOHOL AND DRUGS POLICY

Tata Steel believes that the loyalty and commitment of its employees depend upon the quality of life they are offered at work and at home.

We recognise that indiscriminate use of alcohol and drugs is injurious to the well being of individuals, their families and the community as a whole. We acknowledge that the misuse of these psychoactive substances is a major health and safety hazard. Tata Steel, is therefore, committed to creating an alcohol and drug-free environment at the work place. This would be achieved through the involvement of all employees and the Joint Departmental Councils in spearheading appropriate initiatives. The initiatives would include:

- Raising awareness, through the dissemination of information, education and training and by promoting healthy life styles among our employees and their families.
- Motivating those employees who have an alcohol/drug problem, to seek assistance, while maintaining confidentiality about such cases.

October 1, 2001 B Muthuraman
Managing Director

#### TATA STEEL HIV (+) & AIDS CONTROL POLICY

Tata Steel is committed to contribute to the global effort towards halting and reversing the course of HIV/AIDS. The Company would take measures to actively disseminate information and education regarding HIV/AIDS within our workplace and surrounding communities, with the objective to reduce its transmission.

The Company would ensure a safe working environment, confidentiality and non-discrimination of affected employees, if any.

The Company would provide appropriate medical management for all affected employees and their families.

September 1, 2005 B Muthuraman Managing Director

### TATA STEEL AFFIRMATIVE ACTION POLICY

Tata Steel recognizes that diversity in the workplace positively impacts business. The Company will ensure equal employment opportunities and provide training to develop the socially disadvantaged.

Tata Steel will volunteer its training resources to the extent possible to improve employability of disadvantaged sections of society. The Company will encourage business entrepreneurs from socially disadvantaged communities through monitoring and inclusion in supply chain on the basis of equal merit.

Tata Steel will assist in upward mobility of talented youth from marginalized communities by increasing their access to quality higher education.

Tata Steel will report Affirmative Action initiatives in its annual sustainability report.

B Muthuraman November 21, 2006 Managing Director

### TATA STEEL CORPORATE SOCIAL RESPONSIBILITY POLICY

Tata Steel believes that the primary purpose of a business is to improve the quality of life of people.

Tata Steel will volunteer its resources, to the extent it can reasonably afford, to sustain and improve a healthy and prosperous environment and to improve the quality of life of the people of the areas in which it operates.

February 1, 2003 Managing Director



#### TATA STEEL ENVIRONMENTAL POLICY

Tata Steel's Environmental responsibilities are driven by our commitment to preserve the environment and are integral to the way we do business.

We are committed to the efficient use of natural resources & energy; reducing and preventing pollution; promoting waste avoidance and recycling measures and product stewardship.

- 1. We will identify, assess and manage our environmental impact.
  - We will regularly monitor, review & report publicly our environmental performance.
  - We shall develop & rehabilitate abandoned sites through afforestation, landscaping and shall protect & preserve the biodiversity in the areas of our operations.
  - We will enhance awareness, skill and competence of our employees and contractors so as to enable them to demonstrate their involvement, responsibility and accountability for sound environmental performance.
- 2. We are committed to continual improvement in our environmental performance.
  - We will set objectives-targets, develop, implement and maintain management standards and systems, and go beyond compliance with relevant industry standards, legal and other requirements.
- 3. We will truly succeed when we sustain our environmental achievement and are valued by the communities in which we work.

May 21, 2005

B Muthuraman

Managing Director

#### TATA STEEL ENERGY POLICY

Tata Steel reaffirms its commitment to conserve scarce energy resources and shall endeavour to

- Comply with national and international regulations.
- Adopt best available technology for energy efficiency.
- Implement world-class operating practices.
- Conduct regular Energy Audit for continual improvement.
- Promote energy efficiency through mass awareness.

April 1, 2004 B Muthuraman

Managing Director

#### TATA STEEL RESEARCH POLICY

Tata Steel believes that research provides the foundation for sustained, long-term, stakeholder delight. Tata Steel shall nurture and encourage innovative research in a creative ambience to ensure that the competitive advantage in its overall business is retained and surpassed. Towards this goal, the Company commits itself to providing all necessary resources and facilities for use by motivated researchers of the highest caliber. Research in Tata Steel shall be aligned to the technological initiatives necessary to evolve and fulfill the overall business objectives of the Company.

January 1, 2002 B Muthuraman
Managing Director

### TATA STEEL QUALITY POLICY

Consistent with the Group purpose, Tata Steel shall constantly strive to improve the quality of life of the communities it serves through excellence in all facets of its activities.

We are committed to creating value for all our stakeholders by continually improving our systems and processes through innovation, involving all our employees.

This policy shall form the basis of establishing and reviewing the Quality Objectives and shall be communicated across the organisation. The policy will be reviewed to align with business direction and to comply with all the requirements of the Quality Management Standard.

B Muthuraman Managing Director

April 17, 2002

### **UN GLOBAL COMPACT - THE TEN PRINCIPLES**

At the World Economic Forum, Davos, on 31st January 1999, UN Secretary-General Kofi A. Annan challenged world business leaders to "embrace and enact" the Global Compact, both in their individual corporate practices and by supporting appropriate public policies. These principles now cover human rights, labour, environment and anticorruption.

### **Human Rights**

The Secretary-General asked world business to:

- 1) support and respect the protection of international human rights within their sphere of influence; and
- 2) make sure their own corporations are not complicit in human rights abuses.

### Labour

The Secretary-General asked world business to uphold;

- 3) freedom of association and the effective recognition of the right to collective bargaining;
- 4) the elimination of all forms of forced and compulsory labour;
- 5) the effective abolition of child labour, and
- 6) the elimination of discrimination in respect of employment and occupation.

#### **Environment**

The Secretary-General asked world business to:

- 7) support a precautionary approach to environmental challenges;
- 8) undertake initiatives to promote greater environmental responsibility; and
- 9) encourage the development and diffusion of environmentally friendly technologies.

### **Anti-corruption**

The Secretary General stressed that:

10) business should work against all forms of corruption, including extortion and bribery.

### TATA CORPORATE SUSTAINABILITY (GROUP POLICY)

We continue to encourage our Companies to:

- Demonstrate responsibility and sensitivity to biodiversity and the environment in which they operate by being proactive to conserve, restore and enrich it systematically and continuously.
- Comply with regulations relating to environment, constantly upgrade technology and apply state-of-the-art processes and practices with institutional arrangements that will comprehensively address larger issues and goals on climate change and global warming.
- Continually illustrate performance in preventing pollution, ensure the optimum use of resources and minimize
  harmful impacts of products and production processes, materials movement and its delivery throughout its
  supply chain.
- Create sustainable livelihoods and build community through social outreach programs in Health, Education, Empowerment of Women and Youth, Employee Volunteering; that can be measured in terms of their having more lasting benefits, serving a larger national or regional purpose, and also making it more meaningful to all involved in the endeavor.
- Find ways to enhance human, social, natural capital as complementing financial growth of the enterprise with explicit goals and processes to sustain the effort.
- For this purpose the Companies shall adhere to our core values, deploy appropriate approaches; demonstrate leadership, train, position key professionals; and create consciousness among employees, suppliers, contractors, customers and the community at large through a process of continuous dialogue, initiatives and collaboration.

Kishor A. Chaukar

Chairman, Tata Council for Community Initiatives

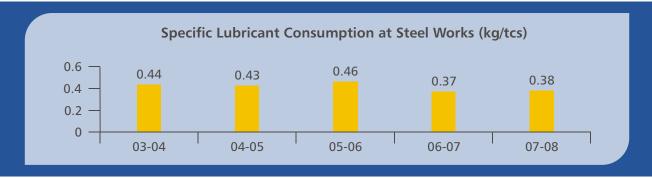
29th July 2007

### SUPPLEMENTARY ENVIRONMENTAL INFORMATION

In this supplement, additional information is disclosed on environmental performance, particularly relating to individual operations and specific factors.

