

**Sterlite Group**  
**Sustainable Development**  
**Report**  
**2010-11**

**ONE PURPOSE, MANY WAYS...**

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## Our Profile

The purpose is clear - selfless commitment towards economic, social and environmental development. And the ways to achieve it are many, given that we have several companies focussing on various operations. But the question is, "Are we doing enough?"

Being India's largest diversified non-ferrous metals and mining group, we have taken upon us the responsibility of contributing towards a happier and healthier planet. We strive to be successful in each of our endeavours - extraction/production of zinc, copper and aluminium, and energy generation, so as to contribute towards the economic development of the nation.

Our constant focus is to ensure that our initiatives, technologies and processes are environment-friendly. At the same time, we are committed to the well-being of our employees and community development.

## CEO's Message

Dear Stakeholder,

I take great pride in presenting the first online consolidated Sustainability Report of Sterlite Industries. As India's largest non-ferrous metals and mining group comprising of companies like Hindustan Zinc Ltd. (HZL), Copper Mines of Tasmania (CMT), Bharat Aluminium Company Ltd. (BALCO), Sterlite Copper, Zinc International (Africa and Ireland) and Sterlite Energy Limited, we constantly strive towards one purpose – unfailing commitment towards economic, social and environmental development.

The India growth story is reflected in the success of Sterlite Industries, which is widening its global presence and is -now considered to be amongst the leading metals and mining companies in the world. This success story, however, is not just about economic growth, but our commitment to sustainability. Sustainable development is the founding pillar of our vision and mission. Our priorities include good governance, environmental footprint reduction and creating value for all our stakeholders.

## The Growth Story

With our key organic expansion projects, we foresee a significant growth in our production capacities, in the subsequent financial year. We expect a further growth in metal consumption with tight supply in specific markets, particularly for copper and zinc. Whilst higher commodity prices are driving up input costs in our industry, our structurally low-cost assets combined with our continuous improvement methodologies, are enabling us to mitigate the effects of this phenomenon.

As a part of this growth strategy, we completed the acquisition of the zinc assets of Anglo-American in the second half of 2010-11, increasing our zinc-lead capacity to 1.5 million tonnes per annum. This acquisition makes us the largest integrated zinc-lead producer in the world and extends our zinc footprint in Africa and Ireland.

## Sustainable Development

Sustainability is a bed rock of our philosophy of doing the business. To achieve goal of sustainability we have chosen International Finance Corporation (IFC) framework and performance standards at Vedanta Resource Plc (parent company) level. As an element of framework implementation, we have developed policies, technical and management standards to address key sustainability issues related to our nature of work and prepare a road map for our journey. We are progressing well in implementing the framework, whilst retaining our focus on improving our safety performance; contributing further to local communities; continuing to manage and minimize our impact on air, water and land; and maintaining a dialogue with stakeholders on an ongoing basis.

We recognize that climate change is one of the key challenges affecting the world today, and therefore strive hard to mitigate environmental impact of our operations. Reiterating our commitment towards adopting renewable energy and energy efficient initiatives, we have commissioned Wind Power Plants and are rigorously moving forward in identifying CDM projects and their implementations. In 2011, Hindustan Zinc commissioned 48 MW of 150 MW expansions in wind power generation capacity during the fourth quarter, and the remaining 102 MW is expected to be commissioned in the year 2011-12.

CSR is an integral part of our business which is accorded as much importance as any of our business project. We are committed to raise the quality of life and social well-being of communities where we operate and beyond

through our relentless CSR initiatives. We are passionately committed to improve the quality of life of the communities by providing accessibility to the basic facilities of health & nutrition, education, sustainable livelihood, water & sanitation, infrastructure etc. In addition to this, we have also developed specialized programmes for socio-economic empowerment of women and bio-investment. Through our CSR interventions, we are positively impacting lives of more than 1.4 million people across our areas of operation the country. We are providing supplementary nutrition & pre-school education to more than 65,000 children of 3-6 years of age through Vedanta Bal-shakti Anganwadi Centres in Rajasthan & Chattisgarh. In addition, nutritious food is being provided on daily basis to more than 2.2 lac children of through Mid-day Meal Programme

Over a period of time, we have created community assets through our group companies such as Vedanta Cancer Hospital at Raipur and Hindustan Zinc- Vedanta Cardiac Centre at Udaipur to provide affordable medical services to the respective local communities. At Korba (Chattisgarh), the Vedanta Rehabilitation Centre has also been established providing physio-speech and behavioural therapy to mentally & physically challenges children. Livelihood enhancement projects at Tuticorin have improved socio-economic strata by enhancing employability of coastal youth to 78% with monthly income of Rs. 3000-4000. Along with this, various need based community programmes are running for providing sustainable livelihood opportunities to rural people in both farm & non-farm sector

Our success and journey towards sustainability wouldn't be possible without the encouragement and participation of our stakeholders – our employees, community, our supplier partners and many more. I express our gratitude to our stakeholders and hope that they continue to encourage and support us in our sustainability journey.

In this report, we have followed the Guidelines from GRI G3.1 framework and also adopted United Nations Global Compact (UNGC) principles to report all our activities and initiatives relevant to our stakeholders and our business. I urge our stakeholders to read this report and give an honest feedback as it will help us in understanding their perspectives and further improve upon.

Yours Sincerely,

**M. S. Mehta**  
CEO – Sterlite Industries

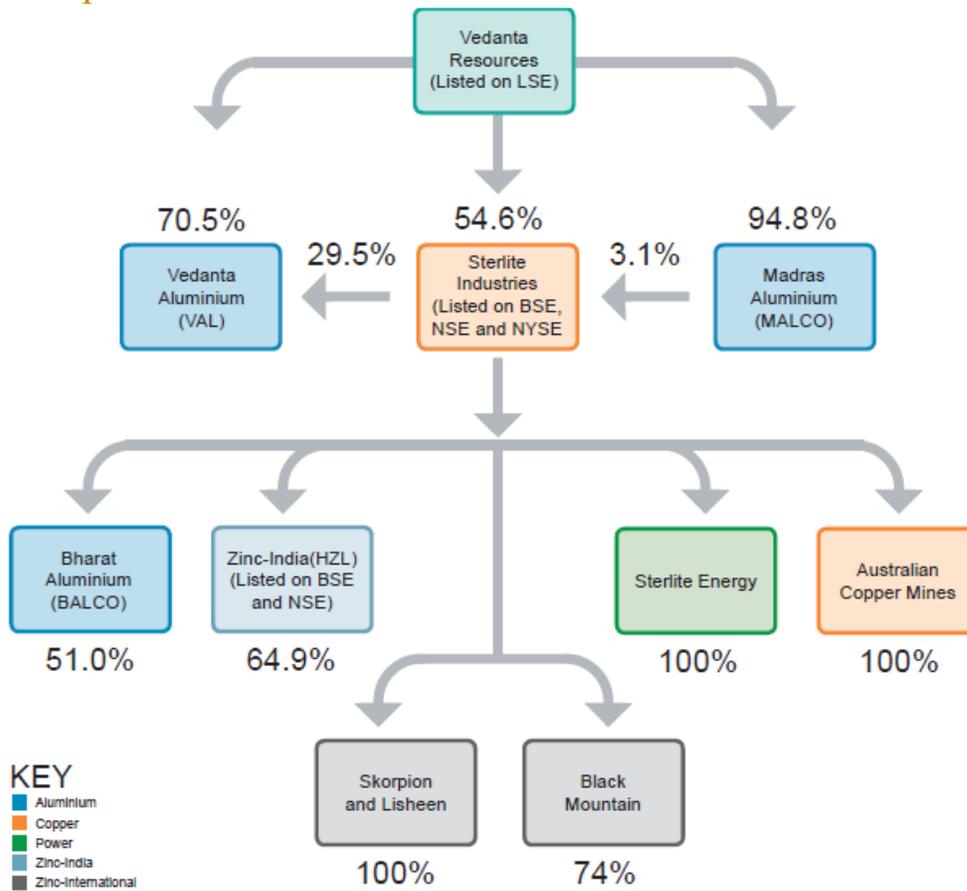
## About Us

Sterlite Industries is the principal subsidiary of Vedanta Resources plc, a diversified and integrated FTSE 100 metals and mining company. Our primary operations for each of our main metals (aluminium, copper, zinc and lead) are located in India and Australia. During the year 2010-11 Sterlite, completed the acquisition of Zinc assets of Anglo-American Plc. (Anglo Zinc) comprising its Skorpion mines in Namibia, Lisheen mines in Ireland and 74% owned Black Mountain mines in South Africa which includes the Black Mountain mine and the Gamsberg project. With this acquisition, we have further consolidated our position as the world's largest integrated zinc-lead producer with significant reserves and resources of 478 million tonnes. Having substantial global presence, Sterlite Industries is listed on BSE, NSE and NYSE.

Our principal operating companies comprise:

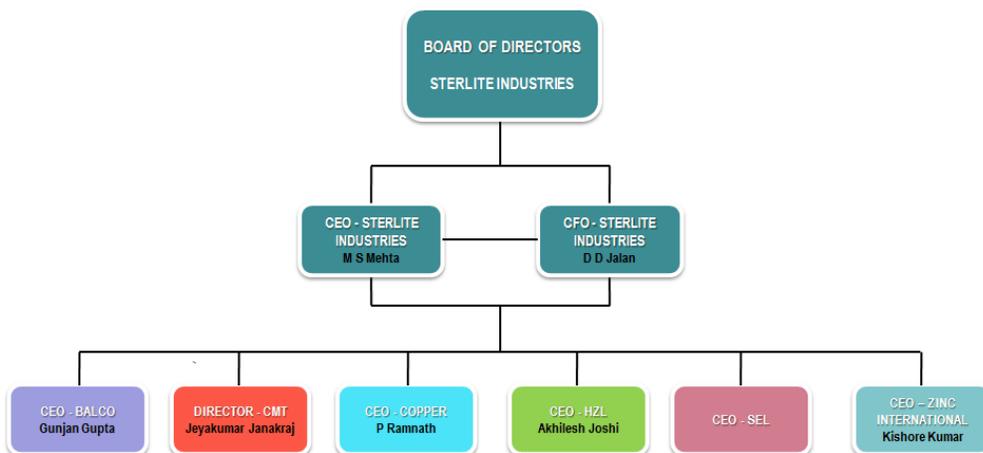
- Hindustan Zinc Limited (HZL), India for its fully integrated zinc and lead operations
- Sterlite Copper (SIIL) - Tuticorin & Silvassa, India for its copper operations
- Copper Mines of Tasmania Pty Limited (CMT), Australia for its copper mining operations
- Bharat Aluminium Company (BALCO), India for its aluminium and alumina operations
- Sterlite Energy Limited (SEL), India for its commercial power generation business

## Group Structure



Percentage Shareholding as of March 31, 2011

## Management Structure



## Our Vision

To create a world class, diversified resources company with high quality assets, low cost production, providing superior returns to our shareholders

## Our Values

### **Entrepreneurship**

We foster an entrepreneurial spirit throughout our businesses and value the ability to foresee business opportunities early in the cycle and act on them swiftly. Whether it be developing organic growth projects, making strategic acquisitions or creating entrepreneurs from within, we ensure an entrepreneurial spirit at the heart of our workplace.

### **Growth**

We continue to deliver growth and generate significant value for our shareholders. Moreover, our organic growth pipeline is strong as we seek to continue to deliver significant growth for shareholders in the future. We have pursued growth across all our businesses and into new areas; always on the basis that value must be delivered.

### **Excellence**

Achieving excellence in all that we do is our way of life. We strive to consistently deliver projects ahead of time at industry-leading costs of construction and within budget. We are constantly focused on achieving a top decile cost of production in each of our businesses. To achieve this, we follow a culture of best practice benchmarking.

### **Trust**

The trust that our stakeholders place in us is key to our success. We recognise that we must responsibly deliver on the promises we make to earn that trust. We constantly strive to meet stakeholder expectations of us and deliver ahead of expectations.

### **Sustainability**

We practise sustainability within the framework of well-defined governance structures and policies, and with the demonstrated commitment of our management and employees. We aim that our projects make a net positive impact on the environment, wherever we work.

## Products & Operations

Sterlite is India's largest non-ferrous metals and mining company and is one of the fastest growing private sector companies. We aim to create a globally respected, world-class metals and mining company that generates consistently strong financial returns for its shareholders. A majority of our operations are certified to the International Standards like ISO 9001, ISO 14001 and OHSAS 18001.

## Sterlite Copper

Sterlite Copper is one of the largest integrated copper rod producers in Asia. Our primary products are copper cathode & copper rods and its by-products (sulphuric and phosphoric acid). The business comprises of two units – Tuticorin in the Southern State of Tamil Nadu and Silvassa in the Union Territory of Dadra and Nagar Haveli located in Western region of India

The Tuticorin operations include a copper smelter, a refinery, a phosphoric acid plant, a sulphuric acid plant and copper rod plant; whilst our Silvassa operations comprise a refinery and two copper rod plants. The Tuticorin Smelter has been operating for more than thirteen years in accordance with global standards. It employs the ISA Smelt process which is considered globally as an environmentally advanced technology. Sterlite Copper is a LME approved copper tester. Our copper products meet the requirement of Restriction of Hazardous Substances (RoHS complied) and certified by Underwriters Laboratories Inc. Its Central lab at Silvassa is a Gol approved R&D laboratory. The Company has also won numerous awards for safety and environment.

## Hindustan Zinc (HZL)

Sterlite acquired 64.9% ownership interest in HZL in the year 2002 when the Government disinvested the stake down to 29.5% and institutional and public shareholders (5.6%). HZL is India's leading primary zinc producer with an 82.1% market share by sales volume in India in fiscal 2011, according to the Indian Lead Zinc Development Association (ILZDA). In 2011, Brook Hunt agency quoted HZL as the world's largest integrated producer of zinc based on production volumes & in the lowest cost quartile in terms of all zinc mining operations worldwide and HZL's Rampura Agucha mine as the largest zinc mine in the world on a production basis. Mined metal production of zinc and lead increased in the financial year 2010-11, up 9.0% to 840 KT.

HZL's operations include four lead-zinc mines, four hydro-metallurgical zinc smelters, one lead smelter, one lead-zinc smelter, five sulphuric acid plants, one silver refinery, five captive power plants in Northwest India, one hydrometallurgical zinc smelter and a sulphuric acid plant at its Vishakapatnam facility in Southeast India.

HZL has entered into a consortium for developing the Madanpur South Coal Block in Chhattisgarh for securing its coal requirements for captive power generation. The establishment of additional wind power plants of 150 MW was announced by HZL, of which 48 MW have already been commissioned during the year taking the wind generation capacity to 171 MW as on 31 March 2011. The power generated from these wind power plants is proposed to be sold to state electricity boards in India. This project is anticipated to be funded through internal resources and would provide tax incentives under the Income Tax Act.

During the year, the Company completed the acquisition of Anglo American Plc's zinc assets (Anglo Zinc) for a total cash consideration of \$1,513 million. This acquisition comprised the 100 % owned Skorpion mine in Namibia, the 100% owned Lisheen mine in Ireland and the 74% owned Black Mountain Mines, which includes the Black Mountain mine and the Gamsberg project in South Africa. Anglo Zinc will create significant long term value for shareholders and with this acquisition, our global positioning is deemed as the world's largest integrated zinc – lead producer with significant reserves and resources of 478 million tonnes.

## Bharat Aluminium Company (BALCO)

BALCO is one of the four primary producers of Aluminium in India. Government of India (GoI) divested 51% equity in the year 2001 in favour of Sterlite Industries. The Company is playing a crucial role in introducing aluminium as a potential alternative to other metals like Steel in construction, and Copper in power transmission industry. After disinvestment, a pre-baked smelter of capacity 245 KT per annum was established in the year 2004. The smelter plants are being supported by uninterrupted power supply through Captive Power Plants - 270 MW at Jamnipali, Korba and 540 MW at the smelter site.

According to Aluminium Association of India (AAI), BALCO presently has a 36% primary market share by production volume in India. BALCO's partially integrated operations include two bauxite mines, captive power plants and refining, smelting and fabrication facilities at our Korba facility in Central India. During the year, the production of saleable metal was 2,55,298 MT from the 2.45 lakh MT per annum pre-baked smelter as compared to 2,68,425 MT in the previous year including production from the VSS smelter which was completely phased out in June 2009.

BALCO has commenced implementation of the MoU with the Government of Chhattisgarh for setting up of a new smelter with a 6.5 lakh MT per annum capacity. We have commenced the implementation process of the first phase of expansion for setting up 3.25 lakh MT per annum pre-bake aluminium smelter at an estimated project cost of Rs. 3,215 Crore for commissioning by Q2 of FY 2013.

BALCO is in the process of setting up the 1200 MW power plant project at a cost of Rs. 4,912 Crore. The first two units are expected to be commissioned in FY 2011- 12. Consequently the synchronisation of the third and fourth unit is expected in second quarter of 2012-13. Subject to statutory consents, the approval process for BALCO's 211 million tonnes coal block is progressing well and is expected to commence coal mining by Q4 FY 2011-12.

## Sterlite Energy (SEL)

Sterlite is currently developing a commercial power generation business in India that leverages its experience in setting up and operating captive power plants that support its primary businesses. Sterlite Energy has set up a 2,400 MW thermal coal-based power facility (comprising four units of 600 MW each) in Jharsuguda in the State of Orissa. The 2400 MW Independent Power Plant Jharsuguda, Orissa at a cost of Rs. 8,484 Crore is under progress and is expected to complete by end of FY 2012. Talwandi Sabo Power Limited (TSPL), a 100% subsidiary of SEL, will be implementing the largest 1980 (3x660) MW Greenfield Power Project in Punjab, India, with all consents and approvals in place. Further, TSPL has decided to add one more unit of 660 MW under the Power Generation Policy 2010 of the State of Punjab to sell 85% of the power generated as Merchant Power. Thus the capacity of the project will be enhanced to 2640 (4x660) MW. TSPL is one of the first few Supercritical plants being constructed in the country. The Supercritical technologies are environment friendly and energy efficient technologies.

## Copper Mines of Tasmania (CMT)

We own the Mt. Lyell copper mine at Tasmania in Australia, which provides around 8% of our copper concentrate requirements at Sterlite Copper. Mount Lyell Mine, located in Queenstown, Tasmania is a copper mine with more than 100 years of operation. First started in 1896, it was re-opened by Copper Mines of Tasmania in 1995. Acquired by Sterlite Industries in 1999, Copper Mines of Tasmania (CMT) is a part of the fast growing Vedanta group of companies. CMT mined and treated almost 2.12 million tonnes of ore to produce 23,777 tonnes of contained copper concentrate in 2009-10. The copper is mined using a sub-level caving mining method and work is carried out at 1000 meters below the original surface (600 meters below 0m Australian height datum 2000RI). Primary crushing takes place underground and ore is then automatically hoisted up a 600 metre shaft to be transported to the concentrator on a 1.2 kilometre overland conveyor belt. In the plant, the ore is crushed using three stage crushing, ground down to a fine slurry and the copper sulphide minerals are then concentrated. After filtration, the concentrate is transported to Burnie port from where it is exported to Sterlite's copper smelter in Tuticorin, India.

## Market Segmentation

### Sterlite Copper

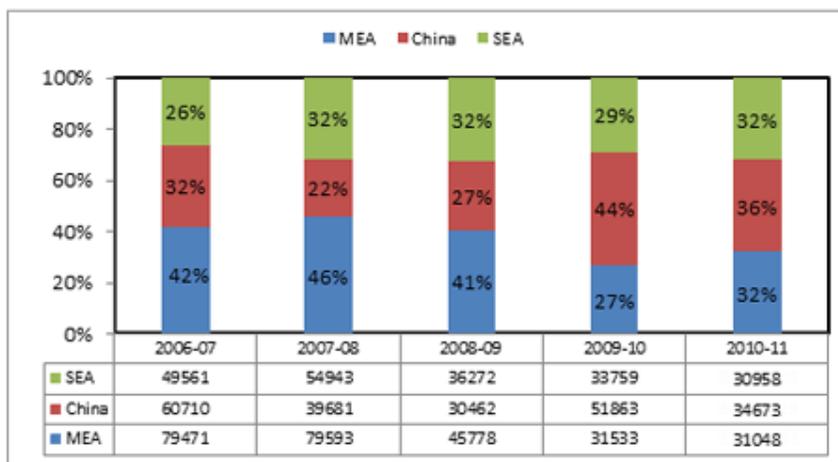
#### Copper Business

Our major sales are in the domestic market, the demand for copper based products is owing to the growth in the cement, steel, crude oil, electricity, and coal and petroleum refinery sectors. The domestic market is fiercely competitive for cathode and copper rod products; we have managed to retain our customer base by offering them consistent quality products and enhancing our production capacity to support the rising demand. Copper cathodes which are converted into rods are supplied to both the domestic and export markets. Sectors catered to within our domestic market are;

- For Cathode - Alloying and Rod Manufactures
- For CC Rods - Power cables, Telecom cables/Data cables/House wires, Magnetic wires, Transformers

We export copper cathodes to markets in China, Korea and other South-East Asian countries. We are a reputed global supplier for markets in Middle East and several parts of Asia. The graph below shows the amount of copper products (in Metric Tonnes) sold across South East Asia, China and Middle East Asia in past 6 years. China continues to be our main focus with respect to our exports. In 2010, China was the world's large consumer

of metals, accounting for approximately 40% of refined copper consumption alone.



Note: Figures mentioned in the table are all in MT

### Acid Business

Our Acid Business is driven from Tuticorin, the location of this division plays a huge role in helping us capitalise our scale of production. We are well-placed in the market in the vicinity of major fertiliser producers such as Fertilisers and Chemicals Travancore (FACT), Coromandel International Limited (CIL), Mangalore Chemicals and Fertilisers (MCF) & Indian Farmers Fertiliser Cooperative Limited (IFFCO) and cement companies like India Cements, Madura Cements, Dalmia Cements etc.

The Sulphuric acid sales increased by 7.51% to 520813 MT in the reporting year from 484453 MT in the previous year. Sterlite Copper has a reputation of being the only domestic seller of Phosphoric acid in India and this works as an added advantage to our business as it rules out competition and gives us the dominant status in the domestic market.

The presence of an integrated Phosphoric acid plant, which consumes almost 50% of our Sulphuric acid production, gives us a strategic advantage in the otherwise dynamic sulphur market. The management keeps a regular track of the fertiliser market and decides the sale mix (Sulphuric acid/Phosphoric acid) based on market inputs to maximise the overall margin from the business.

## Hindustan Zinc (HZL)

### Zinc

Urbanisation and industrialisation, especially in the developing economies of China and India has contributed to increase in the world zinc consumption by 14% to 11.6 MT. At the same time, world smelter production increased by 13% to 12.8 MT, leaving the Zinc market with a surplus of over 1 MT of refined Zinc metal. During the year 2011, the average Zinc LME price per tonne increased to \$ 2,185, compared to \$ 1,936 in the previous year. Asia (excluding China), which is our key exports market, is poised to grow at around 7% in the next year.

Indian demand for refined Zinc was around 501 kt in the year . The Indian Zinc demand is expected to grow in the coming years, based on a positive GDP forecast. The key components for growth are ongoing and upcoming infrastructure projects, telecom and power projects and automobile sector that are estimated at Rs. 70,000 Crores. In the long-term, we see a promising future for Zinc demand in India, given the low per capita Zinc consumption of 0.41 kg per capita in 2011, as compared to the world average of 1.7 kg per capita Zinc

consumption. HZL has 82% share in Indian Zinc market.

Zinc is used widely in Zinc Galvanising, vulcanisation of rubber, die castings of hardware & automotive equipments, making alloys, zinc sheets. Galvanising accounts for around 48% of global Zinc usage. 17% of Zinc used in the world is through die castings. 10% of global Zinc usage is for vulcanisation of rubber, as well as in ceramics, paints, animal feed, pharmaceuticals, and several other products and processes. Alloy accounts for around 11% of global Zinc usage.

