TATA

TATA STEEL

CORPORATE SUSTAINABILITY REPORT

(2004-2005)

CREATING VALUE

THE ARCHITECTURE FOR VISION 2007 IS SUCH, THAT IT PROPELS THE COMPANY TO TRANSFORM THE VISION INTO REALITY. THE BRANDING OF STEEL, PRODUCTION OF LOWEST COST STEEL, ECONOMIC VALUE CREATION AND EXPANSION HAVE ALL CONTRIBUTED TO TATA STEEL'S GROWTH. STEP-BY-STEP, THE COMPANY IS ACHIEVING ITS STRATEGIC GOALS AND CREATING HIGHER STAKEHOLDER VALUE. THIS VALUE SYMBOLISES CORPORATE SUSTAINABILITY, FINANCIAL STABILITY, BUSINESS EXCELLENCE AND SOCIAL RESPONSIBILITY. BY FOLLOWING VISION 2007, TATA STEEL IS POISED TO SEIZE THE OPPORTUNITIES OF TOMORROW AND IMPROVE THE QUALITY OF LIFE OF ALL ITS STAKEHOLDERS.

Founder's Philosophy…

"We do not claim to be more unselfish, more generous or more philanthropic than others, but we think, we started on sound and straightforward business principles considering the interests of the shareholders, our own, health and welfare of our employees…… the sure foundation of our prosperity".

Jamsetji N TATA, 1895

Founder's Direction…

"Be sure to lay wide streets planted with shady trees, every other of a quick growing variety. Be sure that there is plenty of space for lawns and gardens. Reserve large areas for football, hockey and parks. Earmark areas for Hindu Temples, Mohammedan Mosques and Christian Churches…

Jamsetji N Tata, 1902

In a letter written to his son Sir Dorab Tata on his vision for Jamshedpur.

Tata Group Purpose

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

Our heritage of returning to society what we earn evokes trust among consumers, employees, shareholders and the community, formalizing the high standards of behavior expected from employees and companies.

The Tata name is a unique asset representing leadership with trust. Leveraging this asset to enhance Group Synergy and become globally competitive is the route to sustained growth and long-term success.

This report has been prepared in accordance with the Global Reporting Initiatives, Sustainability Reporting Guidelines 2002 on Economic, Environmental and Social Performance. The issues related to UN Global Compact and Climate Change have been addressed under corresponding indicators. GRI has not verified the contents of this Report. M/s. PricewaterhouseCoopers have provided an Independent Assurance to this Report. This is the fifth successive Corporate Sustainability Report prepared by Tata Steel.

Visit us at : www.tatasteel.com

INDEPENDECE ASSURANCE REPORT ON CORPORATE SUSTAINABILITY REPORT 2004-05

To,
The Board of Directors,
Tata Steel Limited
Bombay House, 24 Homi Mody Street,
Mumbai – 400 001
India.

Objective of Review

PricewaterhouseCoopers Private Limited ("PwC") was engaged by Tata Steel Limited ("Tata Steel") to review its Corporate Sustainability Report 2004-05 ("Report").

The review was carried out in line with current and emerging expectations for sustainability reporting as outlined in GRI 2002 Guidelines (GRI) and embodied in the eleven Reporting Principles of Part B of GRI ("Reporting Principles").

Responsibility during Review

The Management of Tata Steel is responsible for defining stakeholders and for the collection and presentation of the financial and non-financial information in the Report. Our responsibility, as agreed with the Management, is to express conclusions with limited assurance on select data and information contained in the Report in accordance with the International Standard on Assurance Engagements 3000 ("ISAE 3000").

The Report of Tata Steel has been produced both electronically and in print. The Corporate Sustainability Report 2004-05 and its contents are the responsibility of the management of Tata Steel, whilst the Independent Assurance Report, based on our assurance work performed, is the responsibility of PwC.

Limitation of our review

Our review comprised limited assurance on data and information provided in Tata Steel's Report prepared following GRI guidelines. A review of Tata Steel's performance against the UN Global Compact Principles was not included in our scope of work.

Scope of Review

Our assessment involved providing limited assurance on select data, graphs and statements of Tata Steel contained in the Report for the period 1st April 2004 to 31st March 2005.

In keeping with the objective, we selected the following economic, environmental and social performance indicators for review by considering the key sustainability risks of Tata Steel as well as by identifying those sustainability indicators most material to management and stakeholder decision-making processes.

Total spent on non-core business infrastructure development (EC 12), Use and emissions of ozone depleting substances (EN 9), Air emissions by type (EN 10), Significant discharges to water by type (EN 12), Practice on recording and notification of occupational health and diseases (LA 5), Description of policies or programs (for the workplace and beyond) for HIV/AIDS (LA 8), Average hours of training per year per employee by category of employee (LA 9), Programs and Policies on skills management and life-long learning (LA 17), Description of jointly managed community grievance system (HR 13).

Basis of Opinion

We planned and performed our work in accordance with the ISAE 3000 to obtain limited assurance.

Based on an assessment of completeness, reliability, materiality and risk, relevant information was collected and triangulated to verify its completeness and reliability. Our assessment on materiality reflects concepts emerging from forums such as the Global Reporting Initiative and Account Ability. We considered an omission, error or misrepresentation information from the report to be material if it could influence the decisions or actions of the company's key stakeholders, or result in Tata Steel inappropriately reporting on progress against targets.

We sought all information and explanations that we considered necessary to provide sufficient evidence for us to ascertain that the above indicators were consistent with the activities in the plant areas for the financial period; and were documented and stated in accordance with the guidelines stated under their environmental and social policies.

Assurance Procedure

Based on an assessment of materiality and risk, our work included a review of management systems, reporting structures and boundaries as well as interviews and testing of registration and communication systems, data and underlying documentation. We tested whether data and the underlying components are accounted for in such a way as to fulfill the assertions of materiality, completeness and reliability made by Tata Steel.

Parties responsible for Assurance Engagement

Our engagement was carried out by a multi-disciplinary team of requisite skills and experience. The assurance engagement was led by Dr. P. Ram Babu, employed with PwC with over 25 years experience in Corporate Sustainability Management and Reporting Systems. The engagement was executed by Dr. Muna Ali and Mr. Ritwik Bhaumik, employed with PwC with 8-10 years of experience.

Opinion

- On the basis of the work undertaken, nothing has come to our attention that would cause us not to believe that:
- The information cited at indicators EC 12, EN 9, EN 10, EN 12, LA 5, LA 8, LA 9, LA 17 and HR 13 in the Report has been fairly stated.
- The Report includes information that is material to Tata Steel's Corporate stakeholders and that the reported targets and indicators in respect of sustainability in general are used in strategic and operational decision-making.
- Tata Steel has robust internal control and management systems, modeled on best practices and ISO/OHSAS based quality, environment and occupational health & safety management systems that provide basis for credible reporting of performance.
- The report presents a fair and balanced account of Tata Steel's material sustainability performance, risks and impacts.

(Dr. P. Ram Babu)

Place : Mumbai, India
Date : 22.10.2005

Financial Highlights 04-05

Production : 4.07 million tonnes

Steel Sales : 3.91 million tones
(2003-04: 3.96 million tonnes)

Exports Turnover : increased by 46% to Rs.21.838 Billion
(2003-04: Rs.14.965 Billion)

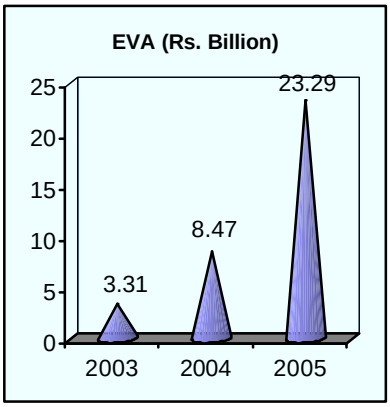
Turnover : A new record set at Rs.160.535 Billion

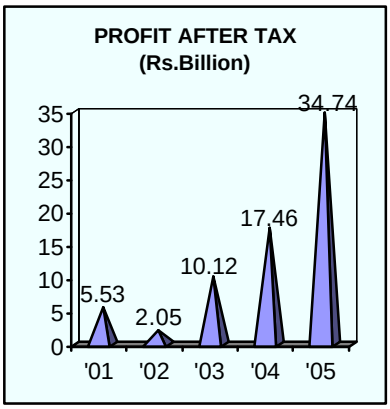
Profit After Tax : increased by 99% to Rs.34.742 Billion
(2003-04: Rs.17.462 Billion)

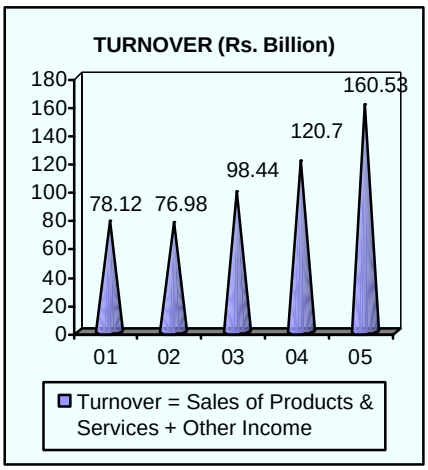
Debt/Equity : 0.40: (2003-04: 0.78)

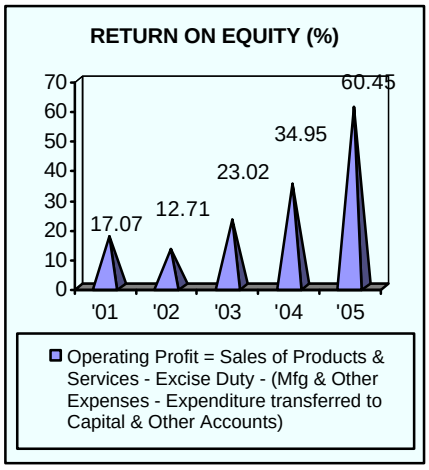
Return on Equity : 62%:(2003-04: 46%)

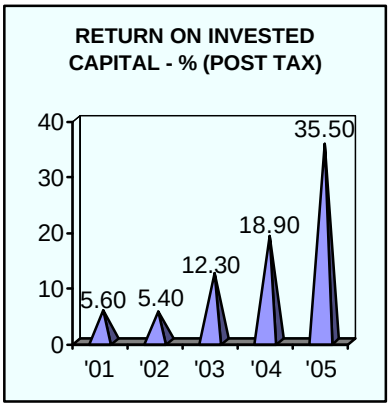
EVA spread : 23.97% at Rs.23.290 Billion
(2003-04: Rs.8.470 Billion)

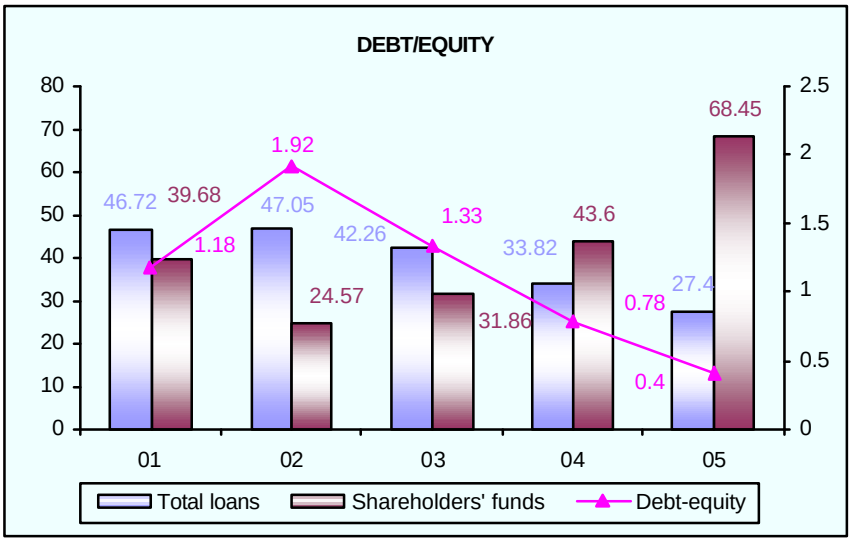


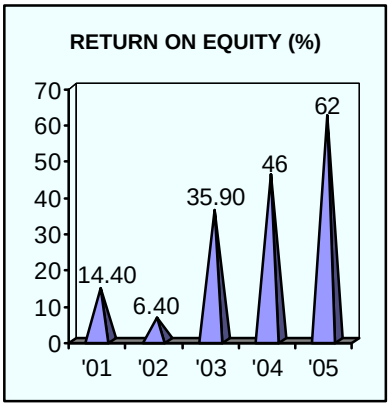












Section - I

Our Vision & Strategy

Transforming Vision into Reality

"Anticipating the trends of the future, we have charted a growth route to achieve our Vision 2007. To transform this Vision into reality we have, year after year, repositioned paradigms, redefined benchmarks and revisited our core competence. This has accelerated the continuous change and improvement that we are endeavoring to bring about in our operations, in our work culture and in our efficiencies."

CONTENT INDEX

CEO's STATEMENT

B MUTHURAMAN

Dear Stakeholders,

This reporting year marked the third year in succession of buoyant worldwide steel demand and prices. Consequently, the steel industry, considered not so long ago as a "sunset" industry, saw a spate of capacity growth plans and consolidation, on the expectation that demand buoyancy would not lose momentum in the near future. China continued to be the main engine of growth for the global steel industry, accounting for nearly 40% of the incremental growth in the world's steel consumption over 2004. Similar strong consumption trends were seen in major steel markets, including the US and Japan. The net result was continued acute shortage of raw materials and firm steel prices worldwide, providing steel companies with unprecedented profits.

The Indian economy remained upbeat during the year with brisk industrial activity in major steel consuming sectors like, automobile and consumer durables. In line with global trends, domestic prices too ruled firm for the second year running. Against this backdrop, Tata Steel had another outstanding year. Its profits were nearly double of the previous years, reflecting not just the substantial from its ongoing thrust to rationalize costs, improve productivity and enrich its product mix. The Company's management believes that the steel industry in India will continue to see robust growth in the short term and has, accordingly planned to increase its annual production from 4 million tonnes to 15 million tonnes, over the next five years.

Growth & Expansion

Tata Steel's strategy encompasses securing raw materials supplies in an environment of increasing scarcity and expanding the production of semi-finished steel domestically to support further finishing in selected geographies closer to the consuming markets. Towards this end, Tata Steel initiated international joint ventures for securing limestone supplies, committed itself to nearly doubling the capacity of the Jamshedpur plant and to setting up of greenfield ventures in Chhatisgarh, Orissa and Bangladesh. It invested in the Singapore based NatSteel Asia, which has multiple production units in six growing economies of South East Asia and China. The business is focused on long products and has a capacity to produce about 1.7 million tonnes per annum of rebars, wire rods, pre-stressed concrete wires and strands. NatSteel Asia intends, by continuing with its strategic thrust in these areas in the coming years, transcend its current limitations of size and single-point location, and grow to achieve a meaningful presence in the region.

Business Performance

During the reporting period, Tata Steel has taken several initiatives in the areas of supply chain management, brand development, product-mix enrichment, improvement in the quality of raw materials and their productivity. These initiatives enabled the Company to significantly increase its financial performance during the year. The Steel Business Unit, which was constrained by the planned shutdown of the "G" blast furnace for four months as part of the 1 million-tonne expansion program, produced saleable steel to about the same level as it did in

the previous year. The non-steel business units substantially improved their performance during the year. Steel sales were lower by 1.3% at 3.70 million tonnes (03-04: 3.75 million tonnes) over the previous year. Though the Company's steel exports were lower by 22% at 0.509 million tonnes (03-04: 0.656 million tonnes), export revenues were higher due to higher realization, and higher exports and realization including the excellent performance from the Ferro Alloys business. Total export turnover increased by 46% to Rs.21.83 billion (03-04: Rs.14.966 billion). The firm trend in steel prices, better product mix and several improvement initiatives taken by the Company resulted in total revenues increasing by 33.09%, from Rs.120.615 billion to Rs.160.535 billion. The financial performance of the Company scaled new heights during the year. The net Profit After Tax rose by 99% to Rs.34.74 billion from Rs.17.46 billion in the previous year, on account of the increased profit margins.

Analysis of the Financial Performance of the Company

Rs. Billion	04-05	03-04	Change	% Change
Sale of Products	**152.507**	113.316	39.191	35
Sale of power and water	**3.485**	3.192	0.293	9
Income from services, sale of miscellaneous goods, stores and rent, etc.	**2.777**	2.702	0.075	3
Total sale of products and services	**158.769**	119.210	39.559	33
Less: Excise Duty	**13.779**	12.186	1.593	13
Net sales/income from operations	**149.489**	107.024	37.965	35

EVA spread increased to 23.97% during the year as compared to 8.98% in the previous year. The calculation of EVA spread for the year as compared to the previous year is as follows;

Particulars	04-05	03-04	Change
Return on invested capital (%)	35.50	18.87	16.63
Weighted average cost of capital (%)	11.53	6.89	4.64
EVA spread (%)	23.97	8.98	14.99
EVA-Rs. Billion	23.290	8.470	14.820

Our Customers

The Company has followed the philosophy of building strong relationships with its customers in select market segments. In line with this, its pricing strategy has focused on long-term contracts with Relationship Customers. In 2004-05, the Company entered into long-term contracts with some of its customers and honored them, despite tremendous market upheavals and input cost increases. In an effort to nurture long-term relationships, the Company has assisted its key customers with additional volumes at contracted prices, as far as possible. While the domestic prices ruled firm, Tata Steel, in a display of responsible corporate behavior towards the National cause of controlling inflation, voluntarily reduced its steel prices by Rs.2,000.00 per tonne to all its bona fide customers with effect from 22.08.2004.

Managing Risk

The Company is conscious of the fact that steel is subject to cyclical risks. Over the past few years, several initiatives have been undertaken by the Company to protect and enhance its financial position, even in the event of a downturn in the industry. With the completion of the one million-tonne expansion program in the current year and the launch of the next phase of expansion at Jamshedpur, steel volumes will substantially increase. The investment in NatSteel Asia and the proposed steel plants at Kalinganagar, Orissa, and Jagdalpur in Chhatisgarh will not only make the Company multi-locational, but also give it flexibility in operations and geographic dispersion in India as well as into the important markets of South East Asia. Long-term relationships / contracts with OEM customers, focus on niche markets and increase in the coverage of branded products form an important marketing strategy to protect operating margins and sales volumes. On the raw materials front, the Company's entire requirement of iron ore and a large part of coking coal are currently met from captive sources. However, with the expansion of capacity, this may not be possible. The Company is, therefore, actively engaged in identifying new iron ore and coal mines.

With a sharp reduction in foreign currency loans, risks associated with foreign exchange variations have substantially come down. The foreign currency denominated loans comprised around 15% of the total outstanding loans as on 31.03.05. Further, foreign exchange earnings through exports provided sufficient hedge against the above liabilities.

Legal Compliance

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

Capital Projects

- The one million tonne expansion plan has been launched to produce 1 million tonnes per annum (MTPA) of additional steel over the current capacity of 4 MTPA at Jamshedpur. This project will help produce high quality and more energy efficient steel.
- A Memorandum of Understanding was signed with the Government of Orissa for setting up a green-field integrated plant at Kalinganagar, Orissa. The process of finalizing the MoU for Chhatisgarh project reached an advanced stage. The projects also include infrastructure development like modern townships for employees.
- A joint venture agreement has been signed with Larsen and Toubro Limited to develop a deep-water port at Dhamra, Orissa.
- Tata Steel & West Bengal Industrial Development Corporation (WBIDC) will set up a merchant coke oven plant at Haldia (Hooghly MetCoke & Power Co. Ltd.) adopting the Heat Recovery (HR) route with a capacity of 0.8 MTPA of coke in phase-1. The project is intended to supply high quality low ash metallurgical coke to international as well as domestic customers.

Our People and Environment

All manufacturing units of the Company are certified to ISO-14001: 1996. During the year under review, the Steel Works, Tubes Division, Sukinda Chromite Mines were certified to Health & Safety Standard OHSAS 18001:1999. Other units are in an advanced stage of certification for OHSAS 18001:1999. Main works at Jamshedpur and Sukinda Mines were also certified to SA-8000 Social Accountability Standard.

Numerous initiatives were undertaken during the year for improving the state of environment. Important measures include reduction in greenhouse gas emissions by 3.75% thereby addressing the issue of climate change and reduction in specific energy consumption to 6.965 GCal/tonne of crude steel from 7.065 GCal/tcs in the previous year. The levels of particulate matter, sulfur dioxide and oxides of nitrogen continued to improve and were well under the statutory levels. During the year, raw material consumption and water consumption were lowered by 2.56% and 5% respectively, and waste reuse and recycling increased from 82.0% to 83.16%. The challenge ahead is to integrate the responsibilities for financial performance with those of economic, environmental and social performances in business decision-making process through implementation of Corporate Sustainability Management System in all business processes.

Global Compact City of the World

In March 2004, Jamshedpur earned the distinction of engaging in the UN Global Compact Cities Pilot Project. It has now become one of six cities, after Melbourne (Australia), Porto Alegre (Brazil), Nuremberg (Germany), Bath (United Kingdom) & San Francisco (USA) to do so. Each of the cities engaged in the Global Compact Cities project, have to respect the ten principles of the Global Compact Forum in their own way. The Melbourne Committee is facilitating the Cities Pilot Project. The project seeks to validate the Melbourne Model in six cities with differing socioeconomic and cultural environments. The Melbourne Model addresses intractable social, economic and environmental issues in the urban context. It seeks to develop innovative solutions to these issues through working partnerships between government, business, academia and civil society.

A steering committee has been formed for its implementation in Jamshedpur with the Managing Director of JUSCO the civic amenities provider of Jamshedpur as its Convener. The Committee has agreed on slum development to be the pilot project. Jamshedpur wishes to plan for its growth so that the influx of people and the growth from within is well taken care of.

Industrial Harmony

Industrial relations remained harmonious at all locations and there were no significant labor issues outstanding or remaining unresolved during the year. The Board of Directors and the Management wish to place on record their appreciation of the efforts put in by all employees to achieve record performances, particularly in the context of the challenges posed by the closure of the "G" Blast Furnace for four months during the year. There was a reduction in the men on roll from 42,511 at the end of the previous year to 39,648 as on 31.03.05. The Company has also signed the agreements for settlement of temporary employees with the Tata Workers Union on 23.05.04 for Jamshedpur and Rashtriya Colliery Mazdoor Sangh for Jharia Collieries on 30.04.05.

Ethics

The year 2004 was especially significant for the Tata Group. It marked the death centenary of the Founder Jamsetji Tata and the birth centenaries of JRD Tata and Naval Tata.

Tata Steel paid homage to them by reinforcing the values and beliefs so strongly upheld and exemplified by them. Each employee took an Ethics Pledge to celebrate July 2004 as Ethics Month. Realising the usefulness of ethics awareness among students, the Company encouraged the school students of the city to pay homage to JRD Tata by taking an Ethics Oath. Continuous endeavours were made to reinforce these values among all stakeholders. Developing policies like, Gift Policy, Whistleblower Policy, Vendor Action Policy etc., further strengthened the value and Code of Conduct. The stakeholders are encouraged to voice their concerns through web-based channels e.g. e-Procurement site for vendors, e-Sales for

customers etc. The ex-employees of the Company were also given access to the Company's website with the provision for them to send their views to Ethics Counsellor.

Awards and Recognitions

Among the important awards/recognitions received during the year were;

- Asia's Most Admired Knowledge Enterprise (MAKE) 2004 Award for the second consecutive year at the 5th World Knowledge Forum in Seoul, Korea.
- Hot Strip Mill, Precision Tube Mill, Bearings Division (all for the first time in India) and Wire Rod Mill won the "TPM Excellence Award – 2004" conferred by Japan Institute of Plant Maintenance (JIPM).
- Research and Development Division has been conferred the "Technology Day Meritorious Invention Award" from the National Research and Development Corporation (NRDC).
- The Steel Division won the Tata Business Excellence Model (TBEM) award for "Leadership in Excellence" for 2004.
- Tata Steel was the only Indian Company to be ranked thirty-fourth in the World's Most Respected Companies Survey 2003 for Corporate Social Responsibility. It is also the third Most Respected Indian Company in a survey conducted by PricewaterhouseCoopers (PwC) and Financial Times.
- The coveted "The Energy & Resources Institute (TERI) Award" was given to Tata Steel for CSR in recognition of its corporate leadership, good corporate citizenship and sustainable initiatives.
- World Steel Dynamics, USA, adjudged Tata Steel as the Best Steel Plant in the world for the year 2004.

This is our fifth consecutive Corporate Sustainability Report that highlights our performance for the year 2004-05. This report has been prepared in accordance with 2002 guidelines. It represents a balanced and reasonable presentation of our organization's economic, environmental and social performance. The deviations if any, have been explained adequately at appropriate places. We solicit feedback from all our stakeholders on this report.

Date: 17.10.2005
Place: Jamshedpur

B Muthuraman
Managing Director

APPROACH TO SUSTAINABLE DEVELOPMENT

Corporate Sustainability Initiatives

Tata Steel's commitment to sustainable development and sustainable growth for the Company is amply reflected in its Vision 2007. In keeping with this Vision, Tata Steel has identified several issues that need to be addressed:

a) Economic issues identified by Tata Steel include constraints on account of commodity nature of steel, sweating of assets, innovation, outsourcing, achieving economies of scale, increasing vertical and horizontal integration and consolidation in the steel sector in global markets.

b) Environmental issues include environmental sustainability, with particular emphasis on reduction of raw material consumption, energy consumption and water consumption, ambient air quality management and reduction in global warming.

c) Social issues include, a focus on corporate governance, ensuring safety of our employees, Human Resource initiative to attract and retain talent, right sizing, improvement in employee, customers & supplier satisfaction and commitment, increasing service level expectations of customers, upholding ethical standards, maintenance of law and order situation in local areas and meeting the expectations of communities we serve, to the extent possible particularly in developing states like Jharkhand and Orissa.

The core issue identified by Tata Steel, which underlies all these, is value balancing / creating partnerships with our stakeholders.

Identifying sustainability issues with Stakeholders

Inputs from stakeholders were taken through several structured/formal/informal engagement processes and considered while setting strategic objectives of the Company. Further, details on stakeholder engagement are furnished in **Section-3.10.** **Figure#1.1** & **Figure#1.2** indicate how stakeholder concerns are translated into strategic focus, identification of strategic issues and setting of strategic objectives.

Stakeholder	Concerns of the stakeholder	Strategic Focus	Indicators and actions proposed to address the stakeholder concern
Shareholder	Stock Price	EVA positive, EBIT, Dividends, P/E ratio, Market Share	Weighted Average Cost of Capital (WACC), Net realization, Working Capital Efficiency
	Overall performance and its implication on market capitalization & creation of sustained shareholder wealth	Top line growth, Reserves/Net Worth, Brand Value, Customer Satisfaction, Employee Satisfaction, Intellectual Capital, Social reputation, cost leadership	Operating cost, Customer Satisfaction Index, Corporate Citizenship Index, Employee Satisfaction Index, Patents and R&D
	Grievances	Complaint/grievance management	Transfer of shares, non-receipt of balance sheet and non-receipt of declared dividend
	Information needs	Timely availability of above information	Quarterly/Half Yearly/Annual reports and shareholder meets
Employees	Professional growth, personal growth, health, safety & environment, welfare measures, future business plans	Enhance culture of excellence, knowledge based and happy organization, development and retention of talent, employee satisfaction	Competency coverage ratio, training and development, knowledge management index, involvement in Annual Quality Improvement Plans (AQUIP), number of accidents, work area environment quality, SA 8000 compliance.
	Quality of life, disengagement	Quality of life in and around the enterprises	Corporate Citizenship Index, compliance with environmental standards, eco restoration etc., Employee Satisfaction Index.

Contd...

Contd...

Stakeholder	Concerns of the stakeholder	Strategic Focus	Indicators and actions proposed to address the stakeholder concern
Suppliers	Value creating partnership and timely payment resolution of conflicting goals, supplier satisfaction and material rejects	Long-term partnership	Supplier satisfaction, cost of procurement SA 8000 compliance Contractor's labor survey
Customers	Value creating partnership, sensitivity and responsiveness to user needs, quality functionality and satisfaction	Long-term business relationship, cost of products, delivery, complaint resolution	Customer Satisfaction Index, customer dis-satisfaction, complaint resolution, product development cycle time, PQI, dispatch compliance
Community	Quality of life, health, job opportunities, education, environment	Corporate social responsibility, quality of life of community	Corporate citizenship index, spend on society, pollution control
Regulators	Statutory compliance	Compliance management	Percentage compliance and review under ISO-14001, quality systems, OHSAS-18001 and SA 8000.

Figure#1.1 – Stakeholder concerns and Sustainability Indicators

Stakeholders	Issues	Strategic Objectives
Shareholder	• Corporate Governance • Sweating of assets • Economies of scale • Innovation as a substitute for investment • Forward & backward integration and consolidation • WTO impacts and exchange rate impacts • Outsourcing	• Upholding the spirit of Tatas & listing agreements • EVA Positive Core Business • Sustainable Growth • Revitalize core business for sustainable future • Continue to be the lowest cost producer of steel. • Outsource strategically • Divest, merge, acquire • Venture into new business
Customers	• Increasing service level expectation of customers • Commodity nature of steel • Ethical standards in business	• Value creating partnership with customers • Move from commodities to brands • Uphold the spirit of Tatas
Employees	• Attracting and retaining talent • Employee satisfaction & commitment • Right sizing and employee cost • World class developing environment • Ethical standards in business	• Enthused & happy employees • Continue to be the lowest cost producer of steel • Unleash peoples potential and create leaders who will build the future • Encourage innovation and allow freedom to fail • Manage knowledge • Uphold the spirit of Tatas
Suppliers	• Increasing service level expectations of customer • Outsourcing • Ethical standards • WTO issues	• Value creating partnership with suppliers • Strategic outsourcing • Uphold the spirit of Tatas • Continue to be the lowest cost producer of steel
Community	• Lack of understanding of business & industry • Law & Order situation • Increasing expectation • Environment	• Uphold the spirit and values of Tatas towards Nation building • Improve quality of life of the community • Ensure safety & environmental sustainability • Sustainable growth
All Stakeholders	• Balancing the needs of all stakeholders • HIV/AIDS Awareness	• EVA positive business • Sustained growth • Value creating partnership • Improve quality of life of employees & communities we serve • Excel at TBEM

Figure#1.2 Stakeholder wise issues and strategic objectives

Sustainability Issues Integrated into Business Strategies

The issues identified through stakeholder engagement as detailed in **Figure 1.1 & Figure 1.2** above are addressed through the organization's leadership system depicted in **Figure 1.3**. Stakeholder engagement in the leadership system provides inputs necessary to envision the future and to set and communicate directions for motivating the people, building capacity, monitoring and reviewing performance, to excel in the performance and to create value for stakeholders. The leadership system is a closed loop to provide opportunities for continual improvement. The process for anticipating the concerns of stakeholders for future products, services and operations is further elaborated in **Figure 1.4**.

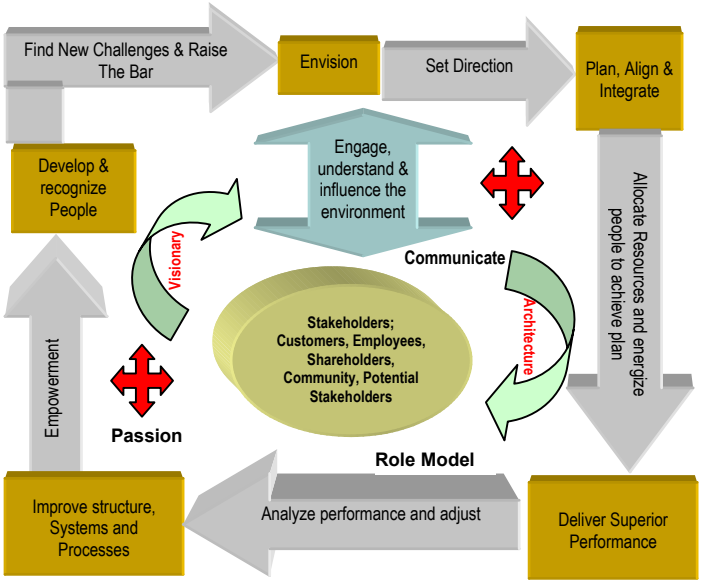


Figure-1.3: Leadership System in Tata Steel

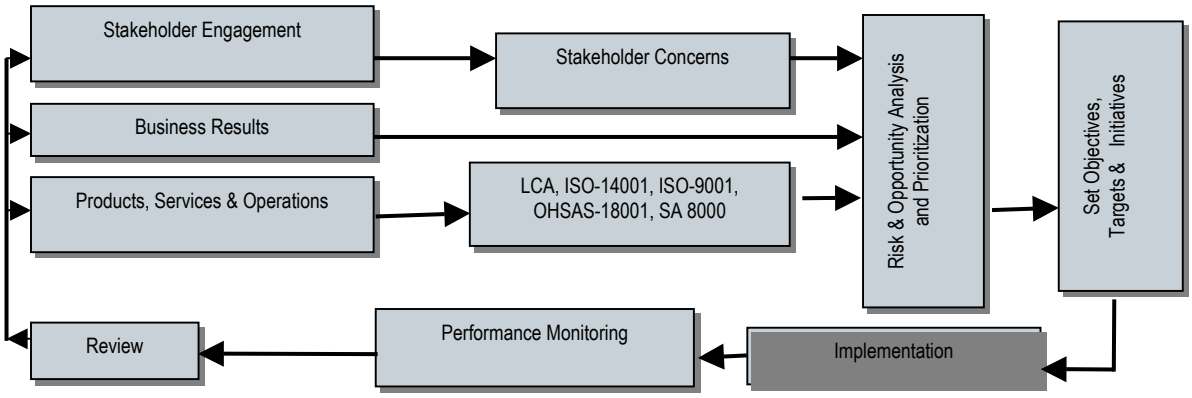


Figure 1.4 – Process for anticipating of future impacts of products, services & operations

The organization's strategy **(Figure-1.5)** ensures creation of value for all its stakeholders and is geared to achieving sustainability goals. The strategy integrates financial, customer, internal business process, external business environment, societal and employee learning and growth perspectives. The strategic challenges and objectives and their impact on stakeholders along with key performance indicators are further detailed in **Figure 1.6**. **Figures 1.5 & Figure 1.6** are available on pages VS-9 & VS-10/11 respectively of this section.

The deployment of strategy requires focus on issues like, improving incremental EVA; being the lowest cost producer of steel; value creating partnership with customers and suppliers; enthused and happy employees; sustainable growth; moving from commodity to brands; unleashing people's potential and creating leaders who will build the future; encouraging innovation; excelling at Tata Business Excellence model; managing knowledge; invest in new attractive business and ensuring safety environmental sustainability.

Setting Objectives and Targets

To achieve the sustainability goals, the organization has identified twelve (12) key enterprise processes critical to the growth and success of the organization. A member of the senior management team manages each enterprise process. The process owner and the owners of various sub-processes under a particular key enterprise process have mapped the stakeholders and identified the stakeholder concerns through a structured engagement and feedback process. These stakeholder concerns are analyzed, prioritized and form inputs to the strategic goals under that particular process as part of Corporate Sustainability Management. The Senior Management tracks the performance of the targets, taken against each strategic goal, through a review process under TBEM. The organization's key objectives have been identified and are deployed through the MD's Balance Score Card.

Sr. No.	Enterprise Processes	Process Owner
1	Leadership	MD
2	Strategic Planning & Risk Management	MD
3	Market Development	DMD (S)
4	Investment Management	VP (F)
5	Human Resources	VP (HRM)
6	Improvement & Change Management	MD
7	Order Generation	DMD (S)
8	Operation and Fulfillment	DMD (S)
9	Inbound Supply Management	Chief (SC)
10	Research & Development	Chief (R&D)
11	Information Management	CIO
12	Social Responsibility & Corporate Services	DMD (CS)

The objectives and targets of the organization related to sustainability issues are reflected in the top management's commitment. The MD's Balance Score Card serves as a framework within which the top management commitments are cascaded down to the level of Dy. Managing Directors, Vice Presidents, Divisional Heads and Departmental Heads. The Balance Score Card prepared at each level is implemented by concerned agencies and reviewed under the Tata Business Excellence Model by the Senior Management. MD's Balance Score Card, in line with the strategic goals and objectives of the organization, delineates the targets and measures for each of the strategic objectives.

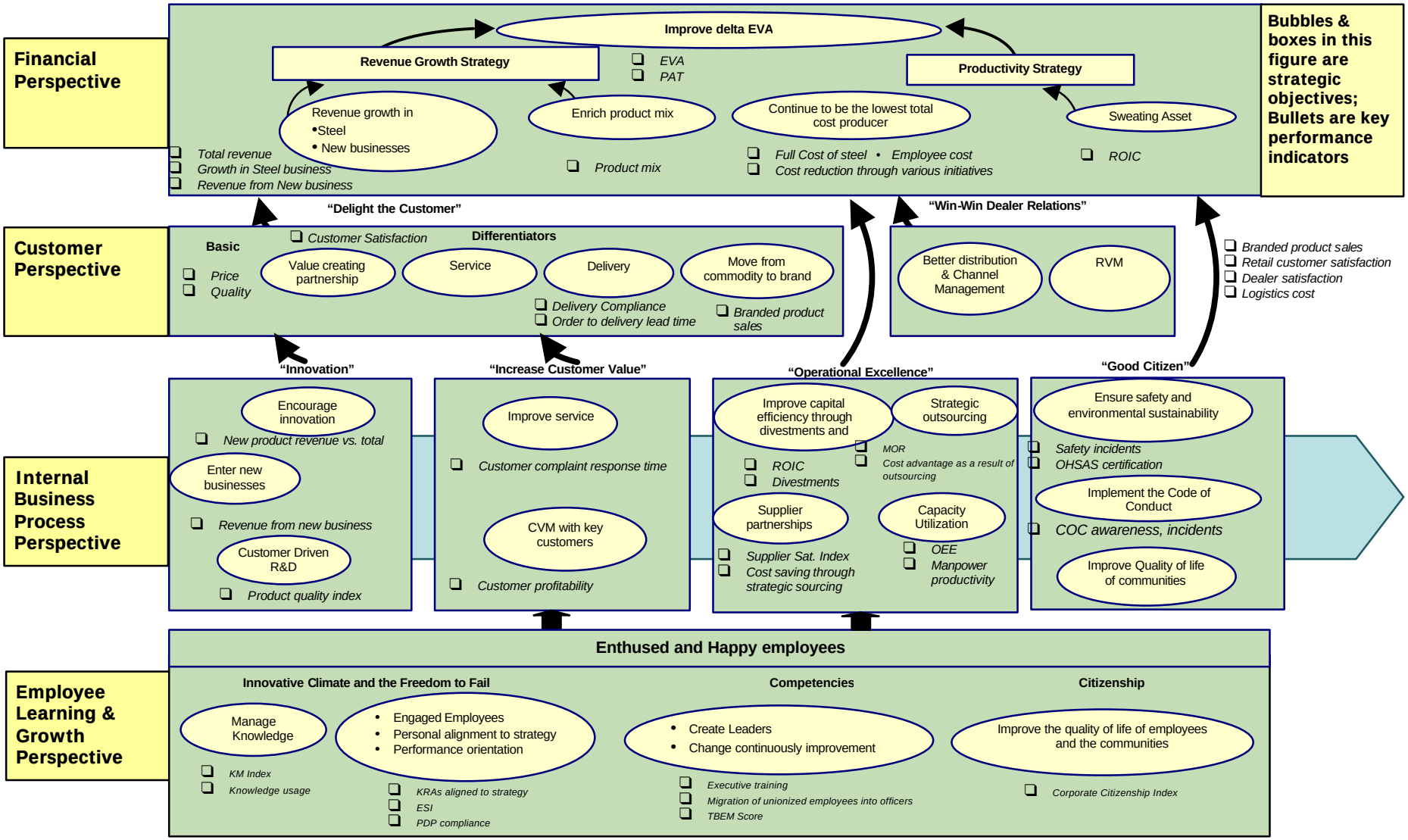


Figure # 1.5 Strategy Map

The Strategic Challenges and Objectives and their impact on stakeholders are furnished in **Figure-1.6**

Strategic Challenges	Strategic Objectives	TBEM Core Values	KPIs	Monitoring by	Impact on stakeholders					
					Employee	Customer	Supplier	Shareholders	Community	Partner
Increasing service level expectations of customers Economies of scale in manufacturing & simultane-ously servicing fragmented domestic market	Value creating partnership with customers & suppliers Sustainable growth	Customer driven excellence, Agility, Focus on results and creating value system perspective	% delivery compliance Order to fulfillment lead time % customer web- enabled CSI	Chief (CSD) Chief (CSD) COMS MD/ DMD(S) / VP (FP&LP)	M V	V V	V N	L V	N L	V V
Commodity nature of the steel	Move from commodities to brands	Focus on results and creating value focus on future	Sales from branded products	Chief Branding	L	V	N	H	L	V
Sweating of Assets, Innovation as a substitute to investments	EVA+ core business	Managing for innovation Management by fact	EVA ROIC	MD DMD(S)	V	N	N	V	V	M
Inadequate outsourcing potential	Outsource strategically	Focus on future	Cost reduction through strategic outsourcing Labor productivity	DMD(S) Chief (SO)	N	N	V	V	N	L
Attract and retain talent	Enthused and happy employees	Valuing employees and partners, Focus on the future, Organizational & personal learning	% Employees covered by variable pay system ESI	VP (HRM)	V	M	M	M	M	N
Improve employee satisfaction and commitment	Enthused and happy employees	Managing for innovation	Variable pay system, Vision workshops to help employees align individual goals with vision Job rotation Shabash for Non-officers, modified reward & recognition System for Officers, Integrated ESI action plan	VP (HRM)	V	M	N	N	V	N
Control employee cost	Continue to be lowest cost producer of steel		Reduction in MOR, TGS & Bearings to have non-steel wage structure Outsourcing non-core units subsidy reduction	MD VP (HRM)	V	M	N	V	V	N
Creating world class developing environment	Unleash people's potential and create leaders who will build the future, Encourage innovation and allow the freedom to fail, Manage knowledge	Social responsibility and citizenship	Individual training plan for all non-officers Com. Dev. Course to prepare workers for supervisory positions Migration of 60 supervisors to IL5 officers level 9 month evening program for 300 supervisors Officers development through rotation and succession planning Developing more Tejaswanis Knowledge Strategy	VP (HRM) Head (KM)	V M L	N M L	N M L	N L L	N L L	V L L

Table continued.

Contd....

Strategic Challenges	Strategic Objectives	TBEM Core Values	KPIs	Monitoring by	Impact on stakeholders					
					Employee	Customer	Supplier	Shareholders	Community	Partner
Balancing needs of all stakeholders	EVA positive core business Sustainable growth Value creating partnership with customers and suppliers Improve the quality of life of employees and communities we serve Excel at TBEM	Visionary leadership Focus on results and creating value Social responsibility & citizenship	EVA Market capitalization Shareholder satisfaction index Supplier satisfaction index Credit rating PAT/Operating Profit TBEM Score	MD Chief (SF) MD MD MD DMS (S) Chief BE	M V M V V	M M V L V	M M V M V	V M L L V	M M L V V	M M L L V
Upholding the ethical standard in the current environment and survive	Uphold the spirit of Tatas	Social responsibility and citizenship	Spread of COC	Ethics Counselor	V	V	V	V	V	V
Forward & backward integration by competitors	Revitalize the core business for a sustainable future Venture into new business that will own a share of our future	Focus on the future	Top-line revenue growth	MD DMD (S)	V V	N N	N M	M V	V M	N M
Consolidation in the steel industry Emerging dominance of China	Divest, merge, acquire Invest in attractive new business	Focus on the future, focus on results and creating value	Market capitalization Profit from new business	MD	V V	N N	M M	V V	N M	N M
Reducing trade barriers, driven by WTO Exchange rate-appreciation of rupee against dollar	Continue to be the lowest cost producer of steel		Total full cost	DMD (S)	V	V	V	V	V	V
Lack of under-standing of industry and business Law and order situation in the local areas	Uphold the spirit and values of Tatas towards Nation building	Social responsibility and citizenship	CCI	DMD (CS)	M	M	M	V	V	M
Increasing expectations of the community, of an underdeveloped state, arising out of improving financial performance of the Company	Improve the quality of life of the communities we serve Ensure safety and environmental sustainability		CCI Emission levels	DMD (CS) Head (EMD)	M V	N L	N L	N L	V H	V L

Figure#1.6 - Strategic Challenges & Objectives

N – No Impact; **L** – Low Impact; **M** – Medium Impact; **H** – High Impact; **V** – Very High Impact

Note: The partners are long-term customers & suppliers.

Section - II

Profile of Organisation

"You are a strong company who has achieved success through foresight in modernization and a strong belief in taking care of employees…you will achieve your vision and leave your legacy by continuing to leverage your strengths in planning, analysis, deployment and an ever growing desire to improve upon your current success."

John Vinyard, Malcom Baldrige Assessor

CONTENT INDEX

ORGANIZATION PROFILE

2.1 Reporting Organization: The Tata Iron & Steel Company Limited

2.2 Major Products & Services, including Brands

Major Products & Services offered by Tata Steel include:

Long Products	Wire Rods, Rebars, Forging Quality Steel
Flat Products	Hot & Cold Rolled Sheets, Hot & Cold Rolled Coils, Galvanized Coils & Sheets, Hot Rolled Plates
Semi Finished Steel Products	Billets, Blooms, Slabs
Tubes	Standard pipes, ERW Precision Tubes, Closed Structural,
Bearings Wires	Rolled Rings, Forged Rings, Machines Rings, Bearings Plain and Coated Steel Wires
Minerals	Coal & Coke, Iron Ore, Dolomite, Chrome Ore & Chrome Concentrate
Others	Ferro Alloys, Agriculture Implements, Services like project studies, design & engineering, personnel and technical training, automation, Information Technology, power and water.
Branded Products	Branded products include Tata Shaktee GC Sheets, Tata Steelium Cold Rolled Steel, Tata Tiscon construction rods, Tata Pipes, Tata Bearings, Tata Wiren and Tata Agrico.

2.3 Operational Structure

Board of Directors

Mr. R N Tata (Chairman)
Mr. Keshub Mahindra
Mr. Nusli N Wadia
Mr. S M Palia
Mr. P K Kaul (Financial Institutions' Nominee)
Mr. Suresh Krishna
Mr. Kumar Mangalam Birla
Mr. Ishaat Hussain
Dr. Jamshed J. Irani
Mr. B Jitender
(Financial Institutions' Nominee)
Mr. B Muthuraman (Managing Director)
Dr. T Mukherjee Dy. MD (Steel)
Mr. A N Singh Dy. MD (CS)

The operational structure is shown in **Figure#2.1.**

2.4 Major Divisions / Operating Companies / Subsidiaries & Joint Ventures.

Head Office – Mumbai, Maharashtra, India.
Plant Locations: India

Company's Steel Works	Jamshedpur (Jharkhand)
Tubes Division & Growth Shop	Jamshedpur (Jharkhand)
Ferro Alloys Plant	Joda (Orissa)
Ferro Chrome Plant	Bamnipal (Orissa)
CRC (West) Bearings Division	Tarapur (Maharashtra) Kharagpur, West Bengal
Noamundi Mines	Jharkhand,
Joda & Sukinda Mines	Orissa
West Bokaro & Jamadoba Collieries	Jharkhand
Dodkanya Wires	Karnataka Sisodra, Gujrat; Tarapore & Borivilli, Maharastra
Marketing offices and Stock Yards	New Delhi, Ghaziabad, Kanpur, Patna, Kolkata, Mumbai, Nagpur, Bangalore, Kochin, Guwahati & Chennai.
Subsidiary Companies	Tata Refractories, Tata Pigments, Kalimati Investment Company, Tata Incorporated New York, TM International Logistics Ltd, ISWP, Lanka Special Steels Limited, JUSCO, Hooghly MetCoke & Power Ltd.. Nat Steel Asia Ltd.,
Associated Companies	Tinplate Co. of India, TRF Ltd., TAYO Rolls, Tata Ryerson, Tata Metallics, Tata Limited London, Tata Sponge, Sila Eastern Jamipol & Metal Junction

2.5 Countries in which we operate

India, USA, Sri Lanka, Thailand, Vietnam, Singapore, China, Australia, Malaysia, Indonesia, Philippines, Dubai and Vietnam.

