

TECH **तत्**

Sustainability Report 2017-18



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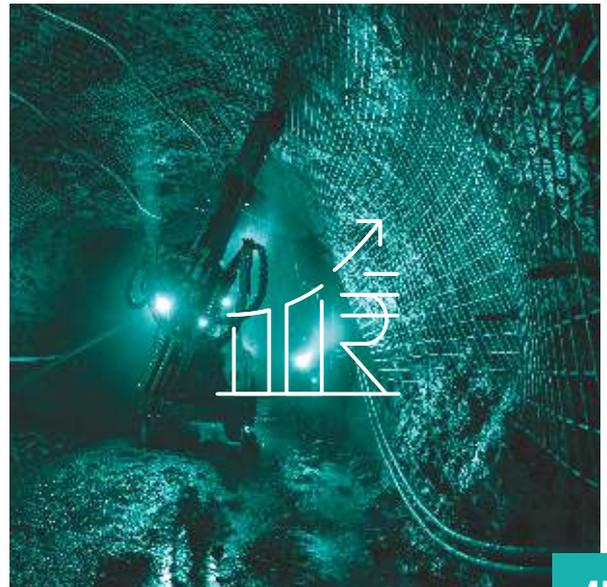
Edu
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Re-archi
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Augmen
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<http://sustainability.hindustanzinclimited.com/>

TECH **तत्त्व**



Technology is increasingly becoming an effective tool in aligning business objectives with sustainability objectives and goals. Global companies view technology as part of their core business strategy, enabling them to integrate sustainable practices into their operations. During this reporting period we introduced technology based interventions to embed the culture of sustainability and cascade it effectively, from top to bottom, across all operations and processes. At HZL, our sustainable development and growth is closely linked to the use of technology and harnessing its power in achieving our sustainability outcomes.

Techtattva emanates from technology being the key element across all pillars of sustainability at HZL, and the binding force of the interventions across the three bottom-lines.

Technology is all pervasive in our business. It is at this intersection of technology, domain knowledge and sustainable practices that we transform the way we interact with our planet, people and community, and enable solutions that enhance the experience of all our stakeholders, thereby propelling HZL towards greater sustainable growth.



TECH



Augmen TECH

Technology has been one of the key factors in augmenting our revenues and has been instrumental in generating economic value for all our stakeholders. Harnessing technology enabled us to enhance the entire value chain from beneficiation, smelting, green power to waste management for greater value creation through higher metal recovery, minimal environment impact, gainful waste utilisation and lower cost.

Economic



Pro TECH

We are committed to conducting our businesses in an environment that promotes safe working conditions for all. Technology enables us to protect our employees by making them away from the path of direct danger. To that end, we have reduced the manual intervention in many of our processes, like the hot metal transfer, mechanisation in mining, etc. The power of technology help us in reducing injuries and increasing efficiency of the employees.

Safety



TECH juvenate

While mining brings opportunities for employment and economic growth, it also impacts the environment we live in. Hence, in line with our vision to reduce our environmental footprint we invested in zinc fumer technology, solar power, research and development and other ecofriendly technologies to minimise the impact on natural resources and rejuvenate the environment around us.

Environment

People

Digitising our HR practices and processes has led to achieving our organisational goals in a more effective manner. During this reporting period, we undertook digitisation of our HR processes from induction to e-separation, thereby delivering effective and holistic HR services across all our businesses to make our employees more empowered.

Holis TECH



Supply Chain

Digitally integrating our supply chain has led to transparency, better management and accountability. This re-architecting of supply chain has in turn strengthened our relationship with our suppliers and business partners. One of our key digital transformations for the reporting period has been the ARIBA Implementation and Transport Management System, across all our locations, thereby, reducing manual intervention. This has led to zero spillage and pilferage, secure movement of goods and reduction in the carbon footprint.

Re-archi TECH



Social

One of the key tenets of our community interventions is empowerment and the key tool is education. During this reporting period we actively leveraged technology in our CSR interventions, thus, demonstrating its power for the benefit of empowerment and education of all segments of the community. From equipping the Nand Ghars with e-learning facilities to online tracking of performance at the Anganwadi and introducing apps for the visually impaired, giving them access to books and games, we successfully incorporated technology in aiding our mission to uplift and empower our communities.

Edu TECH



Chairman's Message



Dear Stakeholders,

Metals and minerals are essential elements for industrial and economic development. Their demand is directly proportional to and even responsible for, increase in per capita income of a nation. As a sector, it creates jobs, develops hinterlands, gives birth to ancillaries, keeps the import bill down and ups the tax collections.

