

# Mobilizing All Upwardly

Corporate Sustainability Report  
2015-16





## Sustainable Development Policy

SAIL recognizes that its business activities have direct and indirect impact on the environment and society. SAIL is committed to continuously promote Sustainable Development encompassing environmental, societal and economic aspects related to its business activities.

### Guiding Principles

- Affirm its commitment to contributing towards a clean and sustainable environment and continually enhancing its environment related performance as an integral part of its business philosophy and values.
- Strive to integrate its business values in an ethical and transparent manner to demonstrate its commitment to sustainable development and to meet the interests of its stakeholders.
- Create a positive footprint within the society to make a meaningful difference in the lives of people by continually aligning its initiatives to the goals for sustainable development.
- Regularly interact with stakeholders to assess and achieve sustainability goals associated with its business activities, through constructive dialogue.
- Maintain commitment to business and people for quality, health and safety in every aspect.

**P K Singh**  
Chairman

January 2016

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# MESSAGE FROM THE CHAIRMAN

## Dear Stakeholders,

Embedding sustainability, in its every operation, has been an unremitting approach of Steel Authority of India Limited (SAIL). Since inception of the Company, we have been at the fore front of adopting sustainability initiatives while carrying out our business activities. I am pleased to present our sixth Corporate Sustainability Report, which is a testimony of our Sustainability dimensions, professing cognizant choices towards transparency and disclosure of our performance for the year 2015-16. The Corporate Sustainability Report 2015-16 has been prepared in accordance with the G4 Guidelines of the Global Reporting Initiative (GRI) with a focus on major challenges, accomplishments regarding sustainable & comprehensive development and actions undertaken by us.

We are operating in an era which is though challenging but also provides immense growth possibilities. While almost all the major economies of the world witnessed sluggish growth in 2015-16, India emerged as the fastest growing major economy. Globally the steel sector is facing testing time and the year was exceptionally challenging for us too and had an adverse effect on our profitability. The Government's corrective trade measures regarding Minimum Import Price mechanism for Anti-dumping Duty helped us at such critical juncture. We achieved a turnover of ₹ 43,337 crore in the year 2015-16. We also made a contribution of about ₹ 8,496 crore to the National Exchequer by way of payment of dividend, taxes and duties to various Government Agencies. We achieved several milestones like highest ever Hot Metal production of 15.7 Million Tonne (MT) and Crude Steel production of 14.3 MT, surpassing previous bests, in the year.

We strongly believe that we will be able to overcome the effects of current global economic slowdown by improving our product quality, reducing cost through operational efficiency, optimum utilization of the modernized units and discovering new markets. In the current fiscal, we plan to finish the ongoing modernization and expansion projects in our Bhilai Steel Plant. In addition to the ongoing Modernization and Expansion Programme (MEP), we have also taken up new projects which will enhance our product mix and profitability. The noteworthy one being installation of a 3.0 MTPA capacity 2,250 mm wide Hot Strip Mill in our Rourkela Steel Plant. The mill will enable us to produce very high quality hot rolled coils including advanced high strength grades for the growing domestic automotive industry. Our Company incurred a capital expenditure of ₹ 6,034 crore during Financial Year 2015-16 and has planned ₹ 4,000 crore towards Capex for 2016-17.

We are quite optimistic that our economy will continue its buoyant growth rate in the coming years. Enormous possibility for growth is anticipated for the steel sector as the Government of India (GoI) is continually propelling the development in steel intensive sectors like infrastructure, capital goods, construction, automobile, railways, etc. Other focus areas of the Government such as provision of housing for all by 2022, power for all by 2019, 100 smart cities by 2022 and Atal Mission for Rejuvenation & Urban Transformation (AMRUT) are also likely to boost the domestic steel consumption. Other key campaigns of the Government like "Make in India" and "Starts Ups" will also have an effect for enhancing the consumption of steel.

To further enhance our involvement in the growth of shining and vibrant India and to face challenges ahead, we are working on a long term strategic plan that will steer the Company towards a target of 50 MTPA of hot metal capacity. This will also enable us to meet the strategic objective of maintaining leadership in the Indian steel sector and a respectable position amongst the top global steel producers. Our growth plan, besides targeting higher production, also addresses the need for eliminating technological obsolescence, achieving energy savings, enriching product mix, reducing environmental impact, etc.

We always look for building strategic association with our esteemed stakeholders to enhance our worth for them and the society at large. We have taken number of strategic interventions which were conceptualized during the course of the year for exploring future business opportunities.

Raw material security, a thrust area for us, is our strength as well major source of our subsistence. Our entire requirement of iron ore is being met from our captive mines. The capacities of the existing iron ore mines are being expanded and new iron

ore mines are being developed to meet the increasing requirement of iron ore. Allotment of Parbatpur Coking Coal block in Jharkhand shall enhance our coking coal security.

Our dedication towards innovation can be witnessed through the range of several new products that were developed during the year. 24 new products developed during the year, catering to industry sectors including construction, railways, defence, etc., are crucial for growth and development of the Indian economy. These new products include earthquake resistant structurals and new grades of TMT rebars, further enhancing our extensive product portfolio.

As a well-aware corporate entity, we are making sincere efforts in improving our environmental footprints. Our dedicated and determined initiatives have resulted in continual improvement of our environmental performance and best ever results were observed during the year for indicators like particulate matter (PM) emission load, specific water consumption, specific CO<sub>2</sub> emission, specific effluent load, etc. In carrying forward its legacy towards development of greenery, more than 4.67 lakhs trees were planted at the SAIL Plants and Mines locations during 2015-16. Besides this, efforts in the field of eco-restoration of mined-out areas, greening of warehouses and other environmental projects have also exhibited encouraging results. Most of our Units are operating in congruence with various international standards like ISO 14001 for EMS, ISO 9000 for Quality Management Systems, SA 8000 for Social Accountability and OHSAS 18001 for Occupational Health and Safety.

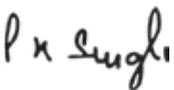
We always believe in making a positive impact in people's lives and this philosophy is evidently visible in our approach towards Corporate Social Responsibility (CSR). We are making meaningful contributions through our CSR initiatives in the field of medical and health care, livelihood generation, sanitation, road, drinking water, education, etc. Our CSR activities give due emphasis for uplifting the downtrodden and underprivileged living in and around SAIL townships.

Our Company is actively participating in **"Swachh Bharat Abhiyan- Swachh Vidhyalaya Abhiyaan"**, one of the prime campaigns of the Gol. By associating with this major cleanliness initiative, we have not only built toilets in the areas which had no toilet or dysfunctional toilets but also brought a positive and healthy change in the lives of people in the peripheral areas of our Plants and Units.

Our Company is committed to the highest standards of Corporate Governance by ensuring transparency, disclosure and reporting as required under various laws, regulation, and guidelines and this report contains a balanced presentation of our organization's economic, environmental and social performance.

**In conclusion, I reiterate our commitment towards sustainability by quoting the excerpt from the India's Intended Nationally Determined Contributions (INDCs) submission before Paris Agreement, "Equitable, inclusive and sustainable development would be the key to a new model of growth that India is committed to pursue".**

With best compliments,



**P K Singh**  
Chairman



# OUR PRESENCE



SAIL organisational network in India

(G4-6, G4-8, G4-12)

OUR  
**SIXTH ANNUAL**  
CORPORATE SUSTAINABILITY REPORT



# REPORT PROFILE

## PERIOD

We, at SAIL, have been publishing our annual sustainability reports since the financial year 2010-11. The current report is thus the sixth annual sustainability report profiling our commitments and resulting actions towards Sustainability, covering the financial year from 1<sup>st</sup> April 2015 to 31<sup>st</sup> March 2016. The last year report was published for the financial year 2014-15.

## FRAMEWORK

All our sustainability reports have been published as per guidelines of Global Reporting Initiative (GRI). This year also, we are following GRI G4 guidelines 'in accordance' core option, as we did for our report for the financial year 2014-15. The report covers the Economic, Environmental and Social aspects of our business activities. This is in accordance with our beliefs of transparent reporting for our stakeholders, those patrons who are linked with our operations directly or indirectly, as described on page number 28.

Reference to Indicator Protocol, Sector Supplements and Technical Protocol has been lent while applying the Principals of Inclusivity, Materiality and Responsiveness. Please find the reference to the same on page number 29.

## SCOPE

We believe in transparency and strive to keep our sustainability efforts apparent to one and all. Details of the financial information reported in the economic performance section have been aligned with our Annual Report published for the financial year 2015-16, ending on 31<sup>st</sup> March 2016. The environmental and social performances of Plants, Units and Mines find their details in respective sections. Page 10 aptly defines the boundaries within which we have hence shared the details of products and services of Plants, Units and Mining operations. We have not closed, relocated or divested any unit during the financial year. We strive to include all significant events of the past, and the estimation of their future impacts. We are committed to the values of various qualities like accuracy and reliability of data, timeliness, clarity & comparability of figures of similar periods, to conform to our ethics of reporting.

## STANDARDS

We have reported the financial performance of our Company as per guidelines of the Company Law. International Standards such as ISO 9000, ISO 14001, OSHAS 18001 and SA 8000 comprise an invaluable part of our quality, environment health and safety management. We also subject our Economic and Financial Systems to statutory audits as well as internal audits. Our systems are also verified and reviewed by the concerned government authorities. We, at SAIL, follow World Steel Association (WSA) guidelines and calculation methodologies while reporting the Carbon Dioxide (CO<sub>2</sub>) emissions for Integrated Steel Plants (ISPs). Relevant Indian Standards are also catered to while maintaining Quality Management System. Our work environment and safety regulations are as per the requisite regulations issued by the Ministry of Environment, Forest and Climate Change (MOEFCC) and the Factories Act 1948. We have prioritized material issues based on their significance on economic, environmental and social performance of the Company and stakeholder engagement process. The material aspects derived from materiality assessment process have been established and explained in the respective chapter.

## DISTRIBUTION AND FEEDBACK

We have used English Language for publishing the full report. The report is available on request via email and is available on SAIL website ([www.sail.co.in](http://www.sail.co.in)) also. We shall communicate the Stakeholder feedback on the report to the related department upon its receipt via email.

For additional information about our efforts on sustainable development, we are available at [sailsustainability@gmail.com](mailto:sailsustainability@gmail.com)

## ASSURANCE

We are submitting the report for GRI Content Index for 'in accordance'-Core to confirm the accuracy of GRI G4 Content Index. External Assurance for the report has not been carried out.

# PERFORMANCE HIGHLIGHTS

The year 2015-16 was challenging for almost all the major economies of the World. The year saw a free fall in steel prices to a historic low and our Company too had an adverse impact on profitability. However, production of Hot Metal and Crude Steel was the highest ever and we believe that the Company would turnaround in coming future as most of the enablers are in place.

## FINANCIAL

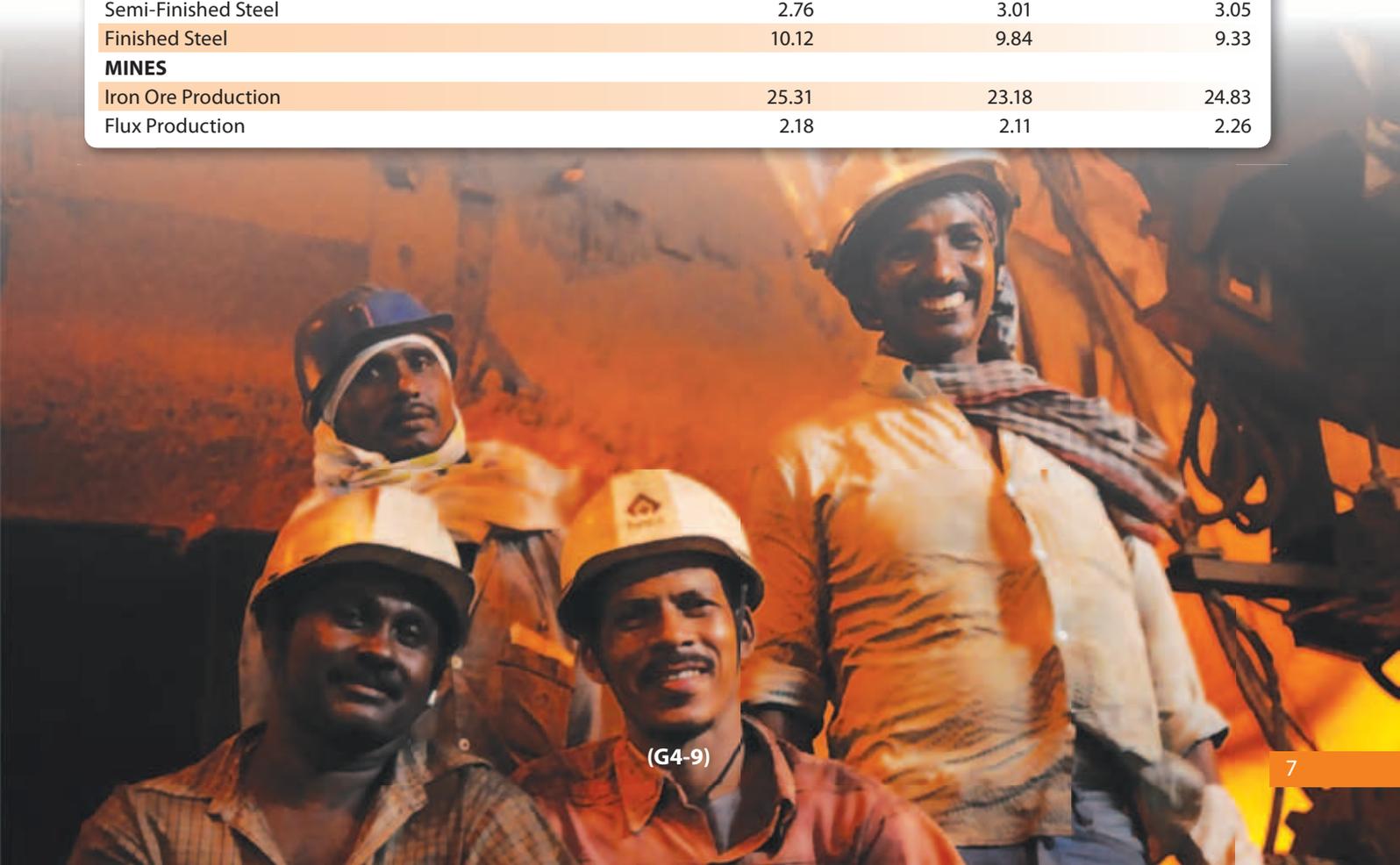
All values are in ₹ Crore

Key Performance Indicators	2013-14	2014-15	2015-16
Turnover	51,866	50,627	43,337
Net Sales	46,189	45,208	38,514
Profit Before Tax	3,225	2,359	-7,198
EBITDA	5,909	5,586	-3,052
Capital Expenditure	9,890	6,840	6,034
Total Assets	91,962	99,327	98,269
Export Sales	1,497	1,568	557
Profit After Tax	2,616	2,093	-4,137
CSR Budget	40	78	56

## PRODUCTION

All values are in MT

Key Performance Indicators	2013-14	2014-15	2015-16
<b>PLANTS</b>			
Hot Metal	14.45	15.41	15.72
Crude Steel	13.58	13.91	14.28
Pig Iron	0.22	0.63	0.64
Total Saleable Steel	12.88	12.84	12.38
Semi-Finished Steel	2.76	3.01	3.05
Finished Steel	10.12	9.84	9.33
<b>MINES</b>			
Iron Ore Production	25.31	23.18	24.83
Flux Production	2.18	2.11	2.26



We have taken various initiatives to reduce our environmental footprint and minimise emissions. Our environmental improvement programmes are focused on reducing energy consumption, greenhouse gas emissions, incorporating water reuse and recycling, managing wastes, reducing emissions, and mitigating the risk of environmental incidents. The state-of-the-art facilities installed under the current MEP has led to significant improvement in environmental parameters. We are also closely monitoring various social impact indicators such as labour productivity, employee training, and our spending on social development.

## ENVIRONMENTAL

Key Performance Indicators	Unit	2013-14	2014-15	2015-16
Specific CO <sub>2</sub> Emission	t/tcs	2.69	2.65	2.60
Particulate Matter Emission Load	kg/tcs	0.86	0.83	0.81
Specific Effluent Load	kg/tcs	0.11	0.10	0.09
Specific Effluent Discharge	m <sup>3</sup> /tss	2.16	2.16	2.14
Specific Water Consumption	m <sup>3</sup> /tcs	3.67	3.66	3.51

## SOCIAL

Key Performance Indicators	Unit	2013-14	2014-15	2015-16
Labour Productivity	tcs/man/year	278	302	315
Training	Man-hours/employee/year	105.6	115.2	109.6
Spending on CSR	₹ Crore	62.06	35.04	76.16
Female Employees	% of total employees	5.73	5.81	5.81



Community Service by SAIL

SAIL  
**A MAHARATNA  
COMPANY**



# THE COMPANY

Steel Authority of India Limited (SAIL), a Maharatna Central Public Sector Enterprise, and Government of India Undertaking, is the leading steel-making company in India which has been contributing to the growth of shining and vibrant India since independence. We are proud to be among the seven Maharatnas of the Country's Central Public Sector Enterprises. With headquarters, at New Delhi; we have our significant footprints all over the Nation. We produce iron and steel at five integrated steel plants and three special steel plants, located principally in the eastern and central regions of India and situated close to captive iron ore, limestone and dolomite mines which are one of our domestic sources of raw materials. We produce both basic and special steels for domestic construction, engineering, power, railway, automotive and defence industries and for sale in export markets.

Globally, we were ranked 26<sup>th</sup> in terms of crude steel production in 2015 by World Steel Association and we are among the top five steel producing companies of the Country. Our product portfolio covers a wide range of steel products covering Long, Flat and Tubular products. We offer 50 mild, special and alloy steel products in more than 1,000 qualities and more than 5,000 dimensions

## SCOPE OF THE REPORT

The following SAIL Plants, Units and Mines are covered in the Scope of this report.

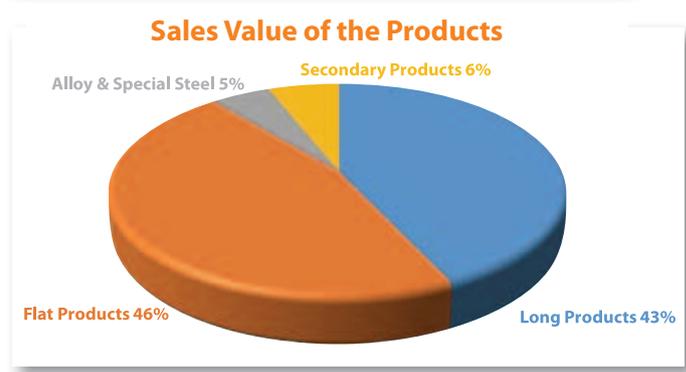
Plants
Bhilai Steel Plant
Durgapur Steel Plant
Rourkela Steel Plant
Bokaro Steel Plant
IISCO Steel Plant
Alloy Steels Plant
Salem Steel Plant
Visvesvaraya Iron and Steel Plant
Chandrapur Ferro Alloy Plant

Units
Central Marketing Organisation
Research and Development Centre for Iron & Steel
Centre for Engineering and Technology
SAIL Safety Organisation
SAIL Growth Works, Kulti
Environment Management Division
SAIL Refractory Unit

RMD Mines
<b>Iron Ore Mines</b>
Kiriburu
Meghahatuburu
Gua
Manoharpur
Bolani
Barsua
Kalta
<b>Flux Mines</b>
Kuteshwar Limestone Mine
Bhawanathpur Limestone Mine
Tulsidamar Dolomite Mine

BSP Mines
<b>Iron Ore Mines</b>
Rajhara
Dalli
Jharandalli
Dalli Manual
Mahamaya
<b>Flux Mines</b>
Nandini Limestone Mine
Hirri Dolomite Mine
<b>VISL Flux Mines</b>
Bhadigund Limestone Mine
Kenchapura Dunite Mine

We have the largest Marketing network among all the steel producers in the Country. Our functional network marketing offices consist of 37 Branch Sales Offices (BSOs), 10 active Customer Contact Offices (CCOs), 25 Departmental Warehouses and 21 Functional Consignment Agency Yards. Further, our marketing efforts are complemented by a well-built dealer network of 2,172 dealers spread across the Country with 170 new dealers appointed during the year 2015-16. Our domestic endeavour is complemented by strong and ever widening network of rural dealers who takes care of the need of the smallest customers in the remotest corners of the Country.



# OUR PRODUCTS

## HOT ROLLED

We are the largest domestic producer of hot rolled coils, sheets and skelp having several direct industrial and manufacturing applications



## PLATES

We are currently the largest domestic producer of plates commanding significant market share. Our Plates are used for building infrastructure, ships, pipes, tanks, vessels, etc.



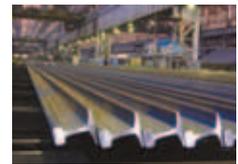
## COLD ROLLED

Cold rolled sheets and coils offer superior finish and properties and preferred for precision tubes, automobile panels and also for further processing such as colour coating, galvanizing and tinning



## RAILWAY PRODUCTS

We produce high quality railway products such as rails, wheels, axles and sleeper plates which are sold to Indian Railways and also exported around the world



## STRUCTURALS

I-beams, channels and angles are long steel products with cross sections of various shapes which are used for structures such as transmission towers, bridges and other infrastructure applications



## BARS AND RODS

Reinforcement steel and wire rods are primarily used in construction industry and we are the prominent player in this sector



## SPECIALITY PRODUCTS

We also produce special products such as electrical sheets, tin plates, galvanized products and pipes which are used by specific industries



## ALLOY AND STAINLESS PRODUCTS

Alloys and stainless steel products offered by us find applications in automobiles, railways, pharmaceutical equipment and household utensils



## SEMI-FINISHED PRODUCTS

Blooms, billets and slabs are converted to finished products at our units and also sold to re-rollers for conversion







# OUR SUSTAINABILITY APPROACH

We have adopted a holistic approach for our sustainability framework; addressing the Business, Health & Safety, Environment and Community management across all our operations. Our Sustainable Development Policy, supported by our Operating Model, helps in implementation of this framework that promotes enhanced accountability within the system.

We derive our achievement in sustainability from a deep-rooted dedication and commitment of our corporate family. The business roles and responsibilities of the employees are designed in such a way that they are aligned with mission and values of the Company. This sense of social responsibility has not only helped us in engaging our stakeholders in a constructive way, but also placed us in a leading role in the global commitment towards Sustainability. We work in tandem with our supply chain, striving towards improvement of product portfolio & quality and decreasing any adverse affects. We are committed to giving back to the society through our various well designed community initiatives.

## **Our Vision**

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

## **Our 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.
- We value the opportunity and responsibility to make a meaningful difference in people's lives.