The subsidiary companies are those, which are wholly owned by Tata Steel and associate companies are those, which are partially owned by Tata Steel. Tata Steel has no joint ventures companies.
There are several ancillary industries around Tata Steel enterprises all over the country, which cater to the requirement of spare parts and consumables needed in the production process. The records of their locations and numbers of such ancillary units are currently not being compiled by the organization. Similarly, there are conversion agents, dealers and retailers all over the country, the records for which have also not been complied during the reporting period due to non-availability of information on GRI indicators.

2.6 Ownership and Legal Form

A Public Limited Company, Tata Steel is headquartered at Mumbai, Maharashtra, India. Its stock is listed and traded on stock exchanges located at Mumbai and Kolkata. Global Depository Receipts (GDR) issued by the company in the international market have been listed on the Luxembourg Stock Exchange. As on 31.03.05, there were 553,472,856 ordinary shareholders (Rs.10.00 per share).

Distribution of Shareholding

Number of Ordinary Shares Held	Number of Shareholders	
	31.03.2004 (%)	31.03.2005 (%)
1 to 100	71.54	50.22
101 to 500	22.07	39.79
501 to 1000	3.50	5.34
1001 to 10000	2.71	4.35
Over 10000	0.18	0.30
	100.00	**100.00**

Categories of Shareholders

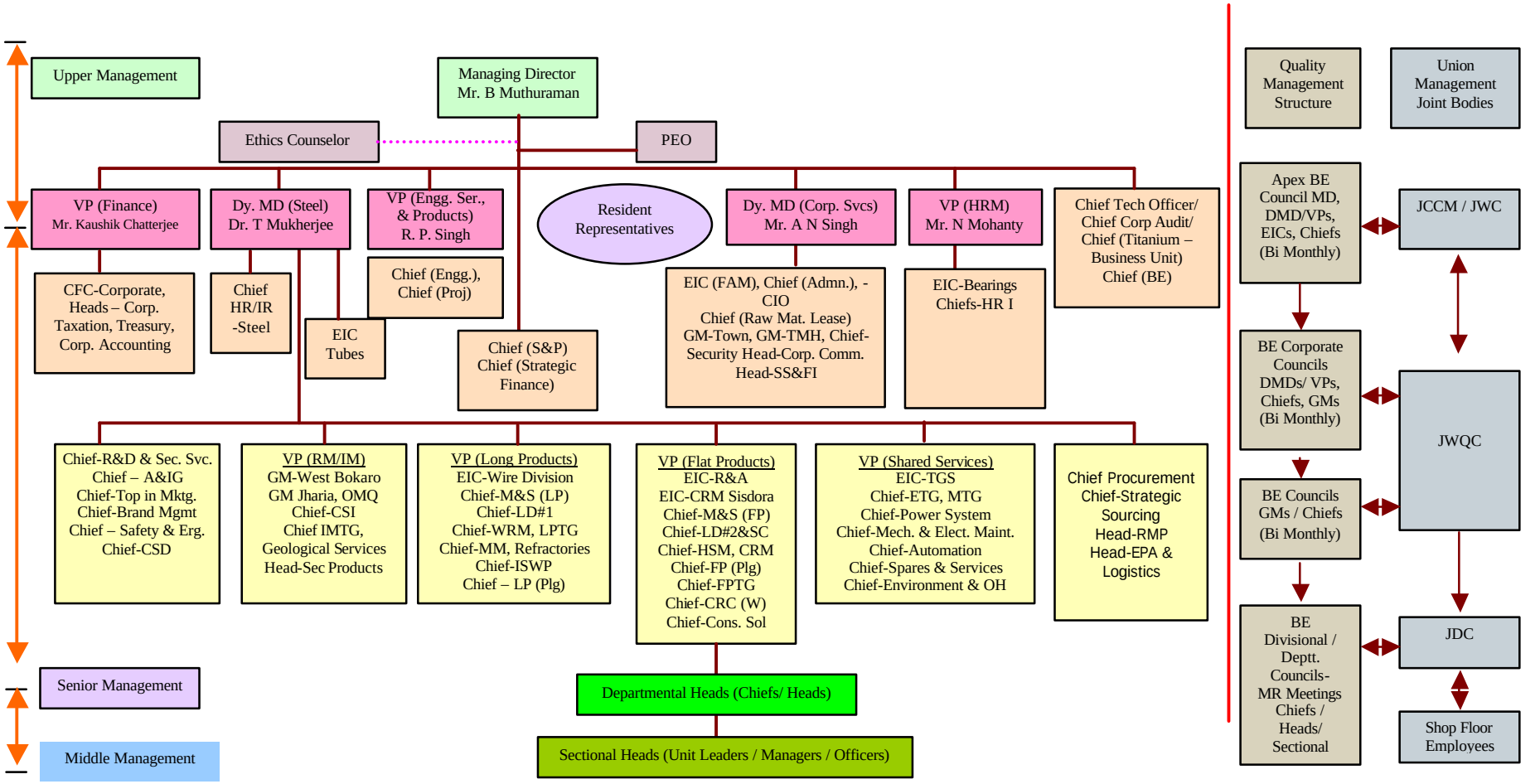
Category	Number of Shareholders		Voting Strength (%)		Number of Ordinary Shares Held	
	31.03.05	31.03.04	**31.03.05**	31.03.05	**31.03.05**	31.03.04
Individuals	**567,214**	557,584	**28.30**	28.49	**156,627,404**	105,124,034
Unit Trust of India	**1**	1	**0.35**	1.50	**1,912,384**	5,552,742
Life Insurance Corporation of India	**1**	1	**11.59**	12.72	**64,139,375**	46,930,800
Govt. & Other Public Financial Institutions	**63**	65	**6.39**	6.21	**35,401,473**	22,938,129
Tata Group Companies	**14**	15	**26.56**	26.29	**147,009,416**	97,014,942
Companies	**6535**	6193	**6.48**	6.36	**35,881,412**	23,449,193
Nationalised Banks, Mutual Funds & Trusts	**331**	274	**4.97**	5.11	**27,503,656**	18,842,100
Foreign Institutional Investors	**210**	185	**15.36**	13.32	**84,997,736**	49,842,964
TOTAL	**574,369**	564,318	**100.00**	100.00	**553,472,856**	368,129,904

2.7 Markets Served

The products manufactured by Tata Steel cater to the consumer sectors such as Auto/Auto ancillaries, consumer durables, construction/infrastructure, capital goods, general engineering and railways. Typically 85% of the production is sold in the domestic market and balance is exported. The customer services include application engineering support and visits by customer application managers to provide solutions to the industry. **Figure 2.2** under **Section 2.9** gives further details of the key customers in targeted sector and their requirements.

Figure – 2.1. – Operational Structure

ORGANIZATION STRUCTURE OF TATA STEEL



Abbreviations:
A&IG – Aspire & Improvement Group / Corp. Comm. – Corporate Communications / CIO-Chief Information Officer / CSD – Customer Services Division / HRI – Human Resources and Implementation / HR/IR – Human Resources and Industrial Relations / M&S – Marketing and Sales / OM&Q – Ore Mines & Quarry / RMP – Raw Material Procurement / SS&FI – Social Services and Family Initiatives / Cons. Sol – Construction Solutions / CSI – Coke Sinter and Iron / OLD – Organizational Learning & Development / PEO – Principal Executive Officer / WD – Wire Division / ISWP – Indian Steel & Wire Products.

2.8 Scale of Reporting

No. of Employees (as on 31.03.05)
Direct – 39,648
Contractors – 7,443
Temporary – 664

Installed Capacity & Production (1)

Class of Products	Installed Capacity (2) (Tonnes)	Production (3) (Tonnes)
Saleable Steel	3320000	4109002(4)
	3320000	4089255
Cold Rolled Coils	100000	121275
	100000	109070
Wire Rods	265000	269858
	265000	270090
Wires	199700	187550
	199700	192571
Cold Rolled Coils	46000	30449
	46000	31883
Ferro Manganese & Silico Manganese	30500	44201
	30500	32500
Charge Chrome	50000	41405
	50000	25902
Welded Steel Tubes	212000	179190(5)
	185000	185149
Cold Rolled Strips	-	-
	15800	-
Carbon and Alloy Steel Bearing Rings, Annular Forgings & Flanges	5250	2756
	5250	2582
Metallurgical Machinery	-	19546(6)
	-	12339
Alloy Steel Ball Bearing Rings	2050000	10313576(7)
	2050000	16466371
Bearings	25000000	25011887
	2500000	21980000

Figures in **blue** color are for previous year

Net Sales & Other Financial Indicators

		Rupees Million (04-05)	Previous Year Rupees Million (03-04)
a)	Net Sales/Income	144989.5	107023.9
b)	Total Expenditure	85435.9	72069.8
c)	Operating Profit	60453.6	34954.1
d)	Add-Dividend and Other Income	1480.3	1405.1
e)	Profit before Interest, Depreciation, Exceptional items and Taxes	61933.9	36359.2
f)	Less: Interest	1868.0	1221.7
g)	Profit before Depreciation, Exceptional items and Taxes	60055.9	35137.5
h)	Less: Depreciation	6187.8	6251.1
i)	Profit before Exceptional items and Taxes	5387.81	2888.64
j)	Less: Exceptional items	905.3	2226.8
k)	Profit before Taxes	52972.8	26659.6
l)	Less: Provision for Current Taxation	18336.6	9200.0
m)	Less: Provision for Deferred Taxation	(105.4)	(2.6)
n)	Profit after Taxes	34741.6	17462.2
o)	Add: Balance brought forward from the previous year	6374.2	3074.5
p)	Balance	41115.8	20536.7
which the Directors have appropriated as under, to:			
i)	Proposed Dividend	7185.1	3689.8
ii)	Tax on Dividend	1018.6	472.7
iii)	General Reserve	15000.0	10000.0
TOTAL		**23213.7**	**14162.5**
Leaving a balance of to be carried forward		17902.1	6374.2

(1) Excluding items intended for captive consumption.

(2) As certified by the Managing Director and accepted by the Auditors.

(3) Including production for use at the Steel Works and for conversion by the third parties into finished goods for sale.

(4) Including 604,424 tonnes of semi-finished steel produced (03-04:554,569 tonnes) and steel transferred for manufacture into Tubes/CR Strips at the Company's Tubes Division - 234,422 tonnes (03-04: 231,378 tonnes) / steel transferred for manufacture of Cold Rolled Coils at the Company's Cold Rolling Mill Division (West) - 156,344 tonnes (03-04: 116,232 tonnes) and steel transferred for manufacture of Wire Rods - 253,343 tonnes (03-04: 249,168 tonnes) at the Company's Wire Rod Mill (West).

(5) Including Tubes used in manufacture of Tubular Steel Structures and Scaffoldings.

(6) There is no separate installed capacity.

(7) Including Rings transferred for manufacture of Bearings.

BALANCE SHEET AS ON 31ST MARCH 2005

	FUNDS EMPLOYED	Rs. Million 31.03.05	Rs. Million 31.3.05	Rs. Million 31.03.04
01	SHARE CAPITAL		5536.7	3691.8
02	RESERVES AND SURPLUS		65062.5	41466.8
03	TOTAL SHAREHOLDERS' FUNDS		70599.2	45158.6
04	LOANS			
	a) Secured	24681.8		30101.6
	b) Unsecured	2715.2		3720.5
	c) Total Loans		27397.0	33822.1
05	DEFERRED TAX LIABILITY (NET)		8294.2	8399.6
06	PROVISION FOR EMPLOYEE SEPARATION COMPENSATION		15142.6	15630.6
07	TOTAL FUNDS EMPLOYED		121433.0	10301.09
	APPLICATION OF FUNDS			
08	FIXED ASSETS			
	a) Gross Block	150552.5		132694.7
	b) Less – Impairment	975.2		54116.2
		149577.3		
	c) Less – Depreciation	58454.9		
	d) Net Block		91122.4	78578.5
09	INVESTMENTS		24326.5	21941.2
10	A) CURRENT ASSETS			
	a) Stores and spares parts	3490.5		3261.7
	b) Stock-in-trade	15233.4		9222.1
	c) Sundry debtors	5818.2		6513.0
	d) Interest accrued on investments	2.0		2.0
	e) Cash and Bank balance	2467.2		2507.4
		27011.4		21513.2
	B) LOANS AND ADVANCES	13824.4		6572.0
		40835.8		280852
11	Less : CURRENT LIABILITIES AND PROVISIONS			
	a) Current Liabilities	26898.3		22094.4
	b) Provisions	10101.6		5059.3
		36999.9		27153.7
12	NET CURRENT ASSETS		3835.9	931.5
13	MISCELLANEOUS EXPENDITURE (to the extent not written off or adjusted) Employee Separation Compensation		2148.2	1559.7
14	**TOTAL ASSETS (Net) / Contingent Liabilities**		**121433.0**	**103010.9**

A list of few customers in the targeted sector and their requirements are furnished in **Figure#2.2.**

Figure-2.2: Few Key Customers

Key Segment Product Mkts	Key Customers	Key product requirements	Key service requirements
HRC for LM/CM	Tata Motors, Ashok Leyland	Chemical and physical properties conforming to specifications	Tailor-made supplies, delivery compliance
HRC for MC/HC	ITW, ASIL, Stelco, Walzen Strips, Tarun	Good surface, consistent dimensional tolerance, physical and chemical properties	Committed delivery of small lot orders, compliance
HRC of CF	Wheels India, Kalyani, Lemmerz, Toyota, Brakes India, Steel Strips Wheels	Chemical and physical properties	Material through EPAs, tech. support, committed delivery
Cold Rolled (CR) for high end Auto, Appliance)	Tata Motors, Ashok Leyland, Maruti, Mahindra & Mahindra, Hyundai, Ford, Bajaj Auto, Honda Motorcycle & Scooters, TVS Motors, Whirlpool, LG	Superior surface quality and cleaner strip surface, formability	Customized delivery support, App. Engg. Support (AES)
Galvanized (GA) for Auto	Bajaj Auto, Hero Honda, Honda Motorcycle & Scooter, Tata Motors, TVS Motors	Superior surface quality and cleaner surface, formability, corrosion resistance, paintability	Customized delivery support, App. Engg. Support (AES)
CR (Steelium) for distribution	Authorized distributors	Better flatness	Order Management, Complaint Handling, App. Engg. Support
Galvanized Corrugated (GC)	Authorized distributors	Better thickness and width tolerance, uniform coating	Distribution Management
TISCON-Projects	Gammon, Afcons, L&T, HCC, DMRC	Mechanical Properties, Compliance to BIS standards (as per TDC),Negative rolling tolerance	Delivery compliance OE Finance, complaint settlement
TISCON-Retail	Individual builders	Compliance to BIS standards (as per TDC), Negative rolling tolerance	Fixed length bundles, Call Center, Recommended consumer price, channel finance
HC Wire Rods	Miki Wire, RIC, UIC, Bansal, Raj Ratan Gustav	Chemical composition & drawing quality, Consistent Mechanical Properties (as per TDC)	Delivery compliance, OE finance, Compliant settlement
LC Wire Rods	Esab, Advani Oerlikon	Consistency in chemistry, Conformance to BIS standards Drawing quality (as per TDC)	Delivery compliance, new product development, OE finance, compliant settlement

Figure-2.2: Few key customers in targeted segments and their requirements

2.9 List of Stakeholders, key attributes of each and relationship

The expenses incurred on purchase of finished, semi-finished steel, raw materials, spares, fuel oil, power, etc. during reporting period were Rs.76.569 Billion against Rs.60.737 Billion during previous year. Details of key products, services, their suppliers, key requirements of the products and the relationship with the suppliers are furnished in **Figure 2.3**.

Figure-2.3 – Key products, suppliers and partners

Type	Key Products/ Services	Some Key Suppliers	Key requirements	Relationship
Raw Material	Coal	Westfarmers Curragh Pty Ltd (Australia)	Consistent quality with regular flow of supplies	Long term contract partner
	Lime Stone	Sila Eastern(Thailand) Rajasthan State Mines & Minerals Limited (RSMML) N M Dubash	Total cost of ownership Consistent quality with regular flow of supplies	Subsidiary company Long term contract partner Long term contract partner
Semi-finished raw material	Sponge Iron	Tata Sponge Iron Limited	Consistent quality with regular flow of supplies	Long term contract partner
	Pig Iron	Anjaneya Ispat	Consistent quality with regular flow of supplies	Long term contract partner

Table Contd….

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Type	Key Products/ Services	Some Key Suppliers	Key requirements	Relationship
Consumables	Oxygen	BOC Praxair	Consistent quality and uninterrupted supply	Long term contract partner
	De-Sulphurising Compound	JAMIPOL	Total cost of ownership	Associate Company partner
	Aluminum	Minex	Compliance	
	Zinc	Hindustan Zinc Limited	Consistent quality with regular flow of supplies	Long term contract partner
	Rolls	Tayo Rolls Limited	Consistent quality with regular flow of supplies	Associate Company partner
	Refractory	Tata Refractories Limited	Total cost of ownership	Associate Company partner
Service Provider	Transportation	Saizer Enterprises	Timely placement of vehicles, adherence to contractual transit time, proper care of material in transit	Long term contract-partner
	Packaging	ITW Signode	Total cost of ownership	Long term contract partner
	External processing of products	Tata Ryerson Limited	Timely processing of material, quality of packaging	Joint Venture
	IT-Infrastructure Support	IBM, HP	Response time, complaint resolution time, uptime of equipment	Long term contract partner

Nature and location of outsourced operations:

Procurement Division of Tata Steel deals with all inbound and outbound supplies of goods and services. The service providers include both indigenous and overseas organization including government / semi-government agencies. The details pertaining to nature and location of inflow and outflow of goods and services are as under:

Nature of outsourced operations	Location (not exhaustive list)
Inbound supplies of goods like mechanical and electrical spares	Jamshedpur & Kolkata (majority), Mumbai.
Process, operating and general consumables	Bangalore, New Delhi, Chennai, Jamshedpur, etc.
Inbound supplies of services	Jamshedpur (majority)
Outbound supplies of goods and services	Jamshedpur & Kolkata (majority)
Procurement of raw materials	Various parts of the country & Australia, Bhutan, Thailand
External Processing Agents	Jamshedpur and various parts of the country

Tata Steel has launched several outsourcing initiatives in line with its VISION-2007 and some are listed here in **Figure-2.4.**

Company	Products	Tata Steel's Stake (%)
Tata Refractories Ltd. (TRL)	Refractories including high alumina & dolomite	51
Sila Eastern Limited	Limestone	49
Metaljunction Pvt. Ltd.	Reverse auction	50
Jamshedpur Injection Powder Ltd. (JAMIPOL)	De-sulphurising compounds, both carbide & magnesia based	30
TAYO Rolls	Rolls	37
TRF Ltd.	Bulk material handling equipment	36
Tata Sponge Iron Ltd. (TSIL)	Sponge iron	40
Tata Ryerson Ltd. (TRYL)	Steel processing	50
Tata Martade International Logistics Ltd. (TMILL)	Export & import cargo handling, chartering & customs clearance	51
Jamshedpur Utility & Services Company Limited (JUSCO)	Services activities	100

Figure-2.4 Strategic Outsourcing

Strategic Partnership

As a result of improvements in both the costs and product fronts Tata Steel has consistently outperformed its competition in the domestic market and maintained a leadership position at the global level. It is recognized as a world leader in steel-making and the intrinsic strength of the Company has been widely appreciated leading to strategic partnership with leading international players such as Nippon Steel Corporation, Japan; Arcelor, France; POSDATA, South Korea (a subsidiary of POSCO); Ryerson (a JV with Ryerson Tull of USA); Vivendi Water, UK; and Paul Wurth, Luxembourg.

Strategic Partner	Area of Partnership
Nippon Steel, Japan	• Advise Tata Steel on the entire process from steel making, hot rolling to cold rolling for developing cold roll products to match international standards (i.e. developing process line from LD#2 to CRM for auto-grade cold rolling material/steel).
Arcelor, France	• Hot Drip Galvanised (HDG) Technology License Agreement. • Trademark License Agreement.
Ryerson	• Steel processing & distribution in India.
Vivendi Water, UK	• Water Management.
Paul Wurth, Luxembourg	• Blast Furnace Up-gradation.

Tata Steel has a committed workforce of 39,648 personnel (as on 31.03.2005-**Figure-2.5**) Employees are classified as Officers (OPR), Supervisors and Workers. Supervisors and workers are organized into an independent Trade Union (refer Section LA3 also) (Non-OPR) with democratically elected representatives at all locations. **Figure-2.1** shows the operational structure. Tata Steel has 1788 engineers, 763 MBAs, 53 PhDs, and persons with degrees in technical areas of relevance to the operations. Contract labour is used in the areas of project execution and other activities.

The community and society within a 10-30 km radius around Tata Steel's enterprises is served by the organization to meet their needs in areas such as health care, women empowerment, family initiatives, vocational training, development of sports & culture and income generation. The village communities are selected based on the current level of developmental needs, interventions and emerging issues e.g. wasteland development, irrigation facilities & income generation.

Other important stakeholders include investors, financial institutions (details of shareholding have been provided in **Section 2.6**), regulator (State & Central Pollution Control Boards, Ministry of Environment and Forests and Ministry of Steel, Ministry of Finance, Excise Department, Factory Inspector, Labour Commissioner, Director General Mines Safety, Inspector of Explosives, Boiler Inspector, Medical Inspector of Factories, Electrical Inspector, etc.). Key attributes related to these stakeholders are repayment of loan, regulatory compliance and employee welfare, respectively.

Location	Officers	Non-Officers	Number
Jamshedpur	2890	19039	21929
Noamundi (Iron Mines)	231	1885	2116
Jamadoba (Collieries)	199	6874	7073
West Bokaro (Collieries)	197	3460	3657
Kolkata (M&S)	156	219	375
Mumbai (Head Office)	26	31	57
Adityapur Complex	109	543	652
CRC West & Wire Division	269	1233	1502
CRM Sisodra	56	243	299
Bearings Divn. Kharagpur	75	663	738
FAMD- Sukinda & Bamnipal	171	1061	1232
CRR Offices- Delhi, Bhubaneshwar & Ranchi	13	5	18
TOTAL	**4392**	**35256**	**39648**

Figure-2.5 – Location-wise break-up of employees (as on 31.03.2005)

REPORT SCOPE

2.10 Contact Persons

Mr. R P Sharma
Chief, Environment & Occ. Health
TATA STEEL
Jamshedpur, INDIA
Telephone# 91657 2424125
Fax# 91657 2424098
email# rps@tatasteel.com

Mr. Sanjay Choudhry
Chief, Corporate Communications
TATA STEEL
Jamshedpur, INDIA
Telephone# 91657 2431142
Fax# 91657 2425182
email# sanjay.choudhry@tatasteel.com

2.11 Reporting Period

1st April 2004 – 31st March 2005 (Fiscal Year)

2.12 Most recent previous report

1st April '03– 31st March '04 (report was put on website in Dec. '04)

2.13 Boundary of report

- Entities included in scope of report are all units of Tata Steel. Economic performance of TIS Group Companies is furnished on page EC-4 under Economic Performance.
- Divisions included in scope of report include Steel Division, Mines Division, Agrico, Tubes, and Bearings Division, Collieries at West Bokaro & Jharia, Town Division (JUSCO), CRC West & Wire Division
- All products and services have been included.
- All associated companies, subsidiaries, ancillary industries, have been excluded.
- Scope of report includes economic, environment and social performance.
- Any limitation on reporting scope has been delineated at appropriate locations.

The environmental data for Head Office, Marketing Offices, Service Centres, and Retail Outlets have been found negligible after detailed analysis and hence not included in the report.

2.14 Significant changes since the previous report.

Capital Projects

During the reporting period, a one million tonne steel capacity expansion project was partially completed by commissioning of gas fired Boiler#7, Sinter Plant#3 and an up-graded "G" Blast Furnace. The job on other units is progressing as per plan. During the year, further planning for a two million tonne expansion at Jamshedpur has been completed. The new projects at Orissa for a six million tonne steel plant and a non-recovery Coke Oven at Haldia in West Bengal were also planned.

Mergers, Acquisitions, Alliances, Joint Ventures, Spin Offs and Divestments

NatSteel in Singapore

Tata Steel has recently acquired the Steel Business of Singapore based Nat Steel Asia Pte Limited and the sale transaction were completed on 15th February 2005 at an enterprise value of approximately $ 486 million (Singapore dollar). The company has a presence in seven countries namely Singapore, Malaysia, Thailand, China, the Philippines, Vietnam and Australia. Nat Steel Asia has a steel making capacity of over two million tonnes per annum, which is predominantly EAF based. This acquisition fits into the growth and globalisation strategy of Tata Steel since it will give it a foothold in South-East Asia, which is the fastest growing region.

There is also a potential to unlock value through better input cost, synergy in the market place, exchange of best practices, better asset configuration, etc. With the investment in Nat Steel, Tata Steel has emerged as one of the top five wire manufacturers in the world.

Acquisition of wire plant of National Standard Duncan Limited

In line with Tata Steel's strategy for wire business to grow in the high technology product i.e., Tyre Bead, LR PC, Spring, etc. and to meet the growing demand of Tyre Bead Wires, Wire Division of National Standard Duncan (NSD) was acquired. It has three wire drawing units located in Himachal Pradesh and Bangalore with a capacity to produce 6000 MT per annum of Tyre Bead Wires at each unit. The legal formalities are being undertaken and it is expected that the factory would be operational by July 2005.

Sila Eastern Company Limited

With Tata Steel's ongoing and proposed expansion plans, the Company would require a regular and reliable source of raw material at a competitive cost to remain the world's lowest cost steel producer. Thailand has been identified as a reliable source, having good reserves of high quality limestone. As a result, Sila Eastern Company Limited, a 49% owned Joint Venture Company was formed on 13th March 2004 with a Thai partner (G Premjee Group of Companies) to undertake development of limestone mines in Thailand, mainly for the captive use of Tata Steel. This will provide a long-term solution to procure this raw material.

Hooghly Met Coke & Power Company Limited

In view of the attractiveness of the coke business, Tata Steel decided to establish coke making as a separate line of business. It will also meet its short-term and long-term shortages during execution of the Company's expansion plan. Hooghly Met Coke & Power Company Limited (MCPCL), a joint venture company between Tata Steel and West Bengal Industrial Development Corporation (WBIDC) was formed on 10th Feb 2005 to produce 0.8 million tonnes per annum (mtpa) the plant will also have a 60 MW of power generating capacity when phase one is complete. The company proposes to use the waste heat recovery process for coke making. Apart from Tata Steel, HMCPCL proposes to sell coke to other coke consumers like mini steel plants, foundries, ferro-alloys producers, etc. The power generated will be sold to the State grid.

metaljunction.com Private Limited

Metaljunction.com Private Limited (MJ) was formed in February 2001. The 50:50 SAIL-Tata Steel joint venture company is in the business of providing e-business services and solutions to Indian industry. Metaljunction.com Private Limited has two divisions, which work independently viz., metaljunction.com (website) e-selling business, and the commercejunction.com (website) e-procurement business unit. All categories of steel products are procured and sold on-line. Semis (billets, slabs) long products (TMT bars, rounds, wire rods, IU rails, structural), flat products (HR, CR and GP), Alloy steel and stainless steel. With effect from 20.01.2005, the company became a Public Limited Company and the name has been changed to Metaljunction Services Limited.

Jamshedpur Utilities & Services Company Limited (JUSCO)

JUSCO was incorporated as a 100% subsidiary of Tata Steel on 25.08.03 to provide integrated facility management services to Tata Steel in the areas of town management, housekeeping,

public health, engineering services, mobile equipment, horticulture etc., which were earlier provided by Tata Steel through its in-house "Town Division". In addition to this, JUSCO and Veolia Water India Private Limited (VWIPL) have entered into a Joint Development Agreement (JDA) on 21.12.04 to coordinate and combine their resources, skills, business and technical know-how for participating on an exclusive basis in projects launched by Government of India or any other public authority related to water, waste water services and related facilities.

Divestment

Tata Steel and its associate companies sold their total shareholding of 54.90% in S&L to Indian Oil Tanking Limited (IOTL) through an agreement dated 05.07.04. IOTL is a 50:50 joint venture between Indian Oil Corporate Limited and Oil Tanking GmbH of Germany. IOTL is engaged in the design, engineering and construction of petroleum marketing terminals, refinery offsite facilities and chemical storage tank farm and has a good strategic fit with S&L, with the letter's expertise in piping and experience in the refinery segment.

Integration of activities of Secondary Products Division with Metaljunction Services Limited

In order to create a single agency for carrying out activities ranging from the collection of scrap to its sale, Tata Steel has integrated its scrap handling and despatch related activities with Metaljujnction Services Limited, and a joint-venture of Tata Steel with effect from 01.12.04. Metaljunction has been selling Tata Steel's scrap and secondary products through e-selling since December 2002 and has over this period developed a good and reliable customer base for these products.

2.15 Reporting on joint ventures, partially owned subsidiaries

This report does not include these entities in its scope except for JUSCO the erstwhile Town Division of Tata Steel. The information regarding other joint ventures and partially own subsidiaries shall be progressively included in the future reports.

2.16 Nature and effect of any re-statements of information

There is no restatement of any information provided earlier in this report. The report scope however, has, undergone change e.g. Tarapore Wire Division is included and the Agrico Plant at Jamshedpur has been closed down during the reporting period.

REPORT PROFILE

2.17 Decision not to apply GRI principles

This is our fifth consecutive Corporate Sustainability Report that highlights our performance for the year 2004-05. This report has been prepared in accordance with 2002 guidelines. It represents a balanced and reasonable presentation of our organization's economic, environmental and social performance. The deviations if any, have been explained adequately at appropriate places.

2.18 Criteria/definitions / Guidelines Used

GHG protocol guidelines are used for GHG emission reporting. Financial & Economic data are reported as per the guidelines provided in the Company Law of India and Indian GAAP Standards.

Monitoring, measurement and calibration is carried out as per relevant Indian standards. Documentation and communication are done as per the requirement of ISO-9001 & ISO-14001, OHSAS-18001 & SA-8000

The norms and procedures prescribed for workplace Safety and Environment by Ministry of Environment, Ministry of Labour & Welfare (Factories Act) are followed in conducting business at Tata Steel. These Acts include Water Act, Air Act, Environment Protection Act, Factories Act, Explosive Act, Petroleum Act, Electricity Rules, Workmen Compensation Act, Public Liability Insurance Act, Hazardous Waste Management & Handling Rules, Hazardous Chemicals Manufacturing & Handling Rules.

Details of these standards, acts & rules where relevant are furnished in the glossary **(Annexure-V).**

2.19 Significant changes in the measurement methods

The measurement and calculation methodology for NO_X, SO_X & SPM data reported by the Environment Department is presented in **Annex-VI**.

2.20 Policies and internal practices to enhance and provide assurance

Sustainability Performance Assurance

Tata Steel has adopted the Tata Business Excellence Model (TBEM) based on the Malcolm Baldrige criteria. Sustainability Performance of Tata Steel is embedded in this model as described in **Section-3**. TBEM requires, besides institution of systems and processes, performance monitoring and reporting as per the criteria delineated in the Model. The approach and extent of deployment, maturity of the system deployed and the consequent business results are required to be assessed by external assessors. The application is assessed by a group of experts appointed by TQMS. The tabletop assessment of the application is followed by (a) site visit and (b) discussions with concerned senior executives and shopfloor employees about the issues covered in the application. External assessors prepare a scorecard for different TBEM criteria.

Economic Performance Assurance

Tata Steel's financial performance and risk management assurance is provided by an in-house Internal Audit function. The Internal Sudit function has chartered accountant and professionals headed by Chief (Internal Audit) who reports to the Managing Director and the Audit Committee of the Board.

The Quarterly, Half Yearly and Annual books of account are audited by internal and statutory (external) auditors. The external auditors appointed by the Audit Committee and approved by the shareholder are M/s. A F Ferguson & Co. and S B Billimoria & Co. M/s. A F Ferguson & Co. are Chartered Accountants of global repute. 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 was done in accordance with auditing standards accepted in India.

The mandate of Internal Audit department includes:

a) Financial Audit

b) Project & Contracts Audit

c) Statutory Compliance Audit

The economic performance data is logged in a secure SAP system. The external financial auditors verify the SAP system security.

Environment, Health & Safety– In addition to the TBEM assessment process, since the Divisions included in the scope of the report are ISO-14001 certified, there are half yearly internal audits carried out by the Lead Auditors who have requisite audit experience. Every year, an external surveillance audit is conducted by IRQS for ISO-14001 EMS certificate. In addition, weekly EMS visits are carried out by a group of officers and union representatives in select departments to assess the status of EMS implementation at the shop- floor. The review of the status of EMS is carried out once a month by Head of the department, bi-monthly by the Divisional Head, once in three months by Management Representative and once in four months by the Chairman of Management Review Committee who is either a person of Dy. Managing Director level or the Unit Head at the locations outside Jamshedpur.

Environmental performance data is reported on the intranet site. The monitoring reports are sent electronically to the concerned heads of department. The daily, weekly and monthly reports are submitted electronically as a part of MIS. The calculations for emission loads and GHG emissions are also carried out electronically with the help of software developed internally as per the guidelines available from IISI and GHG Protocol.

Society - Social audits are conducted once in every 10 years by a bench of external auditors comprising – eminent personalities from the judiciary, social organizations and financial institutions appointed by Tata Steel's Board of Directors. The last audit was conducted in 2004. The audit report is awaited.

Steel Works & Sukinda Chromite Mines of the organization were certified SA-8000 during the year.

2.21 Policy and current on independent assurance

Tata Steel shall continue to get an independent assurance of its Corporate Sustainability Report. Accordingly, Tata Steel has appointed PwC as independent assurance providers. Their independent assurance report has been included at the beginning of this report.

2.22 For additional information

Additional information on economic, environmental and social performance of the organization can be made available on request from the contact persons indicated under 2.10 above. This report is also available on Tata Steel's internet website (www.tatasteel.com) and on the Company's Intranet.

Section - III

Goverence Structure & Management Systems

"Among the best companies I have visited in terms of the willingness to learn, change and be among world industrial leaders. Many great practices. The Tata Steel people can all be proud"

Bob Osterhoff, Malcom Baldrige Assessor

CONTENT INDEX

GOVERNANCE STRUCTURE AND MANAGEMENT SYSTEMS

Governance Structure (3.1)

Company's Philosophy on Code of Governance

The Company believes in adopting the Best Global Practices in the area of Corporate Governance and follows the principles of full transparency and accountability, thereby protecting the interests of all its stakeholders.

The Board considers itself a Trustee of its Shareholders and acknowledges its responsibilities to the Shareholders for creating and safeguarding Shareholders' Wealth. During the year under review, the Board continued its pursuit of achieving these objectives through the adoption and monitoring of corporate strategies, prudent business plans, monitoring of major risks of the Company's business and ensuring that the Company pursues policies and procedures to satisfy its legal and ethical responsibilities.

Board of Directors

The Company has a non-executive Chairman and the number of independent directors is more than one-third of the total number of Directors. The number of Non-Executive Directors (NEDs) is more than 50% of the total number of Directors.

None of the Directors on the Board is a member on more than 10 committees and Chairman of more than five committees (as specified in Clause#49 of the Company Act), across all the companies in which he is a Director. The Directors have made the necessary disclosures regarding committee positions.

The names and categories of the Directors on the Board, their attendance at Board Meetings during the year and at the last Annual General Meeting, as also the number of Directorships and Committee Memberships held by them in other companies are given below:

Name	Category	No. of Board Meetings attended in 04-05	Whether attended AGM held on 22.7.04	No. of Directorships in other public companies		No. of Committee positions held in other public companies**	
				Chairman	Member	Chairman	Member
Mr. R N Tata (Chairman)	Promoter, Non-Independent, Non Executive	10	Yes	11	2	-	1
Mr. Keshub Mahindra	Independent, Non Executive	10	Yes	3	4	1	-
Mr. Nusli N Wadia	-do-	7	Yes	5	4	-	-
Mr. S M Palia	-do-	10	Yes	1	4	2	2
Mr. P K Kaul Financial Institutions' Nominee*	-do-	10	Yes	2	9	2	3
Mr. Suresh Krishna	-do-	5	Yes	6	3	2	2
Mr. Kumar Mangalam Birla	-do-	-	No	10	2	-	1

Directors on the Board continued...

Name	Category	No. of Board Meetings attended in 04-05	Whether attended AGM held on 22.7.04	No. of Directorships in other public companies		No. of Committee positions held in other public companies**	
				Chairman	Member	Chairman	Member
Mr. Ishaat Hussain	Promoter, Non Inde-pendent, Non-Executive	11	Yes	2	12	2	4
Dr. J J Irani	-do-	9	Yes	4	9	1	3
Mr. B Jitender Financial Institutions' Nominee*	Inde-pendent, Non Executive	8	Yes	1	5	-	4
Mr. B Muthuraman Managing Director	Not Inde-pendent, Executive	10	Yes	3	2	-	-
Dr. T Mukherjee Dy. Managing Director (Steel)	-do-	10	Yes	3	6	-	1
Mr. A N Singh Dy. Managing Director (Corporate Services)	-do-	11	Yes	3	-	1	-

* Appointed by IDBI as the lead institution.

** Represents Chairmanships/Memberships of Audit Committee, Shareholders'/Investors' Grievance Committee and Remuneration Committee.

Eleven Board Meetings were held during the year 2004-2005 and the gap between two meetings did not exceed four months. The dates on which the Board Meetings were held were as follows:

23rd April 2004, 29th April 2004, 20th May 2004, 7th June 2004, 30th June 2004, 22nd July 2004, 24th August 2004, 29th October 2004, 25th November 2004, 20th January 2005 and 24th March 2005.

Dates for the Board Meetings to be held in the ensuing year are decided well in advance and communicated to the Directors. Board Meetings are held at the Registered Office of the Company. The Agenda along with the explanatory notes are sent in advance to the Directors. Additional meetings of the Board are held when deemed necessary by the Board.

The information as required under Annexure I to Clause 49 is made available to the Board.

During 2004-2005, the Company did not have any material pecuniary/relationship or transactions with Non-Executive Directors, other than Dr. J J Irani, to whom the Company paid retiring benefits aggregating Rs.2.931 Million. The Company, with the approval of the Department of Company Affairs has also paid Rs.81.80 Million as transportation charges to M/s. Dimnar and Company, a firm, whose proprietor is related to Dr. J J Irani.

Audit Committee

The Company had constituted an Audit Committee in the year 1986. The scope of the activities of the Audit Committee is as set out in Clause 49 of the Listing Agreements with the Stock Exchanges read with Section 292A of the Companies Act, 1956. The terms of reference of the Audit Committee broadly are as under:

a) To review compliance with internal control systems.

b) To review the findings of the Internal Auditor relating to various functions of the Company.

c) To hold periodic discussions with the Statutory Auditors and Internal Auditors of the Company concerning the accounts of the Company, internal control systems, scope of audit and observations of the Auditors/Internal Auditors.

d) To review the Quarterly, Half-Yearly and Annual financial results of the Company before submission to the Board.

e) To make recommendations to the Board on any matter relating to the financial management of the Company, including the Audit Report.

f) Recommending the appointment of statutory auditors and branch auditors and fixation of their remuneration.

Mr. P K Kaul, Chairman of the Audit Committee was present at the Annual General Meeting held on 22nd July 2004.

The composition of the Audit Committee and the details of meetings attended by the Directors are given below:

Name of Members	Category	No. of Meetings attended in 2004- 05
Mr. P K Kaul, Member (Chairman)	Independent, Non-Executive	7
Mr. Ishaat Hussain, Member (Chartered Accountant)	Promoter, Non-Independent Non-Executive	6
Mr. S M Palia, Member	Independent, Non-Executive	7

Audit Committee meetings are attended by Vice President (Finance), Chief (Corporate Audit), Chief Financial Controller (Corporate) and representatives of the Statutory Auditors. The Company Secretary acts as the Secretary of the Audit Committee. **Seven** Audit Committee Meetings were held during 2004-05. The dates on which the said meetings were held were as follows:

19th May 2004, 29th June 2004, 21st July 2004, 28th October 2004, 24th November 2004, 19th January 2005 and 23rd March 2005. The necessary quorum was present at the meetings.

Remuneration Committee

The Company had constituted a Remuneration Committee in the year 1993. The broad terms of reference of the Remuneration Committee are as follows:

- Review the performance of the Managing Director and its Whole-time Directors, after considering the Company's performance.
- Recommend to the Board the remuneration including salary, perquisites and commission to be paid to the Company's Managing Director and Whole-time Directors.
- Finalize the perquisites package of the Managing Director and the Whole-time Directors within the overall ceiling fixed by the Board.

Recommend to the Board, retirement benefits to be paid to the Managing Director and Whole-time Directors under the Retirement Benefit Guidelines adopted by the Board.

The Remuneration Committee also functions as the Compensation Committee as per SEBI guidelines on the Employees' Stock Option Scheme. The Company, however, has not yet introduced the Employees' Stock Option Scheme.

The composition of the Remuneration Committee and the details of the meetings attended by the Directors are given below;

Name of Members	Category	No. of Meetings attended in 2004-2005
Mr. Keshub Mahindra, Chairman	Independent, Non-Executive	2
Mr. R N Tata, Member	Promoter, Not-Independent Non-Executive	2
Mr. S M Palia, Member	-do-	2

Two meetings of the Remuneration Committee were held during 2004-05 on 20th May 2004 and 25th November 2004. The Chairman of the Remuneration Committee, Mr. Keshub Mahindra was present at the Annual General Meeting held on 22nd July 2004. The Company has complied with the non-mandatory requirement of Clause 49 regarding the Remuneration Committee.

Remuneration Policy

The Company while deciding the remuneration package of the senior management members takes into consideration the following items:

- Employment scenario
- Remuneration package of the industry
- Remuneration package of the managerial talent of other industries

The annual variable pay of senior managers is linked to the performance of the Company in general and their individual performance for the relevant year measured against specific Key Result Areas, which are aligned to the Company's objective.

The NEDs are paid remuneration by way of Commission and Sitting Fees. In terms of the shareholders' approval obtained at the AGM held on 19th July 2001, the Commission is payable at a rate not exceeding 1% per annum of the profits of the Company (computed in accordance with Section 309(5) of the Companies Act, 1956). The distribution of Commission amongst the NEDs is placed before the Board. The Commission is distributed on the basis of their attendance and contribution at the Board and certain Committee Meetings, as well as time spent on operational matters other than at the meetings.

The Company pays sitting fees of Rs.10,000 per meeting to the NEDs for attending the meetings of the Board, Committee of the Board and Audit Committee. For other meetings, the Company continues to pay to the NEDs Rs.5,000 as sitting fees per meeting.

The Company pays remuneration by way of salary, perquisites and allowances (fixed component) and commission (variable component) to the MD and WTDs. Salary is paid within the range approved by the Shareholders. The Board, on 1st April each year, as recommended by the Remuneration Committee, approves annual increments. The Board fixes the ceiling on perquisites and allowances as a percentage of salary. Within the prescribed ceiling, the perquisites package is approved by the Remuneration Committee. Commission is calculated with reference to net profits of the Company in a particular financial year and is determined by the Board of Directors at the end of the financial year, based on the recommendations of the Remuneration Committee, subject to overall ceilings stipulated in Sections 198 and 309 of the Companies Act, 1956. Specific amount payable to such directors is based on the performance criteria laid down by the Board, which broadly takes into account the profits earned by the Company for the year.

Shareholders Committee

An Investors' Grievance Committee was constituted on 23.3.2000 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. **One** meeting of the Investors' Grievance Committee was held during the year 2004-05 on 25th November 2004. The composition of the Investors' Grievance Committee and details of the meetings attended by the Directors are given below:

Name of Member	Category	No. of Meetings attended in 2004-05
Mr. Ishaat Hussain, Chairman	Promoter, Not-Independent, Non- Executive	1
Mr. Suresh Krishna, Member	Independent, Non-Executive	1

The number of complaints received from shareholders comprises correspondence identified as investor complaints i.e. letters received through statutory/regulatory bodies and those related to loss of securities, Court/Consumer Forum matter, fraudulent and non-receipt of dividend amounts (where reconciliation of the payment was in progress at the time of receipt of the letters).

(Complaints pending as on 1st April 2004)	**11**
During the period 1st April 2004 to 31st March 2005, complaints identified as above and reported under Clause 41 of the Listing Agreements	**935**
Complaints disposed off during the year ended 31.03.2005	**940**
Complaints unresolved to the satisfaction of shareholders as on 31.03.2005	**6**
No. of pending share transfers as on 31.03.2005	**240***
* Transfers lodged in the last weeks of March 2005 and hence pending as on 31.03.2005.	

Sl. No.	Description	Nos. Received	Total Replied	Total Pending
A)	**Complaints** **Letters received from Statutory/Regulatory Bodies**			
1	SEBI	64	58	6
2	DOCA	2	2	-
3	STOCK EXCHANGE	30	30	-
4	NSDL/CDSL	14	14	-
	Total Nos.	**110**	**104**	**6**
B)	**Legal Matters**			
	Court/Consumer Forum Matters	-	-	-
	Total Nos.	**-**	-	**6**
C)	**Dividends**	-	-	-
1	Non-receipt of Dividend warrants (Pending recogn. At the time of receipt of letters)	822	822	-
2	Fraudulent Encashment of dividend warrants	3	3	-
	Total Nos.	**825**	**825**	**-**
D)	**Letters in the nature of reminders/complaints**	**-**	**-**	**-**
	Total correspondence statistics (I)	**935**	**929**	**6**

Note: The correspondence identified, as investor complaints, are letters received through Statutory/Regulatory bodies and those related to Court/Consumer forum matters, (where the Company/Registrar is involved and is accused of deficiency in service) fraudulent encashment and non-receipt of dividend amounts, where reconciliation of the payment is in progress/ completed after the end of the Quarter.

Shareholders Survey: During Dec. 2004, the Company conducted a shareholders survey with the objective of obtaining their feedback on the long-term and short-term growth strategies of the Company, satisfaction levels, opinions, views, suggestions, etc. with a view to building and strengthening the relationship between the company and its shareholders.

The findings of the survey indicate that majority of shareholders of the Company are satisfied with the growth strategies of the Company and perceive the Company as creating shareholder value, both in the short-term and long-term. The shareholders are satisfied with the investor services provided by the company; its registrars and share transfer agents. They are also satisfied with the self-initiatives undertaken by the Company during the year under review and have given a number of suggestions, which the Company proposes to examine and take steps that may be necessary to meet their requirements.

Details of major shareholders as on 31st March 2005

	Category	No. of shares held	% of shareholding
A)	**PROMOTERS' HOLDINGS**		
1	**PROMOTERS***		
	Indian Promoters		
	• Tata Sons Limited	109573040	19.80
	• Tata Motors Limited	25806729	4.66
	• Others**	11629647	2.10
	Foreign Promoters	-	-
2	**Persons Acting in Concert#**		
	Sub-Total	147009416	26.56
B)	**NON-PROMOTERS HOLDINGS**		
3	**Institutional Investors**		
A)	**Mutual Funds and UTI**	23041936	4.17
B)	**Banks, Financial Institutions, Insurance Co's (Central / State / Govt. Institutions / Non-Govt. Institutions)**		
	• Life Insurance Corporation of India	64139375	11.59
	• The New India Assurance Co. Ltd.	10319437	1.86
	• The Oriental Insurance Co. Ltd.	7368467	1.33
	• National Insurance Co. Ltd.	7657450	1.38
	• Others	11050754	2.00
C)	**FIIs**		
	• HSBC Global Investment Funds A/c. HSBC Global Investment Funds Mauritius Limited	9295000	1.68
	• Janus Contrarian Fund	7437463	1.35
	• Genesis Indian Investment Co. Ltd. A/c EMSAF Mauritius	9691500	1.75
	• Others	58569906	10.58
	Sub-Total	208571288	37.69
4	**Others**		
A)	Private Corporate Bodies	41236156	7.45
B)	Indian Public	154238854	27.87
C)	NRIs / OCBs	2293731	0.41
D)	Any Other		
	• CITIBANK N.A (GDR)	3867	0.00
	• Independent Directors & their relatives	21642	0.00
	• Other Directors & their relatives	97902	0.02
	Sub-Total	197892152	35.75
	GRAND TOTAL	**553472856**	**100.00**

Committee of the Board

The terms of reference of the Committee of the Board (COB) 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 organizational structure and also to periodically review the Company's business plans and future strategies. The composition of the COB, with details of the meetings attended by the Directors is given below.