As chairman of one of the largest Zinc-Lead mining companies operating today with more than 50 years of experience, I have a clear perspective on the role our business plays in society and the values we must uphold in order to protect and enhance that society and our planet.

While mining has a positive impact on the economy of a nation, it can have a negative impact on the environment if not conducted in an organised, scientific and a well-governed manner. For mining to be conducted in a responsible way and to have an enduring positive legacy for the countries and communities where we operate, we must continue to put sustainability at the core of our thinking and decision-making. At HZL, we are constantly aiming for new benchmarks in sustainable mining.

Towards this goal, we embrace new technology, adopt comprehensive environment protection measures, and sensitise our personnel on existing and emerging sustainability issues. And this is well captured in this report with the theme 'TechTattva' which is all about finding new ways to make mining safer, more efficient, more sustainable, more harmonised with the needs of host communities, and with a smaller environmental footprint.

Our efforts are aligned to the UN's 2030 Sustainable Development Goals. Our Sustainability Strategy sets out a number of aspiring targets that will drive us to take the initiatives around the conservation of natural environment, the long-term prosperity of our local communities, and to drive greater trust and transparency amongst our stakeholders.

I am delighted to see the progression we are making on a number of fronts. The year 2018 was a landmark year marked by record operational and financial performance.

Thanks to our relentless pursuit of efficiency and productivity, we not only continued to maintain our position as one of the lowest cost producers globally, the Company delivered its highest ever ore, mined metal, refined zinc-lead and silver production. In addition, the buoyancy in zinc market enabled an all-time high EBITDA and Net Profit for the year. Our revenue from operations (net of excise duty) rose to INR 22,084 crore compared with INR 17,273 crore last year, a growth of around 28%.

As a responsible mining company, we see growth as a vital tool that enables us to make a difference in the lives of our shareholders, employees and communities, plus provides us more resources to invest in preservation and rejuvenation of the environment. The Board declared a dividend of 400% amounting to INR 4,068 crore including dividend distribution tax during the year. The EPS for the year was INR 21.95 per share as compared to INR 19.68 per share in FY 2017.

During the year, we contributed INR 9,301 crore, which is 42% of our revenues, towards nation building by way of payment to the Government treasury through royalties, taxes and dividends.

The credit of our growth lies squarely on our employees and it is our constant effort to provide them an enabling and conducting platform to perform to their peak potential.

Our prime concern when it comes to our people is their health and safety. We are focusing on digitisation to keep our people out of harm's way, especially in underground mines. With a number of initiatives, we are developing automated and continuous mining procedures designed to create far greater rock stability and less variance in the quality of the ore we extract, with people well separated from areas of high risk. To accelerate the achievement of our objective of a Zero Harm culture, we conducted 0.6 million man-hours of safety training during the reporting period. We also ensured a 100% periodic medical examinations of all applicable employees. Our LTIFR reduced from 0.30 in FY 2016-17 to 0.27 in FY 2017-18 and has registered a 69% decline over the last five years. But, despite our best efforts, I am deeply saddened to report that we had two fatalities at our project sites, which is unacceptable and we have implemented consequence management as per our practises. We are now even more determined to eliminate fatalities across our entire operations and all project sites.

We are committed to create a dynamic and thriving workplace where capabilities are valued, leaders are developed from within, performance is rewarded, and diversity is celebrated. About 27% of enabling roles in our Company are performed by women, who are part of 12% of our women employee base and we intend to improve it further. Our efforts have won us many accolades including being voted as a 'Great Place to Work' by Great Place to Work Institute for building high-trust and high-performance culture within the organisation.

Accolades also poured in for our environmental performance.

Hindustan Zinc was ranked 3rd globally on the environment dimension & 11th sustainable company globally in Dow Jones Sustainability Index in Mining and Metal industry, and we were the only Indian mining company to be included in the RobecoSAM Sustainability Yearbook 2018.

These recognition have only strengthened our resolve towards the environment. During the year, we invested INR 59 crore on environment related initiatives with an aim to continue reducing our water and greenhouse gas footprint.

We also think carefully about the causes and effects of climate change. We plan to increase our renewable energy portfolio, which today stands at 324 MW and provides reduction of over 730,000 MT of CO₂ per annum. I am delighted to inform that we have become signatory to Science Based Target initiative (SBTi) and committed to reduce absolute Scopes 1 and 2 GHG emissions 14% by 2026 from a 2016 base year and also committed to reduce absolute Scope 3 GHG emissions 20% by 2026 from a 2016 base year.