### **Lead**

The demand for refined Lead increased by 9% to 9.18 MT in 2011, as compared to 8.43 MT in 2010. Replacement battery demand, mainstay of Lead consumption with the recovery in automobiles OEMs production, was able to push Lead on the path of recovery to a 9% growth. At the same time, the global Lead smelter production was 9.44 MT. This left the refined Lead market in surplus, barely by 260 kt for the year. During the year 2010-11, the average Lead LME price per tonne increased to \$ 2,244, as compared to \$ 1,990 in the previous year. Indian Lead market grew by 7% to 380,000 tonnes in 2011, as compared to the previous year. Asia has become the new growth centre of the world, with China and India leading the way.

The Replacement market demand is growing year after year with an increased number of vehicles on the road. Power deficit in the country is resulting in an increased need of power backup and inverter battery. The demand of the Indian Battery industry is estimated to be around 90% of the Indian Lead demand. Our share in the domestic market is around 15% in the total Lead market (including alloys), and 25% in the pure Lead market (excluding alloys).

The battery sector is the single largest consumer of Lead, accounting for around three-quarters of the demand. SLI (Starting-Lighting-Ignition) batteries, which currently account for around half of the total Lead demand are mainly used in cars and light vehicles, but are also found in other applications such as golf carts and boats. Industrial batteries, which currently consume around a quarter of the total Lead produced. Stationary batteries are principally used in back up power supply systems; traction batteries are used for motive power in equipment such as forklift trucks and motorised wheelchairs. The second largest current end use of Lead for non-battery applications, accounting for around 8% of Lead consumption, is the chemical industry, in the form of Lead-based pigments and other compounds. Principal markets are for cathode ray tubes used in television screens and computer monitors, and for Poly Vinyl Chloride (PVC) stabilisers.

### **Silver**

In 2011, the demand for Silver remained buoyant at around 980 million ounces, a 10% growth as compared to the previous year. The demand by fabrication has seen a growth of 10% this year, as a recovery in industrial uses and a robust growth in coins, investment and a modest rise in jewellery; but a decline in Silverware was witnessed due to losses in India on account of the price. Mine production rose by 5% and supply side (supported by higher Scrap supply) by 10% this year. Due to the higher investment demand and modest industrial growth, the Silver demand is expected to further rise in the next year. Average annual price for Silver in 2011 was \$ 23.84 per ounce, up by 60% year on year.

The Indian demand for Silver was higher by 8% at around 3,120 tonnes in 2011, as compared to the previous year. Indian Silver demand is expected to grow on the back of prospective growth in electrical and other industrial segments, and Silver becoming a preferred investment asset along with Gold.

Industrial applications of Silver are mainly for brazing alloys, electrical contacts, high capacity Silver-Zinc or Silver-Cadmium batteries, printed circuits and other electronic applications. Other applications are jewellery, Silver plating, Silverware, photography, Dental alloys and more.

## **BALCO**

The global aluminium industry recorded a 12.8% growth in production and 16.7% growth in consumption during the year after a turbulent period. Globally the industry is facing the challenge of rise in costs and other input costs. This is also reflected in the increase in aluminium LME prices. Our major operations are located in Korba in the Indian state of Chattisgarh, where there are abundant bauxite and coal deposits. This underscores India's unique advantage of being rich in natural resources required to produce aluminium at a competitive cost.

The Indian aluminium market is dominated by growing demand from the power sector. Over time, the relative share of aluminium applications in other segments is expected to pick up with rapid urbanisation and construction sector growth.

Our focus is on value added products like wire rods, rolled product and billets to capitalise on market growth and optimise returns. We cater to key markets around the globe including the domestic market of India. We serve key markets located in South East Asia, South Asia, Middle East, and Europe.

## Copper Mines of Tasmania (CMT)

All the ore mined, is shipped to Sterlite Copper processes for preparation of its copper based products.

## Customer Satisfaction Surveys

To gauge the overall satisfaction from our services offered to the customers, we periodically conduct customer satisfaction surveys. Customer satisfaction survey conducted at regular interval to understand customer feedback and corrective actions are made to address the requirements of customers. Surveys are also conducted by employing third party to remove bias in the feedback. This helps us in improving our delivery and standards in catering to our customer base.

## Sterlite Copper

The export market customer satisfaction survey is conducted once every two years. The company is in the process to obtain feedback from our export market customer base by September 2011, which will be reported in the next sustainable development report. Acid business customer satisfaction survey was conducted in June 2011 and will be covered in the next year's report.

In the reporting year, the survey was conducted in the domestic market amongst 142 customers as per their region. The overall Customer Satisfaction Index (CSI) came to 77.7 % favouring our performance. The rating criteria based on the enlisted parameters for assessment yielded the following results based on the average taken from the views/customer ratings collected from 142 customers. Each of the eight assessed parameters was rated out on 10 points.

## HZL

Customer satisfaction surveys are conducted at company level every 2 years at HZL. Senior executives make frequent visits to customers to get direct feedback on our products and services and other related issues. In terms of customer satisfaction, the marketing team maintains a forward looking approach in tandem with the global commodity pricing trends and customer demand assessment. Subsequently, the ISO 9000 guideline based Feedback schedule is followed for obtaining regular feedback in a periodic basis. This feedback is accumulated for sharing in management review based on which response is generated. Annual vendor and Customer Meet is organized for creating a platform for dialogue and grievance redressal which is mentored at the CEO level. The last two years information can be summarized in the form of 100% retention of customers.

## Awards

### HZL

- International British safety council Award 2010, UK to Debari Zinc Smelter
- Star Prax Global Benchmarking award 2010 for water management to Chanderia Smelting Complex
- FIMI Gem Granites Environment Award to Zawar Mines
- CII – National Energy Management Award (Energy Efficient unit) to Rampura Agucha Mine
- CII – National Water Management Award 2010 (Excellent Water Efficient unit) to Zawar Mines
- CII – National Water Management Award 2010 (Water Efficient unit) to Chanderiya Smelting Complex
- HZL (CSC) received IMC-Rama Krishna Bajaj National Quality Excellence trophy 2010
- HZL (VZS) received Environmental Best Practices Award 2011 by CII.

### BALCO

- International Green Apple – Silver Award 2010 for Environmental Best Practices on Emission Reduction Technology
- BALCO received IMC-Rama Krishna Bajaj National Quality commendation 2010.

- Construction Industry Development Council (CIDC), Viswakarma Award for Social Responsibility, 2010, BALCO
- Wockhardt Foundation, India Shining Initiative, 'Best CSR in Mining Sector' Award, 2010, Sterlite Industries (I) Ltd
- Commendation Certificate received from Rajasthan Journalists Union for Excellent CSR Initiatives, 2010,

## Sterlite Copper

- Ramakrishna Bajaj National Quality 2010 – Performance Excellence Trophy on 16th March
- Sterlite was awarded level 7 out of 10 for Leadership and Strategic Planning during Best Practices Benchmarking Competition conducted by GBN Road show, Mumbai
- Sterlite received two gold and two silver awards for competitions on best 5S, TQM and Kaizen Projects in the Chapter Convention of Quality Circles conducted by Quality Circle Forum of India during Sep'10
- Sterlite received two Par Excellence awards for 5S and one for TQM in National Convention of Quality Circles held at Vizag during December 2010

## Corporate Governance

The Sterlite Group believes in fair and transparent policy in all its business dealings and corporate affairs. The Group maintains highest ethical standards in its dealings with all its stakeholders which are key to ensure business success. In this endeavour, the Group constantly reviews its systems and procedures to achieve the highest level of corporate governance while fulfilling the role of a responsible corporate representative committed to sound corporate practices. Sterlite has adopted Corporate Governance related practices as mandated in Clause 49 of the Listing Agreement and other established procedures and systems to strengthen the governance system.

Elaborate information on corporate governance practices of Sterlite Group is available at [http://sterlite-industries.com/investor\\_relations/PDFs/SIILAnnualReport2010-11.pdf](http://sterlite-industries.com/investor_relations/PDFs/SIILAnnualReport2010-11.pdf)

## Board of Directors

The Company believes that sound corporate governance is essential in achieving the Group's strategy to create a world class metals and mining organisation and generate strong financial returns. The Board is aware of the need for a strong corporate governance framework in the current climate and the need not only to reflect the changing nature of the Group's businesses but the environment in which it operates..

The company's Board of Directors ('Board') comprises of seven Directors, viz., Mr. Anil Agarwal, Chairman (Non-Executive), Mr. Navin Agarwal Executive Vice-Chairman are the two promoter Directors, Mr. Din Dayal Jalan is the Whole-time Director. In addition to the promoter directors, there are four Non-Executive Independent Directors, viz., Mr. Gautam Doshi, Mr. Berjis Desai Mr. Sandeep Junnarkar and Mr.A.R.Narayanaswamy. More than fifty percent of the directors are independent directors. All the Independent Directors meet the independence criteria as required under Clause 49 of the Listing Agreement.

In 2010-11, the Board of the company met fourteen times. The Board reviews, approves the Company's strategic, operational and financial plans, guides corporate strategy, takes key strategic decisions, reviews the major plans of action, i.e. decisions concerning the capital of the company, including capital restructure, capital returns and security issue and buy backs etc., risk policy, review, approve annual budgets and business plans and monitor performance against corporate strategy.

## Committees of the Board

The Board Committees focus on specific area and make informed / appropriate decisions within the authority delegated to each Committee guided by its charter, which defines the composition, scope, responsibilities and powers of the Committee. The Committee also make specific recommendations to the Board on various matters from time to time. All observations, recommendations and decisions are placed before the Board for information and their approval / consent. Audit Committee

The Audit Committee met six times during the course of the year. CEO, CFO and representatives of the Statutory Auditors and Internal Auditors are regularly invited by the Audit Committee to its meetings. The Company Secretary is the Secretary to the Committee. The functions of the Audit Committee of the company include the following:

- Oversight of the company's financial reporting process and the disclosure of its financial information to ensure that the financial statement is correct, sufficient and credible
- Recommending to the Board, the appointment, re-appointment and, if required, the replacement or removal of the statutory auditor and the fixation of audit fees
- Approval of payment to statutory auditors for any other services rendered by the statutory auditors
- Reviewing, with the management, the quarterly financial and annual financial statements before submission to the Board for approval
- Reviewing, with the management, performance of statutory and internal auditors, adequacy of the internal control systems.
- Reviewing the adequacy of internal audit function, if any, including the structure of the internal audit department, staffing and seniority of the official heading the department, reporting structure coverage and frequency of internal audit.
- Discussion with internal auditors any significant findings and follow up thereon.
- Reviewing the findings of any internal investigations by the internal auditors into matters where there is suspected fraud or irregularity or a failure of internal control systems of a material nature and reporting the matter to the Board.
- Discussion with statutory auditors before the audit commences, about the nature and scope of audit as well as post-audit discussion to ascertain any area of concern.
- Reviewing the company's risk management policies and functioning of the Whistle Blower Mechanism.
- To look into the reasons for substantial defaults in the payment to the depositors, debenture holders, shareholders (in case of non payment of declared dividends) and creditors.
- Reviewing any changes in the accounting policies or practices as compared to the last completed financial year and commenting on any deviation from the Accounting Standards.
- Carrying out any other function as is mentioned in the terms of reference of the Audit Committee.
- The Audit Committee is empowered, pursuant to its terms of reference to investigate any activity within its terms of reference and to seek any information it requires from any employee.
- The Company has systems and procedures in place to ensure that the Audit Committee mandatorily reviews management discussion and analysis of financial condition and results of operations.
- The Audit Committee of the Company reviews the financial statements of the subsidiary companies, during the year, the Audit Committee also reviewed the investments made by the subsidiary companies, minutes of the Board meeting of the subsidiary companies and statement of all significant transactions and arrangements entered into by the subsidiary companies. No Indian subsidiary of the Company falls under the term 'material non-listed Indian subsidiary as defined under Clause 49 of the Listing Agreement.

## Shareholders'/Investors' Grievances Redressal Committee

The Shareholders' Grievance Redressal Committee of the Company reviews matters related Grievances of shareholders and investors. The Committee primarily focuses on review of investor complaints and its redressal, queries received from investors i.e. transfer of shares, issue of share certificates, non-receipt of Annual Report, non-receipt of declared dividends etc and reviews the Report presented by Share Transfer Agent of the

Company.

The company has appointed, M/s. Karvy Computershare Private Limited, as its Registrar and Share Transfer Agent, who are fully equipped to carry out share transfer activities and redress investor complaints. Company Secretary is the Compliance Officer for redressal of all shareholders' grievances.

## Nominations Governance and Remuneration Committee

The Company's Remuneration Committee is responsible for recommending the fixation and periodic revision of remunerations (including commissions and/or incentives, etc) of Whole-Time Directors/Executive Directors. This is done after reviewing their performance based on pre-determined evaluation parameters and the Company policy of rewarding achievements and performance.

Payment of remuneration to the Executive Vice-Chairman, Managing Director and Whole-time Director is governed by the respective agreements executed between them and the Company and are governed by Board and shareholders' resolutions. The remuneration structure comprises of Salary, commission linked to profits, perquisites and allowances and retirement benefits (pension, superannuation and gratuity).

## Share / Debenture Transfer Committee

The Board of Directors have delegated the power to approve share/debenture transfers, transmission and consider split / consolidation requests to the Share / Debenture Transfer Committee. The Share / Debenture Transfer Committee were reconstituted in the reporting year with new members' viz. Mr. Ramesh Nair, (COO- Sterlite Copper), Mr. C. Prabhakaran, Associate Vice President – Finance and Mr. Rajiv Choubey, Company Secretary & Head Legal. The Share/Debenture Transfer Committee met 16 times during the year.

## Finance Standing Committee

The Finance Standing Committee (erstwhile Banking & Authorisation Committee) consisted of Directors & Officials of the Company, namely Mr. Navin Agarwal, Mr. Din Dayal Jalan, Mr. Tarun Jain, Mr. R. Kishore Kumar, Mr. Ramesh Nair and Mr. C. Prabhakaran. The Charter of the Committee authorises on behalf of the Company, any changes in authorised signatories for banking operations, delegation of powers for day to day excise and sales tax matters, authorisation to specific employees for certain contractual obligations and such other delegation as may be required. The Committee meet twice during the year. Mr. M. S. Mehta who was appointed as the CEO of the Company on March 31, 2011 has been included as an Executive Member of the Finance Standing Committee in place of Mr. R. Kishore Kumar.

## Disclosures by Management to the Board

All disclosures relating to financial and commercial transactions where Directors may have a potential interest are provided to the Board, and the interested Directors do not participate in the discussion nor do they vote on such matters.

## Disclosure of Accounting Treatment in Preparation of Financial Statements

Sterlite has followed the guidelines of accounting standards referred to in Section 211(3C) of the Companies Act, 1956 including Accounting Standard (AS)-30 on 'Financial Instruments : Recognition and Measurement' and Limited revision arising out of it in other Accounting Standards, issued by 'The Institute of Chartered Accountants of India'. Code of Prevention of Insider Trading Practices

In compliance with the SEBI regulation on prevention of insider trading, Sterlite has instituted a comprehensive

code of conduct for its Directors, management and officers. The code lays down guidelines, which advises them on procedures to be followed and disclosures to be made, while dealing with shares of the Group, and cautioning them of the consequences of violations. The code clearly specifies, among other matters, that Directors and specified employees of Sterlite can trade in the shares of the Group only during 'Trading Window Open Period'. The trading window is closed during the time of declaration of results, dividend and material events, etc. as per the Code. A yearly disclosure is taken from all the Directors and Designated employees of the Group. The Company Secretary is the Compliance Officer.

## Investor Complaints

The investor complaints are monitored on quarterly basis by Investor Grievance Committee. The Complaints are handled by Karvy Computer Share (P) Ltd.

- Number of complaints received during the year from the investors comprising of Non receipt of Dividend/Interest Warrants, Non receipt of securities, Non receipt of Annual Report, shares sent for transfer and transmission, complaints received from SEBI etc.- 1599
- Number of complaints resolved - 1599
- Complaints Pending as at 31st March 2011 - 0
- Number of cases of share Transfers pending for approval as at 31st March 2011 - 0

## Disclosure on material financial and commercial transactions with Senior Management

Disclosures on materially significant related party transactions i.e., transactions of the Group of material nature, with its Promoters, the Directors or the management, their relatives, or subsidiaries, etc. that may have potential conflict with the interests of the Company at large. None of the transactions with any of the related parties were in conflict with the interest of the Company.

## Transfer of unclaimed dividend to Investor Education and Protection Fund (IEPF)

As per the provisions of Sec. 205A(5) of the Companies Act, 1956 all unpaid / unclaimed for a period of seven years from the date of transfer to 'unpaid Dividend Account' of the Company is credited to the Investor Education and Protection Fund.

## Statutory Compliance, Penalties and Strictures

The Company has complied with the requirements of the Stock Exchanges/SEBI and Statutory Authority on all matters related to capital markets during the last three years. No penalties or strictures have been imposed on the Company by these authorities in the last three years.

## Whistle-blower Policy

As part of Code of Conduct, the Company has a Whistle Blower Policy, where any instance of non-adherence to the Policy or any observed unethical behaviour is to be brought to the attention of the Head of Management Assurance Services. During the year, the concerns reported under this mechanism have been scrutinised and appropriate actions taken. It is also confirmed that no personnel has been denied access to the Audit Committee.

## Compliance

The company is fully compliant with the applicable mandatory requirements of Clause 49.

## Code of Business Ethics & Conduct

The Company has a well defined and approved 'Code of Business Ethics & Conduct' applicable to all Board members, Senior Management and employees of the company. The code of business ethics and conduct is available on the website of the company ([www.sterlite-industries.com](http://www.sterlite-industries.com)). All Board members and Senior Management personnel have affirmed compliance with the code of business ethics and conduct.

## Communication to Shareholders

Sterlite puts forth key information about the company and its performance, including quarterly results, official news releases, and presentations to analysts, on its website [www.sterlite-industries.com](http://www.sterlite-industries.com) regularly for the benefit / information of the public at large. During the year, the quarterly results of the Company's performance have been published in leading newspapers such as 'The Economic Times' in English and in the vernacular/regional languages as well. Hence, they are not separately sent to individual shareholders. Sterlite, however, furnishes the quarterly and half-yearly results on receipt of a request from any shareholder.

## Economic Performance

The influence of Sterlite's economic development can be directly assessed through the employee wages, environmental investments, funds allocated for community development and the tax payment made to the Government.

The total payment made in the reporting period to the government in the form of Income tax, Excise duty, custom duty, dividend tax, sales and service tax amounts to Rs. 1,812 crores. During the reporting period, the company did not receive any significant financial assistance received from government. During the reporting period, the company did not support any political party, politician and related institution in the country financially or in kind.

Particular	2010-11 (Rs. in Cr)
<b>Direct Economic value generated (A)</b>	
Total Income (sales+ other income)	Rs. 32, 901
<b>Economic value distributed (B)</b>	
Employee cost	Rs. 1,132
Operating cost	Rs. 21, 247
Taxes	Rs. 1,812
<b>Economic value retained</b>	
A-B	Rs. 8,710

## Workforce

The human resources department is continuously engaging with the employees' right from recruitment, through their induction, their overall training and grooming, gauging employee satisfaction and assessing them on their KRAs. Sterlite believes in grooming its talents through various training and competitive engagements which are

elaborated further on in the report. The breakup of employee remuneration and company's contribution to their PF, Gratuity & Annuity, Welfare expenses and training programmes are tabulated below.

Defined benefit plan	Contribution by Sterlite Group (Rs in Cr)
Provident Fund	43.58
Superannuation Fund	4.62

## Community

Sterlite has taken a proactive role in uplifting the community in and around its operations and thereby earned the status of a respectable citizen of the corporate world. We dedicate a certain portion of our profits to engage with the community in the areas of our unit operations. We invest in the overall development of the community by focussing on core CSR areas of action which are women empowerment, health, education, infrastructure development and livelihood & income generation.

## CSR Expenditure

Company	Sterlite Copper	HZL	BALCO	SEL
Expenses/Budget	Rs. 3.02 Cr	Rs. 148.52 Cr.	451.12 lakhs	11.15 lakhs*

\*Note: Figure mentioned under SEL is only TSPL's (Talwandi) CSR Budget. The other unit of SEL is in Jharsuguda which has a combined CSR budget with Vedanta Aluminium Ltd.

## Shareholders/Investors

The Company believes in creating value for the shareholders and at the same time also distributes the profits in the form of dividend. The Company has been a regular dividend paying company.

We communicate with our shareholders through Annual Reports, quarterly communication by email and annual shareholder meets. We also have a dedicated Shareholder Grievances Redressal Committee which is mainly constituted to addresses investor complaints. The Company's website has a separate section for Investors / Shareholders wherein all relevant information for the shareholders is provided. The Company also issues Press Releases / communication to the shareholders from time to time.

The Board has recommended a dividend of Rs.1.10 per share on the increased share capital following the 1:1 Bonus issue of Re.1/- each fully paid up i.e. 110% for the year ended 31st March 2011.

Particular	2010-11
Dividends (Rs in Cr)	369.73

## Production data

Company	Production volumes ('000 tonnes)	2010-11
Sterlite Copper	Mined metal content	23
	Cathodes	304
	Rods	188
	Sulphuric acid	969

	Phosphoric acid	154
HZL	Mined metal content	782
	Refined Metal	762
	Mined metal content	102
	Saleable Metal	57
BALCO	Aluminium	255

### Energy business (SEL)

<b>Power sales (MU)</b>	2,035
<b>Revenue generated</b>	Rs. 728 Cr

## Sustainability & Us

Sustainability development is on the top of our minds at every single moment. It's a journey we have embarked upon not because a group of our size must, but because we truly want to. While our operations serve as the means to reach the destination, our mission guides us on the way.

This report is a testimony to our achievements during the reporting period. While engaging with our dynamic base of stakeholders, we follow the principle of responsible investment which is a part of our financial decision making process. Our strategy for sustainability is based on the pillars that are the crux of Vedanta's sustainable development:

- Environmental Stewardship
- Empowering Communities
- Nurturing People
- Health and Safety

### Approach to reporting

Sterlite's first consolidated Sustainable Development Report 2010-11 covers the environmental, social and economic performance based on the guidelines of GRI-G3.1 Reporting Framework and aligned with the United Nations Global Compact principles. Henceforth, we will be publishing our Sustainability Report comprising of all our holding companies and subsidiaries, annually.

The group has implemented ISO 9001, ISO 14001, OHSAS 18001 and ISO 17025 to ensure management systems are working to their optimum levels. We believe in the precautionary approach and we follow it as a principle towards all our activities and initiatives. Our safety and environmental systems are a testimony to our approach towards a safe, clean and productive business.

## Approach to Management

### Economic Responsibility

All our audited financials are reported annually through our annual reports and annual general meeting (AGM). We also publish relevant information on our finances to our stakeholders through media channels like print and broadcast besides updating our own website. As an enterprise, we have a commitment to benefit our investors and shareholders by expanding our operational capacities and setting performance targets catering to the domestic and export requirements.

**Environmental Responsibility** We have a well formalised integrated management system that continuously improves our environmental, quality and OH&S performance, in line with ISO 14001 and OHSAS 18001 laid standards. The HSE policies of all the group companies are in lieu of the corporate policy of Vedanta. The Sustainability Committee formed at the corporate level in Vedanta monitors the HSE performance of the group's businesses, providing advice and guidance to the board and management in enforcing amendments and achieving the goals of the corporate HSE policy.

### Labour Practices and Human Rights

To secure and safeguard the interests of our employees – our key assets, each of our member companies have a structured employee code of conduct wherein all aspects of human rights are covered. During the reporting

year there have been no incidents of violation of human rights reported.

SIIL conducted an awareness workshop on UK Bribery Act for its employees to assure adherence to international norms during operations as the company has its operations abroad as well.

## Product Responsibility

We comply with all the required standards and protocols for the logistics of products. SIIL has carried out a Life Cycle Assessment study of copper products right from transportation of copper concentrate from port to production of the refined copper products.

## Social Responsibility

At Sterlite we do not see CSR as charity or as a responsibility; but as an opportunity to change, and all our CSR activities are determined by the concept of 'Changing Lives': where we constantly endeavor to improve the quality of life of the communities where we operate. We pay our maximum attention to uplift the quality of life of women, children and youth in our focus areas.