## OUR SUSTAINABILITY CENTRIC PRIORITIES

- To be a leader in the steel sector
- To develop growth strategies for achieving continuous expansion in the market
- To instil the element of ethics in business with all our stakeholders
- To device participative mechanisms for all our stakeholders such as employees, customers, suppliers and community so that “development with sustainability” remains our focus area
- To envisage multi-dimensional approaches in the areas of cost and financial management, technology upgradation, value addition on products along with addition of new products in our basket that align with the future demands and keep the business sustainable
- To inculcate the element of global best practices across our value chain
- To excel in the area of environmental management by adopting ‘state-of-the-art’ technologies
- To monitor and incorporate functional improvements in the all-inclusive business-model of our Company viz-a-viz mining, steel making, marketing, human resource management and peripheral services including community development

## STRENGTHS

- Leading steel producer of the Nation
- Well established systems, processes and practices in the organization
- Having edge over domestic players with diverse portfolio and pan-India presence
- Modernised Units after completion of the on-going MEP
- Having captive power plants and JV power plants to meet the rising power demand ensuring energy security
- Availability of land bank for future expansions
- Input security - absolute integration in iron-ore
- Second largest captive iron ore mining operations in India
- Large skilled pool of manpower with highly qualified professionals with experience in steel making
- Acclaimed in-house research establishment

## OPPORTUNITIES

- Government policies for growth of steel intensive sectors such as infrastructure, capital goods, construction, etc. to position India as the 2<sup>nd</sup> largest steel consumer in the World in the coming years
- High potential for exports to the markets of Middle East, South East Asia and import substitution through product innovation
- Enhanced operational efficiency and utilization of the modernized units to result in improvement in product quality and reduction in cost
- Attaining dominance in Marketing, Human Resources, Infrastructure & Utilities, Maintenance, Information Technology, Environment and Safety Management, etc.
- Consolidation of market share by exercising national outreach of the Company

## GROWTH STRATEGIES

- Strengthen leadership position through capacity enhancement
- Optimizing production and sales volume, while reducing in-process inventory and minimizing production from inefficient routes
- Enhancing operational and techno-economic efficiency, product mix enrichment and stabilization of production from new facilities
- Optimizing coal blend, improvement in yields, reduction in coke rate, enhanced concast production and maximizing use of in-house engineering shops
- Increasing focus on value added products
- Augmentation of raw materials base and improving quality of input
- Strategic alliances for further supporting the growth initiatives

# SUSTAINABILITY FRAMEWORK



We plan our sustainability priorities with support from the relevant stakeholders of the Company. The engagement feedback from our valuable stakeholders are used to identify the material aspects based on which we identify sustainability priorities, impacting our triple bottom line growth and assisting us in formulation of our Vision, Goals, Policies and Strategies.



## OUR SUSTAINABLE DEVELOPMENT PROJECTS

We have drafted our Policy for Sustainable Development as per the Guidelines of the Department of Public Enterprises (DPE), Ministry of Heavy Industries and Public Enterprises, Government of India. Encouraged by this Policy, we have engrained Sustainability Development across all our operational locations. In 2015-16, we worked on the maintenance of the restored ecosystem at Purnapani Limestone & Dolomite Quarry in collaboration with the 'Centre for Environment Management of Degraded Ecosystem' (CEMDE), University of Delhi.

## COMMUNITY SUPPORT BY SAIL

It is a part of our Company's culture to be conscious towards the socio-economic conditions of the communities we operate in. We undertake many CSR activities at our various locations in adherence to the directives like 'DPE Guideline on CSR & Sustainability for Central Public Sector Enterprises-2013', 'The Companies Act 2013' and 'The Companies (Corporate Social Responsibility Policy) Rules, 2014'. For details of our CSR initiatives, please refer to page 74-85.



Garden at Barsua Iron Ore Mine

# OUR GOVERNANCE MECHANISM

Effective Corporate Governance to make certain a transparent and compliant structure has been a key belief of SAIL's philosophy. Our Corporate Governance initiatives are aimed at enhancing value for our diverse stakeholders. The governance practices endorse an ethical and sound conduct of the operations towards our objectives of making a meaningful and affirmative impact on people's lives. Our utmost levels of responsibility make sure that the Board keenly promotes and upholds the entire Company's conduct continuously to unrelentingly towering levels of Corporate Governance. To maintain our corporate responsibility endeavours, we have adopted a governance structure and various management processes which have been appropriately refined over the years to face the potential challenges.

At SAIL, we strive to ensure transparency, disclosures and reporting conforms wholly to the laws, systems, regulations and guidelines and infuse ethical conduct throughout the Company. Our internal mechanisms such as oversight of management, independent internal audits, structure of the Board of Directors, etc. forms part of our well established protocols.

The Company is committed to an upmost model of Corporate Governance where the Board is accountable to all stakeholders and each member of the Board owes his/her first duty towards protecting and supplementing the interest of the Company. Corporate Governance has been carried out in accordance with the Companies Act 2013, Clause 49 of the Listing Agreement and SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015. The Board of Directors is guided by the organization's Vision and Credo and the Board regularly reviews the performance of the organization on economic, environmental and social issues. The composition of the Board of Directors is a combination of full time Executive Directors, Non-Executive Directors and Independent Directors.

The annual report of the Company along with audited accounts for financial year is presented by the Directors in the Annual General Meeting (AGM). The proceedings of the AGM, including the suggestions, comments and feedback from the shareholders are duly recorded for rationally prioritizing and incorporating in our business planning exercise.

The various Committees of the Board like Audit Committee, Nomination & Remuneration Committee, Stakeholders' Relationship Committee, Corporate Social Responsibility (including Sustainability Development) Committee, etc. keep our corporate governance agenda on track. In addition to these Statutory Board Level Committees, various other Board Sub-Committees (BSC) like BSC on Evaluation of Capital Schemes; Strategic Alliance(s) & Joint Ventures; Projects Monitoring; MoU; Health, Safety & Environment and Technology Acquisition & Product Enrichment have also been constituted by the Company and all of them are headed by an Independent Director. This enables the Company to have an independent perspective on various issues and utilise the rich and varied experience of Independent Directors before the issues are considered by the Board of Directors. The Company also has a SAIL Risk Management Committee which oversees the risk management function of the Company.

We have a Code of Conduct applicable to Board Members as well as the senior management. There were no instances of non-compliance and no imposition of any penalty or stricture from the Stock Exchange(s) or SEBI in the matter related to capital markets or compliance during the year.



(G4-14, G4-34, G4-56)

The nomination and fixation of terms and conditions for appointment of Director(s) are made by Government of India. The Non-Executive Directors (other than Government Nominee Directors) are paid only sitting fee for each Board/ Board Sub-Committee Meeting attended by them and no other pecuniary benefit is granted to them. The salary and pay scales of the Whole Time Directors are fixed as per the prevailing rules of the Government.

The various issues pertaining to the management of economic, environmental and social areas are collected, compiled and monitored through the various divisions of our Corporate Office. The agenda papers along with the status report on the economic, environment and social performances including legal compliance are made with the help of information provided by the respective Plants/Units in advance, to the Board for review, comments and suggestions. The feedback from the Board members is analyzed by the top management and considered for business decision-making.

There were no transactions by the Company of material nature with Promoters, Directors or the Management, Subsidiaries, relatives, etc. that may have potential conflict with the interests of the Company at large.

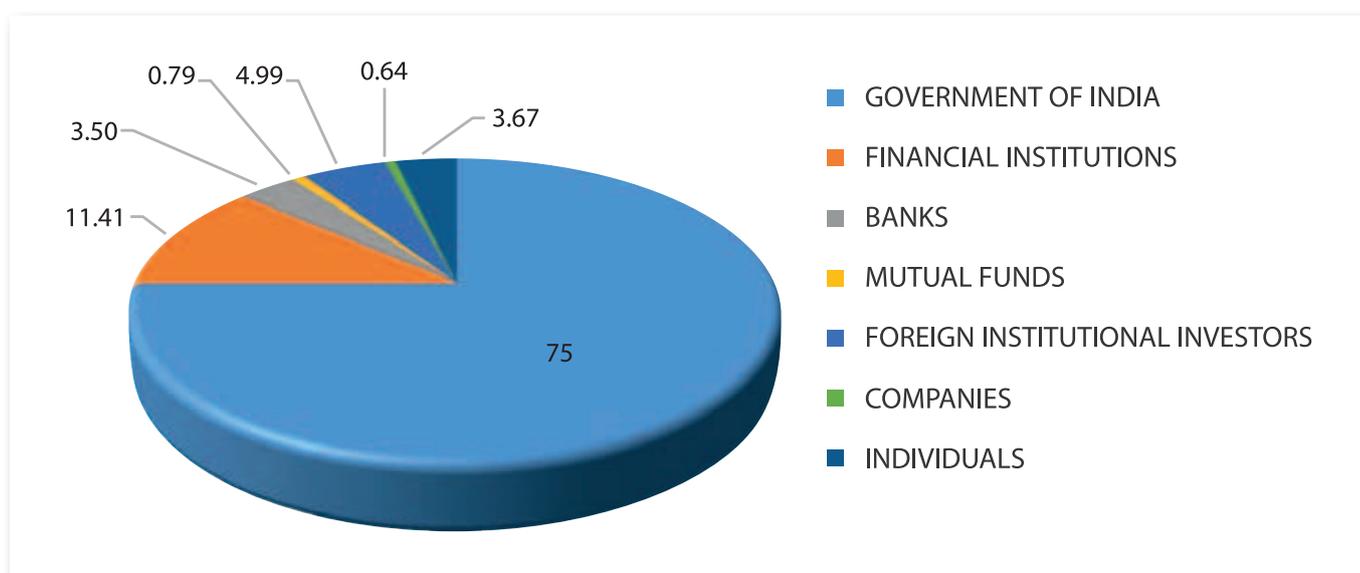
The Government of India owns 75% of the equity and retains voting control in the Company. However, SAIL, by virtue of its 'Maharatna' status enjoys significant operational and financial autonomy.

### **BOARD OF DIRECTORS**

As on 31 March 2016, the Board of Directors comprised of a full time Chairman, 6 Whole Time Directors, 6 Independent Directors and 2 Government Nominee Directors.

Number of shareholders complaints received during the period from 01.04.2015 to 31.03.2016 was 22. All complaints were resolved and no complaint was pending for redressal as on 31.03.2016.

**Shareholders breakup for SAIL as on 31<sup>st</sup> March 2016 (% of Equity)**



# Board of Directors

(as on 1<sup>st</sup> August 2016)



**Shri P. K. Singh**  
Chairman



**Ms. Bharathi S. Sihag**  
Additional Secretary & Financial Advisor,  
Ministry of Steel, GoI



**Shri Sunil Barthwal**  
Joint Secretary,  
Ministry of Steel, GoI



**Shri A. K. Chaudhary**  
Director (Finance)



**Shri Kalyan Maity**  
Director (Raw Materials & Logistics)



**Shri Binod Kumar**  
Director (Commercial)



**Dr. N. Mohapatra**  
Director (Personnel)



**Shri G. Vishwakarma**  
Director (Projects &  
Business Planning)



**Shri Raman**  
Director (Technical)



**Shri P.K. Dash**  
Independent Director



**Prof. Ashok Gupta**  
Independent Director



**CA Parmod Bindal**  
Independent Director



**Smt. Anshu Vaish**  
Independent Director

## Chief Executive Officers (Permanent Invitees)



**Anutosh Maitra**  
Bokaro Steel Plant



**Ashwini Kumar**  
Rourkela Steel Plant



**R K Rathi**  
IISCO Steel Plant



**A K Rath**  
Durgapur Steel Plant



**M Ravi**  
Bhilai Steel Plant

## OUR CORPORATE INTEGRITY

We regard integrity as the core value that underpins all our business activities. It has earned its standing of dependability through several decades of unswerving, value-driven business operations. Preventive and proactive vigilance is an inalienable and integral part of our management function from top to bottom, where all our workforce perform with integrity, efficiency and impartiality while upholding the highest ethical and moral standards.

As a value driven organization, we have established vigilance departments in all Plants/Units with Quality Management System (QMS) to receive and investigate complaints including those relating to corruption as per the Central Vigilance Commission (CVC) guidelines. CVC is a Government of India Institution set up to prevent corruption and to advise and guide Central Government agencies in the field of vigilance.

Vulnerable areas/ departments of different Plants/Units were subjected to a total of 2,765 periodic checks which included file scrutiny and joint checks. Since inception, it has been a thrust area of Vigilance Department to effectively implement and monitor various preventive vigilance measures. Several activities such as awareness sessions and workshops are undertaken on periodic basis to create vigilance awareness among the employees on aspects such as Whistle Blower Policy, Purchase/ Contract Procedures, RTI Act, Conduct, Discipline and Appeal Rules, system and procedures followed in SAIL, etc.

141 workshops/ trainings were organized at different Plants/Units, covering 2,938 employees in the year 2015-16. All line managers were covered in phased manner.

Based on the findings of the complaints, major penalties were advised against 20 employees and minor penalties against 52 employees during the year 2015-16. Further, major penalties were imposed on 21 employees including dismissal of four (4) employees and minor penalties were imposed on 44 employees during the year 2015-16. In addition, various systemic improvements and preventive / administrative actions were suggested in the above cases to prevent recurrence of such incidents.

We do not believe in practicing any anti-competitive behaviour, antitrust and monopoly practices, hence we have not initiated any case in this regard. We do not believe in supporting any kind of political lobbying and political persuasion in its functioning guide. However, we respect all national and state-level political representatives. We have not made any monetary or in-kind contribution to any political party during the reporting period. There were no fines or sanctions for non-compliance with laws and regulations in the reporting period.

### THRUST AREAS OF SAIL VIGILANCE FOR THE YEAR

- Scrutiny of files pertaining to high value projects.
- Scrutiny of contracts awarded on Single tender enquiry (proprietary purchase basis) of value more than ₹ 5 lakhs.
- Surveillance in the areas of receipt, sampling & testing of high value raw materials.
- Surprise checks in high value raw materials area including Ferro Alloys, Refractories, etc.



**Pledge taken during Vigilance Awareness Week 2015**

(G4-14, G4-56, G4-DMA (Anti-Corruption), G4-SO3)

# PARTNERSHIPS, ASSOCIATIONS AND MEMBERSHIPS

## WORLD STEEL ASSOCIATION (WSA)

Our long term association with the WSA has helped us in achieving excellence in steel production through knowledge sharing on sustainable steel production and practices for achieving business eminence. We conform to the WSA Principles and are committed to reduction of CO<sub>2</sub> emissions by use of co-products, adoption of best practices, enhancing energy efficiency through use of better operational practices & new technology and exploring breakthrough technologies.

## MONTREAL PROTOCOL

We have been successful in our commitment to Montreal Protocol by phasing out Ozone Depleting Substances (ODS). viz. Carbon Tetra Chloride (CTC). Now, we use Trichloroethylene (TCE) as cleaning solvent in our operations.

## UN GLOBAL COMPACT

We have aligned our business policies and actions with the ten universal principles of UN Global Compact towards our commitment to human rights, labour, environment, and anti-corruption.

## STOCKHOLM CONVENTION ON PERSISTENT ORGANIC POLLUTANTS (POPs)

We have active collaboration with MOEFCC and UNIDO for setting up a static facility for environmentally sound management of Polychlorinated Biphenyls (PCB) at BSP in line with the Stockholm Convention (SC). PCB, a POP, in electrical transformers will be treated/destroyed using suitable technology being brought in by UNIDO under this project.

## CHARTER ON CORPORATE RESPONSIBILITY FOR ENVIRONMENT PROTECTION (CREP)

We have voluntarily subscribed to the action points defined under the Charter on Corporate Responsibility for Environmental Protection (CREP). As a responsible corporate citizen, we strive to go beyond the statutory compliance and try to make a significant mark in this Charter.

## STANDING CONFERENCE OF PUBLIC ENTERPRISES (SCOPE)

We, being one of the largest Public Sector Enterprises (PSE) in India, have had an active role in the proceedings of the SCOPE.

## OTHER ASSOCIATIONS & MEMBERSHIPS

- All India Management Association (AIMA)
- All India Organization of Employers (AIOE)
- Associated Chambers of Commerce and Industry of India (ASSOCHAM)
- Centre for Organization Development (CoD)
- Confederation of Indian Industry (CII)
- Consultancy Development Centre (CDC)
- Delhi Productivity Council (DPC)
- Federation of Indian Chambers for Commerce and Industry (FICCI)
- Forum of Women in Public Sector (WIPS)
- Global Institute for Flexible System Management (GIFT)
- Indian Institute of Metals (IIM)
- Indian Institute of Plant Engineers (IIFE)
- Indian Society for Trade and Development (ISTD)
- Indo USSR Chamber of Commerce and Industries (IUCCI)
- Institute of Public Enterprises (IPE)
- Institute of Rail Transport (IRT)
- Project Management Associate (PMA)
- The Energy and Resources Institute (TERI)
- The Indian Iran Chamber of Commerce and Industry (IICCI)
- World Confederation of Productivity Science (WCPS)

## KEY JOINT VENTURE COLLABORATIONS

- NTPC SAIL Power Company Private Limited (NSPCL)
- Bokaro Power Supply Company Private Limited (BPSCCL)
- SAIL Bansal Service Centre Limited (SBSCCL)
- Mjunction Services Limited (MSL)
- Bhilai Jaypee Cement Limited (BJCL)
- S&T Mining Company Private Limited
- SAIL & MOIL Ferro Alloys Private Limited
- International Coal Ventures Private Limited (ICVL)
- SAIL-SCI Shipping Private Limited
- SAIL SCL Kerala Limited
- SAIL-RITES Bengal Wagon Industry Pvt. Ltd. (SRBW IPL)
- SAIL Kobe Iron India Private Limited
- SAL SAIL JVC Limited
- TMTSAL SAIL JV Limited
- Sail-Bengal Alloy Castings Private Limited
- Prime Gold-SAIL JVC Limited (PGS JL)
- VSL SAIL JVC Limited
- Abhinav SAIL JVC Limited

## ULTRA-MEGA STEEL PROJECT IN BASTAR DISTRICT, CHHATTISGARH

In accordance with concept of developing Ultra Mega Steel Plants by the Ministry of Steel, which would help India in achieving the capacity growth of 300 MT of crude steel by 2025-26, we have extended our participation in setting up of an Ultra Mega Steel Plant of capacity (3+3) or (4+2) MTPA (MT per annum) in Bastar, Chhattisgarh. An MoU to this effect has been signed between SAIL, NMDC, Ministry of Steel and Government of Chhattisgarh in May 2015.

## DEVELOPMENT OF RAIL CORRIDOR FROM ROWGHAT TO JAGDALPUR IN THE STATE OF CHHATTISGARH

With the aim of bringing about greater socio-economic development of the backward areas of Bastar region in Chhattisgarh and to further the industrial progress and mining activities in the region, an MoU was signed amongst SAIL, NMDC, IRCON and Government of Chhattisgarh in May 2015 for development of a rail corridor from Rowghat to Jagdalpur. The rail corridor with a proposed length of 140 kms would also pass through Narayanpur and Kondangaon in Chhattisgarh. A Shareholders Agreement (SHA) has been signed and a joint venture company has been incorporated under the name "Bastar Railway Private Limited".

## AUTOMOTIVE STEEL JOINT VENTURE IN INDIA

We are in discussions with ArcelorMittal for exploring the possibility for setting up an automotive steel manufacturing facility under a Joint Venture (JV) arrangement in India. The two companies signed an MoU on 22<sup>nd</sup> May, 2015 to this effect. The proposed JV will construct a state-of-the-art Cold Rolling Mill (CRM) and other downstream finishing facilities in India which will offer technologically advanced steel products to India's rapidly growing automotive sector. The input material for the CRM will be supplied by us from our new Hot Strip Mill being set up at Rourkela Steel Plant.



MoU between SAIL and NSDC

# AWARDS & ACCOLADES

## SAIL

- 4 Prime Minister's Shram Awards (involving 23 employees) for the year 2014
- 15 Vishwakarma Rashtriya Puraskar Awards (involving 86 employees) for the performance year 2013
- Dainik Bhaskar India Pride Award 2015-16 under Corporate Social Responsibility award category
- CII-ITC Sustainability 2015 Award for 'Corporate Excellence – Commendation for Significant Achievement' in recognition of its exemplary performance and contribution in the economic, social and environmental segment
- India Today – MDRA CPSE Best HR Excellence Award – 2015
- CII-EXIM Bank Award 2015: BSP bagged 'PRIZE' for exceptional business excellence initiatives whereas DSP, RSP & BSL got 'Commendation for Significant Achievement'
- EEPIC India National Awards for Engineering Export Excellence as the Star Performer for the year 2013-14 in the Basic Iron and Steel – Large Enterprise product group category
- SAIL's 'Ispat Bhasha Bharti' bagged Shiromani Patrika Puraskar at town level
- Businessworld HR Excellence Awards 2015 under award category of "Best Initiative for Connect with Family" in recognition of effective implementation of an innovative workplace practice "Aap Bhi Janiye" at Bhilai Steel Plant
- India Pride Awards 2014-15 for Excellence in Environment Protection and Conservation
- First award in the 12<sup>th</sup> National Award for Excellence in Cost Management 2014 under the category of Public Manufacturing Organization
- BT-STAR PSU Award 2015 for its R&D and innovations in the Category of Maharatna and Navratna PSUs

## Bhilai Steel Plant

- Prime Minister's Trophy for the Best Performing Integrated Steel Plant (ISP) in the Country for the year 2011-12 for a record 11<sup>th</sup> time
- Golden Peacock Environment Management Award 2015 in the category of Steel in July 2015
- NARAKAS, Bhilai-Durg bagged the Rajbhasha Kirti Puraskar in September 2015

## Durgapur Steel Plant

- Greentech Environment Award – Gold for the year 2014-15
- Greentech Safety Award 2015 - Certificate of Appreciation in Metal and Mining Sector for the year 2014
- Greentech HR Award 2015 (Training Excellence) – Silver
- Ispat Suraksha Puraskar for No Fatal Accident in Rolling Mills during 2013 & 2014 by JCSSI
- Srishti Good Green Governance Award 2015 - Certificate of Commendation in recognition of Environment for the year 2013-14

## Rourkela Steel Plant

- CII National HR Excellence Award 2015-16 (Strong commitment to HR Excellence)
- 1<sup>st</sup> Prize in 'National Energy Conservation Award 2015' in Integrated Steel Plant sector for fiscal year 2014-15
- 5<sup>th</sup> Annual Greentech CSR Award 2015 – Gold Award under the category Metal & Mining
- OTV CSR Award in the Water and Sanitation Category for CSR initiatives

## Bokaro Steel Plant

- Greentech Award – 2015 to Environment Control Department of BSL
- Greentech HR Award 2015 (Corporate Category of Training Excellence) – Gold

## Raw Materials Division

- Barsua Iron Mine bagged 1<sup>st</sup> Prize in “Installation & Use of Mineral Beneficiation Equipment including Crushing” & 2<sup>nd</sup> Prize in “Noise, Vibration & other Scientific Studies” in the category of fully Mechanized Mines

## Alloy Steels Plant

- Greentech Environment Award 2015 – Gold in Metal & Mining Sector for outstanding contribution in Environment Management
- Ispat Suraksha Puraskar 2015 for no fatal accidents

## Salem Steel Plant

- National Sustainability Award (First Prize) for the year 2014-15

## Research & Development Centre for Iron & Steel

- BT Star PSU for Excellence in Innovation (Tech/R&D) under category Maharatna & Navratna

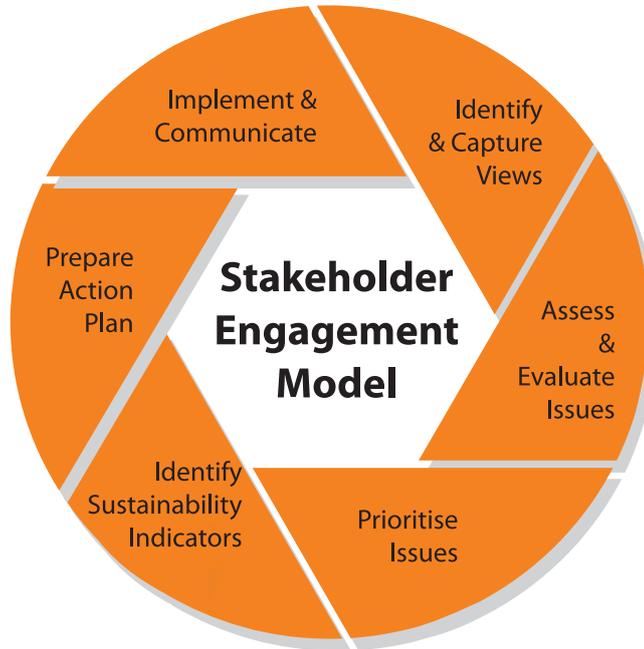


Proud Vishwakarma Awardees

# BONDING WITH STAKEHOLDERS



# STAKEHOLDER PRIORITIES



## Engaging with Stakeholders



Our wide-ranging stakeholder engagement programme has been honed over several decades to sustainably address all stakeholder groups and their areas of concern. The engagement has enabled us with a good understanding of our responsibilities towards our stakeholders aligned with our business commitments. Our stakeholder engagement activities have provided us a platform for encouraging transparent communication and an opportunity to recognize and address interests of the stakeholders.

