

## Directors' Report

To the Members,

The Board of Directors hereby presents the 103rd annual report on the business and operations of your Company along with the standalone and consolidated summary financial statements for the year ended 31st March, 2010.

Figures in Rupees crores

	Tata Steel Standalone		Tata Steel Group	
	2009-10	2008-09	2009-10	2008-09
Net Sales/Income from Operations	25,021.98	24,315.77	102,393.12	147,329.26
Total expenditure before depreciation (net of expenditure transferred to capital)	16,069.89	15,182.34	94,350.46	129,201.59
Operating Profit	8,952.09	9,133.43	8,042.66	18,127.67
Add: Dividend and other income	853.79	308.27	1,185.85	265.67
Profit before interest, depreciation, exceptional items and taxes	9,805.88	9,441.70	9,228.51	18,393.34
Less: Net finance charges	1,508.40	1,152.69	3,022.06	3,290.18
Profit before depreciation, exceptional items and taxes	8,297.48	8,289.01	6,206.45	15,103.16
Less: Depreciation	1,083.18	973.40	4,491.73	4,265.39
Profit before exceptional items and taxes	7,214.30	7,315.61	1,714.72	10,837.77
Add/(Less): Exceptional items	-	-	(1,683.72)	(4,094.53)
Profit before taxes	7,214.30	7,315.61	31.00	6,743.24
Less: Provision for current taxation	1,998.00	2,173.00	2,162.53	1,997.12
Less: Provision for deferred taxation	169.50	(75.13)	(10.69)	(121.93)
Less: Provision for fringe benefit tax	-	16.00	-	18.81
Profit after taxes	5,046.80	5,201.74	(2,120.84)	4,849.24
Less: Minority Interest	-	-	15.24	(40.94)
Add: Share of profit of Associates	-	-	126.86	60.72
Profit after minority interest and share of profit of associates	5,046.80	5,201.74	(2,009.22)	4,950.90
Add: Balance brought forward from the previous year	9,496.70	6,387.46	10,961.96	8,234.03
Add: Balance brought forward - HMPCL on Amalgamation	12.28	-	-	-
Balance	14,555.78	11,589.20	8,952.74	13,184.93
Which the Directors have apportioned as under to:				
(i) Proposed dividend on Ordinary Shares	709.77	1,168.95	709.23	1,167.88
(ii) Dividend on Preference Shares	45.88	109.45	45.88	109.45
(iii) Tax on dividends	122.80	214.10	154.33	217.64
(iv) Special Reserve	-	-	48.55	4.24
(v) Debenture Redemption Reserve	400.00	-	400.00	-
(vi) Statutory Reserve	-	-	31.69	51.53
(vii) General Reserve	504.68	600.00	552.58	672.23
<b>Total</b>	<b>1,783.13</b>	<b>2,092.50</b>	<b>1,942.26</b>	<b>2,222.97</b>
Balance to be carried forward	12,772.65	9,496.70	7,010.48	10,961.96

## DIVIDENDS

- (i) 2% Cumulative Convertible Preference Shares (CCPS): The Board had declared a proportionate interim dividend of Re. 0.838356 per share on 547,266,011 CCPS of Rs. 100 each for the period 1st April, 2009 to 31st August, 2009 (2008-09: Rs. 2 per share on 547,266,011 CCPS of Rs. 100 each). The Board declared the interim dividend paid as the final dividend on the CCPS for the year ended 31st March, 2010.

The above CCPS were compulsorily converted into 91,211,001 Ordinary Shares of Rs. 10 each at a premium of Rs. 590 per share on 1st September, 2009.

- (ii) Ordinary Shares: The Board recommended dividend of Rs. 8 per Ordinary Share on 887,214,196 Ordinary Shares (2008-09: Rs. 16 per Ordinary Share on 730,592,471 Ordinary Shares of Rs. 10 each) for the year ended 31st March, 2010.

The dividends on CCPS and Ordinary Shares are subject to the approvals of the shareholders at the Annual General Meeting.

The total dividend payout works out to 17% (2008-09: 29%) for the standalone company.

## GLOBAL ECONOMY

2009 was one of the most challenging years for the global economy in recent times with the global recession of 2008 and 2009 representing the largest peacetime downturn in economic activity since the 1930s. The World Bank reported that the positive growth in the emerging and developing economies was more than offset by negative growth in the advanced economies resulting in negative World GDP growth in 2009. The sharp decline in global demand for consumer durables and investment goods that accompanied the economic crisis, led to a significant demand contraction particularly in the United States of America and Europe which continued in most economies till September 2009. Economies with large current account deficits, excessive reliance on foreign capital to finance domestic consumption, and sizeable fiscal deficits witnessed sharper growth declines. Following unprecedented fiscal and monetary policy stimulus measures and direct Government support for some institutions and sectors, a gradual recovery in domestic demand and the turning of the inventory cycle

saw most economies emerge from recession by the end of 2009. In contrast to most developed and emerging economies, China and India were able to avoid recession and recorded GDP growth of around 10% and 7.2% respectively in spite of a slowdown from pre-crisis growth rates as export demand collapsed across many sectors.

**The US:** The GDP in the country had a negative growth of 2.4% in 2009 over 2008 with a sharp decline in the first quarter of 2009 being partly offset by recoveries in the third and fourth quarters characterised by expanding production but continued job losses. Among the key economic indicators of change in GDP, the gross private domestic investment in 2009 dropped by 23.2% over 2008, while the export of goods and services dropped by 9.6% and 12.2% respectively.

**The UK and Europe:** The Eurozone economy declined by 2.7% in 2009-10 following a contraction of 1.3% in 2008-09 and emerged from recession in the third quarter of calendar year 2009. However, some member countries like Spain, Ireland and Greece continued to remain in recession till the end of calendar year 2009 while the UK emerged from recession in the last quarter of the calendar year. By the end of the downturn, the Eurozone economy as a whole had contracted by 5.1% from the peak and Eurozone industrial production and exports had posted cumulative declines of 14% and 13% respectively. Meanwhile, reflecting a collapse in confidence, tight credit and a large fall in demand, private business investment continued to decline until the end of 2009-10 posting a cumulative decline of 17.2%. The UK Government and the Bank of England undertook measures to stimulate the British economy increasing the liquidity and easing access for large companies to credit. However, this was not sufficient to support medium and small businesses resulting in a drop in industrial production and private business investment.

**India:** In India, the Economic Survey of 2009-10 revealed that some of the key macroeconomic indicators revived especially during the second half of the year compared to the previous year. Even though the agricultural output declined by 0.2% as a consequence of a poor monsoon season, the industrial and service sectors grew at the rate of 8.2% and 8.7% respectively taking estimated GDP growth to 7.2% during the year. It is worth noting that the manufacturing industry grew at 8.9% during the year.