The composition of the COB and details of the meetings attended by the Directors are given below:

Names of Members	No. of meetings attended in 04-05
Mr. R N Tata, Chairman	9
Mr. Nusli N Wadia, Member	7
Mr. S M Palia, Member	8
Dr. J J Irani, Member	9
Mr. B Muthuraman, Member	9

Nine COB Meetings were held during the year 2004-05. The dates on which the meetings were held are; 19th April 2004, 18th May 2004, 28th June 2004, 20th July 2004, 23rd August 2004, 23rd November 2004, 19th January 2005, 9th March 2005 & 22nd March 2005.

Committee of Directors (Constituted during reporting period)

The **Committee of Directors** was constituted to approve of certain routine matters such as Opening and Closing of Bank Accounts of the Company, to grant limited Powers of Attorney to the officers of the Company, to appoint proxies to attend general meetings on behalf of the Company etc. The Members of this Committee are – Mr. R N Tata, (Chairman), Mr. Ishaat Hussain and Dr. J J Irani. The business of the Committee is transacted by passing Circular Resolutions, which are placed before the Board at its subsequent meeting.

Ethics and Compliance Committee

In accordance with the Securities and Exchange Board of India (Prohibition of Insider Trading) Regulations, 1992, as amended (the Regulations), 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 Code also seeks to ensure timely and adequate disclosure of Price Sensitive Information to the investor community by the Company to enable them to take informed investment decisions with regard to the Company's securities. In terms of the said Code, an Ethics & Compliance Committee was constituted on 30th May 2002 called Ethics and Compliance Committee. The composition of the Ethics and Compliance Committee is given below:

Names of Members	Category	No. of meetings attended during the year 2004-2005
Mr. Ishaat Hussain, Chairman	Promoter, Non-Independent, Non-Executive	1
Mr. Suresh Krishna, Member	Independent, Non-Executive	1

The Board has also appointed Vice President (Finance) as the Compliance Officer to ensure compliance and effective implementation of the Regulations and also the Code across the Company. During the year under review, the Compliance Officer submitted Monthly Committee Report of the Tata Code of Conduct for prevention of Insider Trading to the Board of Directors.

General Body Meetings

a) **Location and time of last three Annual General Meetings (AGMs):**

The last three AGMs were held on –23.07.03; 24.07.02; and 19.07.01

Financial year	Details of location	Date & Time
2003-2004	Birla Matushri Sabhagar 19, Sir Vithaldas Thackersey Marg, Mumbai- 400020	22nd July, 2004 at 3.30 PM
2002-2003		23rd July, 2003 at 3.30 PM
2001-2002		24th July, 2002 at 3.30 PM

b) An Extra-ordinary General Meeting of the shareholders was held on 24th March, 2005 at Birla Matushri Sabhagar, 19 Sir Vithaldas Thackersey Marg, Mumbai 400 020, to obtain the consent of the shareholders to raise additional long-term funds of Rs.50.00 Billion.

c) There were no Special Resolutions required to be passed through Postal Ballot at any of the above General Body Meetings. None of the resolutions proposed for the ensuing Annual General Meeting were required to be passed by Postal Ballot.

Disclosures

This include disclosures on materially significant party transactions i.e. transactions of the Company of material nature, with its promoters, the Directors or the management, their subsidiaries or relatives etc., that may have potential conflict with the interests of the Company at large. The Board has received disclosures from Directors and key managerial personnel relating to material, financial and commercial transactions where they and/or their relatives have personal interest. There were no materially significant related party transactions, which had potential conflict with the interest of the Company at large. The Company has complied with the requirements of the Stock Exchanges, SEBI and other statutory authorities on all matters relating to capital markets during the last three years. The Stock Exchange, SEBI or other statutory authorities relating to the above, have imposed no penalties or strictures on the Company.

Means of Communication

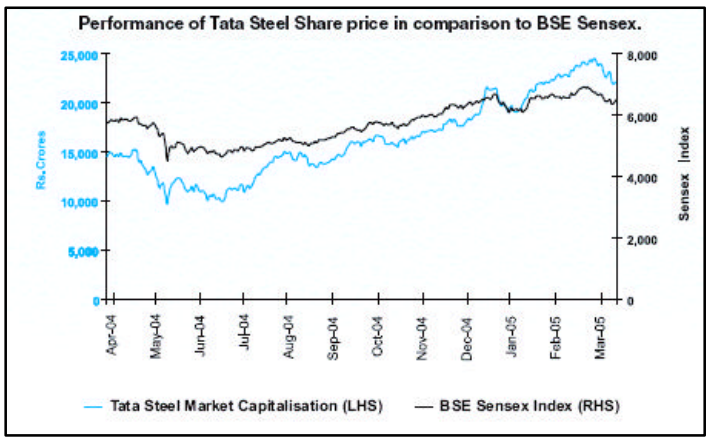
Half yearly reports are sent to each household of shareholders, Quarterly results of the company are published in Economic Times & Maharashtra Times regularly and were displayed on the Company's website (www.tatasteel.com). The results were also displayed as official news releases and presentation were made to the institutional investors.

Management Discussion & Analysis (MDA) Report- The MDA Report forms a part of the Directors' Report. All matters pertaining to industry structure and developments, opportunities and threats, segment/product wise performance, outlook, risks and concerns, internal control and systems, etc. are discussed in the said report.

Company's Corporate Website- The Company's website is a comprehensive reference on Tata Steel's management, Vision, Mission, policies, corporate governance, corporate sustainability, investor relations, sales network, updates and news. The section on "Investor Relations" seeks to inform the shareholders, by giving complete financial details, shareholding patterns, corporate benefits, information relating to stock exchange, registrars, share transfer agents and frequently asked questions. Investors can also submit their queries and get feedback through online interactive forms. The section of "Newsroom" includes all major press reports and release, awards, campaigns, etc.

Stock Information

Stock information has been furnished in **Section-2.6** and the performance of Tata Steel's share in comparison to Bombay Stock Exchange Sensex is furnished in the figure below:



Independent, Non-Executive Directors in the Board (3.2)

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 judgement. A financial institution nominee will be considered to be an independent director in all cases.

Board Members involved in managing risks and opportunities (3.4)

The agenda papers along with status report on economic, environment and social compliance are sent in advance to all the Board Members before the meeting for review, comments and suggestions during the meeting. The feedback from the board members is analysed by the top management and considered for business decision-making.

Selection of Board Members (3.3)

The Board of Directors is guided by the organization's Vision, Mission & values. The composition of Board of Directors is a mix of the full time executives and non-executives representing business houses and financial institutions, with requisite experience in handling economic, environmental & social issues. The board members regularly review the compliance status of the organization on these issues. There is a guideline for selection of Board Members. The criteria broadly cover individual skills that would add to the composite perspective of the Board. Ability to contribute positively to Board Dynamics, Leadership skills, Contemporariness and ability to devote adequate time are some key elements taken into account.

Linking executive compensation with overall achievement (3.5)

Executive compensation is based on the achievement of individuals on parameters included in the BSC, which includes both financial and non-financial KPM's. At the beginning of the year the performance contract is signed by each executive including the MD. It forms the basis for assessing the performance of individuals while arriving at the compensation packages. The Balance Score Card of the MD, which is cascaded down to every individual, is furnished in **Figure # 3.7**.

Responsibility in Embedding Sustainability (3.6)

The Boards oversight is through processes for the Board as a whole. Tata Steel has a Non-executive Chairman and oversight is also exercised through Board Committees like Audit Committee, Ethics & Compliance Committee, Remuneration Committee, Committee of the Board, and Shareholders Committee & Committee of the Directors. Details of composition and role of these committees has been provided in **Section 3.1**. There is, however, no separate committee of the Board for Sustainability issues. However, MD, DMD (Steel) & DMD (Corporate Services) are responsible to the Board for sustainability performance. Dr. J J Irani, Director, on the Board of Directors of Tata Steel is a Director on the GRI Board.

Tata Steel's leadership system is a visionary leadership force driving the Company's performance excellence effort in all areas related to its products, services and activities. Leadership of Tata Steel is both hierarchical and contextual. (Quality Circle leaders, Continuous Improvement Project leaders, task force leaders, Business Excellence facilitators, JDC Chairmen, leaders at many management-union forums and several more). The senior leadership team includes Managing Director, DMDs, VPs, EICs / GMs and Chiefs/Heads of the Business Divisions (**Figure2.1**). Leaders at all levels live by the Tata Steel values, fashion the organization's passion for excellence and stakeholder focus, and cascade that synergy

throughout the organization. The Vision of the Company and its core values are the integrating bonds ensuring a common message across the organization.

The leadership team establishes, communicates and deploys values, short-term/long-term direction, and performance expectations through Tata Steel's Leadership System. Tata Steel's leadership systems have two dimensions – the "Visionary" dimension and the "Architectural" dimension. The visionary dimension enables people to envision the future, to empower them and to energize them to achieve superior performance. The architectural dimension is an enabler and includes designing and creating structure, processes, policies, systems, strategies, and measures that support and enhance superior performance. These two characteristics are on occasions at conflict with each other, but a good leadership system like Tata Steel's has to combine and strike a balance. **At the heart of our leadership system are Stakeholder expectations**. These stakeholders' requirements drive all leadership actions. The leadership team defines the Mission, vision, values, and Group Purpose. The process adopted to set and deploy organizational values; ST/LT directions and performance expectations are given in (**Figure 1.3** of **Section-1**).

The top management shares the Vision with all employees of the organization through channels such as dialogues, Union Management meetings and Joint Departmental Councils (JDC) and other forums. The leadership system at Tata Steel is organized in Apex Teams (Quality Councils, Committees on HRD, IT, R&D and others). It is led by the Apex Quality Council and the strategic directions set by it are translated into actionable drivers and cascaded down to the operational levels through the Quality Councils / Quality Sub Councils / Departments. The leadership system is deployed through constant review of organizational performance (Score Cards) and by initiating corrective action and/or setting stretch targets with a focus on achieving business objectives. Management goals and objectives are summarised in the MD's Balance Score Card (**Figure-3.7**). This is arrived at based on issues discussed in **Sections 3.7, 3.11, 3.12**, business results and various charters signed by the organization.

The objectives and targets of the organization related to sustainability issues reflect the top management's commitment. The MD's Balanced Score Card serves as a framework within which the top management commitments are cascaded down to the level of Dy. Managing Directors, Vice Presidents, Divisional Heads and Departmental Heads. The Balance Score Card prepared at each level, is implemented by concerned agencies and reviewed under the Tata Business Excellence Model by senior management. MD's Balance Score Card, which is in line with the strategic goals and objectives of the organization, delineates the targets and measures for strategic objectives.

The leadership system is itself amenable to improvement **{(Figure-3.5 (a) & (b)}**. This is based on the feedback received from employees (Employee Satisfaction Index), customers (Customer Satisfaction Index), TBEM assessment, CII-EXIM assessment, PM's Trophy assessment, Assessment by World Steel Dynamics, USA, etc. The feedback from the 360-degree appraisal process is also used to improve the leadership style.

A key element of Tata Steel's review mechanism of the implementation systems is an extensive framework of audits, which encompass all three elements of sustainability. These include internal and external financial audits, which are reported to the Audit Committee of the Board, internal and external EMS audits, TBEM assurance, social audits and OHSAS audits

(proposed). While the Audit Committee of the Board reviews the internal and external audit reports, the EMS, OHSAS or Social Audit reports are reviewed by the Management Representative and senior management.

The key individuals responsible for audit of different aspects of sustainability management systems are:

- Internal Financial Audits by Chief Corporate Audit
- Internal TBEM Audit by group of trained TBEM Auditors under the guidance of Chief, Business Excellence.
- Internal Audit for ISO-14001 EMS by Audit In-charge EMS & Chief, Environment & Occupational Health.
- Internal Audit for OHSAS-18001 by Audit In-charge EHS & Chief, Environment & Occupational Health.
- External Financial Audits by M/s. A F Ferguson and Billimoria and Company.
- External EMS Audit ISO-14001 by M/s. IRQS.
- External OHSAS-18001 Audit by M/s. IRQS (Pre-certification completed).
- External TBEM Audit by TQMS, Tata Services.
- External Social Audit by a group of experts comprising a retired Judge of the High Court or Supreme Court, a social worker of repute and a technocrat or representative of large business house.
- Internal Audit for SA 8000 by Audit In-Charge & Chief, Business Excellence
- External SA-8000 audit by DNV.

INTERNALLY DEVELOPED CODE OF CONDUCT AND GUIDING POLICIES (3.7)

The following policies on various sustainability issues are adopted uniformly through out the reporting entity.

HIV (+) & AIDS CONTROL POLICY

Tata Steel would take measures to prevent the incidence and spread of HIV and AIDS in the society. In case of need, the Company would arrange to provide counselling and medical guidance to these patients and their families.

October 1, 2001

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 organization. The policy will be reviewed to align with business direction and to comply with all the requirements of the Quality Management Standard.

April 17, 2002

ENVIRONMENTAL, OCCUPATIONAL HEALTH & SAFETY POLICY

Tata Steel reaffirms its commitment to provide safe working place and clean environment to its employees and other stakeholders as an integral part of its business philosophy and values. We will continually enhance our Environmental, Occupational Health & Safety (EHS) performance in our activities, products and services through a structured EHS management framework. Towards this commitment, we shall;

- Establish and achieve EHS objectives and targets.
- Ensure compliance with applicable EHS legislation and other requirement and go beyond.
- Conserve natural resources and energy by constantly seeking to reduce consumption and promoting waste avoidance and recycling measures.
- Eliminate, minimize and/or control adverse environmental impacts and occupational health and safety risks by adopting appropriate "state-of-the-art" technology and best EHS management practices at all levels and functions.
- Enhance awareness, skill and competence of our employees and contractors so as to enable them to demonstrate their involvement, responsibility and accountability for sound EHS performance.

January 31, 2003

HUMAN RESOURCE POLICY

Tata Steel recognises 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.

October 1, 2001

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 recognize 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

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 calibre. Research in Tata Steel shall be aligned to the technological initiatives necessary to evolve and fulfil the overall business objectives of the Company.

January 1, 2002

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

SA 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.

December 20, 2003

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

Implementation – The strategic goals of the organization are derived from the Vision, Mission, value, policies and Code of Conduct (**Refer Annexure-II**) of the organization. These goals as indicated in MD's Balance Score Card **(Figure#3.7)** deployed across the organization. These policies are applicable only to Tata Steel and not applicable to its subsidiaries, associates or supply chain partners.

Listening to our Shareholders (3.8)

The minutes are prepared for proceedings of the Annual General Meeting. These minutes include the suggestions, comments and feedback from the shareholders. Concerns of shareholders are discussed in the Board Meeting and after prioritisation of these concerns. The Board directs the management to integrate the same in its business decision. Besides the AGM, Investor Satisfaction Surveys, meeting with investors and an Investor Grievance Cell are other forums through which shareholders provide recommendations or direction to the Board.

STAKEHOLDER ENGAGEMENT

Identifying Key Stakeholders (3.9)

The key stakeholders of the organization are those who are affected by its products, services and activities or those whose concerns can affect the performance of business.

The **Vision** statement clearly states that Tata Steel would continue to improve the quality of life of employees and the communities its serves. Further, the Vision has identified upholding the spirit and values of Tata's towards Nation building, as the basis for attainment of strategic goals and vision.

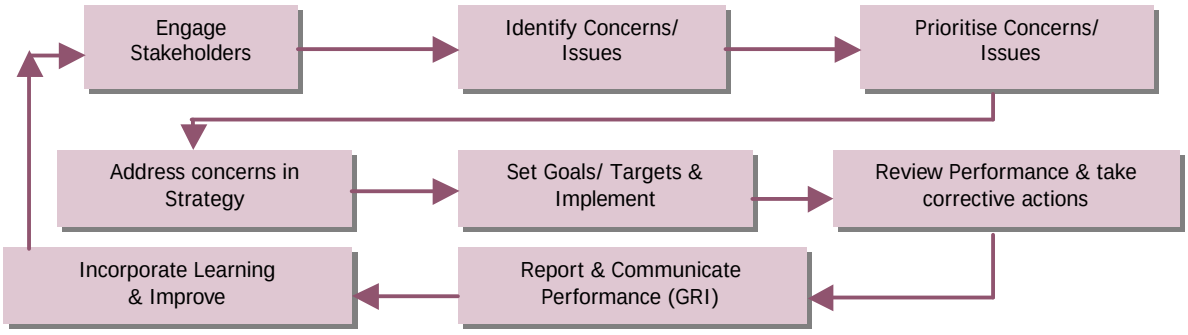
Secondly, the Group Purpose underscores the Tata Values on Nation building as "our heritage of returning to the society what we earn evokes trust among consumers, employees, shareholder and communities."

The Vision and the Group Purpose statement clearly delineate the basis for identification of stakeholders i.e. consumers, employees, shareholders and community (including local, national, international, regulators, etc.).

Finally, Tata Steel has identified "balancing stakeholders' needs" as a key strategic issue.

The identification of stakeholders is derived from the Vision of the Company, which sets forth the strategic directions and strategic goals and emphasises on upholding the spirit and values of the Tatas towards Nation building. Thus, the total stakeholder base of the Company encompasses shareholders, financial community, customers, media, community, employees, regulators, suppliers and partners as presented in **Figure#3.1**. At Tata Steel, the stakeholders are identified for most of the Key Enterprise Processes explained in **Section-1.1** and then their concerns are integrated into the strategy map (**Figure-1.5**) that forms the basis for finalization of objectives and targets for implementation. The prioritisation of the stakeholders and their concerns flows from Tata Steel's strategy map **(Section-1.1)** and MD's Balance Score Card as explained in **Figure#3.7**.

Realizing the Vision of "sustainable growth" and "long term stakeholder value creation" also requires strategic and value creating partnership with suppliers, which has been identified as a strategic objective. This sets out the basis for identification of stakeholder groups of relevance. Within each group of stakeholders, key stakeholders are identified based on strategic imperatives derived from the strategic objectives **(Figure 3.1)**



Figure#3.1 Stakeholder Engagement Process

Approach to Stakeholder Consultation and Communication (3.10)

Approach to prioritised stakeholder consultation and the frequency of the consultation is furnished in **Figure-3.2 & Figure-3.3**.

Stakeholder	Forum for Assessing Requirements, Communicating Directions & Receiving Feedback	Frequency
Shareholders & Financial Community	Investors meet across the globe; Annual General Meetings; Quarterly and half-yearly reports to Shareholders; Updating major Shareholders (LIC, UTI); Shareholder Relations' Meets;	Annual/ As per plan/ Annual
Customer	Customer forum; MD's Conference with customer groups, Worldwide; Visits to Customers & CVM, RVMs; Learning from Field Failures	As per plan Quarterly
Suppliers & Partners	Vendor Dialogues, Meetings with Key Suppliers; Vendor Meets & Recognition, SA 8000 Audits	Twice / year, As per plan, Once a year
External Public/ Govt. / Media	Meetings with Govt./Steel Ministry/Trade Bodies, Industry Associations; NGOs, Ministry for Environment & Forests, Press Briefings & Releases, etc.	As per need
Employee, Community & Society	Dialogues with the employees, JDCs, JWC, Apex Council, Senior Citizens Forum; Spouses' Dialogue; Uday, Joint Community Meeting, Community Need Analysis	Quarterly, Twice/year, As per plan

Fig. 3.2-Fora and formal two-way management stakeholder communications

Communication / Forum	Freq. No./Yr	Issues Discussed
MD Online	12	Customer, safety, plant performance, etc.
Senior, General & Ladies Dialogues, MCM, BE Councils	4 to 6	Vision, values, empowerment, innovation, continuous improvement, performance.
Dialogue with Union Committee Members (JCCM, JWC, and JDC)	3,6,2	Performance expectations, values, ST/LT directions, customer services, market conditions, production
Departmental Communication Meeting	12	BE, improvement, learning, training, customers' needs
BE Facilitators Meet	6	Developments in BE, innovative ideas, launch of new initiatives
Joint Works Quality Committee	6	5S & QC activities, safety, ergonomics, health, EMS

Figure-3.3 - Fora for two-way communications with employees

The investor survey, customer satisfaction survey, employee satisfaction survey and community need analysis are undertaken periodically and the inputs from these are used to prepare the Balance Score Card which is finalized by the month of March every year for implementation with effect from April 1st.

Information generated by Stakeholder Consultations (3.11)

As explained in **Figure 1.1** in **Section-1** the following information is generated by stakeholder consultation/ engagement:

Stakeholder	Information Generated
Shareholders	• Overall performance and its implication on market capitalization and creation of shareholder value.
Customers	• User needs, customer satisfaction, product quality and functionality.
Supplier	• Identification of areas with conflicting goals, payment, material rejects and supplier satisfaction.
Employees	• Employee Satisfaction, suggestions for improvement in product quality, social welfare and business excellence, professional growth, health and safety and quality of life.
Community	• The needs of community, women empowerment, employment generation, environment and quality of life.
External Public & Government	• Requirement under statutes, compliance status, threats to business and license to operate.

Integrating Stakeholder Information into Strategic Planning (3.12)

The feedback received from stakeholders forms one of the significant inputs to the strategic plan development and the consequent strategic objective setting, as is evident in Tata Steel's strategic objectives and plan outlined in **Figure 1.1** in **Section 1,** MD's Balance Score Card **(Figure#3.7).** The relationship between nature of information generated and the issues identified by Tata Steel and consequently the strategic objectives derived from the same have been delineated in **Figure 1.3 & 1.5** in **Section 1**. The use of information to develop sustainability programmes is listed below:

Stakeholder	Use of Information
Shareholders & Financial Analysts	• Objective & Target settings (Balance Score Card), investment decisions, diversifications/ merger /acquisition, company perception with analysis, emerging strategic issue identification.
Customers	• 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.
Suppliers	• Fine tuning of vendor rating and vendor evaluation procedure, vendor relationship management.
Employees	• Employee Satisfaction Index & Corporate Citizenship Index, identification of employee related issues.
Community	• Plan for development of community in the areas of forestry, irrigation, women empowerment, income generation, health, hygiene, etc. and identification of key societal issues.
External Public & Government	• Management programs for compliance and resource conservation, management programs for community development.
Media & Other	• Perception of the company, external environment & business news issues identified.

OVERARCHING POLICIES AND MANAGEMENT SYSTEMS

Following the path of precautionary approach (3.13)

Precautionary approach is the underlying spirit of every policy or guideline formulated at Tata Steel. This is indicated in the Tata Code of Conduct, which states under National Interest (Clause#1) that ***"it shall not undertake any project or activity to the detriment of the Nation's interest or those that will have any adverse impact on the social and cultural life patterns of its citizens."***

Further, Tata Steel commits itself to providing a safe and healthy working environment and preservation of the environment of the territory it operates in. It shall be committed to prevent the wasteful use of natural resources and minimise any hazardous impact of the development, production, use and disposal of any of its products and services on the ecological environment. The essence of these policies is that the merit of every activity, project or process proposed is evaluated besides its financial performance, on environmental and social performance also before adoption (EIA for all projects, carrying capacity of the region, implementation of Environment Management System and Life Cycle Assessment). LCA is regularly carried out for 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 EHSMS. Hence, only those proposals are selected which ensure compliance with these policies, thereby perpetuating the precautionary principle. For example, the 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 (up-gradation of "F" Blast Furnace).

Respecting externally developed, voluntary charters, sets of principles (3.14)

Tata Steel is a signatory to the United Nations Global Compact **(in 1998)** and abides by its principles. The principles of UN Global Compact address Human Rights, Labour Right, Environment and anti-corruption have been included as **Annexure- I.** Tata Steel is also a signatory to the Tata Group's Code of Conduct **(in 1997).** The salient clauses of the code of conduct pertaining to National Interest, Competition, Equal Opportunity Employment, Health,

Safety and Environment, Quality of products and services, Corporate Citizenship, Public Representation, Ethical Conduct, Regulatory Compliance and political non-alignment have been included in **Annexure – II**.

In 1999 Tata Steel became a signatory of the CORE BCSD (Corporate Round Table on Environment and Sustainable Development-Business Council for Sustainable Development) Charter initiated by the then Tata Energy Research Institute (TERI) **(in 1999),** New Delhi based on the guidelines provided in International Chamber of Commerce Charter on Sustainable Development. Details of CORE Charter are given in **Annexure-III**. The requirements of these are integrated in business through various tools adopted by Tata Steel such as ISO-14001, ISO-9001, OSHAS-18001, SA-8000, Corporate Sustainability Management System as well as Tata Business Excellence Model and are reflected in MD's Balance Score Card presented in **Figure-3.7**.

Partnership with NGO's, industry associations/organizations (3.15)

The table below illustrates some of our ongoing partnership projects in collaboration with other NGO's, Industry Association/Organizations:

Organizations / NGOs	Area of Partnership
The Global Business Council HIV/AIDS London	(i) Preventive & Promotive activities (ii) Curative & rehabilitative activities (iii) Adopted East/West Singhbhum for conducting AIDS awareness.
United Nations Global Compact Forum	To promote good corporate practices in the areas of (i) Human Rights (ii) Labour (iii) Environment (iv) Anti-corruption
IISI Brussels, Ministry of Environment Forests New Delhi	Life Cycle Assessment for Steel Sector and issues related to steel business like Quality, Technology, Markets, etc.
UNIDO, Confederation of Indian Industry, UNDP	Water pricing for resource conservation. Market based instrument for pollution prevention in steel sectors.
EPIA, USA	Adolescent Reproductive Health Project called SAHAS.
CARE International, USA	To promote safe motherhood and infancy to reduce IMR and child mortality rate of less than 5 years of age (CMR <5) in 162 villages.
UNICEF	WATSAN (Water and Sanitation Project) that will cover 100 villages.
Sir Ratan Tata Trust	Rehabilitation and reconstruction work for the Orissa Cyclone victims; irrigation project.
The Calcutta Samaritans	Running of a De-Addiction Centre at Baridih.
CII/CIDA	Implementation of Corporate Sustainability Management System.
CII, FICCI, ASSOCHAM, ICC	Market and business related issues.
Government of Jharkhand	JSACS for AIDS awareness; JEP for education, irrigation projects
Packard Foundation	Adolescent Reproductive Health.
National Commission on Population	Population Sterilisation
DRDA	Watershed and social mobilisation

MANAGING UPSTREAM AND DOWNSTREAM IMPACTS (3.16)

PERFORMANCE OF SUPPLIER AND PROCEDURE FOR MONITORING:

Procedure for monitoring contractor/supplier compliance with various statutes & management system

Stage of monitoring of compliance	Adherence to the laws of the land	Frequency
At vendor registration	Sales Tax Registration, Number (State and Central), Provident Fund Code (for all service providers), Excise Registration Number, PAN Number, Employees State Insurance. SA-8000, ISO-14001, OHSAS-18001 compliance	At registration stage for vendors (both for suppliers and contractors)
While dealing with Tata Steel	• Vehicle registration papers, road tax papers, driving license for drivers and pollution under check certificate. • Non-submission of Excise Duty Gate Passes. • Specific cases of violation as pointed out by Provident Fund Commissioner, Income Tax Authorities, Sales Tax Authorities and Excise Authorities, Police, etc. • Checking all the cases, all the time and for all vendors. • Deducting from pending bills/ running bills for non-submission of ED gate pass.	• Random checks by Security Departments for vehicles plying to and from the Steel Works. • Deduction by accounts for specific cases. • Details furnished on case-to-case basis on demand. • Handled only as exceptions • At invoice verification stage.

Product & Services Stewardship Initiatives

All units of Tata Steel are certified to ISO-9000, ISO-14001 & SA-8000. Life Cycle Assessment is carried out from cradle to gate (from mining to HR coils) to systematically analyse the inputs and outputs, which can have adverse impact on environment and society. Targets are set as a part of annual business plan to continually improve the environmental and social impacts of our products, services and activities through better operating practices and technological intervention. In the downstream operations (supply of steel to stock yard and customers), Tata Steel recycles the wooden and structural supports used during shipment.

Customer Value Management

Tata Steel has a base of approximately 1500 customers, spanning all over the country. In addition, the Company had a large number of retail consumers who bought steel infrequently for constructing homes and other such applications. Given its relatively modest capacity (by world standards) of 4 million tonnes per annum (MTPA), accounting for about 15% of Indian steel consumption, the Company could not aspire to be a predominant volume player in the market. At the same time, the Company did not want to be seen as a commodity supplier, with resultant unrelenting pressure on prices and margins. These factors prompted the Company to examine its portfolio of customers, and through a process of customer rationalization, it attempted to migrate some of the most promising accounts from transaction selling to the more collaborative mode of consultative selling. For this migration of customer relationships, it chose to focus on select customers in the automobile and construction industries, as these were perceived as high growth sectors in the country.

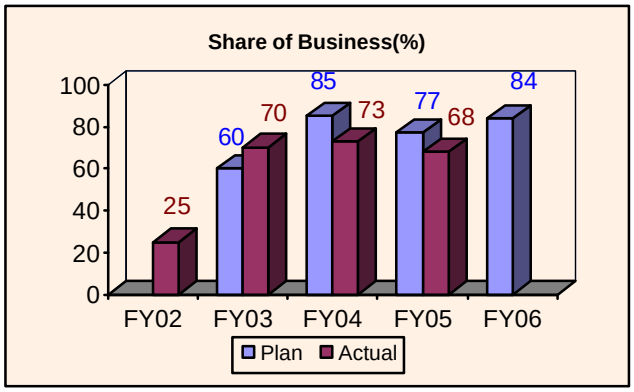
The following criteria were used to select the customers for carrying out Customer Value Management.

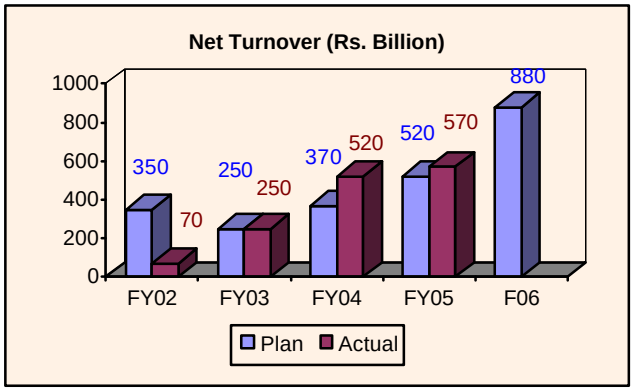
- Position on Product Portfolio Matrix (competitive strength-vs-market attractiveness of our products).
- Impact potential.

- Nature of relationship (maturity, longevity of business, etc).
- Cultural fit.
- Strategic alignment.
- Long-term winners.

Based on the above criteria, 16 customers were short listed out of 100 for CVM exercise during the reporting period.

To show the effect of CVM, the case of one of our key automotive customers has been highlighted. In FY02, Ashok Leyland was the second largest player in the commercial vehicle industry of 146,000 vehicles, with a market share of 22%. With a turnover of Rs.26.00 Billion, it had operations bases at Chennai and Hosur in South India. The commercial vehicles produced by Ashok Leyland were mostly sold to State Transport Undertakings and Institutional Buyers occupying 51% of the passenger vehicle market. At that time, Tata Steel was supplying only 4000 mtpa of steel, which was a mere 25% of the share of business and the net turnover was only Rs.70.00 Million. The relationship with Ashok Leyland was restricted to the purchase team and was primarily transactional in nature. The focus was primarily on price. The seven-step CVM process outlined above was followed to generate improvement ideas. Implementation of these ideas resulted in substantial benefits to the Company as shown below.





Addressing Indirect Impacts of our Activities (3.17)

Tata Code of Conduct defines the approach to managing impacts resulting from its activities in **Clause#1** under National Interest.

"A Tata Company shall be committed in all its actions to benefit the economic development of the countries in which it operates and shall not engage in any activity that would adversely affect such objective. It shall not undertake any project or activity to the detriment of the Nation's interests or those that will have any adverse impact on the social and cultural life patterns of its citizens. A Tata Company shall conduct its business affairs in accordance with the economic, development and foreign policies, objectives and priorities of the Nation's government and shall strive to make a positive contribution to the achievement of such goals at the international, national and regional level as appropriate."

In keeping with the Code, Tata Steel strives to adopt state-of-the-art preventive measures and where required shall appropriately address any impact.

Major changes during the reporting period (3.18)

The details of mergers/acquisition/closures are furnished in **Section-2** under **Section-2.14.**

PROGRAMMES & INITIATIVES TOWARDS SUSTAINABILITY AT A GLANCE (3.19)

Prioritisation, target setting & senior management review

Sustainable development is about adding value to the Company's products and services with a focus on customers, shareholders, employees and the local community in which it operates and more widely to regional and national development. It's Policies; Statement of Purpose, Vision and Mission statements are deployed through a well-structured and defined business model called Tata Business Excellence Model (TBEM). These statements act as guiding principles for development of organizational structure and action plan with clear-cut delineation of responsibilities and authorities. Sustainability concerns are built into the model through "Leadership" that is founded on Tata Values, Code of Conduct, Policies and Guidelines.

The management leadership prioritises the concerns of stakeholders based on current business needs, market situation and the need to improve the quality of life of the "communities Tata Steel serves." The targets are set based on the historical data, technological and financial constraints and the industry benchmark as shown below in **Figure 3.5 (a).** The review process and management structure for prioritisation, target settings and review is furnished in **Figure 3.5 (b).**

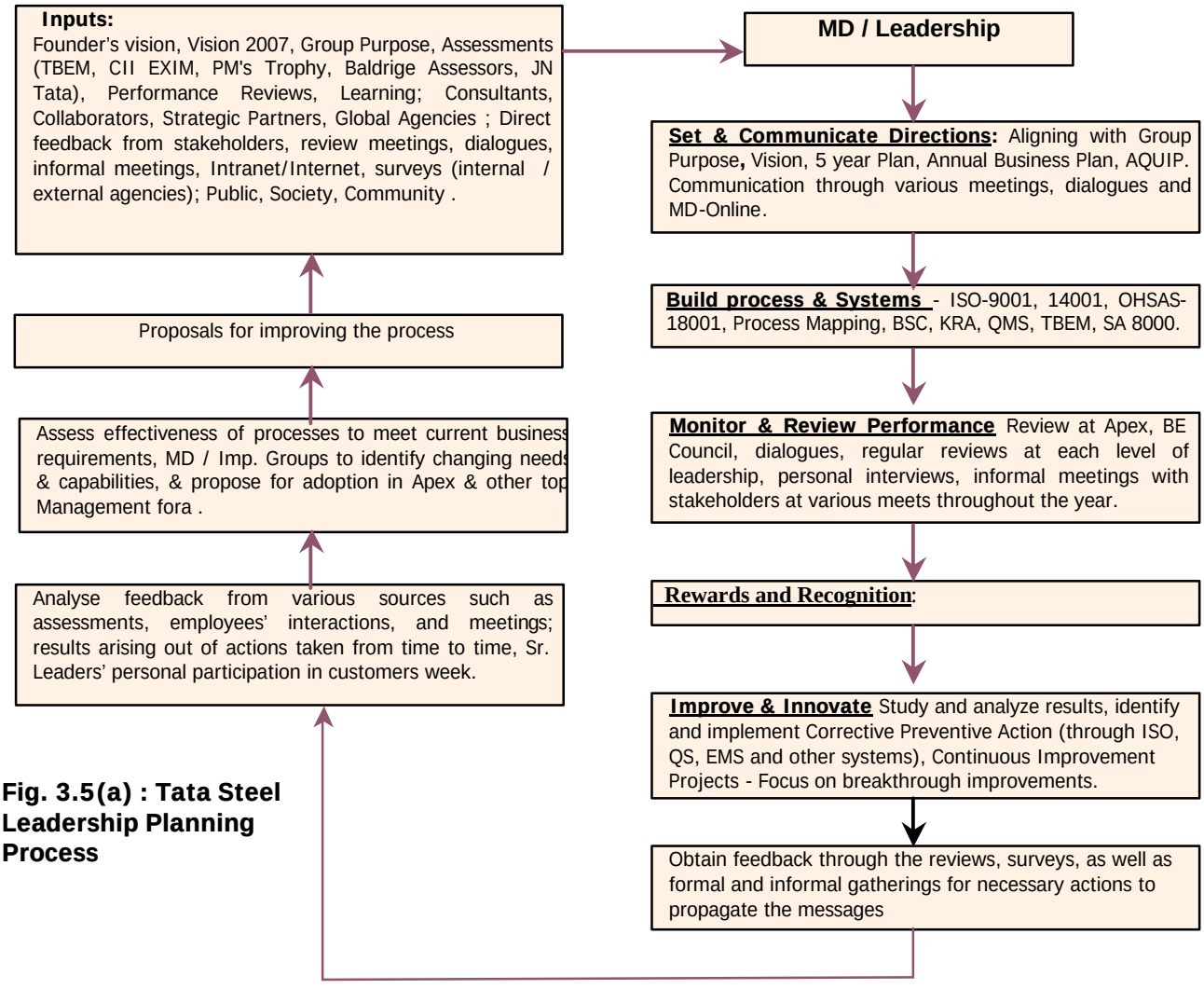


Fig. 3.5(a) : Tata Steel Leadership Planning Process

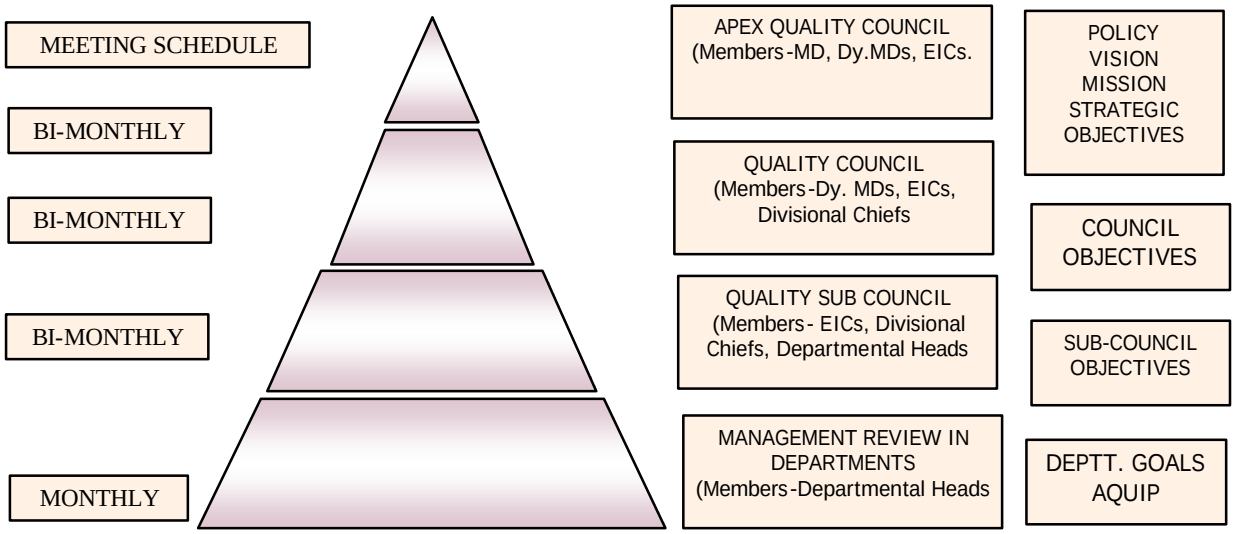


Figure 3.5 (b)-Organization Management Structure for Economic, Environment & Social Commitment

Communication Systems

The principal communication channel is the Quality Management System and Environmental Management System of the organization. There is a four-tier review mechanism/process i.e. Apex Business Council level review – once in six months; Business Excellence Corporate Council – once in three months; Business Excellence Council – once in two months; and Departmental/Divisional Councils – every month. The objectives and targets against economic, environmental and social performance form part of departmental key performance measures that are reviewed at all the three levels as per the frequency given above. The key performance measures of the department are further cascaded down to individuals in the form of Key Result Areas that becomes the responsibility of the individuals. The outcomes of the review process are communicated to the employees at various forums like JDC, JWC, JWQC & APEX meetings. In house publications such as Tisco Samachar, Tisco News, Supervisors' Newsletter, Talmel / Khasbat and Intranet website are used for extensive communication. On the 1st Monday of every month, the MD addresses all the employees of the Company through the Intranet enabled videoconferencing and webcast facility MD ONLINE. This gives every employee of the Company the opportunity to ask questions and seek clarifications on issues related to sustainable growth and employee welfare.

Management systems and major programme for performance improvement

The management systems essentially comprise design, deployment, review and improvement of the twelve key enterprise processes referred to in **Section-1.2, Figure-1.7.** Some of the sub-processes and programmes include:

Processes to assure business performance:

- Design of products/services – the design of products/services is driven by customers needs as well as social and environmental considerations.
- Design of production and delivery processes – the design of production and delivery processes are based on the Technical Delivery Condition, which are translated and documented in specific process charts.
- Co-ordination – These processes are coordinated by Customer Service Department (CSD), which interfaces between Marketing & Sales and the Steel Works.

Process performance:

- Daily collection and analysis of data is done to ensure product quality and consistency.
- The Product Quality Index (PQI) captures the improvements made with regard to consistency and improvements in the chemistry and mechanical properties of the steel products.
- Process consistency is also ensured through ISO-9000 and TS-13004 Quality Systems.
- Total Operational Performance (TOP) programme aims at detailed analysis of the baseline performance of the processes and identification of the gaps through benchmarking. Improvement projects are taken up to bridge the gaps. ABC analysis of the cost influencing factors of key processes has been undertaken.
- Learning acquired in one area is shared with and deployed in other areas as well.

Human Resource focus:

The HR processes have improved performance orientation and have been further aligned and integrated with strategic objectives. Tata Steel continuously injects fresh talent from all over the country, from the business schools and technical institutions into the organization through its cadre based recruitment schemes to retain its cosmopolitan nature. Human Resource Management lays emphasis on:

- Institutionalisation of the concept of Total Customer Satisfaction, Internal Customers, and Supply Chains across the organization through MOU's between suppliers and key customers.
- Continuous improvement is targeted through, employee involvement in cross-functional teams, Quality Circles; fully autonomous profit centres is an example of organization wide empowerment.
- Flexibility and rapid response is achieved through multi-skilling, cluster manning, Business Process Re-engineering of supply chain, a flatter organizational structure and innovative reward and compensation schemes.
- Trade Unions are engaged in decision making at all levels from top management to shop floor as shown in **Figure # 2.1.**

Employee development & training

- Safety is a high priority area. Several programs to inculcate a culture of Safety are being practiced, but the Company needs to do more to prevent accidents and improve its Safety record.
- The Technical Education Advisory Committee guides employee development and training in line with strategic goals of the Company and its long-term objectives. The in-house training centres impart majority of the training programmes. (Technical Institute & Management Development Centre).
- Employees are also deputed to other organizations and training centres in the country and abroad for specialised training.
- Officers are trained to become business managers through special general management programmes such as at CEDEP, France.

For further details on employees please refer to **LA9, LA16 & LA17 under the Section on Social Performance.**

Creating an atmosphere to help achieve a world class workforce:

- A variety of compensation and recognition systems such as special increments, Person(s) of the Month, Quality awards have been instituted.
- Numerous state-of-the-art communication channels enable interaction and information / skill sharing across the organization.
- Employees are continuously educated on preventive health care and hygiene, alcohol and drug abuse, HIV & AIDS.
- Occupational Health Services besides creating awareness on occupational hazards also conducts general health check-ups. Health check-ups were given to all contractors' labour working in hazardous areas as part of the SA 8000 implementation.
- To enhance employee motivation and satisfaction a number of facilities are provided by the Company, such as subsidised accommodation, subsidised electricity, free water, free medical treatment, free schools for wards, recreational clubs, fair price shops, etc.

Responsibility towards the public / community:

Tata Steel, in keeping with the Group Purpose, its commitment to various codes and articulated policy position incorporates the following as central to its social responsibility:

- Meeting regulatory and legal norms.
- Ethical behaviour is promoted through regular communication, and commitment to the Tata Code of Conduct.
- Social audits are conducted periodically to ascertain the effect of our products/processes and services on society followed by corrective actions.
- ISO 9001, ISO 14001, OSHAS 18001, SA-8000 and CSMS are used to develop management systems for aspects that affect business.
- Strengthening and supporting the community in a number of ways like maintaining the city of Jamshedpur, providing medical treatment at low cost to employees and at nominal cost to non-employees at Tata Main Hospital, organizing eye camps, family planning, immunization and other camps, encouraging sports and youth development and participating in social programmes in the villages.
- In order to monitor Tata Steel's role towards the community, MD's Balance Score Card includes a "Corporate Citizenship Index" comprising measures related to health, hygiene and environment, which are deployed by the concerned departments.

Figures-3.6 (a) & 3.6(b) give details of the activities related to societal responsibility and community support.

