

# Silver

Largest producer of Silver in India...

Hindustan Zinc is the largest producer of Silver in India. The Company has been witnessing a steady growth in the production of Silver in the last 15 years. With production of about 47 tonnes of Silver in the year 2002, the Company's current Silver production has reached about 460 tonnes per annum, driven by volume ramp-up at Sindesar Khurd Mine and improvement in recovery at the mines and smelters.

Hindustan Zinc is aiming to produce 1,000 tonnes of Silver with which it should be amongst the world's leading primary Silver producers.

## Smelters

### Melting ore - Smelting more

Hindustan Zinc is one of the world's largest and India's only integrated Zinc-Lead-Silver producer. The Company's smelters are located at Chanderiya, Dariba and Debari in the State of Rajasthan and Zinc-Lead-Silver metal refineries at Pantnagar in the State of Uttarakhand. The Company's Zinc, Lead and Silver metal production capacities have seen five-fold increase since disinvestment in 2002. The metal production capacity which was 204,000 tonnes per annum in the year 2002 has grown to over 1 million tonne per annum.

Chanderiya Smelting Complex, located in the district of Chittorgarh, is world's second largest single location integrated Zinc smelting complex with Zinc production capacity of 525,000 tonnes and Lead production capacity of 85,000 tonnes per annum. The location also has captive power plants of 234 MW. Additional green power is generated through waste heat

Dariba Smelting Complex, located in the district of Rajsamand, has production capacity of 210.000 tonnes of Zinc and 100.000 tonnes of Lead per annum. Dariba Smelting Complex is uniquely self-sufficient with Zinc smelter, Lead smelter and captive power plants of 160 MW, all located in the vicinity of Sindesar Khurd Mine and Rajpura Dariba Mine.

India's oldest Zinc smelter, located at Debari in the district of Udaipur, has Zinc metal production capacity of 88,000 tonnes per annum.

Zinc, Lead and Silver metal refinery at Pantnagar has a capacity to produce 550 tonnes of Silver per annum.

The Company's total metal production capacities currently stand at 823,000 tonnes of Zinc, 185,000 tonnes per annum of Lead and 550 tonnes of Silver, which are all being debottlenecked to achieve smelting capacity

of 1.2 million tonne per annum.

Panoramic view of Chanderiya







Sewage Treatment Plant at Udaipur 🔺

# Health, Safety & Environment

Zero tolerance policy

Health, Safety and Environment are key elements to sustainability of our business. The Company is committed to create sustainable values for stakeholders and accordingly strives to balance social, environment and economic aspects in the business. Hindustan Zinc has integrated best global environment friendly technology in its mining and smelting operations. Optimum utilization of resources and managing the waste has always been key focus areas for the Company. Conservation of water and gainful use of solid & hazardous waste has resulted in all the plants to achieve the status of 'zero discharge'.

The Company adheres to the highest safety standards and this has been integrated in the people management process, enabling the Company to detect and eliminate any safety risk, occupational risk or health hazards.

100% utilization of fly ash by cement industries and use of ISF slag in cement industries are some of the key initiatives for waste minimization and utilization.

To give impetus to green energy, Hindustan Zinc has 274 MW of green energy farms located in Gujarat, Karnataka, Rajasthan, Tamil Nadu and Maharashtra.

The Company has adopted Safety Excellence journey 'Aarohan' with DuPont for safety culture improvement that include Zero harm through the transformation of safety culture and achieving excellence in safety standards.



Refuge Chamber for mine personnel safety 🛦



Paste Fill Plant 🔺





Effluent Treatment Plant 🛕

## Community Development

Hindustan Zinc's Community Service programs begin by reaching out and understanding the needs and priorities of community. Using a well-planned and structured community development methodology, assessment studies are carried out in association with local stakeholders by third party and accordingly community development programs are drawn.

Child Care, Education, Nutrition, Sustainable Livelihood, Women Empowerment, Health, Water & Sanitation, Sports & Culture, Environment and Community Development including community assets creation have been the key focus areas.

