

Spreading Smiles.. Today Tomorrow

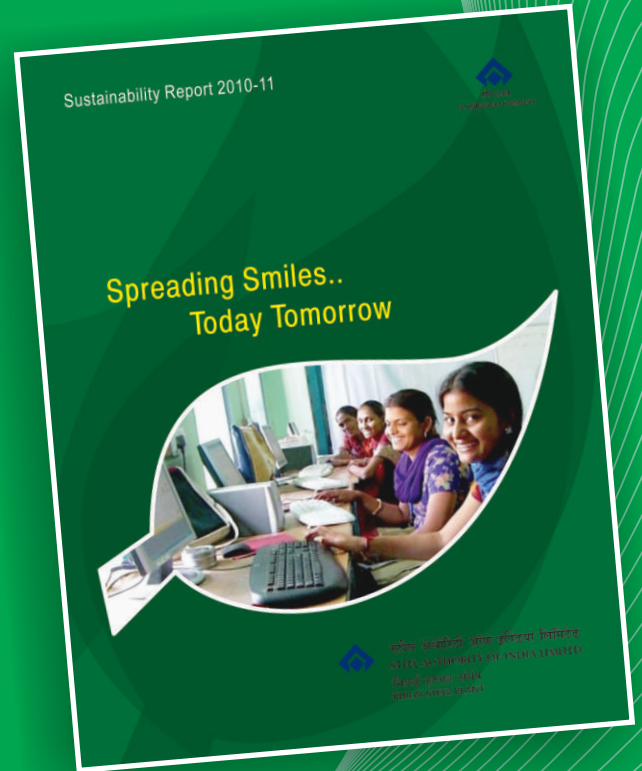


स्टील अथॉरिटी ऑफ इण्डिया लिमिटेड
STEEL AUTHORITY OF INDIA LIMITED
भिलाई इस्पात संयंत्र
BHILAI STEEL PLANT



सेल SAIL

A Maharatna Company



Spreading Smiles.. Today Tomorrow

At Bhilai Steel plant we consciously develop and nurture relationships across the entire range of stakeholders. This helps us understand pertinent issues, develop our businesses, enhance shareholder value and manage risks better. It is the relationship, trust and commitment to stakeholder interest and the warm reciprocal of the same by the stakeholders that makes BSP robust, resilient and sustainable. BSP actively integrates stakeholder goals with its own and then pursues them collaboratively.

Our Success is the result of our partnerships with our stake holders in their growth & prosperity

This is the very sentiment that underlines the theme of this year's Sustainability Report i.e "Spreading smiles ..Today Tomorrow".

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Message from CEO



Now as Climate change and depletion of world's natural resources become key challenges, the company is seeking to go beyond its legal mandate, to be a responsible environmental citizen and conserve precious global resources

Dear Reader,

Globally, the impact of climate change and the financial instability have encouraged businesses to rethink their strategies to ensure their survival and stability, both financially and environmentally. Indian companies too are recognising that businesses that adopt sustainable practices achieve more in terms of productivity than those that do not. Embedding environmental and social good practice into commercial operations is not just good for the world, but good for business too and should be part of the day-to-day life of any organisation that wants to survive and grow. By focusing on sustainable strategy, businesses will improve their ability to respond to new challenges, manage risk and understand their priorities as markets change. As the business environment changes to reflect the growing emphasis on sustainability, organisations that have made it one of their core values will be the best placed to take advantage of new markets and to develop.

From its earliest days, Bhilai Steel Plant has taken responsibility for the impact of its activities on all the stakeholders. It has been a pioneer in employee welfare measures, social and community initiatives. It has led the way in business ethics. It has broken new

ground in social and community initiatives to help build our nation.

BSP has withstood critical times in the past and is standing strong through the current economic crisis. During 2010-11, the plant performed commendably and the best ever production was registered in Hot metal, Crude steel and Saleable steel. The capacity utilisation for Hot Metal, Crude Steel and Saleable Steel production was 121.4 %, 135.8% and 144.8% respectively. The Production of Special quality & Value Added products has increased by 8.3% in 2010-11 over 2009-10 which has a higher contribution in the profitability of the company.

The year gone by has seen number of projects critical to our expansion plans being kick-started in right earnest. Expedient implementation of Modernization and Expansion is a challenge being addressed presently with planned strategies, monitoring and review. Raw material security is a significant imperative for the long-term sustainability of the Company's success.. Development of Rowghat Mines in the shortest possible time is critical to BSP's growth strategy. Coal sourcing is another serious concern for BSP. Coking coal prices in world has witnessed unprecedented fluctuations and constraints on supply side.

Focused efforts are therefore being made by SAIL to achieve higher levels of raw material security to meet its increased needs in line with its further growth aspirations. For securing raw material supplies, SAIL has co-promoted International Coal Ventures Private Limited (ICVL) with CIL, RINL, NMDC and NTPC for the purpose of acquisition of coal assets in overseas territories. ICVL is currently actively examining proposals for acquisition of equity stakes in coal mines in Australia, Indonesia, Mozambique and USA. Human Resource issues too are very critical in achieving long-term goal set by the Company. Strategies have been developed and being implemented to meet the HR challenges inline with our ambitious goals.

Now as Climate change and depletion of world's natural resources become key challenges, the company is seeking to go beyond its legal mandate, to be a responsible environmental citizen and conserve precious global resources. In the year 2010-11, BSP has reduced its specific water consumption to the level of 3.04 m³/tcs & particulate emission load to 0.73 kg/tcs, which are inline with the best in the industry. Plant has already targeted for zero discharge, reduction in specific energy consumption, reduction in CO₂ emissions and improvement in solid waste utilization to meet the bench marked targets. Continuing efforts are being made to reduce consumption of raw materials, refractories and lubricants. Adopting effective green technologies is a step towards sustainable business. We are investing more than 17,000 crores on modernization of our operations. The bulk of our investments are going towards establishing green processes. We understand the role of trees in oxygen creation, temperature moderation and carbon sequestration. Unlike many "hi-tech" mitigation solutions, trees, once planted, practically function automatically to clean as well as to cool the air. In this respect, I am pleased with our efforts in greening our environs inside plant, township and mines. Apart from planting more than 54 lac trees in our plant, township and mines, we are also involved in road side plantation along more than 100KM state highways.

We invest in the welfare of our people as well as for the communities that surround us. In the year 2010-11, we have started Old age Home - "Bhilai Ispat Siyan Sadan" to extend shelter to the needy senior citizens of the company and "Bhilai Ispat Kaushal Kuteer" to impart employable skills to the youth. These initiatives are in continuation of our rich tradition of fulfilling

the aspirations of the society in which we operate.

In the next 5 years, Indian economy is expected to grow around 8% & domestic investment in infrastructure to be more than \$510 billions, leading to a steel demand of about 125 MT. However, we need to continuously innovate & improvise to overcome the growing competition and fulfill the rising expectations of our customers. The business practices established by us through good times and difficult ones reaffirm our faith that it will always drive sustainability and through it, profits.

For us at Bhilai Steel Plant, Sustainability means creation of value for all its stakeholders, contributing to a flourishing environment, propagating the culture of learning amongst employees and providing services to the community for social development of the region. The very foundation of our growth is in the sustaining partnerships we have built with our stakeholders. This Sustainability Report shows how we have adhered with sustainability principles.

I am pleased to present the Corporate Sustainability Report of Bhilai Steel Plant for the year 2010-11. This report has been prepared in accordance with the 'G3' guidelines of GRI Sustainability Reporting. It represents balanced presentation of our organization's economic, environmental and social performance.

I would like to dedicate this report to my people, the pillars of strength, commitment & conviction.

Moving forward, we will expend greater efforts to make a positive impact across a range of pressing needs and to facilitate communication with our stakeholders. Your views and suggestions will be an important asset as we set our future action plans.

We look forward to your valuable opinion.

Thank you.

(Pankaj Gautam)
Chief Executive Officer



About the Report

This report provides a platform for measuring & disclosing information related to “sustainability context” of our organisational performance. The content has been made to meet the requirements of our internal and external stakeholders. The report represents the balanced and reasonable presentation of our positive and negative contributions. The reporting principles of materiality, stakeholder inclusiveness, sustainability context and completeness have been applied in the report.

The standard disclosure of the report includes strategy, profile, governance, and management approach and performance indicators. While applying the reporting principles approach, attempt has been made to address all the core indicators and relevant additional indicators. The appropriate topics and indicators were selected based on its significance on economic, environmental and social performance of the organisation and its substantial influence on the assessment and decision of stakeholders. The wider context of sustainability of our organisation presenting reasonable expectation of the stakeholders; the challenges in balancing these expectations are also discussed. Systematic and generally accepted stakeholder engagement process has been implemented. The outcome of the

stakeholder engagement process and our strategies are described in the report. The report takes into account of upstream and downstream processes which have significant influence on our organisation. This report has also considered the reporting guidance for Boundary Setting. While deciding boundary, assessment has been made on those entities over which whether BSP exercises control (power to govern the financial and operating policies, so as to obtain benefits from its activities) or have significant influence (power to participate in the financial and operating policy decisions of the entity).

“In order to identify our sustainability management activities and issues, we engaged in processes that included internal surveys, and stakeholder opinion collecting based on external trend surveys and internal indicators on sustainability. The current report for 2010-11 has been self verified against the criteria in the GRI application levels.”





There's a little bit of

SAIL

in everybody's life

Company Profile



Major Operations

Bhilai Steel Plant, 10 times winner of PM's Trophy, is the flagship unit of SAIL and contributes close to 50% of the total company profit. SAIL, a Maharatna PSU, is a fully integrated iron and steel maker, producing both basic and special steels for different market segments i.e. construction, engineering, power, railway, automotive, defence industries and export markets. The wide range of steel products include hot and cold rolled sheets and coils, galvanized sheets, electrical sheets, structurals, railway products, plates, bars and rods, stainless steel and other alloy steels. Bhilai Steel Plant has a synergetic organizational relationship with key SAIL divisions viz. Central Marketing Organization (CMO)-the largest industrial marketing network in the country, Research and Development Centre for Iron and Steel (RDCIS), Centre for Engineering and Technology (CET), Management Training Institute (MTI), Raw Materials Division, Environment Management Division, Growth Division and Safety Organization. BSP has its own captive mines resulting in significant competitive edge in the form of secured availability of key input raw materials i.e. iron ore and dolomite.



Operational Structure

Head Office	–	Steel Authority of India Limited, Ispat Bhawan, Lodhi Road New Delhi-110003
Plant office	–	Ispat Bhawan, Bhilai Steel Plant, Bhilai, Chhattisgarh-490001

Products and Delivery Mechanism

The main products of BSP are Rails, Heavy Structurals, Merchant Products (Angles, Channels, Rounds and TMT bars), Wire Rods (TMT, Plain & Ribbed), Plates (up to 3600 mm wide) and Semis. BSP is the sole supplier of rails to Indian Railways and is supplying up to 260 meters long Rails, the longest rails in the world dispatched from works, to meet the objective of improving passenger comfort and reducing track maintenance activities. The newly developed UTS-100 high strength Vanadium micro-alloyed Rails will meet the requirement of high density, heavy haulage routes including proposed freight corridor.





Central Marketing Organization SAIL

Organization wide ERP system
37 Branch Sales Offices
26 Warehouses equipped with mechanized handling systems
40 Consignment Agents
27 Customer Contact Offices
More than 2000 dealers in virtually all the districts

BSP produces a wide range of high value plates to meet specialized requirements which include high pressure and boiler quality plates, high tensile plates, API grade plates and ship building quality plates. BSP's TMT rods and structural have a strong brand value in the market and command high premium. Bhilai products, primarily catering to infrastructure segment, are being used in prestigious infrastructure projects of the country in the areas of rail lines, bridges, dams, air / sea ports, refineries, pipelines, etc. BSP products are marketed by CMO which has country wide network of sales offices, warehouses, consignment agents and customer contact offices. The marketing infrastructure has been further strengthened through rural dealers ensuring presence of SAIL in every district of the country. "Apna SAIL" shops across the country have emerged as the preferred destination for small consumers of quality steel.



Turnover & Profits:

Unit:Rs. Crores

Year	2009-10	2010-11
Turnover	15874	17236
Profit Before Tax	4270	3491

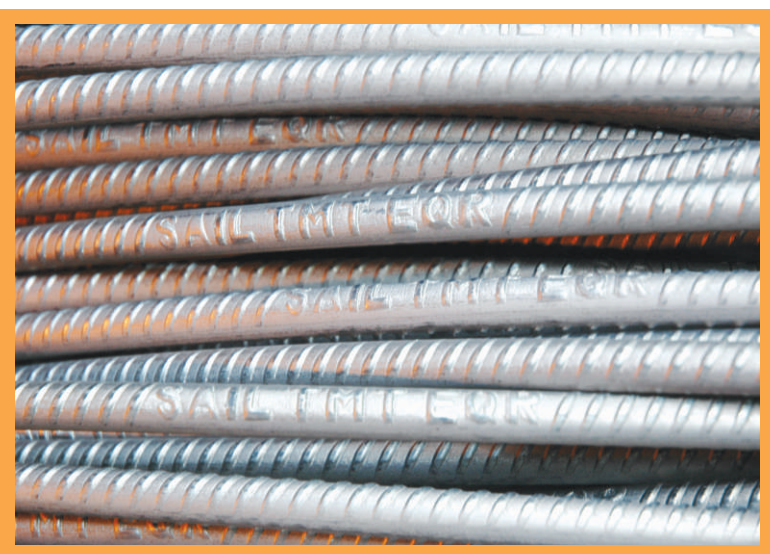
Product / Services	Production / Outputs (MT)			Share of Turnover (%)		
	08-09	09-10	10-11	08-09	09-10	10-11
Rails	0.979	0.837	0.868	25.2	26	25.1
Plates	1.203	1.208	1.289	28.3	26.9	28.2
Bars, Rods & structurals	1.422	1.3	1.414	31.23	34.4	35.9

Top five-products/ services & market share: (based on last 3 years turnover)

Main Products	Market Share
* Prime RailsTurnover	100%
Plates	22.2%
Bars, Rods	5.3%
Structurals	6.3%

*supply of prime rails to Indian railway

Export of BSP products are managed by The International Trade Division to international markets. Plates, wire rods and rails are the key products which are successfully sold in export market. SAIL has made a strong presence in the Global steel industry through concerted efforts in all the major areas of organizational working. It was the second highest net profit earning steel company in the world in the calendar year 2009, a period marked by the impact of the economic meltdown. SAIL's overall ranking of 2nd in the list of 'World-Class Steelmaker Rankings' by World Steel Dynamics report published in January, 2010 is a strong indicator of its advance in its journey towards the Vision. The Company is implementing its ambitious modernization and expansion Plan in line with the Corporate Plan objectives. 'Lakshya 2020' outlines the growth direction beyond Corporate Plan goals. Strategic actions are underway, by which SAIL intends to become a global player in future.



Employee Profile

The plant is headed by CEO, who reports to Chairman, SAIL. At the plant-level, the top management comprises of CEO and his DROs at ED / GM level who are functional heads. The senior level is made up of the Zonal Heads/HODs who are DROs to their respective functional heads, mostly GMs / DGMs. The middle level comprises of sectional heads at DGM / AGM level, and the frontline executives consist of Senior Managers down to Junior Managers. The total number of executives and non-executives is 4013 and 27234 respectively as on 01.04.2011. The qualifications required for different functions and disciplines are well defined. The executives' qualifications include BE/B.Tech, MBA, CA, ICWA, MBBS/super specialty, LLB etc. The non-executives work force is highly educated and includes 5911 with higher secondary education, 6444 ITI passed, 1623 diploma holders, 426 post graduate diploma holders, 233 graduate engineers, 2422 other graduates and 2513 post graduates. Bipartite Forums operate on matters of employee welfare and other issues where the nominated employees i.e. Social Accountability Welfare Representatives (SAWRs) under SA 8000 attend the meeting on welfare issues. The Bipartite Forums cover production, productivity, safety and welfare of non-executive employees. Recognized Officers Association is working within the umbrella of Steel Executive Federation of India (SEFI) to take care of the needs and welfare of executive employees. BSP is an equal opportunity employer that has employed both women and men of caliber. BSP employs about 1562 women employees in both technical and non-technical areas, which is around 5.35% of the total employees.



The breakup of zone-wise manpower

Works	Admn.	Township & Medical	Projects	Mines	Total
21972	3181	2955	424	2715	31247

Major Technologies And Facilities

BSP is a fully integrated steel plant having all the basic facilities including captive mines, sinter plants, coke plant, blast furnaces, steel melting shops, rolling mills and service departments. BSP has acquired state of the art technologies across the Plant in a planned manner with the engagement/involvement of expert bodies viz. RDCIS, CET and MECON. The modern technologies include 7.0 m tall Coke Oven Batteries, Sintering Machine of 320 m² area with circular cooler, Paul-wurth Bell Less Top charging, Hoogoven's stove design, INBA slag granulation, VAD, RH Degasser, Ladle Furnace, Desulphurization unit, etc. The ongoing Expansion and Modernization Plan with investment of more than 17,000 Crores envisages installation of cutting edge technologies for improvement in productivity, yield and quality, cost competitiveness, and environmental protection.

Rails for Indian Railways are produced exclusively through modern BOF Converter – Ladle Furnace – RH Degasser –

Continuous Casting route for the highest quality and consistency. A world-class long rail manufacturing complex has been set up at BSP where rails are produced of rolled lengths of 80 meter and welded panels up to 260 meter. The mill has sophisticated technologies viz. Online Eddy Current & Ultrasonic Testing Machines for Rails, Laser Straightness Measurement, Laser Controlled Presses for Rails, etc. Plate Mill has advanced facilities for ensuring high product quality i.e., On-line Ultra-Sonic Testing Machine, Hydraulic Automatic Gauge Control, Plan View Rolling, Normalizing Furnaces, etc.

IT has been deployed extensively in all the major functions for numerous on-line applications for higher efficiency and greater speed on optical fiber network (ATM) criss-crossing the plant. Major legacy IT systems have been replaced by ERP which went live on 1.04.2009.

Regulatory Environment



BSP complies with all legal and regulatory acts applicable to business facilitated by dedicated departments/earmarked sections viz. Safety Engineering Department, Environment Management Department etc. Systems and Standards have been deployed in the areas of Quality, Environment, Occupational Health & Safety and Social Accountability. Planned audits in these areas ensure compliance to statutory norms and regulatory acts. Environmental Management System as per ISO 14001:2004 standard has been installed in Works, Mines and Township. BSP has implemented Occupational Health and Safety Management System based on OHSAS-18001 and Social

Accountability Management System based on SA: 8000:2001 standards in all its 43 factories.

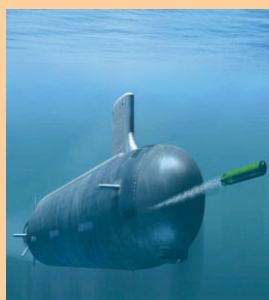
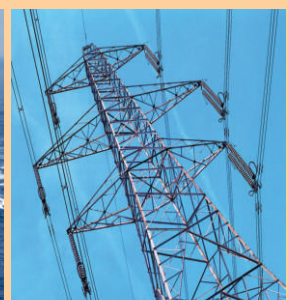
Key Customers and Market Segment

BSP has a unique product portfolio of having both the long and flat product in its product portfolio and it has the capability to offer customized products to its customer in a wide range of size, grade, thickness and other required attributes in long & category. Systematic relationship building over the years has resulted in long term relationships with key customers.



Main Products	Key Segment	Key Customers
Railway materials	Railway Track	Indian Railways
Plates	Heavy M/c., Boiler & PV, Line-pipe – water Line Pipe- Crude & Gas, Construction/ Fabrication, Export	Thermax Ltd., Indian Oil Corporation Ltd. Essar Ltd, Ispat Ind. Bharat Earth Movers Ltd. Nagarjuna Construction Co, BPCL
Bars, Rods & Structural	Wire Rods, Electrode Qlty, Wire drawers Construction, TMT Bars & Structural	L&T Ltd, Gammon India Ltd, KEC International Limited NTPC, BHEL

Competitive Environment



BSP has a competitive advantage in its ability of product-mix flexibility and capability of supplying wide range and grades of differentiated products. BSP products cater to various segments and have strong presence in key sectors of Construction, electrical goods, Oil/gas transportation and yellow goods. RINL, Bhilai Steel Plant and JSPL are main competitors in Long products whereas in the area of heavy and wide plates BSP is facing the competition from M/s Essar Steel.

Awards & Recognition

Bhilai Steel Plant and its employees have won several external awards.

•	Golden Peacock Award for Corporate Social Responsibility for Year 2010.
•	Golden Peacock National Quality Award 2011.
•	Greentech Safety Gold Award 2010
•	National Safety Award for 2008 for 7 departments.
•	Golden Peacock Eco-Innovation Award 4years in a row since 2008.
•	HR Excellence Award by the Greentech Foundation.
•	15 employees of BSP bagged PM's Shram award declared in 2009
•	Rashtriya Vishwakarma award to 36 employees in Sept 2009
•	Green Tech Environmental Excellence Platinum Award 2010 & 2011
•	The Prime Trophy for the best integrated Steel Plant 10 times, including for the year 2009-10
•	Ispat Suraksha Puraskar for 2007 & 2008 to Coke Oven department
•	Ispat Paryavaran Puraskar for 2008-09 and Environment Management Department.
•	CII-ITC Sustainability Award: 6 times in a row since its inception in 2006.

Recognition of individuals and teams : In BSP, outstanding performance and contribution towards fulfillment of organizational objectives of the employees is recognized and rewarded through various motivational and reward schemes

Category	Number of Persons awarded				
	06-07	07-08	08-09	09-10	10-11
Jawahar Awards (Exec.)	41	40	50	58	58
Nehru Awards (Non-exec.)	76	75	78	83	80
Group awards (employees)	537	567	625	676	654
Jawahar Nehru Group Awards	70	72	81	87	85
<ul style="list-style-type: none"> 10 exec & 49 non-exe employees were given Cash Incentive for acquiring higher qualification. 152 executives and 1605 non-executives were given Long Service Award 46 Safety Awards were given to different departments in various categories. 03Principal, 01 Dy. Mgr Education, 04 Head Mistress, 12 Lecturers, 07 Teachers, 05 Asstt. Teachers & 01 Teacher of each DPS & DAV bagged Teacher's Day Awards Chairman's Trophy for Young Managers for 2009-10. 					

BSP's QC teams have bagged laurels both at international and national levels, as detailed below.

National Conventions				International Conventions			
Award	2008-09	2009-10	2010-11	Award	2008-09	2009-10	2010-11
Place	Vadodara	Bengaluru	Vizag		Bangladesh	Philippines	Hyderabad
Par Excellence	9	9	11	Gold	3	2	5
Excellent	15	7	7	Bronze	-	1	-
Distinguished	1	-	-	Total	3	3	5
Total	25	16	18				



Report Parameters

Bhilai Steel Plant's Sustainability Reports are produced annually and this report covers the Company's financial year 1st April 2010 – 31st March 2011. The last Corporate Sustainability Report was published for the year 2009-10.

The report is produced to communicate to stakeholders:

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

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

Contact Person

The Company is delighted to hear stakeholders' views on this report, the Company's approach to sustainability and its performance. For any information Please write to

Shri SPS Jaggi

Chief of Communications

Bhilai Steel Plant, Bhilai, India

Telephone : # 91788 2892151

Email - spjaggi@sail-bhilaisteel.com

Fax : # 91788 2222890

Web : www.sail.co.in

Additional information

Additional information on economic, environmental and social performance of the organisation can be made available on request from the contact person indicated above. This report is also available on our Corporate website www.sail.co.in



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

Report Scope & Boundary

While considering the boundary setting, it has been ascertained that the boundary of the report is limited to activities, product and services of Bhilai Steel Plant (BSP) and its captive mines of Iron Ore at Dalli-Rajhara, Limestone at Nandini Mines and Dolomite Mines at Hirri. The scope limitations have been indicated at the relevant locations.

BSP being unit of SAIL, does not enter into Joint Venture on its own, hence reporting on JV is not in the scope of the report. For the same reason, information related to SAIL shareholders, Board of directors, corporate governance, General Body Meetings, and other supporting guidelines have been incorporated at relevant locations.

There are no significant changes w.r.t. to previous reports with regard to scope, boundary and measurement methods applied in the report.



Report Content

This report uses the Global Reporting Initiative (GRI) G3 guidelines. The information has been compiled through a dedicated team with representatives from different departments within Bhilai Steel Plant. As far as possible, all relevant disclosures and performance indicators set out in the GRI G3 guidelines are supplied, with additional reference to Company goals and targets where appropriate.

Data measurement techniques

There has been no change in the data measurement techniques from last year's 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 undertaken as per the requirement of ISO 9001 & ISO 14001, OHSAS 18001 & SA8000.

BSP follows the norms and procedures prescribed for workplace Safety and Environment by Ministry of Environment, Ministry of Labour & Welfare (Factories Act).

Assessment of the Report

A team comprising of internal sustainability assessors has conducted the sustainability assessment of various departments of Bhilai Steel Plant. The major objective of the assessment was to verify the various policies, practices, management systems, processes, statements, performance indicators and other information reported in the sustainability report of Bhilai Steel Plant for the year 2010-11.

Assessment has been conducted in such a way that the adequate evidence is verified to support the information given in the report. Robustness of the systems and procedures were also verified. Processes for identifying sustainability issues, risks and opportunities and sustainability impacts of the organization for short term and long-term basis were examined. The criteria for self-declaration application level of GRI have been followed. The main principles viz. Materiality, Completeness and Responsiveness were assessed. Evaluation of Stakeholder views and actions initiated by BSP for ensuring inclusive growth has also been considered during the assessment.



Auditing Processes

Economic Performance Audit

Being a Public sector enterprise, the Quarterly, Half Yearly and Annual books of account are audited by govt auditors as per the procedures/rules of Govt India. The audit is undertaken in accordance with auditing standards in India.

Environment, Health & Safety Performance Audit

The independent third party audits are conducted by M/s. Bureau of Indian Standards (BIS) for Divisions certified to Environmental Management System, ISO 14001 : 2004 and by M/s. DNV for Occupational Health and Safety Management System, OHSAS 18001:1999 once a year.