## Reporting Boundary

Our first consolidated Sustainable Development Report of 2010-11 communicates the initiatives undertaken during the period April 2010 to March 2011 across the following:

- Hindustan Zinc Ltd, India
- Sterlite Copper (SIIL), India
- Bharat Aluminium Company Ltd (BALCO), India
- The Copper Mines of Tasmania Pty Ltd (CMT), Australia
- Sterlite Energy, India

## Stakeholder Identification

At Sterlite, each of our business operations identify and prioritise the stakeholder groups based on the proximity to the operations, influence and impact on our businesses. All our business decisions and development plans weigh upon the entire stakeholder base which in return control our bottom-line.

Sterlite is committed to providing a safe and healthy atmosphere for all its employees at work by adopting the best applicable technology, conducting training and creating awareness where required. We engage with our employees, through various orientation and exposure programmes so as to groom and develop the best talents on board.

Environment protection is a major area of concern, not because it is the need of the hour but mainly as it influences every aspect of our operations and business. We have turned most of our processes into being water and energy efficient so as to minimise our dependence on natural resources like water and fossil fuels. Sterlite also plays a crucial role in engaging with the local communities around our units by providing them infrastructure, livelihood, health and education.

Our continuous engagement with our stakeholders have helped us prioritise our responsibilities , and thus deliver

better results accordingly. We constantly engage through various platforms with our stakeholders, some of them have been listed in the table below.

Stakeholders	Engagement Mechanism	Few Initiatives by the Company
Communities & NGOs	<p>Written Communication/ Need based discussions /meeting with community representatives</p> <p>Open dialogue</p> <p>Survey &amp; PRA's</p>	<p>Giving educational support by organising a study centre and giving scholastic excellence awards and scholarships</p> <p>Arranging monthly rural health camps and rural health unit</p> <p>Women Entrepreneurship: Sterlite income generation projects with SHG</p> <p>Developing rural infrastructure: Total sanitation, renovation works for schools, model village development</p> <p>Employment generation through coastal livelihood project</p> <p>HIV - AIDS awareness</p> <p>Horticultural trials with local farmers</p> <p>Model Village</p> <p>Sterlite Old-Age Widow Support Programme</p>
Government & Regulators	<p>Monthly reports</p> <p>Monthly inspections</p>	<p>Regular compliance with rules, regulations &amp; stipulations</p> <p>Submission of monthly reports</p> <p>Immediate response by the way of corrective action on issues raised by the Government authorities</p>
Employees	<p>Intranet facilities</p> <p>Newsletters</p> <p>Monthly and quarterly Training programmes</p> <p>Employment suggestion scheme</p> <p>Communication meeting</p>	<p>Employee suggestion scheme</p> <p>Spot recognition scheme</p> <p>Employee retention bonus</p> <p>Event management team</p> <p>CEO kitty</p> <p>Team of the month</p> <p>Mentor-Mentee</p> <p>ideas@sterlite</p> <p>Employee of the month &amp; year</p> <p>Family get-together</p>
Customers	<p>Discussions/ personal interactions on a daily basis</p> <p>Plant Visit</p>	<p>Customer satisfaction survey</p> <p>Online access through E-Salesmate</p> <p>Faster response for customer complaints</p> <p>Arranging for plant visit</p>
Suppliers/ Transporters	<p>Discussions/ personal interactions on a daily basis</p> <p>Plant Visit</p>	<p>Vendor meets</p> <p>Drivers' training program for safety</p> <p>Vendor Satisfaction Survey</p> <p>Evaluation of Vendor Sites</p>

Contract Labourers	Induction programme Training programme	Rewards & Recognition Welfare facilities for Contractors as a part of HR initiatives Contractor Safety Management Cell myideas@sterlite Safety Performance Bonus
Educational Institutions	Management Development programmes Academic interactions	Employees are guest faculties at leading institutions Employees are sent for Management Development programmes Alumnus interaction with students during recruitment
Investors/Shareholders	Redressal of investor grievances Quarterly/half-yearly results Website, Newspaper ads	Annual reports Annual Shareholders' meet

## Materiality

Sterlite engages with key stakeholders - Employees, Suppliers & Transporters, Customers, Communities, Media, Environment and Regulatory Authorities, to identify material issues relevant to the company and the stakeholders. Sterlite follows a 3 - step process to identify key material issues. The process consists of :-

### Identification of Issues

A cross-function team was formed to identify issues specific to Stakeholders based on parameters like relevance to direct short-term financial impact, societal norms, etc.

### Identification of Material Issues

Using a materiality matrix, the issues identified in the first step, were put through objective assessments, and scores were assigned, depending on how they impact specific factors. A threshold score was established to classify points into material and non-material issues.

### Identification of Material GRI Indicators

Through the materiality exercise, the issues identified are mapped to the GRI (G3.1) indicators and the corresponding Global Compact principles. These issues are addressed under various stakeholder categories as dedicated sections, such as Economic, Our Employees, Community, Health & Safety and Environment (HSE), and Our Partners.

## Our Employees

### Our Approach

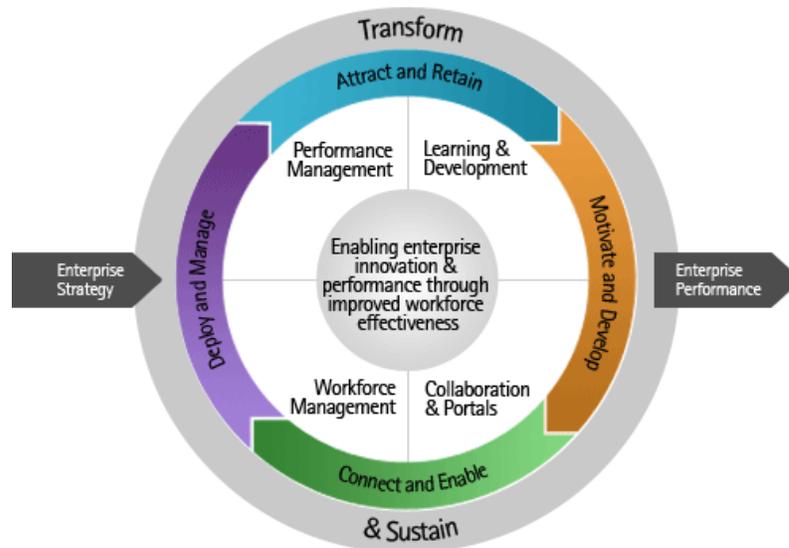
Sterlite Industries has charted out an aggressive course of action to achieve ambitious targets. Having talented, dedicated and satisfied employees is the key to our success. And the fact that the group and our employees share common values ensures that we successfully bring about change with our sustainability development initiatives.

Our employees follow a culture of 'Speed, Smart and Humble'. We incorporate best practices and present our employees with a conducive work environment that enables them to perform well. We sustain our workforce with continued learning and development through skill enhancement training programmes, employee engagement activities and employee benefits as well. The result is obvious - better performances.

We are undoubtedly amongst the most-preferred employers in the regions in which we operate.

At Sterlite Industries, 'Get, Nurture and Grow' is the mantra for Human Resources. The following steps help us sustain our talent resource:

- Attract and Retain
- Motivate and Develop
- Connect and Enable
- Deploy and Manage
- Automate & Optimise
- Nurture and Grow Leaders



## HR Policies

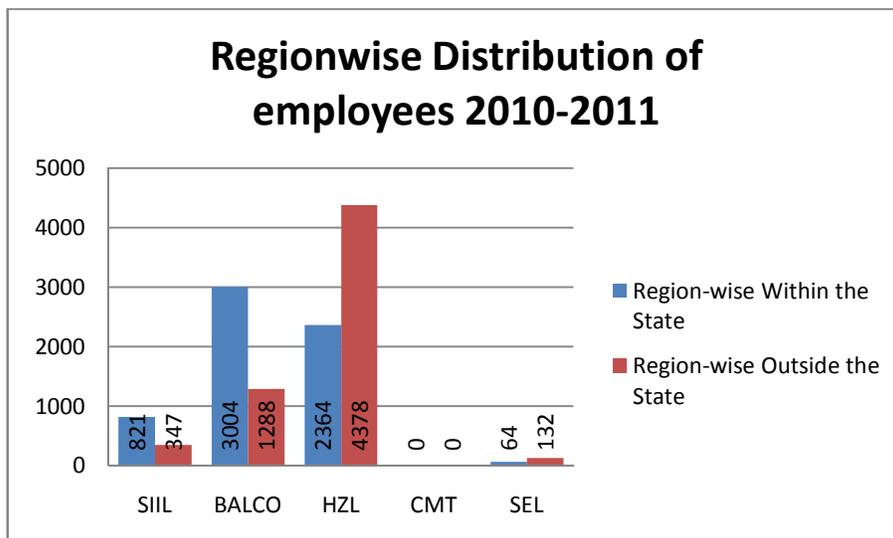
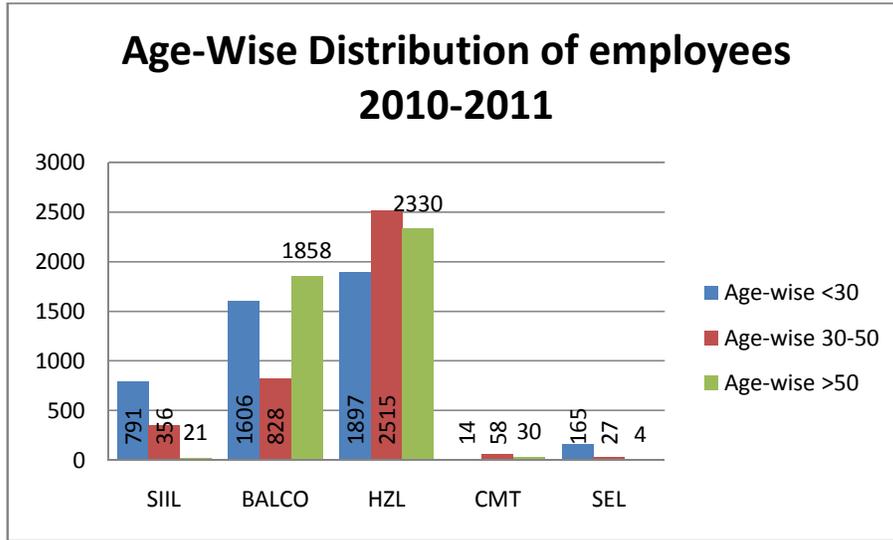
We are an Equal Opportunity Employer and believe in diversity of workforce. Our remuneration policy does not differentiate on the basis of gender, caste, religion, race or political opinion. Majority of Sterlite's operations thrive on contract labourers who are paid as per the Minimum Wages Act so that there are no grounds for

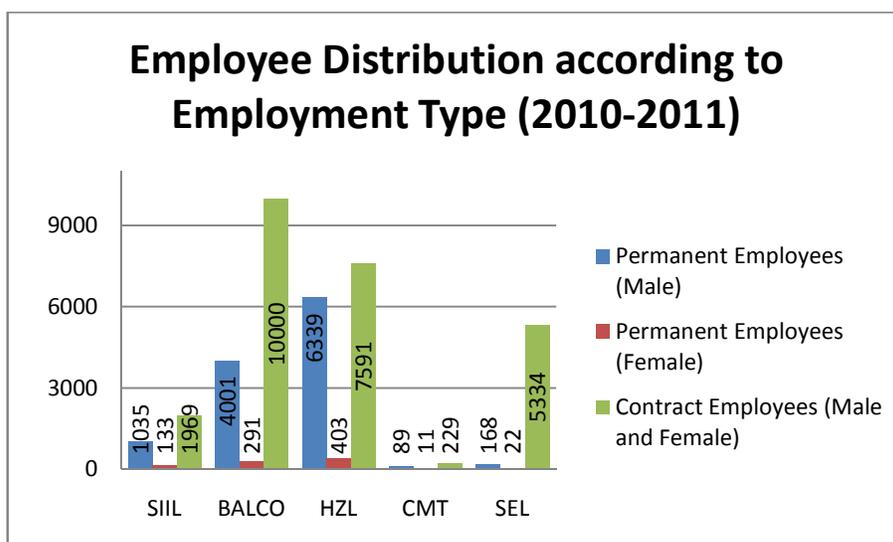
discrimination whatsoever. Our philosophy of shared ownership is clearly demonstrated through the 'The Long Term Incentive Plan' (LTIP), under which, meritorious employees are granted options of our parent Company Vedanta Resources Plc. shares.

None of our operations engage in child labour or forced / bonded labour practices. All employees and contract labourers are hired after a thorough examination of their credentials including their age proof. There has been no incidence of discrimination whatsoever during the reporting period. The ratio of basic salary of men to women in all staff categories across all locations is 1:1.

With operations spanning different continents, Sterlite has happily embraced the local population into its major operations. We regularly hold Awareness Programmes regarding our policies and Code of Conduct. We have several engagement processes to record employees' grievances. Inputs given on business code of conduct/ethics are carried regularly in communication meets, which include information on malpractices such as prevention, bribery and corruption.

## Employee Breakup by Gender, Age, Employment type and Region





## Employee Welfare and benefits

Our concern for our employees goes beyond their professional contribution. In our endeavour of creating happiness, we also ensure that our programmes and policies cover their welfare. Employees have a help desk to assist them with a plethora of activities including bill payments and ticket bookings. Our standard benefits include gratuity, superannuation, provident fund, employee counselling and an employee help desk.

We also provide employees maternity and paternity leave. Employees can always join back to the same post and profile post maternity/paternity or a prolonged sick leave. CMT adheres to Australian law, which states that anybody availing such leave can join back at the same post. HZL offers employees housing, transportation, electricity and meals at subsidised rates. Employees also get insurance and medical benefits. There is a free hospital facility at every location and employees with medical issues can claim treatment at specialised hospitals.

Company	Employees availing Paternity leave	Employees availing Maternity leave
Sterlite Copper	35	7
HZL	NA	3
CMT	0	0
BALCO	NA	20
SEL	5	4

All employees availing parental leave returned to work.

## Performance reviews

Performance review is offered to each and every employee at the Sterlite Group. The review is essentially based on the process which entails setting a goal at the beginning of the year, KPO for all confirmed/probation

employees, online process through SAP HCM, exercise through ESS/MSS followed by appraisal for all employees. The process is Half Yearly/Yearly for trainees; midyear and annually for confirmed employees.

At SEL, performance reviews are carried out three times a year formally as per HR policy. Except trainees, all eligible employees are covered under the appraisal process. At BALCO, all employees are covered in a quarterly performance appraisal process. For Stars, Career Development Reviews are conducted twice a year. At Sterlite Copper a total of 80% (937 out of 1168) employees were appraised. At CMT, all senior management and executive employees were appraised. In this process, 90% of female and 50% of male non-executive employees had a formal appraisal process at CMT.

## Recruitment Process

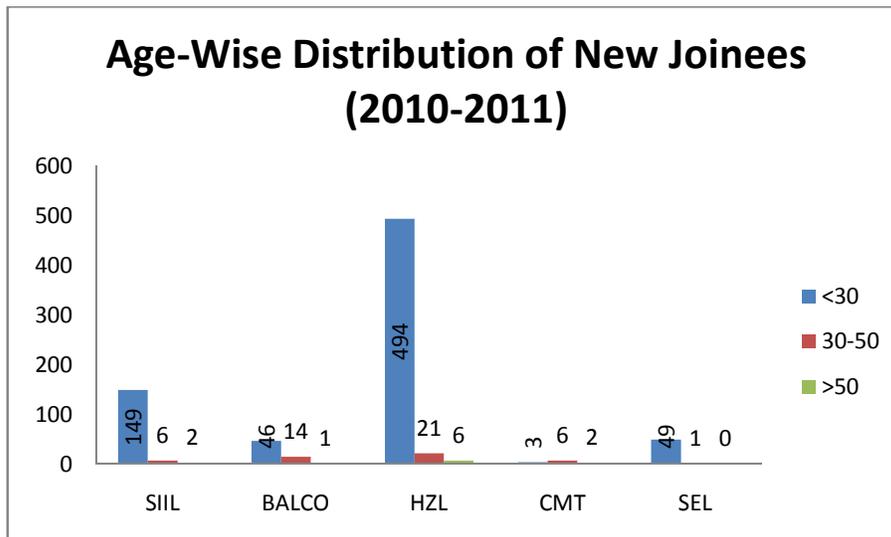
Our Chairman, Mr. Anil Agarwal strongly believes in women empowerment. Based on the vision for the Group, the Company has set a target of 20% women employment across all its group companies. Specific emphasis is laid on this in our recruitment procedure besides the 5% targeted search of Ex. Service Men.

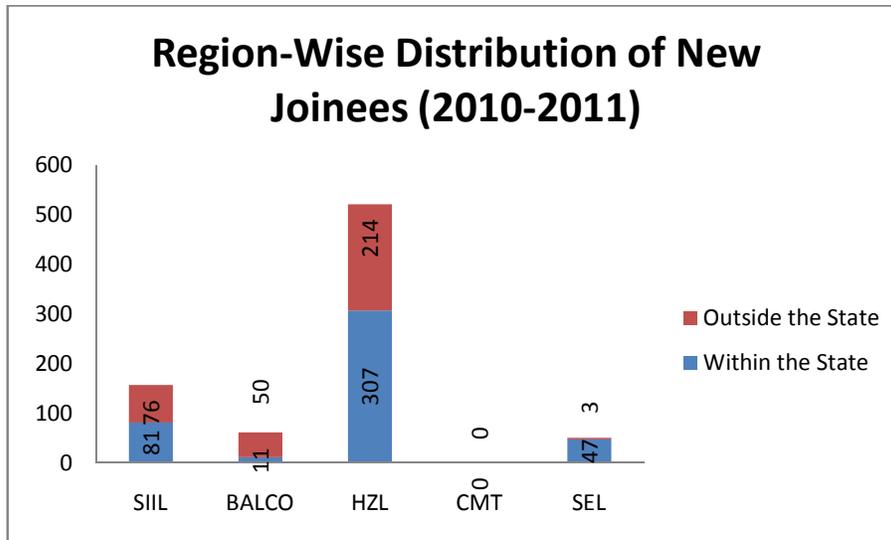
We follow the Vedanta Group in having a centralised HR recruitment process through which candidates are selected through campus recruitments. Vedanta Resources Plc has empanelled few universities and colleges which are identified based on the overall performance of the academic institute and also our group's job profile requirements. The focus is mainly on internal recruitment drive for filling the senior positions. Lateral hiring, although a very rare practice, takes place only when the candidate is from one of the Best Practices Companies.

We offer competitive salary packages and perks in order to attract the best people and retain them.

To attract the best talent pool from prospective colleges and institutes, we have implemented few brand building initiatives. These include visits by the Group HR Head to management training colleges for creating awareness on the opportunities within the group, sponsoring college festivals. Senior management from Sterlite actively participate, as well as participating in college job fairs. They also help in engaging the educational institutions by being guest lecturers in their respective alma maters.

## Break down of New Joinees (2010-2011)





## Induction and Orientation

Structured induction and orientation programs help mould fresh recruits into efficient employees. Induction, as an HR initiative, provides an overview of the organization to a new entrant to facilitate the transition from institute to industry and gives exposure to the company's practices and policies. Our induction program welcomes new entrants to the organization and accelerates the employee integration by building the learning attitude and increasing the knowledge of an individual about the processes of the organization. Sterlite Copper's Induction & Orientation Module equips new employees with an Induction Manual, an HR Mentor for induction period, Dupont E - Learning Module and Chairman's video and Company overview.

At HZL, a 6 day induction program encompassing senior management interaction, presentations from Head of Departments and functional heads and visits to mines and smelters introduces the business to the entrants. The GET program helps fresh graduates to transition into the zinc metallurgy industry. The program includes In-Plant orientations and training modules at prestigious institutes. Apart from technical training, both Sterlite Copper and HZL have mentorship programs.

The GET program is part of the BALCO induction process as well. Senior or lateral recruits have a customised induction process to get up to speed with their job profile.

CMT has a computerized induction program which is common across all Tasmanian mine sites and contains CMT specific modules for each work area, OH&S requirements and Environment requirements. No person is allowed onsite until they have competently completed the modules appropriate to their site access requirements.

At SEL, all new hires go through a formal Induction program. Employees joining at the entry level go through a standard Vedanta Group level Induction of six days . Lateral hires at M6 and above grade go through a company specific induction program of three days which would involve 'In Person' meetings with key functional Heads along with their teams.

## Employee Engagement & Retention

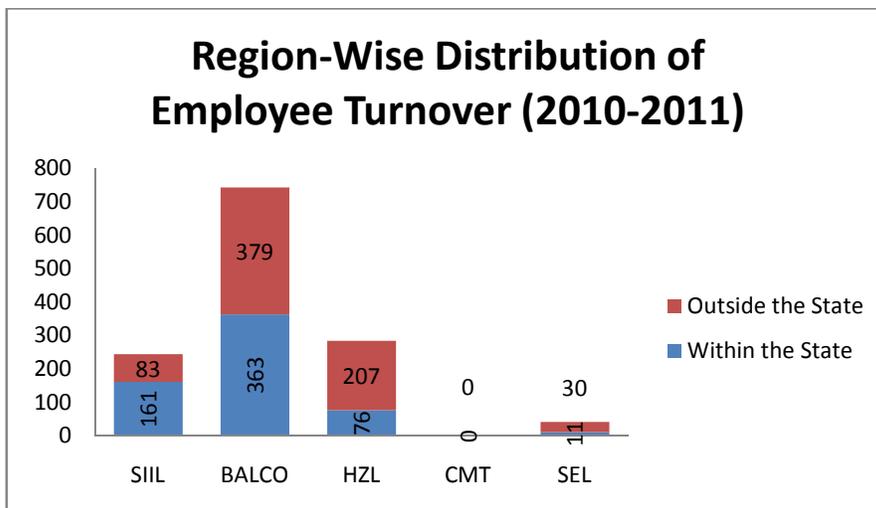
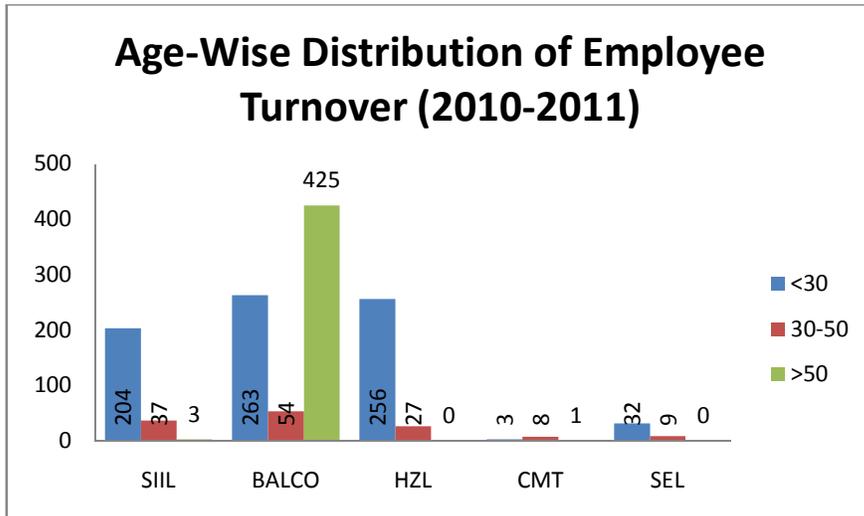
We offer an environment that is conducive to grooming deserving candidates and providing them opportunities for growth. The challenging work and frequent training programmes are the chosen means to engage with employees. We believe one of the best ways to retain and encourage talent in the organisation is to award those who have the best interest of the company in mind. Our mentoring initiatives help new employees find their footing within the organisation. We are constantly trying to improve our infrastructure and enhance the quality of life of our employees. We also ensure that our employees receive global exposure through international visits

and training. Bright Engineers are offered the opportunity to enhance their role or rotate into another job.

At SEL, there are three main reasons for attrition as noted from exit interviews and internal surveys. For M7-M6 level employees the reasons are higher education and Government Jobs. In case of M5 & above employees it is the affinity towards metros. To address these to some extent, SEL offers cash rewards, job enrichment and higher positions, and opportunities for higher education (MBA, CA etc.) in distance mode. A township with several facilities is also under construction.