## TATA STEEL GROUP PERFORMANCE

Global effective steelmaking capacity utilisation fell sharply in the second half of 2008 as steelmakers cut production in response to falling demand, reaching a low of around 61% in December 2008 - a figure which had improved to 76% by December 2009. Capacity utilisation at Tata Steel Europe improved to 81% in the second half of 2009-10 in comparison to 64% in the first half of the financial year resulting in a 16% rise in production in H2FY 10 over H1FY 10. Group deliveries for the year 2009-10 at 24 million tonnes declined 15% compared to the 28 million tonnes recorded during 2008-09 as recessionary conditions affected most economies though less so in India. Tata Steel India registered growth of 18% in the financial year 2009-10 (6.17 million tonnes) over 2008-09 (5.23 million tonnes).

The Turnover for the Group in 2009-10 at Rs. 102,393 crores, was 30.5% lower than 2008-09 (Rs. 147,329 crores) due to the severe contraction in the end user demand in Europe. The spot price of steel continued to be weak in the first half of 2009-10, with marginal recovery during the second half in line with the gradual pickup in global steel demand. The price recovery has varied by product and region, but in general has been strongest for Strip products in Asia while Long Product prices continued to be under pressure in Europe and Thailand due to lower level of construction activities in those regions. Consequently the Tata Steel Group Turnover for the second half of the year was Rs. 53,706 crores which was 10.3% higher than the first half of 2009-10 at Rs. 48,687 crores. The increase in the turnover during the second half of the year was primarily due to the significant increase in the deliveries (12.70 million tonnes in the second half compared to 11.57 million tonnes in the first half of 2009-10) and increase in the average prices during the second half of the year. For the year under review, Tata Steel Europe's Turnover at Rs. 67,192 crores was 39% lower than that of last year.

The Earnings before Interest, Taxes, Depreciation and Amortisation (EBITDA) of the Group was significantly affected in the first half of the financial year 2009-10 by the sudden termination of the Teesside Offtake Agreement by the Consortium members and the challenging market conditions in the Europe. This resulted in a consolidated EBITDA for the Group of Rs. 606 crores for the six months ended September 2009. However, with the help of several initiatives across the Group and the re-structuring program in

Europe, the Company reported a significant turnaround in the financial performance of the Company in the second half of the year with a consolidated EBITDA of Rs. 8,734 crores which was 1341% higher than the first half of the year. The consolidated EBITDA for the year 2009-10 was Rs. 9,340 crores compared to Rs. 18,495 crores in the corresponding period of the previous year.

Consequently, the Profit After Tax for the second half of the year 2009-10 was Rs. 2,907 crores compared to a loss of Rs. 4,916 crores in the first half of the year. This resulted in a loss after tax (after minority interest and share of profit of associates) of Rs. 2,009 crores for the year under review which was significantly lower compared to the profit of Rs. 4,951 crores registered in FY 2008-09.

**Tata Steel – Indian operations:** The steel division of the Indian operations registered an increase of 20% in their saleable steel from 5.37 million tonnes in FY 2008-09 to 6.44 million tonnes in FY 2009-10. The production from the larger furnaces were maximised with better productivity and lower coke consumption while increased vessel life in the steel melting area enhanced the production level. The deliveries during the year FY 2009-10 at 6.17 million tonnes were higher by 18% over FY 2008-09 (5.23 million tonnes). There were several best ever performances recorded by many units in the Steel Works of the Company.

The Ferro Alloys and Minerals division registered an increase of 22% in their saleable production during FY 2009-10 (1302k tonnes) over FY 2008-09 (1064k tonnes) while their sales at 1,508k tonnes in the year under review were higher by 36% over FY 2008-09 (1,105k tonnes). Chrome Alloys exports and Manganese Alloys sales of the division scaled new peaks during the year under review.

The Tubes division in FY 2009-10 grew by 11% and 10% in production and sales respectively over the previous year, boosted by various improvement initiatives across all its units. The division continues to pioneer the Closed Structural Business, with landmark structures being built using Tata Structura which crossed the three lakh tonnes landmark this year.

Sales in the Bearings division registered a growth of 23% while its production increased by 8% driven primarily by the revival in the domestic auto segment demand.

**Tata Steel Europe (TSE):** Deliveries in Tata Steel Europe during FY 2009-10 (14.2 million tonnes) declined by 25% over FY 2008-09 (19 million tonnes) due to the market conditions in Europe and the

UK. The recessionary conditions that commenced in the second half of the previous year continued to affect the operations for most part of the financial year 2009-10. The two halves of the financial year under review were in sharp contrast to each other. The Company acted swiftly to respond to this downturn by launching two very significant initiatives i.e. 'Weathering the Storm' and 'Fit for the Future' program. The 'Weathering the Storm' program covering the entire organisation in Europe, included a series of short-term actions to mitigate the impact of reduced steel demand. It involved a reduction in third party services, flexible production to reduce energy cost, reduction in employment cost relating to overtime and putting major capital expenditure programmes on hold. The 'Fit for the Future' initiatives were put in place to address longer term issues such as TSE's competitiveness and targeted savings of £350m.

The performance of the Company was adversely affected by the sudden termination in April 2009 of the Long-term Off-take Agreement by the Consortium for the slabs produced by Teesside Cast Products business in the UK thus burdening the Company with exposure to the small, niche merchant slab market. The Company did operate the Teesside plant till February 2010 incurring significant losses as the slabs are surplus to the requirements of the Company. Therefore, the Company had to regrettably mothball part of the facilities in February 2010 including the Redcar blast furnace and Lackenby steelmaking. Your Company continues to explore options that could provide employment for the employees affected, including the sale of the mothballed operations.

The Company registered a significant turnaround in its operations in the second half of the year. This was achieved through increased deliveries, better cost structure and improved pricing scenario. Therefore, the EBITDA for the second half of the year was Rs. 2,303 crores which was around 163% more than the negative EBITDA of Rs. 3,654 crores in the first half.

**NatSteel Holdings:** NatSteel recorded an increase in sales by 3% in FY 2009-10 (2.44 million tonnes) over FY 2008-09 (2.37 million tonnes). The increases were mainly in the subsidiaries in China, Vietnam and Thailand while the Singapore operations and other subsidiaries witnessed a dip in the sales volume over last year due to lower construction activity in the region especially in the first half of the year. The Chinese subsidiary contributed the most (FY 2009-10 0.532 million tonnes) with an increase of 25% in

volumes over the prior year. In Vietnam, construction demand led to an increase in steel demand resulting in sales of NatSteel Vina to be at 0.13 million tonnes in FY 2009-10, 65% higher than the previous year. In Thailand the deliveries at 0.152 million tonnes witnessed a growth of 20% over 2008-09. The profit after tax for NatSteel Holdings was at Rs. 102 crores in FY 2009-10 as compared to Rs. 7 crores in the financial year 2008-09.