Figure-3.6 (a) Societal Responsibility Activities

Social Responsibility	Stakeholders affected	Impact / Risk	Practices / Processes	Key Measures	Targets	Strategic action plans supported
Environmental Leadership	Environment, Community & Society, Government, NGC	Pollution, Global Warming, Resource Usage, Ecological imbalance, legal non-compliance	EMS ISO-14001	Compliance to norms	100%	Improving the quality of life
Health & Safety	Employee & Contractors	Health care and safety, legal non-compliance, disaster management	EMS ISO-14001 & OHSMS-OHSAS 18001, Crisis Management under Town Division, SA 8000	Compliance to norms and documented system requirements	100%	Quality of life, environmental, safety and health sustainability
Supply Chain Interface	Suppliers	Ethical values	MOU, COC, SA 8000	Spread of COC	-	Partnership
Public conduct/ interaction with community & society for capturing their concerns	Community & Society, NGOs, Citizens of Jamshedpur	Income generation, un-employment, social unrest, health & hygiene, education	Communication forums e.g. Sr. Citizens forum, Joint Community Meeting, Hospital visiting committee, Interface with community during selection of TFA cadets, Life Line Express venue, Education Excellence Award	No. of meetings positive media coverage	Once in quarter	Improving the quality of life, partnership with society and social license to operate
Product stewardship	Customer, society	Product usage and disposal	LCA	Analyse results through LCA software	Cradle to gate	Environmental sustainability
Safety, health and environment education	Employees, Community & Society	Health and environment care and safety consciousness	Structured training programme under ISO-14001 & OHSAS-18001 and awareness programme	No. of programmes	As per plan	Quality of life and EHS sustainability

Figure – 3.6(b) Community Support Activities

Types	Communities Impacted	Organization Support	Objectives/Achievements of Interventions
Health Care	Citizens of Jamshedpur and adjoining area	740 bed hospital with specialized burn care unit; Allied hospitals nine dispensaries; Cancer hospital with MRI one Blood Bank; two De-addiction centres; five Homeopathic Clinics; Public Health Services, Quality drinking water	Improved health of citizens of Jamshedpur. Provide improved health care facilities; improved quality of drinking water; AIDS awareness training, member of Global coalition on AIDS awareness training, member of Global coalition on AIDS
	Rural Communities in and around Operations	Outreach services through mobile and community clinics; Family welfare programmes; Tuberculosis education, Immunization services; Safe drinking water; Low cost sanitation; Disability management	To prevent spread of diseases and improve health of the communities in order to build their capabilities. More than 7000 TB cases cured; 1050 tube wells provided; Life Line Express hosted seven times; Infant Mortality rates brought down from 96 to 56/1000 in Patamda block.
Educational Support	School children in Jamshedpur Pre-school children in 60 villages in Jharkhand & Orissa SC/ST students	Millennium Scholarship / VG Gopal scholarship for meritorious students / Financial assistance to SC/ST meritorious students; Coaching for entry into administrative / technical services / computer education; Build & Manage infrastructure; More than 200 libraries in areas across operations / Internship training – MBA/ Engg. /Med.; Dr. J J Irani Education Excellence award based on Malcolm Baldrige education criteria.	Improve the quality of education to create inbuilt capabilities in communities. Improve the quality of education in the schools of Jamshedpur – This will help in creating a source of well trained employees base for us and our suppliers in the long-term; Manage eight high schools/seven primary schools/ one intermediate college/ 312 rural schools assisted/ 171 Balwadis run in rural areas.
Training for Gainful Employment	Urban and Peri-urban population of Jamshedpur. Rural communities residing near our operations	Trade apprentice coaching and training at SNTI; Training of rural women population on specific trades; Computer Education; Traditional Birth attendant training for rural girls. Networking with Govt. and Non-Govt. training institutes.	Increase employment opportunities for youth and raise standard of living. PM's Trophy prize money to be used in setting up a Polytechnic at Jamshedpur; Networking partners: Rashtriya Karigar panchayat/Indo-Danish Tool Room; Ramkrishna Mission.
Promoting Economic Growth	Business; Community; Rural Population	Infrastructure development in Jamshedpur/ Adityapur; Development / support of local vendors; Procurement from social organizations; Agriculture extension/ skill up gradation; Micro-financing-Women Focused; Providing Market linkages.	Improve the economic condition of the vicinity; procurement from local suppliers; procurement from social organizations; Organizing Gram Shree Mela & other trade fairs.
Sports & Adventure	Citizens of Jamshedpur; Rural Talents Nation	Setting up of sports infrastructure; three state-of- the-art stadium at Jamshedpur and three out-locations; eight training centres and academies; Flying Club / Horse Riding School / Rock Climbing/ river rafting/ parasailing; Corporate sponsorship of sporting events, Adventure Foundation, Football, Archery and Athletics Academies.	Provide infrastructure to promote sports and inculcate spirit of adventure in citizens of Jamshedpur. 14 Gold / 8 Silver / 9 Bronze medals won in national events in2002-03; sponsorship of events at Jamshedpur-Archery/ Football/ Cricket/ Chess/ Badminton/ Handball/ Athletics/ Olympics for mentally retarded etc.
Civic Amenities	Citizens of Jamshedpur and employees of out location units	Development and maintenance of civic amenities; maintenance of 524 kilometres of roads; 35.5 M gallons of water supplied daily; 17 large & small parks maintained; Emergency Fire Services.	To build a town and further improve quality of life; children/s entertainment park; Zoological Garden; club houses in all residential complexes; Interstate Bus terminus; maintenance of markets.
Promoting Art & Culture	Local Communities	Establishment of Tribal Culture Centre Jamshedpur School of Arts; Corporate sponsorship to traditional and contemporary cultural events.	To preserve the local tribal cultural heritage and promote art and culture. Chau Mohoutsav, Jhunur; Film Festival; Art in industry.
Professional society membership	SPPE, St. John's Ambulance Brigade, BIS, JMA, AIWC, IIM, XLRI, CII, FICCI, ASSOCHAM, ICC	Tata Steel's leadership team contributes to Nation building by taking on leadership roles in CII, IIM & XLRI, etc. Corporate sponsorship and Associations. Centre for Excellence created for the much needed business transaction facility.	To strengthen communities by building associations.
Tata Relief Committee	Communities affected by disasters	Relief to Tsunami, Tata Relief Committee instituted 1998 – 156 houses / community centres for MP earthquake; 2001-Constuction of houses and schools for Orissa cyclone victims; 2002-reconstruction of 20 schools at Raipur in Gujarat, distribution of medicines during Gujarat riots, etc.	To respond and alleviate large-scale suffering of people owing to natural calamities.

Environment & Health related processes

Tata Steel has adopted the Environmental Management System (ISO-14001), Occupational Health & Safety Management Safety (OHSAS-18001) & Social Responsibility Management System (SA-8000) to manage its Environment, Health & Safety (EHS) effectiveness and performance. The EHS includes all aspects associated with products, services and operations as shown below:

Key Practices	Legislation	Activities	Risk Associated
Environment monitoring	Air Act 1981	Stack emission monitoring; Work area environment ambient air quality	Air pollution
-do-	Water Act 1974	Measurement and analysis of effluent water	Water pollution
-do-	EP Act 1986, Factory Act '1948	Noise level measurement and Work Place measurement	Noise pollution, Air pollution
Waste Utilization/ Disposal	EP Act 1986	Recycling / reuse of waste; Solid waste disposal Bio-medical waste	Land/water pollution, health hazard
Resource conservation	EP Act 1986	Reduction of specific raw material consumption; Water consumption; Energy consumption	Depletion of natural resources, cost over-runs Env. Pollution
Legal Compliance	EP Act 1986 & Factory Act	Submission of environment, health & safety compliance reports, filing returns & assessment	Penalty/closure of defaulting units
Water Purification & Supply	Water Cess Act 1977	Payment to statutory authorities.	Legal action

Tata Steel has improved its compliance with respect to Safety and environmental requirements of the countries to which it exports products by availing the services of the world-renowned company SGS India Limited to oversee export shipments. Risks associated with current and future products are integrated through R&D and actions are taken to minimise or eliminate the same at the product design stage itself. Future products are evaluated vis-à-vis public concerns. Public concerns associated with new projects are addressed in the Risk Analysis done for each project. To assess the risks to society and environment and to incorporate sustainability concerns in corporate strategy, Tata Steel has undertaken (Life Cycle Assessment) LCA under the aegis of Ministry of Environment and Forests. Under this project MoEF in collaboration with International Iron & Steel Institute had initiated Life Cycle Assessment output in 3 Steel Plants in India i.e. Tata Steel, Bhilai Steel Plant & Vizag Steel Plant. The study focused on environmental burdens of steel making starting from mining to manufacture of steel up to the gate of the factory. Furthermore, a study on the "Carrying Capacity" of Jamshedpur has been carried out by NEERI in the year 2000, which serves as a blueprint for environment friendly development of this region. The Managing Director has declared the year 2004 as "Safety Year" and M/s. DuPont Safety Services have been engaged to introduce Behavioural Safety in the organization.

APPROACH TOWARDS SOCIAL DEVELOPMENT

- **Leadership & Policy Support**: The management has adopted the Article of Association on social responsibility. A draft social policy has been released during the reporting period, for implementation.
- **Strategy on Corporate Social Responsibility**: The Company has annual programmes as per the Tata Council for Community Initiatives (TCCI) Guidelines. The Company has a matrix of its competencies stating the exact possibilities for action.
- **Allocating resources & system of accounting**: The Company recognizes that social expenditure is a developmental cost and records it under a separate account head. Social expenses are distinct from employee welfare.
- **Assigning key responsibilities**: The management has key persons deployed for this work and its management representative has annual goals by means of KRAs.
- **Communication strategy**: To keep employees and public at large informed about Company's work on social responsibility, the Company publishes its reports through newsletters, in-house magazines it's website and the Directors' Annual Report.
- **Volunteering**: The Company has instituted a scheme for encouraging employees to volunteer for social projects.
- **Documentation**: The Company documents its work methodically.

Tata Steel's subscribes to Tata Council for Community Initiatives guidelines. The declaration of the Council on social responsibility made on 14.12.99 is presented below:

- The community is central to the core values we adhere to in the Tata Group.
- Tata Community programmes aim at building trust and improving the quality of life.
- Tata programmes facilitate sustainable change.
- We believe that the community gives us valuable opportunities to learn.
- Commitment to social responsibility is explicit in every Tata Company.
- We network through our core competence to empower communities.
- Tata volunteers are committed to the spirit of service.

Internal & External Audit Systems

Internal and external audits are carried out regularly. The management structure and the agencies that carry out such audits are briefly described in **Section#3.6**. The organization carries out, at pre-defined intervals, internal & external audits for Finance; ISO-14001; OHSAS-18001; and TBEM. Half and Yearly, and Yearly respectively audits are conducted for all, while a Social Audit is conducted once in ten years.

Management systems certification status (3.20)

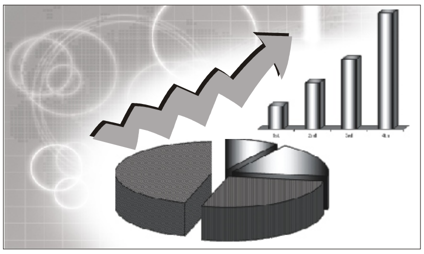
All units of Tata Steel are ISO-14001 certified. Units, which cater to the requirements of external customers like Rolling Mills, Mines, and Bearings Division, are certified to ISO-9001-2000 and other departments/sections, (upstream production & service units) which have internal customer focus, are certified to TS-13004 of equivalent the ISO-9001. During the reporting period, Tubes Division & Sukinda Chrome Mines were certified to OHSAS-18001. In addition, the Steel Works and Sukinda Mines were certified to SA 8000.

Figure # 3.7 – MD's Balanced Scorecard for 2004-05

Perspective	Corporate objectives	Strategic measures	Units of measure	Targets (04-05)	Actual (04-05)	Key current initiatives
Shareholders	• Create sustainable and aggressive growth	Gross Turnover Growth	%	15	28	• 1 mtpa at Jamshedpur by FY 2006 • 2.4 mtpa expansion plan by FY 2010 • Acquisition in India • Steel plants at new locations for "deintegrated" production
	• Create incremental EVA	Delta EVA (YOY)	%	10	14.96	• EVA governance initiatives • ASPIRE
	• Serve selected overseas, and dominate domestic high-end markets	• Market share: auto • Market share: appliances • Market share: longs • Customer Satisfaction Index • CSI-Auto • CSI-Appliance • CSI-LP	% % % ratio w.r.t to best competitor ratio	63 50 39 1.07 1.05 1.12	49 30 30 1.05 1.03 1.13	• Tie up with Nippon and Arcelor for high-end auto market. • Implement early vendor involvement (EVI) for product development. • Expand service centre network. • Technical alliance with Arcelor for extra valvn. • Product development for future steel grades and auto sector.
	• Extend brand coverage to all retail products to provide superior value in the mass market	Branded sales as % of non-OE sales	%	85	85	• Continue RVM • Continue branding initiatives
	• Established value creating partnerships	Converge of CVM • Flats • Longs Coverage of RVM • Tiscon • Shaktee GC • CR Steelium • Standard tubes	 % of OE % of ABP	 45 55 100 100 80 80	 29 31 86 84 50 65	• CVM with all OE customers

Figure # 3.7 – MD's Balanced Scorecard for 2004-05 (contd...)

Perspective	Corporate objectives	Strategic measures	Units of measure	Targets (04-05)	Actual (04-05)	Key current initiatives
Internal	• Ensure business focus	Business position in domestic marker Steel FAM Tubes Wires Bearings TGS Rings Agrico	Rank	 2 1 1 1 5 4 1 1	 2 1 1 1 5 4 1 1	• Divest, spin-off, out source
	• Establish a globally efficient value chain through operational excellence	Inventory	Days of sales	32	41	• Aspire • Supply chain initiatives
Mindset/ culture	• Create global leaders with passion for excellence and growth	• Leadership behavioural index	Index	77	77	• Increase time spent on developing people to create leader at all levels. • Create leadership pipeline and develop global managers • Knowledge sharing through Manthan (brain storming)
	• Enhance industry leadership in corporate citizenship	CII	Index	10	9.39	• Improving quality of life of communities we serve.



Section - IV

Economic Performance

FINANCIAL VALUE

Topline Growth, Bottomline Growth, Progress, Profits, Prosperity

Today, Tata Steel is an EVA Positive Steel Company and seeks to become a downline player in the global steel industry by entering new markets and by pioneering enhanced applications of steel.

FINANCIAL INDICATORS - IISI SUSTAINABILITY REPORTING

Sl. No.	Indicator	Units of Measure	World Avg. (04-05)	Tata Steel (04-05)	Numbers Reported (04-05)
1	Investment in new, processes & products	%	6.3	12.51	36
2	Operating Income	%	15.7	21.49	36
3	Return on capital employed	%	22.3	35.51	36
4	Value Added	%	11.6	14.51	36

CONTENT INDEX

CUSTOMERS & SUPPLIERS

Net Sales & Other Financial Indicators (EC1)

	Rupees Million (04-05)	Previous Year Rupees Million (03-04)
a) Net Sales Income	144989.5	107023.9
b) Total Expenditure	84535.9	72069.8
c) Operating Profit	60453.6	34954.1
d) Add: Dividend and Other Income	1480.3	1405.1
e) Profit before Interest, Depreciation, Exceptional items & Taxes	61933.9	36359.2
f) Less: Interest	1868.0	1221.7
g) Profit before Depreciation, Exceptional items and Taxes	60065.9	35137.5
h) Less: Depreciation	6187.8	6251.1
i) Profit before Exceptional items & Taxes	53878.1	28886.4
j) Less: Exceptional items	905.3	2226.8
k) Profit before Taxes	52972.8	26659.6
l) Less: Provision for Current Taxation	18336.6	9200.0
m) Less: Provision for Deferred Taxation	(105.4)	(2.6)
n) Profit after Taxes	34741.6	17462.2
o) Add: Balance brought forward from the previous year	6374.2	3074.5
p) Balance	41115.8	20536.7
Which the Directors have appropriated as under to:		
i) Proposed Dividend	7195.1	3689.8
ii) Tax on Dividend	1018.6	472.7
iii) General Reserve	15000.0	10000.0
TOTAL	23213.7	14163.7
Leaving a balance of to be carried forward	17902.1	6374.2

Market Spread (EC2)

Revenue by Geographical Market	04-05 (Rs. Billion)	03-04 (Rs. Billion)
India	123.09	92.011
Outside India	21.90	15.013
TOTAL	**144.99**	**107.024**

The break up of regions within India and outside India is not complied by the organization at present. This information will be furnished in the reports starting FY 05-06.

Cost of goods, materials and services purchased (EC3)

Rs. 60.737 Billion (03-04)
Rs.76.569 Billion (04-05)

Contracts paid in accordance with agreed terms, excluding agreed penalty arrangements (EC4)

100% of the contracts were paid in accordance with the contract terms during the reporting year.

Our Suppliers (EC11)

A total sum of Rs.76.569 Billion was paid to the suppliers and service providers during reporting period. A few of these suppliers are; BOC India for Oxygen supply, ITW Signode for packaging, JAMIPOL for carbide injection powder, TAYO for Rolls, Tata Ryerson for conversion of flat products, Adhunik Steel for reclaiming waste material, Man Singh & Co. for construction and material handling, Tata Refractories for supply of refractories. Hindustan Zinc Limited for zinc supplies, MMTC, Tata Sponge, Sri Metaliks, RSMML for supply of limestone from Jaisalmer. The break up of payment segment-wise is given in **Figure-4.1.** Five top Indian suppliers interms of percentage business volume are Minerals& Metal Trade Corporation (MMTC),-1.42%; Tata Sponge – 1.25%; Hindustan Zinc-0.92%; Sri Metaliks – 0.9% and Tata Refractories – 0.75%.

EMPLOYEES

Total Payroll and benefits (EC5)

Wages & Benefits	Rs.12.91 Billion in 04-05 Rs.13.495 Billion during 03-04
Early Separation Scheme	Rs.1.191 Billion in 04-05 Rs.2.308 Billion during 03-04

PROVIDERS OF CAPITAL

Distribution to providers of capital broken down by interest on debts and borrowings, and dividends on all classes of shares with any arrears of preferred dividends to be disclosed (EC6).

1. Interest on debts and borrowings Rs.1.868 Billion against Rs.1.222 Billion during 03-04.
2. Dividends - Rs.8.214 Billion against Rs.4.162 Billion during 03-04.

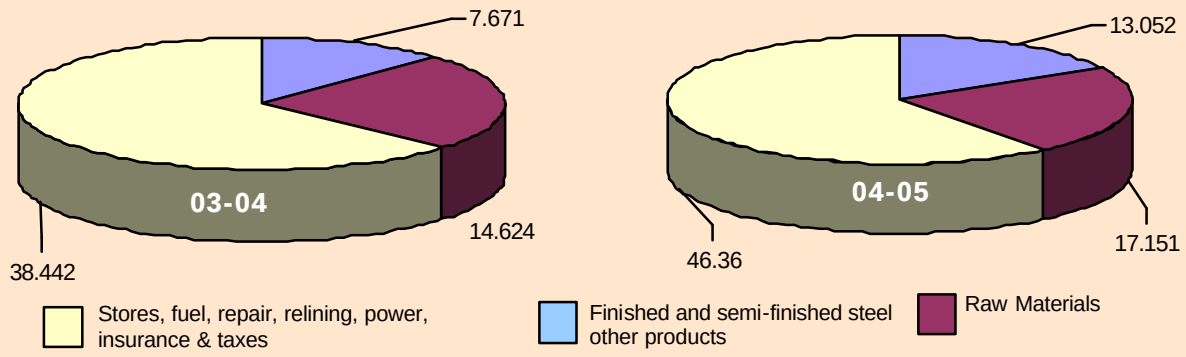
The Board has declared a dividend on Ordinary Share @ 130% (Rs.13.0 per share) for the year ended 31.03.05. The dividend will be paid as follows:

On 553,472,856 Ordinary Shares at Rs.13.0 per share (03-04: Interim dividend on 368,981,904 Ordinary Share at Rs.10.0 per share)

Retained earnings at end of reporting period (EC7)

	04-05 (Rs. Billion)	03-04 (Rs. Billion)
Retained earnings	32.725	19.541
Increase in retained earnings	13.184	7.203

Figure # 4.1 – Segment-wise break up of payment



PUBLIC SECTOR

Taxes paid to the Government (EC8)

The total sum of taxes like sales tax, excise duty, wealth tax, etc. paid by the organization during reporting period is Rs.32.01 Billion against Rs.21.383 Billion during 03-04. Break-up by region is not available.

Donations to community, civil society and other groups (EC10)

The total donations to the community, civil society and other groups during the reporting period were – Rs.584.4 Million against Rs.59.3 Million during 03-04.

Spent on community infrastructure development (EC12)

During the reporting period the steel Company committed to construct a community shelter at Kilamankveinkadiaya Pattinam village in Kanyakumari covering approximately 6000 sq.ft. built up area. In Tsumani hit areas the Company has constructed 177 houses and repaired 14 old houses. Approximately Rs. 30 Million was, spent, benefiting nearly 13000 families affected by the Tsumani.

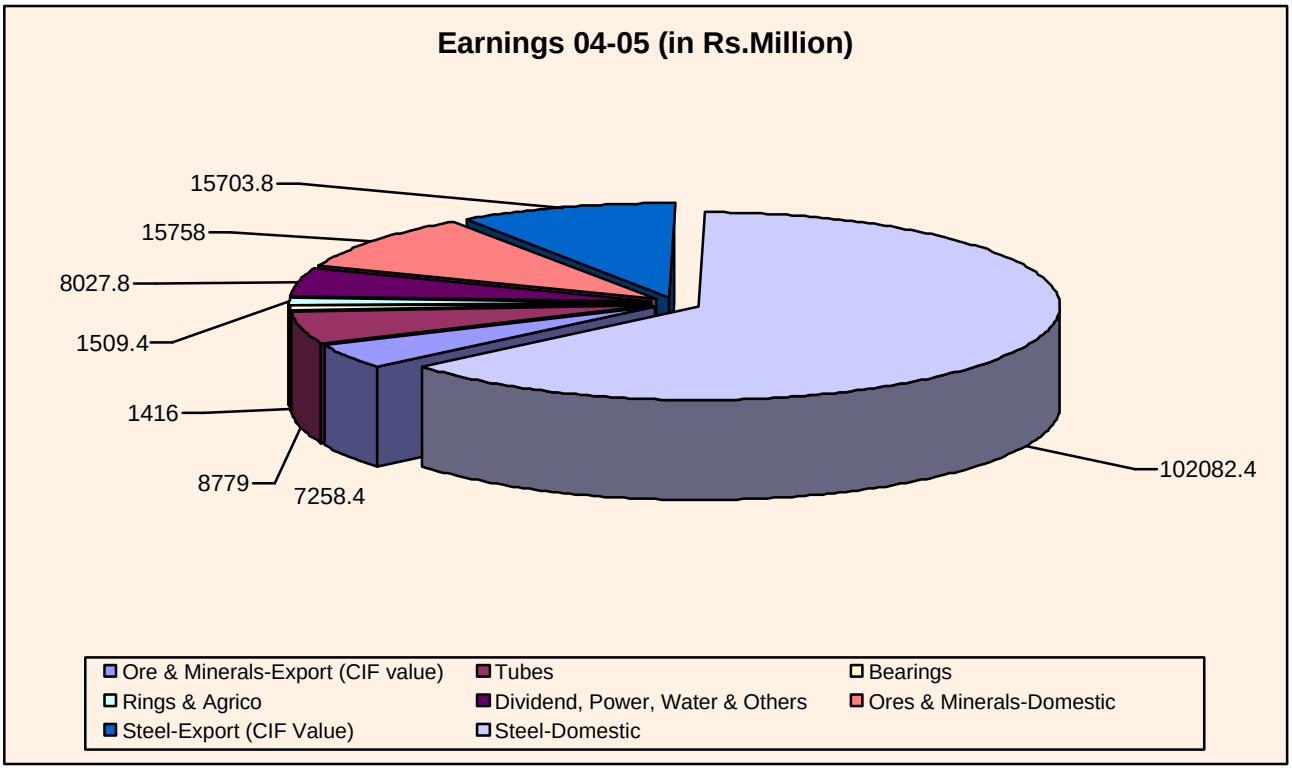
Subsidies received (EC9)

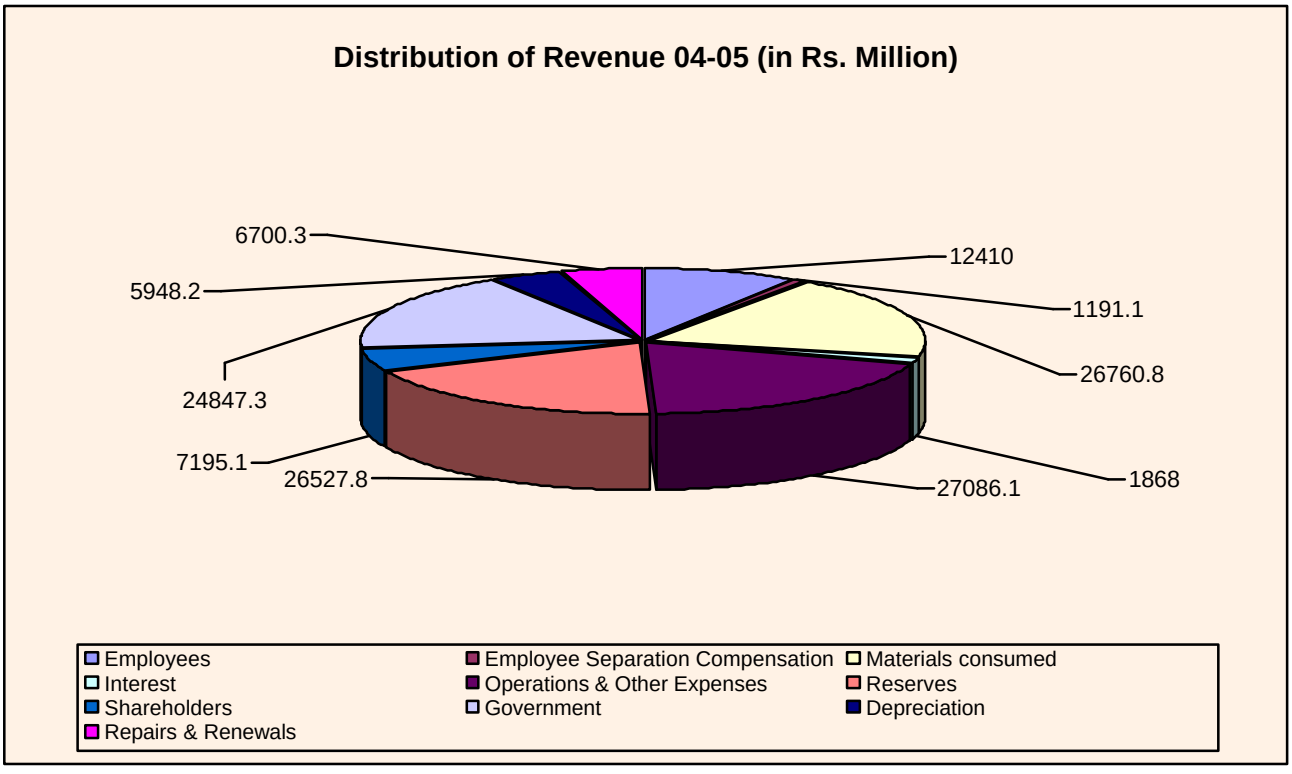
The organization has not received any government subsidy, tax break, duty drawback, government benefits, etc. during the reporting period.

INDIRECT ECONOMIC IMPACT

Indirect economic impact of business (EC13)

Tata Steel has not made any attempt to map and value its economic externalities, but recognises that by virtue of the nature of its operations there are several economic externalities. Tata Steel has created a township and other allied infrastructure, which have created redistribution of income and benefits. Although there is no established methodology to capture the indirect impact, there are several institutions and organizations in and around Tata Steel supported by the Company both in terms of skilled manpower (employees as members, executives and directors), sourcing of goods and services and also financial support. These organizations employ thousands of people who are indirectly benefited by the organization's products and services. Such organizations include Small Scale Industries, Rotary Clubs of Jamshedpur (6 Nos.), Lions Clubs of Jamshedpur (5 Nos.), Artificial Limb Fitting Centre, Arogya Bhawan, 2 Hospitals, 10 English Medium Public Schools, Transport Nagar, Jamshedpur Sports Association, Tata Steel Zoological Society (TSZS), Tata Steel Rural Development Society (TSRDS), Tribal Cultural Society (TCS), Credit Societies, Pay Roll Savings, RD Tata Technical Institute, etc.


Earnings 04-05 (in Rs.Million)
15703.8
15758
8027.8
1509.4
1416
8779
7258.4
102082.4
Ore & Minerals-Export (CIF value)
Tubes
Bearings
Rings & Agrico
Dividend, Power, Water & Others
Ores & Minerals-Domestic
Steel-Export (CIF Value)
Steel-Domestic


Distribution of Revenue 04-05 (in Rs. Million)
6700.3
5948.2
24847.3
7195.1
26527.8
12410
1191.1
26760.8
1868
27086.1
Employees
Employee Separation Compensation
Materials consumed
Interest
Operations & Other Expenses
Reserves
Shareholders
Government
Depreciation
Repairs & Renewals

Performance of TIS Group Companies (FY 04-05)

Name of the company	% share held	Original cost of investment (Rs. Million)	Goodwill (capital reserve) (Rs. Million)	Accumulated profit (loss) for the year ended 30.03.05	Carrying amount of investments on 31.03.05
Jamshedpur Injection Powder Ltd.	30.00	33.8	0.1	66.9	100.7
NatSteel Vina Co. Ltd.	33.90	12000	-	1.9	121.9
Southern NatSteel (Xiamen) Ltd.	40.68	437.3	-	10.1	447.4
Southern Steel Berhad	27.05	1001.3	-	23.0	1024.3
Tata Metaliks Limited	47.65	161.5	32.9	390.0	551.5
Tata Sponge Iron Limited	39.74	72.0	62.9	549.8	621.8
Tayo Rolls Limited	36.53	33.6	0.3	74.2	107.8
Tinplate Company of India Ltd.	31.89	300.9	-	(300.9)	-
TKM Overseas Limited	49.00	11.3	-	-	11.3
TKM Transport Mgmt. Sers. Pvt. Ltd.	100.00	-	-	-	-
TRF Limited	36.32	49.6	5.4	97.3	146.9

OTHER DETAILS

Research & Development

Specific areas in which R&D was carried out by the Company- Research was carried out in the areas of raw materials including coal, coke, energy utilisation, energy conservation, waste utilization, sintering, blast furnace productivity, product development and improvement in life of plant and machinery.

Benefits derived- Development of an organic reductant Cr6+ to 0.01 ppm in chromite concentrates; assessment of process route for illemenite and technical feasibility of briquettes use in SAF carried out; a comprehensive flow sheet developed to treat Joda classifier fines; alternatives to coke breeze for sinter making identified; burden distribution studies in 1:10 scaled down sector model of F blast furnace; production of low CaO sinter and its impact on sinter physical and high temperature properties established; developed a mathematical model for the optimisation of aluminium wire injection at LD#2; a suitable thin organic coating (TOC) of galvanized sheet developed in house for improving its corrosion resistance behaviour; optimum pickling process conditions through effective use of inhibitors were established through lab scale simulation study. Plant implementation in progress; reduction in the scale by –20% in EWNR grade wire rods; development of DP steel for wheel rim/disc application; trials successfully completed at M/s.SSWL, Chandigarh; reduced the thickness of two wheeler component using high strength sheet, a system for simulation of wire rod rolling has been implemented in WRM for TMT; a model to reduce shape defects of CR coil for simulation of wire rod rolling has been implemented in WRM for TMT; a model to reduce shape defects of CR coils for white goods applications has been developed; hot rolled cortin grade tube developed through Precision Mill.

Future plan of action- Improvement in blast furnaces productivity; improvement in dephosphorisation during BOF steel making; production of low ash (<8%) clean coal; production of low A1203 (<1%) and low phos (0.04%) iron ore; development of advanced high strength automotive steels; control of shape and property of AHSS sheets; development of high end wire products; improvement in the ferro chrome production process; improvement in the production of Titania.

Expenditure on R&D (Rs. Million)	(03-04)	(04-05)
a) Capital	10.4	2.74
b) Recurring	232.2	30.98
c) Total	242.6	33.72

Status of Patents & Copyrights (04-05)

- Patents sealed : 22 Nos.
- Copyrights sealed : 02 Nos.
- Patent applications in Process : 154 Nos.
- Copyright applications in Process : 40 Nos.
- **TOTAL : 218 Nos.**

Technology Absorption, Adaptation and Innovation

- **Conversion of slab caster#1** - To cater to low and ultra low carbon steel at higher speed and to meet the stringent quality requirements, the existing slab caster has been converted to vertical bending type from bending type. On conversion, the geometric vertical height has become 2.5m while the bow radius has been reduced to 7.5 m from 10m. The modification also includes installation of hydraulic oscillator in place of short lever mechanical oscillator. The technology was provided by VAI.
- **Modification of RH to RH-MFB** – The existing RH degassing unit for making ultra low carbon steel has been modified by adding multi function burner facility. This will improve the refining process and would help in achieving very low level of carbon, better temperature adjustment for casting, higher RH vessel life and improved refractory cost. VAC Metal Engineering Solutions in association with SMS carried out the modification.
- **Up-gradation of HM cranes** – Hot metal handling cranes at LD#2 have been upgraded to increase the heat size.
- **Modification in ROT control at Hot Strip Mill** – Run out table control method has been modified along with VAI-Austria to achieve 96% of accumulated length within +/-15^{o} C. This is aimed to improving product quality.
- **Modification of Reheating Furnace#2 at Hot Strip Mill**- Reheating furnace#2 at HSM has been modified with regard to heating (burner modification, number of burners and positioning etc) and skid to increase the productivity from 250 t/hour to 300 t/hour, along with uniform soaking of slab.
- **New annealing bases at Cold Rolling Mill** – Two new annealing bases have been added in the Batch Annealing Furnace at Cold Rolling Mill.

- Dual Pot operation at CGL#2- Dual pot operation at Continuous Galvanising Line#2 at Cold Rolling Mill has been adopted. This was aimed at improving line availability and avoiding the risk of molten zinc pumping.
- **Infrared camera installed for slag detection** – IR camera has been installed at LD Shop#1 to reduce slag carry over and improve product quality.
- **Modified blowing lance tip design** – Blowing lance tip design modified for higher heat weights with same tap-to-tap time.
- **Gas cutting of billets at CC#1** – Gas cutting facility commissioned for smooth ends to reduce cobble/crop losses at WRM.
- **Intermediate Pinch Roll at WRM** – Intermediate pinch roll commissioned between water box#3 & 4 for faster rolling of 8mm TMT and improvement in yield.
- **Variable frequency drives for high power consuming pumps and blowers at WRM** – Commissioned variable frequency drive in high power blowers and pumps at WRM for reduction in power consumption.
- **Chopping shear after intermediate stands at Merchant Mill** – Commissioned chopping shear for front end discarding to reduce cobble due to top split ends at MM.
- **Copper stave cooling technology introduced** – This technology was introduced at G Blast Furnace during the rebuilding of this furnace. This technology, supplied by M/s. SMS Demag, is the current standard for modern blast furnaces – which use water-cooled copper staves rather than refractories as lining of the furnace body. The new furnace became operational in April 2005.
- **New coal injection system installed at F Blast Furnace** – This has allowed the coal injection rates to be increased to more than 110 kg/thm since October 2004.
- **In-house design of disc cutter for 2" PTM** – Friction saw was used for cutting tubes in 2" PTM. Cutting by friction saw generates burrs at the tube ends. These burrs leave dent marks on other tubes while dropping in the collectors or while handling. Tubes are required to be supplied without burrs to the customers. For this purpose, tubes of slightly higher length were cut in the mill and subsequently re-cut in the Finishing Mill for removing burr ends. To overcome this problem, disc cutter was designed in-house, manufactured locally and installed in 2" PTM.
- **Tubes oiling system in 6" HFIW Mill** – Oiling is done on black tubes before dispatch. The operation is done in ST Finishing Bays. After modernization of 6" HFIW mill, back tubes were to be dispatched directly from the Mill. There was no space in the Mill for installation of oiling tanks. An on-line on spraying system was designed and manufactured in-house.
- **Colour banding system in 6" HFIW Mill** – Colour bands are put on all tubes for their grade identification. This operation is done in the handling of tubes; colour-banding system was designed and manufactured in-house.
- **Modernization of HFIW Mill** – For improving productivity and quality of tubes produced from 6" HFIW mill, existing coil preparation line and cut off were replaced with state-of-the-art new double mandrel uncoiler, coil accumulator and cold saw. On-line automatic tube packing machine has also been installed.
- **Particulars of technology imported during the last five years.**

Technology imported during the last five years:

Innovation / Technology	Year of Import / Absorption	Status of Implementation
Continuous galvanising Line#2 at CRM (CMI, Belgium)	2001	Commissioned
Utilisation of sensible heat from blast furnace hot stove waste gas at "G" Blast Furnace in association with NEDO, Japan	2002	-do-
Installation of electromagnetic stirrer and submerged entry nozzle in the billet caster of LD#1 (Concast, Switzerland)	2002	-do-
Installation of probes in "G" Blast Furnace to monitor various parameters, carry out intensive R&D activities and thereby acquire in-depth knowledge of in-furnace phenomena (Paul Wurth, Luxembourg)	2002	-do-
Electrolytic cleaning line (SMS Demag, Germany)	2003	Under implementation
Upgradation of "G" Blast Furnace (SMS Demag, Germany)	2004	-do-
Upgradation of HSM	2004	-do-
Upgradation of billet caster-1 at LD#1 (Concast, Zurich)	2004	-do-
Ladle furnace-2 at LD#1 (SMS Demag, Germany)	2004	-do-
New Rebar Mill (Morgan, USA)	2004	-do-
Up-gradation of caster at LD#2 (Voiest Alpine, Austria)	2004	-do-
Imported design and engineering for hot metal desulphurisation unit at LD#1 (Kuettner GmbH)	2005	Under implementation
Supply of imported engineering for new induced draught fans, electrics & accessories for the LD Converter GCP at LD#1 (Ebara Corporation)	2005	Under implementation
Adequacy checking of BOF converters for augmentation of heat size at LD#2 (SMS Demag, Germany)	2005	Implemented
Imported design and engineering for upgradation of Caster 2&3 at LD#2 (VAI, Austria)	2005	Under implementation
Imported design and engineering for hot metal desulphurisation unit 2&3 at LD#2 (Kuettner GmbH)	2005	Under implementation
Imported design and engineering for capacity increase of slab reheating furnace nos.1&2 of HSM (Techint)	2005	Implemented
Supply of design and engineering and training for 150 tph walking beam furnace to Rebar Mill (Bricmont)	2005	Under implementation
Imported design and engineering (Mother Well Bridge-Clayton walker)	2005	Under implementation
Supply of imported design and engineering for LD gas boosters (Howden Power Ltd., UK)	2005	Under implementation
Supply of imported design and drawing for technology control system at HSM (SMS Demag, Germany)	2005	Under implementation
Supply of imported design and drawing for basic level automation at ASM (Alstom, USA)	2005	Under implementation
Supply of imported design and drawing for dual zinc pot at CRM (CMI, Belgium)	2005	Implemented
Supply of imported design and drawing for BAF, CRM (LOI, Germany)	2005	Implemented

Section - V

Environmental Performance

ENVIRONMENTAL INDICATORS IISI SUSTAINABILITY REPORTING

Sl. No.	Indicator	Units of Measure	World Avg. (04-05)	Tata Steel (04-05)	Numbers Reported (04-05)
1	Green House Gas emissions	t/tcs	1.7	2.32	55
2	Material Efficiency	%	95.5	88.06	55
3	Energy Intensity	GJ/tcs	19.1	24.65	55
4	Steel Recycling	%	41.8	3.43	55
5	Environmental Management System	% Total employee under EMS / Total employee under facility	90.8	90.0	55

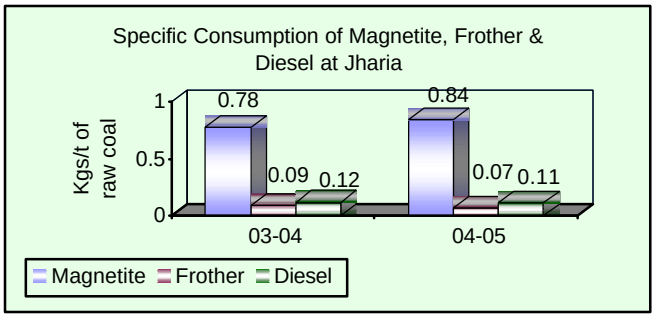
CONTENT INDEX

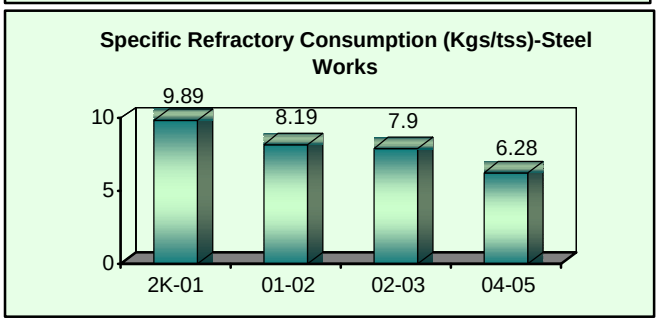
MATERIALS

Materials used other than water (EN1)

Minerals and semi-processed materials are used, as raw materials in iron and steel making; lubricants are not included in raw materials. The specific consumption is calculated based on the total tonnage of raw materials divided by saleable steel production. Reduction in ash content in West Bokaro coal to <15% had a favourable impact on specific raw material consumption.

Raw materials consumed (Tonnes)	03-04	04-05
Iron Ore	6145184	5737011
Thermal Coal	973772	617204
Coking Coal	3414125	3858290
Limestone, Dolomite, Pyroxenite, Soapstone & Quartzite	1434320	1730234
Ferro Manganese	18609	45066
Zinc and Zinc Alloys	20183	18763
Spelter, sulphur, fluxes, alloys etc.	594328	484244
Others	157955	4613
Total	12758476	12495425
Saleable Steel Production-tpa	4089255	4109002





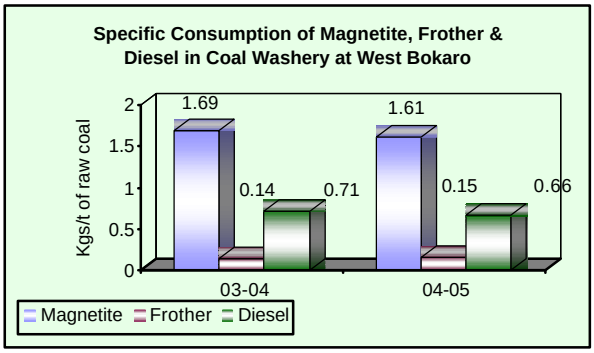
Raw Material Consumption & Production of Ferro Manganese & Ferro Chrome (Iron Ore, Mn-Ore & Cr-Ore)

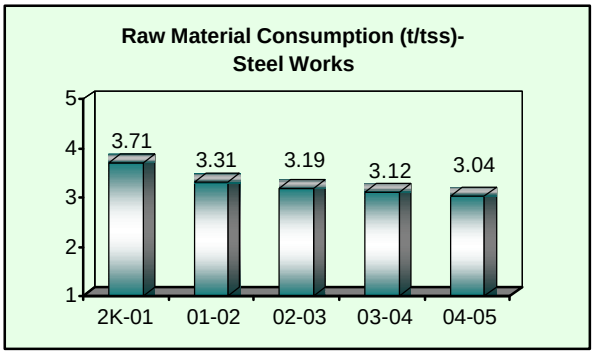
Year	Ferro Manganese		Ferro Chrome	
	Prodn. (t)	Raw Mat. Con. (t)	Prodn. (t)	Raw Mat. Con. (t)
03-04	32550	114395	25902	84550
04-05	44201	128180	41405	135154

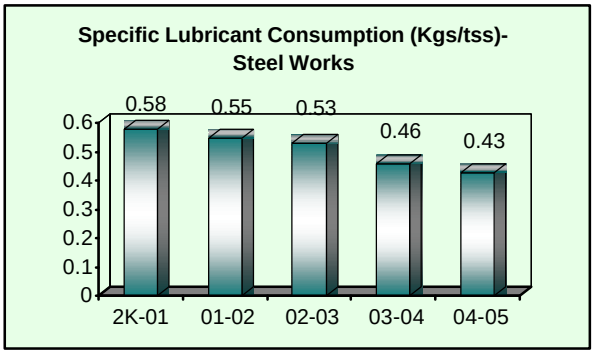
Tubes Division used steel supplied from Steel Works. The scrap generated from this Unit is recycled to Steel Works. Even though Tata Steel is vertically integrated, materials consumed, in mining operation have not been considered here. Similarly, other consumables and spares used in mining operation have also not been included.

In addition to raw materials the following quantities of semi-processed materials were also used in the Steel Works. These materials were purchased from the external sources.

- Pig Iron: 133,418 tonnes against 146,865 tonnes during 2003-2004.
- Sponge Iron: 484,244 tonnes against 303,569 tonnes during 2003-2004.

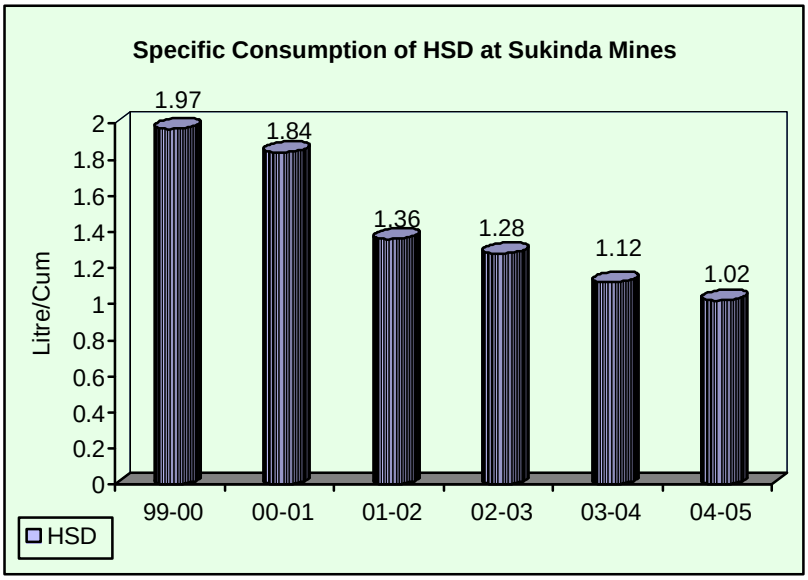






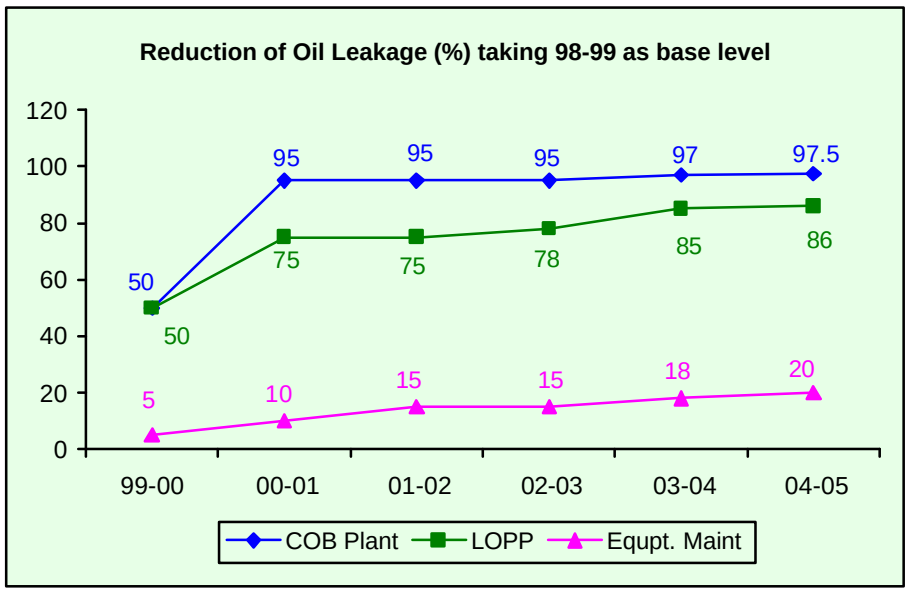
Lubricants consumed during reporting period – 1,881 tonnes,

The specific consumption of High Speed Diesel (HSD) at Sukinda Mines is given below:



Specific Lubricant Consumption at Sukinda Mines

Implementation of EMS (ISO-14001) has resulted in cascade use of lubricants and recycle of waste oils for energy recovery. Reduction in wastage due to leakage over the years 2005, the organization did not purchased any scrap from the market.



Wastes (from external sources) used (EN2)

The only waste material from external source that is sometimes used by Tata Steel is the iron/steel scrap purchased from market for Steel Melting Shops. During the year 2004-2005, no scrap was purchased.