To communicate our sustainability efforts and performance to stakeholders in a transparent and comprehensive manner, we are participating in the water and carbon disclosure programmes of CDP every year. Conversion of waste to useful value-added products is a priority focus area for HZL, as it would create wealth from waste and reduce land requirement for storage.

Leveraging our normal business activities is the most effective way to deliver positive developmental outcomes for our host communities.

During the year, we almost doubled our CSR spending to INR 92 crore, touched more than 500,000 lives and had a positive impact on more than 100,000 households.

Our key focus is education and our initiatives include creating new age Anganwadis - 'Nand Ghars', running schools, supporting differently-abled children, providing coaching to high school students, and financially supporting meritorious and needy students for higher education. For holistic development of the country's youth, we are supplementing academics with sports. We have set up 58 community football academies, including four exclusively for girls.

I believe that the mining industry, with its important role in society at large, has a bright future, but only if all mining companies are committed to investing effort and resources into a sustainable future. My vision is for HZL to continue to push the boundaries of what is possible in our operation so that we strengthen our sustainability performance - by operating ever more sustainably. A balanced triple bottom-line approach is the secret of our consistent growth and at Hindustan Zinc, we will continue to set higher sustainability standards, contributing to a better future for Rajasthan and India.

Warm regards,

Agnivesh Agarwal
Chairman

CEO's Message



Dear Stakeholders,

It was 52 years ago that HZL was first formed through nationalisation to scientifically develop the Zinc Lead deposits in Rajasthan. Since that time we have grown to become the India's largest and world's second largest zinc mining company with nearly more than 19,000 workforce across its operations providing the products which are essential in improving people's quality of life in form of better health and nutrients.

Now more than ever, major shifts in urbanisation, a rapidly growing middle class and the transition to a low carbon, water neutral economy are driving factors for consistent demand of metals and minerals we produce. Meeting this demand in a responsible and sustained way is essential to the continued growth and success of our business. Technology and Innovation is one tool which is rapidly turning the world and is key to the success of any growing organisation.

It is surely changing the way mining is done globally and we at HZL, are leveraging the power of advanced technology like robotics, artificial intelligence and Internet of Things to enhance our sustainability quotient across various facets of operations.

The strategic use of technology as the basic element to catalyse a sustainable transformation across the organisation and its outcomes till date are captured in this report, aptly titled - TechTattva.

■ AugmenTECH

Our goal is to equip each mine with technology which will augment safety and productivity. Autonomous drilling, autonomous haulage, remote-controlled operations and real-time asset tracking and mine monitoring are the features we aim to make standard in all our mines in the coming 3 years. A prototype of such a digital mine is already operational in Sindesar Khurd.

Aided by technological interventions, and coupled with the expertise and commitment of our talented workforce, this year too we posted a healthy growth of 19% in zinc and lead metal production and touched a new high of 960kt. Our sliver production peaked to 558MT, a massive 23% growth as compared to the previous year.

■ Re-archiTECH

Over and above our own operations, technology is helping enhance the efficiency of our supply chain. E-enabling our entire Transport Management System has helped reduce manual intervention, leading to zero spillage and pilferage plus ensured secure movement of goods. It has not only resulted in the reduction in carbon emissions, but has enhanced accountability as well.

To further enhance ease of doing business with HZL, we implemented SAP Ariba. The benefits are multi-fold - automated vendor registration, speed of contracting, steep fall in delayed payments, and efficient online negotiations and auctions. To compel our supply chain to upgrade to global standards and to ensure better compliance towards UK Modern Slavery Act 2015, this year we modified our Supplier and Contractor Sustainability Management policy.

■ ProTECH

Our human resources are what sets HZL apart and we constantly invest in their safety and development. An underlying principle we follow to enhance the safety quotient of our operations is to reduce the proximity of our employees from potential hazards. Towards this objective, during the reporting period, we automated the process of hot metal transfer and eliminated manual interface. Four 8-seater capacity refuge chambers were installed at our Rampura Agucha site to protect our employees in case of any untoward incident.

Integral to our proactive and preventive approach towards health and safety is our positive safety culture. Aarohan, a Company-wide initiative, focuses on eliminating fatalities and serious injuries through positive safety behaviour and a better understanding of the consequences of unsafe acts.

In recognition of our safety performance and efforts to strengthen safety culture, we were awarded the 'Safety innovation Award 2017' by the Institution of Engineers (India). Our Health and Safety scores on VSAP, our internal risk management tool, recorded an improvement from 54 last year to 63 this year.