Social Performance Audit

BSP is certified to SA8000: 2004. M/s. Det Norske Veritas conducts the external audits of the system once a year.



**Making
the
Right Move**

Governance Commitments & Engagements



The philosophy of the company in relation to corporate governance is to ensure transparency, disclosures and reporting that conforms fully to laws, regulations and guidelines, and to promote ethical conduct throughout the organization, with the primary objective of enhancing shareholders value while being a responsible corporate citizen. The company is committed to conforming to the standards of excellence in corporate governance in the country. It recognizes that the Board is accountable to all shareholders and that each member of the Board owes his/her first duty to protecting and furthering the interest of the company

As on 31st March'2011, the Board of directors of SAIL comprised a full time Chairman, 3 functional directors and 7 non-executive directors (including 6 independent directors). Being a Government Company, the directors on the Board are appointed based on nomination by the Government of India. The percentage of the Board of Directors that are independent, non-executive Directors is 63% (7/11) During the year 10 Board Meetings were held.



Corporate governance has been carried in accordance with the clause 49 of Listing Agreement. The Directors are selected through the well established procedure of Public Selection Enterprises Board. The Board of Directors is guided by organization's vision & credo. The board members regularly review the performance of the organization on economic, environmental & social issues. During the year 10 board meetings were held. SAIL being a public sector enterprise, the compensation to the board of directors, executives and other employees is provided as per the negotiated agreements at different time intervals as decided by the govt of India. Performance of individual unit is also taken into consideration in disbursing incentives & rewards to the employees. The minutes are prepared for proceedings of Annual General Meeting. These minutes include the suggestions, comments and feedback from the shareholders. The concern of shareholders are discussed in the Board Meeting and after prioritisation of these concerns, management integrates the same in business decision.

The SAIL Board committees are SAIL Audit Committee, Shareholders





Investors Grievance Committee of SAIL, and Committee of the Board (COB). There was no complaint pending redressal as on 31.03.2010. Number of shareholders complaints received during the period from 01.04.2010 to 31.03.2011 were 39. During the year, all 39 complaints were resolved and no complaint was pending for redressal as on 31.03.2011.

The company has in place a Code of Conduct applicable to the Board Members as well as the senior management and the same has been hosted on the company's website. All the Board members and the senior management personnel have affirmed compliance with the Code of Conduct as on 31st March 2011. There were no instances of non-compliance by the Company, penalties, strictures imposed on the company by Stock Exchange or SEBI or any statutory authority, on any matter related to capital, during the last three years.

BSP is following the vision and credo statement (values) of SAIL, which are formulated and reviewed by top management based on the internal and external environment. The vision essentially includes the perspective of long term growth, need of stakeholders and present and future challenges to the steel industry in terms of quality of products, return to various stakeholders and continual growth through customer satisfaction and profitability.

SAIL Board Committees

Audit Committee

The primary function of the Audit Committee is to assist the Board of Directors in fulfilling its oversight responsibilities by reviewing the financial reports; the Company's systems of internal controls regarding finance, accounting and legal compliance that management and the Board have established, and the Company's auditing, accounting and financial reporting process generally. The Audit Committee reviews reports of the Internal Auditors, meets Statutory Auditors and discusses their findings, suggestions and other related matters and reviews major accounting policies followed by the Company. The Audit Committee reviews with management, the quarterly and annual financial statements before their submission to the Board. The minutes of the audit committee meetings are circulated to the Board, discussed and taken note of.

Shareholders Investors Grievance Committee of SAIL

A Shareholders/Investors Grievance Committee under the Chairmanship of a non-executive director comprising of two whole time Directors as members is functioning to look into the redressal of shareholders and investors complaints like non-transfer of shares, non receipt of balance sheet, non receipt of declared dividend etc. Number of shareholders complaints received during the year was 51. All, 51 complaints were resolved during the year





Committee of Board

The terms of reference of the Committee of the Board (COB) are to approve capital expenditure schemes within the stipulated limits and also to periodically review the Company's business plans and future strategies. Being a Government company the nomination and fixation of terms and conditions for appointment as Director is made by Government of India.

The Non-Executive Directors are paid only sitting fees for each Board/Board Sub-committee Meetings attended by them. The salary of the whole time directors is fixed and does not include performance linked incentive except amount payable as per the Productivity Linked Incentive Scheme of the Company.

There were no transactions of material nature by the Company with promoters, the directors or the management, their subsidiaries or relatives etc that may have potential conflict with the interests of company at large. The non-executive Directors had no pecuniary relationships or transactions vis-à-vis the

company during the year except receipt of sitting fee for attending the meetings of the Board/Board Sub-Committee. There were no instances of non-compliance by the Company, penalties, strictures imposed on the company by Stock Exchange or SEBI or any statutory authority, on any matter related to capital, during the last three years.

Quarterly results are published in prominent daily newspapers as per requirements. The quarterly/Annual results are made available at the website of the Company. The Management's Discussion & Analysis Report forms part of the annual report. Any shareholder including small scale investors are communicated about annual general meeting.

The company has in place a Code of Conduct applicable to the Board Members as well as the senior management and the same has been hosted on the company's website. All the Board members and the senior management personnel have affirmed compliance with the Code of Conduct as on 31st March 2010.



Sustainability Policy

Bhilai Steel Plant (BSP), is the flagship integrated steel plant of Steel Authority of India Limited., specializing in production of rails, structurals, plates, wire rods and merchant products. BSP is committed to improving its performance in accordance with the three pillars of sustainability viz. economic, environment and social in the area of operations and undertakes to :

- Operate business in an efficient and financially sustainable way in order to satisfy its customers and add value to stakeholders.
- Optimise the eco-efficiency of its manufacturing processes through conservation of natural resources and increased energy efficiency.
- Foster health and safety of employees and provide healthy, safe and environmentally sound operations and products.
- Demonstrate social responsibility by promoting values and initiatives that show respect for people and communities associated with its business.
- Conduct business with high ethical standards.
- Engage stakeholders in constructive dialogue to help implement sustainable development.
- Achieve performance improvement through continuous monitoring and review of sustainability performance indicators.

The vision statement of SAIL, adopted by BSP is:

Vision

- To be a respected world class Corporation and the leader in Indian steel business in quality, productivity, profitability and customer satisfaction.

Mission

- To be a key driving player for SAIL to retain its leadership position in the steel business:
- Customer Centric and Cost Competitive approach
- Culture of Innovation, Transparency and Empowerment
- Sustainable business performance and Corporate Social Responsibility

The vision & mission are reinforced by values in the form of credo.

Credo

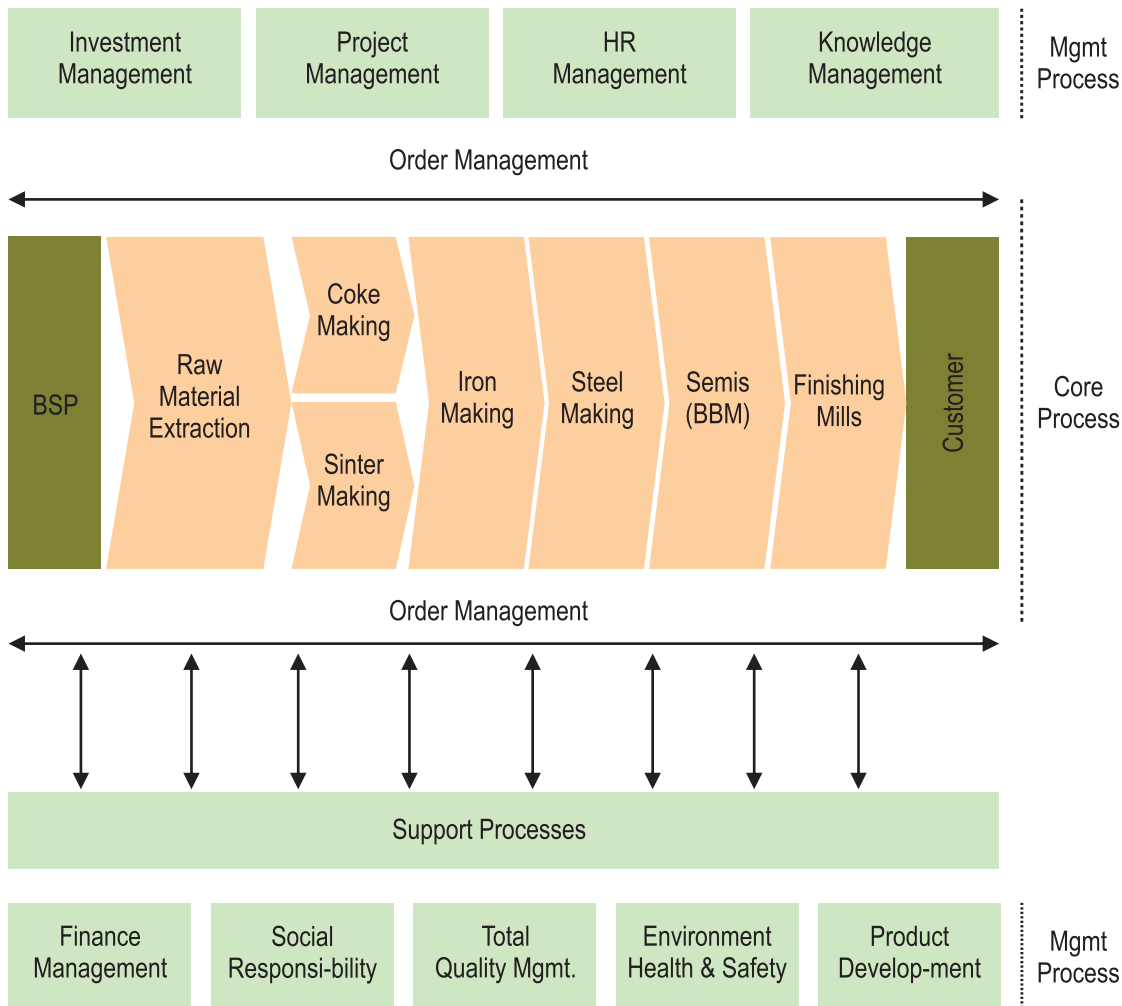
- We build lasting relationships with customers based on trust and mutual benefit. We uphold highest ethical standards in conduct of our business.
- We create and nurture a culture that supports flexibility, learning and is proactive to change.
- We chart a challenging career for employees with opportunities for advancement and rewards.

In conducting our business, we value

Initiative	– Having the courage, creativity and discipline to lead change and shape the future
High Performance	– Achieving superior business results, stretching our capabilities and valuing the contributions of every employee
Win-Win Relationships	– Having relationships which focus on the creation of value for all stakeholders
Stewardship	– A commitment to health, safety, environmental responsibility and our communities
Safety	– A relentless commitment to working safely and looking out for the safety of our contractual labours and others with whom we do business
Integrity	– Ethically and honestly doing what we say we will do
Respect for the Individual	– Embracing diversity and inclusion, enhanced by openness, sharing, trust, teamwork and involvement

- The Corporate Vision and CREDO guide the formulation of organizational objectives at BSP as well as the plant level policies which reflect the organization's intent in its journey towards excellence. Major current and future challenges of BSP have been studied through SWOT analysis.
- Vision, Sustainability Principles, Values, Challenges and Relationships are the overall umbrella under which the strategy evolution takes place. Directors' Workshops are held from time to time wherein the top management analyses business results and sets strategic direction keeping in view the anticipated market/customer requirements. Strategy for future growth also takes into account necessary HR interventions and process/ technology improvements that are required to sustain growth. The overall strategy evolution process is a multilevel process in line with company's vision and corporate guidelines. The long term strategies with a time horizon of five years have been worked out and a planning exercise is going on to finalise a road map for 2020. These strategies are focused on volume growth, operational efficiency and value-added product-mix aimed at making Bhilai Steel Plant a leading integrated steel producer with a low-cost positioning.
- Our approach to sustainability: "Corporate sustainability is a business approach that creates long-term shareholder value by embracing opportunities and managing risks deriving from economic, environmental and social developments." BSP has identified key sustainability issues for its activities, products and services

Flow of core processes, their interactions with support processes and Management Processes.



Management tools and concepts adopted by BSP

• Quality Management Systems (ISO 9001:2000)	• Environment Management Systems as per IS/ISO 14001	• Clean Technology/ Pollution Prevention
• Quality Circles	• Environment Performance Evaluation	• Environment consideration at design stage
• Knowledge Management	• Life Cycle Assessment	• Environment Impact Assessment
• Six Sigma	• Environment Management Information System	• Sustainability Reporting
• Benchmarking	• Clean Development Mechanism	• Occupational health & Safety (OHSAS 18001)
• ERP/MES	• Environmental Accounting	• Social Accountability (SA 8000)

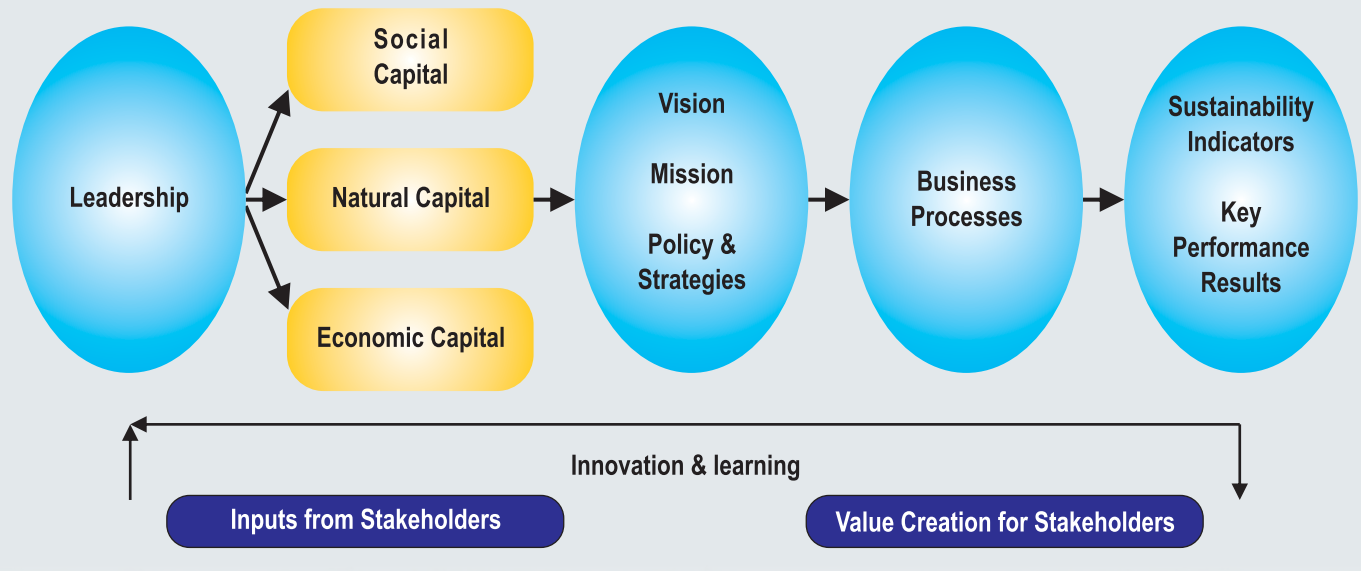


Sustainability Model of BSP

Leadership of the organization at various level gives emphasis on balanced approach towards economic, natural and social capital. The utilization of these resources has been done in such a manner that the impacts of the operations are minimized and the value creation is maximized. Assessment of impacts on these capitals provides direction towards formulation of company's vision, goal, policies and strategies. These strategies are subsequently implemented across the various business processes of the organization. Key performance results are monitored by the management at various level through systematic identification of sustainability performance indicators.

Indicators provide fuel to the employees for innovation and learning, which is again used as feedback for re-envisioning and updation of strategies. Stakeholders of the company play a predominant role in identification of key sustainability issues. Inputs of the stakeholders are used for preparation of sustainability objectives and targets. After implementation of objectives and targets, the value creation is evaluated and communicated to the stakeholders.

SUSTAINABILITY MODEL OF BSP



Sustainability Risk Management and Opportunities

Sustainability management is considered within the Company's strategy-setting, risk analysis and business planning. In recent years, BSP has been on a path of growth and development and, associated with this, there has been a change in the risk profile. The Company today faces greater complexities and challenges and even greater expectations from its stakeholders. Given the complexity of these needs, and to address Clause-49 of SEBI guidelines a new risk assessment process, termed Enterprise Risk Management (ERM), is being implemented by the company. SAIL appointed M/s Deloitte as consultant for establishing ERM. The process involves Risk identification, Risk evaluation, Prioritization, Documentation and reporting

The Company has identified 9 key risks & has prepared action plans to address the same. The outlines of the identified risks are

- Non-compliance with pollution norms leading to penal action including closure of plant
- In ability to keep pace with Market competition leading to loss of market share and leadership position
- Non timely replacement of obsolete equipment and technology could potentially lead to higher costs, poor quality, not meeting quality standards and loss of customer satisfaction
- High cost of production of hot metal leading to loss of cost effectiveness
- Lack of adequate skilled manpower adversely affecting achievement of current and post-modernization targets. This also leads to contract labours being assigned jobs higher than their abilities
- Accidents at plants resulting in injury / loss of life and assets hampering production, reputation and employee morale
- Non availability of quality iron ore and lime stone at existing mines leading to loss of quality, cost effectiveness and possibility of non fulfillment of post modernization targets
- Failure to identify and take precautionary measures against man-made hazards/terrorism (Maoist activities)
- Envisaged short-fall of water for the purpose of Industrial and drinking uses in view of ensuing expansion of BSP up to 7 MT stage



Business ethics

BSP does not tolerate corrupt or fraudulent practices and expects honesty, integrity and transparency in all aspects of its business, from employees, contractors and other business counterparts.

BSP as a part of public sector organisation is committed to follow the Central & State Govt guidelines for prevention of bribery and corruption in the organisation. Central Vigilance Commission Guidelines are strictly followed through the procedures formulated and implemented by Vigilance Deptt. SAIL-level committees are in place to facilitate the Board to take effective measures on issues related to business ethics. The company has in place a Code of Conduct applicable to the Board Members as well as the senior management and the same has been hosted on the company's website.

Transparency and accountability to stakeholders : Apart from the statutory committess at corporate level, which work for transparency & accountability to stakeholders, Promotion of RTI, customer visit to plant premises are some of the other methods adopted by BSP to promote transparency to stakeholders. Leadership at Bhilai provided support and encouragement to nationwide RTI campaign held fin July 2006s and co-sponsored "Ghoos ko Ghoonsa" campaign at Bhilai to create awarenes about the Right to Information (RTI) Act. BSP's top leadership demonstrated its deep-rooted commitment to business ethics and the awareness created in a timely manner has resulted in a very healthy RTI utilization.



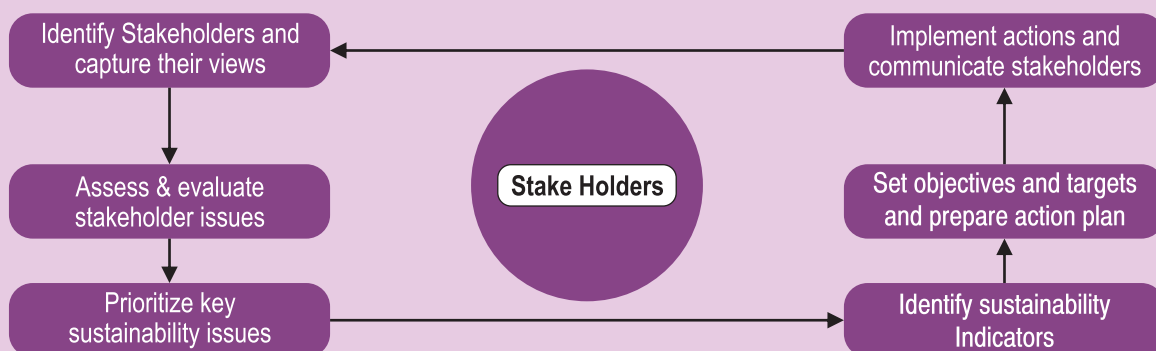
Stakeholder Engagement



Engagement is an essential element of our business. The aim of the engagement is to ensure benefit to both stakeholders and company. It helps us to learn from stakeholders to identify and manage risks, to build trust and strong relationships, and to identify ways to improve our performance.



Right since inception of BSP, social responsibility has been embedded in our management system, which enables us to give prime importance to society. The identification of stakeholders originates from the vision of the company. The vision indicates that all efforts shall be directed towards profitability, customer satisfaction, employee satisfaction, establishing value partnership with suppliers and social development through contributing to nation. Thus the stakeholder base of the company encompasses Government, Shareholders, Customers, Suppliers, Community and the Employees as a part of implementation of strategies for addressing critical success factor. A survey has been conducted for stakeholder management. Based on the feedback from various levels of the organization and stakeholder's perceptions, their concerns are identified and prioritized which are described. The information related to sustainability is gathered from stakeholders by concerned departments of BSP. Key sustainability issues are prioritized by Management. Objectives and targets are set for the corresponding sustainability indicators and budgets are allocated for its implementation. The stakeholder engagement process for BSP is shown.



Stakeholder Concerns, Responsibilities & Their Benefits

Stakeholders	Prioritised Stakeholder Concerns/perceptions	Responsibility (Process Owners)	Benefits
* Shareholders	Profitability of the company, Creation of wealth, Stock price, Grievances & complaints	Core, support & mgmt Processes, Marketing, Finance	Wealth creation for shareholders
Employees	Safe and healthy working condition, Good remuneration packages & professional growth, Quality of life & welfare measures, Training & career development	Personnel, Town Services, HRD, Safety & Health	Motivated, satisfied and enthused workforce
Suppliers	Partnership with value creation, Timely payment, % of local suppliers, Supplier satisfaction	Materials management, Finance, AD&VD	Satisfied suppliers
Customers	Partnership with value creation, Product Quality, delivery compliance & customer satisfaction, Complaints, Consumer privacy	Marketing, RCL, Concerned shops	Lasting relationship, satisfied customers
Community	Quality of life, Job opportunities, Education, Welfare measures, Medical facilities	Personnel, CSR, Town Services, M&HS	Socio-economic development of the region, Partnership in progress
Government	Revenue and tax distribution, Profitability, Employment & contribution to GDP, Safe working & environment compliance	Core, support & mgmt processes, EHS	Contribution to exchequer to Govt, employment opportunities, import independence
Banks & Insurers	Financial risk, Debts and borrowings, Potential liabilities, Compliance to statutory requirements	Finance, Law, Projects	Safe investment, contribution to economy
NGOs	Environment quality, Human rights issues, Freedom of association, Compliance to Child & forced labour	Personnel & Admn, EHS, PRO	Safe and healthy workforce, environment friendly operations, ethical operation, compliance to standards
Regulators	Environmental compliance, Human rights issues, Number of accidents, Compliance to ILO conventions	EHS, Personnel & Admn, Law	Legal Compliance, going beyond compliance
Professional	Partnership with value creation, Employment & contribution to GDP, Training & development, Ethics violations	HRD, CSR, EHS, Personnel & Admin	Legal Compliance, going beyond compliance
Competitors	Knowledge sharing, Partnership with value creation, Anti competitive behaviour,	Core, support & mgmt Processes, marketing, PRO, R&D	Knowledge sharing, best practices, ethical business

* BSP as such does not directly communicate with shareholders. Communication is being done at SAIL level.

Communication Mechanism for Stakeholder Engagement

Stakeholders	Forum for Assessing Requirements, Communicating Directions & Receiving Feedback	Frequency
Shareholders*	Annual General Meetings; Quarterly and half-yearly reports to shareholders; Shareholder Relations; Meets, Investors Survey	Annual As per plan As per Plan
Customer	Customer meet; MD's conferences with customer groups, Sales Visits to Customer & Customer Visit Report, Customer Satisfaction Survey, Prime Minister Trophy survey and feedback	Annual & or As per plan
Suppliers	Vendor meeting, Meeting with Suppliers,	As per plan
External Public/ Govt./regulators	Meetings with Central & State Govt./Steel Ministry/ Trade Bodies, Industry Association, NGOs, Visit of Parliamentary committee, PM's Trophy team, Visit of central and state Govt. officials, Ministry of Environment & Forests etc.	Regularly through meeting / publications
Community	Community meeting, Mahila Samaj Meeting, Interaction of Doctors on health issues, Involvement of senior Officials as a chief guest in local society functions (education, health, sports, culture etc)	As per plan
Employees	Production committee meeting, Safety and welfare committee meeting. Communication with employees discussed in social performance indicators	As per plan
NGOs/ Professional bodies	Visit to plant, seminars, conferences	As per plan

* BSP as such does not directly communicate with shareholders. Communication is being done at SAIL level.



Information Generated By Stakeholder Consultation

- **Shareholders** : essentially provide a feedback on the overall performance of the SAIL and its implications as regards market capitalization and creation of shareholder value. The process primarily aims to serve as a platform for the shareholders to express their opinion, views, suggestions, etc., to understand the influencing factors in their investment decision making process, to gauge the communication gap, if any, and to build and strengthen the relationship between the Company and its shareholders.
- **Employees** : The communication channel with employees at different levels and the issues discussed are given above. The information on civic amenities in the town like hospital services, water supply and electric supply, education, etc. is received from the employees during the discussions and is used in business decision-making process.
- **Supplier** : engagement aims to create win-win collaboration between BSP and the suppliers, who are increasingly being seen as business partners rather than suppliers.
- **Supplier** : engagement aims to create win-win collaboration between BSP and the suppliers, who are increasingly being seen as business partners rather than suppliers.
- **Customer** : engagement provides information essentially on the user needs; need satisfaction and product quality and functionality.
- **Society** : Top Management reviews the status of the efforts undertaken by BSP for community and rural development. The ED (P&A) carries out the regular reviews of jobs



undertaken by Town Services Department for peripheral development and the activities for the welfare of women.

- **Government and External Public** : The meetings with Government, Steel Ministry, Environment Ministry, and Trade Bodies are aimed at understanding the requirement under statutes related to steel and allied business. This also includes the meetings with Factory Inspector, Labour Commissioner, Police, District Administration, State Pollution Control Board, State Electricity Boards, Electrical Inspector, and Boiler Inspector etc.