We hold all our stakeholders in high esteem and believe that stakeholders who can affect or are affected by the operational footprints of the Company should be given ample opportunity for commenting and giving valuable submissions for decisions which will directly or indirectly touch them.

Our frequency of engagement varies with the stakeholder groups ranging from regular everyday interaction with employees to Annual General Meetings (AGM) for shareholders.

**COMPLETENESS**

- Knowing & Understanding Stakeholders
- Transparent & Balanced Reporting

**MATERIALITY**

- Assessing Significance to Stakeholders & Management
- Deciding what to Report

**RESPONSIVENESS**

- Connecting & Responding
- Providing Access to Information



Meeting Vendors

## STAKEHOLDER ENGAGEMENT MATRIX

Stakeholder Groups	Sub-Groups	Engagement Mechanism	Concerns / Perceptions	Accrued Benefits
<b>Shareholders</b>	<ul style="list-style-type: none"> <li>Government</li> <li>Institutions</li> <li>Insurance companies</li> <li>Individuals</li> </ul>	Annual General Meetings, Quarterly and half- yearly reports to shareholders, Shareholder relation meets, Investor surveys	Profitability of the Company, Creation of wealth, Stock price, Grievances and Complaints	Creation of wealth for shareholders
<b>Employees</b>	<ul style="list-style-type: none"> <li>Regular</li> <li>Contractual</li> </ul>	Labour Unions, Bipartite & Tripartite Meetings, Departmental & Zonal Committee Meetings, Various Platforms for Dialogues & Communication, CEO Interactions, Employee Satisfaction Surveys, Annual Appraisals, Internal newsletters, etc.	Safe and healthy working conditions, Good remuneration package, Professional growth, Quality of life, Welfare measures, Training and Career Development	Inspired, encouraged, satisfied and enthused workforce
<b>Suppliers</b>	<ul style="list-style-type: none"> <li>Ancillaries</li> <li>Bulk Suppliers</li> <li>Vendors</li> </ul>	Vendor meetings, Meetings with Suppliers, Ancillary Association Meetings, Supplier Relationship Management	Partnership with value creation, Timely payment, Engaging more local suppliers, Supplier satisfaction, etc.	Contented suppliers
<b>Customers</b>	<ul style="list-style-type: none"> <li>Institutional</li> <li>Retail</li> </ul>	Customer meets, Plant visits, Director's conference with customer groups, Visits to customers and customer satisfaction surveys	Partnership with value creation, Product quality, Delivery compliance, Customer satisfaction, Resolution of complaints, etc's	Long-lasting association, contented customer
<b>Community</b>	<ul style="list-style-type: none"> <li>Urban</li> <li>Rural</li> <li>Indigenous Communities</li> </ul>	Community meetings, Interaction with municipalities, Town administrative committee, Involvement in local society functions	Quality of life, Job opportunities, Education, Welfare measures, Medical facilities, Sustainable livelihood	Socio-economic development of the area, Partnership in development
<b>NGO's</b>	<ul style="list-style-type: none"> <li>Local</li> <li>National</li> </ul>	Visits to Plants, Seminars, Conferences, Interactions, etc.	Environment quality, Human rights, Freedom of association, Compliance to regulations	Safe and healthy labour force, Environment friendly operations, Ethical operations, Compliance to Standards
<b>Regulators</b>	<ul style="list-style-type: none"> <li>Central Government</li> <li>State Government</li> <li>Local Bodies</li> </ul>	Meetings with Central & State Government/Steel Ministry / Trade Bodies, Industry Associations, Ministry of Environment, Forests & Climate Change, Other statutory bodies, etc.	Economic, Environmental and Social Compliance, Human Rights, Safety, Compliance to ILO Conventions	Legal Compliance, Beyond Compliance
<b>Competitors</b>	<ul style="list-style-type: none"> <li>Local</li> <li>International</li> </ul>	Knowledge sharing, Partnership with value creation, Anti-competitive behaviour, Consumer privacy	Fair business, Partnership, Public policy advocacy	Knowledge sharing, Best practices, Ethical business
<b>Industry Associations</b>	<ul style="list-style-type: none"> <li>WSA</li> <li>CII</li> <li>FICCI</li> <li>IIM, etc.</li> </ul>	Conferences, Workshops, Seminars	Industry Policy, Regulations, Technology, Environment, CSR, Business Excellence	Knowledge sharing, Public policy advocacy, Best practices
<b>Academic Bodies</b>	<ul style="list-style-type: none"> <li>Institution</li> <li>Research Labs</li> </ul>	Conferences, Workshops, Seminars	Knowledge management, R&D activities, Partnership for value creation	Knowledge sharing, New technology
<b>Professionals /Consultants</b>	<ul style="list-style-type: none"> <li>Local</li> <li>International</li> </ul>	Visits to Plants, Seminars, Conferences, Interactions	Partnership with value creation, Training and development	Knowledge building, Value creation, Collaboration
<b>Media</b>	<ul style="list-style-type: none"> <li>Local</li> <li>National</li> </ul>	Press Meets, Interactions with Plant & Corporate Communications, etc.	Economic, Environmental and Social performance Achievements	Transparency and communication

## FEEDBACK FROM STAKEHOLDERS

Our stakeholder engagement contrivance gives importance to building ongoing communication with those who are valuable to our organization. This has aided in establishing a continuous improvement progress which assists us in anticipating expectations and addressing them successfully.

As mentioned earlier, we have in place various modes of engagement mechanism with our valued stakeholders. To carry out the materiality assessment, efforts were made to connect with the stakeholder groups by organizing interactive sessions and capturing their responses against methodically designed questionnaires prepared by the experts. We have developed parameters for systematically capturing stakeholder feedback. While developing materiality mapping, inclusivity in the approach and due importance to the views of the stakeholders were ensured. The response pattern also appropriates the needs and expectations of the stakeholders which help us in strategizing our sustainability initiatives, strategic planning and consequent objective setting. These responses also help us in focusing on improvements of our products and services which are essential for retaining and widening our customer base, managing connections with customers and a profounding penetration in the market.

## MATERIALITY ASSESSMENT PROCESS

Materiality Assessment is a framework which allows for ranking of issues and areas pertaining to economic, environment and social aspects of Sustainability according to their perceived importance and impact to the business.

The activity of materiality assessment comprises connecting with the stakeholders through interactive meetings and assessing their responses against tailored questionnaires. The materiality mapping incorporates our internal & external stakeholders across our Plants, Units and Mines ensuring inclusivity in the approach.

We, at SAIL, have been conducting structured materiality assessments since past six years. For the present report, the response was sought from valued internal and external stakeholders on existing aspects of G4 guidelines. Due effort has been made through this report to connect on the issues identified as having importance to stakeholders as well as those which impact our business. We have gathered feedback in the form of survey responses from 129 respondents during execution of the materiality assessment workshops at Corporate Office, Plants and Mines. For the present report, reporting boundary for all aspects has been restricted to the operations of SAIL.

Issues Identified During Stakeholder Engagement	Linkage With GRI Aspects	Page in Report
Enhancing profitability & growth	Economic Performance	32
Curtailing operating cost and encouraging cost saving	Economic Performance	32
Providing fair and equal wages	Market Presence	66
Managing resources and conserving minerals	Materials	47
Enhancing energy efficiency and adopting renewables	Energy	36
Conserving water by recycling and reusing	Water	42
Conserving biodiversity and land rehabilitation	Biodiversity	48
Reducing greenhouse gas emissions & carbon footprint	Emissions	41
Managing waste by recycling, reusing, recovering and reducing	Effluents & Waste	44, 45
Enhancing employee satisfaction	Labour Management Relations	67
Health and safety of employees, process safety and emergency preparedness	Occupational Health & Safety	58
Enhancing employee productivity	Training & Education	72, 73
Providing healthcare to community	Local Communities	76
Preventing corruption	Anti-Corruption	20
Increasing customer satisfaction	Product & Service Labeling	53

## Materiality Matrix

High

Stakeholder Concern

- Encouraging green procurement, green branding and eco-labeling
- Generating employment
- Supporting community for skill development
- Adherence to Code of Conduct/Ethics
- Addressing talent retention and professional growth
- Enhancing gender empowerment amongst employees
- Upholding human rights in operations and supply chain

- Managing resource and conserving minerals
- Managing waste by recycling, reusing, recovering and reducing
- Conserving water by recycling and reusing
- Enhancing energy efficiency and adopting renewable
- Enhancing profitability and growth
- Curtailing operating cost and encouraging cost saving
- Enhancing employee productivity
- Increasing customer satisfaction
- Health and safety of employees, process safety and emergency preparedness
- Enhancing employee satisfaction
- Providing healthcare to Community
- Preventing corruption
- Providing fair and equal wages
- Reducing greenhouse gas emissions & carbon footprint
- Conserving biodiversity and land rehabilitation

- Developing green products through R & D
- Phasing out of ozone depleting substances
- Limiting environmental impacts during transportation, packaging and dispatch
- Adopting sustainable sourcing practices
- Collaborating with suppliers for environmental conservation
- Handling environmental grievances
- Investment in development of new products and process
- Investment on R & D
- Enhancing supplier satisfaction
- Investing in CSR activities
- Effective Corporate governance and managing risk
- Non-compliance with Product specifications
- Taking community initiatives
- Training and skill development activities for employees
- Providing sustainable livelihood
- Engaging with supplier and contractors
- Product labeling and compliance
- Effective product marketing and communication

- Implementing security practices
- Reducing emissions, discharges and noise pollution
- Enhancing Recycling
- Limiting the use of hazardous chemicals
- Reducing the generation of hazardous waste, mining waste management
- Improving process management and technological parameters
- Enhancing asset and capacity utilisation
- Ensuring on time delivery and quality
- Addressing grievances of workforce and community
- Ensuring customer data privacy
- Ensuring compliance to legal regulations
- Developing value added products and enhancing exports

Low

Business Impact

High



ENSURING  
**ECONOMIC  
SUSTAINABILITY**



# ECONOMIC PERFORMANCE

India is the world’s third-largest producer of crude steel and is expected to become the second-largest producer shortly. India was the only major steel consuming market in the world which exhibited a growth during 2015-16. The year also witnessed an exceptional rise in imports. We have achieved several milestones like highest ever Hot Metal production of 15.7 MT and crude steel production of 14.3 MT surpassing previous bests in the year. In order to scale up steel production in the Country to 300 MT by 2025 from about 90 MT in 2015-16, the Government of India is taking several initiatives for giving major boost to the economy.

We are considered as the favoured steel manufacturer delivering world class products and are appreciated by our customers across the globe. In order to continue the legacy forward and to consolidate our leadership while extending the outreach and sustaining growth, we have undertaken several proactive measures. The key areas of action followed by us include cost control measures through productivity improvement, monitoring of high value procurement, optimising coal blend, etc. Positive outlook of credit ratings is an outcome of robust fund management practices.

Key Economic Indicators (in ₹ crore)	2013-14	2014-15	2015-16
Gross Turnover (Direct Economic Value Generated)	51,866	50,627	43,337
Net Turnover	46,189	45,208	38,514
Cost of Material Consumed including Bought out Goods	19,272	18,523	17,151
Employee Wages & Salaries	9,579	9,736	9,894
Payments to Providers of Capital :			
- Interest (Finance Cost)	968	1,454	2,047
- Interest (Capital-Expenditure During construction)	845	638	644
- Dividends	834	826	0
Community Investments (CSR Expenditure)	62	35	76
Contribution to Government / Exchequer	11,560	11,110	8,496
Operating Profit	3,136	3,813	-5,152
Profit After Tax	2,616	2,093	-4,137
Income Retained in Business	1,641	837	-4,224

Since inception, we believe in providing world class products and services to our customer at the competitive cost, which has helped in creating a niche for ourselves in the market. Our customer centric approach and zero compromise on quality have always proven beneficial, helped us in gaining appreciation and loyalty from customers as well as achieving leading market position. In spite of the exigent market, we have achieved total sales volume of 12.2 MT during the year 2015-16, registering a growth of about 4% over the previous year. We have achieved highest ever sales of Plates of 1.79 MT with a growth of 16% over previous year. Further, sales of Long Products also registered a growth of 21% with best ever sales of TMT & WRC at 1.68 MT and 0.41 MT respectively. Similarly with regard to Dealer Sales, the best ever sales of 0.79 MT were achieved during the year 2015-16, thereby registering a growth of 29% over last year. During the Year 2015-16, 170 new dealers were appointed.

Our Company offers a wide range of product-mix that caters to almost the entire array of the steel business - Flat Products in the form of Plates, HR Coils/Sheet, CR Coils/Sheets, Galvanized Plain/Corrugated Sheets and Long Products comprising Rails, Structural, Wire-rods and Merchant Products, in addition to Electric Resistance Welded Pipes, Spiral Welded Pipes, Electric Tin Plates and Silicon Steel Sheets also.

## RSP gets international approval for producing ship building grades of Steel

Rourkela Steel Plant has added another feather to SAIL’s cap by getting approval from ABS (American Bureau of Shipping) and DNV-GL (Det Norske Veritas-Germanischer Lloyd) for producing ship building grades of steel. This approval is for both ordinary as well as high strength grades of steel. RSP is already approved by LR (Lloyds Register) for producing LR grade plates. It is noteworthy that ABS and DNV-GL are ship building classification societies for certification of the materials being used for the manufacture of ships.

Some of our key economic risks and barriers along with their mitigation strategies are briefly described below:-

### ECONOMIC RISKS

- Dumping of steel from abroad and increased competition from domestic and overseas steel manufacturers
- Cheap sourcing of steel from countries with whom India has Free Trade Agreement (FTA)
- Declining sales realization
- Higher Royalty rate on Iron Ore and dependence on external sources for key input - coking coal
- Adverse employee age-mix and High manpower cost

### MITIGATION STRATEGIES

- Market growth to strengthen presence in new growth segments
- Consistent improvement in product quality and reducing cost through operational efficiency
- Product innovation to provide customised products and retain customers
- Exploring avenues for acquiring new mines and identifying domestic and international collaboration opportunities
- Manpower rationalization and multi skill development

## OUR R&D ACTIVITIES

We have a well-established Research & Development Centre which has earned recognition as a leading organization in the field of ferrous metallurgy. We have taken up an inclusive strategic vision for research and development with an intention to uphold leadership position in market, improve operational efficiencies, cultivate process innovations and reengineering and enhance quality of products to international levels. To pursue this, Centre of Excellence (CoE) are being setup in all the Plants which will implement High Impact Projects (HIP) and Technology Missions (TM) to achieve technological eminence. This initiative has taken roots and is under different stages of implementation. The revised R&D Master Plan 2015 was released during the year in which following new CoE projects have been identified:

1. AB3 steel production (CoE-RSP)
2. Automation system for heat and quality management at SMS-II, RSP (CoE-RSP)
3. Improvement in process efficiency and production of value added grades of Steel ISP in (CoE-RDCIS)
4. Improvement in productivity of SP #1, DSP (CoE-RDCIS)

Our RDCIS engineers and scientists have filed 35 patents and 36 copyrights in association with SAIL Plants during the year 2015-16 and published as many as 105 technical papers (32 international) and presented 159 papers (79 international). RDCIS also undertook contract research work and provided consultancy services and know-how to organizations outside SAIL.

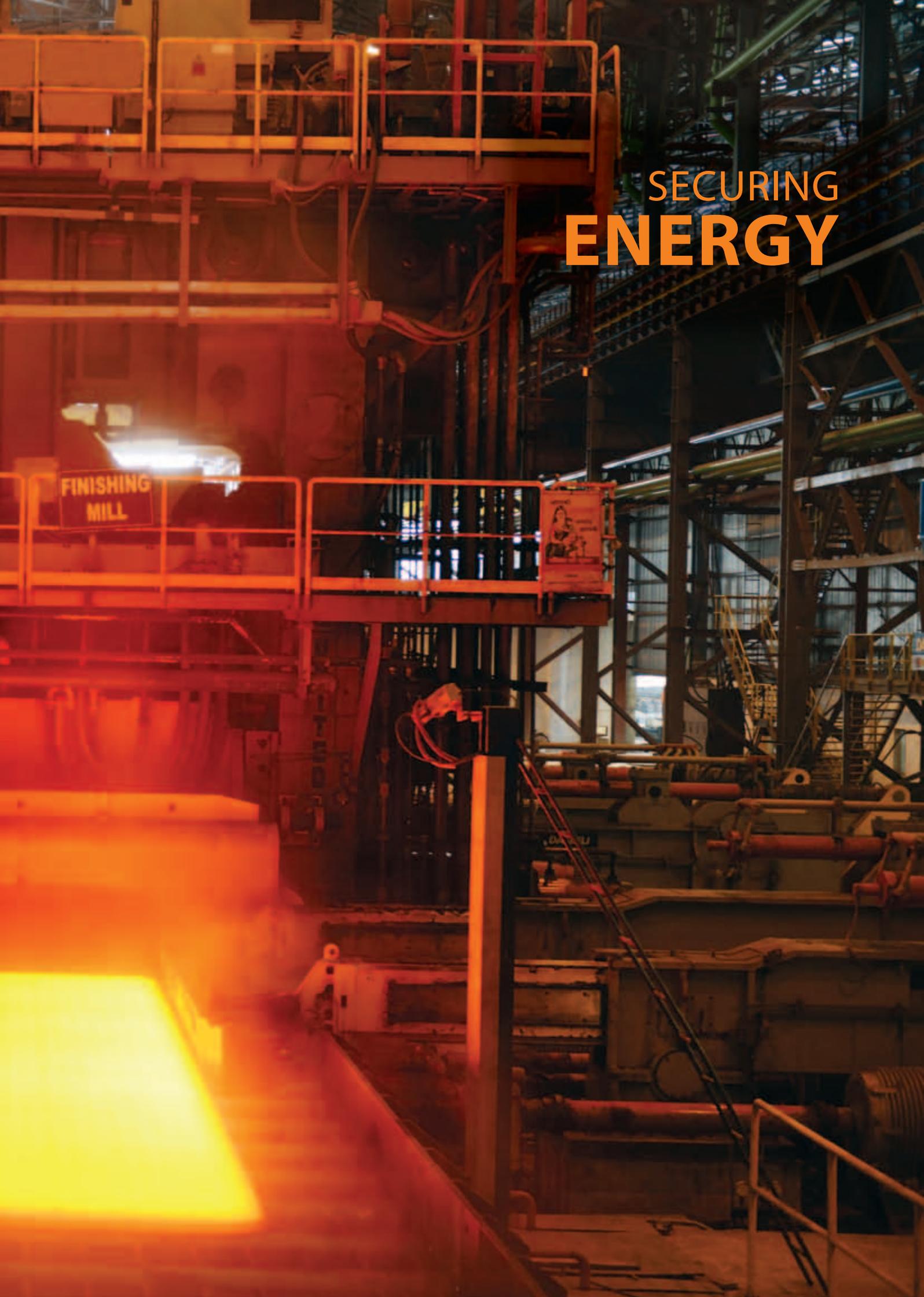
## OUR MODERNISATION & EXPANSION PROGRAMME (MEP) NEARS COMPLETION

We are nearing the last leg of implementation of the current phase of Modernization & Expansion Programme. At present, the installed Hot Metal capacity of our Company is 19.73 MT per annum and the envisaged Hot Metal capacity of 23.46 MT per annum will be after completion of this programme.

During the Financial Year 2015-16, we have achieved many milestones. Hon'ble Prime Minister of India dedicated the modernized and expanded Rourkela Steel Plant and IISCO Steel Plant to the Nation in 2015. At Bokaro Steel Plant, Roughing Mill Up-gradation of Hot Strip Mill has been completed and has become operational. At Durgapur Steel Plant, New Medium Structural Mill has become operational. At Bhilai Steel Plant, New Rail Welding Line is in operation and Hot trials in Universal Rail Mill have been carried out. We incurred a capital expenditure of ₹ 6,034 crore during Financial Year 2015-16 and planned ₹ 4,000 crore towards Capex for 2016-17.

In addition, the state-of-the-art facilities installed under the current MEP has led to significant improvement in the techno-economics including lower energy consumption and improved environmental parameters.



A large industrial steel mill. In the foreground, a bright, glowing orange furnace is visible. The background is filled with complex machinery, including a large cylindrical structure and various pipes and walkways. A sign on a walkway reads "FINISHING MILL". The overall atmosphere is industrial and high-temperature.