Through Community Service interventions, Hindustan Zinc is reaching out to about 500,000





Since India houses the largest number of malnourished ildren in the world and also accounts for maximum childeaths, it was felt important to spread awareness towards the care for the deprived children and encourage people to take individual steps towards the cause.

Project "Khushi" was launched in 2012 to spread awareness across India on care for the deprived children. With over 200,000 followers on social media, "Khushi" started organizing online discussions and debates on nutrition to children, health issues, girl child, education in government schools, primary schooling in rural areas, child beggary, child labour, school dropouts, sanitation, change of behaviour towards the deprived children, to name a few.

Programs like "Our Girls Our Pride" "Khushi Teachers Awards", "Khush Walk for Awareness" and "Khush Workshops with Deprived Children" have been ver successful in bringing the issue to forefront. "Khushi" film 'Humko Mann Ki Shakti Dena' has already reached about 1.50 crore people with over 5 million views.



"Khushi" today stands as a flag-ship child care campaign for Hindustan Zinc, a non-donation campaign that is promoting the cause of child care – their health, nutrition and education.

### **Hindustan Zinc Limited**

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We Produce. We Protect. We Promote.



Hindustan Zinc - Zinc of India we all have zinc in our lives...

### About Vedanta Limited

(Formerly Sesa Sterlite Limited/Sesa Goa Limited)

Vedanta Limited is a diversified natural resources company, whose business primarily involves producing Oil & Gas, Zinc - Lead - Silver, Copper, Iron Ore, Aluminium and Commercial Power. The Company has presence across India, South Africa, Namibia, Australia and Ireland.

Vedanta Limited is the Indian subsidiary of Vedanta Resources Plc, a London-listed company. Governance and Sustainable Development are at the core of Vedanta's strategy, with a strong focus on health, safety and environment and on enhancing the lives of local communities. The company has been conferred with the Confederation of Indian Industry (CII) 'Sustainable Plus Platinum Label', ranking among the top 10 most sustainable companies in India.

Vedanta Limited is listed on the Bombay Stock Exchange and the National Stock Exchange in India and has ADRs listed on the New York Stock Exchange.

For more information please visit www.vedantalimited.com

#### Divisions

- Iron Ore (Sesa Goa)
- Copper Smelting (Tuticorin)
- Aluminium and Power Assets (Vedanta Aluminium and Sterlite Energy assets)

### Subsidiaries

### dian Operations

- Hindustan Zinc Limited
- Cairn India Limited
- Company Limited

  Talwandi Sabo Power
- LimitedMadras Aluminium
- Company Limited

#### **Operations Outside India**

- Skorpion, Lisheen and Black Mountain Zinc assets of Zinc International in South Africa, Namibia and Ireland
- Western Cluster, Liberia
- Australian Copper Mines, Australia



### Hindustan Zinc

Hindustan Zinc, a Vedanta Group Company, is one of the world's largest and India's only integrated producer of Zinc-Lead and Silver. The Company has its Headquarter at Udaipur in the State of Rajasthan where it has its Zinc-Lead mines and smelting complexes. Hindustan Zinc is self sufficient in power with captive thermal power plants and also has ventured into green energy by setting up wind power plants. The Company's sustainability framework is supported by three pillars - Responsible Stewardship, Building Strong Relationships and Adding & Sharing Value. As a socially responsible corporate, Hindustan Zinc has been relentlessly working to improve the lives of rural and tribal people residing near its business locations. As a market leader, Hindustan Zinc governs about 85% of the growing Zinc market in India.

## Vision

Be the world's largest and most admired Zinc-Lead & Silver Company

## Mission

Enhance stakeholders' value through exploration, innovation, operational excellence and sustainability

Be a globally lowest cost producer

Maintain market leadership and customer delight

Zinc mining in India dates back to 2500 years...



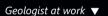
Referring to ancient mining in India, the only mines that come forward are Zawar Mines, located about 40 kms from city of Udaipur in Rajasthan. Zawarmala Mine at Zawar is an ancient mine which as per the radio carbon dating is over 2500 years old. The ancient retorts can still be seen while going towards the Zawar Mines in Udaipur.