**Tata Steel Thailand (TSTH):** TSTH recorded an increase of 8% in sales during FY 2009-10 (1.20 million tonnes) over FY 2008-09 (1.11 million tonnes) with increases of 6% and 9% in the domestic sales and exports respectively. The Mini Blast Furnace along with its ancillary facilities was commissioned during the year under review. However, poor prices prevailing in the market along with higher input costs led to a loss for the company (Rs. 11 crores) during FY 2009-10 as compared to a profit of Rs. 11 crores in FY 2008-09.

## EXPANSION PROJECTS

### Brownfield Projects:

Tata Steel India is executing its plan to increase its crude steel capacity from 6.8 million tonnes per annum to 9.7 million tonnes per annum at its Jamshedpur Works by 2011-12.

Simultaneously the Company also has a few major ongoing capital projects which includes the capacity augmentation of Hot Strip Mill, Coke Dry Quenching at Coke Ovens Batteries 5, 6 & 7 and setting up a new mill for producing Full Hard Cold Rolled (FHCR) coils at Jamshedpur.

On 6th April, 2010, Tata Steel entered into a Memorandum of Understanding with Nippon Steel Corporation (NSC), Japan for setting up a Continuous Annealing and Processing Line at Jamshedpur, India with 0.6 mtpa capacity. The line will produce automotive cold rolled flat products and address the local needs of Indian automotive customers for high grade cold rolled steel sheets. Tata Steel will hold 51% and NSC will hold 49% stake in the joint venture company. The proposed joint venture aims to capture the growing demand for high-grade automotive cold-rolled flat products in India. NSC will transfer its technology for producing high-grade cold-rolled steel sheets for automotive application including skin panel and high tensile steel.

These projects, along with other sustenance and improvement projects are being implemented with a view to support the Company's current operations and its growth aspirations.

### Greenfield Projects:

**Orissa Project:** Preliminary work on the 6 million tonne per annum capacity greenfield steel plant at Kalinganagar, Orissa to be constructed in two phases, is in progress, focusing on land acquisition, rehabilitation and resettlement work. As of March 2010, a total of 806 families have been shifted from the plant site. The rehabilitation colonies for their resettlement have been provided with good infrastructural facilities which include clean drinking water, street lighting, and a community centre set up by the Company. A hospital with all amenities is also being provided by the Company. During the financial year 2009-10, construction of a warehousing shed and a building for a power receiving sub-station had started at one corner of the plant area.

As per the MOU signed with the State Government of Orissa, the Company has fulfilled its obligation of placing the order for equipment and services.

**Chhattisgarh Project:** The Company has signed an MOU with the Government of Chhattisgarh for setting up of a 5 mtpa greenfield integrated steel plant in Bastar. The process of land acquisition commenced with multi level discussions with stakeholders and thereafter obtaining necessary approval for a rehabilitation and resettlement package from the government. The land has been transferred in favour of the Department of Industries, which will subsequently lease it out to Tata Steel Limited.

The Chhattisgarh Government has accorded approval for drawing water from river Sabri and the Ministry of Railway, Government of India has granted an in principle approval for the railway corridor. Prospecting License for iron ore has been granted in Bailadila-I deposits after approvals have been obtained from the Ministry of Environment and Forest and Ministry of Mines, Government of India.

Public hearing for the Environment clearance has been successfully conducted with the State Government having recommended the Company case to the Ministry of Environment and Forest, New Delhi. In line with the Company's initiatives in the field of Corporate Social Responsibility, several activities in the field of health, youth and women empowerment, sports and skill development are being carried out for the local residents as well as those of the displaced families.

### RAW MATERIAL PROJECTS

Your Company continued to implement its long-term strategy to secure ownership of assets that will increase its raw materials security and share of value-added products. During the financial year 2009-10 the Company's primary focus was on expediting implementation of its existing ventures.

#### Coal Projects:

**Benga Coal Project, Mozambique:** The Tata-Riversdale Joint Venture (JV) in Mozambique conducted a formal 'Ground Breaking Ceremony' at the Benga Coal Project in the presence of the President of the Republic of Mozambique, His Excellency Armando Emilio Guebuza on 14th April, 2010. This official ceremony follows a series of milestones already achieved by the Company such as the signing of the Mining Contract, approval of Environmental Licenses for the Benga Coal Project and the Benga Power Project and the approval of Stage 1 of the Benga Coal Project following the completion of the Feasibility Study for production of 10.6 million ROM tonnes in two phases. Other key contracts and agreements include the CHP Plant Supply Contract, a Resettlement Action Plan, and the Project Labour Agreement (PLA) which was signed with SINTICIM (the Mozambican National Construction and Mineworkers Union).

Stage 1, entails initial production of 5.3 million ROM tonnes per year to produce approximately 1.7 mtpa of high quality hard coking coal and 0.3 mtpa of export thermal coal by Q2 2011. Tata Steel has a 35% stake in the JV with a 40% off-take right to the coking coal produced from these mines. The JV owns the Benga and Tete tenements which cover an area of 24,960 hectares. Benga has an inferred resource of approximately 4 billion tonnes. Your Company plans to supply the hard coking coal from this project to its facilities in Europe in the initial phase of the project development and also for the requirements of the Indian operations in the future.

Tata Steel currently holds about a 21.14% equity stake in the parent company, Riversdale Mining Limited.

**Coal Mining Project in Australia (CDJV):** Tata Steel has a strategic interest of 5% in the coal mining project in Australia in partnership with Vale, Nippon Steel, JFE and POSCO with up to 20% off-take rights. The Joint Venture was formed for the development of a Greenfield underground coal project in Bowen Basin, Queensland. The first raw coal production started in August 2006 and the mine is currently producing around

1 mtpa. The Longwall expansion programme continued during the year. On completion of the second phase, it is expected to produce around 2.5 million tonnes of Coking and PCI coal during the fiscal year 2010-11.

**Iron Ore Projects:****Direct Shipping Ore Project in Canada (New Millennium Capital Corp.):**

In September 2008, Tata Steel had entered into a Heads of Agreement with New Millennium Capital Corporation, Canada (NML), a Canadian listed mining company, to develop iron ore projects in northern Quebec and Newfoundland & Labrador and had acquired a 19.9% stake in NML. Tata Steel has an exclusive option to acquire an 80% equity interest in NML's Direct Shipping Ore project (DSO Project), a commitment to take the resulting production if the option is exercised and an exclusive right to negotiate and settle a proposed transaction in respect of NML's LabMag and KeMag Projects.

In November 2009, Tata Steel signed a Joint Venture Agreement with NML, to advance the development of the DSO Project.