■ HolisTECH

Technology is only as good as the talent manning it. Thus along with their safety, we constantly develop the potential of our employees and provide them the platform to perform. The reporting period was replete with trainings on new processes and upgraded equipment. With a view to inject higher efficiency and better response time, even our HR processes were digitised.

■ TECHjuvenate

The general narrative of sustainability, pitches technology and development as adversaries of the environment. But it is our strong belief that technology, when done right, can not only help protect the environment, but also help rejuvenate it. The fumer project at our Chanderiya Zinc Smelter is a case in point. It will help reduce waste, increase metal recovery and reduce land requirement. To spearhead many such waste reduction and value extraction initiatives across the organisation, we constituted a Waste to Wealth Committee this year.

Along with waste management, we are implementing technology interventions for water conservation, heat recovery and mitigating climate change. We have adopted Science Based Targets and are committed to reduce absolute Scopes 1 and 2 GHG emissions 14% by 2026 from a 2016 base year and also committed to reduce absolute Scope 3 GHG emissions 20% by 2026 from a 2016 base-year.

During the reporting period, we signed an MoU with Udaipur Smart City Limited for establishing another 40 MLD STP, which would double the sewage treatment capacity and significantly reduce our fresh water intake.

■ EduTECH

Just like technology is an instrument for sustainable transformation, education is the instrument to herald social transformation. At HZL, we are leveraging technology to enhance the effectiveness of our CSR programmes, make them cost-effective and add scale to our interventions.

Our Nand Ghars are powered by solar energy and fully equipped with internet for e-learning. The Anganwadi Smart System tracks performances of each Anganwadi on multiple parameters and helps us identify intervention areas to enhance their functioning.

Jeevan Tarang is an initiative where we have distributed smartphones with a special app to enable visually impaired students to access e-bookshare and special games. Even our Football Academies are equipped with the latest teaching and management technologies.

The Mining Academy, in partnership with the Skill Council of Mining Sector and the Indian Institute of Skill Development, is providing training to the youth of our country training in emerging mining technologies to make them future ready.

Along with education, our CSR programmes are designed in alignment with stated national priorities such as sanitation, sustainable livelihood, women empowerment, health and water.

While technology is helping us raise the performance bar across all three bottom-lines, it is also our key ally in communicating our sustainability efforts and performance to stakeholders with transparency, authenticity and integrity.

A vibrant exchange leads to higher trust which, in turn, strengthens the societal license to operate and enables accelerated growth. A stakeholder perceptions survey commissioned this year reported an overall brand image score of 79, wherein media had the highest brand image score of 90. As part of our engagement, we also re-validated our materiality issues with key stakeholders.

I thank everyone who supported us in our sustainability journey.

Our yearly Sustainability Report is a vital unit in this ongoing dialogue and I urge you to read it in detail, and share your feedback with us.