Sterlite Copper and BALCO have a wide variety of employee retention programmes including awards for long service, specific contributions, team based performance, etc. HZL offers retention bonuses and has programs that encourage interaction between Youngsters & Senior Management as well as knowledge sharing. CMT offers personal development programs, Community Volunteer group participation, Industrial Organisation representation, Professional Institute Participation, Participation in Industry visits as well as support for further education.

### Break-up of Employee turnover by Age and Region



## Employee Engagement Activities

We value our employees and consider them to be the lifeblood of our operations. Therefore employee engagement remains one of our key focus areas. Consistent employee engagement also helps us identify opportunities and room for improvement. We believe in celebrating our employees and what better way to do that than to celebrate festivals together. Our get-togethers are not limited to festivals, we also conduct cultural events, competitions, sports activities, and family picnics.

Sterlite Copper conducts ESAT surveys once a year to gauge the satisfaction level of employees across grades. Copper Tones is an in-house bi-monthly magazine, it's an effective tool to connect with employees. We use our Communication Meet as a platform for employee recognition and two way communications. We also have a 15 member cross functional Event Management Team that organizes activities such as Summer Camp, Rendezvous 2010, etc.

BALCO follows an Event calendar through which every month different types of quality of life functions are held for employees as well as for their family members. The company also has two clubs where different types of recreational activities with respect to work/life balance with their personal and /or family are held.

HZL uses HR Reach for open communication and also has an open house initiative called Sanwad. Employees and their families are involved in CSR initiatives. HZL also conducts initiatives for women like Ladies Club Meet, Sangini and Women's Day celebrations.

SEL Jharsuguda celebrates the birthday of employees and also organises various communication meetings like skip level meeting, feedback sessions etc.

## Contract employee engagement

Contract employees form an important part of our operations. As such, we try to do as much as possible to make them feel like an integral part of our company. They are included in festivities and competitions. They are evaluated and rewarded based on their performance. And their buy-in is sought before major shut downs. They also receive mandatory safety training.

At Sterlite Copper, contractors are part of our annual employee satisfaction survey – ESAT. Security personnel are outsourced from a third party, most of these personnel are trained and sent to our locations of operation from their organisation itself. We offered our entire security personnel training on 'How to deal with employees and visitors'. 11 security personnel were offered training in communication skills, team dynamics and Ignite programmes.

For Contract Labours Safety at BALCO, in every shift a five minutes Safety Talk is conducted in various departments of all the SBUs to maintain Safety Standards. A Program on First Aid was conducted for outsourced employees. Security personnel are outsourced from a third party, most of these personnel are trained and sent to our locations of operation from their organisation itself. BALCO offers its entire security personnel training on 'How to deal with employees and visitors'.

At HZL, 400 contract executives were offered training for attitudinal change through program Navjagran. 1300 contract labourers were provided Surakha Jyoti - 2 days training on behavioural safety. The "We Appreciate" scheme is a token to reward contract labourers.

CMT conducts monthly OHS&E Meeting with all site Contractors .

SEL offers a scorecard for all operation Contractors based on which the best performing contractor is selected every month. A cash incentive of Rs. 1000 given to all Contract Employees for Safe Annual Shutdown.

## Contractor Compliance & Management

Sterlite Copper has taken a pro-active step of ensuring hundred percent compliance of labour / industrial laws related to health, safety and welfare of contract employees and have engaged a specialised agency – M/s Aparajitha Corporate Services (P) Ltd. to ensure compliance.

At CMT, Contractor OHS management and compliance requirements are provided to our contractors through the CMT-SOP-010 Contractor Management Procedure. This document identifies their legislative obligations and CMT requirements whilst employed at the CMT site. An OHS committee is conducted every 6 weeks to provide a forum for CMT and our contract workforce to communicate and consult with all personnel at the CMT site on occupational health, safety and environmental matters. Contractors are encouraged to conduct OHS audits of CMT to ensure a safe workplace is provided for their staff – This approach ensures ownership of the SMS program remains frontline.

SEL's HR department looks after the compliance requirements under the Acts of Labour law. BALCO adheres to Statutory and non-statutory compliances of Contract Management System for outsourced contract employees which includes approximately 10,000 Contract workers working in the expansion projects.

## Training and Leadership

Learning and Development is an integral part of employee grooming and long term progress of the company. We assess training needs based on OHS, HRD Audit, Other Surveys, Performance Appraisal, 360 Degree Feedback, Internal Customer Satisfaction Survey, Exit Analysis, Succession & Career Planning, Business Training Need, Talent Management and Skill Gap.

Training and awareness programs were also conducted for employees on road safety and health-related issues such HIV / AIDS, Hypertension, etc. Regular safety training programs like Suraksha Jyoti are conducted for all employees including contractors.

At our companies, training needs are determined by the need to fill the competency gaps. At the entry and middle management level, the focus is on the functional training and process related training. At the middle management level, there is thrust and focus on leadership, soft skills and business related training. The emphasis is on both technology-related and soft skill based programs. The senior management focuses on strategy and business related training.

In BALCO, the training menu card is finalized based on inputs from Business and Functional Heads. As part of the annual appraisal process, this menu card helps the HOD to finalise the employee's TNI (Training Needs Identification). Leadership development programs include modules at XLRI, Jamshedpur and IIM, Bangalore. Every year a mandatory session on Business Ethics and Code of Conduct for all the Executives is conducted at the Balco Learning Centre.

At Sterlite Copper, one of our skills development programmes which involved visits to best practices companies to study their processes, resulted in improved process efficiency and monetary benefits ranging from Rs.30-92 lakhs. HZL has programs like Navjagaran, 5S Workplace management, among others. Similar programs are also conducted in CMT including training and awareness programs specific to individual technical areas.

Training hours for Employees 2010-11		
Company	Total training man-hours (thousand)	Average man-hours per employee
CMT	-	20
HZL	180	26.7

SIIL	58.5	53.23
BALCO	76.54	18.72
SEL	1656	13.1

## Talent Management

The Group strongly believes that our people are the most valuable asset. As such, we take great care in ensuring that their potential within the company is fulfilled. We have a variety of programmes within the company to develop our best talent. For new joiners our companies have incorporated a structured mentoring process. At Sterlite Copper, BALCO, HZL, and SEL, Our Global Leadership Program identifies STARs and has shown great results, helping us to fill leadership positions internally and retain our top performers. We also have a structured Employee Succession Identification process. CMT provides opportunities for personal development and role related studies.

## Development of a Star

To retain the best talent in the company, Sterlite has a structured process to identify and nurture fast track performers called “Stars of Business”, through which top performers from middle to first level senior management are identified based on annual appraisals and their age. The assessment of the employee is done through Group Work, Appreciation Interview, and Psychometric Tests. The final selection is based on competency & psychometric scores and also by the qualitative inputs by functional heads. The employee can benefit with a 10 % increase in their CTC, an enhanced role within the company and also avail specialized training.

The development of the business star is chartered out by focused inputs such as development sheet for all STARs, structured Job rotation (Hi-potential Stars to move across functions / companies), and Global Leadership Program (GLP) and entrepreneur projects. The net result is that 60% of critical positions in the company are manned by STARs and 8% of them are female employees.

## Human Rights

As India’s largest non-ferrous metals and mining company, we believe in respecting and upholding the rights of all our stakeholders – employees, local communities, business partners, suppliers and vendors, etc. At the unit level, we have always strived to manage our businesses in a fair and equitable manner meeting all our social responsibilities as a direct and indirect employer and respect the human rights of all our stakeholders.

No incident on grievance related to Human Rights has been reported during the reporting period. We train our employees on human rights through our Code of Conduct. Following the recommendations of the Scott Wilson Report, our parent company is developing a Human Rights policy and will develop the training programme on the subject this year, which would then be subsequently followed by all our operations.

The Company believes in deep respect for human rights and does not discriminate between people on any basis, whether is caste, creed, religion, region, nationality. To the best of our knowledge and belief, no transactions entered into by the Company during the period are fraudulent, illegal or violate the Company’s Code of Conduct.

Our Code of Conduct also commits us to operating in compliance with all laws and regulations including the protection of all employees’ rights. We believe in a zero tolerance policy regarding any violation of labour and human rights. Our parent company is also currently introducing our Code of Conduct to suppliers on a phased basis. Our contract terms and conditions insist on compliance with respect to payment of minimum wages, the Contract Labour (Regulation and Abolition) Act, the Workmen’s Compensation Act and other relevant acts in India. For CMT workforce and human rights is in compliance to all relevant Australian laws and signed

international treaties.

Violations are discussed in the board meeting and appropriate actions taken against the guilty. During the reporting year, no cases of sexual harassment of female employees or any type of human rights violations were reported.

Some of the major Laws adhered to by all our operations:

- Child Labour (Prohibition And Regulation) Act, 1986
- Contract Labour (Abolition & Regulation) Act, 1970
- Employees Compensation Act, 1923 & Rules
- Employees Provident Funds And Miscellaneous Provision Act, 1952
- Employment Exchange (Compulsory Notification of Vacancies ) Act, 1959
- Equal Remuneration Act, 1976 • Factories Act, 1948 (Welfare Provisions)
- Industrial Dispute Act, 1947 • Industrial Employment (Standing orders) Act, 1946
- Inter-State Migrant workmen (Regulation of employment And Condition of Services) Act, 1979 and Orissa Rules, 1980
- Maternity Benefit Act, 1961 & Orissa Maternity Benefit Rules, 1965
- Minimum Wages Act, 1948 Orissa Industrial Establishments (National and Festival) Holidays Act, 1969 & Rules, 1972
- Payment of Gratuity Act, 1972 and Orissa Rules, 1974
- Payment of Wages Act, 1936
- Supreme Court Guidelines on Prevention of Sexual Harassment (Vishakha case)
- Constitution of India

## Anti-Corruption Policies

Following the Scott Wilson Report, our parent company has rolled out a revised Business Ethics and Code of Conduct across all operations. This includes a dedicated section on bribery and corruption, on which employees undergo formal training. CMT adheres to all annual government Audits as required for compliance with legislation. The mining/ minerals industry by its nature has complicated regulations and high levels of government control and is exposed to bribery risks. At SIIL, a two hour anti-corruption training based on the UK Bribery Act was conducted to prevent bribery and avoid penalty in case of violations.

During the reporting period, no incidence of corruption against the Company has occurred or has been reported.

As part of Code of Conduct, the Company has a Whistle Blower Policy, where any instance of non-adherence to the Policy or any observed unethical behaviour is to be brought to the attention of the Head of Management Assurance Services. During the year, the concerns reported under this mechanism have been scrutinised and appropriate actions taken. It is also confirmed that no personnel has been denied access to the Audit Committee. During the reporting period, no incidence of corruption has occurred or has been reported.

Company	SIIL	BALCO	HZL	CMT	SEL
Total number of WB complaints received	2	6	12	0	0
No. Of complaints found correct	2	2	3	0	0

## Employee Representation

We actively communicate and enter into dialogue with our workforce and believe in maintaining a positive atmosphere by being proactive with respect to resolution of labour issues. BALCO and HZL have recognised

unions, systems and processes for employee development, appraisal and grievances. Sterlite Copper does not have any formal union as trade union. Sterlite continues to maintain good relations with both its contractual and permanent workforce with adequate engagement and encouragement programmes. Sterlite is governed by the standing order as set by Government of India with respect to any kind of operational changes.

S/no	Units	(%) of Employees covered under collective bargain
1	HZL	59.39
2	BALCO	66
3	CMT	47

There have been no incidents of strikes and lock-outs in Sterlite Copper, CMT, BALCO, SEL and HZL during the reporting period. Minimum notice periods vary across the different operations based on skill sets and national norms. For SEL, it is 2 months.

## Case Studies

### Mentor-Mentee Programme

This programme was designed essentially to provide smooth transition to the new joiners from college to corporate world. The programme is meant to establish an informal supportive relationship between the younger employee and the organization. This would aid them in aligning with the organizational culture and systems. It will also facilitate in development of their career plan and actions to realize career aspirations. Under this programme, one mentor is appointed for every trainee. The mentor is from a different function or department as compared to the trainee. The Company provides Rendezvous allowances every month for the mentor to take the mentee out.

**“My mentor guided me through my induction period and proactively took interest in my work and we had periodic discussions also. He helped me understand the organisation culture which in turn reflected in my soft skills and approach to work”- Shrikant, GET, SILL, Silvassa”**

### Training and Leadership – A star is made

Ms. Meenakshi Sabharwal joined the group in 1994 as a Process Trainee in the quality control laboratory in Sterlite Technologies, JFTC, Aurangabad. She is a qualified Chemist and also a certified Lead Auditor of ISO 9001 and OHSAS 18001. She is also the member of Bureau of Indian Standards, MTD8 Committee related to Copper and Copper Alloys. Apart from having a rich experience of 13 years in Quality department, she also has the experience of handling production department for 3.5 years. She has achieved Stars of the Business status in the year 2004 apart from getting the honour of becoming Employee of the Month twice in her career.

Currently, she is driving the Business Excellence initiatives of 5S, TPM, TQM, Ideas@ Sterlite, ACE and SPIDER for Silvassa unit of SILL. Her commendable transition is from the typical theory oriented lab personnel to handling a challenging profile in production and technical services. She found support and motivation from her seniors and peers through her transition as she interacted with the customers directly and found the marketing representative job as a part of her personal grooming and learning process. Some of the challenges that she encountered and dealt with while handling multifarious responsibilities are;

- Process change in CCR to address customer complaints of porosity
- Improvement in Leaching that improved vessel availability by 98.7%
- De-Tellurization operation that resulted in overall equipment effectiveness by 86%

**“I have received complete support and motivation for my work and progress as well. There is no reason to quit the group as the company offers healthy competitive environment with no gender bias”- Ms. Meenakshi Sabharwal, Head –Technical Services, Silvassa, SILL ”**

## Community Development - The Approach

When you see smiling faces all around, you know you are on the right path. Sterlite Industries believes that Corporate Social Responsibility (CSR) initiatives are much more than ways to pay back societal debts and obligations. When we improve lives of those around us, it motivates us to contribute all the more.

Our dedicated CSR teams work with the local communities around our areas of operations. We gauge their needs and devise projects accordingly. We pay maximum attention to uplift the quality of life of women, children and youth in our operational villages.

We undertake educational, health, livelihood and infrastructure development initiatives, and encourage involvement of the communities as well as employee volunteerism.

## Our Approach

Through our CSR interventions, we are positively impacting lives of more than 1.4 million people across our areas of operation the country.

Our operations are located within industrial belts and hence there have been no direct negative impact on the lives of the locals. Barring operations for BALCO, there are no indigenous population surrounding the locations of other operations. Operations of BALCO take place in or adjacent to Indigenous Peoples' territories, and though we do not have formal agreement with the Indigenous Peoples' communities, there has been no case registered against us either under Tribal Act or any Human Right Act on indigenous community. There have also been no incidents of violations involving rights of indigenous people.

Our business and operations have generated local employment opportunities to many like the contractors, the community members who have benefitted from our income generation and livelihood programmes.

## Education

Sterlite Industries strives to develop educational infrastructure in its areas of operations. Our focus is not only limited to ensuring 100% enrolment in schools, but we also constantly work towards reducing the school dropout rate in both rural and coastal communities. To help final year school students make the most of their education, we offer them career guidance.

We have taken several steps to address the need for education. These include everything from starting up evening study centres and helping parentless children to offering Scholastic Excellence Awards and educational scholarships to deserving students. We also organise district-level environmental awareness competitions to students so that the future generation gets involved in environment conservation at a younger age.

## Sterlite Copper (SIIL)

- **Scholastic Excellence Awards** 38 District toppers in SSLC and HSC are presented this cash award each year to recognize educational excellence in Tuticorin district and to motivate students for a better performance.
- **Evening Study Centers** 21 evening study centers were started in the economically backward zones of Tuticorin, Tamil Nadu and nearby rural areas to serve 1600 students on a daily basis.
- **Shala Pravesh Mahotsav Programme** 95 students from Chinchpada, Nimalpada and Kokanpada Primary Schools have been covered under Shala Pravesh Mahotsav programme, wherein students entering schools are provided with school bags, books, compass box, etc. followed by a celebration which provides encouragement to study further and also inspire parents to enrol their children in schools.

- **Basic Fire Fighting Skills**The skills were imparted to 11 students of Fire and Technology College, Ahmedabad, by our trained staff at Silvassa unit. This training has given the participating students hands-on experience in tackling such situations in manufacturing plants.
- **Educational Scholarships**So far, seven students with excellent academic records from poor socio-economic background have been identified and have been enrolled in engineering colleges; their education will be sponsored for the complete four years of study.

## Sterlite Energy (SEL)

- Project Prayas in partnership with for 525 children in class 1 to class 5 in 6 schools for elementary school children.
- Project Vedanta Vidyarthi Vikas Yojana for 830 secondary school children in 10 centres.
- DAV scholarship for 166 children
- Provision of 05 additional teachers support in 05 peripheral schools.
- 38 children enrolled in Child care centre at R & R colony.

## Bharat Aluminium Company Ltd (BALCO)

- **Rehabilitation Centre**BALCO has joined hands with Innerwheel Education Society of Korba and established a rehabilitation centre to educate disabled children. The centre has state-of-the-art equipments and provides Speech, Behaviour and Physiotherapy to disabled children of the region
- **Infrastructure Improvement**BALCO has improved infrastructure of 25 tribal schools of Kawardha and Mainpat by providing them with stage, furniture and other items as per their requirements.
- **Mid Day Meal Kitchen**Located at Korba, the kitchen provides nutritious and hygienic food to 40,000 children in 279 schools every day.

## Hindustan Zinc (HZL)

- **Scholarship**164 talented students received scholarship for higher education through SUMEDHA & District Education Department.
- **Sponsorship**HZL sponsored 11 girls of Zawar and Rampura Agucha for higher education at Vedanta PG Girls College (Ringus).
- **Siksha Sambal Project**The project benefitted 3,510 students in 26 schools at Rampura Agucha, Rajpura Dariba and Zawar.
- **Remedial Classes**Such classes were organised for poor performers, benefitting 1,200 students from grades VIII to XII.
- **Adult Education Camps**Helped 388 adults.
- **Vedanta Bal Chetna Anganwadi Project**This helped more than 50,000 children in the age group of 3-6 years, through 1,500 centres ensuring healthcare and imparting non-formal education in play-way method to improve the attendance in record time at each centre.
- **Distributing furniture, books, etc.**Distributed 150 sets of table-chairs in Senior Secondary School (Narela) benefitting 250 students at Chanderiya; distributed notebooks, bags and stationery items for the school children at Vizag benefitting 960 students; and distributed uniforms to BPL students in 185 schools benefitting 1,350 students at Rampura Agucha in collaboration with Bharat Vikas Parishad.
- **Mukhydhara**As part of this project, HZL provided financial support of Rs.2.85 Lacs for conducting remedial classes for poor students in joint collaboration with SVSN.

## Health & Nutrition

While everybody knows that being healthy is of utmost importance, seldom people, especially those in rural communities, get to take care of their health. At Sterlite Industries, we do our best to offer healthcare facilities to rural communities.

We dedicatedly contribute towards mother and child care. In the current reporting period, we have offered counselling to expecting and lactating mothers, organised awareness programmes and even created a child-friendly village. In addition, we have organised several health camps, supported Government healthcare initiatives, brought about behavioural changes in rural communities and spread HIV/AIDS awareness.

## Sterlite Copper (SIIL)

Through our health initiatives we wish to create awareness on Mother-Child care, provide holistic health services to communities through need based health camps and supporting government initiatives.

- Sterlite donated hospital bed materials worth Rs.2 lakhs to the Government Hospital in Tuticorin on 19th Feb. 2011 in the presence of Ms. Geetha Jeevan, Hon'ble Minister for Social Welfare.
- Sterlite is operating six rural health clinics in the neighbourhood providing health access to two Panchayats on a weekly basis covering a population of 6270, benefitting 1250 -1500. These centers offer patients with free health screening, medicines and referral services as follow up.
- A full-fledged medical team also organizes health camps every month in the outskirts of Tuticorin and in coastal areas. These camps offer patients with general screening, treatment with free medicines. So far there have been 384 health camps benefitting 22,043 people
- Sterlite observed World AIDS day on 1st December 2011 and all employees wore red ribbon and spread awareness on the deadly disease. Public rally was held in Tuticorin town in partnership with Suryan FM and around 600 people participated in the event.
- Sterlite Industries Red Ribbon Club in association with Government blood bank organized a blood donation Camp. The camp aims at creation of awareness on the importance of Blood donation in the present Scenario. Totally 48 employees donated blood in the camp held at Government hospital campus, Tuticorin.
- Periodic Veterinary Camps in coordination with Tamil Nadu Animal Husbandry Department to support farmers in cattle management to eradicate "Blue Tongue Disease" in Tuticorin. During the reporting year six camps have been conducted in six villages covering 1284 cattle.

## Sterlite Energy (SEL)

- Mobile health Unit services for providing door step health care support across 14 villages.
- Project Janani for providing Reproductive health care to 70,000 rural population.

## Bharat Aluminium Company Ltd (BALCO)

- BALCO established Vedanta Rural Health Post at Chuiya which is catering medical services and laboratory facilities to the community. Recently a mobile unit has also been attached with the post which is providing door step facility in remote villages. This year the facility has served 4,272 people.
- Anganvadi initiative Project 'Mamta', covered 18,019 people by continuous engagements with the community. Under the initiative, 1,342 expecting and 1,030 lactating mothers were covered counselling supplementing services at Anganvadi Centres. The initiative also imparted training to health workers and traditional birth attendants. Besides this, uniforms, utensils, learning toys were provided for 15,647 children in 300 centres.

- BALCO organises eye camps in association with District Blindness agency. This year the camps were organised at Korba, Kawardha, Ambikapur and Dharamjai Garh benefiting 1,664 people suffering from cataract.
- BALCO organised Jaipur Foot Camp in partnership with District Welfare Department at Korba and Ambikapur. The camps provided customised Aluminium made Jaipur Foot to 91 people.
- The mobile cancer detection units attached with the upcoming hospital at Raipur organised 26 camps in which 2,059 people were registered. Out of them 90 were found suspected of suffering from Cancer.

## Hindustan Zinc (HZL)

- Organised rural medical camps in collaboration with HelpAge India, ACE and District Health Department benefiting around 1 Lac patients; and medical check-up camps at all Child Welfare Centers (CWC) benefiting 544 children in 18 centres.
- Organised several need based camps like Homeopathic, Ayurvedic, Dental, BMD, Anemia Detection, Hepatitis B&C, Blood Sugar, Blood Pressure, blood donation and other health awareness camps etc., benefiting around 57,349 people.
- Organised 7 days Mega Surgical Camps in collaboration with 'Chitranjan Mobile Surgical unit (R.N.T. Medical College-Udaipur)' at CLZS benefiting 944 patients.
- Organised Mega Health Camp at 'Gudli' benefiting 604 patients at ZSD in joint collaboration with the Indian Red Cross Society.
- Organised Family Planning Camps benefiting 3,984 eligible couples, of which 441 males and 3,543 females underwent tubectomy/vasectomy operation.
- Organised physical disable help camp's benefiting 150 disabled persons at RDM in joint venture with 'Mahveer Viklang Sahayta Samiti' and District Administration.
- Eye care campaigns were conducted in collaboration with Sankar Foundation benefiting around 1,814 students at Vizag.
- Free medical treatment to 86,878 rural people through Company-run hospitals; and providing free medicines to 1,413 widows through 'Swami Vivekanand Seva Nyas'.
- Installed 8 R.O. plants to provide safe drinking water and reduce water borne diseases in 8 IPDP villages Organised 84 cultural awareness programmes on various social issues like HIV/AIDS, Swine Flu and Family Planning, benefiting more than 40,000 villagers; and 'Nukkad Nataks' in 10 villages to create awareness on issues including child marriage, education, alcoholism and sanitation.
- To effectively address malnutrition, HZL is providing supplementary nutrition to the children in the 'Anganwadi Centres'. Backed by HZL's determined initiatives, the village has witnessed 95% immunisation of mother and the child, with no malnourished children in the village.