### **Materials Used**





### Energy

	Energy consumption at various units								
Particulars	Steel (per tonne)	Tubes (per tonne)	Bearings (per no.)	Ferro Alloys (per tonne)	Rings & Agrico (per no.)	Growth Shop (per tonne)	CRC West (per tonne)	Wire Div (per Tonne)	Crm Sisodra (per Tonne)
Electricity -KWH	412.06 (398.52)	108.00 (97.00)	0.76 (0.73)	3556.70 (3632.90)	<b>-</b> (1.23)	528.98 (457.32)	133.11 (151.23)	229.06 (220.71)	<b>-</b> (349.95)
Furnace Oil-Litres	-	-	-	-	-	21.99 (15.68)	7.03 (7.93)	21.99 (23.09)	-
Coking Coal- Tonnes	0.66 (0.72)	-	-	-	-	-	-	-	-
Others									
Light Diesel Oil-Litres	1.21 (1.29)	-	-	-	-	-	<b>-</b> (9.00)	7.82 (8.02)	<b>-</b> (52.65)
LPG-Kgs		-	-	-	-	-	13.23 (13.05)	10.08 (10.29)	(0.35)
Natural Gas-Kgs		-	-	-	-	-	-	23.21 (24.54)	-

Note: Figures in brackets are for the year 2006-07 and are modified wherever necessary.

### Emissions, Effluents and Waste

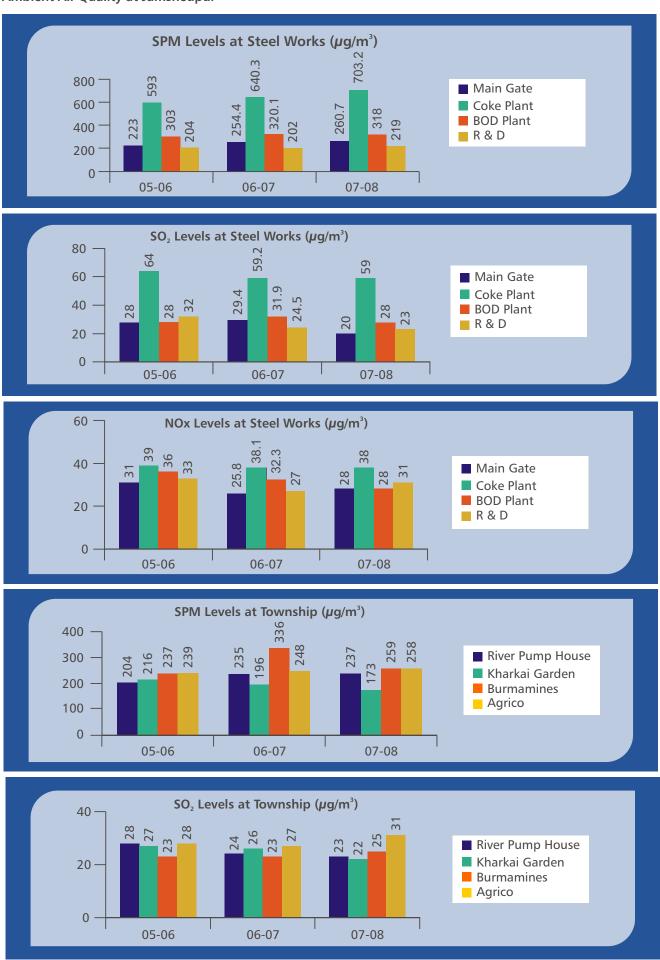
### Water discharge

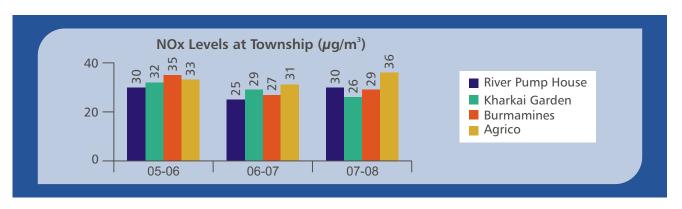
River Water Quality						
Davanastav	Class (B) Norms	Subarn	arekha	Kharkai		
Parameter	Class (B) Norms	2006-07	2007-08	2006-07	2007-08	
Cd	0.01 mg/l	NT	NT	NT	NT	
Cr <sup>+6</sup>	0.5 mg/l	0.0045	0.006	0.0075	0.005	
Cu	1.50 mg/l	0.045	0.12	0.12	0.1	
Fe	0.30 mg/l	0.05	0.05	0.085	0.11	
Zn	15 mg/l	0.10	0.05	0.15	0.11	
Ni	NA	0.075	0.11	0.15	0.15	
Mn	0.50 mg/l	0.08	0.05	0.13	0.09	
NO <sub>3</sub> (N)	20 mg/l	3.8	1.9	2.7	0.8	
Pb	0.10 mg/l	0.035	0.04	0.015	0.04	
рН	6.5-8.5	7.75	8.1	7.85	8.2	
Total Hardness	300 mg/l	107	62	72	77	
DO	6 mg/l	465	5.7	4.5	6.2	
TSS	NA	15.5	41	67	31	
BOD <sub>3</sub>	2 mg/l	5.5	5.0	3.5	5.0	

NA-Not Applicable, NT-No Trace



### **Ambient Air Quality at Jamshedpur**





### Work area environment:

	Visible Fugitive Emission from Coke Oven Batteries at Coke Plant													
Parameters	Applicable	Batt#3		Bat	Batt#5		Batt#6		Batt#7		Batt#8		Batt#9	
Parameters	Legal norms	06-07	07-08	06-07	07-08	06-07	07-08	06-07	07-08	06-07	07-08	06-07	07-08	
Percentage Leaking Doors (PLD)	10%	2.8	3.6	2.5	3.1	3.0	3.4	3.3	3.4	2.5	3.2	2.7	3.2	
Percentage Leaking Off Takes (PLO)	4%	0.59	1.5	1.0	1.3	1.37	1.6	1.8	1.6	Nil	Nil	Nil	Nil	
Percentage Leaking Lids (PLL)	1%	0.01	0.47	0.07	0.67	0.27	0.76	0.31	0.91	Nil	Nil	Nil	Nil	
Charging Emission (Sec/Charge)	75 Sec.	68	70	NA	NA	NA	NA	NA	NA	NA	NA	Nil	NA	

NA-Not Applicable, NT-No Trace

	PAH (BaP) values at Coke Plant									
Davamentovs	Legal Norms	Stam	p Charge Bat	teries	Top Charge Batteries					
Parameters	(ug/m³)	05-06	06-07	07-08	05-06	06-07	07-08			
Oven Top	5	0.456	ND	0.082	0.08	ND	0.352			
Ram side of Battery	2	0.090	ND	0.137	0.27	ND	0.012			
Coke side of Battery	2	0.035	ND	0.045	0.11	ND	0.059			