In June 2010, Tata Steel subscribed to a private placement of Canadian \$20 million by NML pursuant to which Tata Steel Global Minerals Holding Pte. Ltd. now holds a 27.4% stake in NML. NML has completed a feasibility study for the DSO Project which is being reviewed by Tata Steel. The Feasibility Study estimates proven and probable mineral reserves of 64.1 million tonnes for the DSO Project. Subject to receiving all regulatory approvals, production is expected to commence in 2011. Tata Steel will have 100% off-take rights to the produce of the mine of a specified quality. The iron ore from this project will be supplied to Tata Steel Group's facilities located in Europe.

**Ivory Coast Project:** In view of the environmental issues encountered in the case of Mt. Nimba, Tata Steel approached the Government of Ivory Coast to grant a prospecting license for Mt. Gao for an early start of the project. The Government of Ivory Coast has granted an exploration license to Sodemi on 30th July, 2009 and an Addendum to the Joint Venture Agreement was signed on 29th September, 2009 to include Mt. Gao in the Joint Venture Agreement. The exploration license for Mt. Gao has been transferred to the JV Company. A team has been deployed on the ground to carry out the feasibility studies.

**Limestone Project:**

**Limestone Project in Oman:** The Environmental Impact Assessment has been completed and the mining license is awaited.

**OTHER PROJECTS****Hooghly Met Coke and Power Company Ltd. (HMPCL):**

As a part of business restructuring exercise, Tata Steel merged Hooghly Met Coke and Power Company Ltd. (HMPCL) with itself with effect from 1st April, 2009. The scheme became effective on 24th March, 2010 after sanction of the scheme of merger by Honorable High Court of Kolkata. HMPCL was incorporated in 2005 and was a 100% subsidiary of Tata Steel prior to merger. The company was set up to produce low ash metallurgical coke by adopting the heat recovery route and for meeting Tata Steel's requirements for its Jamshedpur plant. The plant is located in Haldia, West Bengal. Close proximity to the Haldia Dock Complex offers several advantages, including the import of coking coal in a more cost effective manner. The company has a production capacity of 1.6 million tonnes of coke.

**Dhamra Port Company Limited (DPCL):**

The Dhamra Port Company Limited, a 50:50 joint venture of Tata Steel Limited and Larsen & Toubro, is developing a deep-draught port under a concession agreement awarded by the Government of Orissa on Build, Own, Operate, Share and Transfer (BOOST) basis. Situated between Haldia and Paradip, Dhamra Port will be one of the deepest ports in India with a draft of 18 meters, capable of accommodating super capesize vessels up to 1,80,000 DWT.

Phase-I of the project is almost complete and the port is expected to commence commercial operations by August 2010. In Phase-I, two fully mechanised berths, one for handling imported cargo and the other for export cargo with back-up facilities are being built, along with a rail corridor for hinterland connectivity. The capacity is estimated to be 27 MTPA in Phase-I. Once commissioned, Dhamra Port will be of strategic importance to Tata Steel in terms of its integrated logistic cost of raw materials and will also consolidate Tata Steel's supply chain network, contributing to its expansion aspirations.

**S&T Mining Limited:**

As part of the drive to secure raw material sources for domestic operations, Tata Steel formed a 50:50 Joint Venture company, S&T Mining Co. with Steel Authority of India Limited (SAIL) in September, 2008. The company has the specific objective of

combining the expertise of its parent companies to identify, acquire and develop coal blocks in India. A number of activities have been initiated towards this objective.

#### **MMTC and Tata Steel form a JV for exploration and development of minerals:**

Steel production in India is projected to grow to over 120 Million tonnes by the year 2015. To cater to the raw materials requirement of increasing steel demand and other mineral based industries, your Company has entered into an agreement with MMTC Limited, a Central Government undertaking in October 2009 to establish a joint venture company for acquiring, developing and operating mines and processing of minerals and metals. Tata Steel holds 74% equity in the joint venture with MMTC holding 26%.

#### **Tata Steel and NMDC sign MoU for enhancing iron ore resources:**

Consistent with its long-term strategy to expand its steel capacity in India along with access to enhanced resources, your Company has signed a Memorandum of Understanding (MoU) with NMDC for exploring possibilities of entering into joint ventures for the purpose of acquisition, exploration and development of mines, extraction and processing of minerals, setting up integrated steel plants and any other businesses of mutual interest.

## **HEALTH AND SAFETY**

Health and Safety continues to be one of the prime drivers of the Corporate Vision of your Company. The Tata Steel Group lays significant emphasis on sustainable Health & Safety performance as it has a direct impact on performance. The Company is continuing its 'Safety Excellence Journey' with a philosophy that 'Safety is a Line Management function and all injuries can be prevented'. Health and Safety is reviewed at all Board meetings of Tata Steel with a Health, Safety & Environment Committee established to carry out more detailed reviews. In TSE an integrated and systemic Health & Safety Management System was introduced in 2008 with a governance process for improvement actions at executive level and regular safety tours by the Board and executive members. This system is being evaluated for Group-wide application.

Every initiative at Tata Steel is governed not only with a cost efficient & quality conscious approach but with a special emphasis on safe practices. During the financial year 2009-10 the Indian

operations recorded a Lost Time Injury Frequency Rate (LTIFR) of 0.56, a reduction of 31% from 0.80 registered in the financial year 2008-09 while in the UK & European operations the LTIFR reduced by 15% compared to the previous financial year. During the year, Tata Steel Group operations recorded a LTIFR of 0.95 against 1.31 in FY 09, a 27% improvement over the last year. However, during the year there were 5 fatalities across the Group which included 3 contractor employees and every effort is being taken by your Company to avoid such unfortunate incidents. The Board expresses its sincere regret at these tragic fatalities.

The Group Vision has a target of 0.4 LTIFR with Zero fatality by 2012. With reduction in the LTIFR, TSE is focusing towards measuring total recordable incidents from FY 2010-11. Recordable incidents are work related incidents which result in harm to a person or persons, other than those which require no more than first aid treatment.

For sustainability of its operations and reducing process hazards by strengthening safety in processes, the Indian operations have initiated implementation of Process Safety & Risk Management (PSRM) in high hazard operations. The prime objective of Process Safety Management is to achieve "Operating excellence through operational discipline". PSRM will be implemented in all facilities by the financial year 2011-12.

The recent expansion campaign in Tata Steel India called for a large content of unskilled contract workforce, to be employed at various project sites. The onus was on Tata Steel to get the jobs executed with least possible injuries. The Company partnered with DuPont for improving the performance of construction activity by instilling the DuPont proven model of construction safety to our contract partners. Recognizing the excellent practices in the field of Construction Safety, in pursuit of an injury free & illness free healthy workplace, Worldsteel Association awarded Tata Steel with "Worldsteel Association Safety Excellence Recognition Award 2009".