# SECURING ENERGY

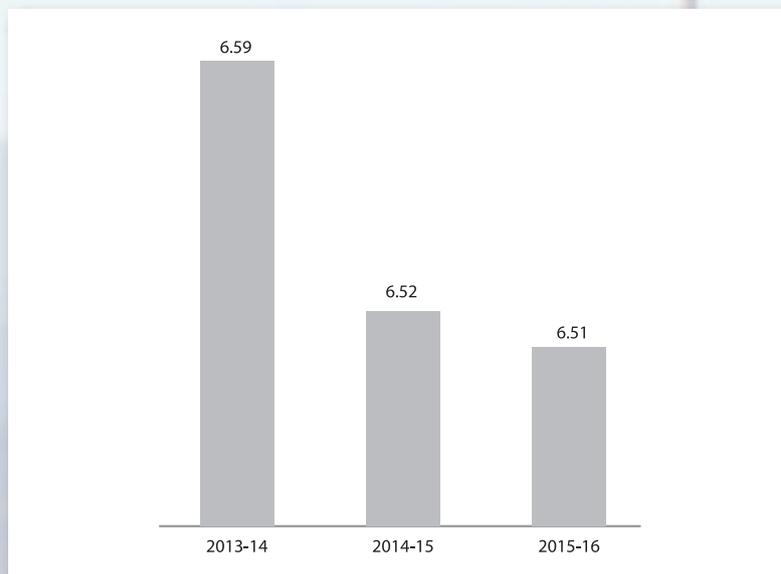
FINISHING  
MILL

# ENERGY MANAGEMENT

India is witnessing an exponentially high growth in every sphere, and infrastructural development occupies a major part in the process. We, at SAIL, being the largest player in the Iron and Steel sector, have a vital role to play in the Indian development scenario. Steel is a constant application in sectors spanning from Automobile, Power, Machine goods and Infrastructure. The process of production and processing of Steel has a large carbon footprint as one of the outcomes. The Iron and Steel industry has taken several initiatives in order to counter the ill-effects so that better energy efficiency and low carbon footprint is achieved. The world is taking gigantic steps towards conservation of energy, and it is more called for in the Iron and Steel sector as this sector is highly energy intensive.

We are committed towards a better tomorrow not only by way of participating in the development in a big way, but also by giving the future generations a energy secured future. We are continually working towards this end by way of dedicated Plant wise Energy Management Departments that analyse Plant operations and subscribe to several energy saving mechanisms. Owing to our continual efforts, we have been able to reduce our energy consumption over the years. This fact can be deduced from the figures given below:

**Specific Energy Consumption (GCal/tcs)**



## Power & Fuel Consumption

2015-16

	Quantity	(TJ)
Purchased Electricity (M kWh)	7615	97,853
Generated Electricity (M kWh)	971	12,477
Coking Coal (MT) Including CDI	15.38	433,716
Non Coking Coal (MT)	0.514	9,766
Furnace Oil ('000KL)	19.3	804
<b>Energy Consumption</b>		<b>554,616</b>

In keeping with the discipline for energy conservation, we have taken various initiatives for the use of renewable energy. At RSP, 1 MW Solar Power Plant has been commissioned, which is connected with the electrical grid system of the State Electricity Board. The solar power plant is the first of its kind and scale in SAIL and will generate solar-electrical power from 3,465 solar photovoltaic panels installed over an area of 4.7 acres in the plant premises. Besides this, 6 nos. of solar water heating systems have also been installed at the Rourkela House and action has been initiated for installation of 90 more such heaters at the Ispat General Hospital. Two nos. of 5 KW capacity Solar Power Packs were installed and planning has also been done for installation of another 7 nos. at various locations (inside and outside works premises). At BSL, a total of 65 nos. of solar street lights have been installed at various locations within the Plant.

## **SCHEMES FOR ENERGY CONSERVATION AND TECHNOLOGY ABSORPTION**

### **Bhilai Steel Plant**

- In-house commissioning of VVVF drive system in Return Ladle Car-1 in SMS-II
- Commissioning of VVVF drives in Merchant Mill
- Commissioning of very low speed VVVF drive (ACS 800) in Wire Rod Mill
- Modification of coal dust burners' tips in Boiler-2 of CPP-I
- Successful up-gradation of existing CEMS (Centralised Energy Monitoring System) to a new & more efficient platform and seamless integration with the online monitoring of some MODEX units
- Replacement of 180 Nos. of HPSV streetlights inside works area with energy efficient LED lights

### **Durgapur Steel Plant**

- Introduction of Round Casting in Bloom-cum-Round Caster to eliminate its production through energy intensive ingot route.
- Commissioning of New Dolomite Plant, 125 T Ladle Furnace #3, Benzol & Naptha Scrubber Plant and Ammonium Sulphate Plant
- Successful completion of Capital Repair of BF 2.
- Installation of CO gas booster for enrichment of CO gas in fuel gas of BF4 Stove

### **Rourkela Steel Plant**

- Increased power generation from Top Recovery Turbine Generator (TRTG) & Back Pressure Turbine Generator (BPTG)
- In house erection and commissioning of new Thyristor drive in front mill Groove Roll-1
- Replacement of 300 nos. of energy consuming Street Light Fittings with LED Fittings
- Installation and commissioning of ten nos. of High Mast Towers using 200 W energy efficient magnetic Induction lamps.
- Insulation of skid pipes in RH Furnaces of HSM to reduce heat loss.

### **Bokaro Steel Plant**

- Cold repair of CO Battery no # 3
- Capital Repair of 3 nos. Sinter Machines, 3 nos. Soaking Pit Ceramic Recuperators, and 3 nos. Soaking Pit Metallic Recuperators
- Total skin insulation in HSM Reheating Furnaces to minimize heat loss through furnace wall
- Provision of heat shield at delay table during modernization of Mills

### **IISCO Steel Plant**

- Commissioning of BOF Gas Holder (50,000 m<sup>3</sup> Capacity) for better gas utilization
- Commissioning of Top Recovery Turbine (14 MWH) to convert energy in the form of BF top pressure to electrical energy
- Introduction of BF gas under firing in COB #11 for better by-product gas utilisation.

A capital expenditure of ₹ 136.8 crore on energy conservation equipment was incurred during the Financial Year 2015-16

**SAIL Steel used for Wind Mill**



हमारा प्लांट  
हमारा जौन  
कोक ओवन वैटी आपका हादिक रकम

A photograph of an industrial facility with several tall, grey smokestacks and a large, dark structure in the background. The foreground is filled with lush greenery, including palm trees and red flowers. The sky is blue with white clouds. The text "OUR ENVIRONMENT" is overlaid in the top right corner in orange.

OUR  
**ENVIRONMENT**

# ENVIRONMENTAL PERFORMANCE

We, at SAIL, carry out all of our operations with a firm objective of promoting clean, green and sustainable growth. Our commitment is evident in the form of Company's Corporate Environment Policy. Various interventions made by us include adoption of latest state-of-the-art environment friendly technologies, implementation of robust environmental management systems, creating awareness and training the employees on industry's best practices.

All environmental programmes at our Plants, Units and Mines address the vital issues such as energy conservation, resource optimization, biodiversity protection, mitigation of adverse environmental impacts. We have progressively introduced well defined environment management systems in our Plants, Units and Mines, resulting in noteworthy improvement in waste minimization and recycling, water & energy conservation, noise reduction, reduction in particulate emissions and effluent discharges, in accordance with National Environmental Policy 2006. Being a responsible corporate citizen, we have always maintained a proactive approach to safeguard the environment. There were no fines or non-monetary sanctions for non-compliance with environmental laws and regulations.

Some of the key environmental risks foreseen by us and their mitigation strategies are briefly listed below:

## ENVIRONMENTAL RISKS

- Enhanced global concern for climate change prompting adoption of challenging targets by the Administration
- Probable introduction of emission caps, carbon taxes, etc. in the future
- Increasing quantity of waste requiring proper management and disposal
- Deteriorating quality of air and water as a result of increasing concentration of industries in the vicinity

## MITIGATION STRATEGIES

- Enhancing adoption of clean technologies to reduce CO<sub>2</sub> emissions
- Investment in environmental protection measures
- Developing strategies for proper handling, recycling and reuse of waste
- Compliance with the norms as well as preparing for going beyond

Our commitment towards sustainable development is evident from our conformance to the Charter on Corporate Responsibility for Environmental Protection (CREP) requirements. This is a voluntary commitment between SAIL and MOEFCC, Government of India which helped steel plants reduce their environmental footprint across their operations. We have also put in place a Sustainable Development (SD) Policy and taken up specific SD projects across our Plants, Units and Mines, as per the Sustainable Development Guidelines issued by Department of Enterprises (DPE), GoI.

Increasing the production capacity along with phasing out the old technologies and equipment and installing efficient & environment friendly technologies were the key focus areas during this MEP. About ₹ 5,000 crore is being spent on pollution control schemes only from the total outlay of about ₹ 72,000 crore for the ongoing MEP while other ongoing schemes are also contributing towards energy efficiency, resource conservation and emission reduction.

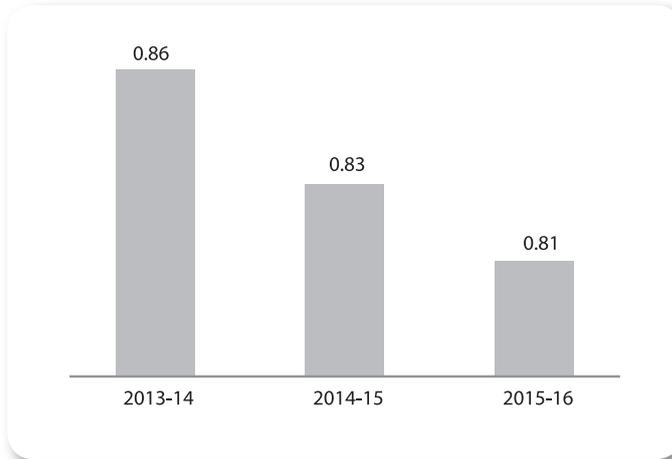
To keep an eye and lessen the environmental impact of our operational activities, we have established a dedicated unit, namely, Environment Management Division (EMD) catering to the varied environmental implications arising from our diverse operations ranging from mineral extraction to selling out the finished steel.

EMD is a corporate unit of ours which has been bestowed with responsibility to monitor and assist the environment management and pollution control activities in our Plants, Units and Mines. Besides EMD, each Plant and Mine has its own Environment Department manned with qualified personnel for execution of environmental protection measures. Our commitment to "comply with applicable environmental regulations and striving to go beyond", results from the concerted efforts by SAIL's fraternity towards environmental stewardship and protection of the environment in and around our operating units.

We have also constituted a Board Sub-Committee (BSC) on Health, Safety and Environment that guides the efforts of the Company towards environment management. During the year, a detailed review of the Corporate Environmental Policy of the Company has being carried out by the BSC and a revised Policy has been unveiled.

One of the focus areas of action for us has been curbing the stack emissions from our chimneys as these affect not only the health of employees, but also the health of communities residing around our Plants. For provision of a clean and green ecosystem, numerous steps have been taken which have reduced the particulate matter to 0.81 kg/tcs for the reporting year. Emissions of SO<sub>2</sub> are also reduced by the use of low sulphur coal and desulphurization of coke oven gas, while for NOx control special burners and process related changes have been put in.

**Particulate Matter Emission Load (kg/tcs)**

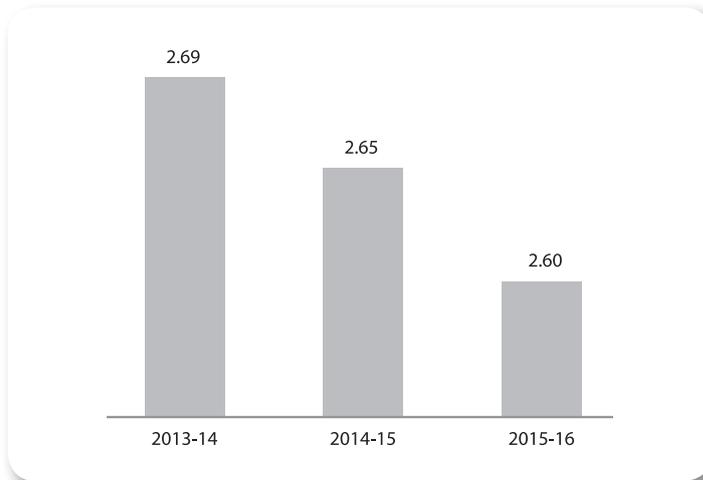


**OUR CARBON FOOTPRINT**

Coke Ovens, Sinter Plant, Blast Furnaces, Steel Melting Shop, Power Plant, etc. are the various functional units of our Plants which contribute to the CO<sub>2</sub> emissions. Transportation of raw materials & finished products and employee commute are the other relevant indirect greenhouse gas emissions activities. Though these emissions are reasonably insignificant, we have undertaken several interventions to minimise them.

Due to various meaningful steps taken by us, the CO<sub>2</sub> intensity for SAIL has been brought down to 2.60 t/tcs during the year. As evident from the figures, we have been able to bring down CO<sub>2</sub> emissions consistently over the years.

**CO<sub>2</sub> Intensity (t/tcs)**





**Water body near Bokaro Steel Plant**

## CONSERVING WATER

The significance of conserving our strained water resources is becoming more pertinent each day. India has around one-fifth of the world's population and a mere 4% of the globe's water resources. Water availability for industrial purpose needs to be taken into account in near future as water scarcity and water quality have been predicted to be one of the largest economic and health concerns in the coming times. Steel making, being a water intensive process, requires billions of gallons of water and a number of regulatory requirements also mandate the sector to ensure efficient management of water.

We have undertaken several concrete steps towards water conservation and result oriented initiatives in this direction. It has been SAIL's continuous endeavour to keep a balance with the neighbouring ecosystem while carrying out the production activities. Setting up of efficient Water Treatment Plants, identifying source of leakages and arresting them promptly, assessment of the discharged water from various shops and analysis by experts to identify areas that need improvement to reduce consumption of fresh make-up water etc. are the regular initiatives taken towards water conservation. Due care has also been taken to minimize water consumption at our Mines also. Notable among these are suitably designed tailing dam with facility for reclamation of clarified water, check dams at various strategic points in downstream areas, construction of sedimentation tanks, slow speed classifiers, etc. All efforts are being made to reuse and recycle the treated effluents to the maximum possible extent in order to achieve minimum effluent discharge and also to minimize the pollution load on the water environment.

Our Plants and Units have taken various initiatives to reduce the fresh water consumption that include:

- At BSP, new pipe line laid down for phenolic water to prevent contamination of Phenolic water with storm water, regular monitoring of various Pump Houses and project sites to check leakages, overflow, etc. and "Save water" Awareness campaign in Plant.
- At DSP, recirculation of BF GCP Blow down water for coke quenching, recirculation of overflow from 1 MT cooling tower to 1.8 MT cooling tower and modification of Section Mill Return water main
- At RSP, plugging of leakages in water pipe grid and 2 no. of Recharge pits for rain water harvesting developed in COB#6.

- At ISP, recovery of seepage water from Damodar Yard
- At SSP, water conservation measures include CRM water recycling scheme, usage of treated effluent in ASTP for floor washings etc.
- At Dalli (Mech.) Mines of BSP, re-circulation of overflow water to the tune of 45.372 lakhs m<sup>3</sup> from Hitkasa Tailing pond.

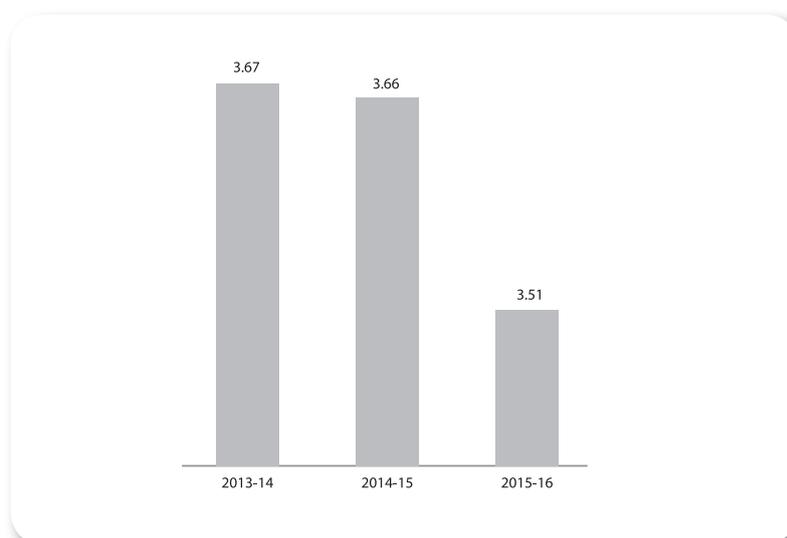
Initiatives for following ZLD schemes have also been taken up in the Plants:

- Scheme for Zero Discharge of effluent from Outlet B and C at BSP
- Treatment and Recycling of effluent from outfalls to achieve “Zero Discharge” at BSL
- Scheme for implementation of zero discharge scheme at ISP

### Water sources for various SAIL Plants & Units

Plants/Units	Water Source
BSP	River Mahanadi
DSP	River Damodar
RSP	River Brahmani
BSL	River Damodar
ISP	River Damodar
ASP	River Damodar
SSP	River Kaveri
VISL	River Bhadra
CFP	Groundwater (borewells)
SGW	River Barakar

### Specific Water Consumption for SAIL Plants (m<sup>3</sup>/tcs)



All of our Plants and Mines are located strategically to ensure availability of surface water. No negative impacts were observed on the water sources or the nearby water bodies because of operations of SAIL.

## EFFLUENT MANAGEMENT

The effluent discharged from various operations in steel industry can have damaging effect on the ecology of the local biosphere, natural resources and nearby water bodies. We are committed to treat the effluent adequately through ETPs and monitor strictly the water discharged from our operations so that the effluent quality conforms to the prescribed standards. This goes a long way in meticulously conserving the nearby environment and natural resources.

### Effluent discharged by ISPs during last three years

	2013-14	2014-15	2015-16
Quantity of Effluent discharged (Mm <sup>3</sup> )	30.26	30.31	25.57

During the year, all the parameters pertaining to standards of effluent discharged from all the Plants were well within the norms.

### Effluent Quality of Five ISPs during the year Unit: (mg/l except pH)

Parameters	pH	SS	BOD	COD	Phenol	Cyanide	Oil & Grease	NH <sub>3</sub> -N
Norm	5.5-9.0	100	30	250	1.0	0.2	10	50
BSP	7.5-8.3	37 - 77	13 - 25	37- 80	BDL - 0.36	BDL - 0.10	1.0- 3.0	2 - 29
DSP	7.3-8.4	6 - 45	11 - 25	110-147	0.12 - 0.48	0.04 - 0.19	1.0 - 4.8	4 - 38
RSP	7.4-7.9	12 - 42	7 - 11	31 - 85	0.09 - 0.18	0.08 - 0.11	2.0 - 5.0	10 - 19
BSL	6.5-8.1	19 - 36	7 - 13	37 - 109	0.009-0.025	0.004-0.053	0.18- 1.92	1 - 4
ISP	7.0-8.4	12 - 31	1 - 17	13 - 117	BDL - 0.12	0.02 - 0.11	0.5 - 1.5	1 - 29

### Effluent Quality of SSPs during the year Unit: (mg/l except pH)

Parameters	Norm	ASP	SSP	VISL	CFP
pH	5.5-9.0	7.1- 8.6	7.6-8.7	6.5 - 8.0	6.2 - 8.6
Suspended Solids	100	8-61	4-36	40 - 60	30 - 89
BOD	30	5-8	<2.0	3.0 - 5.0	15 - 28
COD	250	7-71	8-32	3.0 - 7.0	104 - 196
Fluoride	2	<0.2	0.32-1.56	<0.02	na*
Iron	3	<0.3	0.01 - 0.08	0.40-0.90	0.25 - 2.30
Oil & Grease	10	1-8.6	1.0-4.0	BDL	<4

\* = not applicable



Aeration Tank- BOD Plant of RSP

## WASTE MANAGEMENT

We believe in the policy of 4Rs (reduce, recover, recycle and reuse) across all our operations. A large quantity of wastes and by-products like slag, dust, sludge, used firebricks, etc. are generated during the iron and steel making process. Slag which accounts for a majority of by-products, is almost entirely utilized. Blast Furnace slag is used for cement making while BOF slag is used as material for road base, civil engineering work, soil improvement, fertilizer, etc. With indefatigable efforts, we have been successfully able to maintain solid waste utilization at 84 % during the year 2015-16.

We do not transport any type of waste, whether hazardous or non-hazardous outside India. There were no significant spills during the reporting period.

With the belief of reuse and recycle firmly embedded in the organizational approach of SAIL, there have been several initiatives to maximise the utilisation of solid waste generated at various operations. A few of these initiatives are listed below:

### Use of Weathered LD Slag as Rail Track Ballast

The physical properties of weathered LD slag (WLD Slag) meet the specification required for stone ballast for use as rail track ballast. Since June 2015, field trials with the weathered LD Slag from Bokaro Steel Plant are being conducted by the South Eastern Railway (SER) at the Ispat Nagar Railway Yard, Bokaro. Monthly inspections of the track parameters are being carried out jointly by the representatives of SER and SAIL and shall continue for a total period of two years.

### Use of BF-BOF slag as replacement of natural aggregates (Sand) in IS: 383

With initiatives of the Company, the Bureau of Indian Standards (BIS) has suitably amended the relevant IS: 383, permitting utilization of iron and steel slag as a replacement of natural aggregate up to the extent as has been given in the IS: 383 (Revision-III), 2016.

### Dry Granulation of LD/BOF Slag (Hydro-mechanical Study) - A project taken up under R&D Master Plan of SAIL

This innovative process is under research stage globally. It has been estimated in a lab scale study that LD slag after granulation can be utilised in cement making up to the extent of 15 %. This led to the development of a new route of recycling steelmaking slag in cement making through the process of granulation. We have engaged IIT Kharagpur for conducting lab scale study for this project in which molten LD slag is atomised under centrifugal forces on a spinning disc and the droplets generated are quenched and quickly solidified using air.