# Glossary

AFCONS - Afcons Infrastructure Limited AGM - Annual General Meeting (of Shareholders)	AFCONS	- Afcons Infrastructure Limited	FAMD - Ferro Alloys & Minerals Division
Continue			
AJDS - Acquired Immune Deficiency Syndrome AJWC - All Indian Women's Conference ASEAN - Association of SouthEast Asian Nations BaP   Benzo(a) pyrene-the most toxic of the PAHs   Benzo(a) pyrene-the most toxic of the PAHs   GAAP   Great Britain (United Kingdom) Pound the PAHs   Green House Gas (Cro.), Methane, etc.) BB   Benzo   Business Excellence   GRI (G3)   Grosen House Gas (Cro.), Methane, etc.) BF   Blast Furnace   GRI (G3)   Global Reporting Initiative-guidelines for reporting on sustainability performance (G3 is latest version) CAB   Cut And Bend   HC   Hydrocarbons   HCI   Hydrocarbons   CAB   Cut And Bend   HC   Hydrocarbons   HCI   Hydrocarbons   CARES   Certification Authority for Reinforcing Steel   HCI   Hydrocarbons   HIV   Human Immunodeficiency Virus   CCPS   Cumulative Convertible Preference Shares   HR   Human Resources (department)   CDM   Clean Development Mechanism   HSM   Hot Strip Mill   CDM   Clean Development Mechanism   IISI   International Iron & Steel Institute-now (Worldsteel)   CCO   Carbon Monoxide   IIO   International Labour Organisation   CCQ   Carbon Monoxide   IIO   International Standards   CCC   Carbon Monoxide   IIO   International Standards   CCC   Cold Rolling Complex (West)   ISAB 3000   International Standards   CCC   Cold Rolling Complex (West)   ISAB 3000   International Standards   CCR   Cold Rolling Complex (Mest)   ISAB 3000   International Standards   CCR   Corporate Social Responsibility   IT   Information Technology   CCM   Delgi Land & Finance   DD   Delgi Land & Fi	AGIVI	3	
ANVC - All Indian Women's Conference ASEAN - Association of SouthEast Asian Nations BAP - Benzo(a) pyrene-the most toxic of the PAHS BE - Business Excellence - GHG - Great Britain (United Kingdom) Pound the PAHS BE - Business Excellence - GHG - Great Britain (United Kingdom) Pound the PAHS BE - Business Excellence - GHG - Great Britain (United Kingdom) Pound the PAHS BE - Business Excellence - GHG - Great Britain (United Kingdom) Pound GHG - Great Britain (United Kingdom) Pound the PAHS BE - Business Excellence - GHG - Great Britain (United Kingdom) Pound the PAHS BE - Business Excellence - GHG - Great Britain (United Kingdom) Pound the PAHS BE - Business Excellence - GHG - Great Britain (United Kingdom) Pound the PAHS BE - Business Excellence - GHG - Great Britain (United Kingdom) Pound the PAHS BE - Business Excellence - GHGP - Great Britain (United Kingdom) Pound the PAHS BE - Business Excellence - GHGP - Great Britain (United Kingdom) Pound the PAHS BE - Business Excellence - GHGP - Great Britain (United Kingdom) Pound the PAHS BE - Business Excellence - GHGP - Great Britain (United Kingdom) Pound the PAHS BE - Business Excellence - GHGP - Great Britain (United Kingdom) Pound the Path State Institute-guidelines for reporting on sustainability performance (G3 is latest version)  BE - Business Excellence - GRIG - GHG - Hydrochoric acid BE - Hydrochloric acid BE - Hydrochloric acid BFC - Hydrochlor	AIDS		
ASEAN - Association of SouthEast Asian Nations BaP - Benzo[a]pyrene-the most toxic of the PAHS - Benzo[a]pyrene-the most toxic of the PAHS - Business Excellence			
BaP   Benzo[a]pyrene-the most toxic of the PAHs   GDP   Gross Domestic Product   BE   Business Excellence   GHG   Green House Gas (CO,, Methane, etc.) BF   Blast Furnace   GRI (G3)   Global Reporting Initiative-guidelines for reporting on sustainability performance (G3 is latest version) CAB   Cut And Bend   HC   Hydrocarbons   CAC   Calcium Oxide (lime)   HC   Hydrocarbons   CARES   Certification Authority for Reinforcing Steel   HIV   Human Resources (department) CCPS   Cumulative Convertible Preference Shares   HIV   Human Immunodeficiency Virus   CCPS   Cumulative Convertible Preference Shares   HIV   Human Resources (department) CCD   Calcium Oxide (lime)   HSM   Hot Strip Mill   CDM   Clean Development Mechanism   IISI   International Iron & Steel Institute-now known as World Steel Association (Worldsteel) CCP   Carbon Monoxide   IIN   International Labour Organisation   CCP   Carbon Dioxide   IIN   International Labour Organisation   CCP   Cardiopulmonary resuscitation   IRQS   Indian Register Quality Systems-certify safety and environmental standards CRC (W)   Cold Rolling Complex (West)   ISAB 3000   International Standards Organisation   CCRC   Copper   ISAB 3000   INTERNATIONAL   COPPER   Copper   ISAB 3000   IN	ASEAN		
BE BLASE FURNACE BIAST FURNACE BIAST FURNACE BOM WASS INDEX BOM SIDORY S	BaP		_
BE         a Business Excellence         GHG         a Green House Gas (CO,, Methane, etc.)           BF         a Bady Mass Index         cGRI (G3)         clobal Reporting Initiative-guidelines for reporting on sustainability performance (G3 Is latest version)           BOD         a Biological Oxygen Demand         HC         a Hydrocarbons           CAB         c Calcium Oxide (lime)         HCI         a Hydrocarbons           CARS         c Certification Authority for Reinforcing Steel         HIV         b Hydrocarbons           CCPS         c Cumulative Convertible Preference Shares         HR         c Hydrocarbons           CCP         c Cadmium         HSM         b Hot Strip Mill           CDM         c Clean Development Mechanism         IISI         a International Iron & Steel Institute-now known as World Steel Association (Worldsteel)           CDM         c Clean Development Mechanism         IISI         a International Labour Organisation (Worldsteel)           CDM         c Coffederation of Indian Industry         ILO         a International Labour Organisation (Worldsteel)           CD         c Carbon Dioxide         ILO         a International Labour Organisation (Worldsteel)           CPR         c Cardion Monoxide         ILO         a International Standard on Assurance Engagements           CRC (W)         c Cold Rolling Complex			
BFI         a Blast Furnace         GRI (GS)         a Global Reporting Initiative-guidelines for reporting on sustainability performance (G3 is latest version)           BOD         a Biological Oxygen Demand         (G3 is latest version)           CAB         Cut And Bend         HC         Hydrocarbons           CARES         Certification Authority for Reinforcing Steel         HFC         Hydrochloric acid           CARES         Comulative Convertible Preference Shares         HR         Hydrofluorocarbons           CCPS         Cumulative Convertible Preference Shares         HR         Human Immunodeficiency Virus           CDM         Clean Development Mechanism         HISI         Het Tuman Immunodeficiency Virus           CDM         Clean Development Mechanism         IISI         International Iron & Steel Institute-now known as World Steel Association (Worldsteel)           CDM         Colief Executive Officer         International Labour Organisation           CII         Confederation of Indian Industry         International Labour Organisation           CO         Carbon Dioxide         IINR         Indian Rupees           CPR         Cardiopulmonary resuscitation         IRQS         Indian Rupees           CPR         Cold Rolling Complex (West)         ISAE 3000         International Standards Oxyganisation	BE	- Business Excellence	
BMI         - Body Mass Index         reporting on sustainability performance           BOD         - Biological Dxygen Demand         (G3 is latest version)           CAB         - Cut And Bend         HCI         - Hydrocarbons           CaO         - Calcium Oxide (lime)         HCI         - Hydrochloric acid           CARES         - Certification Authority for Reinforcing Steel         HFC         - Hydrofluorocarbons           CCPS         - Cumulative Convertible Preference Shares         HR         - Human Immunodeficiency Virus           CCPS         - Cumulative Convertible Preference Shares         HR         - Human Resources (department)           CD         - Clean Development Mechanism         IISI         - International Iron & Steel Institute-now (Worldsteel)           CD         - Clief Executive Officer         IRO         - Indian Rupess           CEO         - Cardiopulmonary resuscitation         IRQS         - Indian Rupess           CPR         - Cardiopulmonary resuscitation         ISAE 3000         - International Standard on Assurance Engagements           CRC         - Chief Residential Executives         ISAE 3000         - International Standard on Assurance Engagements           CRP         - Chief Residential Executives         ISO 9000/1         - International Standards Organisation Environmental Management Standard Orga	BF	- Blast Furnace	
BOD   - Biological Oxygen Demand   CAB   Cut And Bend   HC   Hydrocarbons	BMI	- Body Mass Index	·
CaO - Calcium Oxide (lime)	BOD	- Biological Oxygen Demand	
CARES - Certification Authority for Reinforcing Steel	CAB	- Cut And Bend	HC - Hydrocarbons
Steel HIV Human Immunodeficiency Virus  CCPS - Cumulative Convertible Preference Shares CG - Cadmium HSM - Hot Strip Mill  CDM - Clean Development Mechanism IISI - International Iron & Steel Institute-now known as World Steel Association  CEO - Chief Executive Officer Known as World Steel Association  CII - Confederation of Indian Industry (Worldsteel)  CO - Carbon Monoxide ILO - International Labour Organisation  CO, - Carbon Dioxide INR - Indian Rupees  CPR - Cardiopulmonary resuscitation IRQS - Indian Rupees  CPR - Cardiopulmonary resuscitation IRQS - Indian Register Quality Systems-certify safety and environmental standards  CRC (W) - Cold Rolling Complex (West) ISAE 3000 - International Standard on Assurance  CRE - Chief Residential Executives  Crore - One crore equals ten million ISO  CRPC - Criminal Procedure Code (India) 14000/1 - International Standards Organisation  CSR - Corporate Social Responsibility  Cu - Copper ISO 9000/1 - International Standards Organisation  CSR - Delgi Land & Finance  DO - Dissolved Oxygen (in water, mg/l) IT - Information Technology  DWT - Dead Weight Tonnage IUCN - International Union for Conservation of Nature  EBIT - Earnings Before Interest, Taxes, Depreciation and Amortisation  EIA - Environmental Impact Assessment JDC - Joint Departmental Council  ERM - Electric Resistance Weld  ESH - Environment Safety & Health JWC - Joint Departmental Council  ESH - Employees State Insurance kg - Kilogramme  ESS - Employees State Insurance kg - Kilogramme  EVA - Economic Value Added-defined as the excess of Return On Invested Capital (ROIC) over weighted average cost of Lakh - One lakh equals one hundred thousand	CaO	- Calcium Oxide (lime)	HCI - Hydrochloric acid