Community safety is an important feature of the safety excellence journey of Tata Steel. Safety has been introduced as a curriculum in schools from nursery onwards by providing necessary inputs and motivation to the schools of Jamshedpur. This is done with the help of 'SAFE', an NGO run for the improvement of safety in the schools and society.

## ENVIRONMENT

Tata Steel Group is committed to minimising the environmental impact of its operations and its products by adopting sustainable practices and continuous improvements in environmental performance. Climate change is one of the most important issues facing the world today. Your Company recognises that the steel industry is a significant contributor to man-made greenhouse gas emissions as the manufacture of steel unavoidably produces carbon dioxide (CO<sub>2</sub>). The Group aims to contribute positively to the communities around or near its operations and actively participate in community initiatives, encourage biodiversity and nature conservation. The Group's first Corporate Citizenship Report was published in October 2009 detailing the progress made in FY 09 in terms of health, safety and environmental performance, as well as covering social, community and ethical issues. 100% of TSE's manufacturing operations are certified to the independently verified international environmental management standard, ISO 14001.

CO<sub>2</sub> emissions (direct + electricity) in the Indian operations during the financial year 2009-10 at 2.38 t/tcs reduced by 5.3% as compared to the previous financial year. TSE met with all the environmental obligations as specified under Phase 1 (2005 till 2007) of the EU Emissions Trading Scheme (EU ETS) and expects to meet the same for Phase 2 (2008 till 2012) also. As a part of the integration process with TSE, during FY 2009-10, the Indian operations at the Jamshedpur Steel Works benchmarked its activities with the IJmuiden Plant of Tata Steel Europe and have undertaken several energy efficiency measures like maximising the utilisation of by-product gases, efficient operations of blast furnaces, etc. to reduce CO<sub>2</sub> emissions during the year. In addition to the Steel Plant at Jamshedpur, a number of other divisions of Tata Steel India undertook the Carbon Foot Print exercise to assess the base levels and formulate a plan for setting targets and actions. TSE currently participates in a voluntary agreement with the Dutch government to benchmark and maintain its energy efficiency in line with world's best standards. The primary requirement of the agreement is an energy efficiency improvement of 2% per annum. In the UK, a revised agreement has been negotiated with the government to reduce total energy consumption by 15.8% compared to 1997 levels, by the end of 2010.

During the reporting period, specific water consumption including power and steam generation in the Indian operations reduced by 18.3% to the level of 5.57 m<sup>3</sup>/tcs mainly driven by recovery of wastewater from the drains of the Steel Works. Solid waste utilisation increased by 1.55% in 2009-10 to the level of 91.1%.

## SUBSIDIARIES

The consolidated financial statements presented by the Company include financial information of its subsidiaries prepared in compliance with applicable Accounting Standards. The Ministry of Corporate Affairs, Government of India has granted exemption under Section 212(8) of the Companies Act, 1956, from attaching the balance sheet, profit and loss account and other documents of the subsidiary companies to the balance sheet of the Company. Annual accounts of the subsidiary companies and the related detailed information will be made available to the holding and subsidiary companies' investors seeking such information at any point of time. The annual accounts of the subsidiary companies will also be kept for inspection by any investor at its Head Office in Mumbai and that of the subsidiary companies concerned.

Details of major subsidiaries of the Company are covered in this Annual Report.

## DIRECTORS

Mr. B. Muthuraman retired as the Managing Director of the Company on 30th September, 2009, on having reached the age of 65 years. The Directors would like to place on record their appreciation of his leadership and contributions made by Mr. Muthuraman during his tenure as the Managing Director, in the growth of the Company.

The Board appointed Mr. B. Muthuraman as an Additional Non-Executive Director designated as Vice Chairman of the Board of Directors of the Company with effect from 1st October, 2009. Mr. Muthuraman will hold office till the date of the forthcoming Annual General Meeting and a notice has been received from a Member proposing the candidature of Mr. Muthuraman for being appointed as a Director of the Company.

The Board has also approved the appointment of Mr. H. M. Nerurkar as the Managing Director of the Company, subject to the shareholders' approval and Mr. Kirby Adams as the Managing Director and Chief Executive Officer of Tata Steel Europe, with effect from 1st October, 2009.



Mr. James Leng ceased to be the Deputy Chairman of the Board of Directors of the Company on ceasing to be a Director with effect from 7th July, 2009. Dr. Anthony Hayward has also ceased to be a Director of the Company with effect from 18th September, 2009. The Directors would like to place on record their appreciation of the contributions made by Mr. Leng and Dr. Hayward during their tenure as Directors of the Company.

In accordance with the provisions of the Companies Act, 1956, and the Company's Articles of Association, Mr. S. M. Palia, Mr. Suresh Krishna, Mr. Ishaat Hussain and Mr. Andrew Robb retire by rotation and are eligible for re-appointment.

## **ENERGY, TECHNOLOGY AND FOREIGN EXCHANGE**

Details of energy conservation and research and development activities undertaken by the Company along with the information in accordance with the provisions of Section 217(1)(e) of the Companies Act, 1956, read with the Companies (Disclosure of Particulars in the Report of Board of Directors) Rules, 1988, are given in Annexure 'A' to the Directors' Report.

## **PARTICULARS OF EMPLOYEES**

The information required under Section 217(2A) of the Companies Act, 1956 and the Rules there under, in respect of the employees of the Company, is provided in the Annexure forming part of this Report. In terms of Section 219(1)(b)(iv) of the Act, the Report and Accounts are being sent to the Members, excluding the aforesaid Annexure. The Annexure is available for inspection by Members at the Registered Office of the Company during business hours on working days upto the date of the ensuing AGM, and if any Member is interested in obtaining a copy thereof such Member may write to the Company Secretary, whereupon a copy would be sent.

## **COPORATE GOVERNANCE**

Pursuant to Clause 49 of the Listing Agreements with the Stock Exchanges, a Management Discussion and Analysis, Corporate Governance Report, Managing Director's and Auditors' Certificate regarding compliance of conditions of Corporate Governance are made a part of the Annual Report. A note on the Company's corporate sustainability initiatives is also included.

## **DIRECTORS' RESPONSIBILITY STATEMENT**

Pursuant to Section 217 (2AA) of the Companies Act, 1956, the Directors, based on the representations received from the Operating Management, confirm that –

1. in the preparation of the annual accounts, the applicable accounting standards have been followed and that there are no material departures;
2. they have, in the selection of the Accounting Policies, consulted the Statutory Auditors and have applied them consistently and made judgements and estimates that are reasonable and prudent so as to give a true and fair view of the state of affairs of the Company at the end of the financial year and of the profit of the Company for that period;
3. they have taken proper and sufficient care to the best of their knowledge and ability for the maintenance of adequate accounting records in accordance with the provisions of the Companies Act, 1956, for safeguarding the assets of the Company and for preventing and detecting fraud and other irregularities;
4. they have prepared the annual accounts on a going concern basis.