Use of Information from Stakeholder Engagements

The feedback received from shareholders at SAIL level is often manifested in the market capitalization and share price performance of the company. This feedback forms one of the significant inputs to the strategic plan development and the consequent strategic objective setting. The inputs received from customers form the basis for product improvement and products & services development initiatives, necessary for customer retention, market penetration and development. The information generated during supplier engagement essentially focuses on identifying areas with conflicting goals such as payments, material rejection information etc.

This has a bearing on Working Capital Management and inventory management primarily. The feedback is also used to finetune the vendor rating and evaluation procedure. The expectations of employees are also systematically captured and actions are initiated to align the goal of company and that of the individual for ensuring professional growth, retainment and motivation. The feed back from these stakeholders is inherent in the performance indicators like, Customer Satisfaction Index & Employee Satisfaction Index. The feedback received from the villagers, local people is used to plan for their development in the



areas of road, health & hygiene, sanitation, drinking water, irrigation, etc. The feed back from Government officials is used to implement the guidelines and directives from central and local authorities

Sustainability issues, Relevance & Strategy of Bhilai Steel Plant

	Sustainability Challenges / Risks / Opportunities	Relevance to Business	Company Strategy
Economic	1.0 Profitability and Growth 1.1 Earn return on investment and thus generate resources for development 1.2 Promote redistribution of income and wealth 1.3 Create employment opportunities 1.4 Promote balanced regional development 1.5 Assist the development of small scale and ancillary industries 1.6 Help in the rapid growth and industrialization of the country and create the necessary infrastructure for economic development.	Improved Productivity Consistent profit growth Employee satisfaction Supplier satisfaction Customer satisfaction Minimising defects Delivery compliance Cost competitiveness Stock Price of Company Exports Value added Operating cost Return on capital employed Revenue growth Investment on new products and processes New product development	Investment of more than 17,000 Cr, as per Corporate Plan 2012 for expansion/modernization of the plant to achieve 7.0 MT capacity Phasing out of old/outdated technology with modern & state of the art technologies. Maintain market leader ship in rail products and development of new products seeing the market pulse. Penetration of rural areas by setting up of Steel Processing Units. Partnerships and Joint Ventures Involve RDCIS, SAIL to develop new products as per market demand

	Sustainability Challenges / Risks / Opportunities	Relevance to Business	Company Strategy
.....Environment.....	<p>2.0 Effective protection of environment</p> <p>2.1 GHG reduction and carbon management, CDM</p> <p>2.2 By-product Management</p> <p>2.3 Pollutants reduction</p> <p>2.4 Hazardous waste management</p> <p>2.5 Resource Conservation</p> <p>2.5 Environmental Studies</p> <p>2.6 Eco- friendly Products</p> <p>2.7 Risk management</p>	<p>Legal Compliance</p> <p>Energy use and efficiency</p> <p>Resource efficiency</p> <p>Waste management and recycling,</p> <p>Land use and Biodiversity</p> <p>Reduction of CO2 emissions</p> <p>Reduction of ozone depleting substances</p> <p>Hazardous waste management</p> <p>Green belt development</p> <p>Water Conservation</p> <p>Environment Accounting</p> <p>High Functionality environment friendly steel products</p> <p>Life Cycle Assessment</p> <p>Green Supply Chain</p>	<p>Adoption clean technologies in its processes. Bench marking key environmental indicators</p> <p>GHG accounting & reporting</p> <p>Waste recycling/reuse</p> <p>By-product gas based power plant in expansion. Risk Management action plan for significant environmental risks.</p> <p>Involvement of Reputed Scientific Institutions like NEERI for formulation of Comprehensive Environment management Plans.</p> <p>LCA studies.</p> <p>Higher percentage of high strength products</p>
.....Social.....	<p>3.0 Social progress which recognizes the needs of every one</p> <p>3.1 Respect for employee, its health & safety</p> <p>3.2 Working with community</p> <p>3.3 Partnership working</p>	<p>Training and skill development of employees</p> <p>Attract and retain the employees</p> <p>Equal opportunities</p> <p>Freedom of association and collective bargaining</p> <p>Equitable terms and conditions</p> <p>Maintaining morale and employee satisfaction</p> <p>Code of conduct and ethics</p> <p>Participation in decision making</p> <p>Quality of life</p> <p>Stakeholder engagement and accountability</p> <p>Expenditure on community development, education</p> <p>Health and infrastructure</p> <p>Value creating partnership</p> <p>Human rights issues</p> <p>Job opportunities</p>	<p>Establishment of dedicated full fledged CSR department</p> <p>Recognised national level Model OHS centre.</p> <p>Adoption of villages in the vicinity & developing them as Model steel villages</p> <p>Facilitating /Partnering for setting-up of first class educational facilities.</p> <p>Partnering with NGOs like Akshayay Patra</p> <p>Empowering community through free education & medical facilities</p>

Commitments to External Initiatives

The international agreements/regulations to which BSP has been complying voluntarily to improve its sustainability performance are listed

International Agreement / Regulation Identified as Relevant to Business	Steps Taken by the Organisation to Meet the Requirements	Involvement of Employees, Top Management & External Stakeholders
Kyoto Protocol	24 CDM projects have been identified for implementation. resulting in reduction of more than 1million tons of GHG emissions.	All the employees from the concerned departments have been trained by M/s.DNV.
Montreal Protocol	BSP has eliminated use of CFC-11 by replacing it with Li- Br based chiller unit, way before the target date of 1.1.2010. 80 % of Halon based fire extinguishers has been replaced by FM 200 based units. Replacement of all industrial package air conditioners using CFC-12 by year 2011 in phased manner using CFC free refrigerant.	Under UNDP Aid, a project for the safe application of Trichloroethylene has been commissioned in 10-11 at Oxygen Plant.
Basel Convention	BSP adheres to the requirement of the Hazardous waste amendment rules 2008. Some of the initiatives of BSP in this regard are <ul style="list-style-type: none"> Non-ferrous metal waste recycled in Steel Melting Shop for replacement of copper. Tar sludge is mixed with coal and charged to coke ovens Other Hazardous wastes are handled as Per HW rules-2008 	BSP in collaboration with M/s. ACC-Jamul, has initiated steps for the use of Acid Tar Sludge in its cement kilns. M/s Everest-
Stockholm Convention	Use of DDT and Aldrin has been stopped	Employees and stake holders have been educated on the dangers of use of these chemicals.



International Agreement / Regulation Identified as Relevant to Business	Steps Taken by the Organisation to Meet the Requirements	Involvement of Employees, Top Management & External Stakeholders
Convention of Biological Diversity	<p>Massive afforestation has been done in and around the plant.</p> <p>More than 5.43 million trees have been planted in BSP's Plant, township and mines.</p> <p>Plantation of medicinal plants is also encouraged.</p> <p>48 eco-clubs are functioning in BSP's schools spreading the message of clean environment & afforestation amongst school children.</p>	<p>Plantation is being carried out with the help of state forest department.</p> <p>Employees, citizens of the township & school children actively participate in the plantation drive.</p>
EU Directives	<p>Scrap generated inside the plant is recycled.</p> <p>Handling & use of hazardous substances and chemicals are being done as per Hazardous Chemicals amendment Rules.</p> <p>Material safety Data sheets of chemicals/substances are studied and communicated to respective users</p>	<p>Employees are trained and active involvement is ensured for the safe handling of materials used in the plant.</p>



International Agreement / Regulation Identified as Relevant to Business	Steps Taken by the Organisation to Meet the Requirements	Involvement of Employees, Top Management & External Stakeholders
Non Discrimination (ILO Conv. 100,111,110)	SA8000 Company rules	Internal and external stakeholder communication
Freedom of association & collective bargaining (ILO 87, 98)	SA8000 Company rules	Internal and external stakeholder communication
Forced and compulsory labour(ILO Conv 29, 105)	SA8000 Company rules	Internal and external stakeholder communication
Normal working hours, max. overtime and fair wage structure (ILO conv. 1,30,47)	SA8000 Company rules	Internal and external stakeholder communication
Occupational health services (ILO conv 161)	Establishment & functioning of National	Internal and external stakeholder communication
Policy on labour standards adopted by suppliers & contractors (ILO conv . 144)	SA8000 Company rules	Internal and external stakeholder communication
MDG Goals	CSR activities, Environment activities	Internal and external stakeholder communication
UN Global compact	ISO 14001, SA 8000, OSHAS 18001, Sustainability reporting	Internal and external stakeholder communication
Occupation safety & health (ILO conv. 155)	OHSAS 18001, Safety deptt	Internal and external stakeholder communication

Precautionary Approach

Company policies, including the Environmental Policy and Corporate Social Responsibility Policy, reflect the ethos of prioritizing quality of life and the protection of the environment. The precautionary approach is the underlying spirit of every policy or guideline formulated at Bhilai Steel plant.. The Company assess whether its policies and actions might cause severe or irreversible harm to the public or to the environment and adopts a cautious approach and take steps to protect from harm where scientific evidence suggests there may be a risk, even where this is not certain.

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

Participation in Associations, and Partnership Commitments

BSP considers it vital to work together with other organisations to learn, share and work collaboratively towards common goals. The Company is an active member of many reputed professional bodies such as the World Steel Association (previously known as the International Iron and Steel Institute (IISI)), Confederation of Indian Industry (CII), Indian Institute of Metal, etc., with Number of companies (SAIL's) executives occupying significant positions in the Technical and Executive committees. SAIL has been keen to participate in initiatives which seek to address climate change and has been a participant in the Steel Task Force initiatives of Asia Pacific Partnership on Clean Development and Climate under the aegis of the Government of India, Ministry of Steel.

The Company has increasingly been undertaking partnership projects in collaboration with NGOs, Industry Associations and National / International advocacy organisations. Social organizations established by BSP are working with a variety of partners on health, social and cultural activities. The details of such activities are covered in social performance chapter.





**Creating
Value**

Economic Performance



Whilst BSP is ever conscious of its role as trustee of the wealth of all shareholders, particularly in the times of economic crisis faced during the second half of this year, the Company is also at mindful of the wider issues and risks that affect and which, in turn, may affect operations. The Company believes in managing business keeping in view both the long term and short-term objectives.



Two critical elements in creating value for customers and other stakeholders are the commitment to business excellence and innovative approach. BSP does this by:

- Producing high quality products and services in ways that demonstrate effectiveness, efficiency and continuous improvement
- Seeking continuous improvements in technology, processes and products.



WSA sustainability indicators

Indicator	Unit	2009-10	2010-11	WSA average value
Investment in new processes and products	% of revenue	7.67	3.59	9
Economic value distributed	% of revenue	94	110	92.2

Additional economic indicators

Indicator	Unit	2009-10	2010-11
Operating margin	% of revenue	33.17	26.00
Return on capital employed	% of capital employed	69.26	57.51

Modernisation & Expansion Plan

In line with the objectives of SAIL Corporate Plan, a major process for setting long term goals, Modernisation & Expansion plan is under advanced stage of implementation which envisages hot metal production capacity to 23.46 million tonnes by 2012-13. Further to this, 'Lakshya 2020' aims at achieving hot metal production capacity of 60 million tonnes by 2020 and a market share of 30% against present market share of 18 %. SAIL is building up on overseas opportunities for marketing of products as well as sourcing of raw materials and intends to become mainly a special steel producing global player in the coming years.

BSP is undergoing a major change under SAIL's Modernization and Expansion Plan where it aims to become a 7 Million Tonne plant equipped with sophisticated technologies to meet the key organizational goals of manufacturing sophisticated products, conserving energy and protecting the environment. The future

plan also envisages major changes in other areas including significant rationalization of workforce. The ongoing Modernization and Expansion Plan is being implemented with an estimated investment of Rs. 17000 crores.

Establishing approaches to generate ideas and innovation and enhance organization's image:

Engagement with partners helps in leveraging their core competencies for creating and maximizing value for all the stakeholders. The process of nurturing relationships with stakeholders throws up opportunities for innovative solutions. Joint working with customers like Railways and Navy has resulted in innovation in product features which has enhanced the brand image and reputation of the organization in a strong way. Some of the product innovations on these lines are 260 meter long welded rails, plates for manufacture of indigenous air craft carrier, rolling of Maraging steel for space shuttle and other products used in infrastructure projects of national importance. In the area of social responsibility brand enhancing collaborations include partnership with Ramakrishna Mission to carry out CSR activities in the tribal population and partnership with Akshaya Patra to provide mid day meals to 25000 school children belonging to socially challenged class.



Identify strategic and operational partnership



SAIL BSP has been building strategic partnerships in diverse areas by forming Joint Ventures or building strong partnership relationships. The areas for strategic partnerships include raw materials, waste disposal, mines exploration, power, technology, spares & equipment and social responsibility.

Recent Strategic Partnerships		
Area	Partner	Remarks
Waste Disposal	Jaypee	JV with Jaypee Industries for Cement Plant at Bhilai
Mines Exploration	MECL	MOU with Mineral Exploration Corporation Limited (MECL) for exploration by MECL at all SAIL mines for assessing the reserves and quality of ore available
Raw Material Supplies	CIL, RINL, NMDC and NTPC	For securing raw material supplies, company has co-promoted International Coal Ventures Private Limited (ICVL)
Power	NTPC	Power plant JV with NTPC is being expanded
Spares and equipment	HEC	For Equipment /spares required for modernization/expansion.
Society	Akshaya Patra	Providing mid day meals to 25000 children per day
Society	Ramakrishna Mission	Reaching out to tribal population of Bastar Jungle.

Economic Impacts

Financial Highlights 2010-11

YEAR	Ratio of Gross Margin to Turnover %
2007-08	39.31
2008-09	32.19
2009-10	31.93
2010-11	24.95

YEAR	PBT To Turnover Ratio %
2007-08	37.39
2008-09	30.30
2009-10	29.19
2010-11	22.30

Turnover from Major Products

Product / Services	Production / Outputs (MT)			Turnover Rs. Cr		
	08-09	09-10	10-11	08-09	09-10	10-11
Rails	0.979	0.837	0.868	4661.5	4126.2	4327.95
Plates	1.203	1.208	1.289	5227.5	4270.5	4859.73
Heavy structurals	0.011	0.019	0.035	159.7	357.94	376.06
Merchant Products	0.756	0.655	0.720	2950.7	2680.3	3625.94
Wire Rods	0.655	0.627	0.659	2666.7	2432.6	2180.26

Economic value generated & distributed (Rs Crores)



Economic value	2009-10	2010-11
Economic Value Generated	14960.88	16023.76
Operating Costs	9644.05	11901.85
Employee wage & benefits	1383.34	2014.72
Payments to providers of capital	133.01	107.06
Payments to government	1790.42	2158.33
Community Investments	260.76	278.68
(Total Expenditure)	13211.58	16460.64
Economic Value Retained	1749.3	(-) 436.88



Export Performance (Rs Crores)

Year	Export
2008-09	461.4
2009-10	301.3
2010-11	585.1

Income Details 2010-11

Particulars	Rs. crores	%
Home Sales	16631.66	89.97
Exports (including export incentive)	604.38	3.27
Interest Earned	42.33	0.23
IPT	881.96	4.77
Prov Write-back	0.28	0.00
Other Revenues	325.96	1.76



Expenditure Details 2010-11

Particulars	Rs. crores	%
Raw materials	7707.16	54.96
Salaries & Wages	2014.72	14.37
Stores & Spares	991.62	7.07
Power & Fuel	1085.08	7.74
Repairs & Maintenance	215.99	1.54
Misc. Expenses(including freight)	1594.75	11.37
Depreciation	307.25	2.19
Interest	107.06	0.76

Expenditure on CSR (Rs Crores)

Year	Budget	Expenditure
2008-09	12.0	108.7
2009-10	16.77	158.2
2010-11	25.0	160.8



Expenditure on Society and Other social activities (Rs Crores)

Non-core infrastructure area	2008-09	2009-10	2010-11
Township	214.5	164.9	131.11
Education	49.3	42.7	48.41
Medical	82.5	48.5	90.92
Transport & Socio-cultural	8.6	4.6	8.2
Total	354.8	260.7	278.6

Expenses on Power, Fuel & Maintenance

	Turnover	Power & Fuel	Power & Fuel as % of Turnover	Repair & Maintenance	Repair & Maint. as % of Turnover
	(Rs Crores)	(Rs Crores)		(Rs Crores)	
2007-08	14352.36	827.63	5.77	166.46	1.16
2008-09	16388.21	960.38	5.86	222.44	1.36
2009-10	14632.06	951.58	6.50	198.99	1.36
2010-11	15655.47	1085.08	6.93	215.99	1.38

Payments and Provisions to Employees

At the end of March 2011, BSP employed 31247 people as permanent employees. The Company also provides indirect economic benefits to many thousands more through contractors and suppliers. BSP pays pay fairly and entry level positions at both executive and non-executive level receive wages which are amongst the best in steel industry category. The wages for employees are decided after negotiations with employee associations as per the rules & norms of Central Public sector enterprises (CPSE).

Standard entry level wages at BSP :

(Basic + DA) = Rs 11633/-

BSP also ensure that the contractors it engages, pay living wages as per SA 8000 to their labourers, which is beyond the minimum wages norm as laid out in government legislations.

Range of ratios of standard entry level wage compared to local minimum wage at significant locations of operation.

Minimum Wages :

Skilled : Rs 214 per day with 26 days
= Rs. 5564/-

Semi-skilled : Rs 210 per day with 26 days
= Rs. 5460/-

Un-Skilled : Rs 207 per day with 26 days
= Rs 5381/-

At present the ratio of standard entry level wage to minimum wages of skilled labour = 1.2



Benefits to Employees beyond that Legally Mandated

• Free Medical services to employees and their dependant Family Members
• Free water, subsidized electricity
• Housing
• Monetary incentives
• Night shift allowance
• Washing allowance
• Subsidised education
• Fuel subsidy
• Festival advance
• Advances for purchase of vehicles
• Scholarships to wards of employees

• Long Service Award
• Well stocked Public Library
• Recreation centers / Sports facilities
• Community Halls
• Free Medical facilities for self and spouse after retirement
• SEWA
• Employee Family Benefit Scheme
• Life Cover Scheme
• School uniforms upto Primary level
• Leave for Child Care/Development
• Accident compensation beyond legal limits

Defined Benefit

• Post retirement gratuity
• Post retirement medical benefits
• Pensions to directors
• Farewell Gifts
• Packing and transportation costs on retirement



Value of employee benefits

ITEM	2008 - 2009	2009 - 2010	2010 - 2011
Statutory (Rs. cr.)	278.96	323.73	198.08
Non-Statutory (Rs. cr.)	1905.64	1059.61	1816.64
Total (Rs. cr.)	2184.6	1383.34	2014.72

Taxes paid to the Government

S.No.	Particulars	(Rs.in Lakhs)
(I)	Excise Duty	124345
(ii)	Sales Tax	
	(a) Central	21193
	(b) State	6483
	(c) Terminal Tax	230
(iii)	Custom & Import Duty on	
	(a) Capital equipments	6368
	(b) Raw Materials	2115
	(c) Stores, spares & components	2964
(iv)	Royalty	26281
(v)	Cess	89
(vi)	Electricity Duty	465
(vii)	Entry Tax	25299
	Total	215833



Return on invested capital (roic) & dividend:

The ROIC is 57.51% in the year 2010-11 and the dividend is paid by SAIL to its share holders hence not reported. No financial assistance received from the Govt. during the year

Local Hiring & Local Material Procurement:

BSP is mindful about ensuring that local people are able to benefit from the economic opportunities that its activities offer. The local candidates for employment are largely considered for many contractual jobs through M/s.HSCL.

BSP being a unit of SAIL, the central public sector under taking, the reservations for scheduled castes, scheduled tribes and other backward castes are provided as per the Central govt rules & policies.



One of the important business drivers is procurement of supplies and services from local vendors. The proportion of spending on ancillaries is given below.

Numbers ancillaries registered & No. of orders			Expenditure (Rs. lakhs)		
2008-2009	2009-2010	2010-11	2008-2009	2009-2010	2010-11
199 / 1621	199 / 1466	199 / 1942	11861	6879	10327

Indirect Economic Impacts

Impact of Community Infrastructure Development and Services

The prospering community around the Company's operations is a testament to BSP's corporate sustainability initiatives. The Company's contribution to local community infrastructure development and services over a period of time are covered under social sustainability.

Research & Development

Research and Development is a vital element of the Company's plans for creating value for all stakeholders through its innovative approach. The R&D activities in SAIL units are carried out through RDCIS, Ranchi and local sub centers. In 2010-11 BSP continued to invest in R&D, focusing on major projects designed to improve efficiency and enhance product quality.

R&D statistics:

• Total CAB	:	181.26 Crore
• CSI	:	4.83
• Projects pursued	:	28
• Projects Completed	:	18
• Technical Services	:	14
• Technical papers	:	16
• Patents	:	2
• Projects for 2011-12	:	24

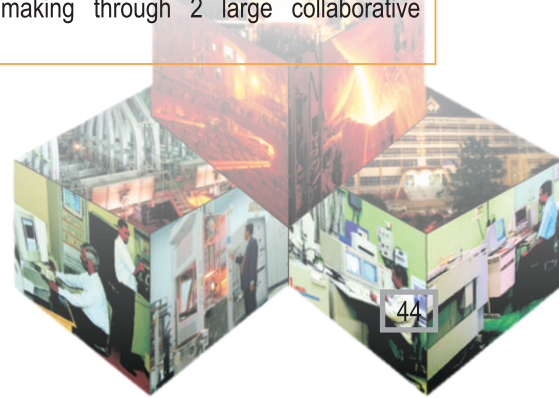
R&D Master Plan

Inline with the Govt of India objective of becoming self-reliant in technology through increasing the investment in R&D, SAIL has formulated its R&D Master Plan, implementation of which is already underway.

Under this Master Plan, several initiatives have been envisaged across the organization. Technology Missions and High Impact Projects have been taken up centrally, targeted mainly at reducing raw material and energy consumption. At the individual steel plant level, Centers of Excellence are being set up which would primarily focus on product development and improvements in collaboration with key customers and technology suppliers.

Environment and Energy Projects

- Further development and adoption of the modern or deep beneficiation techniques
- Further development and adoption in all mines of slime beneficiation
- Extensive R&D including pilot scale demonstration leading to commercial production of concentrates and pellets from BHQ/BHJ and BMQ
- Beneficiation circuits to process low grade high alumina and silica and less than 55% Fe ores with maximum/acceptable yield through recovery of iron values, and reduce slime generation.
- Utilization of tailings for building materials, ceramics, foamy bricks.
- Develop or adopt technologies and practices that have an impact in reducing energy consumption and reduce carbon dioxide emission.
- Develop alternative energy sources such as coal bed methane, synthetic or captive natural gas and hydrogen.
- Achieve zero waste generation by ensuring proper and complete management of wastes (liquid, solid and gas). Waste recycling and utilization including development of technology for 100% utilization of BOF/EAF slag into useable products.
- Effluent control in coke ovens through biochemical / microbial treatments
- Water conservation in beneficiation and iron/steel making including exploring dry beneficiation techniques (Collaboration with RMD and steel plants)
- Waste water treatments, high value chemicals and phyto-remediation for growth of specific plants and removal of harmful components leading to zero waste concept.
- Development of technology for ultra low carbon dioxide (CO) steel making through 2 large collaborative programs.





**Nurturing
Nature**

Environmental Performance



BSPs approach to environmental management has been guided by company's environmental & sustainability policies, and also UN Global Compact Principles. The Company is absolutely committed to providing a healthy working environment and complying with all relevant environmental regulations in its operations; seeking to improve environmental performance well beyond norms and statutory duties wherever possible.

To ensure that policy is put into practice, key performance parameters have been identified, bench marked and are monitored and reported to various stakeholders in a transparent manner, addressing the requirements of GRI. BSP has adopted ISO 14001 based Environmental Management System to achieve excellence in environmental performance and ensure continual improvement. The departmental heads are responsible for implementation of the Environmental Management System in their respective areas.

Top Management reviews the performance periodically and provides necessary guidance and resources for the implementation of improvement initiatives. Training and awareness is an integral part of the system and covers all the employees, contractors and others concerned. BSP is certified to ISO 14001:2004 by M/s. BIS. Surveillance audits are conducted by BIS annually to ensure compliance to the prescribed standard. BSP recognises that climate change is one of the most important issues facing the world today. Recognising that the steel industry, as a sector, contributes 4-5% of all man-made CO₂ emissions (as estimated by the World Steel Association). The Company challenges it to reduce CO₂ emission from operations drastically to less than 2.4 tonnes of CO₂ per tonnes of liquid steel, by 2013-14 reflecting the Company's commitment to play its part in responding to the global concern for climate change.. BSP is also working on the opportunities for the future in energy conservation and carbon trading and is actively exploring these options.



WSA sustainability indicators

Indicator	Unit	2009-10	2010-11	WSA average value
Greenhouse gas emissions	Tonnes CO ₂ /tonne crude steel cast	2.75	2.73	1.8
Energy intensity	GJ/tonne crude steel cast	27.6	27.9	20.8
Material efficiency	% of by-products re-used	91.9	94.15	98
Environmental management systems (EMS)	% of employees and contractors in EMS-registered production facilities	89.62	88.3	88.8

Environmental Strategies & Bench Marking

BSP has achieved best environmental performance in many areas. The areas where the plant has achieved global standards are particulate emission load & specific water consumption.

In order to remain best in Indian steel industry & achieve global standards the plant has identified key environmental performance indicators and bench marked the same with best in Global steel industry. Action plans have been formulated and integrated with 7.0MT modernization/ expansion plan.

Benchmarking of Environmental parameters

Environment Performance Indicators	Achieved in 2010-11	Target Post modernization	International Benchmark
Particulate emission load (kg/TCS)	0.73	0.4	0.22 (POSCO)
Specific Effluent discharge(kg/TCS)	0.127	Zero Discharge	Zero Discharge (JSW)
Solid waste utilization (%)	90.0	98	99.9% (CORUS)
Specific Water consumption (m ³ /TCS)	3.04	2.8	2.35 (RINL)
GHG emission (T/TCS)	2.73	2.4	1.8 (Rautraukki)
Energy consumption (Gcal/TCS)	6.6	5.92	4.5 (POSCO)

The salient features of action plans for achieving benchmarked targets in the areas of particulate emission, water conservation and solid waste management is given below

Action plans for achieving benchmarked targets..