CCPS       -       Cumulative Convertible Preference Shares       HR       -       Human Resources (department)         CDM       -       Cadamium       HSM       -       Hot Strip Mill         CDD       -       Clean Development Mechanism       IISI       -       International Iron & Steel Institute-now (worldsteel)         CEO       -       Chief Executive Officer       IRO       -       International Labour Organisation (Worldsteel)         CD       -       Carbon Monoxide       INR       -       Indian Rupees         CPR       -       Cardiopulmonary resuscitation       IRQS       -       Indian Rupees         CPR       -       Cardiopulmonary resuscitation       IRQS       -       Indian Register Quality Systems-certify safety and environmental Standards         CR       -       Cold Rolling Complex (West)       ISAE 3000       -       Indian Rupees         CRC (W)       -       Cold Rolling Complex (West)       ISAE 3000       -       Indian Rupees         Crore       -       Chief Residential Executives       ISAE 3000       -       Indian Rupees         Crore       -       Chief Residential Executives       ISAE 3000       -       International Standard on Assurance         CRE       -       <	CARES	- Certification Authority for Reinforcing	HFC - Hydrofluorocarbons
Cd - Cadmium		Steel	HIV - Human Immunodeficiency Virus
CDM - Clean Development Mechanism CEO - Chief Executive Officer CII - Confederation of Indian Industry CO - Carbon Monoxide CO, - Carbon Dioxide CPR - Cardiopulmonary resuscitation CRC (W) - Cold Rolling Complex (West) CRC - Chief Residential Executives CRE - Chief Residential Executives CRP - Cardinal Procedure Code (India) CRPC - Criminal Procedure Code (India) CRPC - Criminal Procedure Code (India) CRPC - Copper CRP - Delgi Land & Finance DO - Dissolved Oxygen (in water, mg/l) DWT - Dead Weight Tonnage EBITDA - Earnings Before Interest, Taxes, Depreciation and Amortisation ERM - Environmental Impact Assessment ERM - Environmental Impact Assessment ERM - Environment Safety & Health ERM - Environment Safety & Health ESH - Environment Safety & Health ESH - Employees' State Insurance ESS - Employees Separation Scheme EVA - Economic Value Added-defined as the excess of Return On Invested Capital (ROIC) over weighted average cost of  ILO - International Iron & Steel Institute-now known as World Steel Association known as World Steel Association (Worldsteel) CW known as World Steel Association (Worldsteel) CW known as World Steel Association (Worldsteel) CWorldsteel) Confederation of Indian Industry CWorldsteel)  ILO - International Labour Organisation Stendards organisation INTERNATIONAL Steel Association CWorldsteel) Indian Rupees Indian Ru	CCPS	- Cumulative Convertible Preference Shares	HR - Human Resources (department)
CEO       Chief Executive Officer       known as World Steel Association         CII       Confederation of Indian Industry       (Worldsteel)         CO       Carbon Monoxide       ILO       International Labour Organisation         CO2,       Cardiopulmonary resuscitation       IRQS       Indian Rupees         CPR       Cardiopulmonary resuscitation       IRQS       Indian Register Quality Systems-certify safety and environmental standards         CRC (W)       Cold Rolling Complex (West)       ISAE 3000       International Standard on Assurance Engagements         CRPC       Chief Residential Executives       ISO       International Standard on Assurance Engagements         CRPC       One crore equals ten million       150       International Standard on Assurance Engagements         CRPC       Criminal Procedure Code (India)       14000/1       International Standards Organisation Environmental Management Standard         CSR       Corporate Social Responsibility       IT       International Standards Organisation Environmental Management System         DUF       Delgi Land & Finance       IDC       International Standards Organisation Granisation         EAF       Ellectric Arc Furnace       IT       Information Technology         DWT       Dead Weight Tonnage       IUCN       International Standards Organisation Granisation International Stan	Cd	- Cadmium	HSM - Hot Strip Mill
CII - Confederation of Indian Industry CO - Carbon Monoxide ILO - International Labour Organisation CO, - Carbon Dioxide INR - Indian Rupees CPR - Cardiopulmonary resuscitation IRQS - Indian Register Quality Systems-certify Cr - Chromium CRC(W) - Cold Rolling Complex (West) ISAE 3000 - International Standards on Assurance CRE - Chief Residential Executives Crore - One crore equals ten million ISO CRPC - Criminal Procedure Code (India) 14000/1 - International Standards Organisation CSR - Corporate Social Responsibility Cu - Copper ISO 9000/1 - International Standards Organisation CSR - Copper ISO 9000/1 - International Standards Organisation CSR - Delgi Land & Finance DO - Dissolved Oxygen (in water, mg/l) IT - Information Technology DWT - Dead Weight Tonnage IUCN - International Union for Conservation DEAF - Electric Arc Furnace EBITDA - Earnings Before Interest, Taxes, DCCM - Joint Consultative Committee of Depreciation and Amortisation EIA - Environmental Impact Assessment JDC - Joint Departmental Council ERM - Enterprise Risk Management EIA - Environment Safety & Health JWC - Joint Works Council ESH - Environment Safety & Health JWC - Joint Works Council ESH - Employees' State Insurance RM - Kilo Watt Hour EVA - Economic Value Added-defined as the excess of Return On Invested Capital (ROIC) over weighted average cost of Lakh - One lakh equals one hundred thousand		•	IISI - International Iron & Steel Institute-now
CO - Carbon Monoxide ILO - International Labour Organisation CO - Carbon Dioxide INR - Indian Rupees CPR - Cardiopulmonary resuscitation IRQS - Indian Register Quality Systems-certify safety and environmental standards CRC (W) - Cold Rolling Complex (West) ISAE 3000 - International Standard on Assurance CRE - Chief Residential Executives Crore - One crore equals ten million ISO CRPC - Criminal Procedure Code (India) I4000/1 - International Standards Organisation CSR - Corporate Social Responsibility Cu - Copper ISO 9000/1 - International Standards Organisation DLF - Delgi Land & Finance DO - Dissolved Oxygen (in water, mg/l) IT - Information Exhnology DWT - Dead Weight Tonnage IUCN - International Union for Conservation EAF - Electric Arc Furnace EBITDA - Earnings Before Interest, Taxes, Depreciation and Amortisation EIA - Environmental Impact Assessment EIA - Environments Safety & Health ESH - Employees' State Insurance ERW - Electric Resistance Weld ESH - Employees' State Insurance ESS - Employees Separation Scheme ESS - Employee Separation Scheme EVA - Economic Value Added-defined as the excess of Return On Invested Capital (ROIC) over weighted average cost of Lakh - One lakh equals one hundred thousand			
CO2       - Carbon Dioxide       INR       - Indian Rupees         CPR       - Cardiopulmonary resuscitation       IRQS       - Indian Register Quality Systems-certify safety and environmental standards         CRC (W)       - Cold Rolling Complex (West)       ISAE 3000       - International Standard on Assurance Engagements         CRE       - Chief Residential Executives       Engagements         Crore       - One crore equals ten million       ISO         CRPC       - Criminal Procedure Code (India)       14000/1       - International Standards Organisation Environmental Management Standard         CSR       - Copper       ISO 9000/1       - International Standards Organisation Quality Management System         DLF       - Delgi Land & Finance       IUCN       - Information Technology         DWT       - Dead Weight Tonnage       IUCN       - International Union for Conservation of Nature         EAF       - Electric Arc Furnace       JCCM       - Joint Consultative Committee of Management         EBITDA       - Environmental Impact Assessment       JDC       - Joint Departmental Council         ERM       - Enterprise Risk Management       JUSCO       - Jamshedpur Utilities & Services Companies Limited         ESH       - Employees' State Insurance       kg       Kilogramme         ESS       - Employees' State		-	
CPR - Cardiopulmonary resuscitation IRQS - Indian Register Quality Systems-certify safety and environmental standards  CRC (W) - Cold Rolling Complex (West) ISAE 3000 - International Standard on Assurance Engagements  Crore - Chief Residential Executives Engagements  Crore - One crore equals ten million ISO  CRPC - Criminal Procedure Code (India) 14000/1 - International Standards Organisation Environmental Management Standard  CGR - Corporate Social Responsibility Environmental Management Standard  Cu - Copper ISO 9000/1 - International Standards Organisation Quality Management System  DUF - Delgi Land & Finance Quality Management System  DO - Dissolved Oxygen (in water, mg/l) IT - Information Technology  DWT - Dead Weight Tonnage IUCN - International Union for Conservation of Nature  EBITDA - Earnings Before Interest, Taxes, Depreciation and Amortisation  EIA - Environmental Impact Assessment JDC - Joint Consultative Committee of Management  EIA - Environmental Impact Assessment JUSCO - Jamshed pur Utilities & Services  ERW - Electric Resistance Weld - Companies Limited  ESH - Environment Safety & Health JWC - Joint Works Council  ESH - Employees' State Insurance kg - Kilogramme  ESS - Employee Separation Scheme km - kilometre  EU - European Union kWh - Kilo Watt Hour  EVA - Economic Value Added-defined as the excess of Return On Invested Capital (ROIC) over weighted average cost of Lakh - One lakh equals one hundred thousand			