On behalf of the Board of Directors

**RATAN N. TATA**

*Chairman*

Mumbai, 26th May, 2010

## Declaration Regarding Compliance by Board Members And Senior Management Personnel With The Code Of Conduct

This is to confirm that the Company has adopted Tata Code of Conduct for its employees including the Managing Director and Whole-time Directors. In addition, the Company has adopted the Tata Code of Conduct for Non-Executive Directors. Both these Codes are posted on the Company's website.

I confirm that the Company has in respect of the financial year ended 31st March, 2010, received from the senior management team of the Company and the Members of the Board a declaration of compliance with the Code of Conduct as applicable to them.

For the purpose of this declaration, Senior Management Team means the Members of the Management one level below the Managing Director as on 31st March, 2010.

Mumbai, 26th May, 2010

**H. M. NERURKAR**

*Managing Director*

## Annexure 'A' to Directors' Report

Particulars Required Under the Companies (Disclosure of Particulars in the Report of the Board of Directors) Rules, 1988

### Conservation of Energy

#### a. Energy Conservation measures taken:

- i. 100% utilisation of By-Product gases as fuel by Installation and commissioning of Power House #6.
- ii. Generation of electrical energy by recovering waste energy through installation and commissioning of Top Recovery Turbine at 'G' Blast Furnace.
- iii. Higher L.D. Gas recovery and utilisation.
- iv. Reduction in LDO consumption at Boiler Houses of Power House #4 by modification in oil burner.
- v. Shut down of old & inefficient Blast Furnaces.

#### b. Additional investments and proposal for reduction of consumption of energy:

- i. Upgradation of L.D. Gas export system to enhance L. D. Gas recovery.
- ii. Recovery of sensible heat of coke by installation of Coke Dry Quenching system in Batteries 5, 6, 7, 8 & 9 at Coke Plant.
- iii. B. F. Gas fired re-heating furnace at Hot Strip Mill.
- iv. Exploring lean gas utilisation for heating.

#### c. Impact of the above measures:

Energy Conservation measures during the year has resulted in achieving:

- i. Lowest ever Plant Specific Energy Consumption - 6.125 Gcal/tcs
- ii. Lowest ever middling consumption - 19.77 kg/tss
- iii. Higher LD Gas Recovery - 48,196 Nm<sup>3</sup>/hr
- iv. Lower Plant Power Rate – 385 kwh/tss
- v. Higher combine boiler efficiency - 84.91%

**Form - A**
**Form for disclosure of particulars with respect to Conservation of Energy: 2009-10**

Particulars		2009-10	2008-09	Difference	Reasons for variation
<b>A.</b>	<b>POWER AND FUEL CONSUMPTION</b>				
1.	ELECTRICITY				
(a)	Purchased				
	Units (M. KWH)	2,439.47	2,194.54	244.93	Increased to support higher production
	Total Amount (Rs. Lakhs) #	68,626.30	63,605.96	5,020.34	
	Average Rate/Unit (Rs./KWH)	2.81	2.90	(0.09)	
(b)	Own Generation				
(i)	Through Diesel Generator				
	Units (M. KWH)	12.86	12.48	0.38	
	Units per litre of Diesel Oil (KWH)	3.94	3.91	0.03	
	Average Cost/Unit (Rs./KWH)	15.74	15.91	(0.16)	
(ii)	Through Steam Turbine/Generator				
	Units (M. KWH)	997.93	1,069.45	(71.52)	Lower generation due to planned shutdowns
	Units per tonne of Coal (KWH)	6,367	6,638	(271.93)	
	Average Cost/Unit (Rs./KWH)	2.08	2.05	0.03	
	(* This includes generation of PH4 in M. KWH which is operated on by-product gases upto 95%)	312.89	359.59		
2.	COAL				
(i)	Coking Coal & Cookeries				
	Quantity (Million Tonnes)	4.91	4.75	0.16	Increase in coke production
	Total cost (Rs. Lakhs)	2,81,175.40	2,87,419.20	(6,243.80)	
	Average Rate (Rs./Tonne)	5,731.88	6,055.07	(323.19)	
(ii)	Blast Furnace Injection Coal				
	Quantity (Million Tonnes)	0.84	0.52	0.32	Direct injection of coal has increased in 'H' Blast Furnace which stabilised during the current financial year
	Total cost (Rs. Lakhs)	80,499.94	35,974.50	44,525.44	
	Average Rate (Rs./Tonne)	9,546.96	6,884.06	2,662.90	
(iii)	Middling Coal and ROM				
	Quantity (Million Tonnes)	0.13	0.14	(0.01)	Middling consumption is lower during the year because of optimum usage of by-product gases as substitute
	Total cost (Rs. Lakhs)	1,398.91	1,509.39	(110.48)	
	Average Rate (Rs./Tonne)	1,067.51	1,107.85	(40.33)	
3.	FURNACE OIL				
	Quantity (Kilo litres)	14,046.39	12,520.19	1,526.20	Increase in consumption is mainly at Wires Division due to increased production at Tarapur Plant
	Total Amount (Rs. Lakhs)	3,251.10	3,020.91	230.19	
	Average Rate (Rs./KL)	23,145.44	24,128.28	(982.84)	
4.	OTHERS				
	L.D.O.				
	Quantity (Kilo litres)	4,915.52	6,221.55	(1,306.03)	LDO consumption is lower because of less D.G. operation and modification done in Power House # 4 boilers to utilise more Coke Oven
	Total cost (Rs. Lakhs)	1,706.34	2,394.17	(687.82)	
	Average Rate (Rs./KL)	34,713.39	38,481.86	(3,768.47)	
5.	OTHERS				
	L.P.G.				
	Quantity (Tonnes)	4,618.56	3,837.75	780.81	Impact of increased production at Tarapur Wire Plant of Wire division, Mumbai
	Total cost (Rs. Lakhs)	1,586.49	1,611.53	(25.04)	
	Average Rate (Rs./Tonnes)	34,350.32	41,991.53	(7,641.21)	
6.	OTHERS				
	NG				
	Quantity (Tonnes)	782.25	2,204.84	(1,422.59)	Reduction in Borivali Wire Plant which has been closed from August '09 and the activities have been shifted to Tarapur Wire Plant
	Total cost (Rs. Lakhs)	93.49	240.77	(147.28)	
	Average Rate (Rs./Tonnes)	11,951.42	10,920.07	1,031.35	
7.	OTHERS				
	HSD Oil				
	Quantity (Tonnes)	46.94	33.99	12.95	
	Total cost (Rs. Lakhs)	16.05	11.62	4.43	
	Average Rate (Rs./Tonnes)	34,192.59	34,190.00	2.59	
#	Excludes electricity duty paid on purchases.				