## Community Assets Creation

Each of our group companies constantly undertakes initiatives for improvement of rural infrastructure. These initiatives are focussed towards offering the communities in our areas of operations convenience. At the same time, we encourage active involvement of communities for village sufficiency.

The objectives for the current reporting year included improving basic amenities like roads, water provision and sanitation. Additionally, we supported several Government rural infrastructure development initiatives.

## Sterlite Copper

- Under Namaku Name Thittam initiative, drinking water sump in Vadakusilukanpatty & Milavittan village and initiated integrated drinking water project Veerapandiapuram Panchayat. The company has contributed nearly 50% to implement these projects.

- Sterlite has constructed over 14 borewells in the Chinchpada village to support the villagers for their daily drinking water needs.

## Sterlite Energy (SEL)

- Construction of the village road from R&R Colony to Brundamal has started in partnership with the local contractor. It will help the villagers avail better commutation
- Construction of the Rohidaspada crematorium has been completed which is now available for funeral rituals
- Renovation/Up gradation of 44 individual household toilets..

## Bharat Aluminium Company Ltd (BALCO)

- Installed 7 drinking water units and 2 irrigation facilities, constructed 4 passenger shelters and 3 community buildings and 3 operational locations as per the need of the community

## Hindustan Zinc (HZL)

- Installed 2 tube wells (one each) at the Maton and Rajpura Dariba Mine, which benefited around 3,500 villagers
- The Kanpur Drinking Water Project has been successfully completed and handed over to the Panchayat.
- Constructed, repaired and renovated, Community centres, school buildings, boundary walls, drainage systems, CC roads, pipelines, and more, benefiting more than 20,000 villagers
- Laid down a 700 metre pipe-line for the water supply at Kamlod village (Maton)
- Provided 200 brick tree guards in 4 schools at Rampura Agucha
- Laying of the foundation stone of the Vedanta Stadium at RDM by the Honourable Rajasthan Chief Minister in the presence of the Minister of MoRD
- Constructed the 'Thokar Choraha' at Udaipur
- Provided safe drinking water in 32 affected villages and benefiting 28,000 people
- HZL, along with ACE (Action for Community Empowerment), has done extensive social mobilisation with an aim to inculcate a sense of sanitation. Today, of the total 60 households, 24 have toilets constructed with the help of ACE

## Women Empowerment

We believe that women should be socially and economically empowered. To achieve this, we train women so that they can upgrade their skills and earn their livelihood. This helps them in becoming independent and self-sufficient. We assist in generating supplementary income for Women Self Help Groups (SHGs). We act as catalyst in linking resources from Government, NGOs, Banks and corporates for the success of SHGs.

## Sterlite Copper

- The Sterlite Women Empowerment Project (SWEP) was initiated for empowering rural and coastal women. The project has achieved formation of 1074 Self-Help Groups (SHG) covering 15,324 rural women from marginalized sections of society. More than 252 groups have taken up profitable Income Generation Activities.

The income generation activities vary from Prawn pickle processing to dry flower making, Household provision supply, candle making, milk vending, rabbit rearing, vessels rental and petty shops. The income generation programs have enabled the women to increase their family income and in an average they earn INR 3000 - 3500 per month as additional source of income. During the reporting period the groups have availed loan ranging from INR 50, 000 to INR 200, 000.

- Sterlite celebrated International Women's day by organising a grand public function for SHG women members under SWEF on March 8th of every year, since 2006. The most interesting part of this function was the parade and Drill performed by over 7000 SHGs, which is the first and largest of its kind in this part of the state. Awards for excellence in Income Generation Projects, for the 32 Best SHGs, 20 Entrepreneurs, and also for 6 respective NGOs were also distributed on the occasion.
- To offer vocational training for livelihood for women, six tailoring centers have been functioning very successfully. Currently 69 women are undergoing training at these centres.

## Sterlite Energy (SEL)

SEL has been providing financial support to four self-help groups (SHG). Women SHG members have been provided financial assistance to start micro enterprises.

- Project Vedanta Integrated Jana Jivika Yojana for 09 villages covering rural women, building capacity and promoting rural enterprise. A women's cooperative has been formed to promote rural entrepreneurship.
- Exposure visit of 30 farmers on Vegetable Cultivation.
- Production and Selling of 50 Bowl Aquariums through Subhalaxmi Cooperative.
- 3000 lts of Phenyle sold at the through the cooperative.
- Initiation of Marigold Cultivation with 15 farmers of R&R Colony.
- Training cum exposure visit on Banjara poultry breed Farming to 20 new farmers.
- Training on financial literacy to 83 cooperative members.
- Training on homemade snacks and pickles to 50 cooperative members.
- Initiation of paddy straw mushroom at Shivrampur
- Training on Banaraja poultry farming, paddy straw mushroom, floriculture, ornamental pisciculture, goat rearing with vaccination camp
- 1329 women covered under Project VIJY with 1094 enrolled in Cooperative.
- Project Vedanta Asha with 200 SHGs for promoting empowerment and building capacities of rural women.
- 10 women of SHG have initiated a leaf plate unit at Tumadihi, Kirimira Block.
- Training on Dairy enterprise to 40 women at Rengalbeda village.
- Goatry Training to 80SHG women in 2 training sessions at Tangarbeda, &Patrapalli.
- Vegetable cultivation training to 30SHG members at Dumerdihi, Liakera Block.
- 16th ASHA Mahil Maha Adhiveshan presided over by District Collector in the presence of 300 SHG Members.
- Vermicompost Training to 25 SHG women at Kuanmal.

## Bharat Aluminium Company Ltd (BALCO)

- BALCO has provided quality seeds of Potato to 11 SHG members to generate additional income from their homestead land. During the winter season the groups have earned Rs.50,000/-.

## Hindustan Zinc (HZL)

- 350 village women availed training in tailoring,handloom training was imparted to 50 SHG members and Meenakari training to 30 women at Rampura Agucha

- HZL distributed 15 sewing machines to trained women at Vizag
- SHG women of Chanderiya participated in 'Mewar Udyog Utsav 2010' for 6 days, wherein sold various domestic products & accounted a profit of Rs. 32,000. 20 SHG members put their handmade product exhibition at 'Shrawan Mela' at Gramin Haat (Chittorgarh) and 38 women participated in the 'Literacy Programme' at CLZS

## Sustainable Livelihood

Good partnerships can change lives beyond all expectations especially when the partnerships are formed for the benefit of those in need. At Sterlite Industries, we constantly strive to help many realise their dreams.

A big leap towards this is our association with NGOs, government departments, academic institutions, nationalised banks and hospitals, to create a model that addresses community issues in a consistent manner. Together, we improve the employability rate by training and helping community members hone their skills.

We are certain that our efforts to create self-sustaining villages will show remarkable results in the future.

## Sterlite Copper

- Sterlite Copper launched 'Coastal Livelihood Project' to promote the technical skills among coastal youth in Tuticorin. Rs 11 lakh was spent on the project offering vocational education to more than 225 people. Sterlite Industries has identified various areas of skills development need to be offered to fishing community members such as Computer training, Beautician, Nursing assistant, Embroidery, Tailoring, Shipping management, JCB and Crane operator. During the reporting year we have achieved employability rate of 78%, on an average they earn INR 3000 to 4000 per month.

## Sterlite Energy (SEL)

- The company has been conducting training sessions on housekeeping (ORETUS) and soft skills development. These training sessions focus on monitoring and counselling the students and facilitate faculty discussions, which emphasize improved student learning.
- Project Annadatta with 387 farmers for promotion of Systems of Rice Intensification in 309 acres of agricultural land.
- Training on candle, Agarbattimaking and Masala Packing for 60 women at Indra Devi Sultania Memorial Institute.

## Bharat Aluminium Company Ltd (BALCO)

- Watershed Development Project at Korba completed interim phase by treating 200 hectares of land. The main phase of treatment of remaining 1,299 hectares of land been initiated in March 2011. This is benefitting 450 farmers in the immediate vicinity of BALCO
- BALCO in association with Infrastructure and Leasing Services (IL&FS) has established Vedanta IL&FS Skill school at Korba. The State level residential skill school is imparting market linked skill training to BPL youth of the region including girls. The school has planned to skill youth in 4 trades out of which 2 trades (Industrial Stitching and welding) have already been initiated in November 2010. In the financial year 2010-11, four batches comprising 259 youth have been placed successfully earning about Rs. 6,000 per month.

## Hindustan Zinc (HZL)

- HZL distributed tool kits to 63 rural artisans (including carpenters, cobblers, drummers, pipe fitters, blacksmith and cycle repairing) at Chanderiya for enhancing the family income levels by promoting traditional vocations in villages
- Vocational training provided to 763 unemployed rural youth to generate employability among unemployed rural youth through market driven vocational training ensuring 75% placements of the trained youths with monthly income of Rs. 4,000 /- to Rs. 8,000 /-
- Distributed hi-yield seeds and fertilizer kits to 897 farmers.
- Wadi project started for 42 farmers at Chanderiya & Rampura Agucha.
- Wadi structure developed consisting of Guava and lemon plants.
- Constructed Green House structure at RAM, RDM & CLZS.
- Constructed of 04 Roof water harvesting 2 each at RAM & CLZS.
- Support in development of canal for bringing of water from Grazing land to pond. Benefited more than 10000 population in Kothiya village
- Support was provided to an orphan animal centre at Peoples for Animal, benefiting approx.500 orphan animals at RAM. 100% vaccination of three Gao Shala in Gulabpura and Agucha benefited 750 orphan cows.
- Celebrated 'Kissan Kharif Mahotsav 2010' at Chanderiya in collaboration with Veterinary Department (Chittorgarh), benefiting 2,603 animals and 328 farmers of 8 Panchayats.

## Other Initiatives

### Sterlite Copper

- The horticulture Department, Ottapidaram block, in association with Sterlite Copper has undertaken projects in the 14 villages, for the benefit of farmers. We aim to transfer of latest production technologies to increase productivity, lay out demonstration for the impact area under horticulture, support of input supply in appropriate time and Information / Education / Communication & capacity building inculcation. So far, demonstration trials have been initiated in 110 farmer's field with good progress. The company has distributed Tissue culture banana saplings free of cost to 80 farmers and hybrid vegetable seeds to 30 farmers.

### Sterlite Energy (SEL)

- Planting of 45,000 saplings in 65 acres of land.
- Organized Orissa State women chess championship at Jharsuguda.
- Partnered with District Athlete association for organizing different tournaments.
- Organized District level Football tournament.
- Supported State level Women's Football Tournament at Jharsuguda.
- Facilitated organizing state level school sports meet at GhanshyamHemlata School Jharsuguda, collaborating District Administration.

## Bharat Aluminium Company Ltd (BALCO)

- In the year 2010-11, BALCO forged collaborations and partnerships with external agencies to impact the quality of life of the people living in and around its operations. Some of the prominent partners are Infrastructure Leasing and Financial Services (IL&FS), Naandi Foundation, NABARD, Inner wheel Education Society, Government agencies. The year also witnessed initiation of entry level programmes in Coal block area of Dharamjay Garh.

## Copper Mines Tasmania (CMT)

- CMT's activities in Queenstown, provides employment to 300 people directly and nearly 600 people indirectly. CMT provides significant contributions and supports local sporting, educational, environmental, arts, volunteer and community organizations. At the mine site, various ongoing environmental improvements and initiatives are currently underway.

## Hindustan Zinc (HZL)

- More than 121,195 cattle benefited through various cattle camps ensuring 100% cattle vaccination.
- 193 farmers were trained in joint collaboration with the government agriculture department
- Distributed hi-yield seeds and fertiliser kits to 897 farmers.
- HZL support in the development of a canal for bringing water from the grazing land to the pond benefiting over 10,000 of the population in the Kothiya village
- Distributed tricycles to 48 youth at Chittorgarh
- Organised the 'Gramin Swarozgar Mela' in joint collaboration with Vishvas Sansthan at Udaipur benefiting more than 500 SHG women.
- Provided financial support of Rs. 1.5 Lacs to 'Viklang Kalyan Samiti' for mentally challenged children
- Provided financial support of Rs.2.5 Lacs for organising the 'Convention of Ram Krishna Vivekanand Bhav Prachar Parishad' in a joint collaboration with SVSN.
- Distributed solar lamps to 45 Below Poverty Line families at ZM
- Sponsored one day Buyers-Sellers meet, Rozgar Mela, Udhog Mela benefiting 6,200 villagers at Rajsamand and Chittorgarh.
- Provided financial support in organising the 'National Youth Festival 2011' at Udaipur.
- Planted 1.25 Lac plants through District Forest Department in Udaipur district under 'Harit Rajasthan' Drive.

## Case Studies

### Education

#### Sharper Pencils, Sharper Minds

The eldest in the family of six children from the remote village in Tamil Nadu, 13 year old Karthika's biggest battle in life has been to continue her education. With girls in her impoverished community dropping out from formal education and meager family earnings, she had to overcome many obstacles in her quest for learning. A few visits to the evening study center conducted by Sterlite at Tuticorin changed her life.

The Evening Study Centers support children with their regular education. The children are given intensive coaching, individual tutoring where need be and vocational guidance. The older ones are paired with the younger ones to ensure continuity of support beyond school and the center. These 24 centers at Sterlite reaching out to 1,761 students are proving ideal as bridge schools and remedial centers in the region. 'It was so interesting', she said. 'I knew then I had to continue my education'. Her first hurdle was convincing her parents. But Karthika understood that if they were ever to improve their situation, she had to study. Despite the odds she now attends regular school.

### Women Empowerment

## Journey from being a Salt pan worker to an Inspiration for man

S. Dhanalakshmi was born in Tuticorin in a poor family and owing to this situation her parents couldn't support her education beyond 9th grade. Like many others in her village, Dhanalaxmi also started working in the salt pans to meet her daily needs. She was married at early age and found it difficult to support the family expenses with her husband's meagre income. But, her situation changed for good in 2003 when she joined the Self Help Group in her village. Here she obtained a formal training in Mushroom cultivation through Sterlite's Income generation Training program. She pursued to start her mushroom cultivation with enthusiasm and found the market demand where 1 kg of mushroom is sold for Rs. 100, every day her team can earn Rs. 1, 500 to Rs.2000 as they produce 15kgs to 20kgs per day. Eventually, Dhanalaxmi started training other women members of the SHG in mushroom cultivation.

Dhanalaxmi's main objective behind starting a SHG is to empower women by providing them better working conditions as many of them perform a lot of hard labour despite continued exposure to blazing sunlight for a paltry sum. She took a loan of Rs. 2, 50,000 from Mahalir Thittam [Women Development Corporation] to increase the mushroom cultivation produce by engaging 20 women. Monthly they sold 600 kg of mushroom and earned a net profit of Rs. 40,000/-. The Training offered by Chevaliar Roche Society (CRS) the mother NGO for Sterlite Women Empowerment Projects along with the 5 NGO project Partners working for Sterlite Women Empowerment Project guided Dhanalaxmi in launching this project successfully.

Besides these, Dhanalaxmi achievements are worth being lauded as she helped start 6 mushroom cultivation units that generate revenue of Rs. 5000 per day. She is a government trainer for Mushroom cultivation for helping other SHGs. She has developed her own mother seed producing unit for regular supply of seeds so as to avoid the stoppage of production, due to the unavailability of seeds. She also started to breed seeds on her own. She has also helped the daily wages members to avail a loan in the Government by serving as a facilitator which helped the women in helping their family to lend loans for education, marriage, hospital expenses at a low rate of interest. She voluntarily took part in the up gradation of the community needs like, provision of street Lights and repairing the roads with request and petitions to the Government t/ Panchayat sector.

All of this has brought her great recognition in her community so much so that in the year 2008 she went on to win CII – Woman Exemplar Award for her contribution to the community and being an inspiration to many women in Tuticorin.

## Community Assets Creation

### Towards prosperity - Khatiheda Village

Khatiheda, a small village with a population of approximately 500 people, is afflicted by extreme poverty. "We decided in collaboration with HZL and the District Administration to approach the development of our village holistically under HZL's IVDP programme," says Meera Baksha "As our first step, we jointly constructed Roof Water Harvesting (RWH) structures based on a partnership approach, with HZL contributing INR 2.75 lacs. INR 1.55 lacs were provided by the government and the villagers' contributed with sweat equity. The RWH structures were constructed on every house to store and then divert rain water to our farms for irrigation. With all overflows diverted into a neighbouring well, this permanently addressed our water woes."

The second effort was for 38 women to form two self help groups in the village. After six months of consistent savings of `INR 100 per month both the groups, received a joint loan of `INR 10 lacs from the local bank to start an enterprise in vegetable cultivation and fruit orchards. Water was still a major hindrance for the enterprise, so the groups decided to dig two borewells in the river running alongside the village. They then laid pipelines to bring the water to farmland to support their new enterprise. The company organised various training and capacity-building programmes for the farmers on subjects including organic farming, mixed cropping and more, and provided market opportunities for these crops. Along with the agricultural project, the company also carried out livestock development activities like artificial insemination, cattle immunisation and fodder cultivation, as well as health and hygiene and educational programmes in the village to complete the circle of holistic development. Vedanta, with Action for Community Empowerment, conducted extensive engagement with the community to inculcate sanitation habits including the use of toilets instead of the outdoor defecation that had caused major health problems in the village. The company also provided supplementary nutrition to the children in Anganwadi Centres. Through this, the village has now achieved 95% immunisation of mothers and children, and there are no malnourished children in the village. A health camp is held every two months to focus on immunisation along with

preventive and curative health treatments.

It took two years to bring about these changes - the groups have already paid off their loan, the average annual family income of a farmer with one hectare of land is up from INR 0.1 million to 0.4 million and the trees have started to bear fruit. "On any normal day, Khatikeda now starts to buzz as early as 5.00 am with people picking vegetables. By 7.00 am, these have been brought together for cleaning and packing in crates. By 8.00 am they are loaded in small trucks and motorcycles making their way to the wholesale market, and by 10.00 am, the villagers are back home with their money for the day, and ready to kick off another day of hard work in their fields. A picture of prosperity," concludes Meera.

## Total Sanitation Campaign - Swachha Gaon Swastha Gao

Remote location, poverty, poor hygiene, open defecation and high incidence of water borne diseases are common in the remote villages of India. Majority of the people in these villages live in unhealthy and unclean surroundings due to lack of access to sanitation facilities. Poor sanitation facilities may have serious repercussions. Open defecation is the primary factor that contributes to the spread of diseases and infections through the bacteriological contamination of water sources and the transmission of bacteria through the fecal-oral route. The practice of open defecation by the majority of people in this region is one of the most serious environmental threats to public health. Vedanta group Companies - HZL, BALCO and SILL, acknowledging the severity of the problem, initiated total sanitation programme and constructed 2387 toilets in the operational villages.

Total sanitation campaign was mainly started to bring about an improvement in the general quality of life in rural areas by providing them access to the sanitary means of excreta disposal, and thus combating the water borne diseases from which major rural population suffers. The impact of this programme can be seen not only in terms of health improvement but in other indirect benefits also.

The impact of this project has been dramatic. The incidence of outbreak of diseases has reduced significantly in these villages, providing relief from worm infestations, diarrhoea, cholera and typhoid infections.

This project has major impact on women. Earlier women-folk were compelled to practice open defecation in the absence of proper toilet facilities; they suffered from lack of hygiene, privacy and dignity and had to walk long distances to find a suitable place for defecation. Even men folk suffered from vulnerability of unseen problems like attack from wild animals. However post the project implementation these six villages have reported improved health & hygiene, a sense of security, privacy, comfort and dignity. It has also ensured comfort and safety especially for the pregnant women and adolescent girls.

## Promoting smokeless kitchens

Mrs Girja Bai, from Dondro Village, says: "I used to have to walk a long distance in the forest for fuel wood which took up much of my time. But then BALCO and CREDA (the Chhattisgarh State Renewable Energy Development Authority) not only told us about the benefits of bio gas but also supported us with financial aid to construct bio gas equipment. Now I don't have to go outside to fetch wood for fuel and I am able to give more attention and time to my children. No smoke is emitted, which used to burn my eyes. I now cook in a smokeless kitchen, something I had never imagined."

The bio gas project, under the Integrated Village Development Programme, has changed the way that 269 households cook. The BALCO-CREDA partnership evolved with the sole objective of providing an alternative source of energy to families, which would be used for lighting as well as for cooking. The commissioning of one bio gas structure costs INR 15,500. CREDA contributes INR 8,000, BALCO INR 6,000 and the balance of INR 1,500 and maintenance is the responsibility of each individual home-owners. Each household gets farm manure worth INR 14,000 per annum from the bio gas plant, and they report a reduction in health problems related to eye and breathing difficulties. Applying manure generated from slurry at the bio gas plant has also reduced the salinity/alkalinity of the soil. It has increased the porosity and water-holding capacity of the land while providing

alternative sources of lighting in non-electrified villages.

## Project Neerdhara

In an equal cost sharing partnership with NABARD, BALCO had set up a Watershed Development project in Parsakhola; wherein BALCO had teamed with SROUT (an NGO partner) to set up a Water User Committee (WUC) with 20 members from the villages. Pond bunding was the initiation of the watershed project. Over 100 hectares of arid land have been brought under this project and around 2,360 fruit species have been planted. The next phase will cover 900 hectares of land bringing the total coverage to a thousand hectares!

All this has been achieved by creating and involving Self Help groups (SHGs) in the construction of watershed structures. The village of Parsakhola now has a water body of its own! Additionally, the wages of the workers in the SHGs were deposited directly in the bank accounts that helped them save money, earn pride and dignity and has shown them the value of enterprise.

An additional 25 hectares of land has been brought under cultivation. The Gol-sponsored NREGS scheme has also been brought in for water management and conservation.

The project has a strong focus on animal husbandry through breed improvement; setting up 216 bio-gas plants to generate clean fuel; and coupling bio waste with vermi compost to produce organic fertilizers.

## Healthcare

### Mamta- improving mother & child health at BALCO

The Anganwadi Centers were divided into 10 clusters supervised by coordinators of BALCO in Korba. The role of a cluster coordinator was to monitor each and every expectant and nursing mother. The Anganwadi workers ensured steady supply of food supplements, the auxiliary nurse mid wives ensured routine immunization, and the mid wives took care of institutional delivery. In a village set up, opinion makers like Sarpanch, elders and school teachers also play pivotal role in mobilizing the community towards education and addressing the issues of the village. This is done through "Gram Sabhas" (Village Meetings) where the issues ailing the community are discussed and debated. Our team utilized this forum to accord the requisite seriousness of mortality rate and malnutrition among women and children.

## Health, Safety & Environment

### The Approach

We care about every single person who works with us. Creating safer workplaces devoid of occupational illnesses and managing maximum conservation of natural resources have always been our strategic priorities. We follow sound Health, Safety and Environment (HSE) practices to ensure that both our people and the environment are taken care of. 'Zero harm' to people, our host communities and the environment is our key focus areas.

Sterlite Industries lays a special emphasis on conducting training and awareness programmes for employees and contract labour. From taking every possible preventive measure and providing protective equipments to conducting campaigns and disaster management drills, we leave no stone unturned when it comes to the health and safety of our people. At the same time, we undertake several steps towards environment conservation . Our green initiatives range from using energy efficient methods to minimising fuel and water consumption.

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### Management Approach

At Sterlite, we believe that Health, Safety and Environment (HSE) are topmost priorities in conducting business responsibly. And this very philosophy is the backbone of all our routine operations and practices. We are committed towards creating and maintaining sustainable growth for our stakeholders and we strive to maintain balance between social, environment and economic aspects of our business. Sterlite's HSE efforts are centred on the following pillars:

- Safety: Provide a safe workplace
- Environment: Minimise impact on environment by conserving natural resources through efficient use
- Health: Eliminate occupational illness

The thrust of the HSE activities remains the same across the group companies. Each company/unit has devoted HSE teams including water and energy & CDM managers. To measure our efficiency and to improvise our standards, we seek third-party consultation from reputed agencies such as KPMG, Chillworth Global, National Safety Council and Synergic Safety Engineers. Most of our operations have formal HSE management systems aligned to the international standards like OHSAS 18001 and ISO 14001 in place.