### Solid Waste Generation and Utilisation for ISPs (T)

Type of Waste	Generation	% Utilization
BF slag	5,928,295	88.96
LD BOF slag	1,554,416	78.03
THF slag	130,741	3.86
BF Flue dust	171,986	82.33
BF Sludge	101,838	1.46
LD /BOF Sludge	108,940	31.22
Mill scale	277,134	97.63
Lime/Dolo Fines	210,515	100.00
Refractory Wastes	30,051	100.00
<b>TOTAL</b>	<b>8,513,916</b>	<b>84.01</b>

## Solid Waste Generation and Utilisation from Units for 2015-16 (T)

CFP	Generation	Utilization
Fe Mn Slag	1,753	67,178
Si Mn Slag	51,244	17,808
Mn Ore Fines	8,912	16,415
Coke Fines	3,314	5,005
Quartz Fines	349	0
Flux Fines	88	0
Iron Ore Fines	0	0
GCP Sludge	6,809	1,465
<b>TOTAL</b>	<b>72,469</b>	<b>107,871</b>

VISL	Generation	Utilization
BF Slag (Granulated)	21,993	16,275
Coke Breeze	3,018	2,544
BF Flue Dust	1,427	0
BF Sludge	708	0
BOF Slag	6,311	0
BOF Sludge	653	0
Iron Ore Fines	31,784	0
Refractory Waste	532	0
<b>TOTAL</b>	<b>66,426</b>	<b>18,819</b>

SSP	Generation	Utilization
Neutralized Pickling Sludge	1,385	0
Diatomaceous Earth	29	0
ARS Metal Oxide Powder	532	25
SGL Swarf	40	91
Boiler Ash	1,539	0
Steel Shot Dust	568	1,793
Mill Scale (HRM & APL)	4,759	5,931
SMS Slag	42,615	0
EAF Dust	2,728	0
AOD Dust	2,328	0
Grinding Swarf & Dust	187	0
Torch Cutting Bag house Dust	53	0
Caster Scale Pit	82	0
Waste from Scrap handling	4,371	0
<b>TOTAL</b>	<b>61,216</b>	<b>7,840</b>

ASP	Generation	Utilization
EAF/AOD Dust	174	145
EAF Slag	2,353	0
Grinding Dust	444	444
Mill Scale	1,552	2,375
Refractory Bricks	469	333
<b>TOTAL</b>	<b>4,992</b>	<b>3,297</b>

### Solid Waste Generation from Mines

BSP Mines	2015-16
Overburden & Subgrade Ore	11,174,977
Tailings	852,722
RMD Mines	
Overburden & Subgrade Ore	12,801,000
Tailings	336,000
VISL Mines	
Overburden & Subgrade Ore	23,000
<b>Total</b>	<b>25,187,699</b>

The challenges associated with hazardous waste management have drawn due attention from management. Due to the disadvantageous potential of these wastes, environment friendly management of the same becomes essentially important to the Company. The Company has always been of the belief that suitable collection and disposal of hazardous waste is extremely important.

Inventorisation and quantification of the hazardous wastes have been done at our Plants and the identified wastes are being handled and disposed as per the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2016. SAIL Plants, Units and Mines have received authorization for the same.

### Hazardous Waste Generated at ISPs (T) for 2015-16

Plants	Generation
BSP	4,809
DSP	5,762
RSP	1,600
BSL	4,699
ISP	257
<b>Total</b>	<b>17,127</b>

## MATERIAL MANAGEMENT

It is certain that rapid economic growth has ushered an epoch of affluence and contributed to the enhanced living conditions for millions and has also increased the burden on already strained resources. We have ensured that we give key consideration to optimal utilization of raw materials and have accordingly enacted our policies and taken up initiatives for the same. This has resulted in reduced material consumption and better recycling of waste. The following details furnish a consumption pattern of raw materials at SAIL's various plants, recycling of steel scrap and use of other wastes generated within the operational units.

### Raw Material Consumption (MT) in SAIL for 2015-16

Iron Ore	Coal	Dolomite	Limestone
24.96	15.38	3.12	3.94

### Explosive Consumption (T) in SAIL Mines for 2015-16: 6,334

It is a well accepted fact that the future of steel industry will be shaped by the preparedness of the companies to reprocess the steel scrap. We, being well aware of this, have taken meaningful steps to guarantee maximum recycling of internal scrap. Complete recycling of the scrap generated within the operational units is done whereas other wastes are reused in the Sinter Plants, Blast Furnaces and Steel Melting Shops.

### Scrap Utilization (T) in SAIL ISPs for 2015-16

Scrap Utilization	BSP	DSP	RSP	BSL	ISP
Scrap Used at BF	Nil	101,802	Nil	75,410	Nil
Scrap Used at SMS	833,674	230,200	260,509	359,444	92,589

Iron Ore Excavation at Meghahatuburu Iron Ore Mine



## OUR EFFORTS FOR ECOLOGICAL RESTORATION

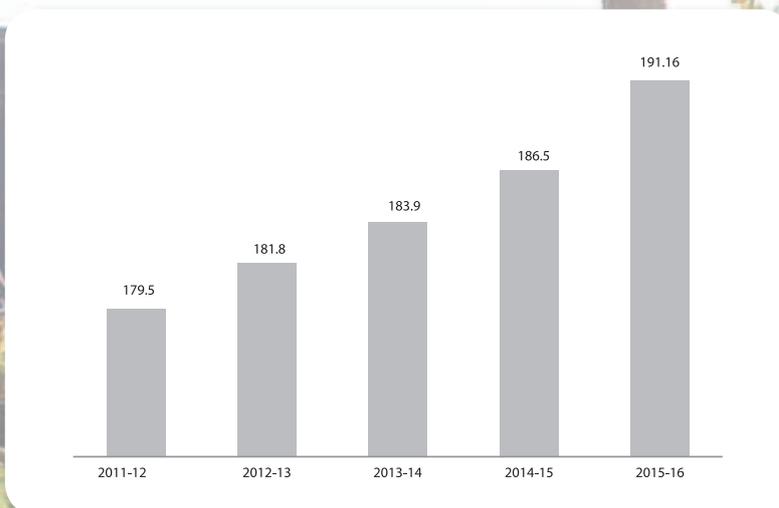
We realize the importance of plantation in overall environmental management initiatives. It is an acknowledged fact that plants play a significant role in the eco system by functioning as a carbon sink. Over the years, vast afforestation programme has been executed in all of our Plants and Mines. The basis of deciding the species of plants chiefly depends on availability and commonness of local species, local soil characteristics and existing meteorological conditions. The green belt developed by afforestation adds not only to aesthetic environment but also helps in watershed management, soil protection, erosion control, developing windbreaks and landslide stabilization.

None of our operations are in the vicinity of protected areas. There is no IUCN red list of national conservation species with habitats in the areas of operation.

Our Plants and Units have taken up massive plantation programmes using scientific methods to extend already established green belts, parks, clean and green surroundings, tree lined avenues and townships. Realizing the importance of plantation in overall environment, till date close to 2 crore trees have been planted in our Plants and Mines locations with more than 4.6 lakh trees planted in the reporting year itself.

Our afforestation programmes also have a focus on carbon sequestration. In collaboration with the Tropical Forest Research Institute (TFRI), Jabalpur, a project spanning more than 5 years, has been taken up at the Rourkela Steel Plant.

**Cumulative Plantation in SAIL Plants & Mines (Nos. in lakhs)**



We have successfully executed a Sustainable Development Project on “Biodiversity Conservation & CO<sub>2</sub> Sequestration at Bolani Ores Mines” over and above the stipulated legal requirements. This ecological restoration project, planned for three years, was initiated with the central objective of restoring ecosystem functions and services in the selected area, with a larger view of enhancing the sustainable livelihood of the local people. Ecological restoration of 75 acres of de-graded landscape was taken up through collaboration with the Delhi University and Ambedkar University, Delhi. During 2015-16, over 65,000 saplings and 5,000 seeds of different native tree species were planted. Also, more than 2,500 saplings of fruit yielding trees were planted to enrich the project site.

Long term maintenance of ecologically restored 250 acres Lime Stone mined out area at Purnapani Lime Stone & Dolomite Quarry is a five year project towards sustainability of the restored ecosystems while providing ecological services and goods to the local communities.

**Land Area of Mines (In Ha)**

	Lease Area	Land for mining	Waste Dump Area	Waste dump rehabilitated
RMD Mines	15,038.14	3,807.76	238.93	143.70
BSP Mines	6,608.01	1,192.50	271.10	160.20
VISL Mines	40.12	30.00	2.50	0

**ENVIRONMENT MANAGEMENT SYSTEM (EMS)**

We have been a fore-runner in the establishment of the environment management system in the steel industry in the Country. We started implementation of EMS-ISO 14001 in the mid 90's with Salem Steel Plant being the initial plant to get certified. Subsequently, our various units have been accredited to EMS, resulting in improvement in work zone ambience, reduction of noise, reduction of heat & dust exposure, control of stack and fugitive emissions, improvement in waste management and improved housekeeping. In addition to this, ISO 14001 accredited units have been able to lessen environmental liabilities, maximize the efficient use of resources, reduce wastes, build awareness of environmental concern among employees, improve environmental performance through more efficient operations and exhibit a superior corporate image. In addition to the Plants and Mines, our Warehouses under CMO have also been accredited to EMS-ISO: 14001 Standard.

**SAIL Units accredited to EMS-ISO 14001**

Plants/Units	Certification Status
BSP	Entire Plant & Township
DSP	Entire Plant
RSP	Silicon Steel Mill, Sinter Plant-II, Hot Strip Mill, Plate Mill, ERW Pipe Plant, SW Pipe Plant, Special Plate Plant, Environment Engineering Department and RSP Township
BSL	Entire Plant
SSP	Entire Plant & Township
ASP	Entire Plant
VISL	Entire Plant
CFP	Entire Plant
CMO	Warehouses at Faridabad, Dankuni, Kalamboli, Chennai, Hyderabad, Ahmedabad, Ghaziabad, Delhi, Durgapur and Vizag
Transport and Shipping	BTSO Vizag
<b>MINES</b>	
Dalli Iron Ore Mine	Entire Mine
Kiruburu Iron Ore Mine	Entire Mine
Megatuburu Iron Ore Mine	Entire Mine
Bolani Ores Mines	Entire Mine
Kuteshwar Limestone Mine	Entire Mine
Barsua Iron Ore Mine	Entire Mine





PRODUCT  
**STEWARDSHIP**

## PRODUCT & SERVICES

Change is the law of nature and we believe in continuously realigning/ re-engineering our strategies/Products/services to remain viable in market, keeping in line with increasing customer demands. As a customer centric organization, meeting the customer expectation is our utmost priority. In addition to our existing diverse product portfolio, we are continually developing special grades with new features such as earthquake resistant, light weight, corrosion resistant TMT rebars, etc. These innovations have helped several industries in India while facilitating safe and reliable infrastructure development

Our RDCIS (Research and Development Centre for Iron and Steel) centre at Ranchi is the pioneer of the strategic product stewardship initiatives. The major task of RDCIS is to plan, demonstrate and implement multi-disciplinary innovative programmes in SAIL Plants to improve their key performance indices related to quality, productivity and yield. In collaboration with Steel Plants and Central Marketing Organization, RDCIS aims to reduce product cost, develop value added market centric products and demonstrate the application of SAIL products amongst the customers.

In recent times, businesses and society are giving attention to the origins of the materials and products they specify and use and are in quest of assurances that sustainability principles and responsible sourcing have not only been addressed to but also taken care of in the supply chain. We have robust Quality and Environment policies which ensure production of safe and sustainable products. Our products comply with the quality norms of the Bureau of Indian Standards or with the specific customer requirement depending upon the application. We also have well-established systems and procedures to ensure compliance with requirements related to product labeling, marketing, communications and customer privacy.

### IMPROVEMENT & DEVELOPMENT OF PRODUCT

We have laid down a 'Master Plan for Research & Development' in order to smoothly acquire and develop suitable technologies for sustainable growth. In alignment with the Plan, Centres of Excellence (CoEs) are being created at the individual plant level to focus on various product development and improvements in collaboration with key customers and technology suppliers. The plan identifies 'demanding markets' for steel, such as steels for supercritical thermal and nuclear power generation, defence, renewable energy, high strength profiles for high rise buildings with seismic and fire resistance, as focus areas for product development. Our corporate R&D set-up is an umbrella organization, overseeing both centralized R&D and the plant-level CoEs.

We have developed 24 new products required by the various sectors crucial for growth and development of the Indian economy like, construction, railways, defence, etc. Steel is also used for manufacturing of products such as vehicles wherein there are many opportunities available for reducing the weight. Recognizing this, the Company has channelled its research capabilities to come up with higher strength steel products which are light in nature, thus facilitating significant reduction in environmental impacts during their usage phase. We also continuously interact with our customers through customer feedback systems as inputs for product development with a view to improve customer satisfaction.

### PRODUCT AND SERVICE LABELING

We believe in Quality and Transparency, the two key principles that we follow during delivery of our products. Our website which is available for common public contains all the details with respect to technical product information details on grade, size and application. We always try to strictly adhere to physical dimensions, chemical composition and technical delivery conditions for the associated specifications during production and dispatch of various products manufactured by us. Test certificates are also issued along with the deliveries to the customers for ease of identification of material and quality assurance. There was no reported incidence of non-compliance with respect to regulations and voluntary codes concerning product and service information and labeling.

### BRAND MANAGEMENT

In today's complex and challenging environment, managing brands is a strenuous task. Businesses get affected by heightened competition, regulations, supply chain issues and manufacturing costs, while requiring constant advocacy and reputation management. In order to manage internal and external factors across multiple locations, Company's brand management practices need to be flexible, approachable, growth-oriented and persuasive.

The Corporate Affairs Division of SAIL is engaged in reputation/ corporate brand building of the Company while the product related branding is managed by the Central Marketing Organization of SAIL. Our dealers are the crucial points of dissemination of branding initiatives because of mass outreach and large volume of sales at their outlets.

## CUSTOMER SATISFACTION

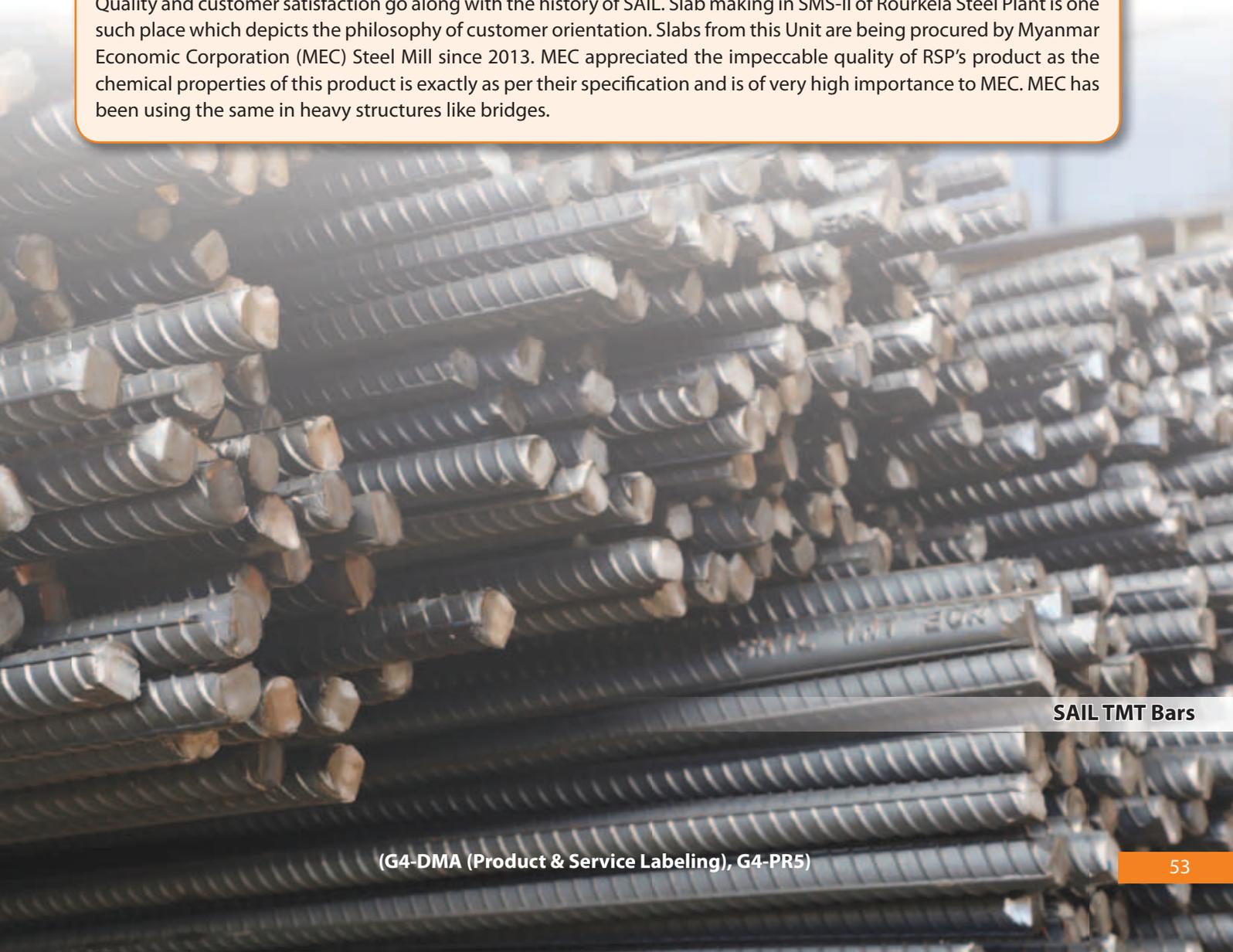
In the competitive background of the Indian Steel industry, it is vital for companies to focus their efforts on customer satisfaction, which is directly linked with the Company's profits. We are a customer centric organization as we value our customers whose patronage has helped us to achieve a leading position in the market.

Our Marketing division, the Central Marketing Organization (CMO), is responsible for reaching out to all the customers. It conducts a market survey annually and makes forecasts with respect to customer groups and market segments to be served by SAIL and communicates the same to the Plants. We have a well defined Key Account Management (KAM) for customer relationship management which captures the specific requirements of key clientele, and these requirements along with the customer feedback are reviewed monthly in the Plant-CMO meetings.

The output of the Plant-CMO meetings and the customer orders help in finalization of the production schedule. We have established a Customer Satisfaction Index (CSI), for the feedback on customer satisfaction, which is collected every month from all the key customers through personally administered feedback forms that include various parameters related to quality, supply and service. Average CSI Index for both LP & FP Group as regards to five integrated SAIL Plants is around 95 % on a scale of 100%. In addition, CMO's field set up as well as executives of different levels also hold direct Customer contacts.

### Ensuring Customer Consciousness by achieving Customer Satisfaction

Quality and customer satisfaction go along with the history of SAIL. Slab making in SMS-II of Rourkela Steel Plant is one such place which depicts the philosophy of customer orientation. Slabs from this Unit are being procured by Myanmar Economic Corporation (MEC) Steel Mill since 2013. MEC appreciated the impeccable quality of RSP's product as the chemical properties of this product is exactly as per their specification and is of very high importance to MEC. MEC has been using the same in heavy structures like bridges.


 SAIL TMT Bars

## HEALTH & SAFETY OF CUSTOMERS

In order to offer the highest level of service to our customers, we develop and use best practices and procedures to achieve and maintain high standards of customer health and safety. Since steel products are generally environment-friendly and do not pose any health or safety hazard during their use, specific procedures for preserving customer health and safety during the use of its products are not required. However, material handling is a safety concern for the customers and accordingly use of safety appliances is mandated in the warehouses. There has been no incidence of non-compliance with respect to regulations and voluntary codes concerning health and safety impacts of products and services during their lifecycle. All products conform to BIS Standards.

## COMMUNICATION AND MEDIA RELATIONS

Corporate communication activities for 2015-16 have been centred on strengthening the image of 'Brand SAIL' wherein our Company employed strategic tools of communication while reaching out to stakeholders. We participated in a number of high profile events and exhibitions during the year which included; Make in India Summit, Indo African Summit, Indian Maritime Summit, Railway Summit, IITF 2015, Steel Mart 2015, Bhopal Vigyan Mela, India Industrial Fair among others. These events generate business queries from India and abroad, which in future may lead to business opportunities for us.

Corporate Communications activities in SAIL have always been proactive and worked towards structured image building exercises of SAIL. Our communication with the various target audience was strengthened through different channels by regularly informing our stakeholders about various initiatives through press releases, press meets, one-to-one interactions with media within India and internationally. Our Chief of Corporate Affairs is the official spokesperson of the Company who also keeps in regular touch with the media houses. Key highlights of our achievements throughout the year, such as, milestones for Company's MEP, production and sales records, development of value added products, engaging our customers, etc. were some of the news items that generated positive coverage for the Company.

Additionally, media features in national vernacular publications across India have helped in increasing the Company's visibility among stakeholders. The prestigious events - "Dedication to the Nation of the modernized & expanded Rourkela & IISCO Steel Plant" by Hon'ble PM have also accounted for tremendous media coverage for SAIL. We continue to attract attention and interest of international media such as Platts etc. Also, on a daily basis, the Corporate Communications department constantly monitors news regarding the steel industry to keep abreast of any latest developments in the steel sector.



SAIL at Indo-Afro Summit

Every year we identify several sponsorship initiatives of various important events to enhance the image of SAIL brand. These sponsorship initiatives continually strive for association of SAIL brand with worthwhile causes in the interest of national and social development.

Advertisements released by the Company at Plants, Corporate office and Central Marketing Organization have a special focus on the organization's product portfolio. These advertisements are released in leading publications with high readership and circulation. Similarly radio jingles by SAIL also have a way of connecting deeply with core target audiences both in the rural and urban areas.

We print a number of collaterals for direct connect with stakeholders which include; SAIL Diary, SAIL Calendar, SAIL brochure, etc. Further, SAIL News – a theme based corporate magazine, features important activities of the organization with 'SAIL employee' being the focal point of each edition. 'SAIL News' plays a key role in building relationships between personnel and management with a lasting effect on employee motivation. We also regularly hold internal communication exercises in order to convey thoughts, long term vision & strategy and expectations' of the top management to each and every employee present at various locations, down to the shop floor level. Face to face interactions, video conferences, in-house television programmes, newsletters, e-portal, intranet & web alerts are some of the internal communication tools that we regularly utilize to convey a message to our SAIL family. Our website is constantly revamped with a new layout and design with a new 'order booking' feature which is an innovative and interactive method of engaging with the end users. WE are actively engaging in digital & social media and efforts have been undertaken to strengthen the Company's brand image through Facebook, Twitter, Flickr and Instagram. Other core initiatives of our Company during the year have been in line with various ongoing initiatives which include Swacch Bharat Abhiyan, Make in India, and Digital India.

## ON – LINE PUBLICATION AND DATA PRIVACY

We understand our accountability to protect the information collected in the course of our business, from customers, employees, contractors, shareholders and other individuals, and we strive to uphold the confidentiality of such sensitive information. Our corporate policies on data privacy, confidentiality and security are designed to maintain the trust of the individual and organizations who share the information. The digital version of all PR publications has been initiated at all the units of SAIL. No incidents have been reported regarding non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion and sponsorship. We have not received any complaints regarding breach of customer privacy and loss of customer data. No fine has been imposed on us for non-compliance with laws and regulations concerning the provision and use of products and services during the year 2015-16.