**Form for disclosure of particulars with respect to Conservation of Energy: 2009-10**
**B. CONSUMPTION PER UNIT OF PRODUCTION**

Particulars	Steel (per tonne)	Tubes (per tonne)	Bearings (per no.)	F.A.M.D. (per tonne)	Growth Shop (per tonne)	CRC West (per tonne)	Wire Div. (per tonne)
Electricity (KWH)	389.98	117.00	0.61	3,653.06	485.12	124.27	223.83
Furnace Oil (Litres)	431.91	114.00	0.66	3,704.34	463.87	137.51	214.94
Coking Coal (Tonnes)	0.62			—	14.52	6.22	28.37
	0.66			—	16.94	7.41	24.76
Others:							
Light Diesel Oil (Litres)	0.58	—					5.24
	0.83	1.30					6.90
High Speed Diesel Oil (Litres)		0.17					
		(0.13)					
L.P.G. (kg)						13.09	13.42
						12.92	10.39
NG (kg)							19.06
							26.77

## Form - B

Form for disclosure of particulars with respect to Technology Absorption: 2009-10

### Research and Development

#### 1. Specific Areas in which R&D was carried out by the Company:

- Raw materials
- Cost and productivity
- Market and new products
- Energy and Environment.

#### 2. Benefits derived:

- Raw materials costs play a key role in the competitiveness of the steel industry. Various R&D programs are underway to address the issue of escalating raw material prices. This research is maximising the use of raw materials from captive sources. These projects include new technology to produce low ash clean coal and the beneficiation of low grade iron ore and plant rejects to produce concentrates.
- R&D's commitment towards continuous improvement and its development of cutting edge technology have supported our company to become one of the lowest cost steel producers worldwide. Our activities in this area continue to concentrate on producing cost-optimised agglomerates, increasing productivity, lengthening plant life and studies to improve product yield.
- Four research groups are actively engaged in developing new products and processes for all our businesses. For the Automotive sector, for example, we are developing new advanced high strength steels, newer and improved cost effective joining techniques, improved and innovative coating techniques and develop new products with improved fatigue and formability properties.
- Tata Steel's R&D also works on a range of projects to increase energy efficiency and reduce our environmental impact. Our research programmes in this area concentrate on CO<sub>2</sub> reduction, life-cycle assessment and the generation of hydrogen from excess thermal energy.

**3. Future plan of action:** In the forthcoming years R&D will continue the above mentioned programs of cutting-edge research and continue to commercialise its innovations. It will also continue a process of transition through which the R&D centre of Tata Steel in India becomes part of one global research organisation together with the research centres of Tata Steel Europe. This will accelerate the creation of value through technology and will offer unprecedented scope for rapid sharing of know-how across the globe.

#### 4. Expenditure on R&D:

	(Rs. crores)
(a) Capital	2.43
(b) Recurring	41.43
(c) Total	43.86
(d) Total R&D expenditure as a % of total turnover	0.17%

#### **Technology absorption, adaptation and innovation:**

##### **Efforts made on the Process Front:**

At Bamnival, CO-Gas has been used for sintering of pallets and preheating of charge materials and heating of laddles. This has reduced the consumption of Smelting Power by increasing hot charge feeding rate into Furnace during the year.

##### **Raw Materials:**

- Development of cold bonded briquettes from Iron ore slime.
- Development of Iron Ore nuggets from Iron ore slime and Jhama coal.
- Development of a chemical to agglomerate slime particles for better recovery of process water.
- Reduction of standard deviation of alumina in iron ore despatches through development of software for rake loading.
- Use of Sodium silicate in Joda classifier circuit for reduction of alumina in iron ore fines.
- Successful trials with Reflux classifier technology for the recovery of clean coal from the flotation tailings.
- Installation of Plant Information Management System in coal beneficiation.

- Standardisation of magnetite properties for better recovery of magnetite in dense media cyclone process.
- Successful Spurger trials in mechanical cells for the improvement in coal product yield in West Bokaro.

**Iron Making:**

- Creation of knowledge base on pelletizing technology; and blue print for testing facility and plan.
- Development and application of cohesive zone model for diagnosis of disturbances in BF process condition.
- Benchmarking IJmuiden practices to achieve better productivity and quality.
- Making coke, sinter and BF process performance and quality data of last six years - accessible on-line via the intranet to users across the company.

**Flat Products****Product Development:**

- Improved product properties of Cold Rolled IFHS 340 to at par with continuously annealed material.
- Developed High strength - 600 MPa Hot Rolled Steel for wheel application.
- Developed High strength (440 Mpa) Galvannealed steel.

**Process Improvement:**

- Improvement in product yield by reduction in central line segregation.
- Improvements in overall IF yield by reduction in RIS defect.

**Long Product & Global Wire****Process Improvement:**

- Data visualisation at NBM has been strengthened by the use of software designed and implemented by TG (GW&L).
- Development of cryogenically treated dies for wire drawing has resulted in doubling of die life at its Tarapur plant.
- A new philosophy of producing high carbon wire rods at WRM(E) has been introduced. The product has significantly low-scale and improved ductility compared to the conventional high-carbon wire rods.

**Tubes Division****ST Mills:**

- Modification of Galvanising Bath #1: Galvanising bath #1 of ST Plant was modified to install air wiping system in place of conventional steam blowing system for reduction in zinc consumption.
- Installation of Online Mair packaging line at HF3 mill for improving the productivity.

**PT Mills:**

- State-of-the-art SINICO cutting machine commissioned in PT Plant for precision unit length cutting of high end application like Telescopic Front Fork (TFF), Shock Absorber tubes.
- Some Major New products Developed through new technology absorption.
- Development of 5 new sizes of Telescopic Front Fork tubes for two wheelers.
- Development of 159 mm diameter tubes for Idler application.
- Development of 42\*5 mm CEW tubes as a replacement of seamless tubes for Tata Motors Ltd.
- Development of 10 mm thk tubes in 175 NB & 300 NB round tubes for structural applications.
- Development of heat transfer enhancing tubes through CEW route.

**Efforts taken on Process Technology at Bearings Division:**

- Wear resistance material developed for use in Face support to improve Track Grd performance. Improvement in life by more than 4 times, observed during trial.
- Honing Oil was developed jointly with Indian Oil R & D with increased weld load after optimising the honing process conditions.
- Grinding coolant performance improved and rust problem eliminated.
- Rubber seal developed to withstand high temperature grease application.
- Higher load rated capacity bearing developed for engine bearing application.
- Carbo-nitrided bearing developed to enhance bearing life for crank shaft.