Warm regards,

Sunil Duggal
CEO and Managing Director

Vision

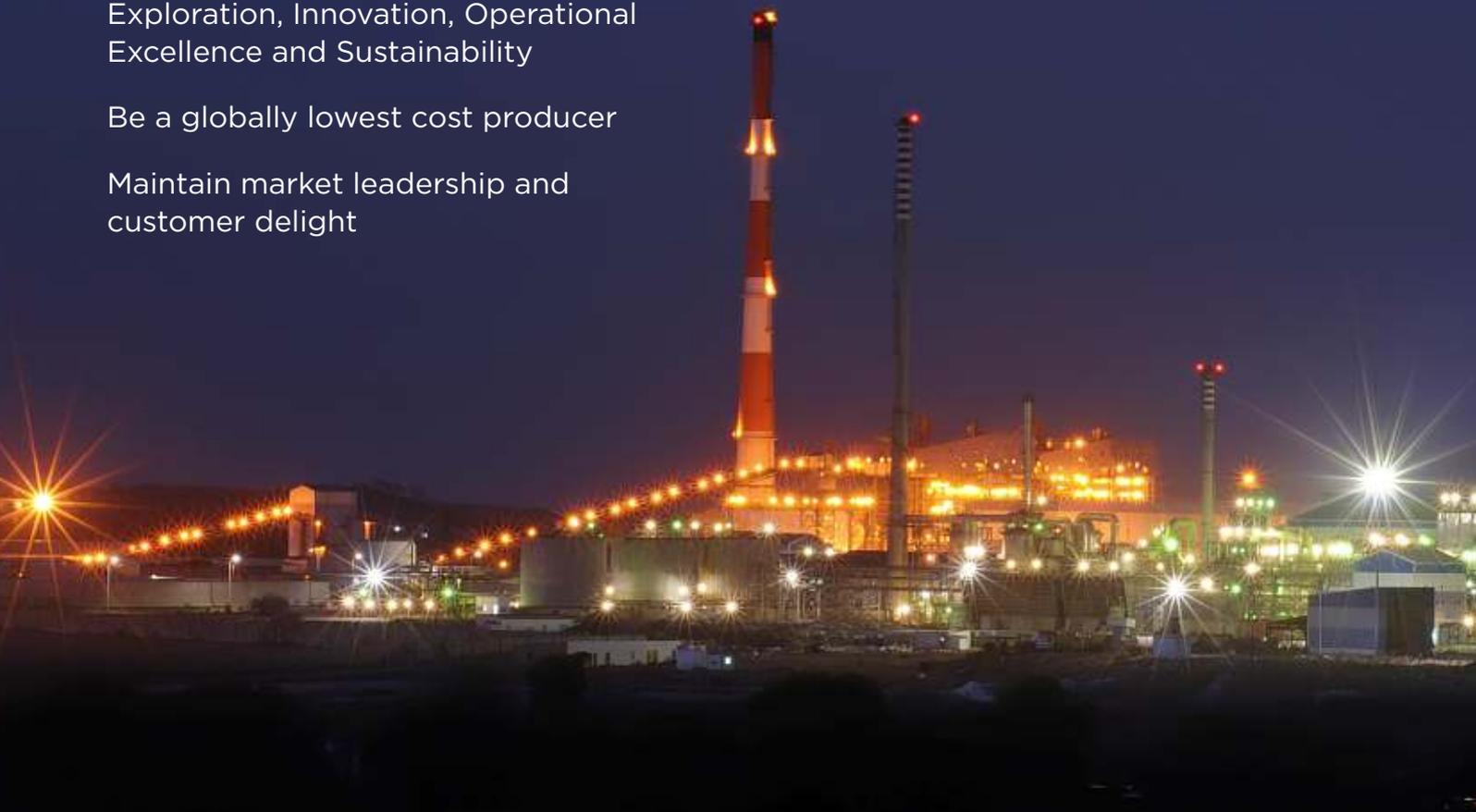
Be the world's largest and most admired Zinc-Lead & Silver Company

Mission

Enhance stakeholders' value through Exploration, Innovation, Operational Excellence and Sustainability

Be a globally lowest cost producer

Maintain market leadership and customer delight



Our Sustainability Journey

Zinc Enhancing Value

SD Report 2015-16

Enhancing value metaphorically refers to Hindustan Zinc's continual efforts to augment value in all its spheres of influence. Similar to the nature of zinc, which enhances the longevity of metal bodies, HZL renders a lasting impact on all components of the value chain. Adopting sustainability best practices HZL remains steadfast in its commitment to add the extra "Zinc Value" for long-term success. Hindustan Zinc has taken countless small and big steps to be a partner in progress for all its stakeholders, and in doing so stays undivided in its resolution to touch their lives positively and keep "Enhancing Value".



Values

Trust



We actively foster a culture of mutual trust in our interactions with our stakeholders and encourage an open dialogue which ensures mutual respect.

Entrepreneurship



Our people are our most important assets. We actively encourage their development and support them in pursuing their goals.

Innovation



We embrace a conducive environment for encouraging innovation that leads to a Zero harm environment and exemplifying optimal utilisation of natural resources, improved efficiencies and recoveries of by-products.

Excellence



Our primary focus is delivering value of the highest standard to our stakeholders. We are constantly motivated on improving our costs and improving our quality of production in each of our businesses through a culture of best practice bench marking.

Integrity



We place utmost importance on engaging ethically and transparently with all our stakeholders, taking accountability of our actions to maintain the highest standards of professionalism and complying with international policies and procedures.

Respect



We lay consistent emphasis on Human Rights, respect the principle of free, prior, informed consent, while our engagements with stakeholders give local communities the opportunity to voice their opinions and concerns.

Care

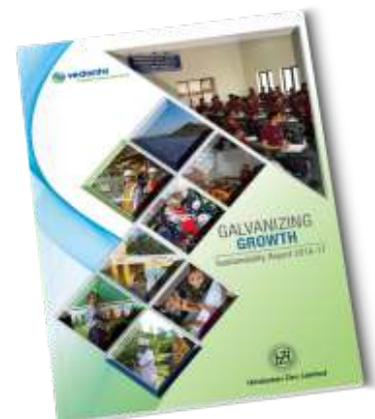
As we continue to grow, we are committed to the triple bottom-line of People, Planet and Prosperity to create a sustainable future in a zero harm environment for our communities.