SAIL at Indo-Afro Summit

## SUPPLY CHAIN MANAGEMENT

SAIL is a large family comprising not only the Iron and Steel Plants but also the forward linkages like suppliers and other important stakeholders. Our accomplishment on cleaner environment cannot thus be complete without the participation of our extended family members. The principal that we patronize calls for active participation of all those involved in the product lifecycle to share responsibility for maximizing the overall value and minimizing any negative impacts across commercial, social and environmental attributes that result from the production, use and disposal of the product. Our products have a long processing-cycle as also life-cycle, and these need to have an integrated programme of actions aimed at ensuring that all materials, processes, goods and services are managed throughout the life in a socially and environmentally responsible manner. We have always been conscious of our responsibility towards environmental conservation even outside our operational boundaries. Keeping in line with our commitment to Green Environment, we engage Railway transportation in our logistics; may it be reception of raw material at our facilities, or dispatch of finished goods to our godowns or the end customers.

Considering the enormous amount of raw materials and finished products being handled as a result of our activities, we prefer transportation logistics through rail over roads. While on one hand this has improved operational efficiency resulting out of meticulous planning, on the other hand, rail transportation being environmental friendlier option has helped minimize the impact on environment.

Depending up on the market demand, we also engage road transportations from our warehouses to customers' sites. Necessary precautions are taken towards compliance of regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle and hence there has been no incidence of non-compliance during the year 2015-16. We have also taken care that our products do not have any adverse effect on the environment.

### STRIVING TOWARDS ZERO EFFECT ON ENVIRONMENT

Steel, as a product does not adversely impact the environment during its use. However, SAIL has assessed its product, processes as well as associated services in this regard. In order to mitigate environmental impacts of services, certain measures have been taken and till now 10 no. of warehouses have been accredited with ISO 14001. Such measures include maintenance of proper road and hardstands, replacement of wooden railway sleepers with concrete sleepers, recycle/ reuse of used oil, afforestation drive, conversion of vacant plots into flower gardens, use of energy efficient lightings, hygienic toilets, rain water harvesting mechanism, DG Sets with acoustic covers, etc. Further, we are also educating and propagating use of environment friendly and energy efficient processes to local SSI/ MSME vendors based around each plant.

We have in place, a checking mechanism where all handling equipment are periodically maintained to ensure a healthy & safe environment within warehouses. Packaging materials are usually dispatched to customers along with consignments in packed condition. However, packing materials retrieved from finished products dispatched in loose conditions, are disposed-off sustainably from warehouses from time to time. No significant negative environmental impact is noticeable in supply chain except for pollution resulting from deployment of vehicular traffic like trucks & trailers in the warehouses. All vehicles are duly checked for compliance with respect to pollution control.



**Chairman SAIL visiting Agra Stockyard**

ENSURING  
**SAFETY & HEALTH**



# OCCUPATIONAL HEALTH & SAFETY MANAGEMENT

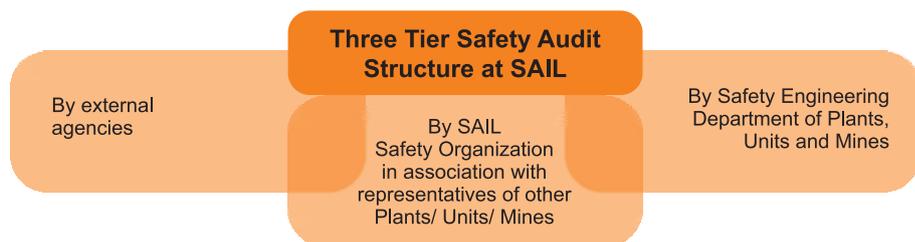
Maintaining a Safe and Healthy work environment and prioritising safety of stakeholders is of utmost importance and a part of our belief. We monitor Safety & Health at the highest level of management i.e. Board/ Board Sub-Committee level and discuss all relevant issues as opening item in all apposite forums. We have a definite approach towards Occupational Health & Safety (OH&S) matters. SAIL has a well-laid Safety Policy and in alignment with this, our individual Plants are having their respective OH&S Policy. Well-established OH&S management programmes, in line with Company's Safety Policy and the objectives, guide us in maintaining a safe and healthy work environment. Efficient operations also, through state-of-the-art technology, ensure safety of people and processes. Due thrust is given to the safety matters during execution & commissioning of the new Projects; resulting in conclusive results in terms of improved safety performance.

The intention of our Safety Policy is to provide a safe and conducive work environment to all our employees engaged in the steelmaking as well as mining processes including regular and contractual employees employed within our premises as well as society at large. In order to widen awareness and inculcate safe working practices, various initiatives and drives are undertaken at regular intervals. Involvement of top management, trade union representatives & employees is demonstrated through active participation in the bi-partite forums like Central/ Apex Safety Committees, Departmental Safety Committees, etc. Meetings of these committees are convened on regular basis wherein all the issues pertaining to health and safety are discussed in a collaborative manner for consistent enhancement of the OH&S Standards. These Committees help in monitoring & re-assessing of promotional activities undertaken and are associated in the effective implementation of Occupational Health and Safety programmes.

Joint Committee on Safety, Health & Environment in the Steel Industry (JCSSI), a unique bipartite forum at national level having representation from key central trade unions and management of main steel producers of the Country, jointly develop recommendations/ action plans for ensuring safe & healthy work culture. This gets substantiated from the harmonious industrial relations enjoyed over the years by our Plants, with varied work culture at multi-locations. Annual meetings of the Committee and award functions are organized at Ranchi as well as at member plant locations. In the recent years, renewed thrust has been laid on learning of best practices of steel producers as well as academia by way of organising National & International Seminars. Some of the functions of JCSSI include: analysis of causes of accidents and sharing views on remedial measures, scrutinize major issues on Safety, Occupational Health & Environmental pollution, spreading awareness among Committee members through sharing of best practices, support and encourage workers participation in Safety, Health & Environment and print & publish information material like booklets, manuals, films, etc. on Safety, Health & Environment.

At SAIL, noteworthy progress has been achieved in the Standards of Safety and Occupational Health at workplace by establishing systems, procedures & improved work practices. We ensure whole-hearted involvement of management as well as workers for effective health & safety drives / campaigns. We do consider views of bi-partite forums for revising the Hazard Identification and Risk Assessment (HIRA) documents and Occupational Health and Safety Policy of ours. For ensuring a Safe & Healthy work environment, both Management and Workers' Representatives reiterate their commitment to extend and implement the best standards for Safety, Occupational Health and Environment protection and maintain specified Standards of OHSAS 18001, ISO 9001 & ISO 14001. We have also signed an MoU with National Safety Council, Mumbai for mutual collaboration in the area of Safety Audits, Training, etc.

We emphasise upon adherence to Safe Commissioning Procedures for our new and upcoming facilities, identification of every type of hazards & assessment and control of work related risks for implementation of proactive strategies, absolute adherence to accurately developed protocols and SOPs/ SMPs/ SWPs, organising training on Fatality Risk Control and Behavioural Based Study for curtailing risk.



## SAFETY AUDITS CONDUCTED DURING 2015-16

Safety Audits were conducted by SAIL Safety Organisation (SSO) in BSP (Oxygen Plant-II, COB # 1-11, WMD); DSP (Section Mill, Power Plant, BOF & CCP); BSL (Hot Strip Mill, Traffic Deptt., HRCF, RMHP, OHP); ISP, Burnpur (OHP, USM); ASP (Forge shop, Plate Mill & HTF); CMO (Kanpur Warehouse & Fire Safety Audit of Ispat Bhawan, Kolkata).

## OUR SAFETY SETUP

Our SSO coordinates and monitors the operational and fire safety activities at the corporate level whereas in each of our Plant/ Unit, full-fledged Safety Engineering Department (SED) with infrastructural resources functions to ensure operational safety & fire prevention related aspects. Respective SEDs carry out awareness generation drives and campaigns in their Plant/ Unit at regular intervals. Adherence to laid down Standards & Safe Working Procedures are ensured by Departmental Safety Officer & Safety Steward/ Captain in each department/ shop of the Plant/ Unit.

## OUR COMMITMENT

We are committed towards preventing occurrence of accident in our operations. Safety performance is regularly being monitored at the highest level of management i.e. Board, Chairman and Directors' level as well as by the Chief Executives of respective Plants & Units. Also, we have a Board Sub-Committee (BSC) on Health, Safety and Environment that guides the efforts of the Company towards achieving a safe and healthy environment.

## OUR SYSTEMS AND PROCEDURES

SOPs, SMPs & WIs, serve as vital guiding documents and ensure that necessary technological discipline and statutory rules & regulations are duly adhered to. Inter Plant Standards in Steel Industry (IPSS) have been developed in the area of Safety with the aim of standardising various procedures required to ensure safe working. With changing requirements, these documents are reviewed and updated accordingly. These documents are uploaded on respective Plants' web-portals and can be easily accessed and referred by any employee, when needed. We do follow systems like Permit to Work and Protocol incorporating safety provisions during execution of hazardous & critical jobs involving multiple agencies and ensure their strict adherence. Extra precaution is duly taken through safety surveillance & intensive monitoring for ensuring safe completion of all major capital repairs/ shut down jobs. IT based systems & tools are increasingly used for various purposes such as information dissemination on Safety & Health, maintaining important records, logging & analysis of accidents, submitting safety suggestions, etc.

## WORKER'S INVOLVEMENT IN SAFETY MANAGEMENT

Our Health and Safety Committees, having joint representation of management & workers, facilitate to maintain a sustainable health and safety culture. 100% employees are covered by the formal joint management-worker Health and Safety Committees at Plant/ Units and are duly engaged on Health & Safety issues. These committees are normally called for meeting once a month in all departments. In these meetings, the issues related to health & safety, safe working environment, welfare, security of Plant, etc. are discussed in detail. Before deployment of the contractual workers, compulsory safety and work environment related training is duly provided to each worker. Mass Employee involvement initiatives are being undertaken to ensure each individual employee's engagement for enhancing safety culture and achieving 'zero accident' in his respective workplace, department and organisation as a whole.

## SAFETY TRAINING & EDUCATION

An effective safety strategy has 'awareness' and 'capacity building' as two critical components. We organise continuous education, training, counselling, prevention and risk-control programmes for our workforce, their families and people residing in neighbourhoods to equip them with requisite acquaintance & skills. A variety of training programmes/ workshops are organised for awareness of all concerned regarding first aid, occupational hygiene, health, stress management, preventive care for occupational diseases, awareness on HIV/ AIDS, etc. For effective learning 'Learning from Each Other' workshops are organised for different work zones/ areas such as Iron & Steel, Rolling Mills, Maintenance Services, etc.

The employees are imparted with job specific safety training on regular basis. TV networks at Plant townships also play an important role by broadcasting safety related information on regular basis. The personnel from Central Industrial Security



Safety Mock Drills

Force (CISF), deployed for ensuring security in and around the Plants, are also imparted training on safety. Occupational health and safety related training is also provided to the other security staff. All CISF personnel are trained on Human Rights aspects at their individual training camps as per standard training procedure of Government of India for security personnel. With meaningful efforts, we have developed safe & healthy working environment for all of our employees and those living in the neighbourhood of our installations.

## OUR SALIENT GOOD SAFETY ACTIVITIES

- For the first time, an International Seminar on Safety, Health & Environment in the Steel Industry (ISSHR2015) with the theme 'Quest for Excellence' organised at Ranchi which was attended by 200 delegates from 40 organisations & 30 technical papers were presented. ISSHR2015 was inaugurated by Hon'ble Governor of Jharkhand; Director (Safety, Technology & Environment), World Steel Association was the keynote speaker
- Special training programmes held on 'HAZOP', 'Safety Audit', 'Process Safety Management', 'Chemical Safety', etc. and thrust laid on framing new Standards & revising existing Standards under IPSS 1:11
- JCSSI's website [www.jcssi.com](http://www.jcssi.com) designed & developed with in-house resources
- Special 'On-the-job' training programmes are being conducted for contractual workmen & their supervisors at site before starting of jobs and necessary do's & don'ts explained
- Frequency of mock drills increased for different type of emergencies
- Mock drill organised on chemical industrial disaster with BSP, CISF & NDRF
- Tableau based on the Safety theme displayed at BSP and BSL during the Republic Day Parade – 2016
- Safety Week campaign organised in various departments across SAIL Plants and Mines

- Safety Management programmes for Front-line Executives & Safety Enhancement programmes organized for Non-Executives
- New Online Reporting System launched at DSP for 'Near Miss Reporting' & 'Safety Suggestion'
- 'Safety Protocol' is being strictly followed in all critical jobs
- Safety messages are being delivered at entry/ exit gates during shift change and also at different sites through PA system to create awareness among employees
- Disaster Management Plan, On-Site Emergency Plan prepared and Safety & Health policy updated by SED at ISP, Burnpur
- Double Earthing of all man-coolers & welding machines and use of rubber mat in front of electrical panels
- Wipers, AV alarms, horns, fog lights & sunglasses maintained properly during monsoons in dumpers plying in Mines
- Use of CCTV cameras
- Radium tape fixed on trees/ pillars on both sides of haul road as well as approach road in Mines area
- Emphasis on 100 % usage of PPEs at all locations
- Fire-fighting training programme with the help of fire brigade
- Various safety awareness programmes conducted throughout the year across SAIL Plants and Mines
- SOPs developed for 'working at height' and painting jobs
- 'Radar based Oven Identification & Machine Interlocking System' implemented in CO Battery - 6 at RSP to avoid wrong oven pushing
- ISP achieved 'Zero Fatality' in the calendar year
- Permanent water sprinkler installed in main haul road in mines
- Daily inspection of Heavy Earth Moving Machineries (HEMM) being done, records maintained, all Safety features of the dumpers, excavators, drills & dozers provided and maintained in order and checklists of safety devices being maintained separately at various Mines of SAIL
- Roko-Toko drives conducted in every month to discourage persons riding on tippers, etc. inside mining area
- Safety Audit of all seven mines of Bhilai Group of Mines was conducted by National Safety Council (India)



Director (Safety, Technology & Environment), WSA delivering keynote address at Ranchi

## OUR OCCUPATIONAL HEALTH MANAGEMENT

We have set standards in the area of OHS and have established full-fledged OHS centres with modern healthcare equipment at all our Plants & Mines. We cover our entire workforce under OHS programmes through OHS centres which are working tirelessly towards improving workers' health. Our Bhilai Steel Plant's multi-disciplinary, multi-dimensional OHS centre has emerged as the National OHS Centre (NOHSC) for SAIL and functions as a Central Nodal Agency to monitor Occupational Health activities in different SAIL Units. Health Information System (HIS) is successfully utilized as a vital tool which includes organized collection, compilation, analysis, retrieval and dissemination of necessary information.

An integrated approach is adopted to provide comprehensive health care, preventive, curative, promotive and rehabilitative health services and to create a conducive work environment in conformity with the requirements of OHSAS 18001 & SA 8000 certifications.

We promote awareness on health issues up to the grass root level including contractual workforce by celebrating Special Days like World Health Day, Occupational Health Day, Doctors' Day, AIDS Awareness Day, World TB Day, Diabetes Day, World Kidney Day, World Malaria Day, International Women's Day, etc. Focused programmes are also organised for our regular and contracted female employees.

## OUR INFRASTRUCTURE & FACILITIES

**Preventive:** Occupational Medicine Clinic, Periodical Medical Examination, Industrial Hygiene Survey, Computerized Health Information System (HIS).

**Promotive:** Awareness programmes, Training on Industrial Hygiene and First Aid, Stress Management, AIDS Control, Life Style Diseases, Special programmes for working women, Celebration of Special Days.

**Curative:** General OPD, Pharmacy, Plant Casualty services with Disaster Management facilities. Round-the-clock Ambulance services, Eye wash Fountains, Minor OT.

**Rehabilitative:** Disability assessment following any work injury through Disability Medical Board, redressal of complaint cases from work places / deptts., job rotation based on deviation found in PME & recommendations of DMB being implemented by redeployment Committee, documenting follow up & feedback.

**Facilities:** Lung Function Test, Biochemical Investigation, Clinical Pathology, Digital X-Ray, Vision Test, Health Education & Training, OHS Library, ECG, Psychology, Health Information System, Audiometry, etc.

## SALIENT ACTIVITIES UNDERTAKEN BY OUR OHS CENTRES

- OHS activities being communicated to employees through Upgraded NOHSC website
- Active participation by OHS Personnel team in activities like First Aid demonstration, Mock Drills, Gas Safety, Stress Management, Medical Boards - Rehabilitative, Disability, Job Rotation, Emergency, long unfit, Job Assessment review, etc. for pre-employment purpose
- Medical and employee health related programmes like Periodical Medical Examination, Pre-Employment Medical Examination, Pre-Retirement Medical Examination, Employee Wellness Programme & Vision Conservation Programmes, Tests on Audiometry, Pulmonary function, ECG, Chest X-ray conducted for all employees
- Maintenance of occupational hygiene at workplace for Dust, Noise, Heat, Radiation, Humidity, Illumination, etc.
- Detailed estimation of Urine phenol & pathological tests for the employees of Benzol Rectification & Recovery Plant
- Activities related to Work Physiology covering Pulmonary Function Test, ECG, Energy Expenditure Study, Maximum Oxygen uptake
- Programmes related to Industrial Psychology covering test for Personality, Stress Assessment, identification & counselling of stressed persons and their follow up on regular basis



- To combat gas exposure, OHS centre equipped with multi-channel oxygen facility for oxygen therapy
- Workshop / Health education Programmes on Diabetes Mellitus, Work place hazards & prevention, Stress Management, Modular First Aid, Hypertension, Cancer, AIDS Awareness, Occupational Health Hazard Disease & prevention, safe physical work environment, Hygiene, Life Style Diseases, Women’s Health, Chemical Burn and other Burn injury management, Food & Personal Hygiene, Aging gracefully, etc. conducted successfully at most of the OHS centres
- Peripheral activities like AIDS awareness Programmes and Health awareness programme for Food Handlers

Respective departments were communicated the given recommendations on control measures based on various surveys, data analysis, hazard quantification and accordingly follow up was done for its compliance.

### CASE STUDY

- At BSP, installation of Dust Extraction system in Sand Mixing machine # 2 of F&P Shop has reduced dust level from 5.8 mg/m<sup>3</sup> to 2.6 mg/m<sup>3</sup>, installation of Steam trap in THF-2 KLB Row of SMS-I has helped to reduced noise exposure from 94 dB to 85 dB and SO<sub>2</sub> concentration reduced from 4 PPM to 0.8 PPM by arresting leakages from super heater bypass valve of DCDA section, CCD deptt.
- At RSP, 25-bed Disaster Management unit named ‘Dhanvantri’ & renovated laboratory units were made available in OHS Centre. In addition, new state-of-the art equipment like Pulse CO Oxymeter (non-invasive), Digital Alcohol Breath Analyzer, Defibrillator, Audiometer, Heat Stress monitor were procured.

### Safety Statistics (Plants and Mines)

Year	Injury Rate (per 200,000 hours worked)
2013	0.086
2014	0.091
2015	0.058

*\*Excluding Mandays lost on account of fatal accidents*

Year	Mandays Lost
2013	4,057
2014	5,403
2015	4,576

### Accidents by Category (Nos.)

Year	Regular employees	Contractor worker	Total
2013	111	71	182
2014	105	84	189
2015	59	57	116

### Accidents by Type (Nos.)

Year	Fatal	Reportable	Non-Reportable
2013	28	75	79
2014	26	89	74
2015	20	53	43

### Total Nos. of Safety Training Imparted

Year	Total nos. trained
2013	256,739
2014	205,629
2015	174,543





# HUMAN RESOURCE MANAGEMENT



# OUR HUMAN CAPITAL

Foundation and success of any great organization depends on its committed, competent, loyal, dedicated Human resource. SAIL being no exception, proudly dedicate its success, growth to its loyal, skilled workforce and consistently provide conducive work environment to human capital for its incessant growth. Philosophy of mutual trust and group cohesiveness is shared by all at SAIL and is reflected and executed in management and various policies from top to down across the organization.

A trained and skilled workforce is a valuable asset to any organization. Skill enhancement and competency development programmes have been organized on regular basis for its entire workforce. Connecting the local community for their social enrichment has always been our guiding principle. SAIL is a firm believer in providing equal employment opportunities to every section of the society, refraining from any gender biasness too. We have a proper recruitment process in place where fair and transparent system is adopted. Inclusion of local people in various kinds of jobs is taken care by the regular recruitment process. Be it a robust Performance Management System or Reward & Recognition Process or Labour Welfare across all the Plants, SAIL's focus has always been to give equal and uniform benefits to its workforce. It is visibly reflected through our competitive compensation Policies or adherence to Minimum wage requirement as per the various states. The ratio of entry level wage to minimum wage for BSP is 3.53, for BSL the figure is 3.26, for RSP it is 3.61 and for DSP & ISP the ratio is 3.0. All Plants, Mines and other operations of SAIL of which employee break-up is reported are located in India.

By the end of year 2015-16, the total number of employees in all the Plants, Units and Mines of SAIL across India was 88655. The ratio of employees in the gender category (female/male) is around 6:94. The percentage of employees in minority groups is around 8.58 %.

Closing Manpower				Gender Profile			
	2013-14	2014-15	2015-16		2013-14	2014-15	2015-16
Executive	14,780	14,648	13,968	Male	92,285	87,931	83,499
Non-Executive	83,117	78,704	74,687	Female	5,612	5,421	5,156
<b>Total</b>	<b>97,897</b>	<b>93,352</b>	<b>88,655</b>	<b>Total</b>	<b>97,897</b>	<b>93,352</b>	<b>88,655</b>

Age Profile				Minority Representation			
	2013-14	2014-15	2015-16		Male	Female	Total
<30	8,710	9,657	9,834	Total Minority Employees	6799	805	7604
30-50	46,992	43,709	41,324	Total Employees	83499	5156	88655
>50	42,195	39,986	37,497	%	8.14	15.6	8.58

Contractual Workers			
	2013-14	2014-15	2015-16
Nos.	95,829	69,961	56,055

## Region-wise Gender-wise Closing Manpower

Plant/Unit	Male	Female	Total
BSP	24421	1216	25637
DSP	9970	604	10574
RSP	15364	1094	16458
BSL	14379	853	15232
ISP	7663	443	8106
ASP	1018	54	1072
SSP	1161	65	1226
VISL	507	53	560
CFP	481	11	492

Plant/Unit	Male	Female	Total
SRU	911	93	1004
RMD	3601	174	3775
COLLIERIES	1399	73	1472
RDCIS	421	25	446
CET	250	16	266
CMO	1270	244	1514
SSO	13	0	13
CORPORATE OFFICE	435	120	555
CCSO	123	3	126
MTI	60	7	67
GD/SWG	29	1	30
EMD	23	7	30
<b>SAIL [Total]</b>	<b>83499</b>	<b>5156</b>	<b>88655</b>

	SC			ST			OBC		
	2013-14	2014-15	2015-16	2013-14	2014-15	2015-16	2013-14	2014-15	2015-16
Total	15,615	14,356	14,448	13,484	12,089	12,580	10,656	10,447	10,768

## ENSURING AMIABLE WORK PLACE

Our HR policy gives utmost importance to innovation, involvement and creative work culture for all human resources. We believe in providing equal employment opportunities at work place irrespective of gender, caste, religion or marital status. Every modification no matter how small it is, if its related to our employee, we always believe in taking into loop representatives of employees well in advance.