CRC (W) - Cold Rolling Complex (West) ISAE 3000 - International Standard on Assurance CRE - Chief Residential Executives Engagements Crore - One crore equals ten million ISO  CRPC - Criminal Procedure Code (India) 14000/1 - International Standard's Organisation Environmental Management Standard's Organisation Environmental Management Standard's Organisation Environmental Management Standard's Organisation Environmental Management Standard's Organisation Uso 9000/1 - International Standard's Organisation Environmental Management Standard's Organisation Quality Management System  DUF - Delgi Land & Finance INFO (Quality Management System)  DUF - Dead Weight Tonnage IUCN INFO (International Union for Conservation of Nature  EBITDA Earning's Before Interest, Taxes, Depreciation and Amortisation INFO (INFO (IN	=		·
CRC (W) - Cold Rolling Complex (West) ISAE 3000 - International Standard on Assurance CRE - Chief Residential Executives Engagements  Crore - One crore equals ten million ISO  CRPC - Criminal Procedure Code (India) 14000/1 - International Standards Organisation Environmental Management Standard  Cu - Copper ISO 9000/1 - International Standards Organisation Environmental Management Standard  Cu - Delgi Land & Finance ISO 9000/1 - International Standards Organisation Quality Management System  DO - Dissolved Oxygen (in water, mg/l) IT - Information Technology  DWT - Dead Weight Tonnage IUCN - International Union for Conservation of Nature  EBITDA - Earnings Before Interest, Taxes, DECM - Joint Consultative Committee of Management  EBIA - Environmental Impact Assessment JDC - Joint Departmental Council  ERM - Enterprise Risk Management JUSCO - Jamshed pur Utilities & Services  ERW - Electric Resistance Weld - Companies Limited  ESH - Employees' State Insurance kg - Kilogramme  ESS - Employees' State Insurance kg - Kilogramme  ESS - Employee Separation Scheme km - kilometre  EU - European Union kwh - Kilo Watt Hour  EVA - Economic Value Added-defined as the excess of Return On Invested Capital (ROIC) over weighted average cost of Lakh - One lakh equals one hundred thousand		-	
CRE - Chief Residential Executives			•
Crore - One crore equals ten million			
CRPC - Criminal Procedure Code (India) 14000/1 - International Standards Organisation Environmental Management Standard Organisation Environmental Management Standard Organisation DLF - Delgi Land & Finance Quality Management System  DO - Dissolved Oxygen (in water, mg/l) IT - Information Technology  DWT - Dead Weight Tonnage IUCN - International Union for Conservation of Nature  EBITDA - Electric Arc Furnace of Nature  EBITDA - Earnings Before Interest, Taxes, Depreciation and Amortisation Management  EIA - Environmental Impact Assessment JDC - Joint Consultative Committee of Management  ERM - Enterprise Risk Management JUSCO - Jamshedpur Utilities & Services  ERW - Electric Resistance Weld Companies Limited  ESH - Environment Safety & Health JWC - Joint Works Council  ESI - Employees' State Insurance kg - Kilogramme  ESS - Employee Separation Scheme km - kilometre  EU - European Union kWh - Kilo Watt Hour  EVA - Economic Value Added-defined as the excess of Return On Invested Capital (ROIC) over weighted average cost of Lakh - One lakh equals one hundred thousand			
CSR - Corporate Social Responsibility Cu - Copper		•	
Cu - Copper			_
DLF - Delgi Land & Finance	_		
DO - Dissolved Oxygen (in water, mg/l) IT - Information Technology  DWT - Dead Weight Tonnage IUCN - International Union for Conservation of Nature  EBITDA - Earnings Before Interest, Taxes, DCCM - Joint Consultative Committee of Management  EIA - Environmental Impact Assessment JDC - Joint Departmental Council  ERM - Enterprise Risk Management JUSCO - Jamshed pur Utilities & Services  ERW - Electric Resistance Weld Companies Limited  ESH - Environment Safety & Health JWC - Joint Works Council  ESI - Employees' State Insurance kg - Kilogramme  ESS - Employee Separation Scheme km - kilometre  EU - European Union kWh - Kilo Watt Hour  EVA - Economic Value Added-defined as the excess of Return On Invested Capital L&T - Larsen & Toubro  (ROIC) over weighted average cost of Lakh - One lakh equals one hundred thousand		• •	
DWT - Dead Weight Tonnage IUCN - International Union for Conservation of Nature  EBITDA - Earnings Before Interest, Taxes, Depreciation and Amortisation		_	
EAF - Electric Arc Furnace of Nature  EBITDA - Earnings Before Interest, Taxes, Depreciation and Amortisation Depreciation and Amortisation  EIA - Environmental Impact Assessment  ERM - Enterprise Risk Management  ERW - Electric Resistance Weld  ESH - Environment Safety & Health  ESI - Employees' State Insurance  ESS - Employee Separation Scheme  EU - European Union  EVA - Economic Value Added-defined as the excess of Return On Invested Capital  (ROIC) over weighted average cost of Lakh - One lakh equals one hundred thousand			
EBITDA - Earnings Before Interest, Taxes, DCCM - Joint Consultative Committee of Management  EIA - Environmental Impact Assessment JDC - Joint Departmental Council  ERM - Enterprise Risk Management JUSCO - Jamshed pur Utilities & Services  ERW - Electric Resistance Weld - Companies Limited  ESH - Environment Safety & Health JWC - Joint Works Council  ESI - Employees' State Insurance kg - Kilogramme  ESS - Employee Separation Scheme km - kilometre  EU - European Union kWh - Kilo Watt Hour  EVA - Economic Value Added-defined as the excess of Return On Invested Capital (ROIC) over weighted average cost of Lakh - One lakh equals one hundred thousand			
Depreciation and Amortisation  EIA - Environmental Impact Assessment  ERM - Enterprise Risk Management  ERW - Electric Resistance Weld  ESH - Environment Safety & Health  ESI - Employees' State Insurance  ESS - Employee Separation Scheme  EU - European Union  EVA - Economic Value Added-defined as the excess of Return On Invested Capital  (ROIC) over weighted average cost of Lakh  Management  JDC - Joint Departmental Council  JWC - Joint Works Council  Kg - Kilogramme  km - kilometre  kilometre  Litre  Litre  Larsen & Toubro  One lakh equals one hundred thousand			JCCM - Joint Consultative Committee of
EIA - Environmental Impact Assessment  ERM - Enterprise Risk Management  ERW - Electric Resistance Weld  ESH - Environment Safety & Health  ESI - Employees' State Insurance  ESS - Employee Separation Scheme  EU - European Union  EVA - Economic Value Added-defined as the excess of Return On Invested Capital (ROIC) over weighted average cost of Lakh  - Environment Safety & Services  Companies Limited  Companies Limited  Footname  Kilogramme  kg - Kilogramme  kilometre  kWh - Kilo Watt Hour  - Litre  Larsen & Toubro  One lakh equals one hundred thousand		_	
ERM - Enterprise Risk Management JUSCO - Jamshed pur Utilities & Services ERW - Electric Resistance Weld Companies Limited  ESH - Environment Safety & Health JWC - Joint Works Council  ESI - Employees' State Insurance kg - Kilogramme  ESS - Employee Separation Scheme km - kilometre  EU - European Union kWh - Kilo Watt Hour  EVA - Economic Value Added-defined as the excess of Return On Invested Capital (ROIC) over weighted average cost of Lakh - One lakh equals one hundred thousand	EIA		_
ERW - Electric Resistance Weld Companies Limited  ESH - Environment Safety & Health JWC - Joint Works Council  ESI - Employees' State Insurance kg - Kilogramme  ESS - Employee Separation Scheme km - kilometre  EU - European Union kWh - Kilo Watt Hour  EVA - Economic Value Added-defined as the excess of Return On Invested Capital L&T - Larsen & Toubro  (ROIC) over weighted average cost of Lakh - One lakh equals one hundred thousand		•	·
ESH - Environment Safety & Health JWC - Joint Works Council  ESI - Employees' State Insurance kg - Kilogramme  ESS - Employee Separation Scheme km - kilometre  EU - European Union kWh - Kilo Watt Hour  EVA - Economic Value Added-defined as the excess of Return On Invested Capital L&T - Larsen & Toubro  (ROIC) over weighted average cost of Lakh - One lakh equals one hundred thousand			•
ESI - Employees' State Insurance kg - Kilogramme  ESS - Employee Separation Scheme km - kilometre  EU - European Union kWh - Kilo Watt Hour  EVA - Economic Value Added-defined as the excess of Return On Invested Capital L&T - Larsen & Toubro  (ROIC) over weighted average cost of Lakh - One lakh equals one hundred thousand		- Environment Safety & Health	JWC - Joint Works Council
ESS - Employee Separation Scheme km - kilometre  EU - European Union kWh - Kilo Watt Hour  EVA - Economic Value Added-defined as the excess of Return On Invested Capital (ROIC) over weighted average cost of Lakh - One lakh equals one hundred thousand	ESI	-	kg - Kilogramme
EU - European Union kWh - Kilo Watt Hour  EVA - Economic Value Added-defined as the excess of Return On Invested Capital L&T - Larsen & Toubro  (ROIC) over weighted average cost of Lakh - One lakh equals one hundred thousand	ESS		km - kilometre
excess of Return On Invested Capital L&T - Larsen & Toubro  (ROIC) over weighted average cost of Lakh - One lakh equals one hundred thousand	EU		kWh - Kilo Watt Hour
(ROIC) over weighted average cost of <b>Lakh</b> - One lakh equals one hundred thousand	EVA	- Economic Value Added-defined as the	l - Litre
		excess of Return On Invested Capital	L&T - Larsen & Toubro
capital LD - Linz Donawitz steelmaking vessel		(ROIC) over weighted average cost of	•
		capital	LD - Linz Donawitz steelmaking vessel