ENERGY

Energy consumption and their sources (EN3 & EN 4)

	Particulars	2003-04	2004-05
A)	**Power and Fuel Consumption**		
1.	**Electricity**		
a)	Purchased Units (M.KWH)	1,497.06	1589.83
	Total Amount (Rs. Million) #	42,60.50	4450.12
	Average Rate/Unit (Rs./KWH)	2.85	2.80
b)	Own Generation		
i)	Through Diesel Generator Units (MKWH)	5.32	10.11
	Units per litre of Diesel Oil (KWH)	3.65	3.89
	Average Cost/Unit (Rs./KWH)	12.23	12.18
ii)	Through steam turbine/generator Units (M.KWH)	1,033.66	1025.48
	Units per tonne of Coal (KWH)	1,170.00	1408.00
	Average cost/unit (Rs./KWH)	1.58	1.64
	(*This includes generation of PH#4 in M.KWH that is operated on by-product gases up to 95%)	345.38	432.80
2.	**Coal**		
i)	Coking Coal		
	Quantity (Million Tonnes)	3.50	3.75
	Total Cost (Rs. Million)	7,357.81	7740.20
	Average Rate (Rs./Tonne)	2,102.23	2064.05
ii)	Blast Furnace Injection Coal Quantity (Million Tonnes)	0.24	0.22
	Total cost (Rs. Million)	362.21	581.83
	Average rate (Rs./Tonne)	1,509.21	2644.68
iii)	Middling coal & ROM (Million Tonnes)	0.73	0.62
	Total cost (Rs. Million)	614.50	550.05
	Average Rate (Rs./Tonne)	841.78	887.17
3.	**Furnace Oil**		
	Quantity (Kilo Litres)	13,419.51	10619.16
	Total Amount (Rs. Millions)	159.30	121.22
	Average Rate (Rs./KL)	11,870.77	11415.21
4.	**Others**		
	LDO		
	Quantity (Kilo Litres)	2,682.11	6642.53
	Total Cost (Rs. Million)	42.02	12.61
	Average rate (Rs./KL)	15,666.76	18983.73
	LPG		
	Quantity (Tonnes)	2,785.52	2947.16
	Total Cost (Rs. Million)	54.11	69.00
	Average Rate (Rs./Tonne)	19,425.45	23412.37
	NG		
	Quantity (Tonnes)	3,821.00	3120.86
	Total Cost (Rs. Million)	33.24	28.32
	Average Rate (Rs./Tonne)	8,699.29	9074.42

Details of purchased Oxygen (Indirect Energy)

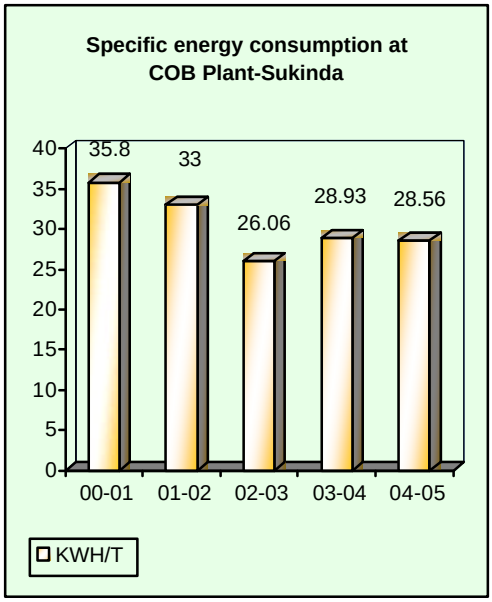
Supply from BOC India (tonnes/annum)

2004-2005: 4,30,820.50

2003-2004: 4,36,144.00

2002-2003: 3,70,830.81

(The quantities of Oxygen are considered in the calculations for specific energy consumption in the Steel Works as per IISI guidelines. No other production unit used Oxygen in its production process).



excludes electricity duty paid on purchases.

* CO gas, BF gas and LD gas (by product of Coke Plant, BF and LD Shops) are consumed for generation of power in PH#4 steam turbine generator.

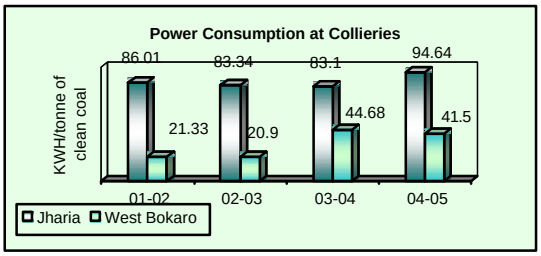
B) Consumption Per Unit of Production (figures in brackets are for the year 2003-2004)

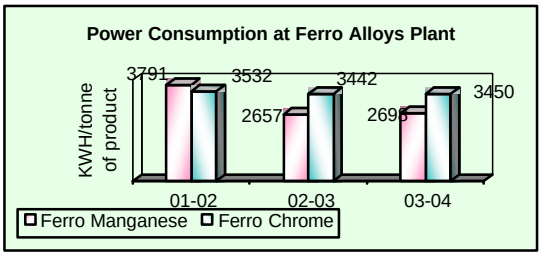
Particulars	Steel (per tonne)	Tubes (per tonne)	Bearings (per no.)	Ferro Alloys (per tonne)	Rings & Agrico (per no.)	Growth Shop (per tonne)	CRC West (per tonne)	SSL West (per tonne)
Electricity (KWH)	414.00 (418.00)	117.00 (116.00)	0.79 (0.87)	3828.70 (3767.40)	1.19 (0.82)	506.89 (831.41)	158.38 (179.29)	220.65 (213.21)
Furnace Oil (Litres)	-	-	-	-	- (0.11)	8.23 (11.60)	-	22.76 (23.88)
Coking Coal(Tonnes)	0.87 (0.88)	-	-	-	-	-	-	-
Others								
Light Diesel Oil (Litres)	0.58 (0.32)	- (0.01)	-	-	-	-	10.84 (12.06)	13.59 (10.73)
LPG (Kgs)	-	-	-	-	-	-	13.42 (13.67)	6.87 (6.82)
NG (Kgs)	-	-	-	-	-	-	-	25.41 (30.96)

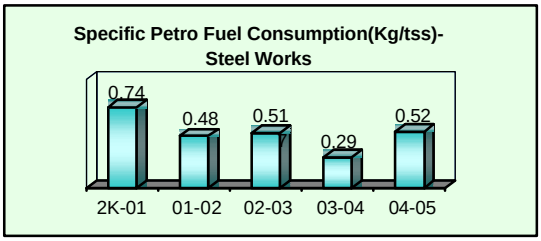
Previous years figures have been given in Brackets and modified wherever necessary. The consumption per unit of steel production does not include the energy consumption in mines, which is furnished separately under **EN17**. The energy consumption at stockyards, marketing offices has also not been reported, as the same is insignificant.

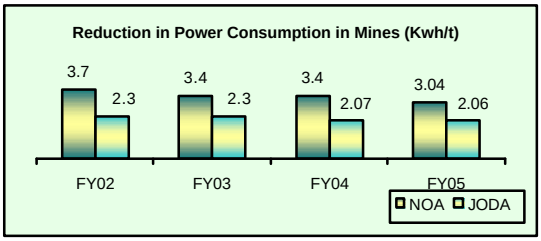
Energy efficiency and renewable energy initiatives (EN17)

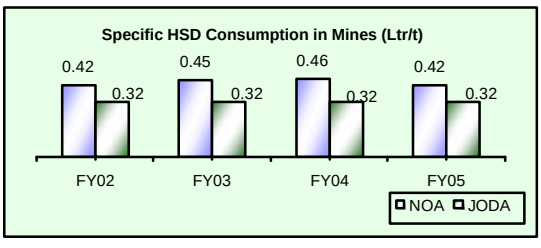
In the Steel Works (Integrated Iron & Steel Production facilities at Jamshedpur), the specific energy consumed was 29.18 G. Joule/tonne of crude steel during 2004-2005; a decrease of 1.15% over the previous year was due to commissioning of Boiler#7 on gas (earlier coal fired) in the Steel Works. At other units, the consumption of electricity and petro-fuel is also coming down year-after-year as shown below. In the Steel Works during FY 04-05, the specific petro-fuel consumption was higher due to extra running of DG sets in the absence of a 12.5 MW turbine that failed due to break down for six months.











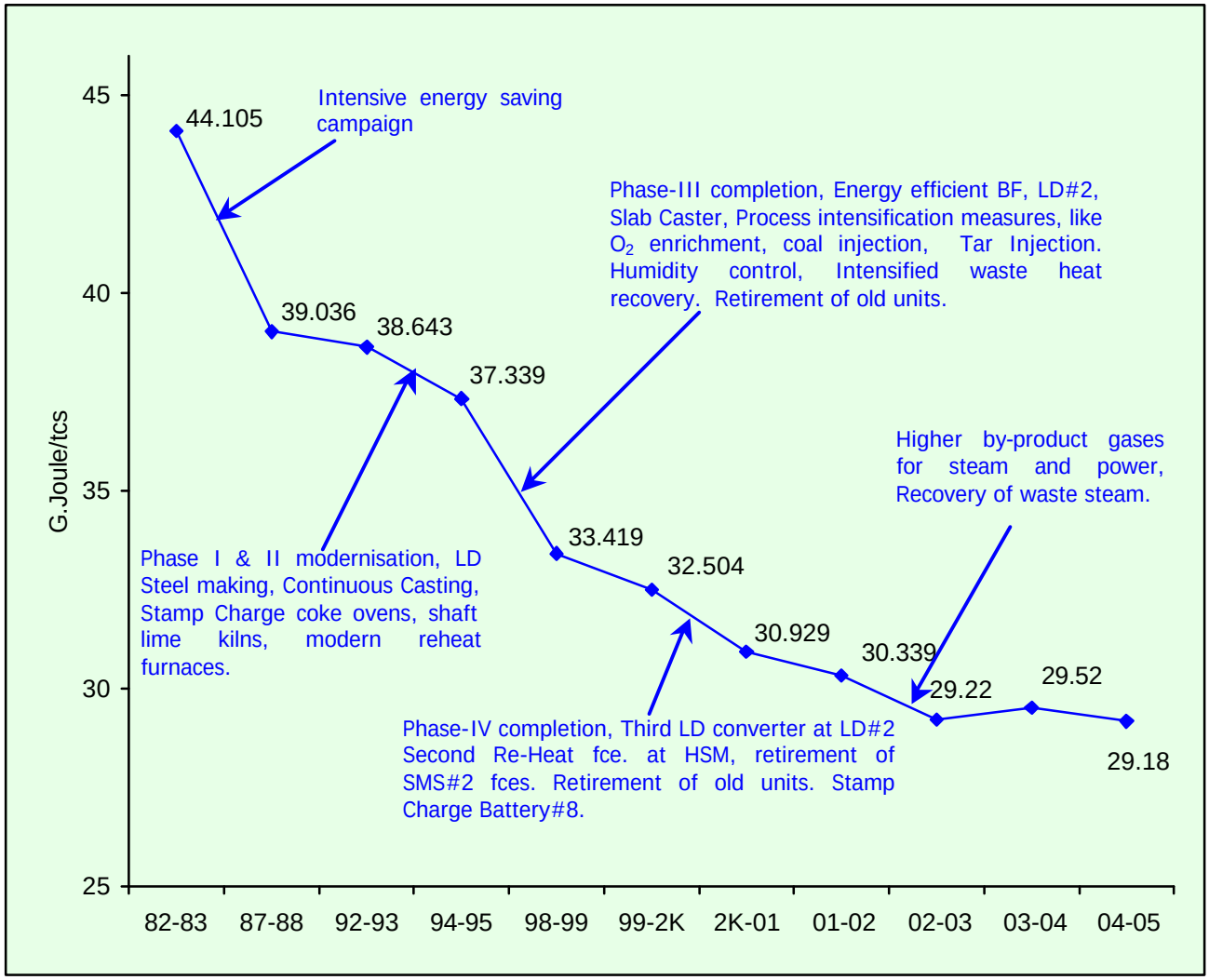
The formula for calculation of specific energy consumption -

$$\sum_{1}^{n} Q_n \times CV_n \,/\, \text{Crude Steel Production \{Tonnes\}}$$

Q = Quantity of solid, liquid & gaseous fuels
CV = Net Calorific Value of fuels (G.Cal/Unit)

Specific Energy Consumption (Steel Works) – Continual Improvement

Tata Steel has initiated actions in phased manner to improve its energy performance through fuel substitutes, modernization, recovery & reuse of by-product energy.



Conservation of Energy

Energy Conservation measures taken-

- Augmentation of A-F Blast Furnaces; blast oxygen enrichment system to increase the oxygen supply to A, D & F Blast Furnaces, which helped in increasing the blast furnace productivity and reduction in fuel rate. This system was designed and commissioned to increase the oxygen enrichment supply from 900 tpd to 1250 tpd.
- Re-engineering of the blast furnace gas network in West Plant area to meet the demand of West Plant boilers and reduce the loss of energy.
- Modification of stoker fired boilers for by-product gases firing in Boiler#7 of Boiler House#1 to eliminate middling coal firing and utilization of by-product gases.

- Efficient utilization of by-product gases in the West Plant boilers to reduce middling coal consumption.
- Improved insulation of steam lines, maintenance practices and re-engineering of process steam line to reduce losses on account of consideration and leakages.
- External extensive energy audits were carried out in the area of iron and steel making process, steam and power generation and thermal and electrical equipment performance to identify the reasons for energy losses and deficiencies in the system.

Additional investments and proposals for reduction of consumption of energy:

- Modification of stoker fired boilers for by-product gases firing at Power House#3 boilers to reduce middling coal consumption.
- Installation of 30 MW back pressure turbine.
- Enhance LD gas recovery to match the benchmark figure of 80 Nm^3/tcs by installing new LD Gas Holder and evacuation system.
- Recovery of sensible heat of coke by installing coke dry quenching system in Battery#5,6&7 at Coke Plant.

Energy conservation measures during 04-05 have resulted in achieving:

- Lowest ever plant specific energy consumption of 29.18 GJ/tcs.
- Lower coal (middlings) consumption of 0.617 million tonnes for steam and power generation – a reduction of 15.9% as compared to the previous year.
- Higher boiler efficiency and higher efficiency of turbo-generating set.
- Lowest ever oxygen vent loss of 9.46 t/day.

Tata Steel has so far not embarked upon use of renewable energy due to higher generation cost and low potential for the same in the areas where it operates.

Energy consumption footprint (i.e. annualised lifetime energy requirements) of major products (EN18)

This is not applicable to Tata Steel as the Company produces steel products only and not equipment/ appliances that may consume energy in use. The steel has 100% recyclability and considered globally as an environment friendly metal.

Other indirect energy use due to organizational travel, product life cycle management, and use of energy-intensive materials (EN19)

Organizational travel and its impact on energy use are not captured at present due to large size of the organization and accounting complexities associated with the same. We do not intend to report this indicator in near future also.

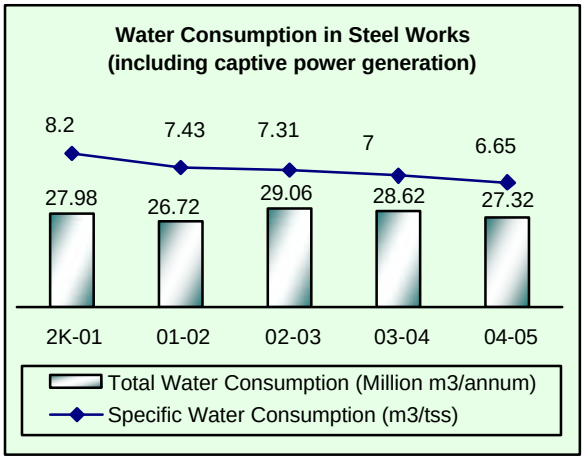
Product Life Cycle energy usage is difficult to capture in case of steel products. Iron ore and coal, the major raw materials used for steel manufacture, are highly energy intensive due to presence of high alumina, silica and phosphorous content in iron ore and high phosphorous content in coal. Life Cycle Assessment is carried out using ECOBILAN TEAM™ Software on yearly basis for environmental burdens associated with steel manufacturing at Tata Steel from

mining activities to steel despatch at the gate of Jamshedpur Factory. Other energy intensive material used in the manufacture of steel is oxygen that is purchased from BOC India Plant located outside the Steel Works at Jamshedpur. The energy consumed in the manufacture of oxygen in BOC Plant is not included in the scope of this report.

WATER

Total Water Use (EN5)

Tata Steel has taken various actions for optimum use of water. The increased emphasis on water recirculation in all process units has contributed to considerable reduction in specific water consumption. Specific water consumption (including that for power generation) reduced by more than 5.0% over the last year. Close monitoring of water losses, recycling of ash quenching water from Power Houses, recycling of treated sewage water for steel making and of waste water from various drains have resulted in such reduction. The entire domestic consumption of the city of Jamshedpur, that is 57.6 million m^3/annum of water, is supplied and managed by the Company.



Total water used at Jharia Coal Mines is 1.034 million-m^3 (0.564 in 03-04) for industrial and 3.960 million-m^3 (3.907 in 03-04) for domestic usage. At West Bokaro Colliery, 4.26 million-m^3 (4.93 in 03-04) water is used for industrial use and 3.20 million-m^3 (2.95 in 02-03) for domestic consumption. At Sukinda Mines during the period under review 1.60 million-m^3 (1.18 million-m^3 in 03-04) of water was used for industrial and 0.624 million-m^3 (0.56 million-m3 in 03-04) for domestic purposes. Total water consumption for Joda, Noamundi & Gomardih is furnished below. The water consumption at other locations is comparatively insignificant and hence not reported.

Water Requirement at our Mines

Mine	Annual water requirement in thousand m^3 for the years 2002-2003, 2003-2004 & 2004-2005								
	Industrial			Dust Suppression			Domestic		
	02-03	03-04	04-05	02-03	03-04	04-05	02-03	03-04	04-05
Noamundi	2426.30	2636.77	2587.62	75.18	60.66	73.08	1578.03	978.74	1105.02
Joda East	1438.96	1383.95	1216.84	74.64	66.82	87.13	272.34	97.00	98.14
Gomardih	13.40	11.8	11.35	3.71	3.83	3.32	133.46	95.60	74.13

Total water requirement as given above is drawn from the surface nalla/river as per the details given below. Withdrawal of this water during dry period does not have any adverse impact on the down stream population.

Name of mine	Water source	Purpose	Remarks/Dry season flow
Noamundi	Baitarni River	Industrial	Source is about 20km away from Mines-51246 m^3/hr
	Jojo Nalla	Domestic	Source is about 3 km away from Mines-455 m^3/hr
Joda	Kundra Nalla	Industrial & Domestic	Source is about 5 km away from Mines-2977 m^3/hr
Gomardih	Nakati Nalla	Domestic	Source is about 5 km away from Mines-not available
	Ground water	Industrial	Ground water is available in the active mining area-not available
Jharia	Damodar River	Industrial & Domestic	One km from site.
Sukinda	Mines Drainage	-do-	Mines drainage treated and used.
West Bokaro	Mines drainage + Raw River	-do-	Water is treated before use.

Water Requirement at CRC West

CRC West receives its water from Maharashtra Industrial Development Corporation, Tarapur. CRC West has taken various actions for optimum use of water. Treated water at ETP is being used for gardening.

	02-03	03-04	04-05
Total water consumption (m^3/year)	219540	191540	157883
Specific water consumption (m^3/tonne)	2.07	1.64	1.17

Water sources and related ecosystems/habitats significantly affected by use of water (EN20)

The water for industrial and domestic usage at Jamshedpur and other units is drawn from rivers/underground sources as mentioned above. These rivers are perennial in nature and water abstraction does not have any adverse impact on the eco-system. The other source of water at Jamshedpur is a captive reservoir at Dimna (Capacity-34.224 million m^3 and Area-92.6 sq. km.). Dimna Lake is situated on the north-eastern side of the Jamshedpur town at a distance of 12-13 kms. It is an earthen dam with masonry concrete wall constructed by the Company about three decades ago to meet the emergency water supply demand of the Works and Township particularly during poor monsoon years. Three major drains carry rainwater and surface run-off water from nearby villages pour into this artificial impounding. However, the Company also pumps water during monsoon and post-monsoon seasons from the river Subarnarekha to Dimna Reservoir.

The river water analysis is given in the Table below. This analysis indicates that the quality of river conforms to the National Standard (BIS-2296 – 1982 – Class-B). There was no adverse impact on river water quality during winter season, when abstraction of water is maximum.

River Water Quality

Parameter	Class (B) Norms	Subarnarekha		Kharkai	
		03-04	04-05	03-04	04-05
Cd	0.01 mg/l	NT	NT	NT	NT
Cr $^{+6}$	0.5 mg/l	0.006	0.003	0.008	0.003
Total Chromium	-	0.021	0.015	0.024	0.015
Cu	1.50 mg/l	0.025	0.025	0.025	0.06
Fe	0.30 mg/l	0.17	0.11	0.190	0.25
Zn	15 mg/l	0.125	0.13	0.165	0.145
Ni	NA	0.05	0.013	0.025	0.20
Mn	0.50 mg/l	0.015	0.03	0.005	0.015
NO_3 (N)	20 mg/l	1.07	3.0	0.580	3.45
Pb	0.10 mg/l	0.02	0.015	0.005	0.008
pH	6.5 – 8.5	7.5	7.5	7.6	7.4
Total Hardness	300 mg/l	89	80	104	109
DO	6 mg/l	4.5	5.15	4.7	4.6
TSS	NA	5.7	25	54	44
BOD_3	2 mg/l	3.5	4.5	2.5	3.6

NA – Not Applicable; NT – No Trace

Studies have also been carried out to study the Dimna Lake stratification and eutrophication. No stratification was observed in the Lake as indicated by no changes in Dissolved Oxygen (DO) levels at different depth. The Company does not use any groundwater source for either industrial or domestic use at Jamshedpur.

Impact on renewable water Reserve (EN21)

The flow of river water after 500 meters from the confluence of Rivers Subarnarekha and Kharkai (water abstraction point) at Jamshedpur is shown in the box.

	Post Monsoon	Winter	Summer
River flows at Jsr.	9.40 cum/sec	4.50 cum/sec	5.93 cum/sec
Water pick up	2.494 cum/sec	2.608 cum/sec	2.423 cum/sec
% age	26.53	57.96	40.86

Water Abstraction from River Subarnarekha

Source: Regional Environmental Impact Assessment Study Report for Jamshedpur Region by NEERI, Nagpur- May 1995.

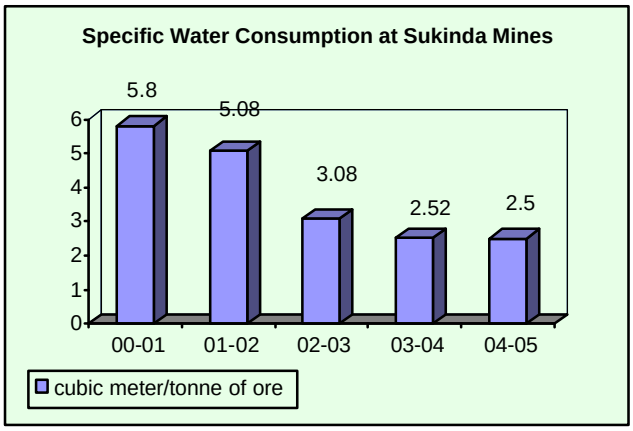
At Jharia the water is withdrawn from Damodar and Katri rivers and at West Bokaro from a seasonal nalla. The groundwater from the underground mines and wastewater from coal washeries is used after treatment for industrial and domestic purposes at both locations.

At mines & quarries, the water is drawn from different sources as shown in the box and the flow in pre-monsoon is 51,246 m^3/hr for Baitarni River, 455 m^3/hr for Jojo nalla and 2977 m^3/hr for Kundra nalla.

Recycling & reuse of water (EN22)

Gross make-up water requirement for Steel Works was 74,893 cum/day (avg) during the reporting period. Approx. 900,000 cum/day of water remains in circulation in steel manufacturing processes through close circuit system and cooling ponds. The make-up water represents primary evaporation, seepage and blow down losses. The make-up water consumption at different units are presented in **EN5.**

Specific Water Consumption at Sukinda Mines



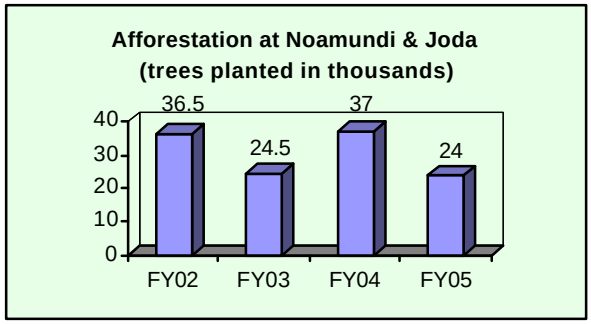
BIO-DIVERSITY

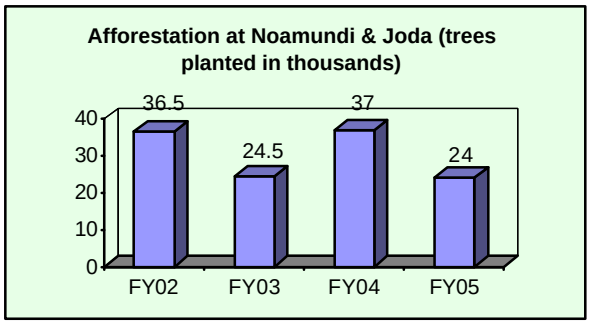
Land, Location and Biodiversity (EN6)

The Steel Works is situated at Jamshedpur in the state of Jharkhand, India. The factory covers 800 hectares of land. West Bokaro Division in Hazaribagh District covers 1740 hectares land, in which mining and coal beneficiation activities are performed. Jharia Division occupies 2500 hectares of land for its industrial, mining and domestic activities in the district of Dhanbad. Both are in the state of Jharkhand. The iron ore and dolomite mines are located at Noamundi in the state of Jharkhand and at Joda, Katamati, Khondbond and Gomardih in the state of Orissa. The lease area for various units and the details of usage are furnished in the box under EN23. The mine leases are in areas rich in biodiversity.

Land owned, leased, or managed for production activities or extractive use (EN23)

Units	Lease area in hectare	Forest area in lease in hectare	Non-forest area in lease in hectare
Jamshedpur	7100	Nil	7100
West Bokaro	1740	597	1143
Jharia	2230	Nil	2230
Noamundi	1160.06	762.430	397.630
Joda East	671.093	521.622	149.471
Gomardih	372.796	Nil	372.796
Khondbond	978.000	836.757	141.243
Katamati	403.32	199.17	204.15
Sukinda	331.00	73.697	257.303





Reclamation & Afforestation Measures-

- Massive plantation in all the units of Tata Steel during Green Millennium Count Down started in 1998 to plant 1000 trees/day for 1000 days to greet new millennium with one million trees planted by Tata Steel.
- More than 3.85 million saplings were planted covering more than 450 hectares at the mines during 1997 to March 2004.
- More than 240 hectares of mined out areas have been reclaimed with plantations so far.
- Survival rates have been improved from 30% to 85% by providing protection to the saplings planted and watering the same during dry periods in past 10 years.
- Trials were conducted to identify the species to be planted during the afforestation programmes during the reporting period.

- In-house nurseries to develop the saplings for afforestation: The Company has the total capacity of raising 0.4 million saplings every year across its locations.
- Sir Dorabji Botanical Parks have been developed at West Bokaro, 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.

Impermeable surface created (EN24)

The records of creation of impermeable surface by the organization over 98 years of its existence are not traceable. However, during the reporting period, new facilities like Sinter Plant#3, Re-Bar Mill, 6th Lime Kiln, were installed covering approximately 150 hectares of land that is concreted making it impermeable.

Impact on protected and sensitive areas (EN25)

Areas of operation of the Company do not have any World Heritage sites sensitive areas or Biosphere Reserves or Protected areas. However, at a distance of 10 km from Jamshedpur, Dalma Wild Life Sanctuary (a protected area) is situated. The Regional EIA and carrying capacity study conducted by NEERI in May 1995 and 2000, indicates that there is no significant Environmental Impact on Dalma Wild Life Sanctuary. Environment Protection Act 1986 in India defines sensitive areas like Taj Mahal, Doon Valley, Dahanu, Mahabaleshwar and Coastal Regulatory Zones, etc. and none of these fall within a 10 km radius of the company's operations.

Contribution in changing natural habitats (EN26)

No reportable changes to natural habitats have occurred from the Company's activities as indicated by Environmental Impact Assessment Studies conducted for all the units including all mines and collieries.

Managing Surrounding Ecosystem (EN27)

As a part of its compensatory afforestation commitment and voluntary initiatives, the Company strives to rehabilitate the degraded lands with local species such a shesham, mahua, sal, teak, etc. with a view to restoring the native eco system. Details of plantation work at different locations of the organization are given in the box below.

Impact on Biodiversity (EN7)

The Company conducted the Regional Environmental Impact Assessment Studies for Jamshedpur Region in 1993-95 and later commissioned the National Environmental Engineering Institute (NEERI) to conduct a study on Carrying Capacity of the Region in the year 2000. The Environmental Impact Assessment has been undertaken for all the units of Tata Steel. The reports indicate that there is no major impact on bio-diversity associated with the organization's activities and/or products and services in territorial, fresh water environments. *(Also please refer to details given in EN24).*

IUCN Red List species within operational areas (EN28)

Noamundi & Joda mining lease areas have the following species from Schedule-I&II of Wildlife Protection Act 1972.

Schedule-1 – Sloth Bear

Schedule-2 – Indian Python

(Note-There are some stray incidents of elephants passing by)

We have not collected data on IUCN Red list species, but we shall report subsequently.

Our activities in or around protected or sensitive areas (EN29)

No unit of Tata Steel is currently operating or planning to operate in Protected and Sensitive Areas. There are no national parks/wild life sanctuaries/CRZ/other sensitive areas notified areas within 10 kms of any current or proposed (Titania) sites barring the Dalma Sanctuary, which is 10 kms from the Steel Works in Jamshedpur.

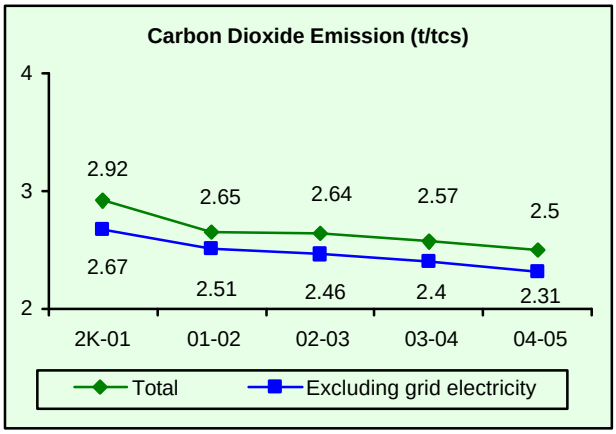
Tree Plantation at various locations				
Location	**Under Green Millennium Count-down**	**During 2002-2003**	**During 2003-2004**	**During 2004-2005**
Jamshedpur	204969	28155	11488	9845
Mines Division	717500	24300	37000	47000
Collieries	435555	125111	110287	156700
FAMD (Sukinda & Bamnipal)	48250	-	43568	-
Gopalpur	62043	-	-	962
Bearings Division	2653	500	-	-
CRC West	1063	125	115	85
TOTAL (numbers)	1472033	178191	202458	214592

EMISSIONS, EFFLUENTS & WASTES

Greenhouse Gas & Climate Change (EN8)

Considerable reduction in effective CO_2 emission rate is evident when the credit for slag granulation (as per IISI guidelines; CO_2 emitted for equivalent amount of clinker used in cement making as replaced by granulated slag) is taken into account. The boxes indicate the trends in specific CO_2 emission from Steel Works and absolute quantities of emissions over the years.

CO_2 emissions calculations are based on GHG protocol guidelines. Specific emission data reported in the box opposite are for the scope without considering mobile emissions, HFC emissions, purchased power and purchased oxygen.



Greenhouse Gas Emission Reduction

A Responsible Commitment to Sustainable Development

Consumption of energy and carbon emissions is interlinked. Any effort to reduce energy consumption has a significant impact on reduction of greenhouse gas emissions. Tata Steel's efforts towards GHG reduction and addressing climate change are;

- Fuel substitution in boilers (coal to by- product gas), a CDM project
- Modernization/automation of steel plant
- Recovery and reuse of by-product energy
- Increased green foliage
- Reduction in refrigerant consumption by using R134 & vapour absorption technology
- Use of low NOx burners
- Proposed installations of Coke Dry Quenching and Top Recovery Turbine (CDM Projects)
- Use of steel slag in cement manufacture

Ozone-Depleting Substances (EN9)

The Steel Works used 7.426 (R11 equivalent 2.238) tonnes of refrigerant (R11-R12) during reporting period as against 7.90 tonnes of refrigerant used during previous year. The organization has replaced R11 & R12 by R134 and vapour absorption systems.

Indirect GHG emissions (EN30)

The indirect GHG emissions are emitted from sources like, the refrigerators and air conditioners supplied by the organization or owned by the employees at their residences, GHG emission on account of purchase of oxygen, etc. It is practically impossible for a large entity like Tata Steel to compile data for such emissions. We do not intend to report these in near future also.

Hazardous Waste under Basel Convention (EN31)

The Company does not import or export any waste deemed "hazardous" under the terms of the Basel Convention Annexure-I, II, III & VIII. All hazardous waste generated is handled as per the requirement of Hazardous Waste Management & Handling Rules 1989/2000. All hazardous waste is appropriately recycled and or disposed off as detailed in **EN-11**

Water discharges, runoff and the receiving eco-systems (EN32)

CO2 EMISSION AS PER GHG PROTOCOL

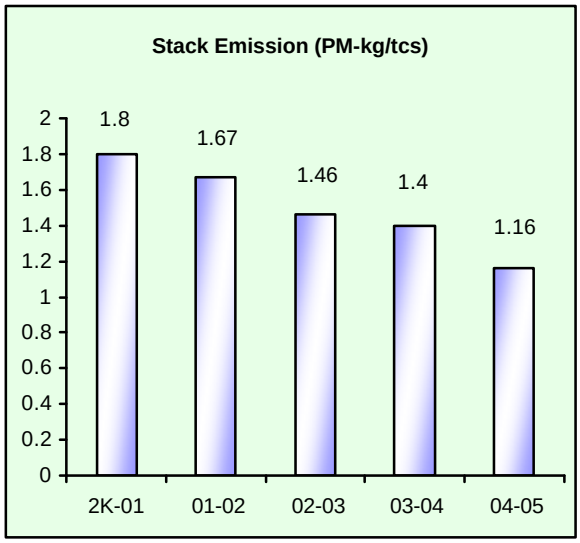
Emissions	02-03	03-04	04-05
Process + Stationary Combustion	11522675	11614085.17	10972384.04
Mobile Emissions	27046	16350.20	17489.50
HFC Emissions	1442	1164.5	1489.2
Total Emissions	11551163	11631541.82	10991371.72
Crude Steel Production	4097814	4224264	4103715
CO_2 emission t/tcs	2.82	2.75	2.68
Slag credit	717445	784717.51	745767.15
Emission including slag credit	10833718	10846824.31	10245204.57
CO_2 emission t/tcs including slag credit	2.64	2.57	2.50
Total emissions (Imported Elect.+ Mobile +HFC)	732689	683336.02	738359.55
Total emissions excluding (Imported Elect.+ Mobile +HFC)	10101029	10146031.64	9472234.79
CO_2 emission t/tcs excluding imported Elect.+ Mobile +HFC	2.46	2.40	2.31

The Company discharges it's treated effluent from the Works and treated domestic sewage from the township to the rivers Subarnarekha and Kharkai as well as other surface water sources. Studies carried out by NEERI in the year 1993 & 2000 at Jamshedpur to assess impact on eco-systems/habitats of rivers found no significant impact on the aquatic eco-system as given in EN20. Noamundi & Joda Mines, West Bokaro, Jharia Collieries, Sukinda Mines have achieved zero discharge. The domestic effluent is discharged through the septic tank – soaking pit route at the mines and collieries. Sewage Treatment Plants have been provided for the entire township of Jamshedpur.

Emissions (EN10)

Emission through process stacks

Tata Steel has undertaken several initiatives, which have resulted in considerable reduction in stack emission as seen in the figure in the box alongside. Indian standards (norms) for SO_2, NOx, & PM for stacks in steel plants are furnished below along with actual values monitored during the reporting period. Total emission load over the past two years is also furnished below. The emission loads are calculated based on the actual measurement of PM, SO_2 & NOx. The flue gas volume for Coke Oven, Power Houses chimneys is based on calculations based on carbon inputs to the boilers and Coke Ovens. For all other stacks the actual volume flow is measured. The emission for crude gas bleeding & coke quenching towers are estimated on the industry norms. On an average two-sample measurement basis are taken per point source in a year. Emissions from A-F BF Cast House and CAL incinerator stacks have not been included in this report. The gas volumes for Blast Furnaces & LDShops are indirectly calculated based on different fuels.



Sl. No.	Process Stacks Attached to	Air Pollutant	Indian Standard	Actual Value (02-03)	Actual Value (03-04)	Actual Value (04-05)
1	Blast Furnace Stoves	PM	150 mg/Nm^3	16.4-29.1	16.4-85.4	18.4-27.4
		SO_2	No Standard	61-152	48-126	52-122
		NOx	No Standard	116-204	106-192	71-220
2	Sinter Plant	PM	150 mg/Nm^3	36-83	101.5-148	98.6-117.6
		SO_2	No Standard	81-487	164-265	190-275
		NOx	No Standard	88-267	29-267	29-190
3	Refractories Production Department	PM	150 mg/Nm^3	40.3-83.7	53.3-136.1	58.174.3
		SO_2	No Standard	4-12	7-310	6-290
		NOx	No Standard	103-157	67-336	70-340
4	Steel Melting Shops	PM	150 mg/Nm^3	38.8-128.4	37.9-128.4	87.1-110.2
5	Coke Plant Waste Gas	PM	50 mg/Nm^3	49.4-132	19.3-107.3	18.5-98.6
		SO_2	800 mg/Nm^3	63-573	61-570	65-540
		NOx	500 mg/Nm^3	180-479	150-443	172-365
6	Captive Power Plants	PM	350 mg/Nm^3	26.5-314.8	28.4-135.5	33.5-118.7
7	Captive Power Plant-West Bokaro	PM	350 mg/Nm3	149-178	140-148	116-140
		SO_2	No Standard	135-263	115-124	125-140
		NOx	No Standard	1.4-3.1	2.9-3.1	3.1-3.4
8	Aquatherm Stack (Pickling & Cleaning Line) Tarapore	SPM	150 mg/Nm3	25.00	21.30	18.42
		SO2	228 kg/day	91.04	61.28	38.85
9	Pickling Scrubber, Tarapore	HCl Mist	35 mg/Nm3	6.16	11.10	11.33

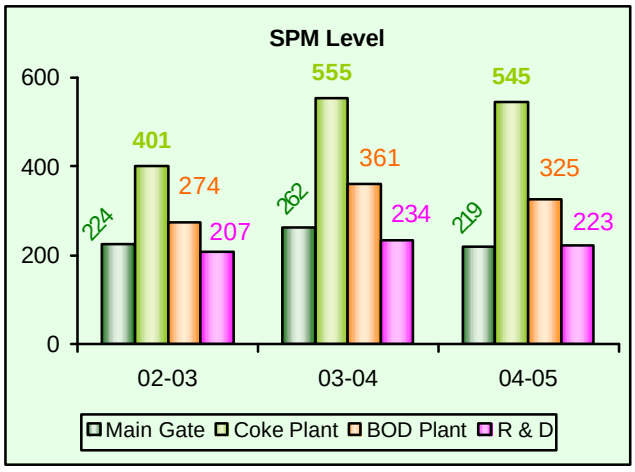
Emission load from Steel Works – tonnes/ annum

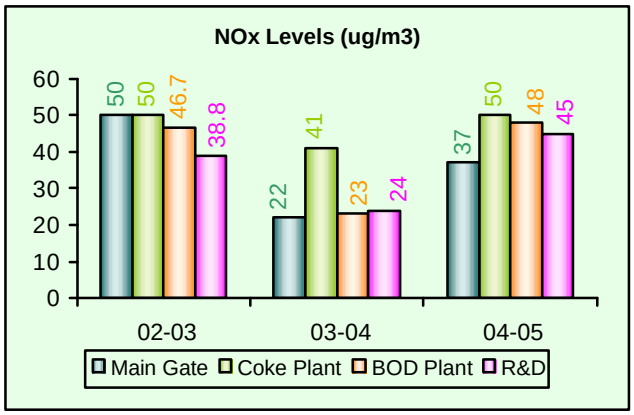
Parameter (in tpa)	02-03	03-04	04-05
Particulate Matter	5980	5832	4777
Sulphur-di-oxide	11081	9949	8173
Oxides of Nitrogen	8025	7534	6538

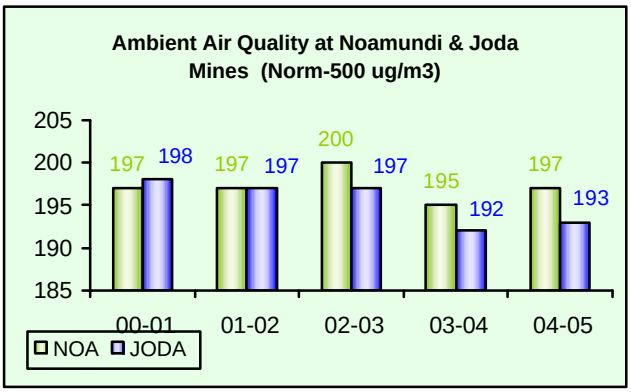
The Emission loads do not include fugitive emissions. These emissions represent approximately 90% emissions from the scope of the report.

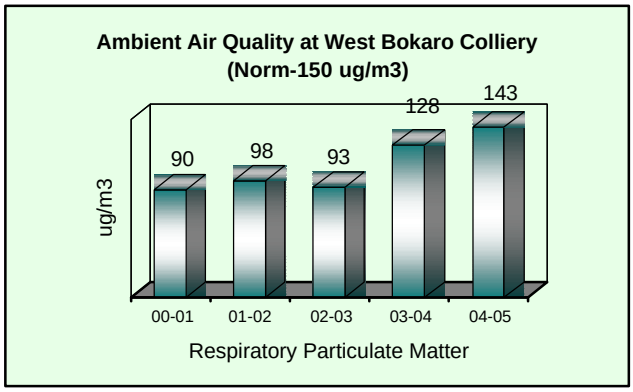
The gross emissions loads are presented only for the Steel Works. The loads for other units will be provided in subsequent years. This methodology for monitoring and reporting is described in Annexure-VI

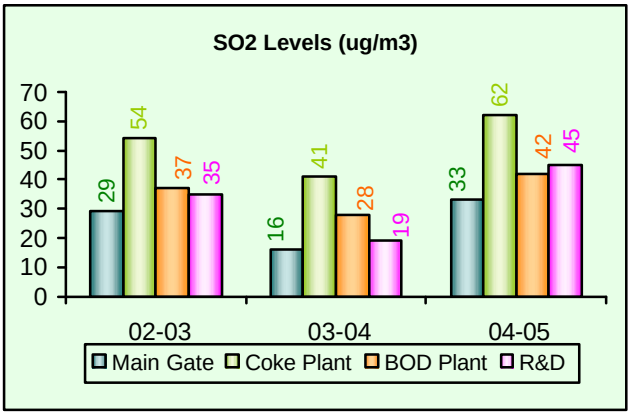
Ambient Air Quality at Jamshedpur

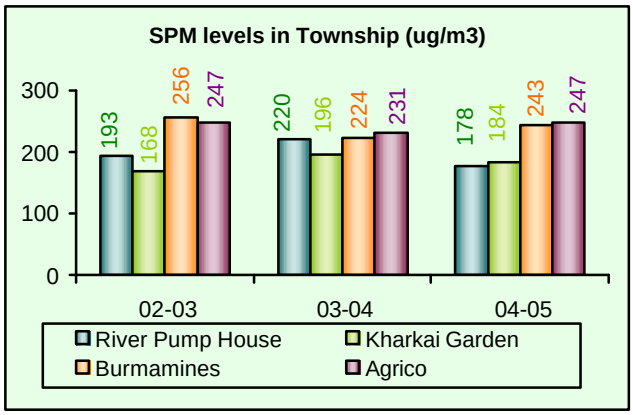


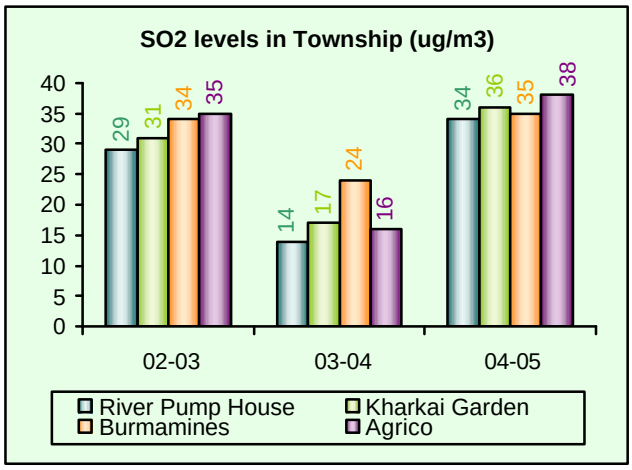


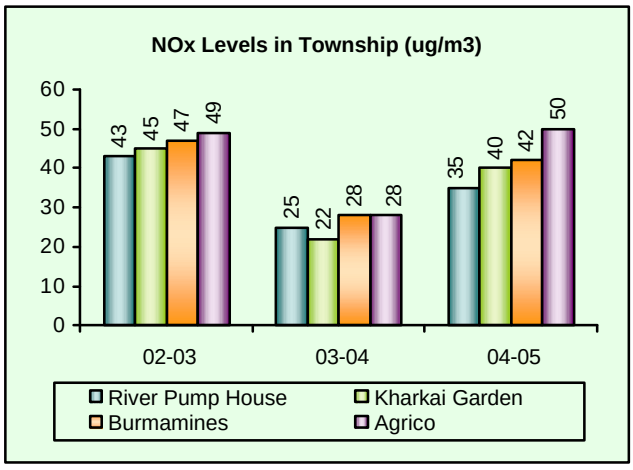












Ambient Air Quality at our Sukinda Chromite Mines

Yearly average of ambient air quality at Sukinda Chromite Mines is as under:

Station	SPM	SO_2	NOx	RPM
	microgram / m^3			
COB Plant	193.90	2.00	11.90	79.60
Stack Yard	201.10	2.00	15.10	79.10
Laboratory Top	81.00	2.00	10.60	37.30
Hospital	67.70	2.00	9.80	31.80

Ambient Air Quality at our CRC West

Ambient air quality at three locations is measured on a monthly basis (limit-8/24 hours)

	MPCB Standard (Norms)	02-03	03-04	04-05
Location-Near Aquatherm				
SPM ($\mu g/m^3$)	500	225.00	201.00	228.50
SO_2 ($\mu g/m^3$)	120	24.50	22.67	23.62
NO_2 ($\mu g/m^3$)	120	19.22	16.88	18.62
HCl ($\mu g/m^3$)	75	15.17	14.10	14.16
Location-Near ET Plant				
SPM ($\mu g/m^3$)	500	193.00	192.00	170.20
SO_2 ($\mu g/m^3$)	120	29.32	28.22	24.34
NO_2 ($\mu g/m^3$)	120	22.10	22.33	15.79
HCl ($\mu g/m^3$)	75	50.35	50.22	41.74
Location-Near Scrubber				
SPM ($\mu g/m^3$)	500	195.00	194.00	171.00
SO_2 ($\mu g/m^3$)	120	22.14	21.77	21.54
NO_2 ($\mu g/m^3$)	120	17.70	16.00	17.36
HCl ($\mu g/m^3$)	75	39.22	36.80	38.65

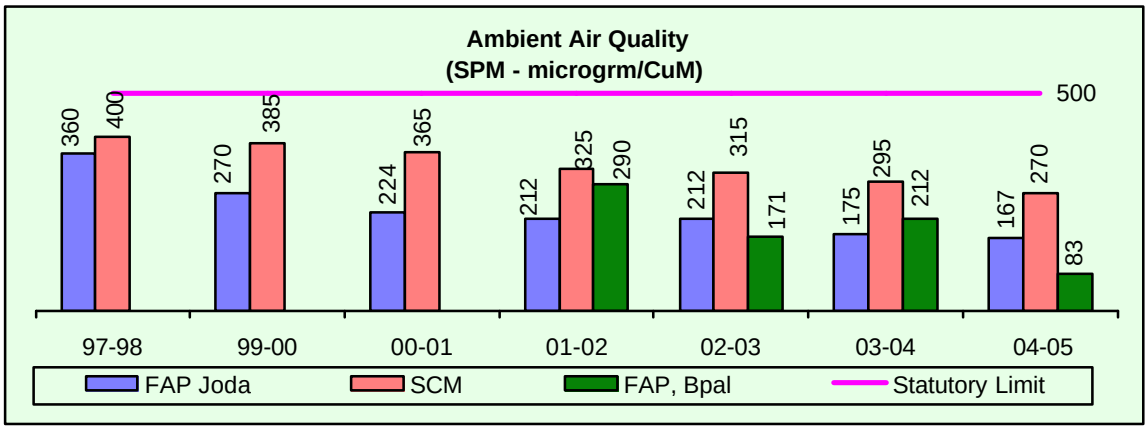
Ambient Air Quality at Wire Division, Mumbai

Sl. No.	SPM	SO_2	NOx	HCl	Lead
Norm	500(mg/Nm^3)	80(mg/Nm^3)	80(mg/Nm^3)	70(mg/Nm^3)	0.15(mg/Nm^3)
Borivili	165	20	16	14	0.02
Tarapore	180	22	18	4.45	0.012

Ambient Air Quality at our Jharia Division

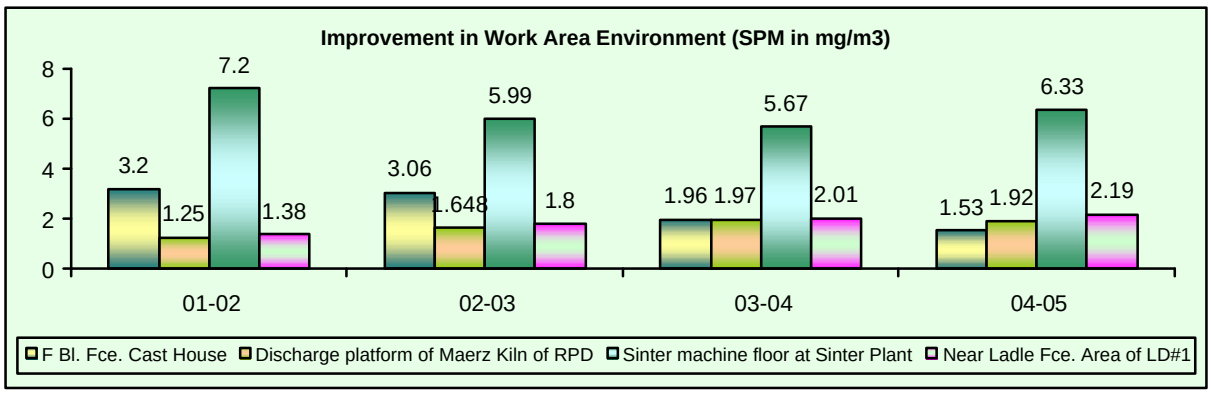
	RSPM (ug/Nm^3) Limit-250 ug/Nm^3	TSPM (ug/Nm^3) Limit- 500 ug/Nm^3	SO_2 (ug/Nm^3) Limit- 80 ug/Nm^3	NOx (ug/Nm^3) Limit 80 ug/Nm^3
Jamadoba	177.05	377.36	21.16	20.08
6&7	190.76	402.98	27.62	19.56
Digwadi	184.17	383.01	21.32	15.11
Sijua	184.21	368.8	22.53	17.14
Belatand	208.3	438.56	32.32	19.98
JCPP	198.92	439.07	23.46	16.25
BCPP	203.34	425.21	29.08	18.65
FBPP	194.97	452.55	21.46	15.75

The ambient air quality monitored at four locations within Sukinda Chromite Mines viz. product handling, chrome ore beneficiation plant, housing colony and the hospital is well within the statutory limits.