Emissions reduction

- Retrofitting/Revamping existing PC Systems in, RMP-1, PP-1, SMS-1, SP-2 & SP-3 to achieve emission below 50mg/Nm³
- All new PC units for stacks to be designed for 50mg/Nm³A

Water conservation/Recycling

- Recycling effluents from plant outlets A,B & C effluents
- Recycling of effluents from Oxidation ponds

Solid Waste utilization/Management

- Utilization of 1MT/Year BF-Granulated slag in JV Plant with JP-Cements (Plant already commissioned)
- Development of Scheme for Sludge Management through Central Sludge handling Plant.

Environmental Legislations and Evidence of Compliance

Name of Law / Regulation / Legislation / Authorisation / Consent Conditions	Year	Status of Compliance Prevailing
The Water (Prevention and Control of Pollution) Act & Rules	1974 (Amended upto 1988) & Rules 1975	Measurement and analysis of effluent water, Operation & maintenance of ETP, Water Consent
The Water (Prevention and Control of Pollution) Cess Act & Rules	1977 (Amendment Act 2003) & Rules 1978	Payment to statutory authorities
The Air (Prevention and Control of Pollution) Act & Rules	1981 (Amended in 1987) & Rules 1982	Stack emission monitoring Work area environment & Ambient air quality, Operation & maintenance of PC equipment, Air Consent
The Environmental (Protection) Act	1986 (Amended in 1991) & Rules-1986 (amended upto 2003).	Recycling / reuse of waste, Solid waste disposal Reduction of specific raw material consumption. Water consumption. Energy consumption
The Hazardous waste (Management, Handling and Transboundary movement) Rules	2008	Compliance as per HW rules 2008
Manufacture, Storage & Import of Hazardous Chemicals Rules	1989 and Amendment Rules 1994 & 2000	Safety Audits, MSDS, Disaster management plan & mock drills
The Public Liability Insurance Act & Rules	1991 (Amendment-1992) & Rules, 1992 (Amendment-1993)	Composite Insurance by SAIL
The Noise Pollution (Regulation and control) Rules	2000 (Amendment Rules 2002)	Noise Monitoring & control of noise pollution
Ozone Depleting Substances Rules	2000	Complied. Filing of returns
The Battery (Management & Handling) Rules	2001	Complied. Filing of returns
Notification of Flyash utilization	Amendment upto 2003	Complied. Submission of annual report
The Bio-medical wastes (Management & Handling) Rules	1998 (Amendment upto 2003)	Complied
Gas Cylinder rules	Amendment upto 2004	Complied
Environment Impact Assessment Notification	2006	Complied.

BSP has no cases of Environmental non compliance registered by any legal authority till date. No fines/penalties were imposed during the year.

Materials

The single most important indicator for material consumption is specific raw material consumption in producing one tonne of crude steel. This is calculated by adding all kinds of raw materials used in iron and steel making divided by crude steel production. Special attention is being given to optimally utilise the raw materials. Internal scrap is recycled. Associated process materials (i.e., materials that are needed for the manufacturing process but are not part of the final product) are Refractories, Oxygen, Nitrogen, Argon, Acetylene, Compressed air, Propane, Sodium Hydroxide, Sulfuric Acid, Petroleum Coke, Aluminum, Bentonite, Fire clay, Kyanite, Casting powder, electrodes, molasses, synthetic slag, Graphite powder. Lubricants, Petro-fuels, Materials for packaging, wooden sleepers, metal strips, wire ropes etc.



Major Raw Material Consumption

Raw materials consumed (Tonnes)	2008-09	2009-10	2010-11
Iron Ore	8197000	8050765	8495096
Boiler Coal (PP-1)	272761	202476	229558
Coking coal	4770292	4894570	4955295
Other Coal(CDI COAL)	193900	200589	207170
Limestone	1071619	1030235	1153499
Dolomite	1035613	999478	1067089
Mn Ore	4066	7119	25656
Ferro Manganese	45827	44394	48554
Ferro Silicon	6252	5879	6740
Silico Manganese	50084	49057	50985
Sulphur	14333	13684	12531
Quartz/Si-Sand	40597	32370	31206
Others	2414	1712	1772
Total	15704758	15532328	16285150
Crude steel production (MT)	5.184	5.109	5.329
Sp. Raw mat. Consumption (t/tcs)	3.0295	3.0401	3.0562

The depleting reserves at BSP captive mines are impacting the quality of raw materials, which in turn is negatively affecting the specific raw material consumption.

Materials used that are recycled Input Materials

Steel is a recyclable material and iron/steel scraps are used in Steel Melting Shops as an input material. During the year 2010-11, 6,52,616 Tof iron/steel scrap from internal sources & other material was used in production. No scrap was purchased from external sources. In addition to iron/steel scrap, other wastes such as slag, sludge, fines, flux dust, etc. Amounting to 12.4% of the total input material are reused in the Steel Works, details of which are provided in the 'Solid Waste Management' section of this chapter.



Recycled Material	2008-09	2009-10	2010-11
Scrap use at SMS-1(t)	393899	370676	344514
Scrap recycling at SMS-2 (t)	393899	370676	344514
Total scrap recycled (t)	255659	281940	261815
Other materials	649558	652616	606329
Material used (t)	15704758	15532328	16285150
% of recycled materials used	10.04	8.26	9.23

Water

Water Quality:

The water quality through the plant outlets has been maintained well within the statutory norms. The thrust was on conservation of water through implementation of recycling schemes at various stages of water use. The implementation of various water conservation & recycling schemes has resulted in bringing down the specific water consumption to 3.04 m³/TCS in 10-11, from more than 12 m³/TCS, 10 years ago. The level achieved by BSP in water consumption is amongst the best in the world steel industry.

Water conservation & water pollution prevention schemes in last two financial years

- State of the art Sewage Water recycling system for recycling of 30 MLD sewage water of township has been completed. This has substantially reduced BSP's raw water requirement. This is largest sewage water recycling plant installed in Central India.
- The effluent from plant outlet-A is being recycled at the rate of 100 m³/hr. Schemes are being formulated for recycling of effluents from other two plant outlets.
- Oxidation pond has been built at Hirri, one of the BSP's captive dolomite mines.
- Construction of water recycling system in Merchant Mill has resulted in saving of fresh industrial water @ 660 NM³ per hour.
- 5 nos. of Tube Type Oil Skimmer were installed in BRP-1, BRP-2, PETP & PSTP to improve the quality of phenol water and recycling of the separated wash oil there by saving Rs. 6 lakhs per annum approx.

Rain water harvesting schemes

- Roof rainwater harvesting implemented at Plate Mill & Machine shops conserving about 35,000 M³ rain water. In Township the system implemented at 3 schools & 3 office buildings.
- A tank of 120000 m³ capacity has been completed in the township for rainwater harvesting.
- Study to harvest rain water & improve the recharging capacity at different location of Township has been completed. – based on the study Rainwater harvesting pits (5 nos) of more than 5000 m³ each installed in Township. This has resulted increasing the ground water level in the Township & adjoining villages.

Water Consumption at Bhilai Steel Plant

Source	2008 - 2009	2009 - 2010	2010 - 2011
Make-up water from canal/River to plant (Mm ³)	25.994	25.44	25.14
Drinking water Supply to Plant	16.81	16.55	16.03
Drinking water Supply to Township	34.85	35.75	35.20
Total water drawn from Canal	85.189	83.15	96.47
Rain water collected (Mm ³)	6.201	10.02	10.56

Total water drawn from canal for plant was 96.47 Mm³ (Exclusive of supply to NSPCL storage) during the year 2010-11. No water source is affected by the withdrawals by the company.

Category wise Consumption of Water During the year

- (i) Water used for industrial cooling, spraying, boiler feed etc
= 16.066 Million Cubic metre
- (ii) Water used for process operations whereby water gets polluted and the pollutants are easily biodegradable
= 7.954 Million Cubic metre
- (iii) Water used for process operations whereby water gets polluted and the pollutants are not easily biodegradable are toxic
= 1.119 Million Cubic metre
- (iv) Water consumption at Power Plant (s)
= 8.918 Million Cubic metre



Water Recycling

Year	Industrial make up MM ³	Industrial Water Recycled to Maroda-I MM ³	Total Industrial Water MM ³	Makeup water % of total	Recycled water % of total
2008-09	25.994	47.00	72.994	35.6	64.4
2009-10	25.44	44.36	69.8	36.45	63.55
2010-11	25.14	39.42	64.56	38.94	61.06

Water consumption (industrial & domestic) at Mines (M³)

Mines	Description	2008-09	2009-10	2010-11
IOC	Domestic	3414164	3085788	2535658
	Industrial Use (Cooling/Dust Suppression)	1865792	1733076	1863268
	Industrial Use (Processing/washing)	5469685	3415255	2258537
	Total	10749641	8234119	6657463
NANDINI	Domestic	692838	687558	647457
	Industrial Use (Cooling/Dust Suppression)	241400	271440	284535
	Industrial Use (Processing/washing)	0	0	0
	Total	934238	958998	931992
HIRRI	Domestic	131400	131400	131400
	Industrial Use (Cooling/Dust Suppression)	6200	6220	7300
	Industrial Use (Processing/washing)/ Mine Discharge	364300	276250	320500
	Total	501900	413870	459200

Overcoming severe water crisis at Dalli Mines

In 2008-09, there was scanty rainfall (761 mm in comparison to previous year's 1400 mm) due to which the Boirdih reservoir was not fully replenished. So, the growing demands of water both from Dalli Mines and Residential Township led to scarcity of water. In May'2009 the water level at Boirdih dam reached to such a low value (399.49 M) that there occurred a panic among management of DMM if it does not rain in jun'09 we may have to close iron ore production in DMM. The Mines management has consulted all the stakeholders & implemented a system for recycling & also appealed to all the residents of the township to conserve the water that yielded fantastic results in the following years. The pumping hours at Boirdih dam have come down to 29,041 hrs in 09-10 from 39770 hrs in 08-09. This financial year i.e 10-11 there is further reduction to 23,000hrs. This has reduced specific water consumption to 1.27 m³ from earlier consumption of 1.96 and also resulted in electricity saving of more than Rs.1crore at current power tariff.



Emissions & Effluents

Air Quality

Over the years BSP has been systematically maintaining and ensuring effective functioning of pollution control systems for improving its environmental performance and for complying with statutory norms. The pollution control systems comprises of Electrostatic precipitators, Gas cleaning plants, Bag filters, effluent treatment facilities and noise control systems.

Consequently the environmental performance of Bhilai Steel Plant remains one of the best in Indian steel Industry. Impact of air pollution control measures and green belt developed in and around the plant has helped in maintaining the ambient air quality of Bhilai.

Earlier, process stacks were designed to 100 mg/Nm³. However, to achieve the international bench mark in stack emission load , BSP has decided to design process stacks for 50 mg/Nm³ for both existing as well as the future projects.



Air Pollution Control Measures

Stack Emission Control

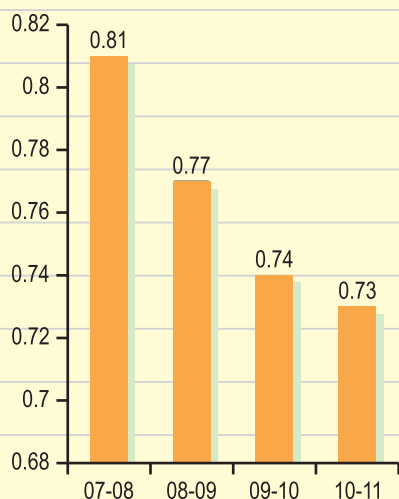
- Flue Gas Cleaning systems (Stack Emission Control)
- Wet scrubbers for Gas Cleaning Plants at Blast Furnace, Steel Melting Shop, Refractory Material Plant
- Multi-Cyclones for flue gas cleaning at Sinter Plant-1 & 2.
- Electrostatic Precipitators (ESPs) for flue gas cleaning at Power Plants and Sinter Plant-III.
- Ceramic Welding machines for Coke Ovens.
- Mist arrester at DCDA Sulphuric Acid Plant.

Fugitive Emission Control

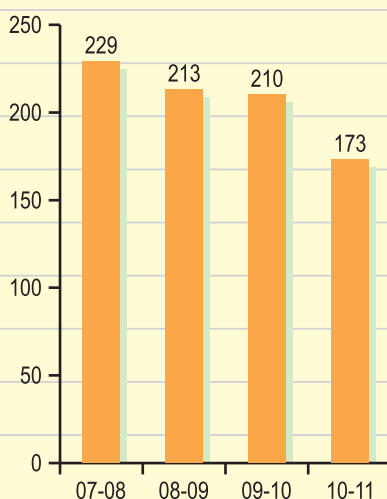
- Water Sprinklers and Dust Suppression Systems at Raw Material Handling Plant (OHP).
- Water Sprinkler in Coal Yards of Coke Ovens.
- On main charging in coke oven batteries
- Door & door frame cleaning systems in coke oven batteries
- Dust Extraction Systems (bag filters, scrubbers & cyclones) at material handling points of Blast Furnace, Coke Ovens, Sinter Plants, Steel Melting Shop, Power Plants
- Electrostatic Precipitators at Sinter Plant-2 & 3
- Mobile Industrial Vacuum Cleaners



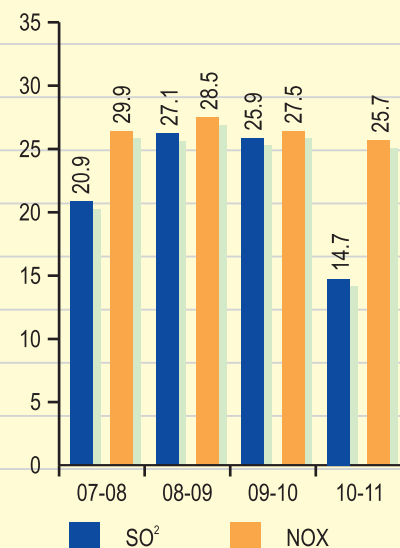
Particulate Emission Load (Kg/tcs)



Ambient Air Quality - SPM (ug/m³)



Ambient Air Quality - SO₂ & NOX (ug/m³)



Ambient Air Quality & Fugitive Emission Monitoring Studies

To comply with the New AAQ standards notified by MoEF in November 2009, Bhilai Steel Plant has initiated source apportionment studies through National Environmental Engineering & Research Institute (NEERI), Nagpur in 2011.

The studies will help in formulating action plans for improvement in Ambient Air Quality in Plant & township through scientific identification of sources of emission that are contributing to the air pollution. BSP is the first Organization in India to take such a proactive step for overall environmental improvement.



Effluent Discharges

BSP has three outlets Outlet-A consist effluent from BF, Foundry, OP-I, RMP-I, & storm water, Outlet-B consists effluents from MSDS-I, RTS, Diesel shed R&SM & storm water and Outlet-C consists effluent from COBPP, SP-I, SP-II & storm water etc. Only treated water is discharged through these outlets and effluent quality is meeting the norms. The water is discharged to the rivers Sheonath & Kharun through the 3 outlets namely A, B & C. There is no impact on water sources and related ecosystems/habitats by discharges of water and runoff. No significant spills were observed during the year.

Year	Outlet-A (m ³ /hr)	Outlet-B (m ³ /hr)	Outlet-C (m ³ /hr)	Sp. Effluent load (kg/tcs)
2008-09	50	80	920	0.127
2009-10	57	88	880	0.130
2010-11	40	88	880	0.127



Waste Management

Solid Waste generation & Utilization in 2010-11 (Figures in tonnes)

Solid Wastes	Generation	Recycling	Sold	% Utilisation
BF Slag Total	2279647	300000	1960061	99.1
BF Flue Dust	52008	0	34731	66.8
LD Slag	320341	336502	0	105.0
LD Sludge	27117	17450	400	65.8
Other Sludges (SP, BF & THF)	97532	1733	0	1.8
Lime Fines	73947	73947	0	100.0
Mill Scale	115354	114898	588	100.1
Cinder	3661.8	0	3850	105.1
Used/Rejected Refractory Bricks	32158	11417	13124	76.3
Lime Sludge	221	0	195	88.2
THF Slag	147237	0	0	0.0
Total Ash	51733	41103	0	79.5
Total	3200956	897050	2012949	90.9

Wastes from Pollution Control Equipment

Unit: Tonnes

Solid Wastes	Generation	Recycling	Sold	% Utilisation
SP Sludge / Dust	19962	1733	-	19962
BF Flue Dust	52008	-	34730.7	17277.3
BF Sludge	51370	-	-	51370
OHF / THF Dust	26166	-	-	26166
LD Sludge / Dust	27117	17450	400	26717
RMP Sludge / dust (from PC Equip.)	73947	73947	-	73947
Acetylene Sludge	221.03	-	195	26.03
Fly Ash	51733	41103	-	51733
Any other wastes (Specify namewise)	-	-	-	-
TOTAL	302524.03	134233	35325.7	267198.3

Hazardous Waste generation & Utilization in 2010-11 (Figures in tonnes)

Hazardous waste & Category	Quantity/Annum	Method of Disposal, Transportation and any other information
Cat. 13.4 Tarry Waste	3687.8 T	Sold
Cat. 13.5 Tar storage tank residue	462.7 T	Sold
Cat. 13.3 Acid Tar sludge	1872 T	Co-processing at ACC & Neutralization and solidification
Cat. 34.4 ETP sludge	1814.4 T	Recycled
Skimmed oil	26.8 T	Sold
Cat. 20.2 Spent solvent oil Type-I, II	35.3 T	Sold
Cat. 17.1 Filter cake	163 T	Recycled
Cat. 33.3 Discarded containers of hazardous chemical	120 Nos.	Recycled (Used as flower pot)
Cat. B-21 Asbestos waste	1.5 T	Stored
Cat A -6 Mercury arc Rectifier Tanks	Nil	-
Lead & Lead compounds	2.99 T	Sold
Cat 5.1 used Oil	176 KL	Sold/ used as fuel
Waste oil	177 KL	
Copper compounds & cables	167 T	Recycled

Generation and mode of disposal of Bio-medical Wastes

Type of waste	Generation (Ton/annum)	No. of beds in the hospital	Present mode of treatment and ultimate disposal
Cat-1,3,5 & 6	55497.3	896	Outsourced to M/s Etech Pvt. Ltd.
Cat: 4,7	2444		

Management of Municipal Solid Wastes at Township

Generation (tonnes/annum)	:	10164
Method of collection & transportation	:	Door to collection of Garbage is done in all Sectors.
Mode of disposal	:	land filling as per MSW Rules-2000

Noise Environment

- Bellow-type tuyers at all Blast Furnaces and Snort Valve Silencers at Blast Furnaces

- Sound-proof Acoustic Cabins at Power Plants, Oxygen Plants, and Pump Houses, etc.

- Blast by-pass silencers at Power Plant-I & Acoustic Silencers of Exhausters / ID Fans

- Replacement of conventional GCP at BF 7 with low noise GCP

- State of the art acoustic enclosure in pulpit of Wire Rod Mill & 6 nos of blow off silencers in compressor plant III have been commissioned

- State of the art air compressors were installed in new Compressed air station-4. They are designed for noise level of 85 dB(A), which is much below the industrial norm of 90 dBA)

Noise levels – Plant area

Works Area	dB(A)	
	Day Time	
	As per Factory's act	Actual
Coke ovens	90 dB(A)	82-84
Blast Furnace	90 dB(A)	81-84
Steel melting Shop	90 dB(A)	79 -81
Plate Mill	90 dB(A)	79 -83
Wire rod Mill	90 dB(A)	80-84
Rail Mill	90 dB(A)	80-85



Works Area	dB(A)			
	Day Time		Night Time	
	Approved by CPCB / SPCB	Actual	Approved by CPCB / SPCB	Actual
Welfare Buildings in works area	75	67-69	70	63-68
Canteens in Works area	75	67-71	70	64-68
Road side in side the factory	75	68-73	70	63-69

Noise Level in the Township

Location	Leq levels		
	Max.	Min.	Avg.
Civic Centre	76.5	70.1	74.1
Near Sec.-7& 8 Sqr.	79.5	73.2	77.0
JLN Hospital	55.0	50.5	51.7

Ozone Depleting Substances

Under Montreal Protocol, as a part of phasing out ozone depleting substances, BSP has eliminated use of CFC-11 by replacing it Li-Br based chiller unit, way before the target date of 1.1.2010. Procurement of Carbon Tetra Chloride (CTC) has been stopped and use of Trichloroethylene has been started.

This project is being implemented under the UNDP aid. 50 % of Halon based fire extinguishers has been replaced by FM 200 based units. Replacement of all industrial package air conditioners using CFC-12 by year 2010 in phased manner using CFC free refrigerant.

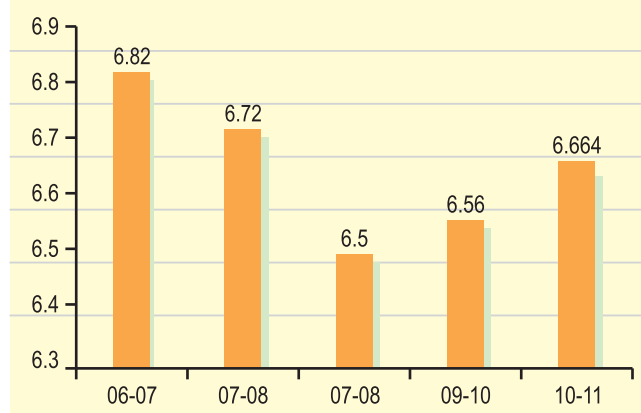
Over the years due to various steps taken by the management considerable reduction in the use of Ozone Depleting Substances has been achieved.

ODS Substances	Ozone Depleting Potential (ODP)	Year wise consumption in Tons		
		2008	2009	2010
CFC 11	1	0	0	0
CFC 12	1	1.241	0	0
Halon-1211	3	0	0	0
CTC	1.1	0	0	0
HCFC-21	0.04	0	0	0
HCFC 22	0.055	4.392	2.989	5.307
HCFC 142	0.06	0	1.026	0
HCFC 124	0.0125	1.005	0	0
Total ODS consumed		6.638	4.015	5.307
	Total ODP in Tons	1.50	0.226	0.292

Energy

Energy conservation has been given prime importance in the organization. BSP has declared its energy policy and standard operating procedures are being followed to minimize the energy consumption. BSP is the only steel plant that produces 48.5% of its steel through energy intensive route of ingot casting followed by Blooming & Billet Mill. In 2010-11, Sp. Energy consumption of BSP was 6.664 Gcal/TCS. The increase is mainly due to deteriorating raw water quality in the BSP mines.

Energy consumption in Gcal/TCS



Energy Purchased	Quantity (T)			Heat Content (TJ)		
	2008-09	2009-10	2010-11	2008-09	2009-10	2010-11
Boiler Coal (Ton)dry	250940	180361	202303	4216	3030	3234
Coking coal(Ton)dry	4348809	4458229	4511453	118175	121148	132320
BF injection Coal/CDI Coal	178389	184643	188881	4848	5017	5539.86
LSHS (KL)	13841	13034	13463	525	494	508.6
Diesel (KL)	13749	14079	7437	544	557	293
Power Purchased(mwh)	1995446	2027029	2174350	20114	20432	21834
Total purchased				148421	150678	163729.5
Energy sold						
Coke	9605	68170	9674	261	1852	263
Tar products (t)	24761	41651	30150	911	1532	1109
Benzol Products (t)	21687	18367	17803	890	754	731
Total energy sold				2062	4138	2103
Net Energy Consumption				146359	146540	161626.5

Percentage contribution (in terms of energy) of various resources towards the total energy consumption of the plant

Coking Coal	=	82.49	%
Electricity (Including purchased)	=	14.11	%
Steam	=	2.73	%
Furnace oil & Petro-fuel (Excluding power plants)	=	0.30	%
Others	=	0.37	%

Energy Conservation

Some of the Energy conservation projects commissioned during 2010-11 is mentioned below.

Projects	Achievements of energy saving per year basis			Investment incurred (in lakhs)
	Power (MWH)	Heat (Gcal)	Total (Rs. in lakhs)	
Replacement of MG sets (1 to 6 and 9 to 11) with VVVF drives in Merchant Mill	660		25.4	36
Replacement of MG set motors of Roughing and finishing stand by thyristor convertors in Plate Mill	3960		152.1	4831
Commissioning of dedicated ventilation system (6 Nos. industrial blowers) for furnace pusher motors in Plate Mill	132		5.1	16
Replacement of BF gas burners of boiler No-3 in PP-1 with new fuel efficient burners		51120	176.3	17
Replacement of 60W GLS by 15W CFL:5000 Nos (Plantwide)	2956		113.6	3.35
Replacement of 250 W HPSV lamp by 200W Induction lamps:100 Nos (Plantwide)	43.8		1.7	25
Replacement of 55 nos. conventional blinker heads with LED based blinkers	72		2.8	1.375

Modernisation for Energy Efficiency

BSP has benchmarked its energy consumption in line with WSA (IISI) model for a model plant. Modernization of BSP by the year 2014 is already on the anvil, where all energy efficient technologies will be adopted. It is anticipated that after modernization, the present gap with international level will be eliminated and BSP will be one of the front-runner for energy conservation in steel industry. The projects conceived are expected to achieve target Energy Rate of 5.92 Gcal/TCS by the year 2014



R&D projects in energy /resource conservation & benefits (2010-11)

- Optimisation of naphthalene crystalliser process in TDP-1 to improve naphthalene yield at BSP
 - An instrumented system with PLC has been designed, installed and commissioned. Naphthalene yield increased from 3.07% to 3.25% (~5.86%). Naphthalene yield - 3.54 %.
- **Development and installation of co-axial lance in BF # 5**
 - Co-axial lance designed, manufactured & installed in Tuyere # 7. Trial revealed enhanced combustibility as indicated by increase in tuyere cooling water temp by ~5%
- **Introduction of new gas burner in place of existing old BF gas burner in one Russian boiler of PBS, Power Plant # 1**
 - Six new burners installed and commissioned in Boiler # 3, PP-1, BSP.
 - Burners are running successfully. BF gas intake increased resulting in saving of boiler coal by approx. 7200 t/annum.
 - Centralized mill monitoring at WRM,BSP
 - PLC based system designed, installed and commissioned for comprehensive monitoring of equipment of charging area, roughing & 1st intermediate groups, Strand A coil finishing area and selected mill utilities. System functioning successfully since February 2011.
- Improvement in cast structure in blooms through optimization of EMS parameters
 - Equi-axed structure (area wise) in rail blooms improved from ~ 5% (without EMS) to around 24%(with EMS). Centre line segregation eliminated and line segregation in the web portion of rolled rail significantly reduced
- Development of on-line document management system for personnel department
 - Designed & developed a software for storage & retrieval of scanned images of employees service documents and its integration with existing Human Resource Information System (HRIS)
- Investigation of surface defects and its genesis to minimize IU generation of rails in R&S Mill
 - Reduction in IU rail from 10.72 % (2009-10) to 8.37 % (Nov'10-Mar'11) by :
- Removal of scale/chips from rolling field
- Bloom coating with anti-decarburisation solution before reheating
- Rolling of round cornered blooms
- Correlation between number of RHF in operation and IU rail arising
 - Financial benefit Rs 9.71 Cr in 5 months.
- **THRUST AREAS for 2012-13**
- Improvement in quality of iron ore fines by optimizing operation of classifiers & beneficiation of entire slime at Dalli Mines.
- Coking Process Management and control System (CPMS) in COB # 4.
- Introduction of new combustion system and furnace insulation system in normalising furnace # 1 of Plate Mill.
- Installation & commissioning of Waste Heat Recovery Systems for SP 3 and SP 2.