LD#1/# 2	3 .	SA8000	- Social Accountability International
LDO	- Light Diesel Oil		Management Standard assuring
LPG	- Liquid Petroleum Gas		international workplace norms compliant
LTIF	- Lost Time Injury Frequency (rate)		with ILO conventions, the Universal
M	- Million		Declaration of Human Rights and the UN
M&S	- Marketing and Sales	CAU	Convention on the Rights of the Child
m³	- Cubic metres	SAIL	- Steel Authority for India Limited
MBE	- Management of Business Ethics	SAM	- Steel A Moment
MBM	- Merchant Bar Mill	SAP	- Enterprise resource planning system
mg	- milligramme	SC/ST	- Scheduled Caste/ Scheduled Tribe
Mg(o)	- Magnesium (Oxide)	SCSC	- Siam Construction Steel Company
MQC/QA	- Metallurgy Quality Control/Quality	SEBI	- Securities and Exchange Board of India
	Assurance	SGD	- Singapore Dollar
MSP	- Meltshop	SHE	- Safety, Health & Environment
mtpa	- Million Tonnes Per Annum	SiMn	- Silico-manganese
MWh	- Mega Watt Hour	SISC(O)	- Siam Iron and Steel Company
NEA	- National Environment Agency	SNTI	- Shavak Nanavati Technical Institute
	(Singapore)	SO <sub>2</sub>	- Sulphur Dioxide
NEERI	- National Environmental Engineering	SODEMI	- State Owned Company for Mineral
	Research Institute		Development
NG	- Natural Gas	SPM	- Suspended Particulate Matter
NGO	- Non Governmental Organisation	SSMS	- Siam Steel Mill Services
Ni	- Nickel	t	- Tonnes
Nm³	- Normal cubic metre	TCOC	- Tata Code of Conduct
NML	- National Metallurgical Laboratory	tcs	- Tonne of Crude Steel
NO	- Nitrogen Monoxide	TCS	- Tribal Cultural Society
No(s).	- Number(s)	TERI	- The Energy and Resources Institute
NO <sub>3</sub>	- Nitrogen Tri-oxide		(previously Tata Energy Research Institute)
NOx	- Oxides of Nitrogen	TISI	- Thai Industrial Standards Institute
NSAU	<ul> <li>NatSteel Australia Pty Ltd</li> </ul>	tls	- Tonnes of Liquid Steel
NSH	- NatSteel Holdings	TMDC	- Tata Management Development Centre
NTS	- NTS Steel Group Public Company	TOP	- Total Operational Performance
OHSAS		tpa	- tonnes per annum
18000/1	- Occupational Health and Safety	TQM	- Total Quality Management
	Management System Specification	TSFIF	- Tata Steel Family Initiatives Foundation
PAH	<ul> <li>Polycyclic Aromatic Hydrocarbons</li> </ul>	TSG	- Tata Steel Group
PAN	- Permanent Account Number	TSRDS	- Tata Steel Rural Development Society
Pb	- Lead	tss	- Tonnes of Saleable Steel
PC	- Pre-stressed concrete	TSS	- Total Suspended Solids
PF	- Provident Fund	TSTH	- Tata Steel (Thailand) Public Company
рН	- Measure of acidity		Limited
PM	- Particulate Matter	U/S	- Undersized
PPE	- Personal Protective Equipment	UK	- United Kingdom
ppm	- Parts per million	UOM	- Unit Of Measure
R&D		UN	- United Nations
(RD&T)-	Research & Development (& Technology)	UNFCCC	- United Nations Framework Convention on
ROIC	- Return On Invested Capital - defined as		Climate Change
	net operating profit before tax and	USD	- United States Dollar
	extraordinary items ÷ fixed assets (exc		- Virtual Lancing Burner
_	WIP) + net current assets	Zn	- Zinc
Rs.	- Indian Rupees	WBCSD	- World Business Council for Sustainable
			Development