Work Area Environment

Tata Steel has implemented a variety of mitigative measures to improve the working environment at the shop floor. Work area environment quality at different places in the Works is furnished below:



As per the requirement of Amendment Rules 1997 to the EP Act, 1986, visible fugitive emissions from Coke Ovens are monitored regularly. Details of this are furnished below:

Table-2 – Visible Fugitive Emission from Coke Ovens at Coke Plants

Parameters	Legal norms	Batt#3		Batt#5		Batt#6		Batt#7		Batt#8		Batt#9	
		03-04	04-05	03-04	04-05	03-04	04-05	03-04	04-05	03-04	04-05	03-04	04-05
Percentage Leaking Doors (PLD)	5% for new Battery / 10% for Old Battery	7.6	5.6	1.9	2.1	2.3	2.4	3.1	2.3	1.3	2.1	3.5	2.2
Percentage Leaking Off Takes (PLO)	4%	1.5	1.9	3.0	0.3	2.9	0.7	2.9	0.8	Nil	0.3	Nil	0.1
Percentage Leaking Lids (PLL)	1%	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Charging Emission (Sec/Charge)	50 Sec.	93	86	Nil	NA	NA	NA	NA	NA	NA	NA	NA	NA

NA – Not Applicable

The reported information is calculated on the basis of two half-yearly samples for determining the annual average.

Waste Handling (EN11)

Most of the solid wastes generated from the Steel Works are recycled/reused. Wastes such as, sludges from BF gas cleaning plant and part of LD slag could not be recycled because of high alkali and high phosphorous content as, respectively. Solid Waste utilization statistics including hazardous wastes during the year 2004-2005 are presented in the table below. Quantities of waste utilized divided by the total solid waste generation gives the percentage of utilization.

Utilization / Sale of Major Solid Waste

Item	Usage Details	2003 – 2004		2004 - 2005	
		Tonnes	% of generation	Tonnes	% of generation
B F Slag	Cement making	1137234	89.42	1105487	92.48
L D Slag	Sinter making	904585	74.77	888524	74.37
B F Sludge	Domestic fuel	40610	88.37	27982	85.05
L D Sludge	Sinter making	71166	72.56	80909	70.42
Mill Scale	Sinter making	62130	91.22	57801	100
Flue Dust	Sinter & dom. Fuel	19285	21.30	25260	32.75
Lime Fines	Sinter making	109788	100	100849	100
Dolo Dust	Sinter making	1715	100	1139	100
Ref. Waste	Sale	11736	100	13673	100
Tar Sludge	Coke making	3965	100	3626	100
Oil Sludge	Coke making	875	100	1217	100
BOD Sludge	Coke making	1832	100	277	100
U/S Lime St.	Sinter making	151308	100	86627	100
Mill Sludge	Sinter making	6188	100	8440	100
Roll dust	Sinter making	27	100	Nil	Nil
TOTAL		2522444	82	2401811	83.16

Hazardous wastes generated at the mines and collieries were auctioned to registered recyclers and oily waste/sludge is land filled in secured landfills. The data on other wastes like scrap; glass, drums & barrels have not been captured and shall be reported in the subsequent reports.

Approximately 550,000 tonnes or 18% of the solid wastes generated (excluding hazardous wastes) during the reporting year was used for filling of low-lying areas and for peripheral road construction around Jamshedpur.

Hazardous Wastes Generated at Mines

Process	Waste	Quantity	
		NOA (03-04)	JODA (04-05)
Maint. And repair work	Oil sludge/ Emulsion/ Soaked cotton (m^3)	131.9	182.46
Lubricant	Used oil	157.2	247.5
Batteries	Used battery	401	260

At Khandobond Mines only 10 numbers used batteries were generated during reporting period. No other waste was generated at this mine.

About 200,000 tonnes of fly ash and bottom ash generated in the Power Plants was dumped in Bara Dump Area. Packing wastes were segregated and auctioned. The details of hazardous wastes generation and utilization in Steel Works and bio-medical wastes for Jamshedpur are furnished below (details for other units will be furnished in subsequent reports). Waste quantities were not weighed and reported based on average capacity of trucks/tankers/containers. The hazardous waste reported does not include all the parameters reported to State Pollution Control Board, as some of the wastes, which are recycled in the processes, have not been established as hazardous so far. Tata Steel did characterization of these wastes during the year 03-04 and only the following wastes have been found hazardous.

Hazardous Wastes & Bio-Medical Wastes

Hazardous Wastes in Steel Works

Sl. No.	Waste	Class/Category (Indian Law)	Quantity		Method of disposal
			03-04	04-05	
1	Tar Sludge	1.8	3965 t	3620t	Recycled to Coke Plant
2	BOD Sludge	1.9	1832 t	277t	-do-
3	Cyanide Sludge (at Ring Plant)	11.1	21.25 t	19t	Treated in BOD Plant
4	Zinc Dross	16.3	1807 t	1552.73t	Sold to authorized agencies
5	Chrome Sludge	17.1	5.4 t	19.8t	Protected landfill
6	Lube oil sludge/Coolant oil sludge	37.1	1235 t	1853	Recycled to Coke Plant/Power Plant
7	Lead acid batteries	41.3	814 nos.	382	Auctioned to registered recycler
8	Used lube oil/grease	44.1	439 KL	271KL	Recycled to Blast Furnace
Waste Handling at CRC West					
9	ETP Sludge (MT/year)	12.9	240	232	Disposed to Mumbai Waste Management, Taloja, approved by MPCB
Bio-Medical Wastes (Tata Main Hospital) Generation & Disposal per Month (Average Quantity)					
1	Human anatomical wastes	1	4604 kg	6568	Incineration – 100%
2	Micro-biological/bio-technology waste	3	659 kg	550	Autoclaving – 100%
3	Waste sharps	4	7492 kg	10112	Incineration – 100%

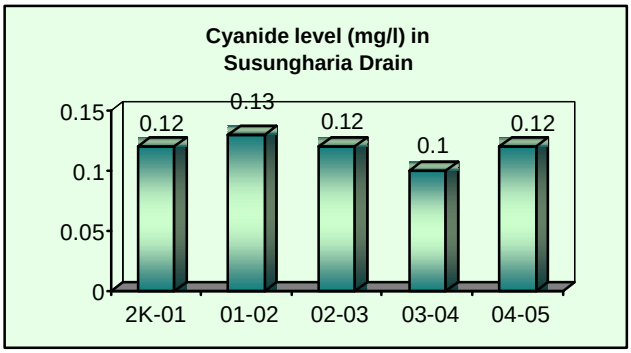
Effluent Management (EN12)

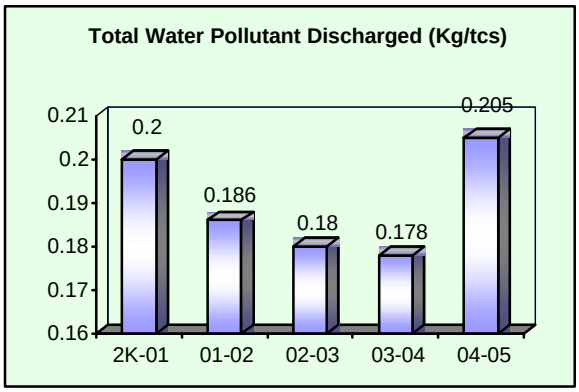
Wastewater from process was treated with best available physio-chemical methods and recycled in the process. Wastewater from coke plant was treated biologically where organic pollutants are oxidized and decomposed by microorganisms.

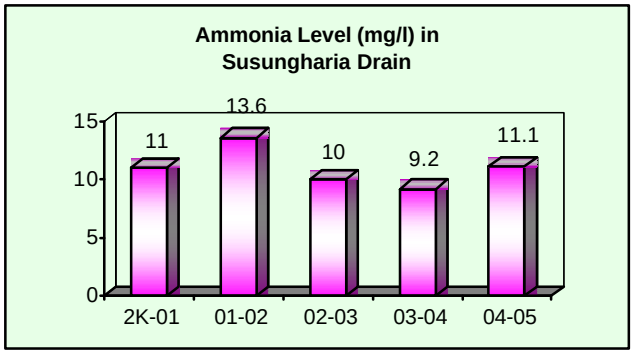
The levels of total pollutant discharge in the wastewater streams have reduced considerably at various locations as shown in the boxes. The absolute effluent quantities and pollution loads from the Steel Works are furnished in the box. Noamundi and Joda Iron Mines & the West Bokaro Collieries and Jharia do not discharge any overflow from the Slime/Tailing Dams. Quality parameters for treated sewage are furnished in **SO-1** under **Section-6.0** (Water Management).

Absolute quantities of pollutants & effluents from Steel Works

Parameter	02-03	03-04	04-05
Effluent generation (million m^3)	10.4	904.	11.10
Total Suspended Solids (tonnes)	628.76	656.78	721.3
Oil & Grease (tonnes)	27.48	20.10	21.13
Ammonia (tonnes)	77.35	71.26	94.94
Cyanide (tonnes)	0.91	0.83	1.054
Phenol (tonnes)	0.89	1.25	1.15







Quality of treated effluent discharged from Jharia Group of Collieries.

	pH Limit-5.5 to 6.0	TSS Limit- 100 mg/lit	DO Limit- >5	BOD Limit 30 mg/lit	COD Limit 2 mg/lit	Oil & Grease Limit 100 mg/lit
Jamadoba	7.97	55.125	6.79	2.8	54.5	1.02
Jamadoba (2 Pits)	8	48.04	6.71	1.98	63.24	2.085
Jamadoba (3&4 Pits)	8	29.54	6.86	1.55	70.07	2.26
Jamadoba 6&7 Pits	8.03	29.93	6.575	1.68	47.92	1.005
Digwada	7.46	34.7	6.08	1.35	48.26	1.21
Sijua (15 Pits)	7.56	28.05	6.76	1.167	54.48	1.461
Sijua (8 Pits)	7.61	28.6	6.85	1.286	51.97	0.84
Sijua (2 Pits)	8	54.75	6.85	2.06	50.04	2.209

Effluent Management at CRC (West)

Wastewater from the pickling and cleaning line process was treated with the best available physio-chemical method. Some of this treated water was used for gardening.

	2002-2003	2003-2004	2004-2005
Total quantity (m^3/year)	19904.5	19597.50	19070.5
Specific quantity m^3/tonne of pickling production	0.170	0.146	0.128
Waste water from cleaning line process			
Total quantity (m^3/year)	41080	50215	27589.5
Specific quantity m^3/tonne of cleaning pond	0.97	0.89	0.48

Treated discharged water quality at Wire Division, Mumbai

The division ensures that only treated water is discharged into outlets. Results are given for COD (Chemical Oxygen Demand), BOD (Bio Chemical Oxygen Demand), Suspended Solids, Fe (Iron) and pH. All are below maximum permissible limits. The operations at the Wire Rod Mill involve no water discharge. It demonstrates the effectiveness of actions taken by the Wire Division through investment in Effluent Treatment Plant and ensuring only permissible water is discharged.

Plant	Norms	pH (5.5-9.0)	Suspended Solids (100)	COD (250)	BOD (100)	Fe (5)
Borivili Wire Plant	Mg/lit	7.06	13.8	72	16	1.36
Tarapore Wire Plant	Mg/lit	7.08	13.6	91	14	1.28

Significant spills (EN13)

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

SUPPLIERS

Environmental Performance of suppliers (EN33)

The environmental performance of suppliers related to their discharges and emissions is not captured by the organizations due to large vendor base spread all over the world. However, stringent procedures have been laid down under ISO-14001 for contractors working in the premises of the organization. The compliance to these procedures is mandatory and punitive action is taken against defaulters. The procedure for monitoring contractors/suppliers compliance with labour laws is also furnished in **Section-3.16.**

PRODUCTS & SERVICES

Significant environmental impact of principal products and services (EN14)

International Iron & Steel Institute (IISI), Brussels, has initiated Life Cycle Study for steel products, at present restricting the scope from mining of raw materials to the despatch of material from the steel plant gates. The issues addressed under LCA programme include raw material consumption, energy usage, discharges & emissions, climate change, acid rain and eutrophication. At Tata Steel, LCA has proved to be very successful in analysing inputs to the processes and discharges to the atmosphere. As per IISI norms, the tracking of performance and significant impact of steel products and services beyond the gate is not possible due to

multiple usage of steel. This parameter will not be assessed by the organization in near future also.

Recycling and reuse of our products (EN15)

Steel products are 100% recyclable in their life cycle. However, it is difficult to keep track after the product leaves the factory gate and hence information has not been furnished. Tata Steel recycles scrap steel to the extent generated in the plants. The organization did not purchase any scrap from the market during the reporting period.

COMPLIANCE

Environmental compliance status (EN16)

Major complaints received during the year are furnished below:

- No penalty or fines have been imposed for non-compliance.
- Local Kerala Samajam Model School complained about the problem of foul smell from sludge drying beds of our BOD Plant. Based on their complaint, the company started spraying bleaching powder to control the odour and this gave satisfactory results.
- The Jharkhand State Pollution Control Board served a show cause notice to the Company in the month of August 2004 that the Jugsalai Muck Dump was causing air pollution and was affecting the Jugsalai Township. A Company representative responded to the show cause notice appeared and in the office of Chairman, Jharkhand State Pollution Control Board. The issues to the problem were clarified to the satisfaction of those concerned and required information was furnished.
- There were altogether 48 cases of non-compliances reported during the year, which were on uncontrolled emission, discharge of untreated effluent and spillage of effluent and coal tar.

TRANSPORT

Significant environmental impacts of transportation used for logistical purposes (EN34)

i) Diesel and Petrol consumed for transport of raw materials and by in-house vehicles are accounted for in the calculation of CO_2 emission as per GHG protocol.

ii) Contractor's vehicles are not considered in the GHG calculation. It is not possible to track the mileage and fuel consumption of contractor's vehicles entering the Steel Works. We do not intend to track this in future also.

iii) Company vehicles including locos 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 of the Steel Works. The Company has put up vehicle emission monitoring stations at various locations in the township where the State Pollution Control Board checks the vehicles. All units under EMS follow this practice.

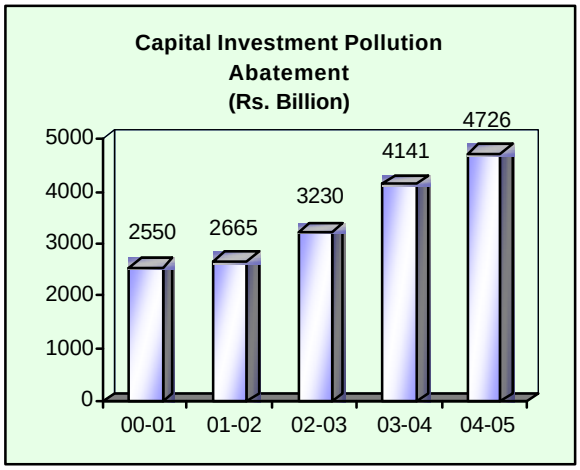
iv) Particulate Matter, Sulphur Dioxide and Nitrogen Oxides are not monitored for transport vehicles, as the same is not a legal requirement.

OVERALL

Environmental expenditure (EN35)

Capital Investment on Pollution Abatement

Under different phases of modernization, several state-of-the art pollution control systems have been installed to prevent and control pollution. The box alongside provides details of the capital expenditure over the years, on pollution abatement. Expenditure during reporting year on pollution abatement also includes facilities provided at the new Cold Rolling Mill Complex. The capital expenditure is shown for the entire scope of the report.



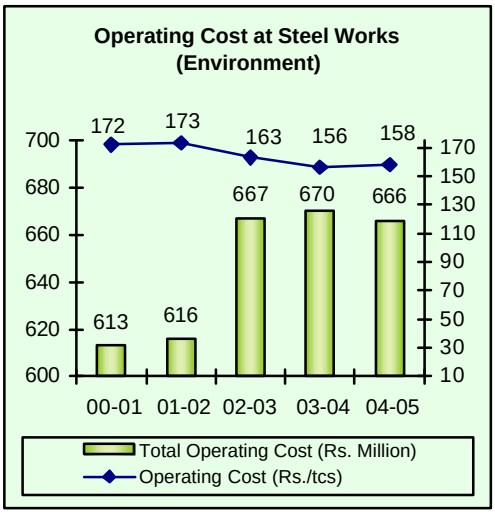
Operating Cost on Environmental Protection (Rs. in Million) in the Steel Works

Cost Element	01-02	02-03	03-04	04-05
Power Consumption	268	350	347	419
Consumables	263	300	300	216
Revenue Expenses	8.0	10	12.0	16.0
Water Cess & Other Charges	7.6	7.5	11	15.0
Total Costs	646.60	667.5	670.0	666.0
Total Crude Steel production (mtpa)	3.749	4.10	4.224	4.104
Operating Costs, Rs./tcs	173	163	159	162

The operating costs include expenditure on power consumption, consumable chemicals and spares, Water cess paid, and the revenue expenditure like cost of chemicals, glass-wares, wages & salaries of the employees of Environmental Management Department. The capital/ revenue expenditure includes the capital costs incurred for installation of pollution control facilities e.g. treatment plants, bag houses, slime dam construction, etc. The expenditure against item#7&11 in the table on Capital/ Revenue Expenditure in mines (is mentioned below) is included in the capital cost shown in the above figure. The expenditure for other units is also tabulated in the next page. The previous years data for other units are not available.

Capital / Revenue Expenditure on Environment in Mines (Rupees Million)

Sl. No.	Activity	02-03 (Rs. Million)	03-04 (Rs. Million)	04-05 (Rs. Million)
		Rev.	Rev.	Rev.
1	Afforestation and Horticulture	2.837	3.912	3.90
2	Water Cess	0.774	0.864	0.981
3	Consent Fees	0.298	0.388	0.310
4	Awareness	0.10	0.124	0.160
5	EMS Activities	2.3	1.357	4.03
6	Maintenance / Construction of Check Dams	0.38	0.31	0.420
7	Slime Dam Construction	-	-	-
8	Slime Pump Operation	10.237	15.800	10.480
9	Return Water Pumping	0.336	0.850	1.025
10	Water Sprinkling	4.213	3.067	3.845
11	DE & DS System	1.172 + 2.942 (Cap)	1.317+ 5.530 (cap)	4.266
12	Environment Monitoring	0.608	1.424	1.624
	TOTAL	**26.197**	**34.943**	**31.041**



Operating Expenses (04-05) at other locations (Rupees Million) (figures in bracket are for previous year)

	Jharia	West Bokaro	FAP Joda	Tubes	CRC (West)
Power Consumption	1.75 (3.23)	11.58 (11.34)	3.7 (6.80)	0.80 (1.20)	0.23 (0.13)
Consumables	0.25 (0.20)	14.52 (12.70)	0.7 (3.00)	0.84 (0.80)	1.06 (0.87)
Revenue Expenses	29.75 (0.13)	6.44 (4.92)	1.7 (0.50)	- (-)	0.84 (2.0)
EMS Activities	1.00 (1.00)	4.25 (2.46)	0.65 (0.70)	0.039 (0.05)	1.26 (0.19)
Water Cess Payment	0.62 (0.29)	1.00 (0.78)	0.052 (0.03)	0.023 (0.03)	0.04 (0.03)
TOTAL	**33.37 (4.85)**	**37.80 (32.20)**	**6.802 (11.03)**	**1.702 (2.08)**	**3.43 (3.22)**

"Tata Steel has identified itself with growth and development of the nation and is committed to continue to improve the quality of life of people in the communities it serves".

Section - VI

Social Performance

INDICATORS IISI SUSTAINABILITY REPORTING

Sl. No.	Indicator	Units of Measure	World Avg. (03-04)	Tata Steel (04_05)	Numbers Reported (03-04)
1	Employee Training	Training Mandays/ Employees/Year	9.6	13	55
2	Lost time injury frequency rate	Frequency per million hours worked	6.6	1.51	55

CONTENT INDEX

EMPLOYMENT AT TATA STEEL

WORKFORCE (LA1)

As on 31.03.2005, Tata Steel had a total permanent workforce of 39,648. The break up is furnished in the box. In addition, there were approximately 7,743 contractor's employees against 10,996 contractor's employees and 815 temporary employees last year working at various sites, including the one million tonne expansion project.

JOB CREATION (LA2)

Tata Steel had 42,511 employees on its roll as on 31.03.2004 which dropped to 39,648 as on 31.03.2005. Tata Steel is seriously attempting to reduce its labour cost, which is currently 9% of its turnover. The contract labour reduced to 7,443 in FY 04-05 from 10,696 in FY 03-04. However, with the increased production, Tata Steel has created indirect employment in the area of transportation, which we have not been able to capture. In addition, due to outsourcing of various activities, in operational areas and during implementation of expansion project, there had been an increase in the employment by contractors and suppliers.

EMPLOYEE BENEFITS (LA12)

The benefits given to employees beyond those legally mandated are summarized below and also presented in the box. The steel company has spent a sum of Rs.335.80 Million on medical services and Rs.83.60 Million on educational facilities for the employees and their families in the reporting period compared, to Rs.332.37 Million on medical services and Rs.105.802 Million on educational facilities last year.

Location	Officers	Non-Officers	Number
Jamshedpur	2890	19039	21929
Noamundi (Iron Mines)	231	1885	2116
Jamadoba (Collieries)	199	6874	7073
West Bokaro (Collieries)	197	3460	3657
Kolkata (M&S)	156	219	375
Mumbai (Head Office)	26	31	57
Adityapur Complex	109	543	652
CRC West & Wire Division	269	1233	1502
CRM Sisodra	56	243	299
Kharagpur	75	663	738
FAMD	171	1061	1232
CRR Offices-Delhi, Bhubaneshwar & Ranchi	13	5	18
TOTAL	**4392**	**35256**	**39648**

Employee benefits beyond those legally mandated

Facilities	Diverse Work Groups
Preferential house allotment	Working couples.
Free water and medical services, Subsidized electricity, housing	All employees.
Metro allowance	Metro employees
Monetary incentives	Employees acquiring higher education in related field.
Works allowance/Night shift allowance	Graduate Trainees /people working in shift

Examples of other benefits (non-work related) include free fuel, free school for wards, and scholarship to meritorious students, well equipped libraries, recreational clubs, community halls, and adventure programme for employees, fair price shops. Retired employees get free medical treatment for self and spouse.

- **Early Separation Scheme**: a monthly pension of 1 time /1.20 times of an employee's salary depending upon his age and length of service, till the time the employee would have attained the age of 60 is given on separation.
- **Family Benefit Scheme**: in case of fatality in the Works, monthly pension equal to the amount of last drawn salary of the deceased is given to the legal heir till the time the deceased would have attained the age of 60.
- 15 days yearly special leave is given to women executives, with children of less than 5 years of age to take care of their children, in case of sickness.
- Basic Plant training of 18 months with stipend to employees' ward to enhance their employability.

- **Holiday Home**: all workers and supervisors of Tata Steel have access to holiday homes. There are four holiday homes all over India: Puri (11 double bedded rooms & 3 bedded rooms), Gangtok (6 double bedded rooms), Haridwar (5 double bedded rooms and 1 four double bed room). The budget for FY 05-06 is Rs.2 Million. There is a proposal to set up one more holiday home in the future.
- **Tisco Officers' Beach Club**: All officers of Tata Steel are eligible to be a member of the Beach Club. Beach Club offers the "Tisco Executive Holiday Plan" that includes Hotels, Sterling Resorts & Sterling Guest Houses across the country. Besides this Tata Steel also provides riding school and water sports centre facilities in Dimna.

EMPLOYEE INVOLVMENT IN DECISION MAKING AT TATA STEEL

EMPLOYEES & TRADE UNION (LA3)

100% employees (other than Officers) are represented by independent trade unions. The details of the trade unions at different locations are given in the box. The Officers do not have any association or union.

Location	Union	Number of Employees
Jamshedpur	Tata Worker's Union	19039
Noamundi & Joda	INMF	1885
Jamadoba	RCMS	6874
West Bokaro	RCMS	3460
Mumbai HO, CRC West & Wire Division Tarapore	Mumbai Labour Union and Tisco Head Office Employee Association	1264
Kolkata	The Tata Employees' Union Kolkata	219
Adityapur	INTUC	543
CRM Sisodra	CITU	243
Kharagpur	CITU	663
FAMD	INMF	1061
CRR Offices	-	5
TOTAL		**35256**

CONSULTATION AND NEGOTIATION WITH EMPLOYEES (LA4)

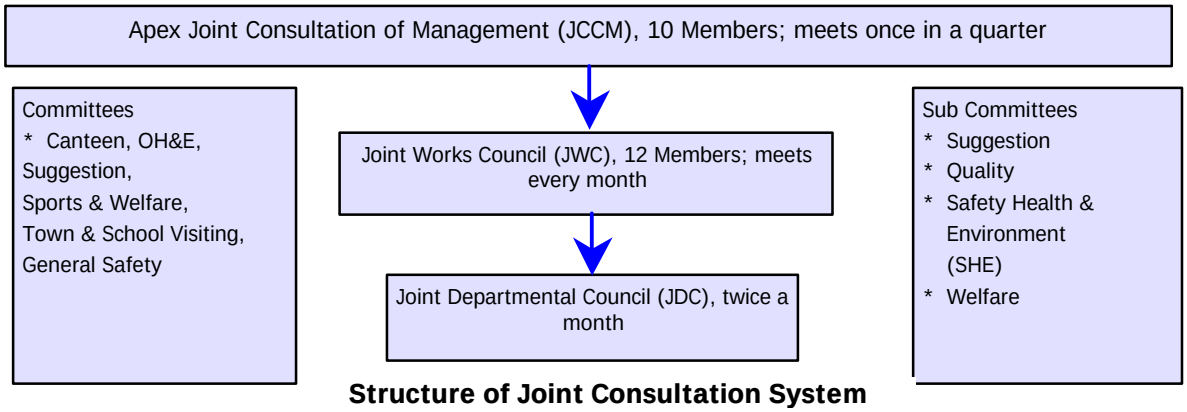
Tata Steel is a pioneer in the area of Joint Consultation in India and has a three-tier Joint Consultation System that ensures participation of employees at all levels, including top management.

MD-online is another forum to share and interact with employees. Managing Director on the first working day of the month communicates the performance through web cast and video conferencing and receives feedback for more than one hour. Hotmail is another e-communication channel available for employees to share their views. Feedback is provided within 48 hours from the MD's Office. Collective bargaining issues are discussed with the recognized unions at different locations on a regular basis. The Joint Consultative Management System is presented under LA13.

The Personnel Manager of each department consults the employees and their families in the areas of Family Welfare, Savings, Education of Children and other issues.

EMPLOYEE PARTICIPATION IN DECISION-MAKING (LA13)

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



Structure of Joint Consultation System

In the JCCM, JWC, JDC and other Sub-Committee meetings, issues related to operational performance, safety and environment, welfare of the employees and future directions for sustainable growth are discussed.

HEALTH & SAFETY AT TATA STEEL

HEALTH & SAFETY MONITORING AND COMMUNICATION (LA5)

Factory Act 1948 and the Bihar Factory Rules 1950 guidelines, Mines Acts/Rules, Explosive Acts/Rules, form the basis for recording and notification of occupational accidents and diseases in the organization. Any occupational accident is reported immediately to the safety control room manned round the clock through phone. Any injury is reported to the nearest first-aid-station. There are two first aid stations inside the Works, which are equipped with a well-maintained ambulance and trained staff, to take care of any emergency. Information pertaining to department, location, nature, time of accident, person involved and damage occurred is sent to the Safety Department in the prescribed format. This reporting also includes minor incidents, dangerous occurrences and near miss cases. Reportable accidents (where the injured did not return to work for 48 hours) are reported to the Inspector of Factories.

In case of any fatal accident, the information is sent in writing to the Chairman, General Safety Committee, Inspector of Factories and local government officials on the day of the incident. The work is stopped till it is cleared by Inspector of Factories after site verification. Within 48 hours of the accident, an enquiry committee is constituted to investigate into the root cause/s of the accident. The recommendation's are discussed in the General Safety Committee and are circulated to all Departmental Heads/Chiefs to take necessary preventive actions to prevent recurrence.

An on-line system, called Safety Improvement System (SIS), is in place to log and set target dates for removing the unsafe condition observed at site. Observations can be assigned three priority values on a three-point scale based on severity of consequence of an existing unsafe situation and probability of occurrence of an accident. A Safety Officer logs his observation on a particular section in a department, which results in an e-mail to the unit leader of the section and the head of the section notifying them of the observation. The unit leader after corrective action triggers a "Closed by Department", e-mail to the Safety Officer who verifies the status and closes it or rejects the same. In the latter case, the above cycle is followed again.

JOINT HEALTH & SAFETY COMMITTEE INVOLVING MANAGEMENT AND WORKER REPRESENTATIVES (LA6)

The senior management constitutes an Apex Council on Safety in consultation with the employees Union. This council usually consists of 10 members, six from management and four from the employees union and is headed by the Managing Director of the Company. The structure of the Joint Committees for Safety, Health, Environment and other Welfare activities is as follows:

JOINT CONSULTATIVE COUNCIL OF MANAGEMENT

(Management Representative + Chairman, Co-Chairman, Member Secretary + Employee Representative)

↓

JOINT WORKS COUNCIL

(12 members – equal representation from management & employees union)

↓

Environmental Awareness Committee	Sports & Welfare Comm.	JW Quality Comm.	Hospital Visiting Comm.	School Visiting Comm.	Town Visiting Comm.	Joint Cost Control Comm.	Joint Amenities Comm.

Central Canteen Managing Committee	General Safety Committee	Safety Appliance Committee	Suggestion Box Committee

EIGHT ZONAL SAFETY AND HEALTH COMMITTEES HEADED BY CONCERNED VICE PRESIDENTS

The workforce formally elects the representatives nominated by the Unions and they in turn represent the views of the entire workforce.

HEALTH & SAFETY PERFORMANCE (LA7)

Loss of man-days due to accidents is not accounted for, if a person becomes fit for duty within 48 hours from the time of accident. However, if the duration of absence from duty exceeds 48 hours, the entire duration starting from the time of accident (8 hours of working period per man day) is considered as loss of mandays. The frequency distributions on loss on man-days due to accidents over the past four years are given below. In case of fatal accidents, 6000 person days' loss is considered. Safety statistics and related information is furnished below:

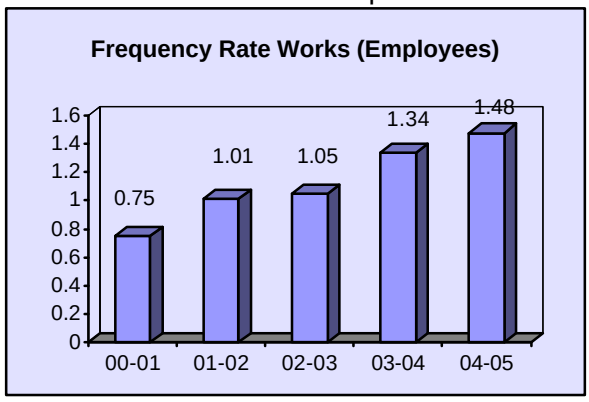
Sl. No.	Location	03-04		04-05		% Variation
		E	CE	E	CE	
1	Steel Works	58 (04)	22 (06)	61 (00)	28 (06)	?11(40?)
2	Tubes	10 (00)	01 (00)	02 (01)	00 (00)	?81
3	Jamadoba	13 (04)	01 (00)	18 (02)	02 (00)	?43 (50?)
4	West Bokaro	24 (00)	10 (00)	10 (00)	07 (00)	50 ?
5	FAMD	01 (00)	01 (00)	01 (00)	00	50 ?
6	Mines	03 (00)	01 (00)	15 (01)	04 (00)	-
7	TGS	01 (00)	01 (00)	03 (00)	00	50 ?
8	CRC (West)	01 (00)	00	01 (00)	00	-
9	Bearings Divn.	9 (00)	02 (00)	05 (00)	00	55 ?
10	Wire Plant	06 (00)	01 (00)	04 (00)	00	75 ?
TOTAL		**126 (08)**	**40 (07)**	**119 (04)**	**41 (06)**	**6 (33)** ?

LEGEND: **E**: Employee, **CE**: Contractor's Employees, **Figures in ()** indicates fatality, ?**Good**, ?**Poor**

Accident Trend:

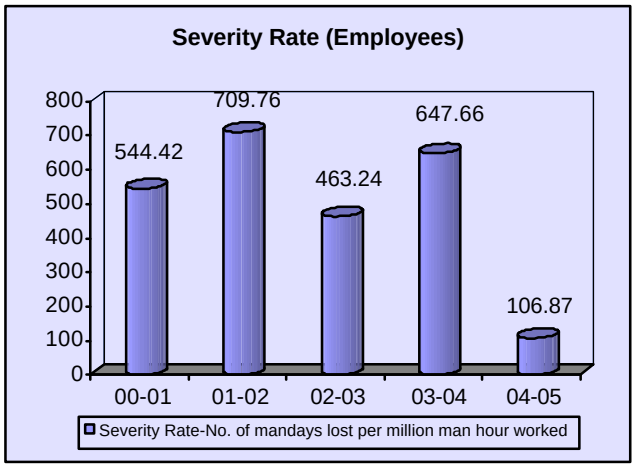
Trend in the pattern of accidents since last 4 years as shown in the box below indicates that there is no reduction in the accident cases. However, recent initiatives undertaken like partnership with Dupont and implementation of OHSAS-18001 to improve safety performance are expected to reduce accident rate.

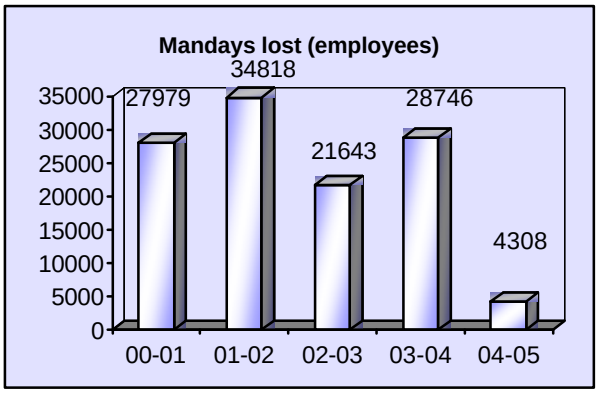
Overall there was a 6% reduction in lost time injury case and 33% reduction in fatality case during the reporting period.
During the year 2004-2005, the Steel Company was certified for OHSMS implementation as per the guidelines of OHSAS-18001.



Frequency Rate / Severity Rate / Man days Lost

The trends in these areas are depicted below:





Corrective and preventive action on identified root causes for incidents:

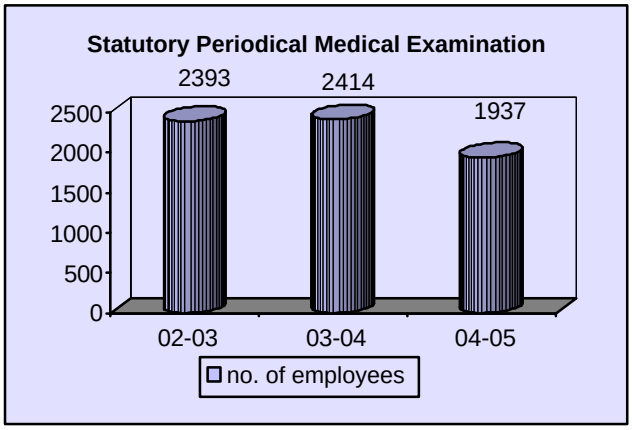
Earlier due to poor system for capturing incidents, the Company was not able to reduce injury cases. An on-line incident reporting system was then put in place, which has provisions to log any incident observed by individuals at the shopfloor. The incidents are analysed and recommendations made for global and site specific implementation. An issue, which remains open, gets escalated to the higher management for review. It has led to capturing of most incidents and a satisfactory level of recommendations being implemented after the incident.

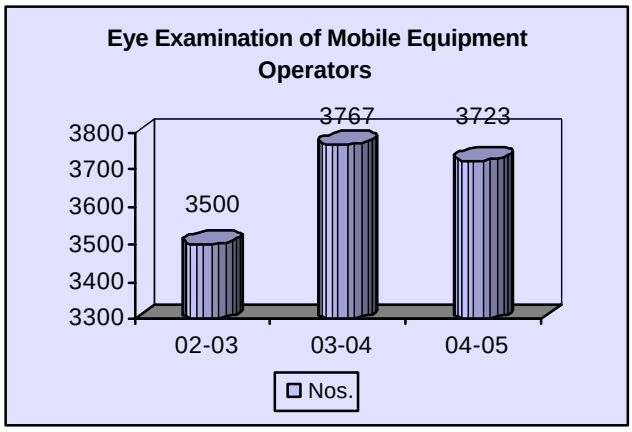
Ensuring line management role in improving safety:

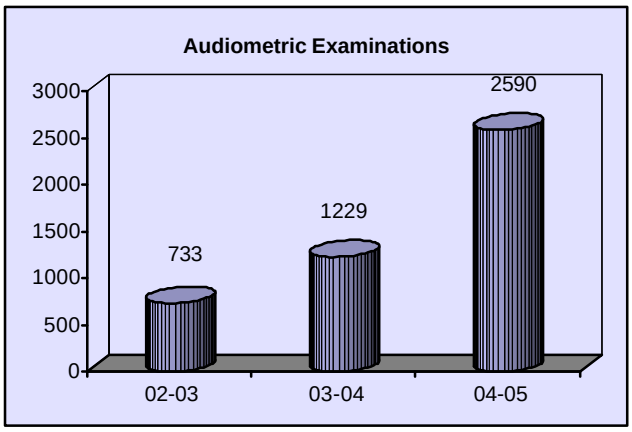
"You get the level of Safety that you demonstrate" is the most saying. Safety improvement gets influenced by the top management by involvement in the process. Hence the entire Safety system has been restructured. The earlier system of General Safety Committee, Zonal Safety Committee, SHE Committee still exists but these will slowly be phased out. Now safety committees involve Apex Safety Council headed by MD and all VPs, Vice Presidents and Tata Workers Union top officials as its members. It is supported by nine apex safety sub-committees each headed by a VP, one each for Policy & Principle, Standard, Positive Isolation, Communication, Training, Incident Investigation, Occupational Health, Audits & Observation and Contract Management. At each divisional level, there is a divisional level implementation committee supported by seven subcommittees. At the departmental level, there are area level committees for implementing recommendations of all global sub-committees. It ensures the involvement of the line management in improving the safety performance. During the year, world famous consultants M/s. DuPont Safety Services were engaged to improve the safety performance of Tata Steel.

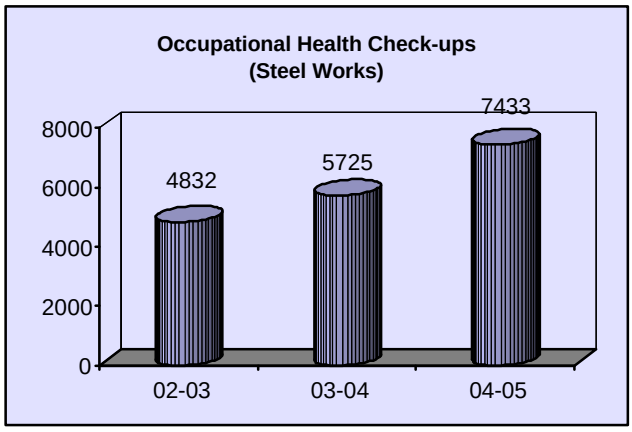
Health Performance

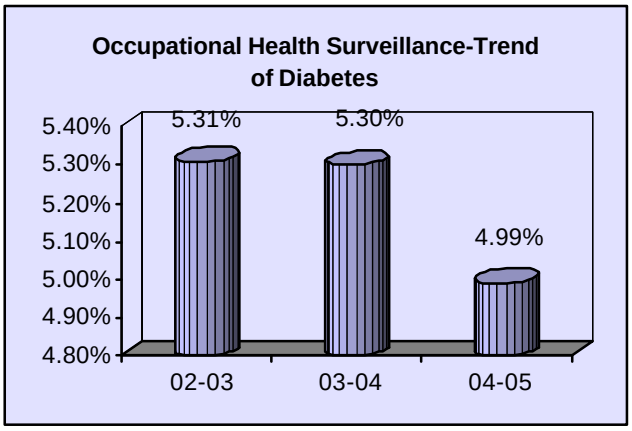
Tata Steel believes in promotion and maintenance of higher degree of physical, mental and social well-being of its employees. To this effect, several activities like regular health monitoring, counselling and training of employees on the shopfloor with respect to health related issues were carried out across the organization. The trends related to health monitoring, health status and awareness programs are given below:

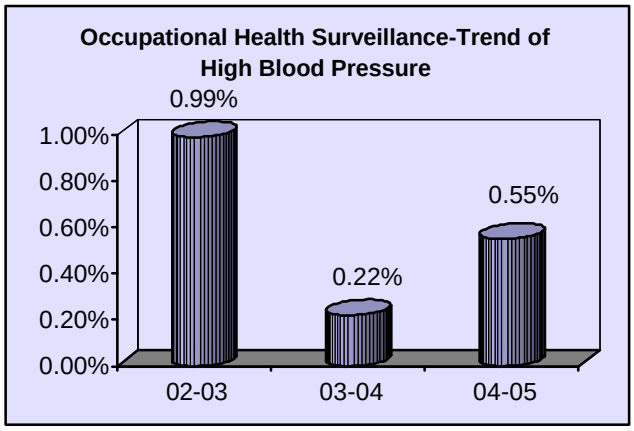


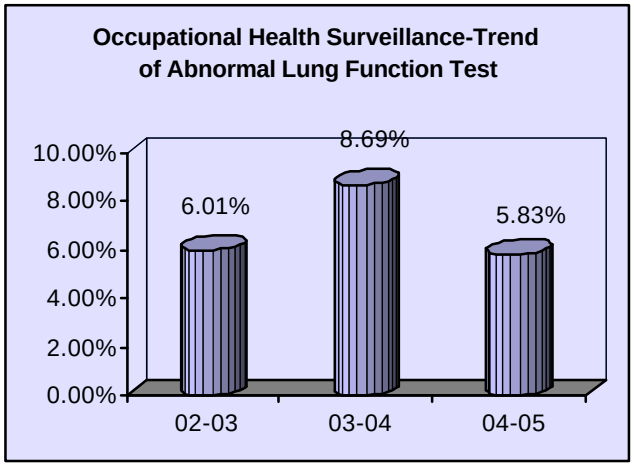


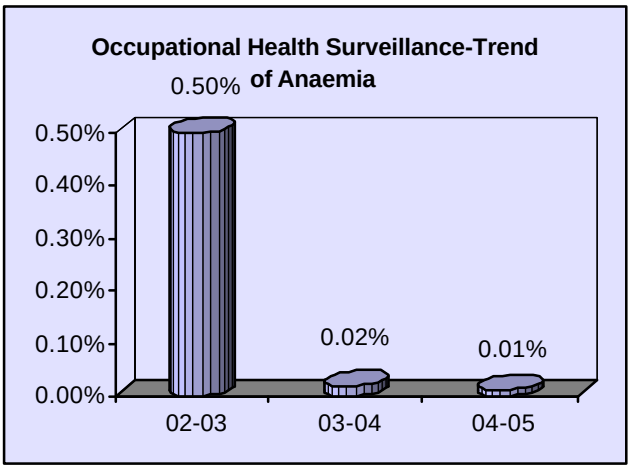


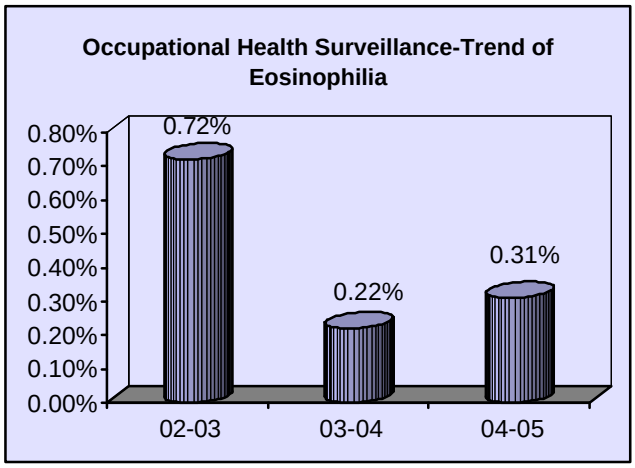


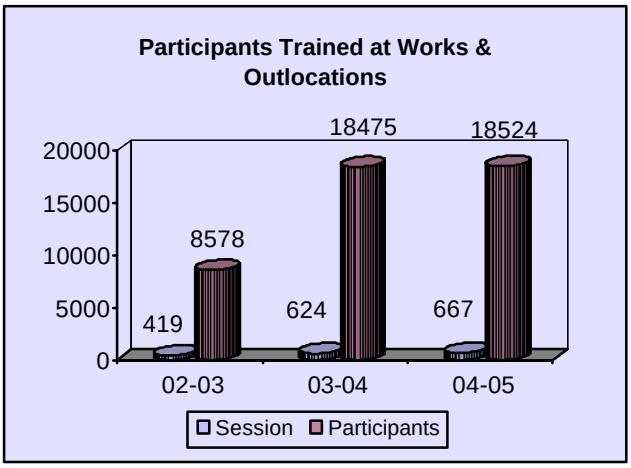












INITIATIVES ON HIV & AIDS (LA8)

It was the Founder, J N Tata's belief that, "a healthy worker is a productive worker". At Tata Steel, all our health initiatives aim to provide optimum health services to our employees and their families for mental, social and physical well being. This concern is also extended to all stakeholders.

In economic terms too, healthy and happy workers are more productive; absenteeism and employee replacement/re-training costs are very low.