Galvanizing Growth

SD Report 2016-17

In the zinc industry, “galvanizing” refers to the process of coating metal with a protective layer of zinc to prevent it from rusting, thus guaranteeing its durability. Increased durability means a longer lifespan; with longer lifespan comes less production and resource consumption. Durability is a key component of Hindustan Zinc’s growth and business sustainability strategy. At HZL we are focused on taking action by adopting the principles of triple bottom-line and implementing strategies that protect the people and conserve resources for the future. This, in turn, protects the planet and enhances profits through volume and growth, which in essence is galvanizing wealth.



Company Overview & Management

About Us

We are the second largest zinc-lead miner and fourth largest zinc-lead smelter

**Source: Wood Mackenzie Production Rankings Q4 2017; Hindustan Zinc for company data*

We are among the Top 10 silver producers globally

**Source: GFMS, Thomson Reuters*

We are among the lowest cost producers of zinc globally with cost of production (from ore to refined metal) in the first quartile of global cost curve

**Source: Wood Mackenzie Ltd, Dataset 2018 Q1*

Hindustan Zinc at a Glance

A dominant player in the zinc and silver mining business in India, Hindustan Zinc is also the second largest, fully integrated producer of zinc and lead in the world. HZL is a leading producer of silver globally as well. HZL owns major zinc ore mines in India and the journey towards 1.2 million MT production that started in 2013 is now in its final stages and expected to be achieved in FY2020.

Our strategic vision is to grow our output to 1.5 million MT per annum and our silver portfolio to 1,500 MT. We have an impressive 78% market share in zinc and 57% in lead. Hindustan Zinc's silver refinery at Pantnagar Metal Plant has recently been added to the London Bullion Market Association's 'Good

Delivery' list, as of April 2018. Our global silver ranking jumped eight notches to number 10 in 2017, as per Thomson Reuters - Silver Institute. Also, our silver volumes ratcheted up by 23% to 558 MT in FY 2018.

With plans to catapult HZL to a new era where our mines will be more advanced and inclusive, we are also capitalising on newer technology and digitisation to re-define and re-invent mining in many ways. With one of the most successful global transitions from primarily an open-cast to a fully underground mining company, we believe the Company's growth trajectory will transform in the years ahead. Headquartered at Udaipur, we operate with a workforce of 19,660. Renowned globally for the high purity refined metals that

we supply, we market under various brand names and our product line also includes LME registered Special High Grade (SHG) zinc and lead. Our business entails mines, smelters and refineries. And to cap it all off, the Company is self-sufficient in power with an installed base of 474 MW coal-based captive power plants. We also have green power capacity of 324 MW that includes 274 MW of wind power, 35 MW of waste heat power and 16 MW of solar power.

Our long mine life of over 25 years ensures that the long-term sustainability of our business is combined with our strong financials, executional excellence and strategic business management capabilities.



RAJASTHAN

- 1 Rampura Agucha Mine
 - 1 Chanderia Smelting Complex
 - 2 Sindesar Khurd Mine
 - 2 Dariba Smelting Complex
 - 3 Zawar Mining Complex
 - 3 Debari Zinc Smelter
 - 4 Rajpura Dariba Mine
 - 5 Kayad Mine
 - * Pantnagar Metal Plant
- Mines ■ Smelters