## Health & Safety Management

Maintaining exceptional health and safety performance is given prime importance at Sterlite Industries. Both the permanent employees and contract staff receive safety training before they are entrusted with any responsibility within the company premises. We are committed to create a safer workplace so that there are no accidents in our premises.

The safety committees of each company regularly advise us on occupational health and safety improvements, and hygiene. To ensure such ongoing improvement, many initiatives were undertaken during the year throughout the group.

We firmly believe we can be a business without injuries and consider that every safety incident is preventable

which eventually helps us gauge our sustainability goals with respect to safety at work.

Unfortunately despite the measures in place, an irreplaceable life of a driver of a Sulphuric acid tanker at Sterlite Copper was lost.

We follow the 'Lost Time Injuries Frequency Rate (LTIFR)' index system for evaluating the safety performance.

Unit	2010-11 LTIFR
HZL	2.52
BALCO	0.62
Sterlite copper	0.86
CMT	2.38

During the year, we had organised various training programmes with an objective to achieve a minimum of 2 man-days of training for every employee. 982 out of 1,198 employees at Sterlite Copper were covered under minimum of 2 man-days of training. Similar training is provided in Zinc, Aluminium, Power and all other businesses. All contractor employees at Sterlite received online safety training designed by Dupont. HZL and BALCO began near-miss reporting for contract employees. Sterlite Copper reported 193 near misses for the reporting year. This is in line with the identification of the safety of contract workers as one of our key material issues. Eliminating fatal accidents is a key material concern for the Group.

## Safety Cardinal Rules followed at Sterlite:

- Don't violate PPE norms
- Don't work without safety work permit signed off
- Don't violate the speed limit beyond 20 Kmph within plant premises
- Don't park the vehicles in "No Parking" zones, especially inside plant areas
- Don't smoke within the plant premises
- Don't sleep while on duty
- Don't drink alcohol, consume tobacco and come for duty
- Don't refrain from reporting any unsafe act/incidents & near-misses as seen
- Don't drive without crash helmet/seat belt (both at front and rear seats) and speak in mobile while driving & walking
- Don't drive without valid driving license

## Safety Systems & Training

Sterlite imparts safety training to all its employees - both permanent and contract staff. They also have refresher courses periodically on safety. We have also engaged external experts to strengthen our HSE management system in our operations and projects. Emergency preparedness plans are well in place and mock drills are conducted regularly in day shift as well night shifts.

Units	Total training man-hours	Avg man hours per employee
HZL	364984	16.00
BALCO	105056	2.25
SIIL	27213	1.15

## Intensive structured training

We are focusing on intensive structured training through in-house resources as well as by engaging expert agencies. All units are having safety committee, having representation from management and unionized workers which covers entire workforce working at site. Committee meets on regular basis to advice on occupational health and safety improvement.

## Occupational Safety

All visitors at each company premises are required to wear PPEs such as boots, helmets and safety guideline handout before they enter the plant premises after the security check at the entrance gate. All the companies in the Group follow a four step system to ensure safety at the plant;

### 1.Preventive System

We issue work permits class I & II which is depending on the nature of work. We conduct periodic inspections; walk through survey and HAZOP studies before we initiate any project. Safety Steward, Safety Protocol for critical jobs, critical task observation are few such preventive systems in place to streamline our activities and to anticipate any possible risk or hazard associated with any process.

#### **a. HSE Steward System at Sterlite Copper**

At Sterlite Copper, the plant is divided into 33 zones of equal area and each area's ownership has been given to the identified people designated as "HSE STEWARDS". Seven representatives nominated from HSE department are designated as "HSE ZONE REPS". For identification, they have been provided with RED COLOR HELMET. The HSE Steward has to perform monthly audits, night patrolling and enforcement by issuing Yellow, Orange and Green Slips as a part of his regular activities. Riding on the success story of HSE stewards system at SILL operation in Tuticorin, the same system has now been adopted at BALCO and HZL units.

### 2. Educational System

This system deals with identification of training needs and development of safety modules accordingly to conduct formal and informal & job specific safety training for employees. A 3 day safety training program for all M7,M8 ,M9 & Trainees was conducted through M/S Bureau Veritas. Web enabled interactive safety training for our M6 & Above employees through M/s. Coastal Dupont. Besides the written matter on safety, framing safety rules, Transport Emergency (TREM) card, Material Safety Data Sheet (MSDS), Display Boards (Hoardings & Safety Slogans), Display of Mandatory Signs, Display of Caution Boards and Safety Information for Visitors are all a part of the educational system of implementing safety at Sterlite.

### 3. Evaluation & Implementation System

Conducting Safety Audits, Risk Assessment by External Agency, Group Risk Assessment (Risk Register), Physical Condition Tour, forming a Unit Safety Committee, Departmental Safety Committee is a part of the implementation of safety mechanisms. Organisation level review, safety steward meetings and accident investigation help in assuring the performance of the evaluations taken place under this system for improving safe work conditions.

### 4. Motivational System

We provide a Green slip – for extra-ordinary contribution towards safety, Spot prize for excellence in Safety to encourage proactive participation from the entire workforce. PEP talk, House Keeping Contest among

departments, Conducting various competitions (Safety Quiz, Poster, Cross-word, Debate, Elocution, Essay & Slogan), Sit & Draw competition for children, Safety Quiz competition for House wives are few other activities through which we motivate our stakeholders in taking safety and precaution seriously while at work.

Emergency and Disaster Management Preparedness The Chanderia plant of HZL got recognized as one of the best off-site exercise by the National Disaster Management Authority. A drill was conducted in the full view of media, external observers and state regulatory bodies, each scenario was enacted sequentially and the disaster control machinery was put to test in order to control them. The mock drill also included ferrying injured ones to the nearest hospital. Off-site emergency was declared by the State Authorities and all road and railway traffic to and from Chittorgarh was stopped.

The Emergency Preparedness and Response Plan (EPRP) are in place to tackle on site and off site emergencies. Identification coloured scarves are worn by members of fire fighting, rescue, medical and communication teams for liaising the process. Some of the following facilities are available for emergency control:

- A full-fledged safety department functions effectively in the unit.
- A fire station is also attached to the safety department
- Four full time medical officers are available in the unit. One fully equipped hi-tech ambulance with drivers is available round the clock in the occupational health center.

With the aim of achieving an accident-free workplace, the Single Point Accountability project was initiated at Sterlite Copper units from January 2010. The vision of this project is to make both the sites world-class in HSE Management Systems by implementing necessary improvements, resulting in 100% compliance of the requirements.

## Occupational Health

The health of our entire workforce is important to us. As a result, apart from Sterlite employees, all contract staff also undergo a medical check-up. Permission to enter the plant for work is given only after the doctor certifies the fitness of the contractor labour. Adherence to each company's procedural health checkups and proof of age are two major criteria in selecting an employee and or a contract labour for a job. Most of the operational units of Sterlite Industries have medical facilities and medical examinations including blood lead, audiometric and spirometry tests, ECGs and Building chest X-rays were conducted for all employees and contractors, in 2010-11.

No cases of occupational disease occurred at any of our units during the year. We are improving our reporting in this area following the ICMM guidelines, and we plan to measure the incidence of occupational disease from 2011. We believe that regular health monitoring of this sort has a direct business benefit, with reduced absenteeism and increased productivity levels.

Sterlite Copper's safety team launched a Hand injury prevention campaign to reduce the incidents of injury caused to limbs while at work. 106 employees were given class room training on the precautions and safety mechanism to be followed and observed while handling jobs at the unit. To create awareness about the campaign within the company premises, banners were put up at different locations, hand notes were given out to 1000 employees and information regarding hand injury prevention and pictures were disseminated to all desktops as wallpaper.

During the year, BALCO undertook an in-depth review of its safety systems that resulted in significant strengthening of practices aimed at protecting its workforce. The Company also introduced a new 'real-time' online safety portal, for the self-reporting of hazards, near misses and accidents.

An external focus We are also keen to help the local communities where we operate to improve their health and well-being. We do this by encouraging participation in tailored healthcare programmes that address the main health issues affecting each area, including epidemics such as HIV/AIDS, malaria and tuberculosis. We implement these programmes in close partnership with local health authorities and NGOs.

## Contractor Safety Management

We give equal importance to contract workmen safety, as in case of our own employees. Contractors are included in our safety data and must comply in full with our safety standards and procedures. During the year, we have reviewed safety performance of major contractors and communications were made to the senior management of the agency deteriorating on safety aspects. Our contractors also participate actively in Safety Committee meetings to facilitate further strengthening of safety systems.

Wherever appropriate, we have minimised the number of contractor companies used, in order to improve accountability and enable us to ensure consistent safety standards. We monitor high risk activities closely, provide regular feedback on performance and promptly act on any failures by contractors in complying with our safety procedures.

## Environment

Strelite Industries constantly works towards building a greener planet. We have always focussed our efforts in ensuring environmental protection while conducting all our operations. We do so by improving the designs or resorting to alternative and sustainable means.

Our group aims to avoid the losses or degradation of natural habitats, biodiversity and landscape. As a result, biodiversity management is a fundamental element of our initial site-level environmental impact assessments (EIAs). It is also an important factor within the ISO14001 management systems, to which most operational sites are certified.

## Raw Materials Consumption

Major raw materials are primarily consumed in Bauxite, Copper Ore / Concentrate, Zinc & Lead Ore along with few associated mineral inputs, semi-manufactured and packaging material. We do not use recycled materials as inputs for any of our processes. As we make bulk products, any packaging is minimal, but we are in a process to develop a Product Stewardship Policy that would apply to all our business units in the group.

Consumption of Raw Materials at SILL			
Material (in tons)	2008-09	2009-10	2010-11
Raw Materials	16,33,191	17,76,459	15,85,132
Associated Materials	1,91,998	1,81,363	4,82,553
Semi-manufactured goods or parts	0	0	0
Packaging Material	80,320	114	110

Consumption of Raw Materials at BALCO			
Material (in tons)	2008-09	2009-10	2010-11
Raw Materials	6,36,097	1,52,022	0
Associated Materials	8,49,625	6,50,411	6,21,606
Semi-manufactured goods or parts	78,701	0	0
Packaging Material	282	213	201

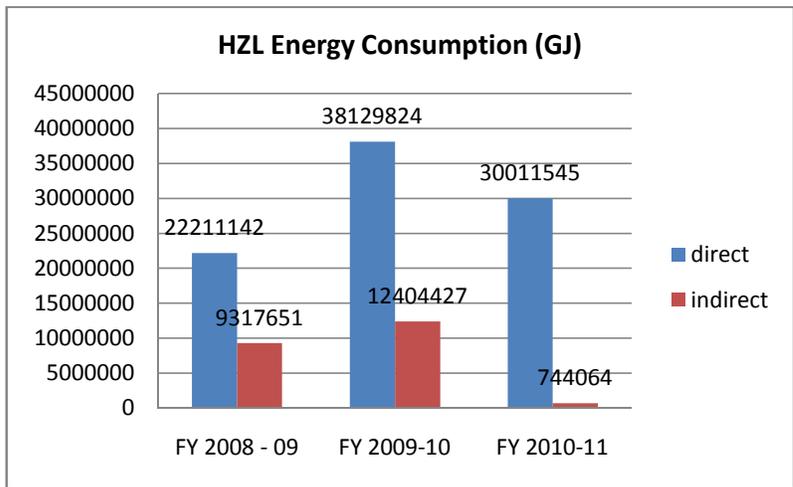
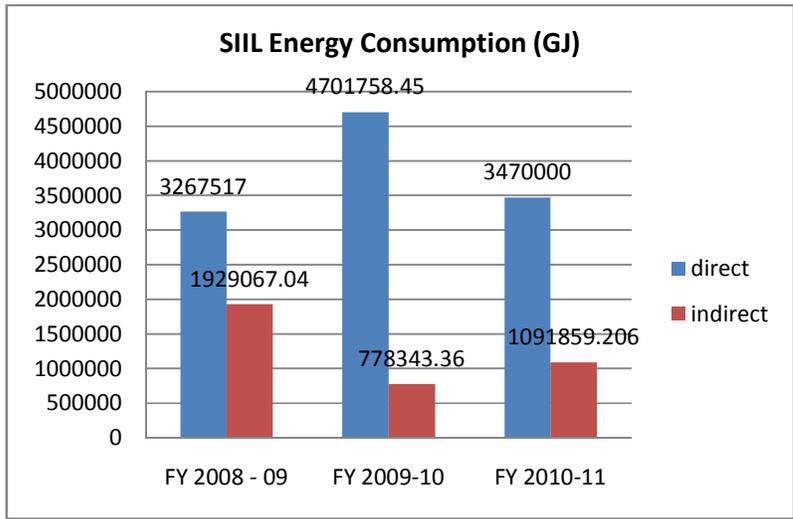
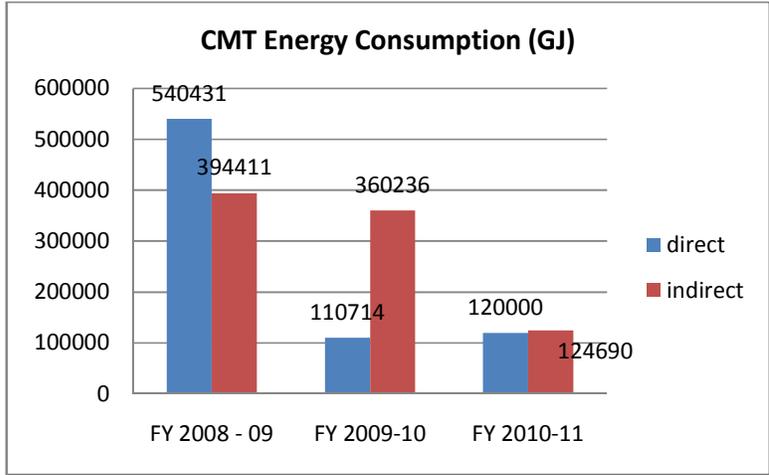
Consumption of Raw Materials at CMT			
Material (in tons)	2008-09	2009-10	2010-11
Raw Materials	23,99,947	21,17,618	19,85,460
Associated Materials	15,405	16,939	14,459
Semi-manufactured goods or parts	1,200	1,200	1,200
Packaging Material	120	120	120

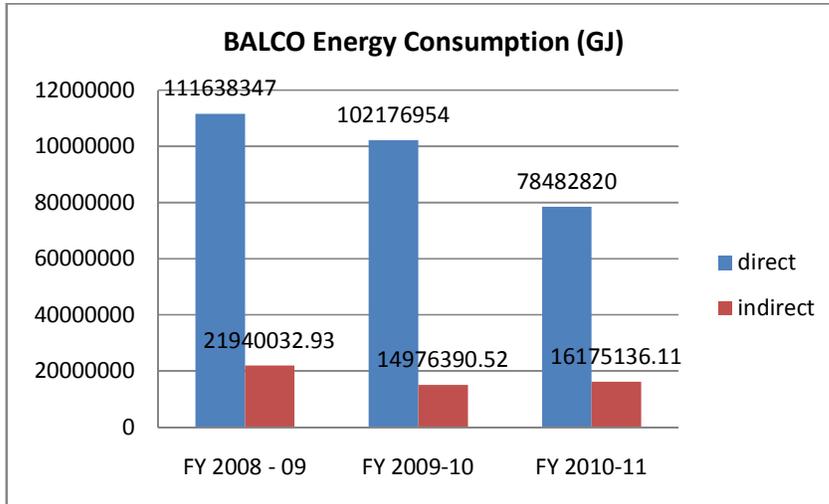
Consumption of Raw Materials at HZL			
Material (in tons)	2008-09	2009-10	2010-11
Raw Materials	1,05,15,369	1,49,77,230	72,70,898
Associated Materials	1,52,853	1,38,616	2,52,325
Semi-manufactured goods or parts	0	0	0
Packaging Material	0	0	0

## Energy Conservation

As a responsible group, we have constantly maintained our focus on optimisation and efficient use of energy. We consider energy as one of the most critical resources as it fuels our day to day activities at all our operations. Energy optimisation helps in reducing the operating costs as well as greenhouse gas emissions. To secure cost effective and continuous energy supply to all our operations; we have been successful in reducing the specific

energy consumption of our mines and smelters consciously through captive power generation efforts over the years.





Specific energy consumption of all units for (2010-11)	
Unit	2010 - 11 (GJ/MT of output)
HZL-Mines	0.44
HZL-Smelters	16.29
BALCO	57.25
SIIL	9.97
CMT	5.55

## Energy Savings

In our endeavour to improve the energy efficiency of our processes, we have implemented few projects such as Installation of Variable Frequency Drives at most sites, optimising lighting efficiency by replacing traditional fittings with metal halide lights, process redesign by automation and retrofitting of equipments at most of sites. These have collectively helped in accruing huge energy and operational cost savings to the company.

Green initiatives such as energy efficient technology at BALCO's aluminium operation and the installation of a new energy-efficient hydrometallurgical plant at our Zinc business; and HZL's investment in renewable energy with six wind farms are a testimony to our dedication. To reduce our indirect energy consumption we are depending on utilizing IT and telephone services in our business to decrease business travels. We have setup video conferencing and telepresence facility at the units of each company, which has reduced employee commutation drastically. Conference call facility is available at all our locations, which is helpful for having smaller

business meetings. We also have bus facilities for mass employee commuting to mines and smelters at all our locations.

Energy savings accrued (in GJ) - 2010-11	
<b>Sterlite Copper</b>	30,868
<b>SEL</b>	76,910
<b>HZL</b>	11,663

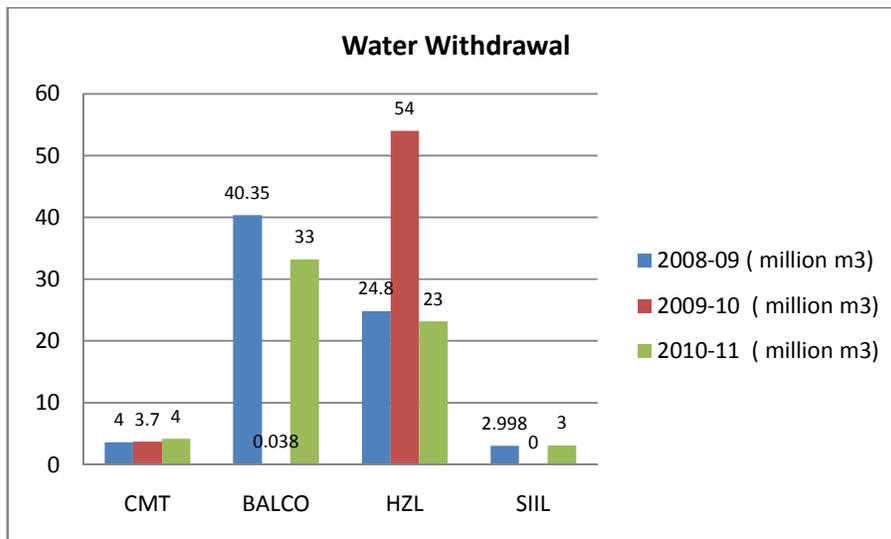
At BALCO reduction in specific energy consumption from 60.52 GJ/MT of Al to 57.25 GJ/MT of Al was achieved owing to initiatives such as;

- Operation of FTP with 3 ID fans - 12 MWH/day
- Rectifier conversion efficiency from 97.96 to 98.19 saving - 18 MWH/day

In the reporting year, HZL has taken various initiatives such as Installation of a new energy-efficient hydrometallurgical plant to reduce energy consumption per ton of product, this result in reduction of specific energy consumption. At smelters the sp. energy consumption has reduced from 24.62 in 2005-06 to 16.29 in 2010-11 translating in reduction of 34% over last five years and at our mines it has reduced from 2.19 in 2005-06 to 2.00 in 2010-11 translating in reduction of 9% over last five years.

## Water Consumption

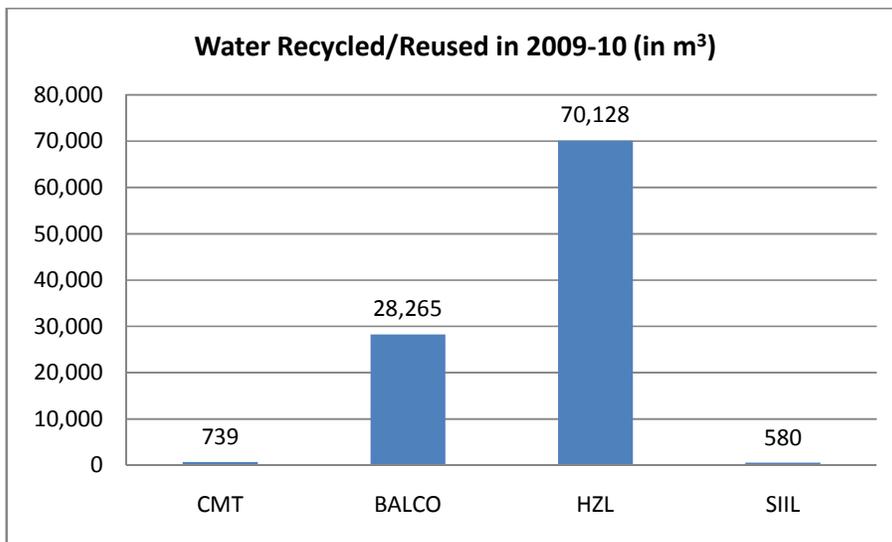
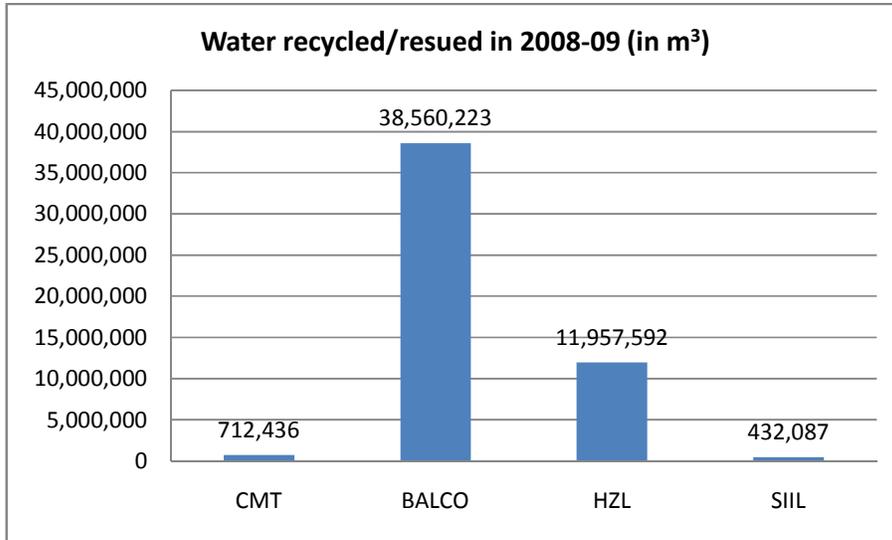
Water over the years has become a scarce commodity. Nationally and internationally, there are many laws protecting water resources. We also believe in playing an important role whole heartedly in this endeavour to conserve water resources that are being used and also those which surround our operations.