Tata Steel's commitment is top down. The Company has a stated policy on HIV/AIDS signed by the Managing Director. In 1994, Core Group-AIDS was formed under the Chairmanship of, Dy. MD (Corporate Services) and the Nodal Centre-AIDS placed under Dr. H K Gardin, Convener, Core Group-AIDS, to focus on this grave threat and formulate strategies for its control and prevention. The Core Group-AIDS members are drawn from the existing staff of departments such as Social Services, Community Development, Personnel, Public Health, local health institutions and the Government-run Voluntary Counselling & Testing Centre.

All initiatives on HIV/AIDS are integrated into the ongoing social and welfare programmes for the 39,648 employees at the workplace at all locations as well as the community residing in and around Jamshedpur. Tata Steel has a very strong culture of social responsibility, which is imbibed and practiced by employees and citizens of Jamshedpur, resulting in a large army of social volunteers and social entrepreneurs.

The activities of the Core Group-AIDS are focussed on HIV/AIDS and include identification of target groups/areas, conducting AIDS Awareness Programmes, developing peer leaders, developing and monitoring a Health Information Management System at the district Civil Surgeon's office, organize sensitisation and skill building workshops on HIV/AIDS for doctors, para-medics and grass-root level staff and helping prevent Parent to Child Transmission by facilitating safe delivery of the baby in hygienic environment. Apart from this Nodal Centre Core Group-AIDS focuses on counselling of STD/HIV/AIDS patients and their family members, prepares teaching materials, distributes condoms through six condom vending machines and has a help line.

"A life saved is worth a million". This programme have had an impact on the stakeholders and led to many of them changing their "unsafe" sexual behaviour, thus saving them from the scourge of AIDS. These programmes have also helped reduce the stigma and discrimination, especially at the workplace. This has prompted the company to conduct more of these IEC interventions on a war footing. The employees are very happy that for even than a decade Tata Steel has been conducting such initiatives not only for them, but also for their families and the society at large.

The Company also believes in networking to help create synergy in activities and ensure better utilization of resources. It's partners include WHO, NACO and Jharkhand SACS, CII Indian Business Trust, Tata Council on Community Initiatives, ILO, Global Business Coalition on HIV/AIDS, Global Compact, GRI, Rotary International, INP+, British Council, Xavier Labour Relations Institute, Ladies Core Group – AIDS, Jharkhand AIDS Prevention Consortium, Jharkhand Health Society and other regional NGOs.

HEALTH & SAFETY MANAGEMENT SYSTEM AND ILO GUIDELINES (LA14)

In 2004-05 the organization was certified to OHSAS-18001, SA-8000 Standards. ILO guidelines on Occupational Safety & Health Management System (ILO-OSH-2001) are integrated with OHSAS-18001 & SA-8000 management system.

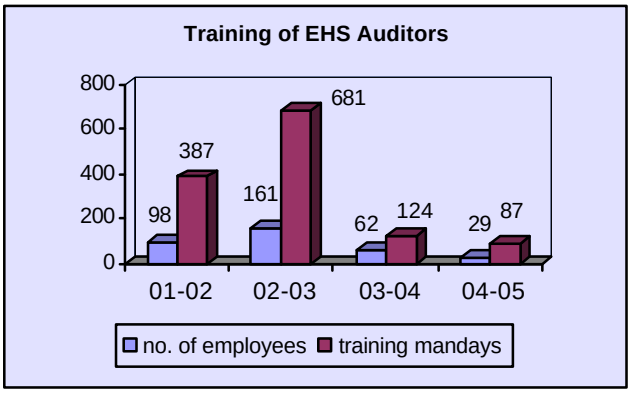
ADDRESSING HEALTH & SAFETY AT WORKPLACE JOINTLY WITH TRADE UNIONS (LA15)

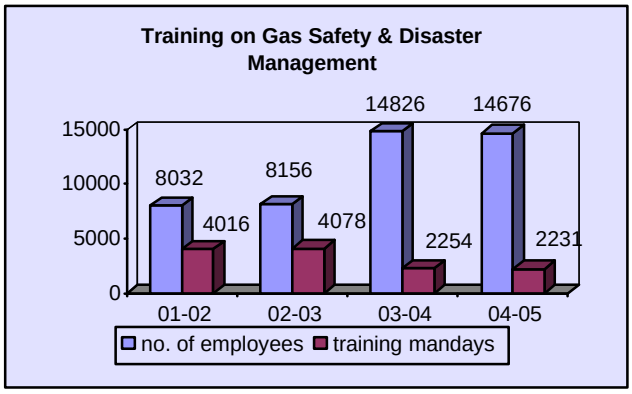
The Joint Consultation agreement with the trade union was signed in 1956 to enhance the participation of the workforce in managing operation of the organization including Health and Safety. The Joint Committees as explained above have been formed under these agreements at all locations with equal participation of employees and management. The representatives from the Union are duly elected members of the workforce of the Company.

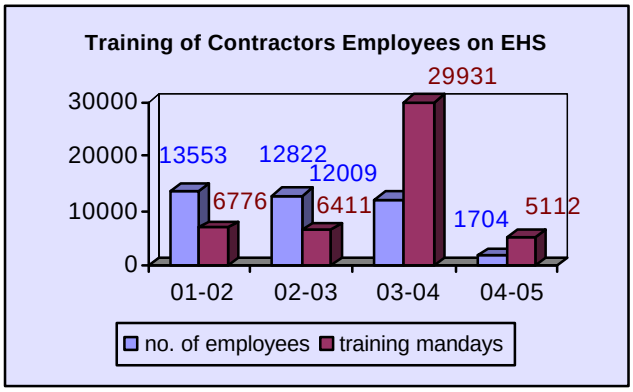
BUILDING PEOPLE

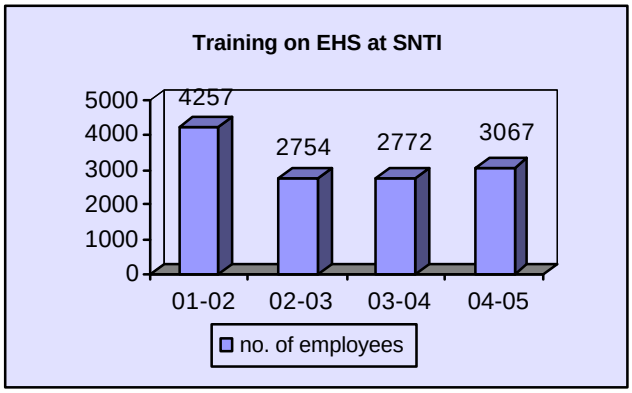
TRAINING (LA9)

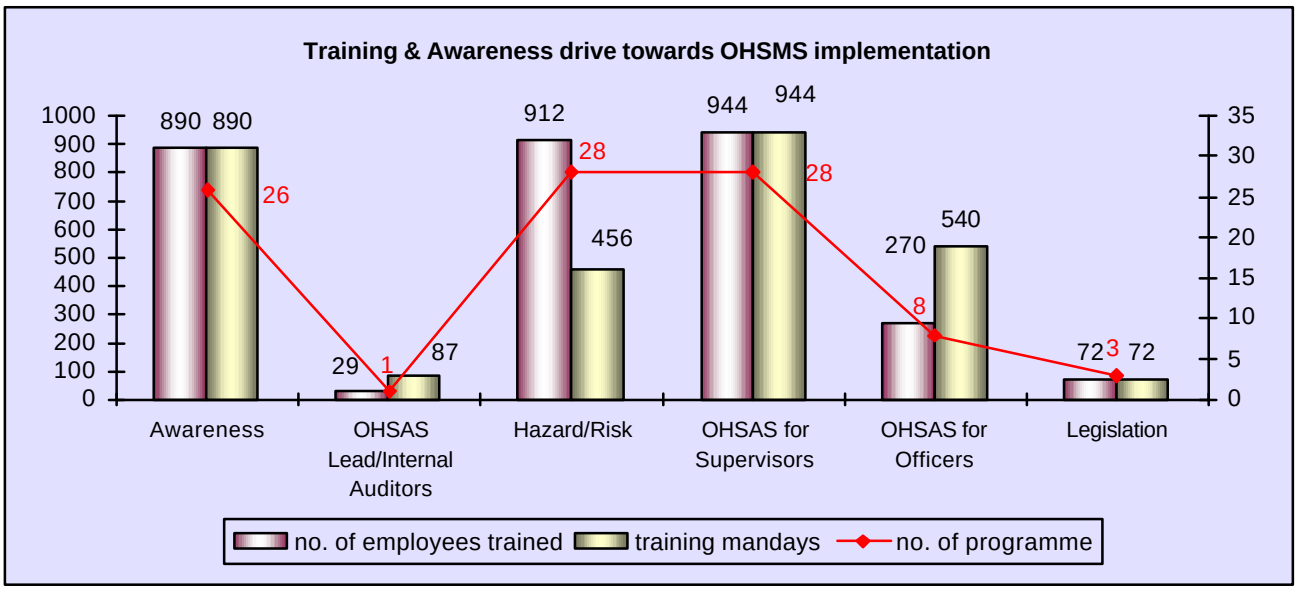
In order to implement EMS & OHSMS, extensive training and awareness of Company employees as well as contractors' employees is an essential part of the management programmes. During FY 04-05 training was an important activity both on EMS & OHSMS as shown below.











TRAINING PROVIDED AT SNTI

Programme	02-03	03-04	04-05
Total number of programmes	896	1195	1047
Total number of training man days	277484	319977	296183
Participants covered	13868	17867	15387
Average programme rating	4.65	4.68	4.66
Average faculty rating	4.52	4.65	4.79
Number of summer training candidates	979	1217	1193

TRAINING PROVIDED AT TMDC

Programme	02-03	03-04	04-05
Total number of programmes	243	320	201
Total number of participants	4610	6727	3747
Total number of training man days	12055	14425	10452
Average programme rating	4.45	4.54	4.69
Average faculty rating	4.79	4.56	4.62
Number of officers nominated for external training program	745	804	830
One year Foremanship candidates	46	52	55

TRAINING FACILITIES (LA16)

Tata Steel has in-house facilities for technical as well as management training. The training needs of all the employees are identified by a Training Need Survey (for Officers' – Personal Development Plan). The descriptions of the various programmes available are as follows:

Internal Training Programmes

- Achievement Orientation
- Change Orientation
- Communication
- Computers
- Conflict Management
- Customer Orientation
- Empathy
- Financial Management
- General Management
- Influencing Ability
- Learning
- Marketing
- Operations Management
- Other Initiatives and Miscellaneous
- People Development
- Planning & Organizing Skills
- Problem Solving & Decision Making
- Project Management
- Special Initiatives
- Strategic Thinking & Management
- Team Building

External Training Programmes – INDIA

- Business Environment
- Change Orientation
- Communication Skills
- Finance
- General Management & Human Resources
- Health Management
- Influencing Skills
- International Management
- Information Technology
- Marketing
- Operations Management
- People Development
- Strategic Thinking & Management
- Team & Conflict.

External Training Programmes – OVERSEAS

- Finance
- General Management
- Marketing
- Operations Management
- Organization & Management
- Programmes for Senior Management
- Strategic Thinking & Management

PROGRAMMES FOR SKILLS MANAGEMENT OF EMPLOYEES (LA17)

Tata Steel has in-house technical training facilities and technical skills of employees are enhanced through these programmes.

Electrical General

- Electrical operation module for officers
- Training on EOT Crane
- Motors & Transformers including protection
- Study and interpretation of electrical circuits
- Electrical power module for IEM officers
- Electrical safety for officers
- TISCO power supplies system.

Job Oriented & Automobile

- Side discharge loader new
- Compressor & pneumatic control
- Side discharge loader
- WIDS-6 Loco

Safety, Hazard Prevention & First Aid

- Gas safety for supervisors
- Managing Safety on the shop-floor
- Maintaining Safety on the shop floor

Computers

- MS-Word & Excel
- Understanding SQL
- Overview of Windows
- Preliminary course on MS-ACCESS
- Presentation by using Power Point for executives
- Developer 2002
- SAP sales & distribution
- Basic course on WEB Page design

Fluid Power (Hydraulics)

- Industrial Hydraulics
- Electro Hydraulics
- Advanced Hydraulics
- Hands-on Hydraulic Circuits

Positional Training

- MENTORS Workshop
- MENTORS Workshop

Steel Making

- Introduction to Iron & Steel making for Finance Controllers

Welding

- Welder cum Gas Cutter

Drives & Robotics

- Fundamentals of modern electrical drive – firing circuit & converter
- Fundamental of modern electrical drive – DC motor control
- Fundamentals of modern electrical drive – Inverter, commutation & chopper
- Fundamentals of modern electrical drive – AC motor control
- Course on ADD-32 digital drive regulator – AVTRON drive
- Course on ADD-32 digital drive regulator – AVTRON drive
- Course on ADD-32 digital drive regulator – AVTRON drive
- Course on direct torque control (DTC) AC drive
- Course on SIMOVERT-P AC digital drive
- Course on SIMOVERT-P AC digital drive
- Course on SIMOVERT-P AC digital drive
- Awareness of AC drive
- Course on direct torque control (DTC) AC Drive
- Siemens DC digital drive

Fluid Power (Pneumatics)

- Industrial Pneumatics
- PLC Based Pneumatic System
- PLC Controlled Pneumatic Systems
- Electro-Pneumatics

Cluster Manning Programme

- MIMS
- EMS at shop-floor
- Total Quality Management
- Quality Circle Leaders & Members
- Safety Awareness
- Gas Safety
- Electrical Protection & Protective Device
- Procurement & Codification
- Water Treatment
- Tyre Maintenance
- Maintenance of Pipeline
- Conservation of Oil
- Maintenance of Centrifugal Pumps
- House Keeping & General Safety
- Computer Training
- Gear Box Maintenance
- Levelling, Alignment, Plumbing & Balancing
- Lubrication System
- Applied Training on Bearings
- Circuit Breaker
- Data Entry for MIMS
- EOT Crane
- Shop Floor Management
- Use of precision measuring instruments
- Industrial Hydraulics
- Bearing Fundamental
- Manuals Service Records & Reports
- Machining Calculations
- Dismantling and Rectification of simple faults in equipment related work
- TIG Welding
- Lathe Operation
- Material Procurement
- Planning in Rigging
- Cummins Engine
- Overhauling of Centrifugal Pump
- Induction Motor Protection & Trouble Shooting
- Condition Monitoring Tools & Techniques
- Industrial Pneumatics
- ATLAS COPCO Compressor
- Belt Conveyor Maintenance
- Free Hand Sketching
- Reading of Drawing
- Automotive Battery Maintenance
- Engine Trouble Shooting
- Heavy Mobile Equipment Operation

Electronics

- Allen Bradley PLC5/25 level-1
- Electronics for IEM personnel
- Siemens PLC 135 U
- Workshop on digital technique
- IEM orientation programme for Supervisors
- Workshop on Micro Controller
- Maintenance of push button telephones
- Limits, Fit & Tolerance
- PT Fuel System Safety for Mobile Equipment
- Valve Operation & Maintenance
- IEM Orientation Programme
- EOT Crane Operation
- Function and Construction of Major Components of Electrical Equipment
- Dismantle, Repair & Assemble of Electrical Components
- House Wiring Electrical Components
- Identification of Components and Joining
- Mobile Hydraulic
- Operation & Maintenance of Terex Pay loader
- Fitting & Maintenance of Couplings
- Operation & Maintenance of D 155/355 Dozer
- Safety in Rigging
- Dynamic Balancing
- Basic Skills in rigging
- Safety (Electrical)
- Mentors Works Shop Module
- Fluid Power
- Training Techniques
- Fitter cum Rigger Electrical
- Wiring
- Basic Skills in Rigging
- Levelling, Alignment, Plumbing & Balancing
- Hydraulic Steering System
- Electrical Drawing
- Lubricants Types & Selection
- Dismantling Assembly and Fault Finding
- Fitting, Assembly & Failure Analysis
- Lubrication
- Welding Theory
- ARC Welding
- Gas Cutting
- Use of precision measuring instruments
- Planning, distribution co-ordination, service records and spares
- IEM Transition Programme
- Distortion Control in Welding
- Welding cum Gas Cutter
- CNC Part Programming
- Measuring and Testing Equipment
- Mechanical Drawing
- Tools & Tackles used in Rigging
- Digital Drive
- Fluid Power
- Precision measurement, limit, fit, tolerance and matting components
- Safety
- Dismount and mount grinding wheels
- Selecting cutting speed, feed and coolant for machining CIMS
- Safety in Rigging

These programmes are normally conducted by SNTI, TMDC & external trainers. Not all of these may have been conducted during the reporting period.

DIVERSITY AND OPPORTUNITY

EQUAL OPPORTUNITY PRACTICES (LA10)

Tata Steel is an equal opportunity employer. This has been articulated in the Tata Code of Conduct. All advertisements of Tata Steel related to recruitments carry this message. During career progression also, equal opportunities are given prominently to all employees. The applications for employment do not carry columns like religion, province, and mother tongue. As a policy towards non-discrimination as per Tata Code of Conduct, new recruitments through Graduate Trainee, System Trainee & Trade Apprentices encourage induction of female candidates also. Violation of equal opportunity policy is redressed through the grievance redressal mechanism and Ethics Counsellor. During the year, the Ethics Counsellor received 12 concerns related to equal opportunity employment violations, out of which two were confirmed on investigation.

EQUAL OPPORTUNITY PERFORMANCE (LA11)

The male/female ratio at Tata Steel is 95:5 (same as in 03-04). The female employees predominantly represent worker class and a few in the officer's cadre. Presently there are no women in the Board of Directors or among top 10 executives of the Company.

'TEJASWINI' – a programme for empowering the female employees of Tata Steel

The "Tejaswini" program is a step towards empowering the female employees in the worker category, and providing growth opportunities to them. The program created a great deal of enthusiasm amongst the female employees at the grass roots level, when the first batch of 13 Tejaswinis completed their training. The success of this program was made possible only due to the grit and determination shown by this initial batch of "Tejaswinis" who were trained on driving heavy vehicles, locomotives, dozers, heavy dumpers, etc. The Government of India has recognized three of these female employees by conferring on them the Prime Minister "Shram Veerangana" and "Shram Devi" awards.

The subsequent batches of "Tejaswinis" have been trained on mechanical maintenance trades, such as precision measurement, mechanical drawing, assembly and disassembly, limit fit and tolerance, rigging, levelling and alignment, lubrication, arc welding, gas cutting etc. After completion of training, they have been placed as Junior Technicians in various departments of the Works. This initiative has created a great deal of enthusiasm amongst the semi literate female employees, primarily from the tribal areas and they have risen from the levels of sweeping, serving tea, head loading and unloading of raw materials etc. to that of a skilled Technician.

HUMAN RIGHTS AT TATA STEEL

ENSURING HUMAN RIGHTS (HR1)

Respect of individual is one of the core values/ beliefs of Tata Steel as indicated in the Tata Code of Conduct **(Annexure-II).** Any violation to this effect is dealt with the established disciplinary procedure enumerated in the Works' Standing Orders 1970.

Tata Steel ensures protection of Fundamental Rights enshrined in the Constitution of India. There is an Employee Grievance Redressal Cell in the Human Resource Management Department, which reviews and addresses grievances. There was no recorded case during the reporting year of any violation of Human Rights. The detailed grievance redressal procedure is furnished in **Annexure-IV**.

ENSURING HUMAN RIGHTS BY SUPPLIERS AND CONTRACTORS (HR2/HR3)

Performance of Supplier & Procedure for Monitoring:

The Procurement Division of Tata Steel has deployed 'bench marking' processes before introduction of any new vendor in the panel of suppliers. This follows a matured SERT (Search Evaluate Register Trial) Methodology for introduction. However, Procurement Division does not monitor the economic performance of vendors, but confidential information is taken from the vendor's various customers and bankers. Reports are also taken from Head (Vigilance) about the credentials of the vendors before formally registering them. Only if all these confidential reports are found satisfactory, is the vendor registered. As a step towards understanding the economic performance of the vendors, plans are on the anvil for analysis of the audited 'balance sheet' for last three years for new vendor registration cases. However, this is yet to be formalized. As an interim step, a process has been worked out for "Vendor Analysis".

In order to sustain the relationship with vendors under the Tata Business Excellence Model framework mechanism, the following actions have been taken:

- Training of vendors on Safety and Environment (more than 600 contractors have been trained on the above module).
- Vendor Meet, chaired by MD/DMD to create awareness on the importance of Safety and Environment to all with contractors.
- Involvement of suppliers under "People Development Program" in the Steering Committee/ Programme Committee & Organizing Committee for the "Labour Training Centre".
- Specific action plans and report back sessions of conceptualisation/development and implementation of "Labour Training Centre" at Jamshedpur to facilitate contractors' labours for training on Safety and Environment.
- Training of basic attitude and safety/improvement orientation to labours/supervisors/ contractors and contract labours.
- "On-line" data generation and analysis for the contractor performance on price, quality, delivery, safety/environment on ERP (SAP).
- Development and incorporation of safety/environment criterion in service entry by Works agencies on ERP (SAP).
- Using safety/environment data integrated to Safety Rating to control future business with Tata Steel.

- Involvement and recognition of vendors through competitions on 'safety slogans', 'safety poster', 'house keeping', etc.
- Tripartite initiative with vendor, CITIBANK and Tata Steel for 'Vendor Bank Financing with CITIBANK" on a WIN-WIN-WIN process. This improves the working capital for a vendor.
- Vendors are registered only after they signed the compliance to SA-8000 standard.

A new initiative called STP (Supplier Transformation Process) has been initiated by the Procurement Division and a few vendors have already been taken up under this programme as a PILOT Project. Procurement Division has also created 'single window" Call Centres to address concerns/grievances related to payment/changes like e-initiatives, etc. for all suppliers. These three "Call Centres" are fully IT enabled and operated on the SRP (Supplier Relationship Management) concept. They are designed to address all concerns related to vendors and are highly sought after by them. Close monitoring on the compliance with labour laws as regards contractor's social performance is carried out and defaulters are penalized as per specified norms.

The Company's Ethics Counsellor and Procurement Division closely monitor adherence to the Tata Code of Conduct guidelines by suppliers. Defaulters are penalized as per the laid out norms. During the Vendor Meet, the top management also recognizes suppliers who 'show exemplary' ethical behaviour in their dealings with Tata Steel. For the first time, suppliers on Tata Steel Internet website at the e-Procurement site have implemented an IT based system for "On-line Acknowledgement of CoC".

M/s. METRIC CONSULTANT, an external area of consultant, was engaged to survey, study and measure "Vendor Satisfaction" and their areas of concern. Plans are on the anvil to work out a detailed action plan on issues / concerns expressed by suppliers. M/s. IRS was engaged to study the supplier premises and report "Vendor Capability Assessment".

Steps taken by Tata Steel towards social organizations and SSI units for sustainability- in case of social organizations and small-scale industry units, raw materials are issued to the vendors on a 'conversion' basis for the supply of finished goods, spares, and consumables. This will help reduce the burden of 'working capital' management of these small units. As a social responsibility initiative, social organizations and small-scale industries are patronized by giving them preference while placing order, which otherwise can be serviced by larger units.

EMPLOYEES TRAINING ON RELEVANT ASPECTS OF HUMAN RIGHTS (HR8)

"Happy and enthused employees" is one of the most important pillars of VISION 2007 of Tata Steel, which also requires the Company to become EVA positive and to improve the quality of life of the employees and the communities we serve. All employees have been trained on the objectives of VISION 2007. The details of the training imparted to the employees are furnished in **LA16 & LA17** also. Human Rights issues are covered during training received by employees on Code of Conduct.

NON DISCRIMINATION

NON DISCRIMINATION (HR4)

Tata Code of Conduct emphasises on equal opportunities and non-discrimination. The Human Resource Policy of Tata Steel lays stress on recognising the people as primary source for its competitiveness. The organization is committed to equal opportunities for attracting best available talent and ensuring a cosmopolitan workforce. The quality of life of its employees developing their talent and maximizing their productivity, and also ensuring transparency, fairness and equity in all its dealings with the employees, is another component of the organization's HR Policy. Tata Steel has created a position of an Ethics Counsellor to monitor any discrimination in its activities, services and products. The concerns monitored and resolved by the Ethics Counsellor during in the last three years are presented in **SO2**.

Employee Concerns related to Equal Opportunity Employer

Year	No. of Concerns
2001-2002	06
2002-2003	08
2003-2004	17
2004-2005	12

ENCOURAGING FREEDOM OF ASSOCIATION (HR5)

Freedom of Association is enshrined under the Constitution of India in the Trade Union Act. The Tata Code of Conduct on regulatory compliance requires Tata Steel to at least comply with all laws of the land and go beyond compliance wherever possible. Honouring the spirit of freedom of association is built in to the constitution and Code of Conduct Tata Steel's values.

CHILDLABOUR

NO CHILD LABOUR (HR6)

As per the Factory Act 1972, the minimum age required for the employment is 18. Tata Steel engages no child labour. Tata Steel complies with this Act and hence Code of Conduct also requires compliance with all regulatory requirements. The recruitment process requires furnishing of appropriate proof of age to ensure the age bar is complied with.

FORCED & COMPULSORY LABOUR

NO FORCED & COMPULSORY LABOUR (HR7)

There is no forced and compulsory labour in Tata Steel. Grievance Redressal Committee and Ethics Counsellor adequately monitor violation of such requirements. The grievance redressal procedure is furnished in **Annexure-IV**.

DISCIPLINARY PRACTICES

DISCIPLINARY PRACTICES (HR9)

Order#23 of the Works Standing Orders delineates the issues, which may be considered misconduct. Order#24 prescribes the punishment for misconduct and Order#25 explains the procedures for dealing with cases of misconduct. These orders are strictly followed. These orders are in line with Standing Orders Act of India.

EMPLOYEE GRIEVANCE MANAGEMENT (HR10)

There is an established three tier Grievance Management System in Tata Steel and it is ensured that no retaliation takes place in the process after the resolution of the grievance. The process is so effective that there had been no industrial unrest/strike in past 75 years. For details of grievance redressal procedure please refer **Annexure-IV**.

SECURITY PRACTICES (HR 11)

There is a special training centre dedicated to the training of security personnel on issues such as security practices and Human Rights. Trained home guards of Tata Steel along with Fire Brigade Service assist the District Administration as and when required.

COMMUNITY AND THE INDIGENOUS PEOPLE (HR 12)

In line with the Group Purpose and Tata Code of Conduct, Tata Steel returns a fair share of what it earns to society. This evokes trust among consumers, employees, shareholders and the community it serves. Tata Steel has a Community Development & Social Welfare Department to serve communities in Jamshedpur. To implement the Group Purpose, Tata Steel Rural Development Society promoted by Tata Steel in 1979 addresses the needs of the rural community with a 30 km radius of Jamshedpur explained in **Section-2.9**. The performance indicators related to the work carried out by these two arms of the organization is furnished in the **sub-section** on **Community** of this section. Please refer **Section-3.13** also on precautionary approach and principles.

RETURNS TO SOCIETY (HR 14)

The expenditure on social and environmental services during past three years is furnished below in the table.

Social Expenditure by Tata Steel

Services	02-03	03-04	04-05
Municipal services	248.30	302.50	264.70
Community services	45.80	44.70	186.10
Medical services	70.10	46.10	73.30
Grants and donations	21.40	20.60	19.30
TSRDS grants	19.00	38.70	42.00
Environment	1087.50	1581.4	1362.38
Miscellaneous	-	4.0	-
TOTAL	1492.10	2038.0	1943.78
PAT	10123.10	17462.2	34741.60
Ratio (%)	14.70	11.67	5.60
Gross Revenue	98436.60	119209.60	144895.0
Ratio (%)	1.51	1.71	1.34

OUR RESPONSE TO COMMUNITY GRIEVANCE (HR 13)

Community Development & Social Services, Tribal Culture Society and Tata Steel Rural Development Society implement the community grievance management system. Local representatives from the community including senior citizens are involved in the Sr. Citizen Forum, Spouses Dialogue, and Joint Community Meeting & Community Need Analysis. The concerns of the members of the society are discussed, prioritised and integrated with the Tata Business Excellence Model of concerned departments under TBEM.

COMMUNITY ASSOCIATION

CORPORATE INITIATIVES (SO1)

In accordance with the Company's 'Vision 2007', in the year 2004-05 Tata Steel continued to improve the quality of life of its employees and the communities it serves in many more ways. Testimony to this is the Company's acceptance of the SA-8000 standard guidelines in its Steel Works and it being successfully certified for its compliance – the only steel plant in the World to have done so. The SA 8000 norms will bring greater transparency in workplace management and improve working conditions vis-à-vis making it free of discrimination, harassment and exploitation in all areas, including its supply chain.

In the year under review, through the Tata Relief Committee (TRC), Tata Steel continued to provide rescue, relief, rehabilitation and reconstruction services in locations across the country to those affected by natural calamities. The TRC along with the Government of Tamil Nadu jointly undertook projects to bring the long-term relief to the worst effected families in Tsunami hit areas in Tamil Nadu.

Tsunami relief operations

Tata Steel responded to the Tsunami disaster, one of the worst of its kind in recent times, through The Tata Relief Committee (TRC), which mobilized its machinery within twenty-four hours and mustered the resources of the Tata Group of companies to provide immediate relief to the victims.

In the first phase of the relief operations over 20,000 families benefited. Later, relief camps were also set at Nagapattinam and Cuddalore. TRC extended its help to the fishing community by delivering a large number of boats and setting up desalination plants for supply of potable water.

As a long-term sustainability measure, TRC will construct 1300 dwelling units in the affected areas, and will construct Rural Knowledge Centres and Community Centres in Akkarapettal, Kanyakumari and Tirunelvelli.

After the Tsunami's devastation, which stuck South East Asia on 26.12.04, Tata Relief Committee had swung into action and deployed a twelve-member team. A base camp was set up at Kanyakumari for distribution of emergency relief. The details of work done are furnished below;

Number of families covered	13000
Budget utilized	Rs.3 crore
Districts covered	Cuddalore, Nagapattinam, Kanyakumari
Coastal length covered	500 km
TATA companies involved	10
Volunteers involved	200

Tamil Nadu state government unanimously appreciated TRC's commitment as the largest corporate organized emergency relief and rehabilitation programme for Tamil Nadu's Tsunami hit areas.

New pathways

The city of Jamshedpur, conceived of and created by Tata Steel is now managed by the Jamshedpur Utilities & Services Company Limited, a 100% subsidiary of Tata Steel. The city was chosen as the first South Asian city to join a select band of six cities in the world for the United Nations Global Compact Cities Pilot Program. The objective of the project will be to develop innovative solutions to address intractable social, economic and environmental issues in the urban context, as a template for other similar urban centres.

Knowledge Sharing at Global Level

In recognition of Tata Steel's corporate sustainability efforts, the UN Global Compact chose Jamshedpur as the venue for the first "Global Compact Regional Conclave". More than 200 delegates from India, Pakistan, Sri Lanka, Singapore and Thailand presented case studies on poverty eradication and social welfare measures during the Conclave.

New Civic Facilities

India's first laser-cum-musical fountain show was started in the Jubilee Park, Jamshedpur. An innovative fragrance garden is also on the anvil.

Extension of services

Tata Steel started new centres for CSR operations in Ranchi, the capital of Jharkhand state and in Kalinganagar, the Company's new site for its greenfield steel project in Orissa.

Promoting Healthy Communities

The year witnessed the expansion of high quality health services along with intensive awareness campaigns to serve and educate stakeholder communities. Some specific projects undertaken were:

- *Life Line Express*, a fully equipped medical train, stationed in Jajpur district in Orissa, screened thousands from remote rural areas and hundreds benefited through surgical intervention for preventable blindness, congenital deformities, as well as aids and appliances.
- Hundreds of children were able to smile proudly for the first time in their lives as a result of Operation Muskan - under which surgical intervention was conducted for cleft lip and palate cases.
- *Adolescent Reproductive Sexual Health* is the key emerging issue in community health. Adolescents are particularly at risk due to problems such as sexually transmitted infections (STIs), unintended pregnancy, poor maternal and child health and unsafe abortions. Projects such as Apni-Bateein, Rishta, Sparsh, Disha, YARS covered a population of .15 Million across 34 slums, and 689 villages in nine blocks to provide knowledge and access to a growing population of young people.
- *Swasthya Mahila Swastha Samaj*, was an intervention providing free medical check-ups for thousands of economically challenged women and children.

Generating Sustainable Livelihood

Tata Steel continues to build the capacity of disadvantaged and marginalised rural families thus empowering and enabling them to earn a sustainable livelihood. The Company provided strategic support and financial assistance for improving agricultural production and diversity in cropping, generating income and creating community assets (such as community seed banks etc):

- Skill training was provided to people who started their own enterprises
- Farmers with small land holdings were assisted with irrigation facilities and in land up-gradation, which resulted in an additional income of Rs. 3 Million
- Rs 3.4 Millions was generated as savings in this year by self-help groups, youth groups, village advocacy groups and women chit-fund groups.

As a part of its corporate social responsibility, Tata Steel is committed to assisting non-profit organizations, welfare organizations, NGOs and various societies, which are genuinely engaged in the welfare of old and destitute women, handicapped and medically challenged children and economically backward villagers in the vicinity of its areas of operation.

The Managing Director issued a directive that the following jobs are given to local welfare agencies as a policy to promote local entrepreneurship and ensure better distribution of wealth in the neighbouring community:

"Hand gloves; Handloom Duster, Handloom Towels, Markin Cloth, Pads/Dippers; Photocopying jobs; Stationary supplies (preference to welfare agencies); Printing of visiting cards/greeting cards etc; Grocery items; Stitching jobs for uniform, blue overalls, gunny bags etc; Supply of clothing items; Repair of furniture, etc; Cleaning jobs (case-to-case basis); Bar Soap, Soft Soap; Book binding/spiral binding/lamination jobs; Catering in offices; Supply of gift items, gift vouchers; Tea/coffee vending machines; Hospital linen; Supply of Onion/Potatoes and Green Vegetables; Cotton waste; Sale of waste materials by Secondary Products on case-to-case basis; Supply of new and old gunny bags; Software development and maintenance, data entry office management and library management; Design, development and digitising of all kinds of engineering drawings, computerized documentation of manuals and drawings, printing/plotting of drawings in different mediums; Hiring of LCD projects; and Supply of computer stationeries, printing of computer stationeries/bills, challans and invoices.

The following are the list of welfare agencies identified for the above jobs:

"All India Women's Conference (AIWC); Seva Sadan (Sonary Community & Welfare Centre); School of Hope; Blind Workshop; Navjivan Welfare Centre; Steel Workers' Welfare Society; and Mahila Udyog

Education: Tata Steel uses education as an empowerment tool and therefore addressed both child and adult education. Specific programmes were run throughout last year. These include; "Balwadi classes for toddlers; Project Sahyog for school children; Project Bloom a bridge course for dropouts; Sakhshar Samaj – a computer aided adult literacy programme; Tata Steel supported the setting up of the Xavier Institute for Tribal Education at Adityapur, Jharkhand.

Tata Steel Millennium Scholarships: Millennium Scholarships are awarded to the children of employees for excel in education and studying engineering, medical and business management.

Number of Scholarships	–	200 (two hundred) per year
For children of unionised employees	–	130 (One hundred thirty)
For children of officers	–	40 (Forty)
For girl candidates	–	30 (Thirty) (Daughters/spouse of employees)

The scholarship amount varies from Rs.25, 000/annum to Rs.75, 000/annum depending upon the chosen discipline. In addition to the above, five more scholarships were given to the top rankers in the final university examination @Rs.25, 000.00 each. The scholarship holders also

get a laptop valued at Rs.85, 000.00. A sum of Rs.6, 000.00 was also provided to the scholarship holders for the purchase of books. They were also given to-and-fro train fare twice a year, to visit their home during vacations. The Steel Company has also started a technical training institute for the wards of employees in collaboration with a reputed educational society in India. This Institute is called R D Tata Technical Institute (please refer box).

Dr. J. J. Irani Award for Excellence in Education was introduced in the schools of Jamshedpur. It is in line with Malcom Balridge Corporate Excellence Model.

The students at R D Tata Technical Institute are free to select only one discipline out of four offered by the education center.

The age group is a minimum of 16 years & maximum of 20 years

Tuition fee is Rs.40,000 per year.

The land and building belong to Tata Steel. Originally a High School building, it was donated by Tata Steel free of charge to the education center. The company continues to provide utilities such as water and power. The cost of these utilities is included in its Rs.2 Million annual grant as maintenance fund. This fund also includes building maintenance charges.

Nettur Technical Foundation has not spent any money in setting up the Institute. They only provide technical support in the form of faculty and education material. The ratio of men and women at the education centre is 85:15.

Sports & Adventure

MISSION

"We shall constantly strive for perfection in the pursuit of excellence by creating wonders from little stars. We shall promote sports as a way of life".

To inculcate a sense of team spirit among its employees and improve the quality of life of employees, and their families and citizens of Jamshedpur. Tata Steel runs and supports several sports organization.

- **JOGGA Sports-** co-ordinates inter school sporting activities in several disciplines among the school children. Started with 5 schools in the year 1995 are today 20 schools registered under JOGGA.
- **Academies-** Tata Steel runs three academies viz. Football, Archery and Athletics where sportspersons are selected on merit and nurtured to achieve excellence at the international level.
- **Lifestyle Management Programmes-** started in 2002; currently classes are being conducted for the communities and various sections of society.
- **Sports for Special Children-** conducting sports for special children in five disciplines.

- **National Sports Day-** various sporting activities are conducted on this occasion for children in the villages & unorganised urban settlements.
- **Training Centres-** applying the concept of "catching them young", the first training centre was started in the year 1994. Presently the number has increased to seven centres (Athletics, Basketball, Boxing, Chess, Cricket, Handball and Tennis). 85 trainees from different training centres received employment in various organizations across the country.
- **Event Management-** regular national and international sporting events are organized at Jamshedpur involving the communities. This allows the citizens of Jamshedpur to witness a healthy competition among India's best sportspersons.

Number of medals won by training centre children at state/National level	-	268
Participation at state/National level	-	403

Sport is seen as an important expression of community spirit and a way to strengthen community health. In consonance with this philosophy, the Company took initiatives such as:

- Launch of the Tata Athletics Academy
- Spotting of talented youth in rural areas and urban slums and training them at the Tata Archery Academy. These athletes participated in various competitions both at the state and national level and won medals at the Junior World Archery Championship.
- Nurturing budding and promising sportspersons in the fields of boxing, chess and football, to excel in the international arena.
- Four sports persons from Tata Steel represented India in the 2004 Olympics at Athens.
- Four athletes of Tata Steel represented India in the World Games of the Deaf held in Australia this year.

Art & Culture

Tata Steel has always believed that social and economic development of any country unfolds within a specific cultural context. As a tribute to the tribes of the state of Jharkhand, the Tribal Heritage Hall, in Jamshedpur now has exhibits that explain the growth and development of each tribe residing in the state. The Centre also provides an environment for further study, challenges the mind and richly reinforcing learning.

The Centre for Excellence, a familiar, friendly and accessible place for Jamshedpur's citizens and also visitors to the city, has become the focal points for art and cultural organizations. It helped build participation and create new opportunities for conducting art and cultural events. A milestone in this direction was achieved when it hosted the 8th Art-In-Industry Camp where local talent participated with artists of national and international repute.

Tata Steel Zoological Park

Tata Steel Zoological Society (TSZS) established in 1994 houses 390 numbers of Mammals, Birds and Reptiles. During the year more 350,000 visitors came to the park, TSZS also conducted various activities like tree plantation, sit and draw competitions during Wild Life Week. Over twenty companies of Jamshedpur have adopted different animals enclosures to

assist in the annual maintenance of the Zoo. The break-up of animals in the Zoo as on 31.03.05 is given below:

Birds	245
Mammal	140
Reptiles	5
TOTAL	**390**

Tata Steel is fully associated with the off-site emergency planning of the region. Details of activity of Fire Brigade & Security are given in the box.

The Community Services are rendered by Tata Steel through various agencies under Dy. MD (CS) e.g. Town Division, Tata Steel Rural Development Society and Tribal Culture Society. The programmes, procedures and the performance of these three agencies are elaborated here below. The Balance Score Card of DMD (CS) is cascaded down to these departments for implementation.

Fire Service Calls

Activity	03-04	04-05
Attended Fire Calls in Township area	180	184
Special type of Calls	683	707
Fire Prevention Air Port Calls	2017	2069
Gas Rescue Training	496	972
Training Contractors Employees	10706	10685
Training to Others	3828	2139

Water - Source of Life

JUSCO provides “River-to-River” water and wastewater management to Jamshedpur. Its main products are raw water, clarified water, potable water and treated effluent. The volume of water treated every day (clarified and potable) is 55 MGD, comprising a distribution network of 550 kms through seven water towers, with the per capital supply of 250 litres per day. For emergency need and requirements during the summer season, the city draws water from the reservoir at Dimna. Continuous monitoring of free chlorine from taps and collection of 5000 samples every year, ensure the quality of water. The products conform to BIS & WHO standards. Two modern sewage treatment plants treat wastewater to environmental standards. Jamshedpur is the only town in India where 100% of the sewage is collected and treated, before disposal. Introduction of new technologies like coagulant-aid, bulking meter, probe are being used to conserve water and reduce wastage. We work in partnership with the World leader Veolia Water for bringing in new technologies and international standards.

Facility management-for better towns and cities

JUSCO caters to more than 22,000 residential dwellings and has a customer base of 0.7 Million. It undertakes jobs related to maintenance and development of all civil engineering related units of both civic and industrial nature. Complaint handling is effectively managed through nine efficiently run Integrated Customer Services Depots. Special care is taken to maintain the ecological balance and provide horticulture assistance to the city through maintenance and upkeep of parks (17 nos.), central verges, side verges and roundabouts in the city of Jamshedpur. Jubilee Park, build in 1957 on the pattern of Brindavan Gardens Mysore, was gifted to the citizens of Jamshedpur on the occasion of the golden jubilee year of Tata Steel.

Construction-a vehicle for development

JUSCO has wide experience in the construction business ranging from flats and flat complexes, bungalows, hostels, schools and hospitals to multi-storied buildings, stadia and institutes. The customer base is spread over an area of approx. 64 sq. kms. The road management department of JUSCO maintains a 524 kms road network with modern facilities and equipment like hot mix plant with paver finisher. JUSCO has entered into a partnership with Minaean Building Solutions Inc., Canada, for constructing steel intensive housing/buildings-a most modern, cost effective and innovative approach to provide construction solutions. The company conceives, plans and develops architectural and civil engineering projects, in tandem with the long-term growth strategy for continuously improving the quality of life of the people of Jamshedpur.

Laser Show & Musical Fountain

A unique and new attraction, first of its kind in India the laser & musical fountain show has been created in the Jubilee Park and was opened to Public from the month of December 2004. Shows are conducted on every Tuesday, Saturday & Sunday. Till March, 21,320 visitors have visited the show. Total collections from sale of tickets were Rs.997,310.00, providing an income of Rs.628,572.00. Rs.350,738.00 was deposited with State Government as entertainment tax.

Veterinary Hospital

A total number of 6,843 cases were treated at the Veterinary Hospital. Total revenue earned by the Veterinary Hospital was Rs.244,690.00

Tata Main Hospital

- A 740 bed hospital having 17 OPDs, and 14 Dispensaries and First Aid Centres under it operate round the clock across the city of Jamshedpur. Tata Steel manages the entire facility. Over 40,000 indoor admissions are served annually.
- The OPD system has been restructured to increase the access to the Specialist to double the number handled earlier.
- Two Super Dispensaries have been created in the township.
- Tobacco & pan masala chewing was banned in TMH premises.
- Open dialogues with employees were introduced in the medical division.
- TMH on-line facility was introduced during reporting period to facilitate direct dialogue with patients and to give them advice on health care. This is a video conferencing facility.

Strengthening Rural Economy

In an effort to affect long-term benefits and a sustainable source of livelihood through agriculture, the Company has been taking steps to strengthen agriculture since long. This year, 484 acres of wasteland was brought under single cultivation, while 353 acres of land less than one cropping was brought under second cropping also. An additional income of Rs.2.931 Million was generated benefiting 731 farmers.

Over 120 beneficiaries have been supported to take up their own enterprises like poultry, piggery, pisciculture, rope making, and floriculture, etc. to make them self reliant.

Promoting Healthy Communities in Rural areas

Under the rural immunization program, 7100 children were fully immunized. Family welfare and population control was an important focus this year. 6400 family planning operations were done and 1100 IUD insertions conducted to encourage spacing and family welfare.

OPERATION MUSKAN, an initiative to put on smiles on the faces of people suffering from cleft lips and cleft palates, 381 surgeries was conducted.

LIFELINE EXPRESS- The eight trip of the Lifeline Express, a fully equipped medical train, was sponsored by Tata Steel to visit J K Road, Dist. Keonjhar, Orissa. The mission was a collaborative effort of Tata Steel and Impact India. 5200 cases were screened, among who 700 were provided with surgical interventions and 218 aids and appliances were distributed.

Apart from the regular mobile medical facilities catering to 180,000 patients for general ailments in the village within a 30 km radius of Tata Steel's operations, 1100 persons suffering from cataract were operated upon with Intra Ocular Lenses, 106 persons with disabilities were provided aids and appliances, 292 TB patients were cured and rehabilitated another 300 are under treatment and 165 new tube wells were installed to provide safe drinking water in the villages around Jamshedpur and Company's out locations. Training was provided to 42 untrained birth attendants who after their training are working within the community and promoting hygienic practices during childbirth.

A campaign was launched against the use of polythene bags in the city in association with the District Administration, local organizations and slum dwellers. This sensitised the masses to the harm caused by polythene bags specially those less than 20 microns. This campaign resulted in a 70% reduction in use.

Empowering Women in Rural areas

To promote economic growth among rural poor, particularly women, and make them economically self reliant, Rs.3.4 Million savings was generated this year through bank linkages of the Self Help Groups. Intensive awareness generation programs were carried out for the women to realize their potential.

Adolescent Reproductive Health Care

Involvement of adolescents in reproductive and child health was identified as a major strategy this year. This led to the launch of Project RISHTA in collaboration with the David and Lucile Packard Foundation, Project DISHA in collaboration with International Centre for Research on Women, and Project SPARSH in collaboration with National Foundation of India. Project YARS (in collaboration with PPFA) continued to be a major project. These projects covered 700 villages and 34 slums in East Singhbhum District. The projects aim to create awareness among the adolescents. The lead service provider, TSFIF established a resource centre for health services.

Helping People to realize their potential

3425 youths from urban slums were provided vocational training to gain skills like sewing, embroidery, computer hardware/software training, welding, electrician and motor driving etc. for their self-employment. 847 students were imparted training on arts and sculptures.

Educational trainings in rural communities

33 SC/ST Advance Computer Trainees successfully completed the training Course Conducted by Lady Inder Singh High School, Ramkrishna Mission. A fresh batch of 60 SC/ST students is undergoing this employment oriented training.

An Adult literacy campaign based on the package developed by Tata Consultancy Services' continued with participation of 21 local voluntary organizations. 9000 adults were made literate. Seven empowered self-help groups also started this program.

BALWADIS- In addition to the 13 Early Child Education Centres/Balwadis last year, 19 more centres were started during the reporting period. These centres are providing childhood education through 'learn with fun' techniques to 1000 children. Another 1575 slum children were motivated towards formal education through Bal Vikas Classes.

SCHOLARSHIPS-240 high school students received Jyoti Fellowships for pursuing higher studies and another 180 college students were preparing for the fellowship.

40 students from the SC/ST community were provided coaching to prepare for competitive examination and professional courses. 28 Trade Apprentice from FAMD joined coaching classes under bridge program at the Employee Training Centre through TCS. 30 students are undergoing coaching for Bank/ASC/SSC exams.

Sports-A Way of Life

This year, 28 talented youth were spotted in rural areas and given training at the Tata Archery Academy. Athletes trained by the Sports Department to participate in various competitions at the State and National level and won 112 medals. 19,000 youths from urban slums were trained through 31 special coaching camps. They participated right from the District level to the International level and won 190 medals.