## **GRI Index**

	GRI G3 DISCLOSURES AND INDICATORS	PAGE	COMMENTS/INFORMATION
1. 5	STRATEGY & ANALYSIS		
1.1	Statement from the most senior decision maker of the organisation	iv-v	
1.2	Description of key impacts, risks, and opportunities	3-8	
2. 0	DRGANISATION PROFILE		
2.1	Name of the Organisation		Tata Steel Limited
2.2	Primary brands, products, and/or services	12-13	
2.3	Operational structure of the organisation	9-11	A full list of subsidiaries companies, associates and joint ventures is supplied in Tata Steel Annual Report 2007-08, p171-176.
2.4	Location of organisation's headquarters		Bombay House, 24 Homi Mody Street, Mumbai, India
2.5	Number of countries where the organisation operates	9	The company operates primarily in: Australia, Belgium, Canada, China, France, Germany, India, Ireland, Ivory coast, Malaysia, Mozambique, Netherlands, Norway, Oman, Philippines, Singapore, South Africa, Spain, Sri Lanka, Sweden, Switzerland, Thailand, Turkey, United Kingdom, USA, Vietnam.
2.6	Nature of ownership and legal form	12	See Annual Report 2007-08 p202-208.
2.7	Markets served	12-13	
2.8	Scale of the reporting organisation	12	
2.9	Significant changes during the reporting period	15	Annual report 2007-08 p48-49 provides some additional information on new projects and joint ventures. Expansion projects p83-86. Other significant changes reported though main body of report.
2.10	Awards received during the reporting period	14	
3. F	REPORT PARAMETERS		
Rep	oort Profile		
3.1	Reporting period	15	
3.2	Date of most recent previous report		Corporate Sustainability Report for the period 1st April 2006-31st March 2007
3.3	Reporting cycle	15	
3.4	Contact point for questions regardingthe report or its contents	15	
Rep	oort Scope & Boundary		
3.5	Process for defining report content	15	
3.6	Boundary of the report	15-16	
3.7	Specific limitations on the scope or boundary of the report	16	
3.8	Basis for reporting on Joint Ventures, Subsidiaries, Leased Facilities, outsourced Operations and Other Entities	15-16	As the main body of the Sustainability report in 2007-08 continues to focus on Indian operations, comparability with data from previous reports is straightforward.
3.9	Data measurement techniques and bases of calculations	16	
3.10	Explanation of the effect of any re-statements of information provided in earlier reports and the reasons for such re-statements		There is no restatement of information
3.11	Significant changes from previous reporting periods in the scope, boundary or measurement methods applied in the report		No significant changes in scope or measurement methods. The report includes a South East Asia annex providing an overview of sustainability management and performance from NatSteel Asia and Tata Steel (Thailand).

	GRI G3 DISCLOSURES AND INDICATORS	PAGE	COMMENTS/INFORMATION
GR	Content Index		
3.12	Table identifying the location of the Standard Disclosures in the report	144	
Ass	surance		
3.13	Policy and current practice with regard to seeking external assurance for the report	16	
4.0	OVERNANCE, COMMITMENTS AND ENGAGEMENT		
Go	vernance		
4.1	Governance structure of the organisation, including committees responsible for specific tasks	17-19	Brief details of committees are supplied here. Full details are provided in Corporate Governance Report in Annual Report 2007-08, p19
4.2	Indicate whether the Chair of the highest governance body is also an executive officer		The Company has a non-executive Chairman Mr. Ratan N. Tata
4.3	Indicate the numbers of the highest governance body that are independent and/or non-executive members	18	
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the governance body	20	
4.5	Linkage between compensation for members of the governance body, senior managers and executives with overall organisation's performance	19	
4.6	Process to avoid conflicts of interest by governance body	19	
4.7	Process for determining the qualifications and expertise of members of governance body	20	
4.8	Internally developed statements of mission or values, codes of conduct and principles and their implementation	20	Tata Code of Conduct and relevant Tata Steel Policies are provided in annexes. Gift Policy and Whistle Blower Policy are available at www.tatasteel.com/Company/Code of Conduct.
4.9	Procedures of governance body for managing sustainability performance, risks & opportunities	20	
4.10	Process for evaluating the performance of governance body		The Board exercises control, reviews implementation of policy, monitors performance and provides direction through various Board Committees as described. The Remuneration Committee reviews the performance of the Managing Director and Whole-time Directors
Co	mmitments to External Initiatives		
4.11	How the precautionary approach or principle is addressed by organisation	21	
4.12	How organisation address externally developed charters, principles or other initiatives	21	
4.13	Memberships in Associations	21	
Sta	keholder Engagement		
4.14	List of stakeholder groups engaged by the organisation	22	
4.15	Basis for identification and selection of stakeholders with whom to engage	22	
4.16	Approaches to stakeholder engagement by type and group	23-24	
4.17	Key topics and concerns raised through stakeholder engagement and the response	23-26	

	GRI G3 DISCLOSURES AND INDICATORS	PAGE	COMMENTS/INFORMATION
5. F	CONOMIC PERFORMANCE		
	nagement Approach	29	
	nomic Performance		
EC1	Direct economic value generated and distributed, including revenues, operating costs, employees compensation, donations and other community investment, retained earnings, and payments to capital providers and governments	31-34	
EC2	Financial implications and other risks and opportunities for the organisation's activities due to climate change	35	
EC3	Coverage of the organisation's defined benefits plan obligations		Information on the Company's defined benefit plan payments and obligations can be found in the Annual Report 2007-08 p167-169.
EC4	Significant financial assistance received from government		The Company has not received any government subsidy, tax break, duty drawback, etc. during the reporting period.
Ma	rket Presence		
EC5	Range of ratios of standard entry level wage compared to local minimum wage at significant locations of operations	35	
EC6	Policy, practices, and proportion of spending on locally based suppliers at significant locations of operation	35	
EC7	Procedures for local hiring and proportion of senior management hired from the local community at locations of significant operations	35	
Ind	irect Economic Impacts		
EC8	Development and impact of infrastructure investments and Services provided primarily for public benefit through commercial, in-kind, or pro bono engagement	36-37	
EC9	Understanding and describing significant indirect economic impacts including the extent of impacts	37	
6. E	NVIRONMENTAL PERFORMANCE		
Ma	nagement Approach	41	
Ma	terials .		
EN1	Materials used by weight or volume	41	
EN2	Percentage of materials used that are recycled input materials	42	
EN3	Direct energy consumption by primary energy source	42	
EN4	Indirect energy consumption by primary energy source	42	
EN5	Energy saved due to conservative and efficiency improvements	43	
EN6	Initiatives to provide energy efficient or renewable energy based products & services, and reductions in energy efficiency	43	
EN7	Initiatives to reduce indirect energy consumption and reductions achieved		Indirect energy usage and reductions, such as travel etc, are not captured at present due to the large size of the organisation and associated accounting complexities. Attempts are made to reduce indirect energy use through use of tele and videoconferencing, provision of local housing etc.
Wa	ter		
EN8	Total water withdrawal by source	44	
EN9	Water sources significantly affected by withdrawal of water	45	
EN10	Percentage and total volume of water recycled & reused	45	