Environmental Expenditure

Environmental Expenditure (Rs. in lakhs)

A.1 Compliance or Regulatory Cost	
Consent Renewal Charges (e.g. Application fee etc.)	5.0
Water Cess	50.7
Monitoring /Detection/Analysis	8.5
A.2 Conventional (Other Environment related) Costs	
Pollution abatement Cost	6233.51
• Capital cost of the pollution control schemes including GHG abatement projects, PC instrument/equipment facilities etc.	
• Operating & maintenance cost of the instrument/equipment	5213.35
Training (awareness/competency) on environment related topics/items	1.25
Waste Management	3162.70
A.3 Voluntary Cost	
Community Development	
• Measures taken during the year for environment friendly projects/ schemes, Community Development schemes like installation for Solar lighting system etc.	369.1
• Tree Plantation	194.14
Audit + Certification (e.g. Internal Environmental Audit done for the year and the subsequent cost involvement for EMS – ISO 14001)	0.265
Reports (beyond statutory)	2.5
• Const of publication of Sustainable Report, Annual Environmental Reports/ in-house magazine/bulletin etc.	
Environmental Studies (AAQ & Fugitive emission Monitoring & Source apportionment studies by NEERI)	48.53
A.4 Image and Relationship Costs	
Celebration of Environment Month, World Environment Day, etc.	0.075
Cost incurred for Environmental awards application/image relationship management by the unit.	2.5
Total Expenditure	15292.12

Environmental Dividends: 2010-11 (Rs. In Lakhs)

Selling of By-products/waste	9722.2
Selling of used Refractory	746.5
Total dividends	10468.7

Biodiversity

Land Use Pattern at Bhilai Steel Plant

Units	Revenue area in Hectares	Forest area in lease in Hectares	Non-forest area in Hectares
Bhilai Steel Plant (Works)	3248.9	Nil	3248.9
Bhilai Township	2939.9	Nil	2939.9

Out of the land under Steel Plant 1100 hectares is used for water reservoirs Maroda-1 & II

Land use pattern at Mines

Name of the Mine	Leased Area in Hectares	Forest Land in Hectares	Revenue Land in Hectares
Rajhara Mechanized Iron ore Mines	220.42	100.76	119.66
Dalli Mechanized Iron ore Mines	719.6	283.6	436
Dalli Forest range Manual Iron ore mines	100	100	Nil
Mahamaya dulki Iron Ore Mines	1522.67	1522.67	Nil
Kalwar Nagur iron ore Mines	938.06	938.06	Nil
Nandini Mechanised Lime stone Mines	526.34	Nil	526.34
Hirri Dolomite Mines	128.77	Nil	128.77



GHG Emissions

The combustion of fossil fuels like Coal, Furnace oils and other petroleum and coal based products at various process shops results in emission of Green House Gases mainly CO₂. The shops contributing to the emission of CO₂ emissions are Coke ovens (Batt. #1 to 10), Sinter Plants (No. 1, 2 & 3), Blast Furnaces (1 to 7), Steel Melting Shops (I & II), Rolling Mills (Plate Mill, Billet & Blooming Mill, Merchant Mill, Rail & Structural shop), Captive Power Plant (PP-1), Other auxiliary Shops like Foundries, Acetylene Plant, Emissions due to movement of Vehicles like Locomotives, dumpers etc.

The other indirect relevant green house gas emissions are:

- Emission during transportation of raw materials from captive mines and other sources.
- Emission during transportation of products to customers.
- Emission due to movement of employees

BSP endeavors to reduce environmental load through well-considered selection of transportation modes, reduction in distance, improvements in load efficiency, and introduction of information technology for communication with suppliers and consumers to reduce travel of personnel and improve their satisfaction level.

New Generation Products

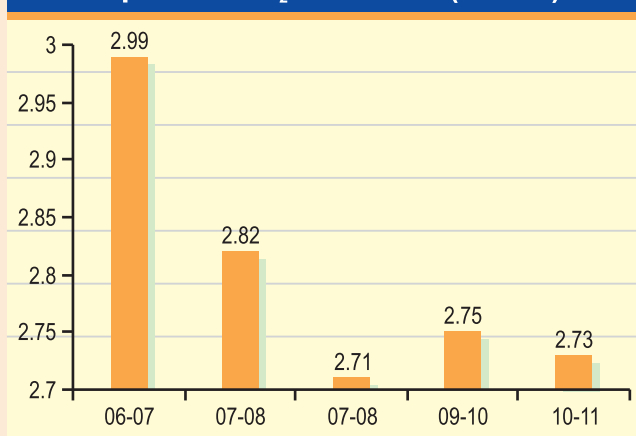
The iron and steel industry can contribute to energy conservation and reduction of the carbon dioxide emission on the part of users by improving the quality, properties and application of steel products in addition to energy-saving in the manufacturing processes assessment of high-performance steel products will be carried out for estimation of reduction of CO₂ emissions during manufacturing and its use. We have identified some of the high functional steel products.

BSP eco-friendly products create value to customers and also help in reducing the GHG emissions during use stage by lower steel needs with high strength, high temperature resistant, fuel savings during light weight plates etc.

- Use of high-strength steels reduces the need for heavy load-bearing beams save energy and greenhouse gas emissions.
- Compared to concrete, steel intensive buildings have less impact on the environment during on-site work.
- The double-hull large vessels made from a new generation high strength and lighter steel plates increases fuel efficiency.

- Steel is the main material used in wind turbines. 3.0 megawatt wind turbine generates 280,000 MWh in 20 yr resulting in saving of about 230,000 t of CO₂.

Specific CO₂ Emission (T/TCS)



Abatement of Green House Gases & Clean Development Mechanism

Bhilai Steel Plant has identified 23 Clean Development Projects (CDM) which have already been completed or will be taken-up under BSP, 7.0 MT expansion plan.

Three projects of BSP, have been certified under Voluntary Emission Reduction (VER). The implementation SP-3 waste heat recovery project has resulted in the reduction of 9,51,822 Tons of CO₂, BF-gas utilization in PP-1 has resulted in reduction of 6,32,000 T of CO₂ and BF # 3 & 4 Thyristorisation has resulted in 22,921 T of CO₂ till 2008-09. These projects will yield about 2,00,000 T of CO₂ reductions every year till the completion of 10 year cycle period.



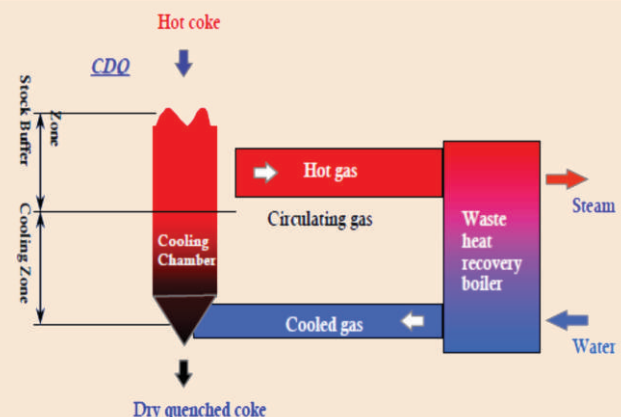
The details of CDM projects taken-up at BSP

Completed Projects

- Heat recovery from Sinter Cooler of Sinter Plant #3.
- Coal Dust Injection (CDI) in Blast Furnace 1, 5, 7.
- Blast Furnace gas utilization at Boiler #6 of Power Plant-1.
- Thyristorisation of Blast Furnace #3&4 skip hoist electric supply for better operation efficiency and energy conservation.
- Additional BOF gas evacuation scheme for increased gas recovery.
- Resizing and improvement in design of impeller of Gas Cleaning Plant (GCP) in Steel Melting Shop #1.
- Independent Exhaust system for slab casters #2, 3, 4.
- Commissioning of Variable Voltage Variable Frequency (VVVF) drive ID fan motor at Steel Melting Shop #2.
- Modification in furnace of Rail & Structural Mill.
- Micro-processor control system at Reheating Furnace of Plate Mill.
- Replacement of CFC #11 by Li-Br based chilled water plant.
- Recycling of BOF slag through Sinter Plant.
- Installation of VVVF drive at BOF converter # 1, 2 and booster Fan.

Envisaged Projects

- Coke Dry Quenching (CDQ) in New Battery #10.
- Installation of Top gas Recovery Turbine (TRT) at Blast Furnace 8.
- Installation of gas fired boiler for power generation from gas of New Blast Furnace #8.
- Waste heat recovery from new Sinter machine.
- Hot stove waste heat recovery for Coal Dust Injection unit of new Blast Furnace #8
- Replacement of Twin Hearth Furnace (THF) with BOF converters.
- Installation of energy efficient compressors in oxygen plant.
- Replacement of existing motors with energy efficient motors in Mills.
- Walking beam furnace at Mills
- Energy efficient shaft kilns at new Refractory Material Plant #3



Habitat changes due to operations. Amount of habitat protected or restored

Bhilai Steel Plant does not fall in protected or sensitive area. Areas of operation of the company do not have any World Heritage sites or Biosphere Reserves/ Protected areas. Environmental Impact Assessment study indicates that no reportable changes to natural habitats have occurred from the company's products, services and activities.

Objectives, programmes, and targets for protecting and restoring native ecosystems and species

In Bhilai Steel plant as well in the Township, various types of species are planted. Most of them have economical importance and medicinal value.

Bhilai Steel plant has made major efforts in improving green belt areas inside the plant premises as well as in the township. For developing green belt area, conditions of soil have been kept in view. Another most important criterion, which, BSP has kept in view, while implementing the scheme, includes the selection of the species. The plant species have been selected according to local climate, soil type, environmental requirement, survival of the species, longevity of the particular species, oxygen bearing capacity, improve the aesthetic purpose, to improve lush patches of greenery and offset the effect of the industrial pollution. In order to extend the greening efforts, road side plantation along 30 kms of state highways is done.

- Systematic plantation of suitable species in the identified locations
- To Study relative exposure vs. dust capturing capacity of various identified plant species through natural and controlled exposure.
- To evaluate rate of dust deposition/capture capacity of different plants species (Herbs, Shrubs & Trees)
- To identify the Plant species with high potential for Control of Dust/Suspended Particulate Matter in Ambient Air.
- To prepare checklist of Plant species for Phyto-remediation of particulate matter from ambient environment.
- Conserve the various species planted in the plant and township area
- Perform Mixed type of plantation upto 90% of survival rate.
- Promote plantation for bio-diesel, 60,000 Jatropha plantation has been done in the plant & township.

- Evolve process of collection of seed from Karanj tree and facilitation for production of bio-diesel from Karanj seed.

Impacts on protected areas

The complete owned area is well managed by the management of Bhilai Steel Plant with sustainable development. There is no waste land in Township as well as in Plant premises. There is proper provisions for the green belt area development in both the areas and the activity is on going process. There was no forest cover in the project site. However, a variety of plants and trees are found near village settlements. The important among them are mango (*Mangifera indica*), Imli (*Tamarindus indica*), Pipal (*Ficus religiosa*) and neem (*Melia azadirac*). There is no adverse effect in the existing land use pattern in the area and also in surrounding on account of the present project. The greening efforts have improved the soil condition in the area.

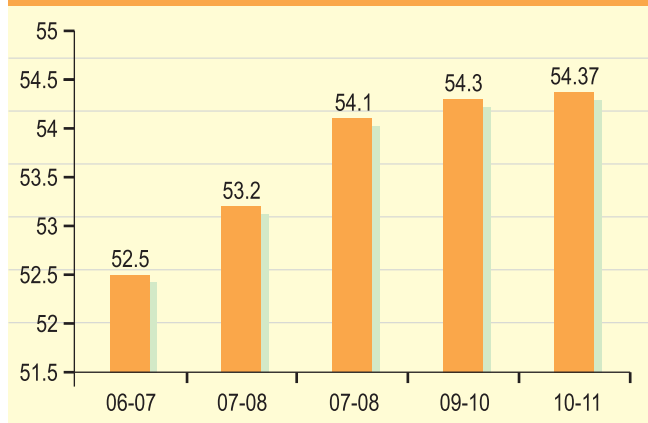
Greenbelt Development

Bhilai Steel Plant is committed to its environmental policy in which afforestation finds a pre-dominant place. BSP has put in a major effort to promote greenery in and around Bhilai. This includes organized tree plantation on large scale; development of gardens and parks in Mines, Works area and Township; rehabilitation of slag dumps; seed broadcasting and encouraging employees/citizens / students to take up green belt development.

Today Bhilai and its mines has an estimated population of 54 lakh trees. This comprises of 30.5 lakh trees inside the plant, and township and 23.5 lakh trees in the mines



Cumulative Plantation in plant, Township & Mines (in lakhs)



Greenery efforts during the year

Plantation done in Township	=	7121
Road side plantation & length of road covered	=	88,000 & 100 Kms
Total area covered w.r.t. Land Holding area (%)	=	33 %
Cost incurred during the year (Rs.) (for plantation and maintenance)	=	2 Crores



Development of gardens inside & outside the plant

The plant and township are replete with gardens and trees. Some of the gardens developed inside the plant & township are:



Inside Plant

- 15 gardens over 30 acres inside the plant
- 3 nurseries with 25000 plants of 125 flora varieties.

BSP Township

- 6 major gardens including 'Maitri Bagh' the best garden in Chhattisgarh in 125 acres with zoo & Musical fountain.

Afforestation Done In BSP Mines

Name of the Mines	Description	2008-09	2009-10	2010-11
IOC	Area in Ha	6.55	5.00	NIL
	No. of Plants	16375	5500	NIL
NANDINI	Area in Ha	5.0	NIL	NIL
	No. of Plants	12500	NIL	NIL
HIRRI	Area in Ha	NIL	NIL	NIL
	No. of Plants	NIL	NIL	NIL

Splash of colour; dash of fragrance in the Crucible of steel

Gardens inside the Plant - Is it a Steel Plant in a Garden or a Garden in a Steel Plant.!!



GARDEN AT WB - II



SWARN JAYANTI UDYAN



SHRAM UDYAN



MARS GARDEN



ISPAT UDYAN-SMS-II



ROSE GARDEN

Environmental Awareness & Eco Clubs

BSP has accorded top priority for environmental awareness amongst its employees, School children & general public. Several environmental improvement schemes have been taken up under quality circles by the employees, which has resulted overall environment improvement, energy & resource conservation. A Six sigma project for fugitive emission control was also implemented in coke ovens.

43 eco-clubs registered with MOEF are functioning in BSP schools under the National Green Corps (NGC) programme of Ministry of Environment & Forests (MOEF). The students participate in the various environmental activities and awareness programmes in the township and commercial areas as listed below:

- World Environment Day – 5th Jun.
- International ozone layer protection day - 16th Sept
- National Environment Day – 25th Nov.
- National Pollution Prevention Day – 2nd Dec.
- Mass tree Plantation
- Essays, Slogans & Poem competitions
- Field Trips to Observe surrounding industries (ACC)
- Organizing Lectures & Demonstration of Scientific Experiments
- Working Models
- Rallies
- Development of Vermi-composting practices'

These awareness programmes were attended by more than 20000 school children of various BSP & private schools.

Activities and enhance awareness in the township and commercial areas by taking out rallies and door to door interaction.





**Sharing &
caring**

Social Performance



Labour Practices & Decent Work

Employees at Bhilai Steel Plant are treated with dignity and respect. Human Resource policies promote diversity and equity in the workplace, as well as comply with all labour laws, UN Global Compact Principals and international best practices. BSP being a public sector enterprise provides equal opportunities to all its employees, as per the Central govt rules, without regard to their race, caste, religion, colour, ancestry, marital status, sex & age. Employee policies and practices are administered in a manner that ensures that in all matters equal opportunity is provided to those eligible and the decisions are merit-based. BSP aims at ensuring transparency, fairness and equity in all its interactions with its employees to create an enthused and happy workforce. BSP's Human Resource policy recognizes its people as the primary source of its competitiveness. It focuses on constantly updating and challenging intellectual capabilities to enable them to excel in performance.



Special efforts are made for enhancing strategic thinking skills and analytical abilities of its managers and workers. It ensures that employees' full potential is realized by designing work system and processes conducive to achievement orientation, providing opportunities to employees for development and career growth, motivating through recognition, catering to different employee segments. BSP strives to provide a safe and healthy working environment for its people and ensures compliance to all health, safety and environmental regulations in each area it operates.

Safety and occupational health responsibilities are driven by the commitment to ensure zero harm to the people and society at large. It has policies and processes in place to address issues of safety, health and environment. BSP has adopted and is certified to ISO-14001 and OHSAS-18001 guidelines in order to ensure continual improvement in safety, health and environment at work place.

A system of Joint Consultation has been in place in BSP since its inception.. The discussions include all labour related issues.



This is a system in which both management and employee representatives consult each other at all levels on matters relating to the progress and prosperity of the organisation. Employees discuss various issues related to production, productivity, quality, safety, welfare, training etc. BSP has an impeccable record of industrial harmony. The testimony to this fact is, not a single day of its operations have been lost due to labour strikes & disputes. Pioneering Employee Welfare measures have been taken by BSP to keep high morale & loyalty.

Employment

In tune with the initial objective of the public sector to provide employment opportunities, Bhilai Steel Plant has offered considerable employment. Considering the social goals of the government and its own obligations, BSP has consistently endeavored to be a model employer. It has striven to distribute social benefits to its employees in good measure. In addition to

this, BSP also contracts out jobs. The strength of the contract workers has been on the rise owing to expansion/modernization activities of the plant. Presently more than 11,000 contract workers are engaged in side the plant. All the employees of BSP are Indian Nationals. BSP inducts persons on its rolls, depending upon the needs.

BSP is committed to implement the SAIL CREDO, which clearly states for "Creating meaningful difference in the quality of life". Being a public sector organization, equal opportunities are provided to all without regard to gender, caste, religion and marital status. During career progression promotions are strictly based on merit. Female candidates are also given ample opportunity in the new recruitments. Women are represented in good measure in executive cadre. Over the years, more and more women are entering this non-traditional sector.

As on 01/04/2011, BSP had a total workforce of 31247 employees.

WSA Sustainability Indicators for Social Performance: 2010-11

Indicator	Unit	BSP's Value	WSA Average value.
Employee Training	Training days/ employees	11.98	8.6
Lost time injury frequency rate	Frequency/ million hours worked	0.509	2.6

Break-up of Employees

As on Date	Works	Admn.	Township & Medical	Construction.	Mines	Trainees	Total
1.4.2009	23184	3006	3138	358	3066	235	32987
1.4.2010	22804	2929	3133	437	2896	364	32563
1.4.2011	21971	2775	2929	424	2715	433	31247

Number of employees by gender and age group

Age	Male			Female			Total		
	08-09	09-10	10-11	08-09	09-10	10-11	08-09	09-10	10-11
<30	376	422	388	36	50	52	412	472	440
30-50	20750	20703	19520	904	886	849	21654	21589	20369
>50	10096	9763	9777	825	739	661	10921	10502	10438
TOTAL	31222	30888	29685	1765	1675	1562	32987	32563	31247

Employee Turnover

Age	Male			Female			Total		
	08-09	09-10	10-11	08-09	09-10	10-11	08-09	09-10	10-11
<30	20	2	18	1	5	4	21	7	22
30-50	20	3	17	6	12	3	26	15	20
>50	5	0	3	2	5	1	7	5	4
TOTAL	45	5	38	9	22	8	54	27	46

Location-wise breakup of employees (2010-11)

Age	Executives			Non-Executives			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Bhilai	3520	245	3765	23465	1280	24745	26985	1525	28510
Mines (Dalli, Rajhara, Nandini, Hirri)	231	2	233	2452	30	2482	2683	32	2715
Regional Offices at Mumbai, Delhi etc.	13	2	15	4	3	7	17	5	22
Total	3764	249	4013	25921	1313	27234	29685	1562	31247

BSP does not maintain region-wise statistics. The turnover figures given above indicate only resignation cases.

Absenteeism

Year	Total man-days available	Unauthorised absentee Man-days
2008-09	9896837	178559
2009-10	8558079	148054
2010-11	8377356	146950



Employment Information

Item	2008-09	2009-10	2010-11
Employee Training			
Lost time injury frequency rate			
1. Total number of employees			
i. Number of permanent employees	32987	32562	31247
ii. Number of contract employees	6703	6813	11298
iii. Number of daily wage workers	1	1	1
2. Total number of management (officer) grade employees	3544	3799	4013
3. Ratio of non-management to management employees	8.3	7.6	6.8
4. Segmentation of total employees by gender			
Male	31222	30888	29685
Female	1765	1675	1562
5. Total employee benefits			
Statutory (Rs Crs.) :	96.64	1059.6	1816.6
Non-Statutory (Rs Crs.)	165.88	1383.3	2014.7
6. Net employment creation (Nos)	270	937	154
7. Employee turnover (%)	0.264	0.155	0.238
8. Learning /Training (Mandays/employee/yr)	12.67	11.95	11.98

Labour /Management Relations

BSP has structured forums for discussing various issues pertaining to Production, Welfare and Safety with Union/Employee groups. All major changes in operations involving work processes and other productivity-linked issues are carried out after discussion and consultation with the employees and the recognized trade unions of plant and mines. Local agreements are signed periodically with trade unions. Bhilai has a tradition of joint consultation and workers participation, through a wide network of bipartite forums, covering a wide range of organizational activities. The consultative approach has resulted in an atmosphere of mutual respect, trust and understanding between the management and workers. The area of activity cover work technology, employee's welfare, social amenities, environment and collective bargaining. Positive steps have been taken by the management to educate the people so as to have a clear concept of obligations of both parties.

The various policies, rules and systems, which affect employees like Performance Appraisal System, Promotion Policy, Grant of various Advances and Allowances, Disciplinary procedure, Motivation Schemes etc. are clearly defined and well circulated. There is total transparency in Management's functioning.

Further, extensive communication is maintained with employees through wide spectrum of platforms.

The basket consists of one way, two way and one-to-many forums; in different media, from print to web based.

Means of communication	Frequency	With	Issues/Remarks	Top Down/ Bottom Up
COMEX	Bi-annual	All executives	Company information; performance, financial results, business scenario, challenges.	↑ ↓
Shop Communication Forums	Monthly	Departmental employees	C o m p a n y / P l a n t /Departmental issues	↑ ↓
Bi-partite forums e.g. Departmental Welfare Committees, Departmental Production Committees, Departmental Safety Committees	At Agreed frequency	Union Representatives / NMR	Policy issues. Feedback	↑ ↓
APP	Weekly	HODs	Performance related	↑ ↓
QIC	Monthly	Quality coordinators	Quality issues, improvement projects, Chaired by GM(Q)	↑ ↓
ICS Interactions	Annually	Officials of Internal customer-suppliers	Agreements on internal customer requirements	↔
Publications: Parikrama, Ripplese- publications: e-Spotlight	Monthly fortnightly	All employees All employees	In-house magazines In-house magazines	↔
Wall Paper - Ispat Sandesh	Monthly	All locations	Company info	↓
CableTV/intranet news bulletin : Bhilai Reflections	Bi-weekly	Employees and their families	Important events. Relevant messages are covered	→
Intranet based departmental web sites	Continuous	All employees	All issues	↑ ↓ →
Information sharing forums at various shops	Weekly	Employees of Various shops	Departmental issues like challenges/ innovations are discussed	↑ ↓



Means of communication	Frequency	With	Issues/Remarks	Top Down/ Bottom Up
Workshops on Labour Laws	Quarterly	Factory Managers & Contract Operating Authorities	Useful inputs on better appreciation and compliance of Labour Laws	↑ ↓
'Paraspar' - Info-sharing by topmost executives	Need-based	Executives of all levels	Experience sharing for professional development	↑ ↓
Mass Awareness programmes for combating recession by top management		Cross-sections of employees	Open and focused theme-based discussions	↑ ↓
Service with a smile (QOL)	Need-based	All employees	Behavioural issues with customer focus	↑ ↓
ED (P&A)'s open forum	Weekly	All employees	'Open Door Policy' of top management'. Facilitates direct feedback as well as Grievance redress	↑ ↓ →
Open forums of Personnel Executives	Weekly	All employees	Sharing Ideas, Work, Learnings	↔

Sa8000: 2001 has been implemented across the organization. As per the requirement of standard, Non-Management Representatives (NMR), essentially non-executives, have been nominated from various departments. Fair representation of female employees for NMR has been ensured. These NMRs are primarily responsible for establishing communication between workers and management and implementing various procedures, practices and action plans.