Tata Archery Academy cadets won silver medal in the Junior World Archery Championship. The intensive training by the Tata Football Academy yielded results when the Academy won the Harlem Cup at Holland. The year was yet another landmark in the promotion of sports, with the launch of Tata Athletics Academy. Four Tata Steel sports persons participated in the Olympics held at Athens. Ms. Aruna Mishra, won the Gold Medal for boxing in the World Women Boxing Championship. Mr. Deep Sengupta won the Gold Medal in the Commonwealth Chess Championship. Four of our athletes represented India in the World Games of the Deaf held at Australia this year. Tata Steel also hosted 13 national and international sports events during the year.

A GLOBAL IMPACT

The UN Global Compact convened its first major regional meeting in South Asia, in an attempt to advance responsible business practices to help promote the principles of the UN Global Compact in the developing world. The Confederation of Indian Industries, Tata Steel and the Global Compact Society of India jointly hosted the meeting.

More than 200 senior representatives of companies, civil societies and the UN participated in the Global Compact Regional Conclave held at Jamshedpur on March 8th and 9th, 2005. Participants from India, Pakistan, Sri Lanka and Thailand shared knowledge and presented case studies of initiatives undertaken by them. The event facilitated cooperation amongst the

participants, through sharing of skills and practices to implement the Global Compact's 10 principles. At the same time it contributed to the development of the Millennium Development Goals. Tata Steel's initiative to organize the regional conclave, the first of its kind for the UN Global Compact, was lauded by Mr Kofi Annan, UN Secretary General and Mr. George Kell, Director UN Global Compact.

Societies supported by Tata Steel

Tata Steel supported the following professional bodies in 2004-05. Interactions were held with professional bodies to understand their concerns as part of stakeholder engagement they included.

- Operational Research Society of India (ORSI)
- Institute of Chartered Accountants of India (ICAI)
- Computer Society of India (CSI)
- Indian Value Engineering Society (INVEST)
- Jamshedpur Management Association (JMA)
- Indian Institute of Supervisory Management (IISM)
- Indian Ceramic Society (ICS)
- The Institute of Cost & Works Accounts of India (ICWAI)
- The Indian Institute of Materials Management (IIMM)
- Indian Institute of Industrial Engineering (IIIE)
- Institution of Standard Engineers (SEI)
- National Institute of Personnel Management (NIPM)
- Confederation of Indian Industry (CII)
- Celluloid Chapter of Jamshedpur (CCJ)
- Indian Institute of Metals (IIM)
- The Indian Institute of Welding (IIW)

Networking

Activities related to Reproductive Health and Mother & Child Health is a vast area – TSFIF alone cannot achieve the desired results, so it joined hands with leading NGO's. At present, the following collaborations have commenced / or being worked out with the following:

- **Packard Foundation**- *Staff training*
- **USAIDS** *in area of HIV (+) / AIDS*
- **Planned Parenthood**, *USA – in area of RCH*
- **CARE** – *Jharkhand – RCH & Child Nutrition*
- **Institute of international education (IIE),** *New Delhi – collaboration for training of staff.*
- **International Council on Population Programme (ICOMP),** *Malaysia – Training of staff*

Government	Non-Government : NGOs
Govt. of India Govt. of Orissa Govt. of Jharkhand CAPART, New Delhi Orissa Renewable Energy Development Agency Damodar Valley Corporation	LD Jhaveri Trust, Japan Smile Train Sight Savers International UNICEF / NIPCCD Gram Vikas Kendra Lions Club Rotary Club Gandhi Labour Foundation, Puri Rashtriya Gramin Vikas Nidhi Voluntary Blood Donors Association of India (Jamshedpur Chapter) Damien Leprosy Foundation, Jamshedpur Paramparik Karigar Holy Cross, Hazaribagh Jamshedpur Eye Hospital Birsa Agriculture University, Ranchi Indian Institute of Forest Management
Non-Government : Corporate Tata Sponge Iron Limited Small Industries Development Bank of India (SIDBI) Tarapore & Company TELCON Limited Association Pour Une Terre Plus Haumaine, France Helpage India CARE International Tata Council for Community Initiatives	

Awards received for social, ethical, and environmental performance (SO4)

Among the important awards/recognitions received during the year were;

- Asia's Most Admired Knowledge Enterprise (MAKE) 2004 Award for the second consecutive year at the 5th World Knowledge Forum in Seoul, Korea.
- Sukinda Chromtie Mine is the first mine in the world to be conferred the Social Accountability (SA): 8000: 2001 Certification. Similarly, Jamshedpur Works is the first steel plant in the world to receive this certification.
- Hot Strip Mill, Precision Tube Mill, Bearings Division (all for the first time in India) and Wire Rod Mill have won "TPM Excellence Award – 2004" by Japan Institute of Plant Maintenance (JIPM).
- Research and Development Division has been conferred the Technology Day Meritorious Invention Award from the National Research and Development Corporation (NRDC).
- ICWAI National Award for Excellence in Cost Management – first award in the private sector.

BRIBERY AND CORRUPTION (SO2)

All the officers of Tata Steel have signed the Tata Code of Conduct. Tata Code of Conduct has a specific clause pertaining to bribery and corruption. The organization has issued a Gift Policy, which clearly articulates the Gift Exchange procedures, values etc. The Policy is presented in **Annexure-VII.** The Company has an Ethics Counsellor to ensure all the issues pertaining to ethics were dealt with as per the Code of Conduct. During the year the concerns raised were analysed and a summary is presented below.

Concerns Received by Ethics Counsellor clause wise

COC Clause No.	TCOC Clause	Concerns		
		(02-03)	(03-04)	(04-05)
1	National Interest	Nil	Nil	Nil
3	Competition	3	Nil	Nil
4	Equal Opportunity Employer	8	17	12
11	Bribery & Corruption	1	1	2
13	Co-operation of Tata Companies	2	Nil	Nil
17	Third Party Representation	9	7	8
18	Ethical Conduct (including Vendor Redressal)	25	65	15
19	Regulatory Compliance	Nil	Nil	0
20	Concurrent Employment	Nil	NIL	2
22	Conflict of Interest	1	Nil	1
Others	Protecting Companies Assets	4	14	6
	Other clauses (2,8,14,16,19,21,24,25)	11	22	Nil
	TOTAL	**63**	**125**	**44**

With regard to bribery and corruption, the organization had taken action against two persons during the year 04-05 as against one person during 03-04. In both the cases the persons were discharged from their duties. The bribery and corruptions issues are also dealt by Vigilance Group of the Company.

POLITICAL CONTRIBUTION

POLITICAL CONTRIBUTION (SO3 & SO5)

Tata Steel does not encourage any political lobby or offers contributions to political parties as per the Tata Code of Conduct (Clause#7). However, as part of the Group's initiative, Tata Steel contributes to a Group Trust, which makes contribution to political parties. Tata Steel contributed an amount of Rs. 35 Million to the Trust during the reporting period.

COMPETITION & PRICING

Pertaining to anti-trust and monopoly (SO6)

There is no case pending in any Court pertaining to violation of anti-trust and monopoly regulations.

Preventing anti-competitive behaviour (SO7)

The organization follows the Tata Code of Conduct and monitors the compliance related to various clauses of the Code of Conduct (Annexure-I). The monitoring results are furnished under SO2

CUSTOMER, HEALTH & SAFETY (PR1, PR4, PR5 & PR6)

Tata Steel has not instituted any specific procedure for preserving customer, health & safety during the use of its products. However, its steel products are environment friendly and do not pose any health or safety hazard as a result of their use. Tata Steel addresses the environmental issues of the products only by carrying out Life Cycle Assessment Studies to reduce the environmental burden during production and mining operations.

There was no instance of non-compliance with regulations related to health and safety of its products nor have any fines/penalties being imposed. Also there were no complaints during the reporting year.

PRODUCTS & SERVICES

PRODUCT INFORMATION AND LABELLING (PR2 & PR7)

There are no regulations on product information and labelling other than the standards on physical dimensions and chemical composition on various products manufactured by Tata Steel. Tests certificates are issued at the time of delivery to the customers.

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.

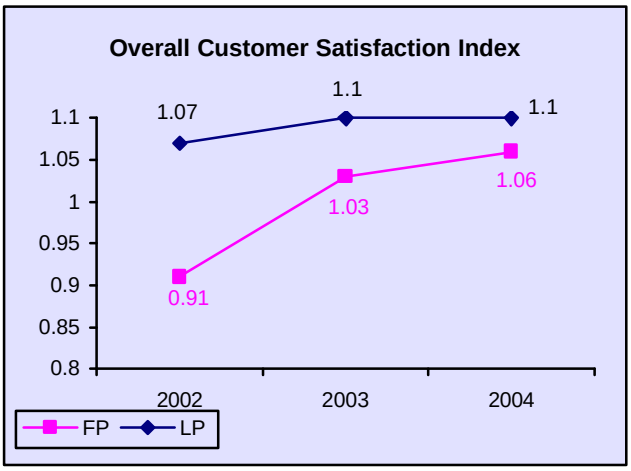
CUSTOMER SATISFACTION (PR8)

Tata Steel regularly monitors the customer satisfaction index through various intersections as elaborated in the chapter on Governance & Management. It engaged reputed assessors to carry out a customer satisfaction survey. The results of the customer satisfaction survey are furnished in the figure below;

Figure-Trends in improvement in CSI ranks

Year	2002	2001	2000	1999	1998
TATA STEEL	1	1	1	1	1
BOKARO	2	5	5	3	4
BHILAI	3	3	5	2	4
ESSAR	4	5	2	2	NA
VSP	5	2	3	2	3
ROURKELA	6	4	6	5	5
DURGAPUR	7	2	5	4	2

Source: IMRB & ORG-MARG
NA – Not Available

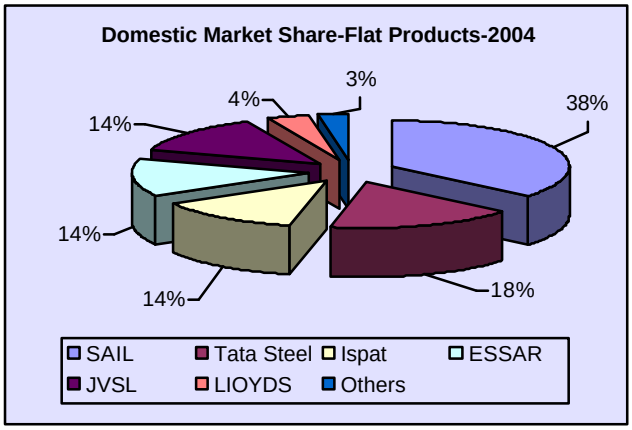


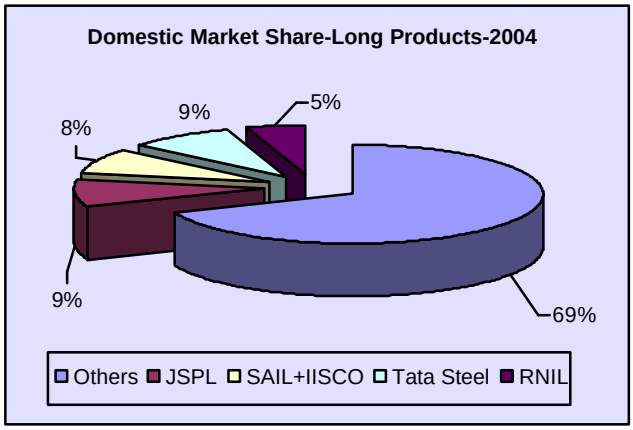
Note- No study was conducted during FY 04-05. However, Tata Steel's related customer satisfaction scores, w.r.t. the best in competition are higher and comparable to the benchmarks as shown in the box alongside.

Customers & Competitive Position

Tata Steel's main competitors in India are Bhushan Steel and Essar Steel in cold rolled products, and SAIL and Ispat in hot rolled products.

The domestic market share of Tata Steel for flat products & long products is shown in following pie charts:





Tata Steel's main customers are Tata Motors, Toyota, Maruti, Ford, Hyundai, Ashok Leyland, Bajaj, Hindustan Motors for flat products and Bansal, ESAB, HCC, Gammon, L&T and individual house builders in the Long Products segment.

Tata Steel's position vis-à-vis world steel majors

World Steel Dynamics (WSD) a well known international body studies the competitiveness of the steel plants across the world based on some key parameters of competitiveness such as operating cost, profitability, balance sheet, dominance, market growth, technological revolution, etc. Tata Steel has been amongst the top five steel makers in the world for the last five years & in 2005 it has regained the number one position for its performance during 04-05.

Ranking	2001	2002	2003	2004	2005
1	Tata Steel	Posco	Posco	Posco	Tata Steel
2	Usnior	Nucor	Bao Steel	Severstal	Posco
3	Posco	Tata Steel	Tata Steel	Bao Steel	Severstal
4	Gerdau	Gerdau	Nucor	Tata Steel	Bao Steel
5	Nucor	Bao Steel	Gerdau	Blue Scope	Mittal
No. of steel makers considered for WSD ranking	**12**	**13**	**20**	**21**	**23**

ADVERTISING ETHICS (PR9 & PR10)

Tata Steel advertises for its corporate image during the reporting year and 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 reporting period.

RESPECT FOR PRIVACY (PR3 & PR11)

Privacy related to consumer information, such as, specifications of special products developed for specific consumers are protected through confidentiality agreements.

There was no substantiated complaint regarding breach of consumer privacy against Tata Steel during the reporting period.

Section - VII

Annexures

CONTENT INDEX

Annexure-I

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 anti-corruption.

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.

10 The Secretary General stressed that the business should work against all forms of corruption, including extortion and bribery.

Annexure-II

CODE OF CONDUCT (adopted across the Tata Group in1998-99)

(visit www.tatasteel.com for complete CoC)

Clauses pertaining to sustainability from Tata Code of Conduct (25 numbers total) are highlighted below:

National Interest (Clause#1)

A Tata Company shall be committed in all its actions to benefit the economic development of the countries in which it operates and shall not engage in any activity that would adversely affect such objective. It shall not undertake any project or activity to the detriment of the Nation's interests or those that will have any adverse impact on the social and cultural life patterns of its citizens. A Tata Company shall conduct its business affairs in accordance with the economic, development and foreign policies, objectives and priorities of the Nation's government and shall strive to make a positive contribution to the achievement of such goals at the international, national and regional level as appropriate.

Competition (Clause#3)

A Tata Company shall fully strive for the establishment and support of a competitive open market economy in India and abroad and shall co-operate in the efforts to promote progressive and judicious liberalisation of trade and investment by a country.

Specially, a Tata Company shall not engage in activities, which 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.

Equal-Opportunities Employer (Clause#4)

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. 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.

Gifts & Donations (Clause#5)

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 un-competitive favours for the conduct of its business. 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. Policy summarized in **Annexure VII**.

Health, Safety and Environment (Clause#8)

A Tata Company shall strive to provide a safe and healthy working environment and comply, in the conduct of its business affairs, with all regulations regarding the preservation of the environment of the territory in operates in. A Tata Company shall be committed to prevent the wasteful use of natural resources and minimise any hazardous impact of the development, production, use and disposal of any of its products and services on the ecological environment.

Quality of Products and Services (Clause#9)

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 the customers to ensure their total satisfaction. The quality standards of the Company's goods and services should at least meet the required national standards and the Company should endeavour to achieve international standards.

Corporate Citizenship (Clause#10)

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 comprises, 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 ones but would strive to incorporate them as integral part of its business plan. The company would also encourage volunteering amongst its employees and help them to work in the communities. Tata Companies are encouraged to develop social accounting systems and to carry out social audit of their operations.

Public Representation of the Company and the Group (Clause#12)

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, only specifically authorized directors and employees shall represent a Tata Company or the Tata Group. It will be the sole responsibility of these authorized representatives to disclose information on the company.

Ethical Conduct (Clause#17)

Every employee of a Tata Company, which shall include whole-time Directors and the Managing Director, 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 shall be responsible for the implementation of and compliance with the Code in his professional environment. Failure to adhere to the Code could attract the most severe consequences including termination of employment.

Regulatory Compliance (Clause#18)

Every employee of a Tata Company shall, in his business conduct, comply with all applicable laws and regulations, both in letter and in spirit, in all the territories in which he operates. If the ethical and professional standards set out in the applicable laws and regulations are below that of the Code then the standards of the Code shall prevail.

Political Non-Alignment (Clause#7)

A Tata Company shall be committed to and support a functioning democratic constitution and system with a transparent and fair electoral system in India. A Tata Company shall not support directly or indirectly any specific political party or candidate for political office. The Company shall not offer or give any company funds or property as donations, directly or indirectly, to any specific political party, candidate or campaign.

Annexure-III

CoRE SUSTAINABILITY CHARTER

Objective of the Charter:

To express support publicly for these principles and to provide a basis for pursuing environmental improvements at the corporate level.

Principles:

Corporate Priority:
To recognise environmental management as among the highest corporate priorities and as a key determinant to sustainable development; to establish policies, programs and practices for conducting operations in an environmentally sound manner.

Process of Improvement:
To continue to improve corporate policies, programs and environmental performance, taking into account technical development, scientific understanding, consumer needs and community expectations, with legal regulations as a starting point.

Integrated Management:
To integrate these policies, programs and practices into each business as an essential element of management in all its functions.

Employee Education:
To educate, train and motivate employees to conduct their activities in an environmentally responsible manner.

Prior Assessment:
To assess environmental impacts before starting a new activity or project and before decommissioning a facility or leaving a site.

Products and Services:
To develop and provide products or services, those have no undue environmental impacts and are safe in their intended use, that are efficient in their consumption of energy and natural resources, and that can be recycled, reused, or disposed of safety.

Customer Advice:
To advise, and where relevant educate, customers, distributors and the public in the safe use, transportation, storage and disposal of products provided; and to apply similar considerations to the provision of services.

Facilities and Operations:
To develop, design and operate facilities and conduct activities taking into consideration the efficient use of energy and materials, the sustainable use of renewable resources, the minimisation of adverse environmental impact and waste generation, and the safe and responsible disposal of residual wastes.

Research:

To conduct or support research on the environmental impacts of raw materials, products, processes, emissions and wastes associated with the enterprise and on the means of minimizing such adverse impacts.

Precautionary Approach:

To modify the manufacture, marketing or use of products or services or the conduct of activities, consistent with scientific and technical understanding, to prevent serious or irreversible environmental degradation.

Contractors and Suppliers:

To promote the adoption of these principles by contractors acting on behalf of the enterprise,

encouraging and, where appropriate, requiring improvements in their practices to make them consistent with those of the enterprise, and to encourage the wider adoption of these principles by suppliers.

Emergency Preparedness:

To develop and maintain, where significant hazards exist, emergency preparedness plans in conjunction with the emergency services, relevant authorities and the local community, recognizing potential trans-boundary impacts.

Transfer of Technology:

To contribute to the transfer of environmentally sound technology and management methods throughout the industrial and public sectors.

Contributing to the common effort:

To contribute to the development of public policy and to business, governmental and inter-governmental programs and educational initiatives that will enhance environmental awareness and protection.

Openness to concerns:

To foster openness and dialogue with employees and the public, anticipating and responding to their concerns about the potential hazards and impacts of operations, products, wastes or services, including those of trans-boundary or global significance.

Compliance and Reporting:
To measure environmental performance; to conduct regular environmental audits and assessments of compliance with company requirements, legal requirements and these principles; and periodically to provide appropriate information to the Board of Directors, shareholders, employees, the authorities and the public.

{Drawn from ICC's (International Chamber of Commerce) Business Charter for Sustainable Development

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Annexure-IV

Grievance Redressal Procedure

- The Grievance Procedure aims at settlement of grievances of permanent employees, other than supervisors and fresh employees on probation, in the shortest possible time and at the lowest possible level. It is a three-stage procedure with an appropriate grievance form for each stage.
- Individual grievances and complaints shall not be discussed at any level other than that specified in this procedure except that, if the Trade Union so desires, such cases may be put up for discussion at the Central Works Committee.
- Policy matters and their interpretation shall not be discussed at any level except with the top management. The Union, however, can take up such matters at the Central Works Committee.
- Representations for the redressal of grievances from employees to the various authorities either directly or through the Union, when their cases are pending with any Works Committee, are not conducive to the working of those committees. Hence, no representation will be entertained for discussion at any level of the management if the case is already referred to and pending with any Works Committee, until the same is either disposed of or withdrawn from the Works Committee.
- In exceptional cases, however, involving grievances of a number of workmen other than routine grievances or questions of principle or policy or any other important matter where immediate action is necessary, the Union may take up the case with the appropriate level of management. In cases of importance the President or the General Secretary of the Union may ask the management for a joint enquiry.

The following subjects come under the purview of this procedure;

i) Acting

ii) Amenities and/or facilities

iii) Continuity of service

iv) Compensation

v) Discharge/dismissal

vi) Fines

vii) Increment

viii) Leave

ix) Medical

x) Misconduct

xi) Nature of job

xii) Promotion (excluding selection by interview)

xiii) Safety appliances

xiv) Suspension

xv) Transfer

xvi) Victimisation

xvii) Warning letter

Stage One:

If an employee has a grievance, he should meet his shift-in-charge or equivalent and talk it over with him. In case of appeal against punishments excluding suspension, discharge or dismissal, the employee should meet his General Foreman or equivalent. If necessary he should obtain a copy of Grievance Form-I. This should be filled in and submitted within one week of the date on which he knew the facts, on the basis of which the grievance has arisen, except that in the case of promotions a time limit of six weeks from the date of the promotion in question will be allowed.

- The grievance form should be handed over to the shift-in-charge, General Foreman or equivalent, as the case may be, who will arrange to issue an acknowledgement receipt. He will make the necessary enquiries and return the form to the employee concerned with his remarks in the space provided for this purpose or, with the remarks of the head of the department (where the matter is beyond the jurisdiction of the General Foreman or the shift-in-charge or equivalent), within the next two working days from the receipt of the form. In cases requiring reference to higher authorities this time limit will be relaxed. If necessary, the employee can discuss the case further with the supervisor concerned in the light of his remarks. If so desired, the employee can take the help of the Union representative in presenting or discussing the case at this and/or the next stage.

Stage Two:

- If the employee is not satisfied with the reply at stage one, he may obtain from the General Foreman or the shift-in-charge or equivalent, as the case may be, a copy of Grievance Form-II, enter therein the reasons for reconsideration of the case, and submit this form to the head of his department within three working days of the receipt of the reply at Stage One and obtain an acknowledgement receipt thereof.
- Appeals against suspension should be addressed to the head of the department on Grievance Form-II or on ordinary paper, within seven days of the receipt of orders or after the last date of suspension, whichever is later, and these will be considered at Stage Two, in the first instance. If the appeal is time-barred, it must be clearly mentioned in the reply.
- The head of the department will discuss the issue with the employee and the supervisor concerned and return this Form with his remarks within three working days of receipt of the Form. In cases requiring reference to higher authorities or to another department this time limit will be relaxed.

Stage Three:

- If the employee is still not satisfied with the reply, he may appeal to the Chairman of the Zonal Works Committee concerned, on Grievance Form-III, within seven working days of the receipt of the reply at stage two.
- Appeals against orders of discharge or dismissal should be addressed to the Chairman of the Zonal Works Committee concerned, on Grievance Form-III (copies of which are available at the Employment Bureau), or on ordinary paper, and these will be considered at

Stage Three, in the first instance. This should be done within six weeks of the receipt of the orders, except that in cases where employees discharged or dismissed are out of Jamshedpur at the time the order is issued, the time limit should be three months from the date of issue of such orders.

- The decision reached by the Management after due consideration of the recommendations of the Zonal Works Committee will be communicated to the employee on Grievance Form-III through proper channels. The Zonal Works Committee's unanimous recommendations, to which the Management or the Union raises no objection within 10 days of the receipt of such recommendations, shall be final.
- Where such recommendations are not unanimous or have not been accepted by the Management or the Union, the Zonal Works Committee will refer the case to the Central Works Committee or the Special Central Works Committee for consideration.

Grouping of Zonal Works Committees:

Zonal Works Committee #I – Blast Furnace & Coke Ovens, Ore Crushing & Sintering Plant, Refractories Department (Production), Refractories Department (Maintenance, including Works Masonary), and Industrial Engineering Department.

Zonal Works Committee #II: Steel Melting Shops (Nos. 1&3), L D Shop, Canteen Services, Materials Reclaiming Department, Energy & Economy Department, Metallurgical Department, Chemical Laboratory, Research & Development Department, and Electronics Department.

Zonal Works Committee #III: Sheet Mill, Plate Mill, Strip Mill, Bar Forging & Tyre Mill, Ring Plant, and Bar & Rod Mill.

Zonal Works Committee #IV: Rolling Mill No.1 (including Rail Finishing and New Shipping), Rolling Mill No.2, Merchant Mills, Medium & Light Structural Mills, Lubrication, Production Scheduling and RT Shop.

Zonal Works Committee #V: Electrical Department (Power, Operation, Mills, Services, Inspection and Tele-Communication) General Maintenance, Stores, Power Engineering Department and Building Inspection & Maintenance Department.

Zonal Works Committee #VI: Shops, Loco & Loco Crane Department, Works General Services, Agrico, Foundries & Pattern Shop, Transportation Department, Material Handling Services, Works Garden, Production Planning (Shops), Plant Design and Mechanical Maintenance Department, Central Inspection, and Standardisation Department.

Non-Factory Employees' Works Committee: All ministerial staff of Works and non-Works departments, all outside Works departments.

References:

DIC's Circular of 15.06.56 (GSL/2493/64 of 25.02.64)

LP/8322/56 of 17.08.56 (AO/7073/64 of 14.08.64)

AO/7592/58 of 21.10.58 (AO/1626/67 of 20.02.67)

AO/8013/59 of 04.09.59 (AO/14819/71 of 08.12.71)

AOC/1198/61 of 08.09.61 (AO/15480/71 of 23.12.71)

AO/7684/61 of 11.09.61 (AO/10429/76 of 27.10.76)

AOC/1324/61 of 03.10.61 (AO/9954/80 of 04.09.80)

DPL/Con/843/62 of 08.05.62

ABBREVIATIONS, GLOSSARY & LIST OF RULES/ACTS

A&IG	Aspire and Improvement Group
ABP	Annual Business Plan (all operations of Tata Steel)
AES	Application Engineering Support (products)
AGM	Annual General Meeting (Shareholders)
AIWC	All Indian Women's Conference
AQUIP	Annual Quality Improvement Plan (a document prepared by each department by March end for the next financial year)
ASSOCHAM	Associated Chamber of Commerce
BAH	Booz Allen Hamilton
BE	Business Excellence
BHP	Broken Hill Property
BIS	British Institute of Standards
BIS	Bureau of Indian Standards
Bl. Fce.	Blast Furnaces
BM	Bar Mill
BOC	British Oxygen Company
BOD	Biological Oxidation Plant
BOD	Board of Directors
BSC	Balance Score Card (Statement of objectives and targets in line with corporate strategy and objectives for each managerial function & Department)
CAPEX	Capital Expenditure (five-year-plan document on capital expenditure approved by BOD)
CAS	Consignment Agent(s)
CCI	Corporate Citizenship Index (details are attached)
CEDEP	European Centre for Continuing Education, France
CFC	Chloro Floro Carbon
CFI	Centre for Family Initiatives
CGL	Continuous Galvanizing Line
Chief (CC)	Chief, Corporate Communication
CIDA	Canadian International Development Agency
CII	Confederation of Indian Industry
CIO	Chief Information Officer
CIP	Continuous Improvement Project (part of AQUIP document)
CITU	Centre of Indian Trade Unions
CMR	Child Mortality Rate
CO	Carbon Monoxide
COB	Committee of Board
COC	Tata Code of Conduct (Annexure-II)
COD	Cost of Debt {Interest cost x (1-tax rate)}
COMS	Customer Order Management System
CoRE	Corporate Round Table on Environment & Sustainable Development
CRC (W)	Cold Rolling Complex (West)
CRM	Cold Rolling Mill
Crore	One Crore is ten Million
CS	Corporate Services
CSD	Customer Service Division
CSI	Customer Satisfaction Index (Points 1 to 5 scale based on customer feedback on issues like delivery compliance, service quality, product quality, etc.)
CSMS	Corporate Sustainability Management System
CVM	Customer Value Management
CVR	Customer Visit Report
CV	Calorific Value
DEP	Department
DER	Debt Equity Ratio (Debt/Equity; Equity = Equity Share Capital + Free Reserves)
DIV	Dividend / Division
DMD	Deputy Managing Director
DO	Dissolved Oxygen (in water, mg/l)
DS	Desulpharisation Compound
Dy.	Deputy
Dy. MD	Deputy Managing Director
EAF	Electric Arc Furnace
EBIT	Earning Before Income Tax
EHS	Environment Health & Safety
EIC	Executive Incharge
EMS	Environmental Management System
Engg.	Engineering
EP Act	Environment Protection Act
EPA	External Processing Agent
EVA	Economic Value Addition {(Return on Invested Capital – Weighted Average Cost of Capital) x Capital Employed}
EXIM	Export-Import
FAM	Ferro Alloys & Minerals
FAP	Ferro Alloys Pl

FICCI	Federation of Indian Chamber of Commerce & Industry
FP Plg.	Flat Product Planning
FP	Flat Product
FPTG	Flat Product Technology
GAAP	General Accounting & Audit Protocol
GDR	Global Depository Receipt
GHG	Green House Gas (CO_2, Methane, CFCs, N_2O, etc.)
GM	General Manager
GP	Gate Pass
HRC	Hot Rolled Coils
HRM	Human Resource Management
HR/IR	Human Resource / Industrial Relations
HSM	Hot Strip Mill
ICC	Indian Chamber of Commerce / International Chamber of Commerce
IDBI	Industrial Development Bank of India
IFC	International Finance Corporation
IIM	Indian Institute of Management
IISI	International Iron & Steel Institute
ILO	International Labour Organization
IMA	Indian Medical Association
IMRB	Indian Market Research Bureau
IMTG	Iron Making Technology Group
INMF	Indian National Mazdoor Federation
INTUC	Indian National Trade Union Congress
IR	Industrial Relations
IRQS	Indian Register Quality Shipping
ISO	International Standards Organization
IT	Information Technology
ITD	International Trade Division
ITW	International Trade Wing
JAMIPOL	Jamshedpur Injection Power Limited
JCCM	Joint Committee of Consultative Management
JDC	Joint Departmental Council
JMA	Jamshedpur Management Association
JRDQV	JRD Tata Quality Value
JWC	Joint Works Council
JWQC	Joint Works Quality Council
KM Index	Knowledge Management Index (points accumulated by individuals based on the quality, usefulness, originality, relevance of the knowledge piece contributed to the knowledge management website)
KM	Knowledge Management
KPM	Key Performance Measures (the Balance Score Card applicable to the Departmental Head)
KRA	Key Results Area (the performance contract signed by individuals related to the commitment for the financial year)
KWH	Kilo Watt Hours
Lakh	Ten Lakhs equal to One Million
LCA	Life Cycle Assessment {only from cradle (mines) to gate the of the Steel Works}
LD#2&SC	Steel Melting Shop#2 and Slab Caster
LDO	Light Diesel Oil
LIC	Life Insurance Corporation
LM/CM	Long Member / Cross Member
LP	Long Products
LPTG	Long Product Technology Group
LT	Long Term
MAKE	Most Admired Knowledge Enterprise
M&S	Marketing & Sales
Maint.	Maintenance
MBA	Master of Business Administration
MC/HC	Medium Carbon / High Carbon
MCM	Management Committee Meetings

MGD	Million Gallon Per Day – 4.54 Million Litres/day
Mktg.	Marketing
MNC	Multinational Companies
MM	Merchant Mill
MOR	Men on Roll
MOU	Memorandum of Understanding
MR	Management Representative
MRO	Maintenance, Repair and Operational Groups
MTP	Million Tonne (Metric Tonne) Production
NA	Not Applicable
NE	Non Employee – those who do not work as permanent employees of Tata Steel
NED	Non Executive Directors (the directors on the board who are not the employees of Tata Steel)
NEDO	New Energy Development Organization, Japan
NEERI	National Environmental Engineering Research Institute
NGO	Non Governmental Organization
No.	Number(s)
NOx	Oxides of Nitroge
NT	Not Traceable
NTTF	Nettur Technical Training Federation
OG	Order Generation
OH&E	Occupational Health, Safety Audit System
OHSMS	Occupational Health & Safety Management System
OM&E	Ore Mines & Quaries
OPPRESS	Online Properly Projection System
OPR	Officers' Pay Roll
P/E	Price to Earning Ratio (Market price Per Share / Earning Per Share)
PAN	Permanent Account Number (related to Income Tax Payment0
PAT	Profit After Tax
PDP	Personal Development Plan
PEO	Principal Executive Officer
PH	Power House
PLD	Percent Leaking Door
PLL	Percent Leaking Lids
PLO	Percent Leaking Offtakes
PM	Particulate Matter
PPM	Parts Per Million
PQI	Product Quality Index {composite score on 1 to 5 scale, designed to provide extra to the delivery conditions of a product "agreed by the customer" (e.g. quality, quantity, productivity, etc.)
QC	Quality Circle
QMS	Quality Management System
QIP	Quality Improvement Projects
R&A	Rings & Agrico
R&D	Research & Development
RCMS	Rashitrya Colliery Mazdoor Sangh
ROIC	Return on Invested Capital = {Net Operating Profit after Tax / Invested Capital) or (Profit after Tax + Interest adjusted for Tax) / Invested Capital}
RM&IM	Raw Material & Iron Making
ROM	Run of Mines
RPD	Refractories Production Department
SAL	Saleable
SAP	System, Analysis and Products for Data based Management
SBU	Steel Business Unit
SC	Supply Chain
SC/ST	Scheduled Cast / Scheduled Tribe
Sc. Svc.	Scientific Services
SERT	Search, Evaluate, Register, Trial
SEBI	Stock Exchange Board of Indian
SE	South East
SHE	Safety Health Environment
SHG	Self Help Groups
SIS	Safety Information System
SMS	Steel Melting Shops
SNTI	Shavak Nanavati Technical Institute
SOP	Senior Officers' Pay Roll
SO	Strategic Outsourcing
SP	Sinter Plant

SPM	Skin Pass Mill / Suspended Particulate Matter
SPACM	Strategic Planning & Corporate Marketing
Sr.	Senior
SRP	Supplier Relationship Management
SS&FI	Social Services & Family Initiatives
SSI	Supplier Satisfaction Index (point on 1-5 scale from feedback from suppliers, on issues like timely payment, material rejects, etc.)
ST/LT	Short Term / Long Term
Sercs.	Services
tcs	tonnes of crude steel
Tata GA Sheet	Tata Galvanized Sheet
Tata SSL	Tata Special Steel Limited
TAYO ROLLS	Tayo Rolls Limited
TBEM	Tata Business Excellence Model
TCCI	Tata Council for Community Initiatives
TCTF	Thermal Coal Task Force
TERI	The Energy Research Institute
TGS	Tisco Growth Shop
TH	Total Hardness
TIL	Tata International Limited
TKM	Tata Korf Maritime
TMDC	Tata Management Development
TMH	Tata Main Hospital
TCS	Tribal Culture Society
TFA	Tata Foot ball Academy
TQMS	Tata Quality Management System
TO	Turnover
TOP	Total Operating Programme
TPD	Tonnes Per Day
TPL	Tata Projects Limited
TPM	Total Productivity Management
tss	tonnes saleable steel
TQM	Total Quality Management
TRF	Tata Robinson Fraser
TRL	Tata Refractories Limited
TSFIF	Tata Steel Family Initiatives Foundation
TSRDS	Tata Steel Rural Development Society
ULC/LC	Ultra Low Carbon / Low Carbon
UN	United Nations
UNIDO	United Nations Industrial Development Organization
UTI	Unit Trust of India
VP	Vice President
WACC	Weight Average Cost of Capital = {Weighted cost of Debt + Weighted cost of Equity} / {Debt + Equity}
WHO	World Health Organization

Corporate Citizenship Index

Area	Initiatives	Measures	Agency	Weightage	Target Index
Health Care	immunization of children in areas where the Company operates	% of children	JUSCO	10%	1
	Rural immunization programme	no. of children covered	SS&FI	10%	1
Training for gainful employment	employment oriented training	% employed (post training)	SS&FI (TCS / TSRDS) CD&SW	10%	1
Promoting economic growth in rural & urban areas	savings generated through SHG Bank linkage	Rs. Lakhs	SS&FI	10%	1
Sports & Adventures	beneficiaries under community based and sports programmes	Nos.	CD&SW	10%	1
EMS beyond compliance	recycling of wastes at Jubilee Park	%	JUSCO	10%	1
Promoting Art & Culture	children/Adults trained at Jamshedpur School of Arts	nos.	CD&SW	5%	0.5
Civic amenities	rural area pani panchayat	acreage brought under 2nd crop	SS&FI	10%	1
Education	scholarships				
	for High School Students	number of students	TCS	5%	0.5
	for college students	number of students	TCS	5%	0.5
	excellence in education	no. of schools facilities at Jamshedpur	SE	5%	0.5
Natural Calamities	relief work	construction of 11 school buildings for flood victims of Orissa/ Tsunami relief / rebuilding of homes after hailstorm in Jamshedpur	TRC	10%	1
TOTAL					**10**

A)		Applicable Environmental Acts & Rules
01	a)	The Water (Prevention & Control of Pollution) Act 1974, as amended up to 1988
	b)	The Water (Prevention & Control of Pollution) Rules 1975, as amended up to 1989
02	a)	The Water (Prevention & Control of Pollution) Cess Act 1977, as amended up to 1992
	b)	The Water (Prevention & Control of Pollution) Cess Rules 1978, as amended up to 1992
03	a)	The Air (Prevention & Control of Pollution) Act 1981, as amended up to 1987
	b)	The Air (Prevention & Control of Pollution) Rules 1982
04	a)	The Environment (Protection) Act 1986, as amended up to 1999
	b)	The Environment (Protection) Rules 1986, as amended up to 1999
	c)	The Environmental (Protection) Rules 1992 & 1993 – Environmental Statement
	d)	The Environmental (Protection) Rules 1994/1996 – Environmental Standards
	e)	The Environmental (Protection) Rules 1994 – Environmental Clearance
	f)	Amendments in the Environmental (Protection) Rules, 1994 – "Public Hearing"
	g)	The Noise Pollution (Regulation & Control) Rules 2000
	h)	Dumping and Disposal of Fly ash – Notification dated 14.09.1999 amended up to 2002
05		The Hazardous Waste (Management & Handling) Rules 1989, as amended up to 6th January 2000
06		Manufacture, Storage & Import of Hazardous Chemicals (Amendment) Rules 1989, as amended up to 19th January 2000
07	a)	The Public Liability Insurance Act 1991, as amended up to 1992
	b)	The Public Liability Insurance Rules 1991, as amended up to 1992
08		Ozone Depleting Substances (Regulation & Control) Rules, 2000
09		Batteries (Management & Handling) Rules, 2001
10		Bio-medical Waste (Management & Handling) Rules 1998 as amended till 2000
B)		**Applicable Occupational Health & Safety Acts & Rules**
01		Gas Cylinder Rules, 1984, including Amendment Rules, 1993
02		The Static and Mobile Pressure Vessels (Unfired) Rules, 1981, including Amendment Rules, 1997
03		The Indian Electricity Act, 1910 & Rule, 1956
04		The Indian Railways Act / Rule 1989
05		The Petroleum Act (as amended till 1997), 1934 & Rules (as amended till 2002)
06		The Petroleum Act (as amended till 1997), 1934 & Rules (as amended till 2002)
07		The Factories Act (as amended till 1987), 1948
08		The Bihar Factory Rules (as amended till 1988) 1950
09		The Insecticides Act (as amended till 1977), 1968 & Rule 1971 (as amended till 1999)
10		Contract labour (Regulation & Abolition) Act, 1970 & Rule 1971
11		The Motor Vehicle Act 1988 (as amended in 2001) & Central Motor Vehicle Rule 1989
12		The Explosive Act, 1884
13		The Explosive Rules, 1983, including Amendment Rules, 2002
14		The Indian Boiler Act, 1923 & Boiler Rules, 1950
15		Calcium Carbide Storage & Handling Rule, 1987
16		The Workmen Compensations Act 1923 (as amended up to 2000) & Rule (as amended up to 2000)
C)		**Other Acts**
01		Mines Act, 1952
02		Wildlife Conservation Act, 1972
03		Forest Conservation Act (Amendment), 1980
04		Company Act, 1956
05		Bihar Shops & Establishment Act, 1956
06		Trade Union Act, 1926

PROCEDURE FOR ESTIMATION OF AIR POLLUTING EMISSIONS FROM STACKS IN STEEL WORKS

At Tata Steel, the emissions from point sources (stacks) are monitored using TMT Analyser for gaseous pollutants (SO_2, NOx, etc.) and the stack monitoring kit for Particulate Matter (PM). The sampling rate for PM monitoring is decided, based on isokinetic conditions. The stacks in Steel Works are constructed using two types of configuration i.e. cylindrical (tubular) and conical (inverted cone). The smaller diameter/short height stacks are cylindrical and large diameters and tall stacks are conical.

Actual measurement and theoretical calculations are adopted generally to determine the flow of waste gases in cylindrical / conical stacks in conical stacks. These volumes are used in the estimation of total PM emissions based on actual measurement of PM using stack-monitoring kits. Gaseous pollutant concentrations measured using TMT Analyser are likewise used in estimation of total gaseous pollution load for cylindrical as well as conical stacks.

These calculations are done every month using software developed in-house. The summary of stacks where actual measurement of waste gases was carried out and that of the ones where calculated values of waste gas volume were used is presented below:

I. Stacks where flow of waste gases was measured:

1. Sinter Plants (4 Stacks)
2. Finishing Mills (4 Stacks)
3. Slag Granulation Plant (2 Nos.)
4. Fume/Dust Extraction System at Blast Furnaces & L D Shops (7 Nos.)
5. Coke Quenching Tower & CGC Car in Coke Ovens
6. Lime Kilns (5 Nos.)

II. Stacks where flow of flue gases was calculated:

1. Blast Furnace Stove Stacks (7 Nos.)
2. Battery under firing stack (6 Nos.)
3. Boiler Stacks in Power Houses (15 Stacks)

The basis for calculation of waste gas volume was;

1. Blast Furnace (BF) Gas (10% excess air, multiplying factor –1.62)
2. Coke Oven (CO) Gas (20% excess air, multiplying factor – 5.74)
3. L D Gas (10% excess air, multiplying factor – 2.16)
4. Coal (Boilers) (-75% excess air, multiplying factor – 10.1)
5. Waste Gas Volume (Nm^3/hr) = Coal consumption (t/hr) $x10.1x10^3$ +
   BF gas consumption (Million Nm^3/hr) x $1.62x10^6$ +
   CO gas consumption (Million Nm^3/hr) x $5.74x10^6$ +
   LD gas consumption (Million Nm^3/hr) x $2.16x10^6$

III Emissions due to Flare/Crude Gas Bleeding

Only PM values are estimated for these gases. SO_2, NOx and other gaseous pollutants are not estimated as the average concentrations are not available from any source (internationally published data). The PM values are estimated based on the following parameters.

- Crude BF Gas Bleeding – 10 gms/Nm^3
- Clean BF Gas Bleeding – Actual mg/Nm^3
- LD Gas Bleeding – 10 mg/Nm^3
- CO Gas Bleeding – 2 mg/Nm^3

Quantity of BF and CO gas bled to atmosphere is continuously recorded and LD gas bleeding is estimated, based on total LD gas made minus LD gas recovered.

Note: Data samples from every point source are taken twice every year as per the emission-monitoring plan. Hence, monthly emission load is calculated based on the most recent previous data sample test results. As a consequence, in the early parts of the financial year, the monthly load estimates are based on test sample results of the preceding reporting period.

GIFT POLICY

Tata Steel recognises that exchange of gifts with people with whom we do business with is not unusual and is considered acceptable. The receipt and giving of gifts is part of normal social exchange. Such exchange is neither irregular nor is it unusual.

However, the need is recognised for a stated policy setting caps on the value of such gifts and for defining circumstances under which it would be acceptable or not acceptable to retain gifts. The cardinal principle would be that gifts should not be given or received either to obtain favours / preferential treatment or in return for favours/ preferential treatment.

The policy will apply to all employees of Tata Steel as well as its subsidiary and associate companies.

1. Gifts could be either solicited or unsolicited. The Company, regardless of the circumstances, does not permit the soliciting of gifts. This policy defines the circumstances under which unsolicited gifts received either in India or abroad can be accepted and retained.
2. The circumstances under which gifts might be received fall into various categories.
    a. Gifts received on New Year and other festive occasions.
    b. Gifts received only on occasions of wedding of self or children.
    c. Gift vouchers / gift cheques received in recognition of a professional contribution made by the recipient, such as for making a presentation, conducting a training programme/workshop for a professional and academic institution etc.
    d. Gifts received on the occasion of a terminal event such as a transfer or on cessation of employment.
    e. Gifts of any value received for any other reason (not stated in [i] to [iv], approval to be taken from Ethics Counsellor or PEO.
3. Declaration regarding receipt of gift:

In all instances, the recipient of a gift of more than the approved value, will make a declaration stating the description of the gift that has been received, the estimated value of the gift and the circumstances under which the gift was received and particulars of donor. Such declaration should be submitted in the office of Ethics Counsellor within 15 days of the receipt.

4. Kind of Gift
    a. List of the kinds of gifts that might be received is provided below:
    b. Articles of only an edible nature for festive occasions in item 2 [i].
    c. Articles of use in an office such as table clocks, stationery, desk accessories on New Year only with company's logo in item 2 [i].
    d. Gift worth upto Rs.1000/- for wedding only in item 2[ii].
    e. Gift vouchers / Gift cheques only in the case of professional contribution in item 2[iii].
5. Circumstances under which gifts can be accepted:
    a. Receipt of Cash Gift: Only in the case of retirement or cessation of employment. Cash gift of Rs.1,000/- and more can be retained by employees.
    b. However, in the case of transfers, collective gift in kind can be received. The value limit is not applicable in such cases.
6. Gifts received in recognition of a professional contribution made by the recipient, such as for making a presentation, conducting a training programme/workshop for a professional and academic institution etc.

Where the receipt of gift is in gift vouchers and gift cheque and more than Rs.1,000/-, the recipient will be permitted to retain the full amount received, if prior permission is taken from the company. However, information to the Ethics Counsellor should be given. No cash to be received.

Where the Company has borne expenses, such as travel or lodging, related to the event and such expenses are reimbursed by the organisers, all such reimbursements will be surrendered to the Company.

7. Receipt of gift from parties having business relationship with the Company including gifts from subordinates Gifts received from a donor where the donor has a business relationship with the Company and could derive benefits from the recipient should only be of a value up toRs.1,000/-. Illustrative categories of parties with business relationships with the Company would be vendors, dealers, contractors, consultant and customers etc. However, all such gifts should have donor's Company's logo or business identity.

8. No gifts should be accepted from any person or party who is in default of the company in any manner. By way of illustration, parties in default would be parties from whom monies are overdue or parties with whom the Company is engaged in litigation and parties against whom disciplinary action has been taken.

   It is desirable that the recipient should check the status of the parties from Chief (Procurement) and Chief Financial Controller (Corporate) to make sure that the provisions of the above clause are not contravened.

9. It is recognised that at times gift exceeding the value caps contained in this policy are to be received as the return of these gifts may cause embarrassment. This situation may occur special during overseas visit of our officers where sometimes expensive gifts are given by the overseas hosts. In this situation the recipient should surrender the gift at the earliest. The company will decide the procedure for utilisation of such gifts.

10. The company considers it good practice to share gifts of a nature, which an employee is permitted to receive, such as gifts of an edible nature, with fellow employees. The nature of the gift permitting, it would also be good practice to use gifts in the office.

11. Where an employee received gifts exceeding the value caps contain in this policy, it would be advisable to return the gift to donor with a covering letter thanking the donor for the same and quoting the relevant provision of this policy. The draft of the letter as and when required may be obtained from the office the Ethics Counsellor.

12. In case of any clarification / interpretation of this policy the employee should contact the office of Ethics Counsellor, Tata Steel.

13. The policy will become effective with immediate effect.

B Muthuraman,

Managing Director