	GRI G3 DISCLOSURES AND INDICATORS	PAGE	COMMENTS/INFORMATION
Bio	diversity		
EN11	Location and size of land owned, leased, managed in or protected and outside protected areas	45	
EN12	Impacts of activities in protected and outside protected areas	45	
EN13	Habitats protected or restored	46	
EN14	Strategies, current actions, and future plans for impacts on biodiversity	46	
EN15	Number of IUCN red list species and habitats within operational areas	46	
Em	issions, Effluents and Waste		
EN16	Total direct and indirect greenhouse gas emissions by weight	47-48	
EN17	Other relevant indirect greenhouse gas emissions by weight	48	
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved	47	
EN19	Emissions of ozone-depleting substances by weight	49	
EN20	NO, SO, and other significant air emissions by type & weight	48-49	
EN21	Total water discharge by quality and destination	49-50	
EN22	Total weight of waste by type and disposal method	50-52	
EN23	Total number and volume of significant spills	52	
EN24	Weight of transported, imported, exported, or treated waste Under Basel Convention and percentage of transported waste		Not Reported
EN25	Identify, size, protected status, and biodiversity value of water bodies and habitats significantly affected by discharges of water and runoff	52	
Pro	ducts & Services		
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation	52	
EN27	Percentage of products sold and their packaging materials that are reclaimed by category	52	
Cor	npliance		
EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	52	
Tra	nsport		
EN29	Significant environmental impacts of transporting products and other goods and materials used for the organisation's operations, and transporting members of the workforce	53	
EN30	Total environmental protection expenditures and investments by type	53-54	
Ove	erall		
7. L	ABOUR PRACTICES AND DECENT WORK PERFORMANCE		
Ma	nagement Approach	57	
Em	ployment		
LA1	Total workforce by employment type, contract and region	58	
LA2	Total employee number, rate, turnover by age group, gender and region		In recent years employee turnover has increased, however the rate of turnover remains less than 10% and therefore is not a major concern.
LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations	58-59	

	GRI G3 DISCLOSURES AND INDICATORS	PAGE	COMMENTS/INFORMATION
Lak	our/Management Relations		
LA4	Percentage of employees covered by collective bargaining agreements	59	89% of all employees covered (Officers are not represented by a union)
LA5	Minimum notice period(s) regarding operational changes		The management of organisational changes is in line with the policies of the company, agreements with the various Unions and Works Standing Orders. In all cases basic requirements such as minimum notice period as specified is given and the employee is also rehabilitated through new assignments through standardised procedure of training and awareness.
Occ	cupational Health & Safety		
LA6	Total workforce represented in formal joint management-worker health and safety committees	61	
LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work related fatalities by region	60-61	
LA8	Education, training, counseling, prevention, and risk control programs in place to assist workforce members, their families, or community members	62-64	
LA9	Health and safety topics covered in formal agreements with trade unions		Not Reported
Tra	ining and Education		
LA10	Average hours of training per year per employee by category	64	
LA11	Programs for skills management and learning that support the continued employability of employees and assist them in managing career endings	65	
LA12	Percentage of employees receiving regular performance and career development reviews	65	
Div	ersity and Equal Opportunity		
LA13	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity	66	
LA14	Ratio of basic salary of men to women by employee category	66	
8. I	HUMAN RIGHTS PERFORMANCE		
Ma	nagement Approach	67	
Inv	estment & Procurement Practices		
HR1	Significant investment agreements including human rights clauses or that have undergone human rights screening	68	
HR2	Significant suppliers and contractors that have undergone screening on human rights and actions taken	68	
HR3	Employees training on human rights that are relevant to operations including the percentage of employees trained	68	
No	n-Discrimination		
HR4	Total number of incidents of discrimination and actions taken	68	
Fre	edom of Association and Collective Bargaining		
HR5	Right to exercise freedom of association and collective bargaining and actions taken to support these rights	69	
Chi	ld Labour		
HR6	Measures taken to contribute to the elimination of child labour	69	

	GRI G3 DISCLOSURES AND INDICATORS	PAGE	COMMENTS/INFORMATION
For	ced and Compulsory Labour		
HR7	Measures taken to contribute to the elimination of forced or compulsory labour	70	
Sec	urity Practices		
HR8	Security personnel trained on human rights that are relevant to operations	70	
Ind	igenous Rights		
HR9	Total number of incidents of violations involving rights of Indigenous people and actions taken	70	
9. 9	SOCIETY PERFORMANCE		
Ma	nagement Approach	71	
Coi	mmunity		
SO1	Nature, scope and effectiveness of programmes and practices that assess and manage the impacts of operation on communities, including entering, operating and existing	71-77	
SO2	Percentage and total number of business units analysed for risks related to corruption	78	
SO3	Percentage of employees trained in organisation's anti- corruption policies and procedures	78	
SO4	Actions taken in response to incidents of corruption	78	
Pul	olic Policy		
SO5	Public policy positions and participation in public policy development and lobbying	79	
SO6	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country	79	
An	ti-Competitive Behaviour		
SO7	Total number of legal actions for anti-competitive behaviour, anti- trust and monopoly practices and their outcomes	80	
Coi	npliance		
SO8	Monetary value of significant fines and total number of non- monetary sanctions for non-compliance with laws and regulations	80	
10.	PRODUCT RESPONSIBILITY PERFORMANCE		
Ma	nagement Approach	81	
Cus	stomer Health & Safety		
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	81	
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	81	
Pro	duct and Service Labeling		
PR3	Type of product and service information required by procedure, and significant products and services.	82	
PR4	Total number of incidents non-compliance with regulations and voluntary codes		No instance of non-compliance with regulations concerning product information and labelling, including any penalties or fines assessed for these breaches, occurred in the reporting period.
PR5	Practices related to customer satisfaction	83	

GRI G3 DISCLOSURES AND INDICATORS		PAGE	COMMENTS/INFORMATION
Marketing Communications			
PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, advertising, promotion and sponsorship	84	
PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, advertising, promotion and sponsorship	84	
Customer Privacy			
PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	84	
Compliance			
PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services		No significant fines in 2007-08



**Performance Indicators** 

Responded to each indicator, as per G3 guidelines, in

performance chapters and GRI

# **Defining Quality Defining Report Content** Balance Materiality **Boundary Setting** Comparability Stakeholder Inclusiveness Control Accuracy **Sustainability Context** Timeliness Significant Influence Completeness Clarity Reliability **Standard Disclosures Management Approach**

Management Approach

disclosed for each aspect in

performance chapters as per

G3 guidelines

**Profile** 

Reported in Tata Steel &

Sustainability as per G3

guidelines

Honesty and Integrity Setting the Pace **Aspirational Targets** nuous Improvement **TATA STEELLIMITED** nvironment Improving Safety Safety and Social Responsibility Openness and Transparency Respecting the Environment Continuous Improvement Caring for our Communities Employer of Choice Reducing our Carbon Footprint Employer of Ch Respecting the Environment mproving Safety Caring for our Communities Aspirational Targets Demonstarting High Ethical Values Honesty and Integrity Aspirational Targets Caring for our Communities Continuous Improvement Employer of Choice ness and Transparency **CORPORATE AFFAIRS & COMMUNICATIONS** 4 Armoury Road, Jamshedpur, Jharkhand, India-831 001 Phone: 91 657 2431142, Fax: 91 657 2425182 e mail: sanjay.choudhry@tatasteel.com http://www.tatasteel.com Please send your comments and feedback to: sustainability@tatasteel.com Reducing our Carbon Footprint **Employer of Choice** Acting with Responsibility and Respect

Sprinted on FSC certified recycled paper Targets Caring for our Communities