## PARTICIPATIVE WORK CULTURE

We perceive collective bargaining as a healthy practice for maintaining the participative culture in the organization; hence it has become an integral part of an overall governance framework that contributes to responsible management. All employees of SAIL are covered by collective bargaining agreements. For carrying out collective bargaining for non-executive employees, National Joint Committee for Steel Industry (NJCS) is a unique bipartite forum which consists of workers representatives from major Central Trade Union Organizations, representatives from recognized unions of SAIL Steel Plants and RINL and management representatives of SAIL Steel Plants and RINL.

Recognized unions for non-executive employees exist in all Plants/Units. The Steel Executives’ Federation of India (SEFI) - the apex body representing the executives in SAIL, carries out the collective bargaining in case of Executives. Our Company has a peaceful industrial relation ambience with trade unions/workers’ representatives which is enabled by a healthy practice of sorting out and settling issues through participative discussions. Bipartite forums like National Joint Committee for Steel Industry (NJCS), Joint Committee on Safety, Health & Environment in Steel Industry (JCSSI), etc. with representation from major central trade unions as well as representative Unions of Plants/Units meet periodically and jointly evolve recommendations / action plans for ensuring a safe & harmonious work culture.

## HR SYSTEM AND PROCESSES

No company can deny the importance of monetary and non-monetary benefits to its work force. At SAIL, Workers’ participation at different levels, right from National level up to shop-floor level, is ensured through an established system. National Joint Committee for the Steel Industry (NJCS), which is a bipartite forum comprising of members representing both the employers as well as employees, decides wages and benefits of non-executive employees. All regular non-executive employees are covered under the purview of this collective bargaining body. Fair dealing & compliance on labour issues are ensured by the designated Labour Welfare Officers of the respective Plant/Unit/Mines.

There is no discrimination towards any section/category of employees and this is ensured by the Personnel department which regularly monitors fairness in activities and services. We also ensure Freedom of Association, as enshrined under the Constitution of India and envisaged in the Trade Union Act in addition to the Right to exercise the Freedom of Association and Collective Bargaining in all our operations.

We robustly support protection of Fundamental Rights described in the Constitution of India. We have always tried to protect the human rights of our employees and hence there was no recorded case during the reporting year on any violation of human rights. We also take care of the succession planning and career development aspect of our employees. Regular performance and career development reviews are done for all the employees.

We have a structured system for communication with employees on a wide range of issues impacting the Company's performance as well as those related to employee's welfare. CEO / Senior level officers' under mass communication campaigns carryout detailed discussion with large group of employees which is the best example of employee communication and engagement. These sessions help employees to align their working with the goals and objective of the Company leading to enhanced productivity and sense of belongingness to the Company. We have a proper exit policy in our Company where employee has to serve 3 month notice period after putting in the resignation.

We also feel that quality of work life is very essential for maintaining harmony at workplace and outside; hence we have formulated appropriate leave policies for our employees. All our regular employees enjoy benefits like Health care, Disability / Invalidity coverage, Maternity Leave, Retirement Benefits, etc. We also provide maternity leave up to 180 days and 730 days child care leave to women employees. Workman engaged by the Contractors in establishments of SAIL, are covered under the ESI Benefits. As a responsible corporate, we have also been providing various social benefits to our employees in the form of housing, education, civic amenities, sports & recreation and social welfare. We have developed full-fledged townships over the years at all our Plant locations with the modern infrastructural facilities along with premier schools, super specialty hospitals, shopping malls, multiplexes, parks, gymnasium, stadiums, etc.

Through implementation of SA 8000, we communicate aspects of human rights to all our vendors & suppliers. We also conduct training & awareness workshops for employees on different aspects of SA 8000 pertaining to child labour, forced labour, non-discrimination, freedom of association, safe work environment and health & safety. The SA 8000 clause on child labour that includes employment of persons of age 18 and above as a precondition to partnering with SAIL, and that, in the event of any kind of violation by vendors within or outside the Company premises, liabilities for the education of the child until the completion of high school accrue to the defaulting party. We communicate this aspect to all our vendors and suppliers during engagement with them.

We avail the inclusive support and services of Central Industrial Security Force (CISF) for ensuring security in and around our Plants and Mines. Training on aspects of safety and human rights is duly provided to CISF personnel.

## GRIEVANCE REDRESSAL MECHANISM

Our Plants/Units are maintaining 3 stage grievance handling system and employees are given an opportunity at every stage to raise grievances relating to wage matters, working conditions, leave, work assignments and welfare amenities, etc. Majority of grievances are redressed informally in view of the participative nature of environment existing in the Plants/ Units. The system is comprehensive, simple and flexible and has proved effective in promoting harmonious relationship between employees and management. There are no known cases of discrimination as well as any violations of human rights in SAIL.

## WELL BEING OF OUR EMPLOYEES

It has always been an endeavour of SAIL to make consistent efforts towards the holistic health of our employees and this approach is reflected through our well defined medical polices, available to all workforce even post retirement. We consider our employees as part of one extended family and support them during service as well as after superannuation.



Satisfied Workforce

## PROVIDENT FUND, GRATUITY & EMPLOYEE PENSION SCHEME

The total contribution made by the Company to SAIL Gratuity Trust up to 31<sup>st</sup> March 2016 was ₹ 3,349.09 crore. The fund size has grown to ₹ 5,494.67 crore as on 31<sup>st</sup> March 2016, net of settlement done towards payment of Gratuity. The gratuity liabilities of the employees are valued by a professional Actuary at the end of each Financial Year and based on the actuarial valuation, the contribution to the Gratuity Trust is made. The PF and Employee Pension is being paid as per the statutory requirement.

## MEDICAL FACILITIES TO SERVING EMPLOYEES

Taking care of its employee at the time of need is the duty of every conscious corporate citizen and SAIL truly being a conscious corporate, believes in providing world class medical facility to all its manpower along with their entitled dependent family members. The Health Policy of SAIL states that: "SAIL, the largest steel producer of India, in its endeavour to maintain a healthy workforce shall focus on promoting and maintaining the health of its employees by providing them a conducive and healthy environment to work, and an efficient and advanced health care system with a balance of preventive, promotive and curative measures." We are maintaining a huge medical setup comprising of 18 multi-specialty Hospitals and more than 33 Primary Health Centres, located across our Plants / units. For treatment not available at SAIL hospitals, the employees (& their dependants) are referred to hospitals located pan-India as per rules and requirement. For the city based employees and their dependents, where we do not have our own hospital, employees are provided comprehensive medical facilities in empanelled hospitals. The facility of reimbursement of medical expenditure is also permissible for expenses incurred in non-empanelled setups as per rules & approved provisions. Total medical expenditure incurred during FY 2015-16 was around ₹ 590 crores.



**Yoga Day Celebration**

## **MEDICAL FACILITIES TO RETIRED EMPLOYEES**

We can be seen as a role model company for providing medical benefits and health care, for all employees and their spouses even after their superannuation. We provide medical facilities to our ex-employees & their spouses at our Plant Hospitals at par with serving employees, free of cost. In addition, we have also been operating a Medclaim Scheme for our retired employees and their spouses since 1991. The premium applicable to the said scheme is highly subsidized by the Company. We are proud to say that SAIL Medclaim Scheme is amongst the largest group Medclaim Schemes in India and at present it covers around 1.17 lakh members located pan-India.

## **LIFE COVER SCHEME**

SAIL is operating a Life Cover Scheme (LCS) in lieu of statutory scheme called Employees Deposit Linked Insurance (EDLI) Scheme, 1976. The monetary benefits under LCS are given to the nominee of the PF member in case of death of PF member while in service. Additionally SAIL is also extending the benefit to those who suffering from Permanent Total Disablement (PTD) on and above provision of EDLI.

## **EMPLOYEE FAMILY BENEFIT SCHEME**

This scheme is widely appreciated not only within the Organization but also outside. As an employee centric organization we do believe in taking care of our employees at the time of distress. According to this scheme, in cases of death of an employee while in service or on account of Permanent Total Disablement, an amount equal to his last drawn Basic Pay + DA is paid to his/her nominee or the employee (as the case maybe), on monthly basis till his notional date of superannuation. Benefits are extended if the nominee/employee deposits an amount equivalent to his/her PF and Gratuity amount with the Company. This amount is returned back to nominee/employee after attainment of notional date of superannuation.

## **SAIL EMPLOYEES SUPERANNUATION BENEFIT FUND (SESBF)**

Our Employees Superannuation Benefit Fund also exhibits our commitment towards our employees even after their retirement. SAIL employees are contributing @ 2% of their Basic Pay plus DA towards SAIL Employees Superannuation Benefit Fund (SESBF). The SESBF Fund is managed by a Trust representing Unions, SEFI and Management.

# SHAPING HUMAN CAPITAL



Satisfied Workforce

# OUR HUMAN CAPITAL

We take great pride in our human resource capital which is constantly developed by way of training at our facilities and knowledge sharing, as also motivating the workforce by linking their growth in the Company with their performance. This mechanism keeps them constantly challenged to update their knowledge and chase excellence.

We have a robust method of systematic and thorough analysis across the organization to assess current levels of skill and competence of the employees in various positions vis-à-vis the required skills for higher performance. The work profiles of all the roles are analyzed and gap between the job requirements and employee skills are identified for development of training programmes. We have also developed customized programmes that target specific workgroups and skill sets that have helped in delivering effective training to all SAIL employees. Our training programmes are oriented towards strengthening the organization's capabilities to excel in every field and to achieve and maintain market leadership. Our HR Policy is based on the business thrust areas in tune with our Vision Statement.

In order to maintain excellence in our work-force, we follow a policy of providing training to add to the knowledge of every employee at least once in three years. Based on this, Annual Training Plan (ATP) is formulated for each Plant/Unit under the following major categories:

- New Entrants
- Competence Enhancement
- Specific Areas and
- Other Areas

We conduct an annual Training Need Assessment (TNA) in case of executives through online Executive Performance Management System (EPMS). Our executives fill up the required technical and managerial training in order to fulfill their KPAs as per their job profiles. These needs are reviewed by the management and training need of each executive is identified. All these needs from multiple sources are compiled and analyzed, and this analysis is used for preparing ATP and earmarking executives for different training programmes. A training coordinator is made responsible for each department, imparting training in various areas along with the identified trainers.

### Training hours breakup for the year 2015-16

Average Hour of Training (2015-16)	Executive (hrs)	Non-Executive (hrs)	Total (hrs)
<b>External Training</b>	117,160	37,808	154,968
<b>Foreign Training</b>	8,216	2,632	10,848
<b>Specific Areas</b>	92,984	722,048	815,032
<b>Managerial Competence Enhancement</b>	588,328	318,392	906,720
<b>Technical Competence Enhancement</b>	245,288	1,304,128	1,549,416
<b>New Entrants</b>	499,672	3,924,272	4,423,944
<b>Other Areas</b>	53,768	2,340,480	2,394,248



On-site Training



**Crafting Professionals**

The training needs of non-executive employees are ascertained by line managers at the shop floor with the help of Training Engineers. This assessment is done through:

- Measurement of Competency Gaps
- Requirement for Multi-skill training, and
- Skill-Gap Analysis

Based on the training needs, we conduct appropriate training programmes to bridge competence gap of these employees.

Training to “Management Trainees” (MTs) involves a system of mentoring which helps in building a confidence leading to individual growth necessary for MTs to deliver managerial excellence in their field of operations.

Special Performance Improvement Workshops (PIWs) are planned every year mostly for the non-executive employees of the respective shops. The workshops involve root cause analysis, brain storming and building an action plan regarding issues like production and productivity, cost reduction, maintenance, housekeeping and safety. As per the policy in vogue, at least one-third employees are trained every year at various locations. We also publish various technical and managerial journals which are accessible to every employee.

Our training programmes are designed so as to provide lifelong learnings and skill development, supporting our employees during and after their services. Apart from these, we also organize specialized technical training and vocational training programme for college students every year.

<b>Performance Indicator</b>	<b>2015-16</b>
Percentage of employee trained	36.0%
Training man-hours per employee	109.6
No of employees trained	33,563



A photograph of three women in traditional red and white attire performing a dance outdoors. They are wearing red and white saris with white borders and are adorned with orange flower garlands and traditional jewelry. The background shows a crowd of people and a building. The text "OUR SOCIAL RESPONSIBILITY" is overlaid in orange on the right side of the image.

OUR SOCIAL  
**RESPONSIBILITY**

# OUR CSR APPROACH

At SAIL, our vow towards populace cogitates from our credo “to make a meaningful difference in people’s lives”. Our social conscientiousness principles guide us to carry out business in ways that deliver social, environmental and economic benefits to the communities in which we are operating. Our CSR initiatives with immense outreach have enabled numerous small rural neighbourhoods translate into large industrial centres.

We ensure 100% engagement with local communities in our CSR programmes focussing on their holistic development. We are dedicated to steadfastly improve our social responsibilities, environment and economic practices to make positive impact on the society. We undertake CSR activities as per SAIL CSR Policy, framed in compliance with the provisions of Companies Act, 2013.

Our CSR activities are carried out in and around our steel townships, mines and far flung locations across the Country in the thrust areas of education, medical and health care facilities, rural development, access to drinking water and sanitation amenities, infrastructural development in peripheral rural areas, promotion of sports, art, culture & heritage conservation, environment sustainability, women empowerment, support to Divyangs (people with special abilities), skills and sustainable income generation through Self Help Groups, etc.

Various Social Challenges associated with our operations and their mitigation strategies adopted by us are listed below:

## SOCIAL CHALLENGES

- Maintaining Plant/Units/Mines activities in synchronization with society
- Maintaining ethical dealings across supply chain
- Talent retention and employee motivation
- Outreach and relevance of development programmes in villages

## MITIGATION STRATEGIES

- Suitable need assessment and community engagement programmes
- Adherence to ethical business traditions
- Focus on carrier growth
- Investing on community and its development with focus on social up-liftment

## CSR INITIATIVES

Some of the noteworthy activities undertaken in various fields during the year 2015-16 are:

### Healthcare

Our widespread & specialised Healthcare Infrastructure provides specialized and basic healthcare for people living in the vicinity of our Plants/Units. On fixed days of the month, regular health camps in various villages are organised so as to deliver good quality healthcare at the doorsteps of the deprived living in the periphery of Plants/Units, Mines & far-flung



Free Medical Service

(G4-DMA (Local Communities), G4-S01)



### Provision of Mid-day Meals through AKSHYA PATRA

areas. During the year 2015-16, more than 3,800 Health Camps have been organized benefitting over 97,000 villagers. Our 24 exclusive Health Centres at Plants are providing free medical care and medicines to around 100,000 poor and needy beneficiaries annually. During the year, more than 1.32 lakh rural people have availed free healthcare at these Health Centers. To cater the poor and downtrodden residing in extremely remote areas, 36 Mobile Medical Units running in the Plant's peripheries have benefitted around one lakh villagers at their doorsteps.

### Education

For development of society through education, we are supporting over 145 schools in the steel townships to provide modern education to more than 55,000 children and are assisting over 636 Government schools in Bhilai and Rourkela with about 75,000 students by providing Mid-day meals in association with Akshya Patra Foundation.

3,600 BPL category students are availing facilities of free education, mid-day meals, uniform including shoes, text books, stationery items, school bag, water bottles and transportation in some cases by our 21 Special Schools (Kalyan & Mukul Vidyalayas). We are also providing free education, accommodation, meals & uniforms, textbooks, etc. at Saranda Suvan Chhatravas, Kiriburu; RTC Residential Public School, Manoharpur; Gyanodaya Chhatravas, BSP School Rajhara, Bhilai; Kalinga Institute of Social Sciences, Bhubaneswar; Gyan Jyoti Yojna, Bokaro, etc. to 335 number of Tribal children. We award scholarships to over 2100 school students each year.

### CASE STUDY

Our Bokaro Steel Plant has introduced "Gyan Jyoti Yojana" scheme for provision of education and holistic development for the children of Birhor tribe, a tribe which is at the verge of extinction. 15 Birhor children were adopted by us and provided with free education along with boarding, lodging, nourishing and wholesome food, clothing, free medical treatment, sports and cultural opportunities in a conducive atmosphere. They are the first Matriculates and 12<sup>th</sup> pass from their community. Inspired from their achievements, another batch of 15 new Birhor children have been adopted, who are all set to begin their life in new surroundings. We have sponsored 9 Matriculate Birhor Boys under Gyan Jyoti Yojana for ITI training in "Welder trade" with stipend of ₹ 2,500/- each, accommodation and meals at Bokaro Pvt ITI.





Encouraging Self-Help Groups

### Sustainable Income Generation & Women Empowerment

Benefits of sustainable income generation were availed by 2,732 rural youths & women folks in 2015-16, through our training programmes in skills and trades such as Nursing, Physiotherapy, LMV Driving, Computers, Mobile repairing, Welder, Fitter & Electrician, Improved agriculture techniques, Mushroom cultivation, Goatery, Poultry, Fishery, Piggery, Achar/Papad/Agarbatti/Candle making, Screen printing, Handicrafts, Sericulture, Yarn Weaving, Tailoring, Sewing & embroidery, Gloves, Spices, Towels, Gunny-bags, low-cost-Sanitary Napkins, Sweet Box, Soap, Smokeless Chullah making, etc. These income generation activities are organised through various vocational institutes/ centers set up in the peripherals of SAIL Plants/ Units. We are also instrumental in marketing of the products manufactured at these Centers.

Vocational and specialised skill development trainings have been imparted by us to 1,669 village youths and 1,525 women folks in 2015-16 in industrial & agriculture techniques, soft skills, handlooms, empowering them to bond with mainstream. We have also sponsored about 739 rural youths for ITI trainings at various ITIs.



Supporting Rural Sports

## Development of Rural Areas

We have provided connectivity to over 78 Lakh people across 435 remote villages since inception by constructing and repairing of roads/pathways. Over 7,907 water sources have been installed by us during last four years thereby enabling easy access to drinking water to over 45.96 lakh people living in far-flung areas.

To promote renewable sources of energy, solar street lights have been installed in rural areas, solar lanterns and smokeless chullahs have been distributed among the rural people of Saranda and other locations. We have supported setting up and operation of 100 KW capacity Solar Power Plant at Jari, Gumla in Jharkhand.

## Promotion of Rural Sports, Art & Culture

We have built modern sports facilities in our townships and are running residential sports academies at Bokaro (Football), Rourkela (Hockey) - with world class astro-turf ground, Bhilai (Athletics for Boys), Durgapur (Athletics for Girls) and Kiriburu, Jharkhand (Archery). Besides, regularly organising inter-village sports activities, we also extend support to major national sports events & tournaments.

We have also organised various sports coaching and events viz. SAIL Khel Mela at Bhilai, Samvardhan, Rural Sports in Football and Kabbadi at Rourkela, Durgapur and Burnpur, Archery championships, Kho-Kho and Ladies Cricket Coachings and matches at West Singhbhum, Jharkhand & Keonjhar, Odisha which witnessed participation of about 7,000 rural youths.

7,000 folk artists, students and viewers participated in the Lok Kala Mahotsava organised at Bhilai and Grameen Lokotsavas at Thanod and Aheri villages of Durg. Musical instruments were distributed in 6 Gua villages of Jharkhand. For organising community events and promoting local tribal culture, we have constructed two covered shades at Gairtalai village, Kuteshwar Mines in Madhya Pradesh.

We also contribute towards conservation of National Heritages and looking after maintenance & restoration of national monuments.

## Support to Divyangs (Differently Abled) & Senior Citizens

Divyang children/people are being supported by us through provision of equipment like- tricycle, motorized vehicles, calipers, hearing aids, artificial limbs, etc. We support various schemes and our centres support to differently abled & senior citizens at its plant locations, viz.

- "Sneh Sampada" and "Prayas" and "Muskaan" at Bhilai
- "Schools for blind, deaf & mentally challenged children" and "Home and Hope" at Rourkela"
- "Ashalata Viklang Kendra" at Bokaro
- Various programmes like "Handicapped Oriented Education Programme" and "Durgapur Handicapped Happy Home" at Durgapur
- "Cheshire Home" at Burnpur
- Support to NGOs like TAMANNA, DEEPALAYA, etc.
- Old age homes being supported at different Plant townships like "Siyan Sadan" at Bhilai, Acharya Dham and Badshah at Durgapur, etc.

Besides, we have also adopted and developed a Lepers Colony at Kajora through Durgapur Steel Plant. Here, all the social and infrastructure facilities are being maintained by us.



Supporting Differently-abled

## OUR INNOVATIVE CSR PROJECTS

### 1. Project Vasundhara – Development of Bio-Diversity Park

Our Durgapur Steel Plant has undertaken the mission project for development of the 409 acres Bio-Diversity Park with a large water body (approx. 500×200 m) with plantation of up to 400 different species of plants and trees to attract migratory birds facilitating avian diversity, propagation of rare and medicinal plants, harvesting of rain-water and soil conservation for maintaining ecological balance and environmental sustainability. Construction facilities such as fencing of the park, construction of approach road to project site including a culvert over Rajhir Nala, plantation of different saplings and plants, development of Ficus garden, Bambusetum, Palm grove, Medicinal garden, etc. are underway. Toilets and drinking water booths have been constructed inside the park, while small islands within the water body with appropriate flora species have been developed, solar lighting along the water body is installed, thematic sculptures depicting the eco-system are being fixed benefitting 75,000 natives.

### 2. Facilitating 3,000 non-matriculate women for Matriculation

In an attempt to facilitate education to school drop-outs, non-matriculate girls and women in peripheral villages of Bokaro, our Bokaro Steel Plant has undertaken the mission project. In the first phase, 1,210 literate rural girls/women from peripheral villages of Bokaro have been enrolled with the National Institute of Open Schooling, Ranchi. Their registration and examination fee has been submitted with NIOS, Ranchi. The 1,210 learners attending the preparatory classes are being provided tutorials and learning materials, etc. They would take matriculation examination on completion of the session.