**Particulars of technology imported during last five years:**

Steel Division	Absorption	Status of Implementation
a) Imported design and engineering for hot metal desulphurisation unit at LD1 (Kuettner GmbH)	2005	Commissioned
b) Supply of imported engineering for new induced draught fans, electrics & accessories for the LD Converter GCP at LD1 (Ebara Corporation)	2005	Commissioned
c) Adequacy checking BOF converters for augmentation of heat size at LD2 (SMS Demag, Germany)	2005	Commissioned
d) Imported design and engineering for upgradation of Caster 2 & 3 at LD2 (VAI, Austria)	2005	Commissioned
e) Imported design and engineering for hot metal desulphurisation unit 2 & 3 at LD2 (Kuettner GmbH)	2005	Commissioned
f) Imported design and engineering for capacity increase of slab reheating furnace nos. 1 & 2 of HSM (Techint)	2005	Commissioned
g) Supply of design and engineering and training for 150 tph walking beam furnace to Rebar Mill (Bricmont)	2005	Commissioned
h) Imported design and engineering (Mother well Bridge - Clayton walker)	2005	Commissioned
i) Supply of imported design and engineering for LD gas boosters (Howden Power Ltd. U.K.)	2005	Commissioned
j) Supply of imported design and drawing for Technology control system at HSM (SMS Demag, Germany)	2005	Commissioned
k) Supply of imported design and drawing for Basic level automation at HSM (Alstom, USA)	2005	Commissioned
l) Supply of imported design and drawing for dual zinc pot at CRM (CMI, Belgium)	2005	Commissioned
m) Supply of imported design and drawing for BAF, CRM (LOI, Germany)	2005	Commissioned
n) Supply of imported design and drawing for 4th Stove of 'G' Blast Furnace (Paul Wurth Italia, Italy)	2006	Commissioned
o) Supply of imported design and drawing for 'H' Blast Furnace (Paul Wurth Italia, Italy)	2006	Commissioned
p) Supply of imported design and drawing for Sinter Plant No. 4 (Outokumpu Technology, Germany)	2006	Commissioned
q) Supply of imported design and drawing for LD2 expansion project (SMS Demag, Germany)	2006	Commissioned
r) Supply of imported design and drawings for convertor gas cleaning plants in LD shop 1 & 2 (SMS Demag, Germany)	2006	Commissioned
s) Facility for quantitative estimation of minerals through Scanning Electron Microscope (Intellection Pty. Ltd., Australia)	2006	Commissioned
t) Polarising Microscope with Photometer and Imaging at R&D (Leica Mikrosysteme Vertrieb GmbH, Germany and PRESI S.A., France)	2006	Commissioned
u) Variable Frequency Drive for Descaling Pump Motor at Hot Strip Mill (ABB, India)	2007	Commissioned
v) Sinter Plant No. 4, having a bed area of 204 sq. mtr. with ESP having lesser emission of 50 mg/Nm <sup>3</sup>	2007	Commissioned
w) Double Jaw Eye Vertical Tong For Batch Annealing Furnace at CRM	2007	Commissioned
x) SCADA System for Water Utilities	2007	Commissioned
y) Quantitative Estimation of Minerals by SEM (Scanning Electron Microscope)	2007	Commissioned
z) XRD (X-Ray Defraction) for quantitative phase and texture analysis	2007	Commissioned
aa) Electric Blowers for 'H' Blast Furnace	2009	Commissioned
ab) Top Gas Recovery Turbine for 'H' Blast Furnaces	2009	Commissioned
ac) Flat Cast House Design for 'H' Blast Furnace	2009	Commissioned
ad) Internal Stoves for 'H' Blast Furnace	2009	Commissioned
ae) Use of mixed gas in place for CO gas, for firing in 7th Lime Kiln	2009	Commissioned
af) New Billet Caster having all the latest facilities and having 9 m casting radius installed in an existing building suitable for 6 m casting radius, by going underground and taking the pass line to (-)3.3 m level.	2009	Commissioned
ag) Use of hydraulic mould occillator and hydraulically operated turn over cooling bed at CC 3 at LD Shop 1	2009	Commissioned
ah) Robotised Sample Testing Laboratory at LD Shop No 1	2009	Commissioned
ai) Top Gas Recovery Turbine for 'G' Blast Furnace	2010	Commissioned
aj) 4th Stove for 'G' Blast Furnace to facilitate relining of other stoves, without hampering hot metal production	2010	Commissioned
ak) Continuous Emission Monitoring stations at 4 locations inside Tata Steel Works	2010	Commissioned

## Foreign Exchange earnings and outgo

### a. Export performance

#### 1. Activities relating to exports

Tata Steel continued to have its presence in markets of strategic importance viz., the Middle East, South Africa, South East Asia, Europe and neighbouring countries. Flat Products have served customers in a wide range of industries such as automotive, appliances, high end construction, furniture and projects while Long Products have served customers mostly with Wire Drawing and Rebar Manufacturing facilities. Specific efforts were put in to strengthen relationship with key international customers. With the formation of Tata Steel International in 2009, we have exploited the synergy of the group to reduce transactional costs and present a uniform face to the global market.

#### 2. Initiatives taken to increase exports

In view of quick recovery in domestic demand during the year, the opportunity for exports has been limited than the previous year. Specific initiatives were taken such as reduction in credit tenure, shortened supply lead time, introduction of price extras, enrichment of product mix, Customer meets, new supply points, etc. which have helped reduction in cost and obtaining price premium in the market place. Increased sales to neighbouring markets have resulted in optimisation of revenues. Seeding activities have been undertaken by Long Product group to enter into the Mega Projects in neighbouring markets.

#### 3. Development of new export markets for products and services

##### Flat Products:

- Developed High Strength Quality Galvanised Steels for customers in Europe and ME.
- Obtained new approval for supply of steel for skin panel and internal components from a leading automotive customer in South-East Asia.

##### Long Products:

- Developed high grade billets for South-East Asia Market.

##### Ferro Alloys and Minerals:

- Low Phosphorus 75 Grade HC Ferro Manganese for supplies to Tata Steel Europe.
- Warehouse in Korea for JIT supplies to POSCO, Korea.
- Established DDP supply system in Europe.
- HC Ferro Chrome to Japan & Korea (Multi mode shipment options).
- Refractory Grade chrome concentrate to RHI Austria
- HC Ferro Manganese supplies to Japan.
- First ever Silico Manganese Supplies to South Korea.

#### 4. Export plans

Near term plan is to maintain the export volumes at similar levels to that of recent years. Increase in exports is expected as and when new planned capacities come-up for production in India.

- b. Total foreign exchange used and earned:** This has been covered as a part of the notes to the financial statements in this Annual Report.