Profile Summary

Zinc Smelting
843,000 tpa

Lead Smelting
201,000 tpa

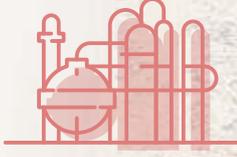
Silver Refining
600 tpa

Captive Power
474 MW

Green Power
324 MW



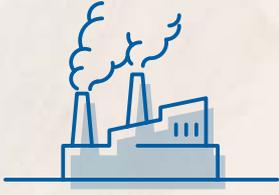
MINE



SMELTER



REFINERY



CAPTIVE POWER PLANT

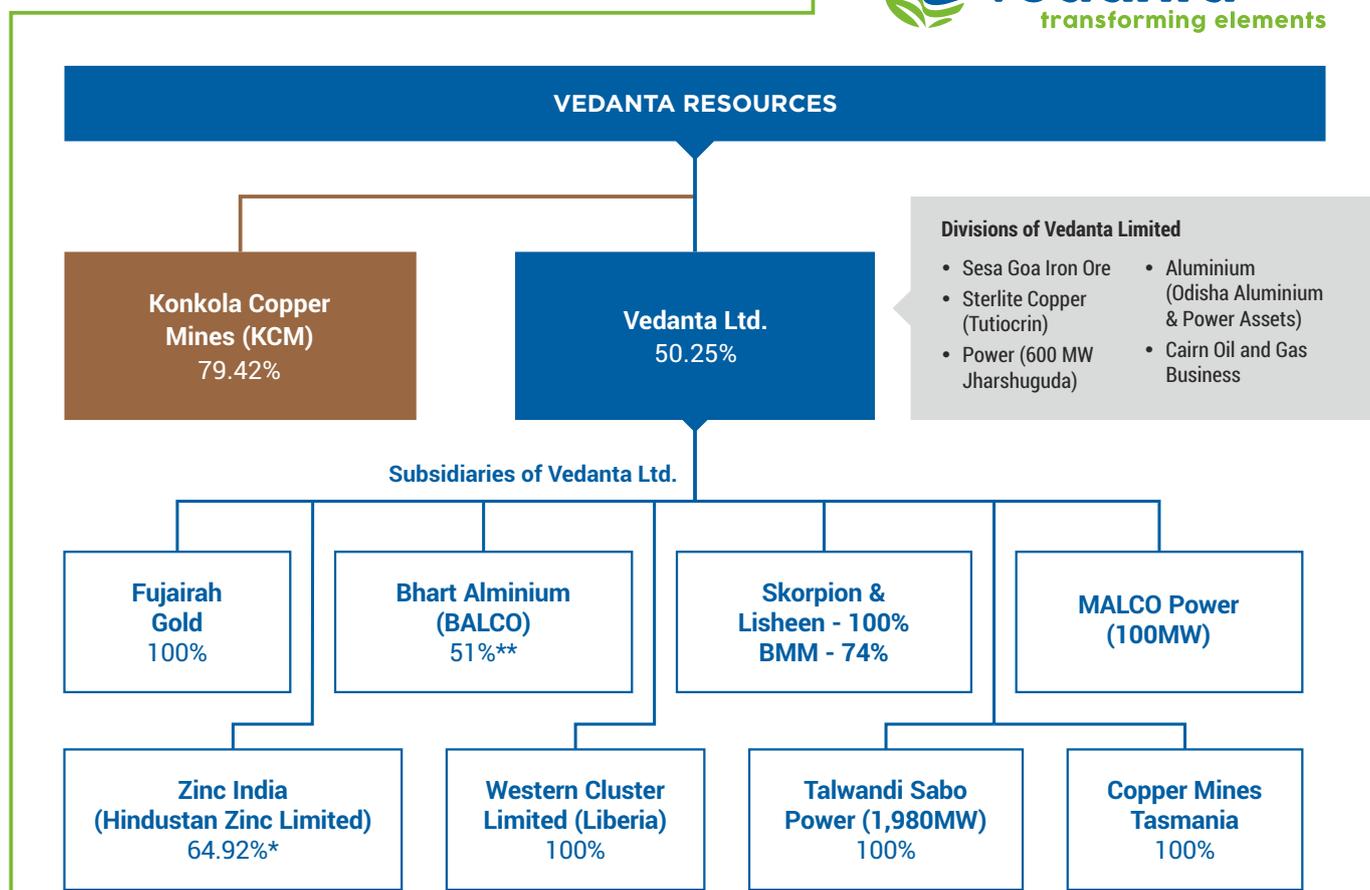


GREEN POWER

Vedanta Group Holding

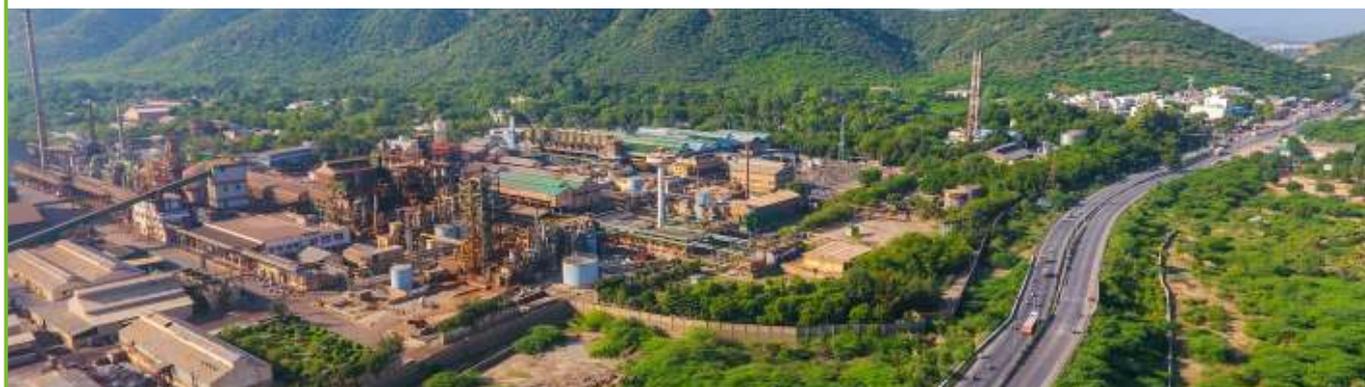
We are a public limited company and a subsidiary of Vedanta Limited – a diversified natural resources company whose business primarily involves producing oil and gas, zinc, lead, silver, copper, iron ore, aluminium, and commercial power. With a presence across India, South Africa, Namibia, Australia, Ireland, and Liberia, 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, and a strong focus on health, safety and environment, and enhancing the lives of local communities are some of their priorities. 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.