### 3. Adoption of Tribal Children for their holistic development

- a) **Gyanodaya Chhatrawas :** Our Bhilai Steel Plant has adopted 36 Tribal Children who have been enrolled in Schools at Bhilai. We are providing free education, lodging, boarding, meals, clothings, uniforms, textbooks, stationery items and sports facilities up to XII to these students. Every year 20 tribal children from Kanker and Narayanpur districts (Rowghat area) are being adopted. Scholarship of ₹ 2,000/- per month is awarded to each XII pass out who pursues higher education.
- b) A similar hostel is run at Rajhara township and currently the scope of the scheme covers 20 students/ year in class VI from Kanker and Narayanpur districts (Rowghat area). Total 82 students are availing the benefits. In the latest batch, 21 new students of Class VI have been admitted in BSP Tribal hostel, Rajhara.
  - All students of Tribal Hostel, Rajhara have attained Matriculation.
  - 17 students admitted for further studies in Class-XI & XII at Bhilai.
  - Scholarships of ₹ 2,000/month awarded to each XII pass out who pursues higher education.
- c) **Honhaar Scheme for Meritorious students at Bhilai:** Our “Honhaar” scheme aims at imparting quality education to meritorious SC /ST/ OBC students belonging to Below Poverty Line who score more than 80% marks in matriculation. These students are admitted in Class-XI in schools at Bhilai and put up in Gyanodaya Hostel with all facilities at par with Tribal Students. In addition, they are also provided coaching in premiere coaching institute for preparation of entrance examinations like IIT-JEE.
- d) 35 Bhilai Steel Plant employees have volunteered for providing coaching to Gyanodaya students in various subjects beyond their duty hours through extra classes.

#### Trailblazers

- 15 students qualified the CGPET, i.e. 13 from Gyanodaya Hostel & 2 from Bhilai Ispat Vikas Vidyalaya.
- 3 students cleared the IIT-JEE Mains exam.

#### 4. Ladies Cricket Coaching Club, Bolani

A Ladies Cricket Coaching Club (LCCC) is run by Raw Materials Division of SAIL at the Bolani mine. More than 30 young tribal ladies who were daily wage-earners as 'load-lifters', devoid of primary education and healthy food & nutrition, have been motivated, counselled, provided healthy food, cricket coach and sports kits/tools and training/practice sessions, etc.

#### 5. Comprehensive Water & Sanitation Project at Rourkela Steel Plant

In an effort to align the marginalized masses, our Rourkela Steel Plant has initiated a project to promote comprehensive Water Supply and Sanitation covering 897 households in 10 villages of Kuarmunda Block. All the households are getting potable water through a groundwater source, storage tank and supply network of pipelines with 3 tap points and Sanitation unit with RCC roof on partnership model. The villagers have been mobilized and empowered for their active participation in the project. Village level committees have been formed for long-term sustenance of the project.



CSR Initiative

## CASE STUDY

### Comprehensive Water & Sanitation Programme in village Baniguni & Dumerjore

On similar lines, 12 Model Steel Villages of Rourkela Steel Plant have been identified for developing water & sanitation facilities. Work is in progress in Bankibahal, Chikatmati, Laing Colony and Kapatmunda villages, benefitting 669 households.

#### Key Impacts:

- Significantly improved access to safe drinking water and functional toilets at home, especially beneficial to children and women folks.
- Availability of water for other purposes also like daily bathing, washing clothes and also for livestock even in summers.
- Access to functional toilets with piped water connection at door step.
- Reduced open defecation, a healthy sanitation practice.
- Reduced incidence of morbidity due to water borne diseases, mainly diarrhoea and dysentery as well as frequent exposure to infections caused during open defecation.
- Issues of Human Rights & basic amenities to equitability, privacy, dignity, basic sanitation, good hygiene & health, safety, etc. for vulnerable sections, i.e. women, children and senior citizens addressed and resolved altogether.

## 6. Swachh Bharat Abhiyan-Swachh Vidyalay Abhiyan

We have been actively participating in the “Swachh Bharat Abhiyan” initiated by the Hon’ble Prime Minister of India. Under the campaign, construction of 672 toilets falling within the periphery of our Plants & Mines in the States of Chhattisgarh, W. Bengal, Odisha, Jharkhand, M.P. & Tamil Nadu; as allocated to us by the Ministry of HRD, had been undertaken and completed. Facilities like squatting units, urinals, washbasin and overhead water storage have been provided. Apart from toilet construction, cleanliness campaign has been undertaken all across the Organisation. Cleanliness drive is going on at various locations including the works premises, awareness campaigns are being run and proper house-keeping is being practised on company-wide basis.



Pledge taken during Swacchta Pakhwada



Swacchta Walkathon at BSP

## 7. Saranda Forest Development

In an effort to bring the marginalized masses of the remote forest areas to the mainstream of development, SAIL in association with Govt. of Jharkhand and Ministry of Rural Development, Govt. of India actively participated in the development process of Saranda forest, Jharkhand. We provided ambulances, 7000 each of bicycles, transistors, solar lanterns and established an Integrated Development Centre (IDC) at Digha village in Saranda forest. IDC comprises of facilities like Bank, Panchayat Office, Ration shop, Telecom office, Anganwadi Centre, Meeting room, etc. for the local populace.

We are running residential school at Saranda Suwan Chhatrawas for 19 tribal students and at Manoharpur for 110 tribal students in order to provide them holistic education. Facilities such as hostel, meals, school bags, uniform and winter clothes, shoes, teaching aids, sports equipment in schools and study materials, etc. are provided to them free of cost.

## 8. Model Steel Villages

In order to bridge the gap between rural and urban areas and to provide comprehensive development of both physical and social infrastructure, 79 villages were identified as “Model Steel Villages” across the Country (in eight states). The developmental activities undertaken in these villages include medical & health services, education, roads & connectivity, sanitation, community centers, livelihood generation, sports facilities, etc. The facilities developed at these MSVs are being run and maintained regularly.



Model Steel Village

## MONITORING MECHANISM

We have a well-structured mechanism in place for planning, monitoring and reporting of CSR activities in consultation with local authorities like Panchayats, District & State Authorities 's. in our Plants/Units. Each of our Plant/Unit has a separate CSR Group/Cell which is headed by a senior level officer and is supported by field staff as well as officers from Finance discipline. Each Plant/Unit has a High Level Committee/Apex Committee which recommends the projects to be taken up by the respective Plant/Unit and allocate fund against each of the activities every year. The same Committee monitors the progress and implementation of these projects.

## REPORTING ON CSR

The Annual Report of SAIL for 2015-16 includes reporting on CSR as per the format prescribed under the Companies (Corporate Social Responsibility Policy) Rules, 2014. The Annual Report is shared with stakeholders and is also available on the Company's Website.

## IMPACT ASSESSMENT of SAIL CSR Projects

The CSR quality in SAIL is measured both by Professional Agencies and by internal evaluation on a regular basis.



## CSR SCORECARD

• No. of Model Steel Villages developed	<b>79</b>
• No. of rural people given specialized and basic healthcare during 2015-16	<b>&gt;132,000</b>
• No. of Health Camps during 2015-16	<b>&gt;3,800</b>
• No. of Water Resources Installed during past four years	<b>7,907</b>
• No. of Beneficiaries provided with access to drinking water (during last 4 years)	<b>&gt;4,596,000</b>
• No. of Villages connected by construction and repair of roads	<b>435</b>
• No. of Schools supported by the Company	<b>&gt;145 (with more than 55,000 students)</b>
• No. of Govt. Schools being provided assistance through Mid Day Meals	<b>&gt;636 (with about 75,000 students)</b>
• No. of Special Schools (Kalyan/Mukul Vidyalayas) exclusively for BPL families	<b>21 (benefitting over 3,600 Students)</b>
• No. of Tribal children including 'Birhors' in extremist affected areas adopted for holistic development through education	<b>335</b>
• No. of Youths provided with specialised skill development training during 2015-16	<b>947</b>
• No. of Women provided with specialised skill development training during 2015-16	<b>1,785</b>
• No. of rural youths sponsored for ITI training during 2015-16	<b>739</b>



GRI G4  
**CONTENT INDEX**



# GRI G4 CONTENT INDEX



GENERAL STANDARD DISCLOSURES			
General Standard Disclosures	Page no.	External Assurance	Description
<b>Strategy and Analysis</b>			
G4-1	2, 3	-	Statement from the most senior decision-maker of the organization.
<b>Organisational Profile</b>			
G4-3	10	-	Name of the organization.
G4-4	11	-	Primary brands, products, and/or services.
G4-5	10	-	Location of organization's headquarters.
G4-6	4	-	Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.
G4-7	18	-	Nature of ownership and legal form.
G4-8	4, 11	-	Markets served (including geographic breakdown, sectors served, and types of customers /beneficiaries).
G4-9	7, 8, 10, 66	-	Scale of the reporting organization.
G4-10	66	-	The total number of employees by employment contract and gender
G4-11	68	-	The percentage of total employees covered by collective bargaining agreements
G4-12	4	-	The organization's supply chain
G4-13	6	-	Significant changes during the reporting period regarding size, structure, or ownership.
G4-14	17, 18, 20, 40	-	Whether and how the precautionary approach or principle is addressed by the organization
G4-15	21	-	Externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes or which it endorses
G4-16	21	-	Memberships of associations (such as industry associations) and national or international advocacy organizations
<b>Identified Material Aspects and Boundaries</b>			
G4-17	10	-	All entities included in the organization's consolidated financial statements or equivalent documents
G4-18	29	-	The process for defining the report content and the Aspect Boundaries
G4-19	29, 30	-	All the material Aspects identified in the process for defining report content
G4-20	29	-	For each material aspect, whether the Aspect is material within the organization
G4-21	29	-	For each material aspect, whether the Aspect is material outside the organization
G4-22	No Restatements	-	The effect of any restatements of information provided in previous reports, and the reasons for such restatements
G4-23	6	-	Significant changes from previous reporting periods in the Scope and Aspect Boundaries

GENERAL STANDARD DISCLOSURES			
General Standard Disclosures	Page no.	External Assurance	Description
<b>Stakeholder Engagement</b>			
G4-24	28	-	List of stakeholder groups engaged by the organization
G4-25	27	-	Basis for identification and selection of stakeholders with whom to engage
G4-26	28	-	Organization's approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group
G4-27	28	-	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
<b>Report Profile</b>			
G4-28	6	-	Reporting period (such as fiscal or calendar year) for information provided
G4-29	6	-	Date of most recent previous report (if any)
G4-30	6	-	Reporting cycle (such as annual, biennial)
G4-31	6	-	The contact point for questions regarding the report or its contents
G4-32	6	-	The 'in accordance' option the organization has chosen, the GRI Content Index for the chosen option, the reference to the External Assurance Report, if the report has been externally assured
G4-33	6	-	Organization's policy and current practice with regard to seeking external assurance for the report
<b>Governance</b>			
G4-34	17, 18, 19	-	The governance structure of the organization, including committees of the highest governance body
<b>Ethics &amp; Integrity</b>			
G4-56	17, 20	-	The organization's values, principles, standards and norms of behaviour such as codes of conduct and codes of ethics

**SPECIFIC STANDARD DISCLOSURES**

DMA and Indicators	Page no.	Omissions	External Assurance	Description
<b>Category: Economic</b>				
<b>Material Aspect: Economic Performance</b>				
G4-DMA	32, 33	-	-	Disclosure on Management Approach
G4-EC1	32	-	-	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.
<b>Material Aspect: Market Presence</b>				
G4-DMA	66	-	-	Disclosure on Management Approach
G4-EC5	66	-	-	Range of ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation.
<b>Category: Environmental</b>				
<b>Material Aspect: Materials</b>				
G4-DMA	47	-	-	Disclosure on Management Approach
G4-EN1	47	-	-	Materials used by weight or volume.
<b>Material Aspect: Energy</b>				
G4-DMA	36	-	-	Disclosure on Management
G4-EN3	36	-	-	Energy consumption within the organisation
<b>Material Aspect: Water</b>				
G4-DMA	42	-	-	Disclosure on Management Approach
G4-EN9	43	-	-	Water sources significantly affected by withdrawal of water
<b>Material Aspect: Biodiversity</b>				
G4-DMA	48	-	-	Disclosure on Management Approach
G4-EN11	48, 49	-	-	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.
<b>Material Aspect: Emissions</b>				
G4-DMA	40, 41	-	-	Disclosure on Management Approach
G4-EN18	41	-	-	GHG emissions intensity
<b>Material Aspect: Effluents and Waste</b>				
G4-DMA	44, 45	-	-	Disclosure on Management Approach
G4-EN23	45, 46	-	-	Total weight of waste by type and disposal method.
<b>Category: Social</b>				
<b>Labour Practices and Decent Work</b>				
<b>Material Aspect: Labour Management Relations</b>				
G4-DMA	67	-	-	Disclosure on Management Approach
G4-LA4	67, 68	-	-	Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements.

### SPECIFIC STANDARD DISCLOSURES

DMA and Indicators	Page no.	Omissions	External Assurance	Description
<b>Material Aspect: Occupational Health and Safety</b>				
G4-DMA	58, 59, 60	-	-	Disclosure on Management Approach
G4-LA5	59	-	-	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programmes.
<b>Material Aspect: Training and Education</b>				
G4-DMA	72, 73	-	-	Disclosure on Management Approach
G4-LA10	72, 73	-	-	Programmes for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.
<b>Society</b>				
<b>Material Aspect: Local Communities</b>				
G4-DMA	76	-	-	Disclosure on Management Approach
G4-SO1	76	-	-	Percentage of operations with implemented local community engagement, impact assessments, and development programmes.
<b>Material Aspect: Anti-Corruption</b>				
G4-DMA	20	-	-	Disclosure on Management Approach
G4-SO3	20	-	-	Percentage and total number of business units analysed for risks related to corruption and the significant risks identified
<b>Product Responsibility</b>				
<b>Material Aspect: Product and Service Labeling</b>				
G4-DMA	53	-	-	Disclosure on Management Approach
G4-PR5	53	-	-	Results of surveys measuring customer satisfaction.

# ABBREVIATIONS

ABS	American Bureau of Shipping
AGM	Annual General Meeting
AIDS	Acquired Immune Deficiency Syndrome
AIMA	All India Management Association
AIOE	All India Organisation of Employers
AMRUT	Atal Mission for Rejuvenation & Urban Transformation
AOD	Argon Oxygen Decarburization
ARS	Alizarin Red S
ASP	Alloy Steels Plant
ASSOCHAM	Associated Chamber of Commerce and Industry of India
ASTP	Acid Sludge Treatment Plant
ATP	Annual Training Plan
BDL	Below Detectable Level
BF	Blast Furnace
BIS	Bureau of Indian Standards
BOD	Biochemical Oxygen Demand
BOF	Basic Oxygen Furnace
BPL	Below Poverty Line
BPTG	Back Pressure Turbine Generator
BSC	Board Sub-Committee
BSL	Bokaro Steel Plant
BSO	Branch Sales Offices
BSP	Bhilai Steel Plant
CCO	Customer Contact Offices
CCP	Continuous Casting Plant
CCS	Continuous Casting Shop
CCTV	Close Circuit Television
CDC	Consultancy Development Centre
CEMDE	Centre for Environment Management of Degraded Ecosystem
CEMS	Centralised Energy Monitoring System
CEO	Chief Executive Officer
CET	Centre for Engineering and Technology
CFP	Chandrapur Ferro Alloy Plant
CII	Confederation of Indian Industries
CISF	Central Industrial Security Force
CMO	Central Marketing Organisation
CO	Coke Oven
CO <sub>2</sub>	Carbon Dioxide
COB	Coke Oven Battery
CoD	Centre for Organisational Development
COD	Chemical Oxygen Demand
CoE	Centre of Excellence
CPP	Captive Power Plant
CPSE	Central Public Sector Enterprises
CPTI	Central Power Training Institute
CR	Cold Rolled
CREP	Corporate Responsibility for Environment Protection
CRM	Cold Rolling Mill
Crore	Ten Millions
CSI	Customer Satisfaction Index
CSR	Corporate Social Responsibility
CTC	Carbon Tetra Chloride
CVC	Central Vigilance Commission
DG	Diesel Generator
DMB	Disability Medical Board
DNV	Det Norske Veritas
Dolo	Dolomite
DPC	Delhi Productivity Council

DPE	Department of Public Enterprises
DSP	Durgapur Steel Plant
EAF	Electric Arc Furnace
EBITDA	Earnings before interest, tax, depreciation and amortization
ECG	Electrocardiography
EMD	Environment Management Division
EMS	Environment Management System
EPMS	Executive Performance Management System
ESI	Employee State Insurance
ETPs	Effluent Treatment Plants
FICCI	Federation of Indian Chambers for Commerce and Industry
FP	Flat Product
FTA	Free Trade Agreement
GCal	Giga Calorie
GCP	Gas Cleaning Plant
GD	Growth Division
GHG	Green House Gas
GIFT	Global Institute of Flexible System Management
Gol	Government of India
GRI G4	Global Reporting Initiative Fourth Generation
HAZOP	Hazard & Operability
HEMM	Heavy Earth Moving Machineries
HIP	High Impact Projects
HIRA	Hazard Identification and Risk Assessment
HIS	Health Information System
HPSV	High Pressure Sodium Vapour
HR	Human Resource
HRD	Human Resource Development
HRM	Hot Rolling Mill
HSM	Hot Strip Mill
ICVL	International Coal Venture Limited
IDC	Integrated Development Centre
IICCI	The Indian Iran Chamber of Commerce and Industry
IIM	Indian Institute of Metals
IIPPE	Indian Institute of Plant Engineers
IISCO	Indian Iron & Steel Company
IIT	Indian Institute of Technology
IITF	India International Trade Fair
ILO	International Labour Organization
INDCs	Intended Nationally Determined Contributions
IPE	Institute of Public Enterprises
IPSS	Inter Plant Standard - Steel
IRCON	Indian Railway Construction Company Limited
IRT	Institute of Rail Transport
ISO	International Organization for Standardization
ISP	IISCO Steel Plant
ISPs	Integrated Steel Plants
ISTD	Indian Society for Trade and Development
ITI	Industrial Training Institute
IUCCI	Indo USSR Chamber of Commerce and Industries
IUCN	International Union for Conservation of Nature
JCSSI	Joint Committee on Safety, Health and Environment in the Steel Industry
JEE	Joint Entrance Examination
JV	Joint Venture
JVC	Joint Venture Company
KAM	Key Account Management
KL	Kilo Litres

KPI	Key Performance Indicators
kWh	Kilo Watt Hour
Lakh	Hundred Thousand
LCS	Life Cover Scheme
LD	Linz Donawitz
LED	Light Emitting Diode
LMV	Light Motor Vehicle
LR	Lloyds Register
LP	Long Product
m <sup>3</sup>	Cubic Meter
MEC	Myanmar Economic Corporation
MEP	Modernization and Expansion Programme
MKWH	Million Kilo Watt Hour
MODEX	Modernisation-Expansion
MOEFCC	Ministry of Environment, Forest and Climate Change
MoU	Memorandum of Understanding
MSME	Micro, Small & Medium Enterprise
MSVs	Model Steel Villages
MT	Millions Tonnes
MTI	Management Training Institute
MTPA	Million Tonnes Per Annum
MTs	Management Trainees
MW	Mega Watt
NARAKAS	Nagar Rajbhasha Karyanavayan Samiti (Town Official Language Implementation Committee)
NDRF	National Disaster Response Force
NGO	Non-Governmental Organization
NH <sub>3</sub> -N	Ammonical Nitrogen
NIOS	National Institute of Open School
NJCS	National Joint Committee for the Steel Industry
NMDC	National Mineral Development Corporation
NOHSC	National Occupational Health Service Centre
NOx	Oxides of Nitrogen
NSDC	National Skill Development Corporation
NTPC	National Thermal Power Corporation
OBC	Other Backward Class
ODS	Ozone Depleting Substances
OH&S	Occupational Health & Safety
OHF	Open Hearth Furnace
OHP	Ore Handling Plant
OHS	Occupational Health Service
OHSAS	Occupational Health and Safety Management System
OPD	Out Patient Department
OT	Operation Theatre
PAT	Profit After Tax
PCB	Polychlorinated BiPhenyls
PIWs	Performance Improvement Workshops
PM	Particulate Matter
PMA	Project Management Association
POPs	Persistent Organic Pollutants
PPEs	Personal Protective Equipment
PPM	Part per Million
PSE	Public Sector Enterprise
PSU	Public Sector Undertaking
QMS	Quality Management System
R&D	Research & Development
RDCIS	Research & Development Centre for Iron & Steel
RH	Reheating
RINL	Rashtriya Ispat Nigam Ltd.
RITES	Rail India Technical and Economic Service
RMD	Raw Materials Division

RMP	Refractory Material Plant
RSP	Rourkela Steel Plant
RTI	Right to Information
₹	Rupees
SA	Social Accountability
SAIL	Steel Authority of India Limited
SC	Scheduled Caste
SCL	Steel Complex Limited
SCOPE	Standing Conference of Public Enterprises
SD	Sustainable Development
SEBI	Securities & Exchange Board of India
SED	Safety Engineering Department
SEFI	Steel Executives Federation of India
SER	South Eastern Railway
SESBF	SAIL Employees Superannuation Benefit Fund
SGL	Shot Grinding Line
SGW	SAIL Growth Works
SHA	Shareholders Agreement
SMPs	Standard Maintenance Practices
SMS	Steel Melting Shop
SO <sub>2</sub>	Sulphur Dioxide
SOPs	Standard Operating Practices
SP	Sinter Plant
SRU	SAIL Refractory Unit
SS	Suspended Solids
SSI	Small Scale Industry
SSO	SAIL Safety Organization
SSP	Salem Steel Plant
ST	Scheduled Tribe
SWP	Safe Work Procedure
TB	Tuberculosis
tcs	Tonnes of Crude Steel
TERI	The Energy and Resource Institute
TFRI	Tropical Forest Research Institute
THF	Twin Hearth Furnace
TJ	Tera Joule
TM	Technology Missions
TMT	Thermo Mechanically Treated
TRT	Top Pressure Recovery Turbine
TRTG	Top Recovery Turbine Generator
tss	Tonnes of Saleable Steel
UNIDO	United Nations Industrial Development Organisation
VISL	Visvesvaraya Iron and Steel Plant
VVVF	Variable Voltage Variable Frequency
WCPS	World Confederation of Productivity Science
WIs	Working Instructions
WIPS	Forum of Women in Public Sector
WMD	Water Management Department
WRC	Wire Round Corrugated
WSA	World Steel Association
ZLD	Zero Liquid Discharge
UNDP	United Nations Development Programme
UNGC	United Nations Global Compact
UNIDO	United Nations Industrial Development Organisation
VFD	Variable Frequency Drive
VISL	Visvesvaraya Iron and Steel Plant
VVVF	Variable Voltage Variable Frequency
WCPS	World Confederation of Productivity Science
WIPS	Forum of Women in Public Sector
WSA	World Steel Association



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