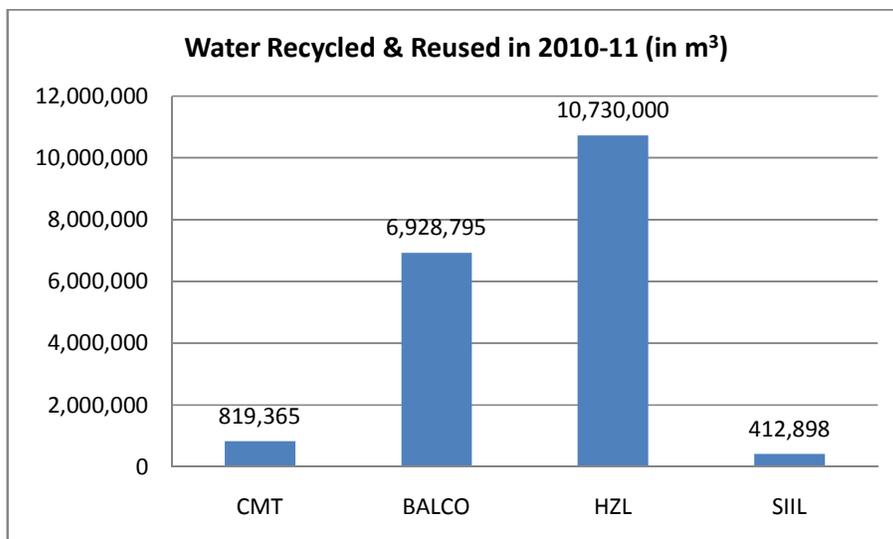


At Sterlite Copper, through two rain water catchment ponds, about 81000 m<sup>3</sup> of rain water was collected in the reservoir and used for Green belt and other process related activities. SEL withdraws water from a surface water resource of an estimated volume/size of around 7780 million m<sup>3</sup>. SEL's operations consume less than 1% of the

water resource annually. BALCO's water withdrawal is around 33145676 m<sup>3</sup> which is around 1 % of the total size of the Reservoir. The source of water withdrawal is Hasdeo Barrage of Hasdeo River. HZL withdraws water from Gosunda Captive Dam, Matrikundia Dam, Tidi Captive Dam and Udaisagar for its operations at its various units. Besides HZL, companies such as Bhushan, Hindalco, ITPS (OPGC), ACC, TRL etc. also withdraw water from the same source. CMT withdraws water from streams located around its mines namely, East Queen River and West Queen River.

The source of water for the operations at HZL, CMT and SEL are in no way threatened by any of our activities.





## Biodiversity

We believe that it is imperative for our business to look into the impact of our operations on our immediate environment and its long term effects on the biodiversity. We have mapped our operations across the Group against key biodiversity areas and national parks. We are also reviewing land management practices in line with the Scott Wilson recommendations for Vedanta Group, to develop Group-level Land Management and Biodiversity Policies. None of our individual companies own any land in protected areas or in areas of high biodiversity value. There are no significant impacts of activities, products and services of any of our operations on Biodiversity rich areas.

In 2009-10, Sterlite Copper approached the Forest Research Institute, Dehradun to study a 10 km radius of the company. As per the FRI report, there are no IUCN red list species in the study area which may be affected by the company's operations. The study also showed that there were no significant impact on the flora and fauna from the activities of Sterlite Copper in the study area. The Tuticorin unit of Sterlite Copper is located at a distance of 20 kms from Gulf of Mannar, which has a protected area status. This year Sterlite Copper initiated a bio diversity conservation project in nearby five villages (Melavittan, South Veerapandiyapuram, Pandarampatti, Saminatham, Vadakusilikanpatti) to conserve the endangered/rich medicinal plants. M/s Arumbugal Trust has been appointed to carry out the same. The company is creating awareness about these medicinal herbs among the village farmers and village people through various demography study and cultural programmes.

At HZL, inactive waste benches are being stabilised and converted into habitats under green cover. There are no national parks, sanctuary or biodiversity rich area within 10 km radius of our operations except at Haridwar Zinc Plant (HZP). Near HZP, there is a Rajaji National park at a distance of 1 km from plant boundary. The operation at HZP involves physical transformation of zinc cathode sheet into zinc ingot without chemical process having negligible impact on environment. All mitigative measures have been taken for effective control of pollution to avoid adverse impact on Rajaji National Park.

CMT targets attaining equivalent biodiversity to adjacent, non-disturbed analogue sites. Flora and fauna surveys, together with biodiversity health measures are developed on site which also helps to assess progress of rehabilitation. Surveys revealed 16 IUCN Red Lists terrestrial species of which 6 of them are endangered, 9 are vulnerable and one is near threatened according to the level of extinction risk. Macquarie Harbour is a world heritage site located close to CMT's operations that

occupy 23.45 sq km of area. Regular weed control programs are in place to conserve the water resource. A major project by the State Government is underway to treat legacy acid drainage, including drainage management and removal of copper from polluted drainage. Regular macro invertebrate sampling of downstream water bodies is conducted to assess impact of operations (tailings storage) hygiene requirements for equipment entering site.

BALCO in association with the State Forest Department has prepared wildlife management plan in the vicinity of its Kawardha (Mining Lease Area: 626.117 Hectares) and Mainpat (Mining Lease Area: 639.169 Hectares) mines. This plan is under implementation through concerned Forest Divisions with the provisions of funds (Rs.300.73 Lakhs) from BALCO over a period of three year.

We continue to develop green-belt in and around our operations with expert botanists and horticulturists engaged across our units. We are committed to conducting Environmental Impact Assessments (EIAs) in the locality around all Greenfield projects in line with international standards. Environmental and social aspects are inter-linked, and environmental consequences may be linked to community resettlement arising from the opening of mining operations, or arising from mine closure. Responsible closure of mines is embedded into the mine planning stages.

## Climate Change

Climate Change is a phenomenon affecting every creature and creation on this planet. Sterlite is therefore committed to reduce its carbon emissions as released by our various operations to minimise the impact which cumulatively contribute to global warming. Becoming energy efficient, conserving water resources by recycling & reusing are some of our sustained efforts in this direction.

Managing greenhouse gas emissions (GHGs) is one of the Group's top-20 material issues. We use the WBCSD-WRI methodology for calculating CO<sub>2</sub> emissions. We are developing an integrated carbon strategy, which is already showing results. For example, we have to date registered four Clean Development Mechanism (CDM) projects, which between them have the potential under the Kyoto Protocol to deliver some 405,000 Certified Emission Reductions (CERs) each year. We are updating the risk management framework for identifying risks and opportunities related to climate change, and are deploying processes to manage them. The GHG inventorisation is done based on GHG protocol; emissions for this year are recorded in the table below.

### GHG Emissions (tonnes of CO<sub>2</sub> eq. per annum)

<b>CMT</b>	<b>2008-09</b>	<b>2009-10</b>	<b>2010-11</b>
<b>DIRECT</b>	10,312	8231	8903
<b>INDIRECT</b>	5,482	83054	4780

<b>BALCO</b>	<b>2008-09</b>	<b>2009-10</b>	<b>2010-11</b>
<b>DIRECT</b>	9,000,000	10365600	81,90,469
<b>INDIRECT</b>	0	817	589

<b>HZL</b>	<b>2008-09</b>	<b>2009-10</b>	<b>2010-11</b>
<b>DIRECT</b>	3070652	3104390	37,23,069
<b>INDIRECT</b>	759946	2308868	4,22,750

<b>SIIL</b>	<b>2008-09</b>	<b>2009-10</b>	<b>2010-11</b>
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<b>DIRECT</b>	310994	3,71,999.23	320,511
<b>INDIRECT</b>	148283	1,77,700.43	278585.4

We have identified a number of investment opportunities across our businesses, including:

- Current Group investments in new wind-farms which will have a total generation capacity of 150MW, in addition to our wind-farms with existing capacity of 123.2MW
- A total of 57MW from waste heat recovery power plants based at HZL and the copper smelter at Tuticorin (Sterlite Copper Unit).
- At BALCO:
  - a. Phasing out of VSS technology to PFPB- Host country approval has been obtained, UNFCC approval in process. This has lead to an estimated CO<sub>2</sub> equivalent of 7,05,261
  - b. PFC reduction by advanced technology (Fuse technology, online cut off, Slotted anodes, AE detection, intelligent breakers)- Host country approval in process. This has lead to an estimated CO<sub>2</sub> equivalent of 1,10,000
- At HZL: The focus in on energy reduction and installation of Wind Power plants. This year 47.7 MW of wind power plant has been installed taking overall HZL wind power capacity to 170.9 MW. Presently our three CDM projects are registered with UNFCC and three other are under pipeline. During this year, we have sold 1, 34,138 CERs of our CDM projects generating revenues of INR 9.76 crores.

## Ozone-Depleting Substances (ODS)

Sterlite Industries is committed to support the legally binding protocol of Montreal to which India is a party. The air conditioners in the office areas at Sterlite Copper release approximately 0.85 tonnes of ODS which comprise of Freon M-22 and Freon R-122. All other equipments used in the company have phased out ODS containing or emitting substances, except the air conditioning systems. We are in a process to slowly replace them with alternative cooling solutions. Total ODS comprising primarily of R-22, R-134, R-407C, released by HZL operations amounts to 0.0477 MT R-11 equivalents. SEL and CMT have phased out ODS containing or emitting substances and hence recorded zero emissions.

## Emissions & Effluents

All manufacturing units across the globe face a challenge of controlling their airborne emissions. But with latest technologies, it is relatively easier to measure and control these emissions. With constant monitoring, we have been able to maintain the air emissions within the standard limits set by regulatory bodies.

### Emissions of SPM, SO<sub>x</sub>, NO<sub>x</sub>, VOC

<b>CMT Tons/Yr</b>	<b>2008-09</b>	<b>2009-10</b>	<b>2010-11</b>
<b>SPM</b>	170	163	163
<b>SO<sub>x</sub></b>	12	13	13

<b>NO<sub>x</sub></b>	0	124	124
<b>VOC</b>	0	9	9

<b>BALCO Tons/Yr</b>	<b>2008-09</b>	<b>2009-10</b>	<b>2010-11</b>
<b>SPM</b>	2478	2302	2144
<b>SO<sub>x</sub></b>	55506	51933	54220
<b>F</b>	0	0	3

<b>HZL Tons/Yr</b>	<b>2008-09</b>	<b>2009-10</b>	<b>2010-11</b>
<b>SPM</b>	714	993	1130
<b>SO<sub>x</sub></b>	1555	1647	9070
<b>NO<sub>x</sub></b>	0	89	1334
<b>LEAD</b>	0	0	25

<b>SIIL Tons/Yr</b>	<b>2008-09</b>	<b>2009-10</b>	<b>2010-11</b>
<b>SPM</b>	147	156	0
<b>SO<sub>x</sub></b>	594	733	1140
<b>Flouride (KG/T of Phosphoric Acid)</b>	0.040	0.037	0.038
<b>NO<sub>x</sub></b>	617	653	565

BALCO reduced its emission levels in power plants from 8602 tonne of FY 2009-10 to 7526 tonne in FY 2010-11 due to following initiatives:

- Installation of Hybrid bag filter Unit #2 of CPP 540 MW
- ESP modification in Unit #1 of CPP 270 MW

### **Effluents**

All our major units are zero discharge plants where all treated wastewater is reused or recycled. Wastewater is properly treated before discharge. Treated waste water quality is within statutory prescribed norms. Sterlite Copper recycles and reuses 15.224% of the total water consumed in operations. Waste water is treated and recycled back to slag granulation, lime preparation and gas cleaning plant. The remaining blow down and wash water is recycled to the process without any treatment. Hence, there is no discharge of water. SEL does not have any effluent discharge.

At HZL, only Vizag Zinc smelter (VZS) discharges annually 112554 m<sup>3</sup> of treated effluent outside its premises into the sea through Mehadrigedda Surplus Canal. Rest all plants are Zero Discharge units. BALCO discharged 9624288 m<sup>3</sup> of treated effluent into a drainage (Danganiyakhar Nallah), a nearby surface water source. This nallah ultimately gets merged into the Hasdeo River and thus the volume of discharge is not a significant value. All the treated effluents released from HZL and BALCO follow the national effluent discharge standards as applicable.

CMT discharged 27546 ML of treated effluents into Queen River, Haulage and Princess Creek in the reporting period.

<b>TOTAL WATER DISCHARGED (in m<sup>3</sup>)</b>			
COMPANY	2008-09	2009-10	2010-11
CMT	23120390	26,562,640	27500000
BALCO	1790880	1415	9624288
HZL* (from VZS)	0	63540	112554
SIIL	0	0	0

\*All other sites are maintaining zero discharge

## Waste Management

Sterlite Industries is committed to seeking opportunities to prevent or minimise waste generation and constantly to improve waste reuse and recycling. Our operations generate both hazardous and non-hazardous wastes, including mine overburden, tailings, slag, red mud, jarosite, fly ash, gypsum and process residues from smelters. Wastes generated from our processes is categorised into hazardous or non-hazardous wastes depending upon their characteristics. BALCO's 5012 MT Spent Pot Lining (Hazardous Waste) was sold to a registered Cement Company for co-processing, which otherwise would have been disposed off in the Secured Landfill.

Most of the generated overburden is used in secondary construction work like raising tailing dam heights, and the remainder is disposed of in a systematic manner. Some tailings are used for mine back filling and the remainder disposed of in tailing dams constructed especially for the purpose. In our business, the waste produced at smelter plants, including slag and red mud, is also used in road construction and cement manufacturing, while fly ash generated is used in cement production, brick manufacturing and other secondary construction. To this end, during 2010-11 around 1.86 million tonnes of fly ash and 0.994 million tonnes of slag were used in cement manufacturing and road construction.

In the reporting period, waste deemed hazardous under the Basel Convention has neither been imported nor exported internationally. All the hazardous wastes are disposed off in secured landfill designed based on Central Pollution Control Board guidelines. The non-hazardous wastes namely, copper slag, gypsum and lime grit have found commercial value and are selling them for monetary gains. We are reviewing our environmental incident reporting process and will report in greater detail in 2012.

Types of Waste	Hazardous Waste (MT)		Non Hazardous Solid Waste (MT)	
	SOLID	LIQUID	SOLID	LIQUID
<b>CMT</b>				
<b>2008-09</b>	2362733	179784	121	0
<b>2009-10</b>	115	99387	0	0

<b>2010-11</b>	2070387	132732	171	0
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Types of Waste	Hazardous Waste (MT)		Non Hazardous Solid Waste (MT)	
	SOLID	LIQUID	SOLID	LIQUID
<b>BALCO</b>				
<b>2008-09</b>	3850	132	2565074	0
<b>2009-10</b>	6665	44	2167508	0
<b>2010-11</b>	4926	62	2405641	0

Types of Waste	Hazardous Waste (MT)		Non Hazardous Solid Waste (MT)	
	SOLID	LIQUID	SOLID	LIQUID
<b>HZL</b>				
<b>2008-09</b>	409968	345	513489	0
<b>2009-10</b>	392621	473	394620	0
<b>2010-11</b>	534379	759	82949270	0

Types of Waste	Hazardous Waste (MT)		Non Hazardous Solid Waste (MT)	
	SOLID	LIQUID	SOLID	LIQUID
<b>SIIL</b>				
<b>2008-09</b>	75383	1081	1425264	0
<b>2009-10</b>	85997	641	1612753	0
<b>2010-11</b>	51487	0	1486841	0

## Product Responsibility

As India's largest non-ferrous metals and mining company, we use negligible packaging material due to nature of our product. Hence, impact due to packaging is negligible. 29 of 33 major operations are certified to OHSAS 18001. Remaining units of HZL, BALCO & CMT have planned to get certification in FY 2012. We are cataloguing specific initiatives and will report in more detail in the future. However, there are certain by-products such as sulphuric acid, phosphoric acid and hydrofluorosilicic acid which are also produced and sold for outside applications.

## Spillage

COMPANY	DESCRIPTION	CMT	BALCO	HZL	SIIL
2008-09	NO. OF SPILLS	1	0	1	1
	VOLUME OF SPILLS	55 m <sup>3</sup>	0	6 m <sup>3</sup>	30 Tons
2009-10	NO. OF SPILLS	22	0	0	0
	VOLUME OF SPILLS	738 m <sup>3</sup>	0	0	0
2010-11	NO. OF SPILLS	8	0	0	0
	VOLUME OF SPILLS	1517 m <sup>3</sup>	0	0	0

During production, storage and transportation all standard operating procedures are being followed. At Sterlite Copper, emergency scenarios such as any leaks/spillages are either controlled by following the Emergency Preparedness and Response Plan (EPRP), made available at site. Also during the transportation of such acids, care is taken to educate the drivers/transporters on the emergency instructions to be followed in line with the Transport Emergency (TREM) card issued to all of them. We also have a thorough system of checks of tankers through competent persons to avoid any spillages/leakage during transportation. This helped us to prevent any spillages or leakages in the reporting period.

CMT & SEL operations do not require any packaging materials. BALCO uses packaging materials like steel strip, HDPE bags, and wooden frames. Packaging materials used by BALCO have no significant impact as they are properly collected & sold.

During the reporting period, there have been no incidents of spillages reported at SEL, HZL & BALCO. CMT reported 8 spills of 1517 m<sup>3</sup> volume. The cleaning work at CMT for the spills was completed. We are improving our incident reporting across the group and will report more significantly for 2012.

All our operations ensure that all the customer related interaction, data and sensitive information is secured. During the reporting period, there have been no incidents reported on loss or breach of customer data and its privacy.

Sterlite Copper carried out a LCA study to estimate environmental impacts of their process. In this study, the focus was on copper manufacturing within the scope of study - starting from transportation of copper concentrate from port to production of cathode rods. The Test Certificates given to the customers comprises information on physical dimensions and chemical compositions of the products being sold to them. Entire manufacturing cycle at the operations is assessed for its health and safety aspects and various improvements are done in systematic manner to achieve excellence in health and safety performance. Similar life cycle assessment studies will be carried out at HZL, BALCO and CMT.

Our product movements to consumers take place through sea, rail and roadways. Standard process is followed for all activities ensuring complete protection to product and environment. We are studying the total fuel used under project 'scope-3' CO<sub>2</sub> equivalent. SEL and BALCO's activities lead to Air Pollution due to generation of pollutants such as RSPM, CO & oxides of Nitrogen. CMT's activities may cause some spillages during transport, loading & unloading, most of which has been elaborated above. However, the impact is insignificant owing to emissions being released within the prescribed national norms.

At HZL, Zinc and Lead ingot are transported in truck with tarpaulin cover. Zinc and lead in metal form do not possess any threat on environment and are non reactive with air and water. Sterlite Copper's by-product sulphuric acid is transported in dedicated acid tanker.

At Sterlite Copper, an in-house system is in place, to ensure the safe loading and transportation of acid from our premises. Regular meetings are done with transporters for continuous improvement in acid loading and transportation system. Safety protocols are followed and proper training is provided for handling, and material safety data sheets are issued to transporters and customers for safe usage. All products are diligently tested to ensure conformity with the relevant / grade product standards. Further, product labeling / identification practices and production log book records enable us to relate the customer feedback with our production process and help us in improvisation wherever required.

## Compliance

To ensure regulatory compliance, we have a robust system in place, with monthly updates to the senior management team. During the reporting year, none of the companies under Sterlite Industries were subjected to any legal actions for anti-competitive behaviour, anti-trust, and monopoly practices. During the reporting period

there were no monetary or non monetary fines/penalties on us from any statutory body.

Since, our products do not require any advertising and marketing promotions, there have been no incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes. There have been no incidents of non-compliance with regulations and voluntary codes concerning product and service information and labelling.

## Environmental Expenditure

We have a dedicated budget for environment related expenditure primarily to fuel our requirements to maintain standards and to follow regulatory norms while being sustainable. We assess the expenditure based on environmental cost accounting (ECA) under the UNEP guidelines since the last two reporting years.

Environmental Expenditure (in Rs)			
Company	2008-09	2009-10	2010-11
BALCO	211,818,009	317,441,000	203,133,239
CMT	50,779,500	52,723,370	32,051,181
HZL	255,737,270	3,270,486,222	592,116,875
SIIL	823,420,974	1,033,446,000	18,978,910

## CASE STUDIES

### Safety System and Training

#### Safety system strengthening at BALCO

In 2010-11, BALCO undertook an in-depth review of its safety systems that resulted in significant strengthening of practices aimed at protecting its workforce. Alongside a focused safety training communication programme and an emergency plan rehearsal, this included hi-tech solutions such as a new system to reduce the risks involved with maintenance through lock out and tag out failsafe electrical isolation of any equipment are being worked on. The Company also introduced a new 'real-time' online safety portal, for the self-reporting of hazards, near misses and accidents. This has proven highly effective in streamlining the health and safety event management process and improving the visibility of key data.

#### Improved focus

Not all the Company's new solutions were technological; however, it also strengthened its work permit processes and revisited its safety scorecard to improve its focus on performance parameters. Under this initiative, the scorecard was separated into results-based and audit-based sections, which will both increase awareness of safety issues and inspire competition between departments to excel.

In addition, BALCO has installed reflective signage across its plant, including the prominent display of the Company's inviolable safety rules. This was audited by independent third party experts.

### Occupational Health

#### Health initiatives taken for port employees

On behalf of Sterlite Copper, the logistics department along with the HSE team successfully conducted the 'General Health Camp' at Tuticorin Port Trust on 9th March 2010. This Health camp was conducted as a part of the 'Safety Week Celebration' organized by the Port. The focus group of this camp was the truck drivers, cleaners

and Port employees. Totally 125 persons participated in the camp and benefitted by this Health camp.

## Energy Conservation

### LNG Storage and Regasification Facility at Silvassa

Liquefied natural gas, or LNG, is natural gas that has been super cooled to minus 162 degrees Celsius. At that temperature, natural gas condenses into a liquid with an energy density of approx 51.5 MBTU per MT.

Earlier the Silvassa unit was dependent on LPG as fuel although we were looking for a more economical but equally pure replacement fuel. This propelled our initiative for setting up of a LNG Storage and regasification facility at Silvassa. The project has been successfully commissioned and officially inaugurated in February 2011.

LNG is being supplied by M/s IOCL, using special cryogenic tankers from source location Dahej, Gujarat and stored in our cryogenic storage vessel at Chinchpada, and when required, the liquid will be fed into ambient vaporiser to provide natural gas to the final line regulator and then to the point of use.

This is the first of such facility in Vedanta and third in India. The fuel switch over from LPG to LNG has given an edge to Rod plant of Chinchpada to substantially reduce the cost of production by about Rs .800/MT.

## Water Consumption

### Mobile RO System for Better Monsoon Management

Two Reverse Osmosis plants were already in operation in Sterlite Copper to manage the utility waste water and ETP treated water. To manage the rain water during heavy rain, Sterlite Copper decided to set up a mobile RO as per CPCB guidelines. A new RO plant was set up with a state of art technology from GE water solutions. The rain water collected in the rain water catchment pond were completely treated and reused in SAP cooling tower. This plant will help us to manage any heavy rain fall during monsoon season to maintain zero discharge.

Initiatives to conserve water resources

Several projects were initiated at our individual companies, during the year to reduce specific water consumption. 126 projects were completed during the year with an estimated potential saving of 19,167 cum/day. The major initiatives undertaken include:

#### **At Hindustan Zinc Limited:**

- Reduced evaporation losses by using evaporation retardant chemicals at open water storage ponds, Tidi dam and over tailing dam at all the mines and smelters.
- Use of dust suppression chemical on haul roads at Rampura Agucha has reduced water consumption as well as improved working conditions due to reduction of dust load. The tailing generated at mines during beneficiation process is transported to the tailing dam in slurry form through pipe lines. The water which gets stored in tailing dam is then reclaimed and is recycled back in the processes. In 2010-11, the reuse of tailing dam reclaimed water was increased at all the mines.
- Existing water pressing filters at Rampura Agucha have been replaced with air pressing filters.
- To further improve process water recovery, a paste thickener (deep cone thickener) has been constructed at Rampura Agucha.

#### **At Sterlite Copper:**

- To manage the rain water during heavy rain, Sterlite Copper set up a mobile reverse osmosis plant. The rain water collected in the rain water catchment pond were completely treated and reused in cooling tower. This plant will help to manage any heavy rain fall during monsoon season to maintain zero discharge.

#### **At BALCO:**

- In its sustained efforts to reduce water consumption during production & use, BALCO adopted few measure as listed below which resulted in reduction in Specific water consumption from 14.17 m<sup>3</sup>/MT of Al to 7.18 m<sup>3</sup>/MT of Al;
  - i. Arresting of leakages
  - ii. Regular maintenance and audit of Hydrant lines
  - iii. Stoppage/closure of unnecessary taps

## **Waste Management**

### **Innovative use of waste drives road construction breakthrough**

Jarosite is the waste generated from purification and refinement of Zinc. Jarosite is essentially a basic hydrous sulphate of potassium and iron. Jarosite mixed with lime and cement using proprietary technology from the Canadian Electrolyte Zinc Company, it forms a hard, compact and inert substance called 'Jarofix'.

Earlier HZL had disposed of jarosite in a special facility. The Company's team at Chanderiya site partnered with the Central Road Research Institute at New Delhi to identify a positive and productive use for jarosite.