BSP has a unique system for harnessing the creative potential,

gathering and dissemination of information through involvement of employees at various levels and forums. BSP has many schemes like the suggestion scheme, quality circles etc. Selected QC projects are documented and published in the form of Booklet annually for the purpose of dissemination of knowledge and information, so that people can learn from the experience of others. Selected QC project teams are sponsored for national and international competitions, who have brought laurels to BSP from these competitions.



Recruitment & career development

SAIL, the holding Company has its recruitment policy and BSP is implementing the policy at unit level. BSP has also formulated its HR policy. Further, the system approach of recruitment in BSP aims to fulfill manpower requirements as per the approved Human Resources plan in terms of age, qualification, skill, experience, physical standards with a view to fulfilling company's productivity objectives. There are well laid-out promotion policies for both Non-executives and Executives to ensure appropriate career development. The rigorous and objective system of recruitment ensures fairness in all types of employment, including providing equal opportunities irrespective of religion, region or sex. Written test (objective type multiple choice questions) is used in all selection tests including those at lowest cadre. Subjective evaluations like interview are given only 20% weightage in the overall selection system. In view of manual contents of the plant jobs at the lower levels the aspirants are required to undergo elaborate physical ability tests.

Professional/ Employee ethics

As clearly laid down in the service rules for all categories of employees, an employee shall at no time work against the interest of the company. He shall at all times conduct himself soberly on and beyond the organizational premises, and show proper respect and civility to all concerned.

Organisation has also framed its own rules and procedures covering service matters. At present, there are four sets of service rules that are force in Bhilai Steel Plant:

- SAIL conduct, discipline & appeal rules 1977
- Standing Orders (Plant)
- Standing Orders (Mines)

All the employees of BSP are covered by the Collective bargaining agreements; some agreements, which are department specific, cover the employees of those departments only. The notice period required, as per the provisions of the CGIR act, is 14 days.

Welfare Initiatives for Contract labour:

BSP considers the contract labour working herein as one of its important stakeholders. In 2009-10, BSP started special allowance for all contract labour @ Rs.10/- per day of actual attendance (w.e.f. 1.11.2009) and payment of Additional Welfare Amenity (AWA) to contract labour. (w.e.f. 01-10-2009) @ Rs. 38.46 per day of actual attendance subject to maximum of Rs.1000/- per month. Further, as a major policy decision, in case of a fatal accident of a contract labour at works, one of his/her eligible dependents is being given employment on compassionate grounds. Earlier, this provision was applicable only to the regular employees.



Occupational Health and safety

Safety is accorded top priority in SAIL. The Safety is treated at par with Production & Quality concern. Bhilai Steel Plant has adopted and implemented OHSAS-18001. The emphasis is placed on practices being proactive and preventive by the identification of hazards and the evaluation and control of work related risks. BSP has a well defined Safety Policy which has clearly specified the objectives and goals for enhancing Occupational Health & Safety.

To achieve the objective laid down in the policy, annual Safety management programme is formulated every year. The programme includes various Safety management efforts like:

1. Regular Safety inspections of work areas, Safety Audits Internal as well as external.
2. Investigation & Enquiries into all accidents and near miss cases.
3. Safety awareness programmes like Safety talks, Safety Weeks, National Safety Day, Safety Propagation and Safety seminars etc.
4. Job Safety analysis and Risk assessment and elimination.
5. Providing and enforcing the use of PPEs.
6. Safety awareness training programme covering 8000 employees and 900 executives per year. i.e. One third of employees every year.
7. Under OHSAS-18001 Group Risk Assessment for all activities have been carried out and measures have been adopted to identify and control high risk activities.

Technical measures

Hazards/ problems have been identified and rectified through

- Inspections carried out by representatives of SED and departments.
- Internal audit as per OHSAS format by lead auditors in all major shops, twice in a year
- Daily monitoring of Project activities by Senior officers of SED.
- External audit as per NSC guide lines in MAH Units by the auditors from SSO Ranchi and other Steel Plants
- Contractor safety audit for contractual job in all departments
- Special campaign for inspection of vital equipment/ areas like ladle and mould cars, hot metal & slag thimbles, welding

transformers, crane walkways, over head platforms, pressure vessels, scaffoldings, conveyors, cable galleries, oil cellars, coupling decoupling, rail-road crossing, crash helmet checking etc.

- Inter plant standard for steel industry [IPSS] prepared for more than 12 major jobs.
- Providing user friendly personal protective equipments [PPEs] to the workers.
- Preparation, updation and follow up of protocol for all important and hazardous jobs.
- Head of Safety holds interaction with HOD, line managers, safety stewards and workers by visiting all departments on monthly basis.
- Monitoring of loco movement at railroad crossings.
- Organising ROKO-TOKO campaigns
- Ensuring the usage of Full body harnesses by workers during height jobs.
- Reporting, investigation of all near miss cases and implementation of suggestions/ recommendations for preventing recurrence of same in the Shop floor.

Safety Stewards

To enhance the involvement of the employees towards safety related issues, 216 non-executives have been nominated as Safety Stewards. They are empowered to take actions to eliminate potential safety hazards encountered by them in their work areas. In addition they propagate safety awareness amongst their colleagues. As a measure of recognition, they have been issued Green Helmets. Further to treat safety as a way of life, a concept of Safety Circle, which consists of cross-functional teams of non-executives, headed by an executive is in place.

Safety for Contractor's workers

- Induction training and Job related safety training to all contractor workers
- Training for working at height and medical check-up of contractor workers before issue of height passes and gate passes.
- Medical check-up of CPF covered contractor workers.
- Contractor safety audit on quarterly basis.

- Surprise inspections of contractual jobs by committee headed by DGM (Safety).
- Imposing fine for violations on Contractors & transporters
- Putting in Safety conditions in the contract conditions that use of full body harness and other relevant PPEs are compulsory.

Medical Examination : A significant number of employees were medically examined and recommendations were given to each employee for better health care

Safety Training : Safety Training was given special thrust to improve safety consciousness amongst employees and a large number of employees were exposed to various training

programmes Number of fatal accidents were zero in 2010-11& accident frequency rate is also showing a downwards trend

Year	No. Participated in Safety Training
2006	30841
2007	23991
2008	33818
2009	37157
2010	40991

Safety Statistics

Frequency rate

Year	Frequency Rate (number of accidents per million man-hours worked)		No of employees (R+C) Inside plant premises	Mandays lost due to reportable accident (R + C)	Manhours worked	Injury rate (number of accidents per two lakh man-hours worked)	
	Reportable + Fatal	Total (Rep.+Fatal + non rep)				Reportable + Fatal	Total (Rep.+Fatal + non rep)
2008-09	0.111	0.68	29200	167	0.72×10^8	0.0222	0.136
2009-10	0.194	0.67	29000	792	0.72×10^8	0.0389	0.133
2010-11	0.04	0.52	28400	263	0.70×10^8	0.008	0.105

(Including regular and contractual labours; man-hours : (8 hours/day for 310 days)

(IR= Number of injuries*200000/Hours worked; FR= No. of accidents *106 / Man hours worked)

Lost day rate

Year	Total (Fatal + Reportable+ Non reportable)
2008-09	0.464
2009-10	2.202
2010-11	0.75



Accident details

Year	Fatal		Reportable		Non-reportable		First Aid		Total		Grand Total
	R	C	R	C	R	C	R	C	R	C	
2008-09	5	0	3	0	41	0	43	0	92	0	92
2009-10	1	1	11	1	34	0	69	1	115	3	118
2010-11	0	0	3	0	34	0	61	0	98	0	98

R = Regular C= Contractor

Other safety information

Parameter	2008-09	2009-10	2010-11
Fatal	5	2	0
Non-Fatal Reportable	3	12	3
Accident Rate/1000	0.27	0.47	0.10
Near misses	32	79	91
Incidents	51	31	28
Dangerous Occurrences	09	08	06
Frequency Rate	0.11	0.184	0.04
Severity Rate	406.02	170.96	3.62
Fatality Rate	0.167	0.067	0.00
Man days lost due to reportable accident	30167	13021	263
Total costs due to injuries (In rupees)	11450850	3763380	Nil



Learnings in Safety management

- Walkway / Platforms at the roof top.
- Ensured installation of Guy Rope.
- Ensured use of Fall Arrestor.
- Ensured use of Double Life Line Full Body Harness.
- Monkey ladders have been replaced by Stair cases.
- The screw conveyor was replaced by Belt conveyor in CDCP area of BF. There by reducing the hazard involved in Screw conveyor.
- Use of Bamboo scaffoldings is completely banned and only steel scaffoldings are permitted for height jobs.
- Safety belts and single life-line Full body harnesses are completely replaced with double life-line full body harnesses.
- Wheel with proper guards to reduce hazards due to wheel breaking.

Learnings in Occupational Health

Based on the OHS surveys & recommendations number of modifications & engineering controls has been carried in work areas every year so that the OHS risks are drastically reduced or completely eliminated. Some such success stories of in 09-10 & 10-11 are illustrated below.

Respirable Dust

1. Dedusting system of Ferro Alloy section has been upgraded & modified dust level reduced from 6.70 mg/m³ to 1.85 mg/m³.
2. Installation of new sand mixing system reduced sand dust concentration from 7.88 mg/m³ to 1.90 mg/m³ at Foundry & Pattern Shop

Noise Control

1. Hooter was removed & replaced by low volume bell from furnace control room pulpit 2 which helped in reducing noise from 96 to 91 dB in Wire Rod Mill.
2. Enclosure in pulpit 19 & 23 reduced noise exposure from 98dB to 91dB in Rail & Structural Mill finishing area.

Heat Stress

1. A blower with cooling arrangement has been installed in over bridge cabin in Plate Mill, Heat Stress reduced from 310 to 28°C..
2. RAM Post pulpit of Wire Rod Mill repaired resulting in heat stress inside the pulpit reduced from 32°C to 29°C.



Training & Education

BSP is a learning organization where HRD interventions and training are a continuous process. Pre-employment training is given by the Bhilai Technical Institute, for training operatives, trade apprentices and graduate engineers. Post-operative training is also being imparted. Bhilai Management Training Centre caters to the needs of executives at the induction stage and later. BSP has full fledged in-house training facilities for imparting various kinds of training to employees including skill development. Management Training Institute at Ranchi equipped with well qualified faculty and provides high level training in the field of management and technology aspects to the employees.

Over the years, Bhilai Steel Plant has nurtured a culture that supports flexibility, learning and is proactive to change. During 2010-11 this was demonstrated by implementing the strategy and an approach plan aimed at developing and retraining potential employees for expansion and modernization units that are likely to come up as part of corporate plan. The HRD Policy and Objectives reflect this valuable partnership HRD of Bhilai Steel Plant is an independent ISO: 9001:2008 QMS certified department and follows a defined process for developing the competencies of its employees:

For Non-executive employees annual individual training needs are prioritized from the competency mapping database for 18,126 employees, which determines the competency gap with respect to the individual role.

Executive development needs are identified by individual, his reporting and reviewing officer as part of the online Executive Performance Management system (EPMS). Specific training needs of employees are fulfilled by training them in reputed external organizations like ASCI, MDI, IIMs, ESCI, CII, IITs, AIMA etc.

BSP has developed a vast pool of in-house 32 full-time 224 part-time trainers, who acquire proficiency through Instruction Techniques Programs, TOTO (Training of training officers) or OCT (Occasional Trainers) Programs. Innovative learning methodologies such as cartoons, live skits, experiential learning exercises, e-learning and games are used to simulate the learning environment as close as possible to the real context.

BSP partners with MoU partners like BOSCH-REXROTH and other reputed training providers for advance/critical technical training skills required for existing units/modernization in specific areas of Automation, electro-hydraulics etc., to train our employees at HRD centre itself. Similarly, on knowledge sharing and student/faculty exchange there exist a MoU with BITS Pilani.

Another note-worthy feature of evaluation of training effectiveness was introduction of a monthly composite score-card (2010-11) derived as an indices to look at reaction level, learning level, application and result level effectiveness comprehensively. The tracking clubbed with refinement measures have helped to improve aggregate effectiveness ratings of training programs from 3.01 in 2009-10 to 3.3 during 2010-11. A database of individual training needs and fulfillment is updated in a three-tier computerized application "TIMES"- Training Information Management Enhancement System. Similarly competency database is has also been computerized.

HRD POLICY

To be engaged in partnering a process for creating a workforce which continuously strives for excellence in all spheres of competence – knowledge, skills and attitudes – leading towards achievement of business goals.



OBJECTIVES

Accurate identification of human potential and learning needs

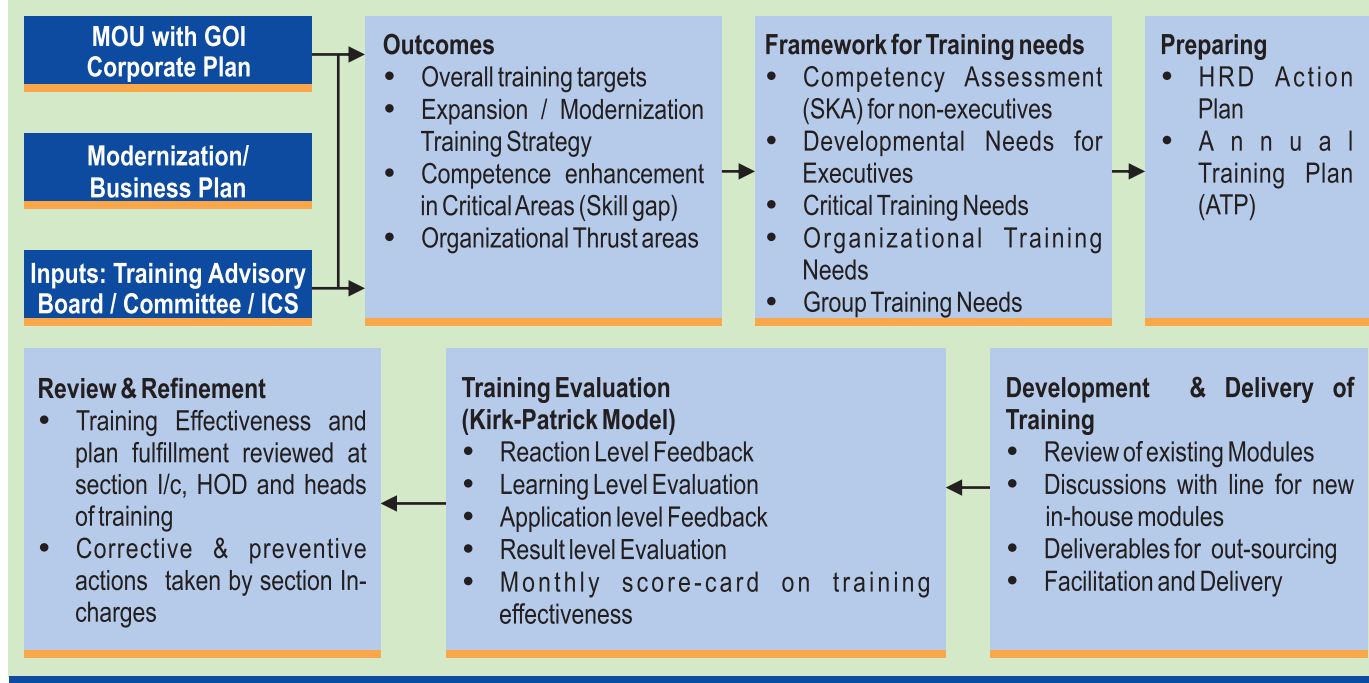
- Providing training & learning opportunities and best in class facilities
- Evaluation of training effectiveness and alignment with business goals

Leading to :

- Creation and sustenance of self-empowered and boundary less work ethos



Process followed for developing Competencies



Training Facility	Type of Training	Participants	Examples of Trainings held
Bhilai Management Development Centre	Techno-Managerial	Executives (E0-E5)	Action Leadership Micro-planning EME, MDP-I & II etc.
HRD Centre (a) Workshop (b) Large Assembly Halls (c) Class-rooms (d) Central Library (e) Computer Complex	Technical Skills Soft Skills Technology Advance Skills Systems Thrust areas Large Group Interventions	Non-Executives / Executives	14 Workshop Trades, Communication, Team-Building, Environment, Resource Conservation Computers, PLC, Electro-Hydraulics Iron and steel Making, ISO systems, OHSAS, SIFT, Cost Control, Safety, Technical knowledge based programs and interventions like SIFT etc.
In-Plant Training Centers	Process Management Problem Solving System awareness	Non-Executives	ISO:9001;ISO:14000; Plant processes, Shop Communication etc.

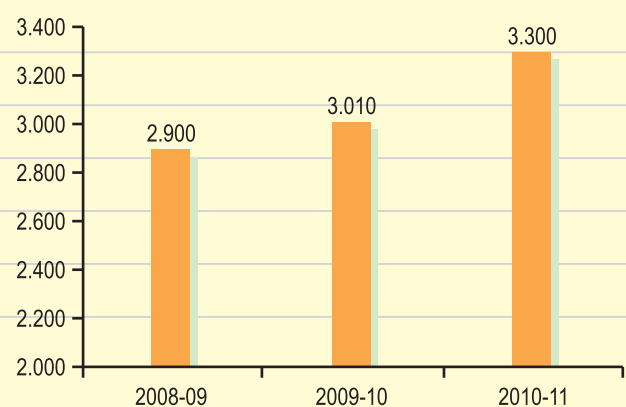
Major new training initiatives (In-house and External Support) in 2010-11:

1. Friends of environment (Environment & Sustainable development) underlined in ICS Agreement.
2. Kal Aaj aur Kal (Attitudinal Awareness), basic web skills and advance skills training imparted as part of modernization training approach plan
3. Cable Jointing as per ICS agreement partnered by line authorities.
4. Exploring the "Mission" for providing linkage with Vision and strategic frame-work with the help of ASCI, Hyderabad.
5. E-Sab-Tak a mass campaign on usability of in-house applications on BSP Portal was launched from May, 2010.
6. Workshops for leveraging innovation as a competitive business strategy wherein 12 projects were undertaken.
7. Training for development of TPM facilitators emerging from TAB & TAC meetings.
8. ABAP basic and advance training for ERP core group for trouble shooting in post consultancy scenario.
9. "SIFT" a series interactive workshops-Strategic Intervention for Transformation-a mass intervention for meeting the challenges of business environment in line with HRD Policy was conducted for four major zones involving cross-functional teams.
10. A major OD intervention "Success through People" was organized as part of group need of SMS-I employees.
11. Training to bridge critical skill gap on account of separating employees and succession planning in ten departments as per plan.
12. Workshops on "Technological advancements in Iron Making" for employees of six related department to enhance technological competence.
13. Fifteen new self e-learning packages from SKF on bearings and vibration analysis added in HRD portal to strengthen blended learning.
14. Training to fresh entrants non-executives was provided as per the new schemes emphasizing acquiring multi-skill was developed in 10-11.

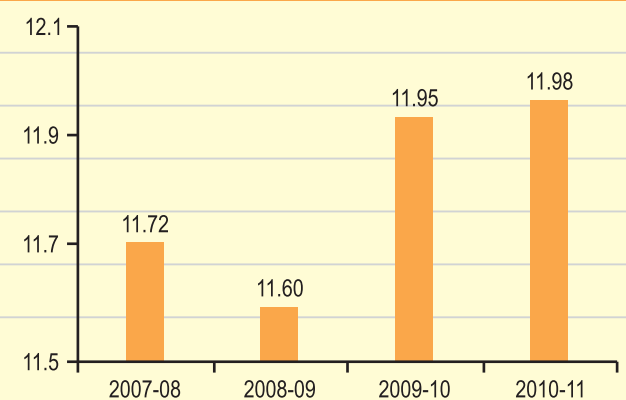
Regular training programmes are organized at 2 training centers to enhance the competencies.

Effectiveness of Training Programmes: Depending upon feedbacks, collected from each participant, desired correction or modification in the programme structure is done as & when required. Aggregate reaction level effectiveness shows rising trend in the satisfaction level of the participants.

Aggregate Reaction level effectiveness (In 1 to 4 scale)



Training Mandays (Days/Person)





Training details in 2010-11

Topic/Type of Training	Duration of Trg (Total man days)	Trainer(S) Internal/External	Persons trained (Nos)			Description of persons trained	Level of persons trained
			Exe.	Non exe.	Total		
Fresh Entrants	63121	External/ internal	114	179	293	Employees of the works, non works, mines area	Trainees in the level of executives in E0-E8 grade and non executives in S1-S11 grade.
Competence Enhancement	71414	External/internal	2305	8763	11068		
Specific Areas	2517	External/internal	76	1461	1537		
Foreign & External Training	3085	External	647	349	996		
Other Areas	1781	External/internal	453	240	693		
Total	141918		3595	10992	14587		
Other Training programmes							
Senior Management Training (E9 and above)	6	External	2		2	Executive directors	E9 and above
Safety Training of contract labours	31802	Internal		31802	31802		Contract labours
Quality Circle (1 day programme)	664	Internal		664	664		Both Ex/Non Ex grades
Total other Trainings	55815	664	5572	50239	55811		Non ex grades
Grand Total	197733	55815	9167	61231	70398		

Diversity and Equal Opportunity

Being a public sector Govt organization, equal opportunities are provided to all without regard to gender, caste, religion and marital status. During career progression promotions are strictly based on merit. Female candidates are also given ample opportunity in the new recruitments.

BSP is an equal opportunity employer that has employed both women and men of calibre. Since its inception, women have held positions of responsibility. BSP's compensation philosophy does not differentiate between male and female employees. The remuneration is linked to responsibility levels and performance. For the same work or work of similar nature male and female employees are paid equal remuneration.

The organization is committed to equal employment opportunities for attracting best available talent, ensure cosmopolitan workforce, the quality of life of its employees, developing their talent and maximizing their productivity. It ensures openness,

transparency, fairness and equity in all its dealings with the employees is another component of the organization's HR Policy. BSP Personnel Deptt monitors and prevents any discrimination in its activities and services. BSP code of conduct gives due importance to Freedom of Association.

Promoting and encouraging equal opportunities and diversity: SAIL Personnel Manual is available on the BSP home page (company intranet) which articulates clear policies and rules to promote and ensure that BSP is an equal opportunity employer. BSP has employed both women and men of requisite skill and competence. The company employs women in both technical and non-technical areas, which is around 5.35% of the total employees. A committee headed by a senior woman officer is in place to address issues regarding prevention of sexual harassment. BSP also conducts Exit Surveys regularly by holding EXIT INTERVIEWS. Separating employees give feedback on 22 different statements on a scale of 1(Not true) to 5 (Almost true) in a specially designed questionnaire.

The aspects covered in the Exit Survey Questionnaire are career development, communication, empowerment, opportunity to learn and achieve, recognition, equal opportunities, pay and benefits, motivation, satisfaction and various other employment conditions.



	2008-09	2009-10	2010-11
Total separations	950	1253	1223
No. of responses collected	349	556	601
%	36.7%	44.37%	49.10%

Exit Survey Questionnaire Points	% of employees who gave a rating of 4 or 5		Trend
	2009-10	2010-11	
I received recognition/award during my career with SAIL	68%	71%	↑
I got adequate training and professional development.	80%	84%	↑
Whenever I did good work and rendered extra effort, I received appreciation.	79%	83%	↑
Management shares timely and frankly information on various issues.	77%	81%	↑
I received fair treatment irrespective of my religion, caste and gender.	89%	91%	↑
Overall, I experienced satisfaction during my career with SAIL	92%	93%	↑

Human Rights

BSP Personnel Deptt monitors and prevents any discrimination in its activities and services. BSP code of conduct gives due importance to Freedom of Association. Freedom of Association is enshrined under constitution of India and in the Trade Union Act. BSP ensures that this law of land is complied with.

BSP do not have agreements that specifically include human rights clauses, or agreements that have undergone human rights screening. There are no violations of human rights in BSP

BSP does not rely heavily on outsourcing and global networks. No screening of significant contractors and suppliers based on human rights is being undertaken by BSP.

There are no known cases of discrimination on any grounds whatsoever in BSP.

There are no such operations in BSP where right to exercise freedom of association and collective bargaining are at significant risk. BSP encourages its Employees to exercise their freedom of association and collective bargaining. There are no incidents in BSP of violations involving rights of indigenous people.

BSP strongly believes in the protection of fundamental rights described in the Constitution of India. Our constitution enshrines all relevant principles and guidelines prescribed by the International Labour Organisation(ILO) on Human rights. There was no recorded case during the reporting year, on any violation of human rights.

The various issues related to human rights impacts are addressed and are enlisted below:

- No use of Child & Forced Labour.
- Training of each and every contractual employee on safety, health and environment
- Follow the Operational Control Procedures under ISO-14001 and Occupational Health Management System.
- Ensuring non- violation related to minimum wages
- Deduction of Provident Fund and Gratuity as per rules prevailing in the country/region.

The various segments of Personnel Deptt in association with deptts concerned conduct training programmes for understanding the health, safety, environment requirements needed for improvement in quality of life through, interaction with workers, inculcation team building, work culture and code of conduct.

The contractors working in the premises of the organization are required to adhere to the employees benefit schemes of BSP

including payment of minimum wages, deduction of provident fund and prohibition of child labour as explained above. The departments concerned along with safety deptt monitor the contractor's performance and wages are paid under supervision of HR. All longterm contractors are required to pay wages through cheques/bank . The tender notices and enquiries issued to the contractors during reporting period include clauses on human rights, safety and health which the bidders are required to conform.

'Bhilai Steel Plant emphasizes on equal opportunities and non-discrimination. There is no forced or compulsory labour in Bhilai Steel Plant. Legally it is prohibited in India.. Standing Orders & Personnel Manual of Company addresses the various issues of disciplinary practices/code of conduct, which are strictly implemented and followed. These orders are in line with Standing Orders Act of India. Suppliers and contractors are finalized as per the guidelines of Government and company rules.

Factory act and various Standing Orders of BSP, forbid the use of child labour. The minimum age required for the employment is 18 years. It is also ensured that no contractual labours having age below 18 years are engaged in the activities, product and services of the organization. The recruitment process requires furnishing of appropriate proof of age. BSP does not employ child labour.