## Exploration

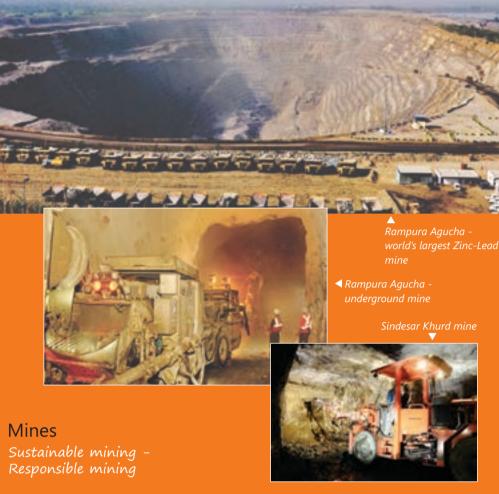
Replacing every tonne of ore mined with equal resources

Hindustan Zinc's exploration philosophy is to replace every tonne of ore mined with at least one tonne of resource under the internationally recognised JORC code of Reserve & Resource Reporting. The Company's focus is on developing its Reserve & Resource base through in-mine exploration, near-mine exploration and green-field exploration. Hindustan Zinc has a strong exploration focus through a team of 80 geologists employing the latest geophysical, geochemical and GIS technologies and high speed deep drilling rigs. The Company's in-mine exploration program entails systematic exploration around its mines to identify extensions of ore-bodies. The ongoing brown-field exploration aims to expand the resources of existing mines and green-field exploration identifies new deposits across India. The Company's exploration program is integral to its growth and future expansions. Successful exploration and subsequent development of mineral assets is part of mission and business strategy of the Company.

Hindustan Zinc has a comfortable mine-life of over 25 years on the back of Reserves and Resources of 390 million tonnes.







Hindustan Zinc's mines are located at Rampura Agucha, Sindesar Khurd, Rajpura Dariba, Zawar and Kayad in the State of Rajasthan.

The current ore production capacity today stands at 12 million tonnes per annum. The Company is aggressively expanding its mining capacities, implementing with six ongoing major mining projects.

Rampura Agucha Mine, with the ore production capacity of 4.6 million tonnes per annum, is the world's largest Zinc-Lead mine with best-in-class Zinc-Lead reserves grade. The mine is currently operating through open-cast and underground routes.

The Sindesar Khurd Mine, with the ore production capacity of 4 million tonnes per annum, is a highly mechanised under-ground mine. As part of the on-going expansions, the ore production capacity is set to increase to 4.5 million tonnes per annum in the coming years. Sindesar Khurd Mine expansion is expected to significantly contribute to the Company's integrated Silver production.

Zawar Mines comprises 4 different mines with footprints of ancient mining and has a combined ore production capacity of 1.8 million tonne per annum. As per the radio carbon dating, the mines at Zawar are over 2500 years old. The Company is on-course to expand Zawar Mines capacities to over 4 million tonnes in the next five years through mechanisation and by switching-over to trackless mining. Zawar also has 80 MW of captive thermal power plant.

Rajpura Dariba Mine is an underground mine and currently has ore production capacity of 0.9 million tonnes per annum. The ore production capacity at Rajpura Dariba Mine is all set to increase to 1.2 million tonnes per annum.

Additionally, a new underground mine with fastest ramp-up has been opened up at Kayad, in the district of Ajmer and is scheduled to achieve its planned capacity of 1 million tonne within this year.

### Human Resource

Employees as human capital investment

Hindustan Zinc has always focused on grooming leaders out of its employees. The Company provides a vibrant working environment to enable employees to innovate, discover potential and realise professional dreams. With talent pool of about 17,000 employees including contract workers, spread across all its locations, the Company is proud to have about 14% female employees in fresh hires. The average age of employees is 32 years which is spread across various functions and locations.



▲ 14% female employees

▼ Metro culture at locations