Following meticulous research efforts resulted in the breakthrough discovery that Jarofix can be used in certain aspects of road construction. HZL sought and received approval to undertake a two-year pilot project from the Indian Road Congress and the Rajasthan State Pollution Control Board. The Company constructed 200 metres of road near its Chanderiya smelter. The early indications of its practical and environmental performance are highly favourable, as it reduced consumption of natural resources, disposal space freed up for positive uses and eradication of an environmental liability.

### **Sterlite Copper - Copper Slag, a Business Opportunity**

Copper slag also known as Ferro sand is generated during pyro-metallurgical process involved in production of copper from copper concentrate. For every ton of metal production approximately 1.8-2.2 tons of slag is generated. This material is completely inert, non-toxic and non-leachable in nature. The same has been confirmed through various technical studies done by reputed CSIR labs in India. Studies and international practices reveals that material possess several properties which can enable its gainful utilization in various construction related activities. The material possesses properties very similar to river sand and therefore can be utilized as a replacement of sand in concrete application. This in turn will result in a sustainable model, as natural resources like sand are under tremendous pressure due to over exploitation, thereby resulting in environmental damages.

Having an alternative material i.e. copper slag, which is an industrial by product and available in sufficient quantity can reflect wonderful example of industrial ecology (Waste of one industry acts a raw material of other industry). Year round availability and at a cheaper price makes it economically beneficial for construction industry. Several trial runs have been successfully carried out to demonstrate its utility in concrete applications. Sterlite Copper is hoping a big return from this material in years to come.

The company obtained an accreditation for copper slag from Indian Roads Congress for the commercial

application and sale of the material following successful trials. The certificate of accreditation is can be seen alongside.

Copper slag is being utilised for cement manufacturing, road construction, paver blocks manufacturing, abrasive and landfilling applications. A 0.4 KM road has been constructed in NH 45B by using copper slag in various layers of the road. A policy letter issued M/s NHAI on utilization of copper slag as road construction material holds testimony of slag utility in various applications. In addition, company has recently constructed entire walkway inside the plant using pavers covering an area 2464 Sq mts made from copper slag. Their abrasion resistance property, due to presence of iron as a key component, gives it an advantage over its peers in paver's application. Company is in the process of tying with several paver manufacturers for promoting its pavers application. In nut shell, this material has all the potential of turning into an environmental and economic sustainable model for company in the future and company stands committed to make it a success.

## Our Partners

### Sustainable Procurement - Our Approach

At Sterlite, we consider Vendors and Suppliers as business partners who play a crucial role in our journey of Sustainability. We believe that our growth depends on the strength of relationships built with business partners. Therefore, we make regular investments in forging long-term associations with our vendors. These partnerships are based on transparency, communication, trust and safety towards building sustainable growth.

### Transparent Procurement Policy

We have a standard procurement policy which is fair and we give preference to vendors and suppliers who conform to our requirements and parameters as set within the group's HSE & HR policies.

Most of the supplies needed to operate the mines and smelters are secured through expression of interest ('EOI'), a transparent procurement process giving ample opportunity to new participants and ensure that we are not materially dependent on any single vendor leading to increased risks.

### Contractor Health and Safety

We have no higher priority than the safety of our employees as well as contractors. To ensure the same we have safety experts carry out internal and external audits at all locations to suggest how technology, processes and behavioural safety can all be achieved amongst employees and contract labour on our sites.

### Code of Conduct

Our Code of Conduct also commits us to operating in compliance with all laws and regulations including the protection of all employees' rights. Indeed, we practise zero tolerance of any violation of labour and human rights, and are in the process of developing a training programme on the subject. We are also currently introducing our Code of Conduct to suppliers on a phased basis. Our contract terms and conditions insist on compliance with respect to payment of minimum wages, the Contract Labour (Regulation and Abolition) Act, the Workmen's Compensation Act and other relevant acts in India.

We strictly prohibit the use of child labour among our operations or those of our contractors. There were no instances of child labour during the year that came to the Group's attention. We check the identification papers of our contractor employees which give their date of birth.

## Case Studies

### Checks and balances - Safe Bulk Material Movement at Sterlite Copper

There are roughly 200 trucks carrying bulk materials from the port to SIIIL premises and, transporting finished good and products. We have hired a third party, viz., M/s SGS (India) Pvt Ltd for surveying and certifying safe movement of bulk materials. For safe movement and handling of , we use MS and SS tanks to cater to the domestic market. The acid tanks are monitored regularly by the surveyor viz., M/s SGS (India) Pvt Ltd, for checking the thickness of the tank, fitness of the valves and other vital parts of the acid transportation tanks, thickness mapping, tank denting etc. Depending on the age and physical condition of the tank, the periodicity of the checkups is being carried out. Hence, the year of manufacturing and frequent usage of the tank are considered as a basis for verification and survey intervals and repetitions.

## Collaborative Partnership - Vendor Meet at Sterlite

Sterlite organised the Vendor Meet 2011 at Le Meridian Chennai in the month of February, which witnessed 228 business partners participating from across India. The event was a collaborative platform for the vendors and the company's senior management. The occasion was graced by the presence of Mr. Ramesh Nair, COO - SILL and other members of the senior management team. The stage was set to launch the e-initiative SRM 7.0, developed by M/s. Accenture. Achievement awards were given to the best performers, fascinated the fervent vendors, who have contributed for SILL's world class standing in the metal market.

# GRI-INDEX G 3.1

## G3.1 Content Index

Application Level

A

### STANDARD DISCLOSURES PART I: Profile Disclosures

#### 1. Strategy and Analysis

Profile Disclosure	Description	Reported	Cross-reference/Direct answer
1.1	Statement from the most senior decision-maker of the organization.	Fully	3
1.2	Description of key impacts, risks, and opportunities.	Fully	Pages 34-39 of Sterlite Annual Report

#### 2. Organizational Profile

Profile Disclosure	Description	Reported	Cross-reference/Direct answer
2.1	Name of the organization.	Fully	4
2.2	Primary brands, products, and/or services.	Fully	6
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.	Fully	4
2.4	Location of organization's headquarters.	Fully	85
2.5	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.	Fully	6
2.6	Nature of ownership and legal form.	Fully	4
2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).	Fully	8
2.8	Scale of the reporting organization.	Fully	4
2.9	Significant changes during the reporting period regarding size, structure, or ownership.	Fully	3
2.1	Awards received in the reporting period.	Fully	11

#### 3. Report Parameters

Profile Disclosure	Description	Reported	Cross-reference/Direct answer
3.1	Reporting period (e.g., fiscal/calendar year) for information provided.	Fully	19
3.2	Date of most recent previous report (if any).	Fully	20
3.3	Reporting cycle (annual, biennial, etc.)	Fully	19
3.4	Contact point for questions regarding the report or its contents.	Fully	86

3.5	Process for defining report content.	Fully	19
3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers). See GRI Boundary Protocol for further guidance.	Fully	20
3.7	State any specific limitations on the scope or boundary of the report (see completeness principle for explanation of scope).	Fully	20
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations.	Fully	6
3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report. Explain any decisions not to apply, or to substantially diverge from, the GRI Indicator Protocols.	Fully	19
3.1	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g., mergers/acquisitions, change of base years/periods, nature of business, measurement methods).	Fully	20
3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.	Fully	20
3.12	Table identifying the location of the Standard Disclosures in the report.	Fully	68
3.13	Policy and current practice with regard to seeking external assurance for the report.	Not	Not applicable
<b>4. Governance, Commitments, and Engagement</b>			
Profile Disclosure	Description	Reported	Cross-reference/Direct answer
4.1	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight.	Partially	13
4.2	Indicate whether the Chair of the highest governance body is also an executive officer.	Fully	12

4.3	For organizations that have a unitary board structure, state the number and gender of members of the highest governance body that are independent and/or non-executive members.	Fully	12
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	Fully	12
4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and environmental performance).	Fully	12
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	Fully	12
4.7	Process for determining the composition, qualifications, and expertise of the members of the highest governance body and its committees, including any consideration of gender and other indicators of diversity.	Fully	12
4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.	Fully	4
4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.	Fully	12
4.1	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.	Fully	12
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization.	Fully	19
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.	Fully	19
4.14	List of stakeholder groups engaged by the organization.	Fully	20

4.15	Basis for identification and selection of stakeholders with whom to engage.	Fully	20
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	Fully	20
4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting.	Fully	22
<b>STANDARD DISCLOSURES PART II: Disclosures on Management Approach (DMAs)</b>			
G3 DMA	Description	Reported	Cross-reference/Direct answer
DMA EC	Disclosure on Management Approach EC	Fully	19
Aspects	Economic performance	Fully	16
	Market presence	Fully	8
	Indirect economic impacts	Fully	34
DMA EN	Disclosure on Management Approach EN	Fully	46
Aspects	Materials	Fully	50
	Energy	Fully	51
	Water	Fully	54
	Biodiversity	Fully	56
	Emissions, effluents and waste	Fully	58
	Products and services	Fully	6
	Compliance	Fully	61
	Transport	Fully	61
	Overall	Fully	50
DMA LA	Disclosure on Management Approach LA	Fully	19
Aspects	Employment	Fully	23
	Labor/management relations	Fully	32
	Occupational health and safety	Fully	46
	Training and education	Fully	30
	Diversity and equal opportunity	Fully	23
	Equal remuneration for women and men	Fully	23
DMA HR	Disclosure on Management Approach HR	Fully	19
Aspects	Investment and procurement practices	Fully	67
	Non-discrimination	Fully	23
	Freedom of association and collective bargaining	Fully	32
	Child labor	Fully	31

	Prevention of forced and compulsory labor	Fully	31
	Security practices	Fully	29
	Indigenous rights	Fully	34
	Assessment	Fully	31
	Remediation	Fully	31
DMA SO	Disclosure on Management Approach SO	Fully	34
Aspects	Local communities	Fully	34
	Corruption	Fully	32
	Public policy	Fully	16
	Anti-competitive behavior	Fully	61
	Compliance	Fully	61
DMA PR	Disclosure on Management Approach PR	Fully	61
Aspects	Customer health and safety	Fully	61
	Product and service labelling	Fully	61
	Marketing communications	Fully	61
	Customer privacy	Fully	61
	Compliance	Fully	61
<b>STANDARD DISCLOSURES PART III: Performance Indicators</b>			
Economic			
Performance Indicator	Description	Reported	Cross-reference/Direct answer
<b>Economic performance</b>			
EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.	Fully	16
EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change.	Fully	57
EC3	Coverage of the organization's defined benefit plan obligations.	Fully	16
EC4	Significant financial assistance received from government.	Fully	16
<b>Market presence</b>			
EC5	Range of ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation.	Fully	23
EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.	Partially	67

EC7	Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation.	Fully	26
<b>Indirect economic impacts</b>			
EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.	Fully	17
EC9	Understanding and describing significant indirect economic impacts, including the extent of impacts.	Fully	34
<b>Environmental</b>			
Performance Indicator	Description	Reported	Cross-reference/Direct answer
<b>Materials</b>			
EN1	Materials used by weight or volume.	Fully	50
EN2	Percentage of materials used that are recycled input materials.	Fully	50
<b>Energy</b>			
EN3	Direct energy consumption by primary energy source.	Fully	51
EN4	Indirect energy consumption by primary source.	Fully	51
EN5	Energy saved due to conservation and efficiency improvements.	Fully	53
EN6	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.	Fully	53
EN7	Initiatives to reduce indirect energy consumption and reductions achieved.	Fully	53
<b>Water</b>			
EN8	Total water withdrawal by source.	Fully	54
EN9	Water sources significantly affected by withdrawal of water.	Fully	54
EN10	Percentage and total volume of water recycled and reused.	Fully	54
<b>Biodiversity</b>			
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	Fully	56
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	Fully	56

MM1	Amount of land (owned or leased, and managed for production activities or extractive use) disturbed or rehabilitated.	partially	56
EN13	Habitats protected or restored.	Fully	56
EN14	Strategies, current actions, and future plans for managing impacts on biodiversity.	Fully	56
MM2	The number and percentage of total sites identified as requiring biodiversity management plans according to stated criteria, and the number (percentage) of those sites with plans in place.	Fully	56
EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.	Fully	56
<b>Emissions, effluents and waste</b>			
EN16	Total direct and indirect greenhouse gas emissions by weight.	Fully	57
EN17	Other relevant indirect greenhouse gas emissions by weight.	Not	Not Applicable
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.	Fully	57
EN19	Emissions of ozone-depleting substances by weight.	Fully	58
EN20	NOx, SOx, and other significant air emissions by type and weight.	Fully	58
EN21	Total water discharge by quality and destination.	Fully	59
EN22	Total weight of waste by type and disposal method.	Fully	60
MM3	Total amounts of overburden, rock, tailings, and sludges and their associated risks.	Fully	60
EN23	Total number and volume of significant spills.	Fully	61
EN24	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally.	Fully	60
EN25	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff.	Fully	59
<b>Products and services</b>			
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	Fully	63- 66

EN27	Percentage of products sold and their packaging materials that are reclaimed by category.	Fully	50
<b>Compliance</b>			
EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.	Fully	62
<b>Transport</b>			
EN29	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.	Fully	61
Overall			
EN30	Total environmental protection expenditures and investments by type.	Fully	63
<b>Social: Labor Practices and Decent Work</b>			
Performance Indicator	Description	Reported	Cross-reference/Direct answer
<b>Employment</b>			
LA1	Total workforce by employment type, employment contract, and region, broken down by gender.	Fully	24
LA2	Total number and rate of new employee hires and employee turnover by age group, gender, and region.	Fully	28
LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.	Fully	25
LA15	Return to work and retention rates after parental leave, by gender.	Fully	25
<b>Labor/management relations</b>			
LA4	Percentage of employees covered by collective bargaining agreements.	Fully	32
LA5	Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements.	Fully	32
MM4	Number of strikes and lock-outs exceeding one week's duration, by country.	Fully	32
<b>Occupational health and safety</b>			
LA6	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs.	Fully	48

LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region and by gender.	Partially	46
LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	Fully	49
LA9	Health and safety topics covered in formal agreements with trade unions.	Fully	48
<b>Training and education</b>			
LA10	Average hours of training per year per employee by gender, and by employee category.	Partially	47
LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	Fully	30
LA12	Percentage of employees receiving regular performance and career development reviews, by gender.	Fully	25
<b>Diversity and equal opportunity</b>			
LA13	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity.	Partially	24
<b>Equal remuneration for women and men</b>			
LA14	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation.	Fully	23
<b>Social: Human Rights</b>			
Performance Indicator	Description	Reported	Cross-reference/Direct answer
<b>Investment and procurement practices</b>			
HR1	Percentage and total number of significant investment agreements and contracts that include clauses incorporating human rights concerns, or that have undergone human rights screening.	Partially	31
HR2	Percentage of significant suppliers, contractors and other business partners that have undergone human rights screening, and actions taken.	Partially	31

HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.	Partially	31
<b>Non-discrimination</b>			
HR4	Total number of incidents of discrimination and corrective actions taken.	Fully	32
<b>Freedom of association and collective bargaining</b>			
HR5	Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights.	Fully	31
<b>Child labor</b>			
HR6	Operations and significant suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor.	Fully	23
<b>Forced and compulsory labor</b>			
HR7	Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor.	Partially	23
<b>Security practices</b>			
HR8	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.	Partially	29
<b>Indigenous rights</b>			
MM5	Total number of operations taking place in or adjacent to Indigenous Peoples' territories, and number and percentage of operations or sites where there are formal agreements with Indigenous Peoples' communities.	Fully	34
HR9	Total number of incidents of violations involving rights of indigenous people and actions taken.	Fully	34
<b>Assessment</b>			
HR10	Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments.	Partially	31
<b>Remediation</b>			

HR11	Number of grievances related to human rights filed, addressed and resolved through formal grievance mechanisms.	Partially	31
<b>Social: Society</b>			
Performance Indicator	Description	Reported	Cross-reference/Direct answer
<b>Local communities</b>			
SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs.	Fully	34
MM6	Number and description of significant disputes relating to land use, customary rights of local communities and Indigenous Peoples.	Fully	34
MM7	The extent to which grievance mechanisms were used to resolve disputes relating to land use, customary rights of local communities and Indigenous Peoples, and the outcomes.	Fully	34
<b>Artisanal and small-scale mining</b>			
MM8	Number (and percentage) or company operating sites where artisanal and small-scale mining (ASM) takes place on, or adjacent to, the site; the associated risks and the actions taken to manage and mitigate these risks.	Not	Not Applicable
<b>Resettlement</b>			
MM9	Sites where resettlements took place, the number of households resettled in each, and how their livelihoods were affected in the process.	Not	No resettlements for 2010-11
<b>Closure planning</b>			
MM10	Number and percentage of operations with closure plans.	Partially	56
SO9	Operations with significant potential or actual negative impacts on local communities.	Fully	34
SO10	Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities.	Fully	34
<b>Corruption</b>			
SO2	Percentage and total number of business units analyzed for risks related to corruption.	Partially	32
SO3	Percentage of employees trained in organization's anti-corruption policies and procedures.	Fully	32
SO4	Actions taken in response to incidents of corruption.	Fully	32

Public policy			
SO5	Public policy positions and participation in public policy development and lobbying.	Partially	16
SO6	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.	Fully	16
Anti-competitive behavior			
SO7	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes.	Fully	61
Compliance			
SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.	Fully	61
Social: Product Responsibility			
Performance Indicator	Description	Reported	Cross-reference/Direct answer
Materials Stewardship			
MM11	Programs and progress relating to materials stewardship.	Fully	61
Customer health and safety			
PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.	Fully	61
PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.	Fully	61
Product and service labelling			
PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.	Fully	61
PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.	Fully	61
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.	Fully	11
Marketing communications			

PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.	Fully	61
PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes.	Fully	61
<b>Customer privacy</b>			
PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.	Not	Not Applicable
<b>Compliance</b>			
PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.	Fully	61

# UN Global Compact Principles

## The Ten Principles - United Nations Global Compact

Principles	Statement	Link
<b>Human Rights</b>		
Principle 1	Businesses should support and respect the protection of internationally proclaimed human rights; and	31
		34
Principle 2	Make sure that they are not complicit in human rights abuses.	31
		34
<b>Labour</b>		
Principle 3	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	31
Principle 4	the elimination of all forms of forced and compulsory labour;	31
Principle 5	the effective abolition of child labour; and	23
Principle 6	The elimination of discrimination in respect of employment and occupation.	23
		31
<b>Environment</b>		
Principle 7	Businesses should support a precautionary approach to environmental challenges;	19
		46
		61
		63- 66
Principle 8	undertake initiatives to promote greater environmental responsibility; and	19
		46
		61
		63- 66
Principle 9	Encourage the development and diffusion of environmentally friendly technologies.	46
		61
		63- 66
<b>Anti-Corruption</b>		
Principle 10	Businesses should work against corruption in all its forms, including extortion and bribery.	32

<h2>Glossary</h2>	
ACC	Associated Cement Companies Ltd.
ACE	Achieve Cost Excellence
AGM	Annual General Meeting
AIDS	Acquired Immune Deficiency Syndrome
Al	Symbol for Aluminium in the periodic table
BALCO	Bharat Aluminium Company Ltd.
BSE	Bombay Stock Exchange
CCR	Continuous Cathode Rod
CDM	Clean Development Mechanism
CEO	Chief Executive Officer
CERs	Certified Emission Reductions
CFO	Chief Financial Officer
CII	Confederation of Indian Industries
CIL	Coromandel International Limited
CLZS	Chandera Lead Zinc Smelter
CMT	Copper Mines of Tasmania
CO2	Carbon Dioxide
CPCB	Central Pollution Control Board
CPP	Captive Power Plant
CREDA	Chhattisgarh State Renewable Energy Development Authority
CRS	Chevalier Roche Society
CSI	Customer Satisfaction Index
CTC	Cost to Company
CWC	Child Welfare Centre
ECG	Electrocardiogram Test
EIA	Environment Impact Assessment
EPRP	Emergency Preparedness and Response Plan
ESAT Survey	Employee Satisfaction Survey
ESP	Electrostatic Precipitator
ESS/MSS	Employee Self Service/Management Self Service
ETP	Effluent Treatment Plant
F	Symbol for the element 'Fluorine' in the periodic table
FACT	Fertilisers and Chemicals Travancore
FIMI	Federation of Indian Mineral Industries
FTP	Foreign trade policy
FTSE	The index is maintained by the FTSE Group, an independent company joint owned by the Financial Times and the London Stock Exchange.
GET	Graduate Engineer Trainee
GHG	Green House Gas

GJ	Giga Joules
GLP	Global Leadership Program
GoI	Government of India
GRI	Global Reporting Initiative
HAZOP	hazard and operability
HDPE Bags	High density polyethylene Bags
HIV	Human immunodeficiency virus
HSC	Higher secondary School Certificate
HSE	Health, Safety and Environment
HZL	Hindustan Zinc Ltd.
HZP	Haridwar Zinc Plant
ICMM	International Council on Mining and Metals
IFFCO	Indian Farmers Fertiliser Cooperative Limited
IIM	Indian Institute of Management
ILZDA	Indian Lead Zinc Development Association
IMC	Indian Merchants Chamber
IMEA	India Manufacturing Excellence Awards
INR	Indian National Rupee
IOCL	Indian Oil Corporation Ltd.
ISO	International
ITPS (OPGC)	IB Thermal Power Station (Orissa Power Generation Corporation)
JFTC	Jelly filled telephone cables
KRA	Key Result Area
LCA	LiFe Cycle Assessment
LME	London Metal Exchange
LNG	Liquified Natural Gas
LPG	Liquified Petroleum Gas
LSE	London Stock Exchange
LTIFR	Lost Time Injury Frequency Rate
M3	Cubic metre
MALCO	Madras Aluminum Company
MBTU	One million British Thermal Units
MCF	Mangalore Chemicals and Fertilisers
ML	Milli Litre
MSDS	Material Safety Data Sheet
MT	Metric Tonne
MTD8 Committee	Metallurgical Engineering Department (copper and copper alloys) as per BIS
MW	Mega Watt
MWH	kilowatt-hour
NABARD	National Bank for Agriculture and Rural Development
NGO	Non-Governmental Organisation
NHAI	National Highway Authority of India
NOX	Oxides of Nitrogen

NREGA scheme	National Rural Employment Guarantee Act Scheme
NSE	National Stock Exchange
NYSE	New York Stock Exchange
OEM	Original Equipment Manufacturer
OH & S	Occupational Health and Safety
OHSAS	Occupational Health and Safety Advisory Services
PLC	public limited company
PPEs	Personal Protective Equipments
PRA	Participatory Rural Appraisal
PVC	Poly Vinyl Chloride
R&D	Research and Development
R&R	Resettlement and Rehabilitation
RAM	Rampura Agucha mines
RBNQA	Ramkrishna Bajaj National Quality Award
RDM	Rajpura Dariba mines
RO Plant	Reverse Osmosis plant
RoHS	Restriction of Hazardous Substances
RSPM	Respirable Suspended Particulate Matter
SAP HCM	Systems, Applications and Products in Data Processing-Human Capital Management
SBU	Strategic Business Unit
SEBI	Securities and Exchange Bureau of India
SEL	Sterlite Energy Ltd.
SHG	Self Help Group
SIIL	Sterlite Industries (India) Ltd.
SLI	Starting-Lighting-Ignition
SOX	Oxides of Sulphur
SPIDER	Standard Practices, Implementation, Development, Evaluation and Rating
SPM	Suspended Particulate Matter
SRM	Supplier Relationship Management
SSLC	Secondary School Leaving Certificate
SWEP	Sterlite Women Empowerment Project
TPM	Total productive maintenance
TQM	Total Quality Management
TREM	Transport Emergency
TRL	Tata Refractories Ltd.
TSPL	Talwandi Sabo Power Limited
UNGC	United Nations Global Compact
VAL	Vedanta Aluminium
VOC	Volatile Organic Compounds
VSS Smelter	Vertical Stud Soderberg Smelter
VZS	Vizag Zinc Smelter

WBCSD- WRI	World Business Council for Sustainable Development- World Resources Institute
WUC	Water User Committee

## Contact Us

### Location of the Organisation and Headquarter

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