There is an established three tier Grievance Management System in BSP and it is ensured that no vindictiveness takes place in the process after the resolution of the grievance. The process is so effective that there had been no industrial unrest/strike till date. ED (P&A)'s open forum held every week is an example of 'Open Door Policy' of top management'. & facilitates direct feedback as well as Grievance redressal.

For the contract labour deployed in BSP, regular awareness programs are conducted along with their safety training modules. During these awareness programs, valuable inputs are given to them about their statutory minimum wages, PF benefits, ESI benefits and other statutory benefits due to them, thus empowering them through Knowledge. These programs also serve as effective feedback channels for the management w.r.t the contract labour.

BSP has full-fledged support and services of Central Industrial Security Force (CISF) for ensuring security in and around the plant. A battalion of CISF has been posted with a special training centre, dedicated to the training of security personnel on issues like security practices and human rights at Bhilai. Trained personnels & employees of CISF and Fire Brigade Service assist

the District Administration as and when required and fully associate in the off-site emergency planning in the region.

Fire Service Department caters to the needs of Steel Works, the people of the industrial Township with a population of more than 0.2 million approximately, and all the local industries. Awareness training by Fire Brigade Deptt for the employees and students is organized. Fire Brigade Deptt received praise from Chhattisgarh Govt. for providing help in this region. A Govt. organization on Civil Defence is also working in tandem, for providing help during on

site and off site emergency situations.

SA8000:2001 addresses the fair practices implementation in the supply chain. The information related to compliance of SA 8000:2001 pertaining to child labour, forced labour, non-discrimination, freedom of association, health and safety of employees are sought through a structured questionnaire from suppliers. The practices of SA8000:2001 are promoted amongst suppliers.

Societal Performance

Bhilai Steel Plant understands its obligations to the society from which it has gained its identity. BSP discharges its social obligations by contributing to the welfare of its customers, employees, suppliers and the community at large. A separate department—Corporate Social Responsibility (CSR), headed by a Deputy General Manager, has been formed to institutionalize the

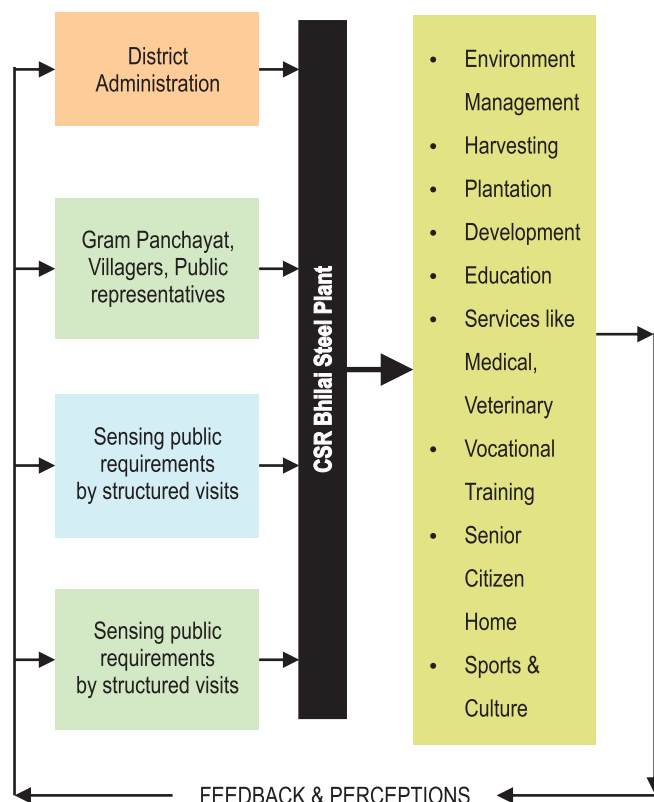
The major areas where Bhilai Steel Plant has taken up social responsibilities are:

- Education
- Mid day meal
- Medical & health services
- Vocational training
- Livelihood generation schemes
- Adoption of tribal children
- Bhilai Ispat Siyan Sadan
- Promoting sports & cultural activities
- Support to differently-abled
- Teaming up with voluntary organizations
- Support to Bhilai Mahila Samaj activity
- Tree Plantation
- Solar Energy systems
- Development of Model Steel villages

process of capturing the needs and expectations of society.

BSP's CSR initiatives range from environment improvement measures, increased access to health, education, improved water and sanitation, solar electricity, roads, ancillary development, etc. to ensure overall development in its areas of operation. Thus, through these initiatives, BSP integrated social responsibility into its business vision and processes.

Every operation and business process is designed and operated keeping in view its impact on society which has earned respect for BSP in the region as a responsible member of the society and as an employer that cares for its people.



Chief Executive reviews the CSR activities and ensures they are in tune with corporate policies of the organization as a whole. Inputs from assessors of prestigious awards like PM's Trophy for Best Integrated Steel Plant, FICCI, CII-Exim Bank Business Excellence and corporate strategy also provide direction to the CSR activities. PRA (Participative Rural Appraisal) workshops are conducted in Model Steel Villages (MSVs) to understand their needs with involvement of villagers.

Top management has committed itself to societal well-being through a policy on CSR & Sustainability which is displayed on the intranet. More than 100 employees & their families volunteered to associate with CSR activities specially in the field of adopted tribal children, organizing mega health camps and development of MSVs, skill development, tree plantation, arts & culture (training in the field of dramatics, cement sculpture, art on rice grain, etc.)

Free medical camps including eye camps and IOL surgery, free polio surgical camp with surgery at Narayan Seva Sansthaan, Udaipur, infrastructural construction activities, women empowerment through income generation programs, Sports & Cultural activities, Vocational training to unemployed youths, Senior Citizens' Home are few such CSR initiatives which have been acknowledged many times by different Gram Panchayats, Janpads and Local Administration, Press and other segments of the society.

Findings of 2 surveys conducted in 2010 to ascertain the perception of villagers about the regular health camps organized by BSP in MSVs revealed that they were by and large satisfied with the services. Based on findings of the surveys timings of the camps have been extended by one hour to allow daily wage earners to use the facility.

Bhilai Fire Services has got many appreciations and accolades from Local Administration, Gram Panchayats, industries, warehouses and petroleum depots for quick response to the call for fire fighting and efficient service which has resulted in saving valuable property as well as human life. Apart from fire fighting, Bhilai Fire Services also provides training to National Fire Service College students, organizing mock exercises for firefighting, etc.



The manner in which people of the surrounding villages welcome the team of BSP CSR group, indicates their acceptability. The popularity and acceptance of Lok Kala Mahotsav, organized by BSP for promoting the folk art of Chhattisgarh, is evidenced by the fact that every year 18 to 20 teams have to be regretted for inclusion. The appreciative perceptions of numerous visitors to Bhilai Ispat Vikas Vidyalaya (BIVV) which runs on CBSE pattern with 189 students from BPL families are duly recorded in the visitor's book. The large number of non-BSP patients, registered for treatment in BSP hospitals, shows image of medical services of BSP.

BSP also provides free vocational training to the students of various professional colleges including IITs, BITS, XIM, etc. The students are also provided accommodation at a nominal cost during their training period.

The Sports and Recreation group of BSP organizes sports tournaments in 29 disciplines as well as cultural activities in Bhilai and Mines.

Medical and Health Services - (Free health camps)

ACTIVITY	07-08	08-09	09-10	10-11
No of Health camps	67	197	264	231
No of Beneficiaries	7023	8926	36000	32000

Medical and Health Services - (Free health camps)

ACTIVITY	09-10	10-11
No of Health camps	62	74
No of Beneficiaries	3637	4850



On the cultural side, the emphasis is on music, drama, literature and fine arts. Dance and drama troupes from Bhilai have won awards at national level and several artists have won prominence in media, AIR and Television. For promoting the folk art of Chhattisgarh, BSP organizes a Lok Kala Mahotsav (refer 8a) both in Bhilai Township and in the captive mines of Rajhara, Nandini and Hirri. This highly popular festival provides a platform for the emergence of noted talents like Padma Bhushan Smt. Teejan Bai – Pandwani Singer and Shri Devdas Banjare – Panthi dancer both of whom have won wide acclaim on the international stage.

Key societal initiatives of BSP include deputation of employees for various programmes like Literacy Mission, Sports and Cultural activities, Craft and Fine arts activities, Eye Camps, AIDS awareness programmes, Census Operations, Polling duties etc. BSP has identified 21 villages to be developed as Model Steel Villages with set of activities. All such activities have been completed in 9 villages.

In MoU (between SAIL and Steel Ministry) from 2010-11 onwards, 5 marks have been earmarked out of the non-financial parameters for CSR activities. CSR expenditure for SAIL, as percentage of distributable profit for the year 2010-11 is 1.47%. As per performance parameter of MOU, this is an “Excellent” performance rating. The contribution of Bhilai to SAIL’s CSR expenditure is about 22%.

BSP’s Public Relation Department regularly issues press releases to the local and national newspapers to inform the society about the work being done by BSP for the society. Apart from this, BSP has its own weekly video magazine ‘Bhilai Reflections’ and in-house Hindi publication ‘Parikrama’ which gives wide coverage to CSR initiatives. BSP’s contribution towards society is also reflected in the measures it has taken towards maintaining the ecological health of the society by making a conscious effort, so that its operations have a minimal effect on the surrounding habitat.

Development of Model Steel villages

- Infrastructural construction activities
- Free Health Services.
- Cattle breed improvement by animal husbandry & veterinary camps.
- Women empowerment through income generation programmes.
- Sports and cultural activities.
- Solar lighting systems
- Installation of smoke less Chulas.
- Initiatives for achieving Millennium Development Goals (MDGs).
- Income generation schemes of Poultry, Goatery & fishery.
- Bahu Kaushal Vaal Vikas shivirs



Creating and Nurturing Social Infrastructure

Health Care Services and National Health Programme	Medical / Social security measures	Education																				
<ul style="list-style-type: none">• Total 1000 beds capacity including 860 bedded Main Hospital with Super-specialty facilities• National Model Occupational Health Service Centre.• 24 x 7 Main Medical Post inside plant.• Nurses: Beds Ratio = 1:3 <table><tr><td></td><td>08-09</td><td>09-10</td><td>10-11</td></tr><tr><td>Indoor Patients</td><td>51819</td><td>48785</td><td>48129</td></tr><tr><td>Investigations</td><td>1490025</td><td>1496200</td><td>1533468</td></tr><tr><td>Casualty Attendance</td><td>93146</td><td>91616</td><td>90439</td></tr><tr><td>Immunizations</td><td>60181</td><td>39740</td><td>35681</td></tr></table> <ul style="list-style-type: none">• Hospital survival rate of 96.28 %.• Maternal Mortality Rate (per 1000 live births): 5.90• Recognized for DNB PG programme in 12 disciplines. Total DNB pass-outs 102 (till 06.06.11).• 35681 doses of various vaccines administered in Reproductive and Child Health (RCH) Programme• 121 numbers of AIDS Control Awareness Programs were held covering 12900 beneficiaries.		08-09	09-10	10-11	Indoor Patients	51819	48785	48129	Investigations	1490025	1496200	1533468	Casualty Attendance	93146	91616	90439	Immunizations	60181	39740	35681	<ul style="list-style-type: none">• Total CSR Camps : 231, Beneficiaries-32000. 21 eye camps held in MSVs and 48 Intra Ocular Lens operations performed• Polio surgical camp at Bhilai in collaboration with Narayan Seva Sansthaan Udaipur. 64 persons taken to Udaipur for specialized surgery followed by distribution of free appliances.• 23000 students from BSP schools screened during last 3 years for sickle cell.• Bhilai Ispat Kalyan Chikitsalaya opened to give OPD facilities to the people along with pathological tests, X-ray etc.• Blood donation by employees encouraged by organizing blood donation camps• Support provided to differently-abled children through "Sneh Sampada" & "Muskan" (for the mentally challenged), and "Prayas" (for deaf & dumb).• 21 camps were organized in the tribal area of Bastar region (Rowghat).• 10318 beneficiaries were covered in Rowghat with an average of 491 beneficiaries per camp. 1953 beneficiaries were distributed free spectacles.• 250 beneficiaries all comprising tribal population, were referred to main Hospital at Bhilai and were provided free treatments including lodging and boarding.• Medical facilities to self and spouse after retirement.• Employee Family Benefit Scheme: Provision of full payment to family in case of Death/PMU of employees till superannuation age.• Steel Employees Welfare Association: Ready help in accident and death cases.• Employment on compassionate ground in fatal accidents cases.• Medi-claim Scheme for separated employees and their spouses.• 100% wages during unfit period caused by work accidents.•	<ul style="list-style-type: none">• 37 schools run by BSP with 22849 students (BSP - 16080 + Non-BSP - 10158)• 626 Teaching staff, 16 Sports staff, 105 Non teaching staff and 52 executives.• Teacher-Pupil ratio: 1:41.91• Support to 12 colleges.• 50 private institutions given grant in aid, land etc.• Scholarships to meritorious wards of employees for higher studies / professional courses, including scholarships for physically challenged/SC/ST wards.• Ratio of girls to boys in primary, secondary and tertiary education is nearly about 1:1.• A total grant of Rs 50 cr and 250 acre land to CSVTU. <p>Sports, Cultural and other Amenities</p> <ul style="list-style-type: none">• Sports and Recreation Group for supporting talents in the fields of sports and culture and promoting activities at the District, State, Zonal and National level• Sports Complex: Three International standard stadia with facilities for 37 games• Day Scholar Scheme for Athletics, Boxing, Hockey, Football, Basketball & Volleyball. Day Boarding Scheme in Athletics at Rajhara in which 13 girls & 2 boys are enrolled.• Sports events for school children started from 2006 around Rajhara, covering 64 villages in four blocks; annual events include Athletics, Football, Volleyball and Kho-Kho. Around 2000 children have participated in the events in which all facilities like food, stay, sports kit, sports materials, cash prizes, mementoes and transport (to and fro) were sponsored by BSP.• Specific sports ground for differently-abled persons; 180 physically challenged dependents extended opportunities for self-employment. There is scholarship to such dependents from Class IX to Post Graduation.• Cricket tournament for disabled (East Zone) & national level tournament organized thrice in a row (2006-07 & 2007-08, 2010-11).• Cultural Centers: Three modern cultural halls with 1200, 600 and 400 capacity including one at Rajhara Mines.• Gardens: 20 gardens in the plant premises and township including Maitri Bag with a Zoo and one of Asia's biggest Musical Fountain
	08-09	09-10	10-11																			
Indoor Patients	51819	48785	48129																			
Investigations	1490025	1496200	1533468																			
Casualty Attendance	93146	91616	90439																			
Immunizations	60181	39740	35681																			
<p>Community and Peripheral Services</p> <ul style="list-style-type: none">• 189 Tribal children adopted so far for education upto class XII.• 50 Eco-clubs to spread "Clean and Green Bhilai" spirit.• 97 cultural and community halls• MOU with Akshay Patra Foundation for midday meal to 25000 school children of peripheral villages• Roadside tree plantation• Development of 21 Model Steel Villages (MSVs)• 2 Girls Tribal Girls sponsored for Nursing Course during 2009-10 and 8 Tribal Girls sponsored till 2010-11• A SWAMSIDDHA SHOP opened in Sector-10 market for marketing & quality improvement of Swayam Siddha products (Achar, papad & Agarbatti, sweet box making etc.)• Training to manufacture and install 1100 smoke-less/energy efficient chulhas in MSVs.• Bhilai Ispat Siyan Sadan for needy Sr. Citizens• Lok Kala Mahotsav organized in Mines and Bhilai area for the last 35 years																						



CSR Activities During the Year 2010-11

Plan	Performance
To organize regular medical camps and special eye camps in MSVs.	Total 231 camps organized covering 32000 beneficiaries.
Polio surgical camp & distribution of appliances.	Surgery of 64 persons at Udaipur & distribution of Appliances.
Scheme for midday meal to school children.	On an average 25000 children / day fed under the scheme.
Schooling of tribal children.	129 school children (VI-XII) & 8 girls (B.Sc.Nursing) covered.
Swamsiddha schemes. Marketing outlet for women groups. Introduction of two new schemes.	Swayamsiddha Shop opened in Sector 10 main market. Sweet box making project started in one MSV. Riddhi Siddhi women welfare center (CFC) established in BIKK.
Building infrastructure in MSVs.	Construction work is under progress in 8 MSVs. Solar lighting systems provided in 2 villages.
Road side tree plantation scheme.	Plantation of trees in 45 sq kms area in association with CSRVVN.
Organise Sports activities in MSVs.	Narayanpur Khel Mela, Antagarh football tournament for tribals, MSV sports meet organized.
Staring of Senior Citizens' Home 'Siyon Sadan'	Senior citizen home started with state of the art facilities. 20 families residing in the home.
Designing and implementation of Village Development program in 5 MSVs.	PRA organized in 5 MSVs. Planning is under process.
Establishing Vocational training center for unemployed youths.	Vocational training center established with state of the art infrastructure. 600 trained in 12 disciplines during the year.



Making a Meaningful Difference

Bhilai Ispat Siyan Sadan

To extend shelter to needy Sr. Citizens, BSP has started Sr. Citizen Home "BISS" at Old BMTC, Durg wherein 20 double bedded rooms for couples were renovated and furnished. All the 20 rooms were occupied by the inmates. This home was inaugurated on 22-05-2010.

All furniture and kitchen items News paper & magazine, T.V. set, Water Cooler, Aqua guard, Carom, Chess, BSNL telephone with internet connection etc. provided.

Kavisammelan on Sharad Purnima, International day for Sr. Citizen, Cultural Evening on Lohri & Makar Sankranti etc. celebrated in this Home.



Bhilai Ispat Kaushal Kuteer

To provide vocational training to village youth, a vocational training centre "Bhilai Ispat Kaushal Kuteer" has been started in the month of March 2010 wherein young boys from peripheral villages are being imparted training on fabrication work.

Before starting Kaushal Kuteer a basic course of 15 days for carpentry was also imparted with the help of HRDC. 8 unemployed youth from villages attended the training & successfully completed the course. Presently fabrication, Carpentry & Electrical courses are being run at Bhilai Ispat Kaushal Kuteer.

- a) Electrical House wiring
- b) Gas welding
- c) Basic Computer Course –Basic knowledge of MS Office and Internet browsing
- d) E–Chetna – computer awareness, training for housewives / girls



Farmer empowerment

While the agricultural sector continues to be a central element in the economies of most developing countries, poverty, marginalisation, and exclusion remain prevalent. For the poor and marginalised farming groups to become beneficiaries of rural poverty reduction efforts, relationships between farmers and the public and private institutions that influence and shape their livelihoods need to be changed. In pursuit of this objective the concept of farmer empowerment has found a place on the CSR agenda of Bhilai Steel Plant.

Farmer's training program/empowerment has been organized at Indira Gandhi Krishi Vidyalaya, Jagdalpur. A total 82 Rowghat area farmers have been covered in this 3 day residential program. The new information that farmers gain through these training sessions makes their daily farming activities much easier. It also leads to an increase in productivity and bigger profits in the long run.



CSR activities in Mines

Progress Report of the Works Executed Under CSR-Rajhara for the FY 2010-11

Project/work Description	Exact Location Of The Work	Amount Sanctioned For Work
Provision of 3 Nos. stop dams at Chikhalakasa village	Chikhalakasa	911780.00
Construction of slab culvert at Aamapara, Chikhalakasa & Bhoirtola village	Aamapara, Chikhalakasa, Bhoirtola	2056615.00
Desilting of nallah from J/Dalli temple to Rajhara dam (Phase-II)	Rajhara Dam	1475020.00
Desilting of agricultural fields of Dhobedand, Darratola, Kunjamtola, Kopedera & Kondekasa village	Dhobedand, Darratola, Kunjamtola, Kondekasa, Kopedera	17182432.00
Catering of 40 adopted children	Rajhara	1805000.00

Policies/Programmes on HIV & AIDS

NATIONAL AIDS CONTROL ORGANISATION (NACO)

The NACO has recognized JLN Hospital Bhilai as Zonal Centre for AIDS Control. The most important rationale for workplace interventions for Prevention of HIV/AIDS emanates from the fact that the population category worst affected by the disease is the 15 – 45 age group, which constitutes the Economically Active Population and thus apart from the emotional and psychological trauma, the spread of infection if not arrested, will give rise to economic upheavals and problems in the workplace.



Programme :

In line with the company's policy on HIV-AIDS the organization conducts regularly the awareness programmes, through Occupational Health Department and Medical Deptt. of the Company. During the Year various AIDS awareness programmes were conducted. BSP also organizes AIDS prevention programme for high risk sections of the society such as truck drivers and contractor workers on regular basis. An automatic condom vending machine has been installed for AIDS control at

Corruption, Public Policy, Anticompetitive Behaviour and Compliance

BSP as a part of public sector organisation is committed to follow the Central & State Govt guidelines for prevention of bribery and corruption in the organisation. Central Vigilance Guidelines are strictly followed through the procedures formulated and implemented by Vigilance Deptt. System improvement and close examination of high value contracts and purchases continued to be the thrust area for the Vigilance Administration during the year. Adherence to CVC guidelines overseen by Vigilance function ensures compliance. Integrity Pact has been made mandatory for all tenders, contracts, long term agreements valuing Rs. 20 Crores and above. Extensive IT deployment in e-commerce areas has enhanced the transparency level.

Bhilai Steel plant does not encourage any kind of political lobbying and political influence in its working pattern. However, BSP gives respect to all National and State level political representatives. Bhilai Steel Plant has not paid any money to any political party during the reporting year. There is no case pertaining to violation of anti-trust and monopoly regulations.

100% business units are analysed for risk related to corruption. 20 vigilance awareness training programmes were organized during 2007-08 covering 841 Executives. During Vigilance Awareness week the following activities were conducted:-

- Display of Posters & Banners
- Essay competition for employees on the topic " Role of Vigilance in enhancing efficiency & transparency".
- Posters & Slogans competition for the employees
- Quiz competition
- Debate Competition for school children on the topic "Academic excellence alone would not make good future citizens".
- 4 Awareness workshops were conducted on Purchase Contract Procedure –2006, covering 240 Executives from works & non-works deptts.
- Two Special Vigilance Awareness workshops were conducted by Shri PK Aggarwal, ACVO Bokaro Steel Plant, on 1st & 2nd August 2006 . 300 Executives from Projects, Materials Mgt. Deptt., Marketing , Finance, Contract cell, Indenters and Contract operating authorities attended the workshop.

When ever any incident of corruption is noticed, necessary action is taken for improvement in system & procedures to strengthen them. If necessary, new procedures are also formed . When ever it is proved that the intention of the individual in the incident of corruption is malafied, punitive action is also taken.

There was no fines and non-monetary sanctions for non-compliance with laws and regulations during the year.



Ethics Club

Value education has been started as an extracurricular activity by formation of Ethics Club (EC) in seven schools of Bhilai Steel Plant. Membership to the club is voluntary for the students in the age group of 11 to 16 years. The members of the club are named as Young Champions of Ethics (YCEs). They learn distinct values through various activities, games and small group discussions involuntarily so that they incorporate these values inherently and manifest them through ethical conduct and behaviour automatically. The motto of the club is 'living a life of values' so that every member becomes a role model in moral values. This helps YCEs in becoming 'value messengers' in society. These children impact their classmates and friends in school, members of the family, friends in neighbourhood and other segments of society.

- Integrity n Love
- Twelve Core Values of Ethics Club
- Patriotism n Compassion
- Tolerance n Responsibility
- Secularism n Respect
- Simplicity n Non-violence
- Honesty n Unity



Product Responsibility

Customer Health and Safety

The main products of BSP are various kinds of steel products and process by-products. The steel products are generally environment friendly and do not pose any health or safety hazard during their use. Therefore, Specific procedures for preserving customer, health & safety during the use of its products are not required. BSP addresses the environmental issues of the products by carrying out Life Cycle Assessment Studies to reduce the environmental burdens during mining to production stages.

The process by-products like slags and some hazardous wastes material is also generated. Use of safety appliances like Safety helmet, Safety Boots, Chemical Splash Goggles, Nose mask, Hand Gloves is mandatory. Hazardous Wastes handling is done as per Hazardous waste management & handling amended rules 2003. BSP has received the Authorization for the same valid till Feb 2010. There is no incidence of non-compliance with respect to regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle.

Product and Service Labeling

The product information regarding BSP products is widely publicized through the SAIL website www.sail.co.in which contains details with regard to Grade, Sizes and Applications. The published product catalogues help in informing the customers regarding the products. The stamping and embossing on prime steel products ensures proper product identification. All the norms for physical dimensions, chemical composition and technical delivery conditions for the associated specification are strictly adhered to during production and dispatch of various products manufactured by BSP. Tests certificates are issued along with the deliveries to the customers. There is no incidence of non-compliance with respect to regulations and voluntary codes concerning product and service information and labeling.

Customer Satisfaction

Bhilai has been leveraging the key business drivers to provide superior value to customer on sustainable basis. In reaching out to customer, Central Marketing Organisation (CMO) is our partner for marketing of our products. BSP has devised specific strategies for enhancing customer satisfaction. The various strategies adopted by BSP in enhancing customer satisfaction are enlisted below.

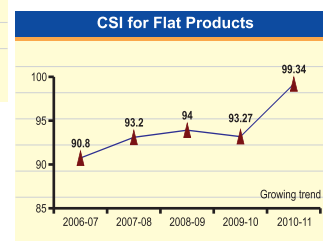
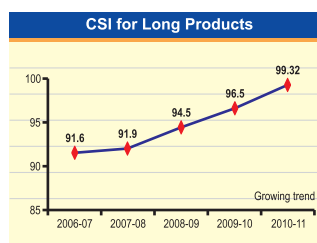
- Market segmentation

- New product development
- Customisation.
- Maximising Value added products.
- Key Account Management
- Internal customer satisfaction
- Quality Improvement
- Customer service through IT
- Partnership with customers

BSP has a structured process of capturing customer perception on its product quality, delivery as well as service. Key Account Management process is a major initiative taken in this regard. The system provides single window support to its customers through Key Account Manager at CMO and a strong responsive system at plant to take care of customer. The process starts from capturing customer feedback, analyzing & reviewing the same and taking improvement measures. The CSI is also reviewed at the apex level in the Management Review of the ISO 9001 Quality Management System of BSP. While the Key Account Manager takes care of all the interface activities with customer, various aspects of order management including heat planning, production as per customer requirement, delivery of material are taken care by the Plant Information Coordinator and Plant Account Coordinator. The customers decide the weightage to various key parameters based on their perception of criticality of the parameters of the product to their operation.

There are overall positive trends in Customer Satisfaction Index (CSI) for long and flat products

The trends of parameter wise Customer Satisfaction Index for long Products and flat Product for last five years.

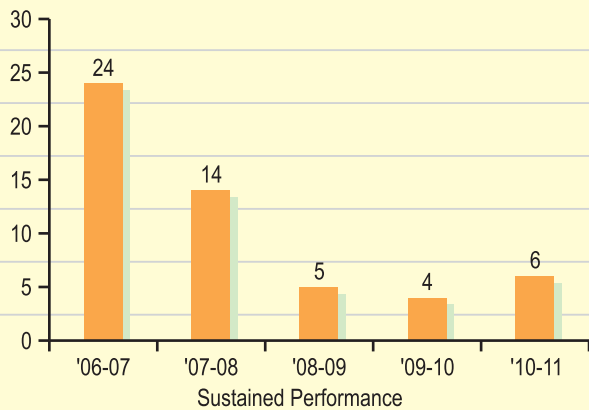


The trends of parameter wise Customer Satisfaction Index for long Products and flat Product for last five years.

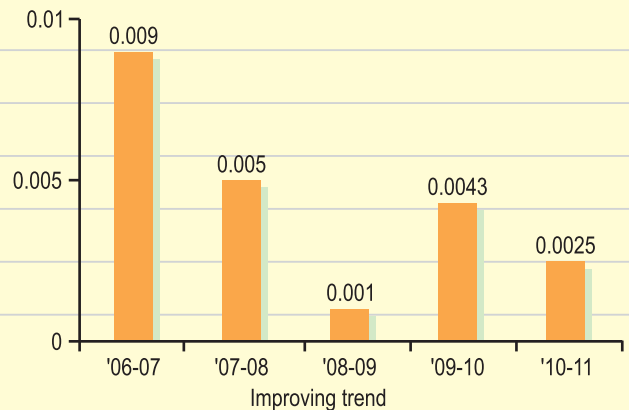
Customer Feedback/Concern	Forum in which it was captured	Improvement Measures.
Customers desired that the documentation time for all direct dispatches by rail for the products should be reduced. Further branches also desired to reduce documentation time for faster realization of cash.	Sales co-ordination meetings	Online printing of Invoices and TC was introduced Online reducing the documentation considerably i.e Faster Delivery of Invoice to Customer as the TC and invoices are available for printing at remote Branch locations the moment they are prepared and cleared from printing from BSP.
Online transmission of status of all the dispatches by Rail to the branches of CMO for knowing the exact status for onward communication to customers.	CSI, Sales co-ordination meetings.	e-Rake portal was developed for information transfer on destination wise, product wise, loading & weighment data with document details on real-time basis to all the branches.
Customers desired that order fulfillment as per committed delivery schedules should be met.	CSI	Order fulfillment as per commitment was improved year on year basis through a structured planning, execution, monitoring and review mechanism.
Lamination in plates needs to be avoided for suitability in the end use.	Customer visit	Redesigning of Steel chemistry, process parameters, inspection & testing methods. Further, communication of stringent requirement of end use through rolling programme down the line.
The thickness of Embossing of brand in Heavy Structural was obstructing customer's further processing.	Customer feedback (verbal).	Roll pass design was modified by way of reducing the milling while roll preparation at Roll turning shop..
Requirement of tensile properties in Wire rods in reference to customers end use	Customer meet	Furnace regime and cooling parameters were optimized suitably for achieving the desired mechanical & metallurgical properties.
District Dealers' expectations To make steel available at the closest possible proximity of user Popularise & Promote	SAIL dealers Meet/Dealers meet at Bhilai	Delivery at Dealers' godown Supply in small packets and bundles Monthly/Yearly incentive, INR 100/tonne as promotional incentive 15 days interest free credit MRRP boards for awareness, Technical Assistance, Product catalogue Artworks for Press, Electronic media, and Outdoor advertisement by CMO Masons'/Structural Engineers' & Architects' Meet. Publication of quarterly magazine. The result of these initiatives reflected in a strong growth in the dealership network and sales

The various quality improvement initiatives during 2010-11 across the plant that helped in overall sustenance in reduced quality complaints & improvement in relevant parameters.

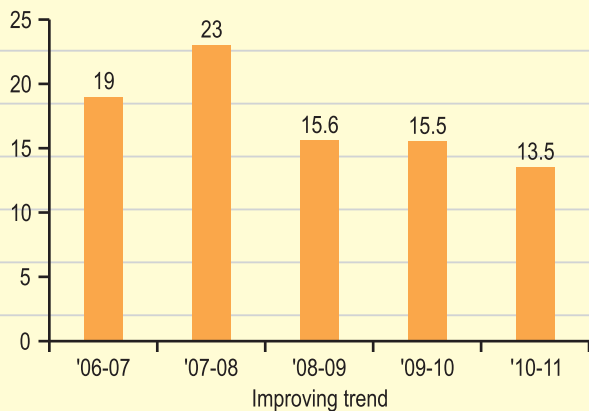
No. of Complaints



Qty. Under QC as % of Total Saleable Steel



Average Settlement Time



approach. A life cycle inventory was carried out to quantify resources used, energy and environmental emissions associated with the various processes of steel manufacturing up to the steel factory gate. Steel is a commodity product and it is almost impossible to track the end use of the

steel. Steel is also a 100% recyclable material. Therefore, the study was limited to the factory gate.

Based on the various inputs of the study and its analysis with the help of National Metallurgical Laboratory, Jamshedpur, Tata Steel has benchmarked several issues related to raw material consumption, energy consumption, solid waste utilisation and green house gas emissions. The improvements in the performance of various parameters with the implementation of the recommendations from the above study are seen through various indicators in this report.

Product Servicing And Labelling

Product Information & Labelling There are no regulations on product information and labeling other than the standards on physical dimensions and chemical composition on various products manufactured by BSP. Test certificates are issued at the time of delivery to the customers.

Customer Health & Safety

Steel products are environment friendly and do not pose any health or safety hazard as a result of their use. There was no instance of non-compliance with regulations related to health and safety of its products nor any fines/penalties have been imposed. There were no complaints in this area during the reporting period.

Life Cycle Assessment BSP participated in a Life Cycle Assessment (LCA) study for steel sector, which was sponsored by the Ministry of Environment & Forests, Government of India in 2002-2003. Life Cycle Assessment (LCA) provides a holistic approach to evaluate the performance by considering the potential impacts of all stages of manufacture, product use and end-of-life stages; commonly known as "cradle-to-grave"

Incidents of Non-Compliance

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.

No monetary fines were imposed on BSP during the reporting period for noncompliance with laws and regulations concerning the use of products and services.

Marketing Communications

BSP ensures that its marketing communication practices conform to generally accepted standards. One of the credo of SAIL clearly states that “We uphold highest ethical standards in conduct of our business”.

SAIL as a whole has a comprehensive system of advertising addressed by corporate communication department for its corporate image and product promotion. The advertisements related to BSP for regional and global levels are managed by SAIL at corporate level. Advertisement campaigns viz. “Steel Green”, “Steel in Need SAIL in Deed”, “This butterfly comes to our plant in search of flowers; Not all our customers want steel” are conducted on regular basis. In addition to this, BSP in line with communication policy of SAIL also advertises its image in the local region, to permeate the grass root level. There is no incidents of non-compliance with regulations and voluntary codes

concerning marketing communications, including advertising, promotion, and sponsorship etc. The privacy related to consumer information, such as, the specifications of special products developed for specific consumers are protected through confidentiality agreements. No complaints regarding breaches of customer privacy and losses of customer data received. No fines was imposed for No incidences of noncompliance with respect to laws and regulations concerning the provision and use of products and services and no fines was paid during the year.

Customer Privacy

Privacy related to consumer information, are protected. There was no substantiated complaint regarding breach of consumer privacy against BSP during the reporting period.



GRI INDEX

We provide an index to our sustainability reporting based on the GRI reporting elements and performance indicators as defined in the GRI G3 Sustainability Reporting Guideline 2006. The index shows how and where we are addressing the GRI elements and indicators throughout this report.

- Fully reported
- Partially reported

1.0 STRATEGY AND ANALYSIS

1.1	Statement from the most senior decision maker of the organization (e.g. CEO, chair or equivalent senior position) about the relevance of sustainability to the organization and its strategy	●	1,2
1.2	Description of key impacts, risks and opportunities	●	2,23

2.0 ORGANIZATIONAL PROFILE

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2.2	Primary brands, products, and/or services	●	6,7,8
2.3	Operational structure of the organisation including main divisions, operating companies, subsidiaries and joint venture	●	6,7,8
2.4	Location of organization's headquarters	●	6
2.5	Number of countries where the organisation operates and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report	●	6
2.6	Nature of ownership and legal form.	●	6
2.7	Markets served (including geographic breakdown, sectors served and types of customers/beneficiaries)	●	10
2.8	Scale of the reporting organisation	●	10
2.9	Significant changes during the reporting period regarding size, structure, or ownership including.	●	12,13
2.10	Awards received in the reporting period.	●	11,12

3.0 REPORT PARAMETERS

Report Profile

3.1	Reporting period (e.g. fiscal/calendar year) for information provided	●	12
3.2	Date of most recent previous report (if any)	●	12
3.3	Reporting cycle (annual, biennial, etc.)	●	12
3.4	Contact point for questions regarding the report or its contents	●	12

Report Scope and Boundary			
3.5	Process for defining report content	●	14
3.6	Boundary of the report (e.g. countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers) See GRI Boundary Protocol for further guidance	●	13
3.7	State any specific limitations on the scope or boundary of the report.	●	13
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations and other entities that can significantly affect comparability from period to period and/or between organizations	●	13
3.9	Data measurement techniques and the basis of calculations, including assumptions and techniques underlying estimations applied to the compilation of the indicators and other information in the report	●	14
3.10	Explanation of the effect of any re-statements of information provided in either reports and the reasons for such re-statements (e.g. mergers/acquisitions, change of base years/periods, nature of business, measurement methods)	●	13
3.11	Significant changes from previous reporting periods in the scope, boundary or measurement methods applied in the report	●	13
GRI Content Index			
3.12	Table identifying the location of the Standard Disclosures in the report	●	102-108
Assurance			
3.13	Policies and current practice with regard to seeking external assurance for the report. If not included in the assurance report accompanying the sustainability report, explain the scope and basis of any external assurance provided. Also explain the relationship between the reporting organization and the assurance provider(s)	●	13

4.0 GOVERNANCE, COMMITMENTS AND ENGAGEMENT

Governance			
4.1	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organization oversight	●	16-18
4.2	Indicate whether the Chair of the highest governance body is also an executive officer (and, if so, their function within the organization's management and the reasons for this arrangement)	●	16
4.3	For organizations that have a unitary board structure, state the number of members of the highest governance body that are independent and/or non-executive members	●	16
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body	●	17
4.5	Linkage between compensation for members of the highest governance body, Senior Managers and executives (including departure arrangements) and the organization's performances (including social and environmental performance)	●	18
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided	●	18
4.7	Process for determining the qualifications and expertise of the members of the highest governance	◐	18
4.8	Body for guiding the organization's strategy on economic, environmental and social topics Internally developed statements of mission or values, codes of conduct, and principles relevant to	●	19-30
4.9	Economic environmental, and social performance and the status of their implementation Procedure of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles	◐	19-30
4.10	Process for evaluating the highest governance body's own performance, particularly with respect to economic, environmental and social performance	◐	19-30

Commitment to external Initiatives

4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization	●	31,32
4.12	Externally developed economic, environmental, and social charters, principles or other initiatives to which the organization subscribes or endorses	●	31,32
4.13	Memberships in associations (such as industry associations) and/or national/international advocacy organizations in which the organization	●	34
4.14	List of stakeholder groups engaged by the organization	●	26,27
4.15	Programmes and procedures pertaining to economic, environmental, and social performance	●	29,30
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group	●	25-29
4.17	Key topics and concerns that have been raised through stakeholder engagement and how the organization has responded to those key topics and concerns, including through its reporting Economic performance indicators	●	25-29

5.0 ECONOMIC PERFORMANCE

EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments	●	38-47
EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change	■	37,65,66
EC3	Coverage of the organization's defined benefit plan obligations	●	42
EC4	Significant financial assistance received from government	■	43

PECT: Market Presence

EC5	Range of ratios of standard entry level wage compared to local minimum wage at significant locations of operation	●	41
EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation		43
EC7	Procedures for local hiring and proportion of senior management hired from the local community at locations of significant operation	●	41,43

ASPECT: Indirect Economic Impacts

EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in kind, or pro bono engagement	●	42
EC9	Understanding and describing significant indirect economic impacts, including the extent of impacts	●	44

6.0 ENVIRONMENTAL PERFORMANCE INDICATORS

ASPECT: Materials

EN1	Materials used by weight or volume	●	49
EN2	Percentage of materials used that are recycled input materials	●	50

ASPECT: Energy

EN3	Direct energy consumption by primary energy source	●	60
EN4	Indirect energy consumption by primary source	●	60

EN5	Energy saved due to conservation and efficiency improvements	●	60
EN6	Initiatives to provide energy-efficient or renewable energy based products and services, and reduction in energy requirements as a result of these initiatives	●	61,62
EN7	Initiatives to reduce indirect energy consumption and reductions achieved	●	61,62
ASPECT: Water			
EN8	Total water withdrawal by source	●	51,52
EN9	Water sources significantly affected by withdrawal of water	●	51
EN10	Percentage and total volume of water recycled and reused	●	51
ASPECT: Biodiversity			
EN11	Location and size of land owned, leased, managed in, or adjacent to protected areas and areas of high biodiversity value outside protected areas	●	64
EN12	Description of significant impacts of activities, products, and services on biodiversity in protect areas of high biodiversity value outside protected areas	●	67
EN13	Habitats protected or restored	●	67
EN14	Strategies, current actions, and future plans for managing impacts on biodiversity	●	67
EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinctions risk	●	67
ASPECT: Emission, Effluents and Waste			
EN16	Total direct and indirect greenhouse gas emissions by weight	●	65
EN17	Other relevant indirect greenhouse gas emissions by weight	●	65
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved	●	66
EN19	Emissions of ozone-depleting substances by weight	●	59
EN20	NO, SO and other significant airemissions by type and weight	●	54
EN21	Total water discharge by quality and destination	●	55
EN22	Total weight of waste by type and disposal method	●	56
EN23	Total numberand volume of significant spills	●	55
EN24	Weight of transported, imported, exported or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III and VIII, and percentage of transported waste shipped internationally	●	57
EN25	Identity, size, protected status and bio-diversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff	●	55
ASPECT: Product and Services			
EN26	Initiatives to mitigate environmental impacts or products and services and extent of impacts mitigation	●	55
EN27	Percentage of products sold and their packaging materials that are reclaimed by category		
ASPECT: Compliance			
EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	●	48

ASPECT: Transport			
EN29	Significant environmental impacts of transporting products and other goods and materials used for the organizations's operations, and transporting members of the workforce	●	65
ASPECT: Overall			
EN30	Total environmental protection expenditures and investments by type	●	63

7.0 LABOUR PRACTICES AND DECENT WORK PERFORMANCE INDICATORS ASPECT

ASPECT: Employment			
LA1	Total workforce by employment type, employment contract, and region	●	73,74
LA2	Total number and rate of employee turnover by age group, gender and region	●	73,74
LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations	●	42
ASPECT: Labor/ Management Relations			
LA4	Percentage of employees covered by collective bargaining agreements	●	75
LA5	Minimum notice period(s) regarding operational changes, including whether it is specified in collective agreements	●	78
ASPECT: Occupation Health and Safety			
LA6	Percentage of total workforce represented in foral joint management worker health and safety committees that help monitor and advise on occupational health and safety programs	●	75,76
LA7	Rates of injury, occupational diseases, lost days, and absenteeism and number of work related	●	74,80,81
LA8	Fatalities by Region	●	
LA9	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases	●	82
LA10	Health and safety topics covered in formal agreements with trade unions	●	75,77
ASPECT: Training and Education			
LA11	Average hours of training per year per employee by employee category	●	75,76
LA12	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	●	83,85
LA13	Percentage of employees receiving regular performance and career development reviews	●	83
ASPECT: Diversity and Equal Opportunity			
LA14	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership and other indicators of diversity Ratio of basic salary of men to women by employee category	●	87

8.0 HUMAN RIGHTS PERFORMANCE INDICATORS

ASPECT: Investment and Procurement Practices

HR1	Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening	●	88
HR2	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken	●	88
HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained	◐	86,87

ASPECT: Non-Discrimination

HR4	Total number of incidents of discrimination and actions taken	◐	88
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ASPECT: Freedom of Association and Collective Bargaining

HR5	Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk and actions taken to support these rights	●	75,88
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ASPECT: Child Labor

HR6	Operations identified as having significant risk for incidents of child labor and measures taken to contribute to the elimination of child labor	●	88
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ASPECT: Freedom of Association and Collective Bargaining

HR7	Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk and actions taken to support these rights	●	88
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SPECT: Security Practices

HR8	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations	●	88
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ASPECT: Indigenous Rights

HR9	Total number of incidents of violations involving rights of indigenous people and actions taken		88,89
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9.0 SOCIAL PERFORMANCE INDICATORS - SOCIETY

ASPECT: Community

S01	Nature, scope and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating and exiting	●	89,99
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ASPECT: Corruption

S02	Percentage and total number of business units analysed for risks related to corruption	●	96
S03	Percentage of employees trained in organization's anti-corruption policies and procedures	●	96,86
S04	Actions taken in response to incidents of corruption	●	96

ASPECT: Public Policy

S05	Public policy positions and participation in public policy development and lobbying.	●	96
S06	Total value of financial and in-kind contributions to political parties, politicians and related institutions by country	●	96

ASPECT: Anti-Competitive Behavior

S07	Total number of legal actions for anti-competitive behavior, anti-trust and monopoly practices and their outcomes	●	96
ASPECT: Compliance			
S08	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	●	96

10.0 PRODUCT RESPONSIBILITY PERFORMANCE INDICATORS ASPECT
ASPECT: Community

PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement and percentage of significant products and services categories subject to such procedures	●	98
PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle by type of outcomes	●	98

ASPECT: Product and Service Labeling

PR3	Type of product and service information required by procedures and percentage of significant products and services subject to such information requirements	●	98
PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling by type of outcomes	●	98
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction	●	98,100

ASPECT: Marketing Communications

PR6	Programs for adherence to laws, standards and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship	●	100
PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion and sponsorship by type of outcomes	●	100,101

ASPECT: Customer Privacy

PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	●	101
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ASPECT: Compliance

PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	●	100
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List of Abbreviations

AAQ	Ambient Air Quality	CPCB/SPCB	Central Pollution Control Board/ State Pollution Control Board
ADVD	Ancillary Development and Vendor Development	CPF	Central provident Fund
AIDS	Acquired immune deficiency syndrome	CPMS	Coking Process Management and control System
AIMA	All India Management Association	CPSE	Central Public Sector Enterprises
AIR	All India Radio	CREDA	Chhattisgarh State Renewable Development Agency
APP	Annual Production Plan	CSI	Customer Satisfaction Index
ASCI	Administrative Staff College of India	CSR	Corporate Social Responsibility
ATM	Automated Teller Machine	CTC	Carbon Tetra Chloride
ATP	Annual Training Plan		
AWA	Additional Welfare Amenity		
BBM	Blooming and Billet Mill	DCDA	Double Conatct Double Absorption
BE/B. TECH	Batchlor of engg/Batchlor of Technology	DDT	Dichlorodiphenyltrichloroethane
BF	Blast Furnace	DGM	Dy. General Manager
BIS	Beuro of Indian Statndard	DNB	Diplomate of National Board
BITS	Birla Institute of Tchnology and Science	ED/GM	Executive Director/General Manager
BMTC	Bhilai Management Development Centre		
BOF/EAF	Basic Oxygen Furnace/Electric Arc Furnace		
BPCL	Bharat Petroleum Corporation Limited		
BPL	Below Poverty Level		
BSNL	Bharats Sanchar Nigam Ltd		
BSP	Bhilai Steel Plant		
CA	Charted Accountant		
CBSE	Central Board of School Education		
CDI	Coal Dust Injection		
CDM	Clean Development Mechanism		
CDQ	Coke Dry Quenching		
CEO	Chief Executive Officer		
CET	Centre for Engineering and Technology		
CFC	Chloro Floro Carbon		
CII	Confederation of Indian Industry		
CIL	Coal India Ltd		
CISF	Central Industrial Security Force		
CMO	Central Marketing Organisation		
COB	Committee of the Board		
COBPP	Coke oven Briquett Press Plant		



EHS	Environment Health & Safety	L&A	Liason & Administration
EPMS	Executive Performance Management System	LLB	Bachelor of Legislation
ERM	Enterprise Risk Management	LSHS	Low Sulphur High Stock
ERP	Enterprise Resource Management		
ESCI	Engineering Staff College of India	MBA	Master of Buisness administration
ESI	Employees' State Insurance	MBBS	Batchlor of Medical science
ETP	Effluent treatment Plant	MDG	Millennium Development Goals
		MDI	Managment Development Institute
FICCI	Federation of Indian Chambers of Commerce and Industry	MDP	Management Development Programme
FR	Frequency Rate	MECL	Mineral Exploration Corporation Limited
		MLD	Million Litres Per Day
GAAP	Generally Accepted Accounting Principles	MOEF	Ministry of Environment and Forest
Gcal	Giga Calories	MSDS	Main Step Down Sub Station
GCP	Gas Cleaning Plant	MSV	Model Sttel Village
GDP	Gross Domestic Product	MTI	Management Training Institute
GHG	Green House Gas		
GOI	Govt Of India	NACO	National Aids Control Organisation
GRI	Global Reporting Initiative.	NEERI	National Environmental Engineering & Research Institute
		NGC	National Green Corp
HCFC	Hydrochlorofluorocarbons	NGO	Non- Govt organisation
HEC	Heavy Engg. Corporation	NMDC	National Mineral Development Corporation
HOD	Head of the Department	NMR	Non-Management Representatives
HR	Human Resource	NSC	Natinal Stock Exchange
HRD	Human Resource Development	NTPC	National Themal Power corporation
HRIS	Human Resource Information System		
HSCL	Hindustan Steel construction Ltd	ODP	Ozon Depleting potential
		ODS	Ozon Depleting substance
ICS	Internal Customer Satisfaction	OHP	Ore Handling Plant
ICVL	International Coal Ventures Private Limited	OHS	Occupational Health Services
IISI	International Iron and Steel Industry	OHSAS	Occupational Health and Safety Management System
IIT	Indian Institute of Technology		
ILO	International Labour Organisation	OP-1	Oxygen Plant-1
IPSS	Inter Plant Standard for Steel Industry	OPD	Outpatient Department
IR	Injury Rate		
ISO	International Organisation for Standards	PBS	Power Blowing Station
		PC	Personnel Computer
JP Cement	Jai Prakash Cement	PF	Provident Fund
JSPL	Jindal Steel & Power Ltd	PG	Post Graduation
JV	Joint venture	PBT	Profit before Tax
		PLC	Programmable Logic Controllers

PM	Prime Minister	SED	Safety Engg Department
PP-1	Power Plant-1	SEFI	Steel Executive Federation of India
PPE	Personal Protective Equipment	SMS-1	Steel Melting Shop-1
PRD	Public Relation Department	SP,BF,THF	Sinter Plant, Blast furnace, Twin Hearth Furnace
PRO	Public Relation Office	SP-2	Sintering Plant-2
		SWOT	Strength, Weakness, Opportunity and Threats
QC	Quality Circle		
QOL	Quality of Life	TAB	Technical Advisory Board
		TAC	Technical Advisory Committee
R&D	Research and Development	TDP-1	Tar Distillation Plant-1
RCH	Reproductive and Child Health	TMT	Thermo Mechanically Treated
RCL	Reaserch and control Laboratory	TOTO	Training of Training Officers
RDCIS	Research and Development Centre for Iron and Steel	TRT	Top Recovery Turbine
RHF	Rotary Hearth Furnace	UNDP	United National Development Programme
RINL	Rashtriya Ispat Nigam Ltd	USA	United States of America
RMD	Raw Material Division	UTS10	Ultimate Tensile Strength
RMP-1	Raw Material Plant		
ROIC	Return on Invested Capital	VAD	Vaccume Arc Degassing
RTI	Right to Information	VER	Voluntary Emission Reduction
RTS	Roll Turning Shop	VVVF	Variable Voltage Variable Frequency
SA-8000	Social Accountability : 8000	WRM	Wire Rod Mill
SAIL	Steel Authority of India LTD	WSD	Water Supply Department
SAWRS	Social Accountability Welfare Representatives		
SC/ST	Schedule Cast/Schedule Tribe	YCES	Young Champions of Ethics
SEBI	Security and Exchange Board of India		



REPORT APPLICATION LEVEL		REPORT SELF - ASSESSED - 'A'
G3 Profile Disclosures	Output	Reporting done in 1.1 2.1-2.10 3.1-3.13 4.1-4.17 ✓
G3 Management Approach Disclosures	Output	Management Approach Disclosed for each indicator category ✓
G3 Performance Indicators & sector supplement indicators	Output	Each Core G3 and "Sector Supplement" indicator addressed with due regard to materiality principle ✓

**Bhilai Steel Plant's Sustainability Report 2010-11,
"Spreading Smiles.. Today Tomorrow" is a
"GRI" Application Level "A" Report**

MAKING MEANINGFUL DIFFERENCE in People's Lives



स्टील अथॉरिटी ऑफ इण्डिया लिमिटेड
STEEL AUTHORITY OF INDIA LIMITED
भिलाई इस्पात संयंत्र
BHILAI STEEL PLANT

There's a little bit of SAIL in everybody's life