More details can be found on www.vedantalimited.com.



- Divisions of Vedanta Limited**
- Sesa Goa Iron Ore
 - Sterlite Copper (Tutiocrin)
 - Power (600 MW Jharshuguda)
 - Aluminium (Odisha Aluminium & Power Assets)
 - Cairn Oil and Gas Business

*Option to increase stake to 94.4% | **Option to increase stake to 100%



Board of Directors



Agnivesh Agarwal
Chairman



Navin Agarwal
Director



Sunil Duggal
CEO & Whole-time Director



Reena Sinha Puri
Director



Farida M. Naik
Director



A. R. Narayanswamy
Director

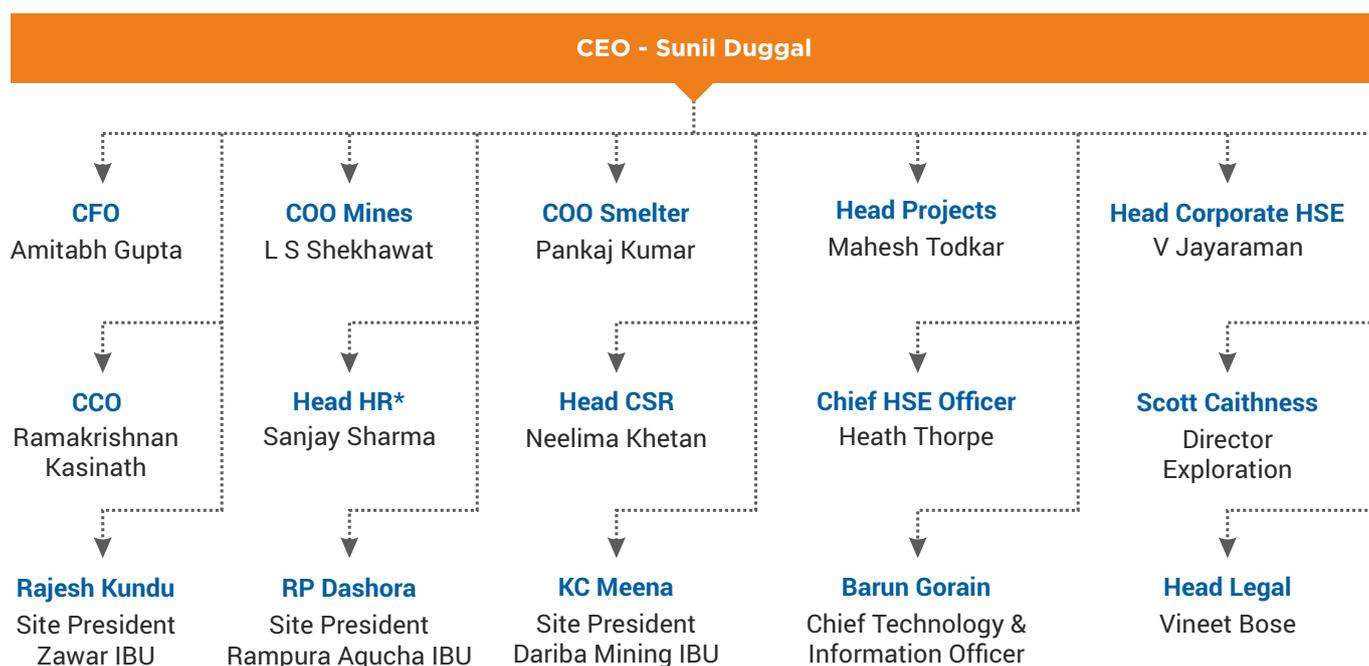


Arun L. Todarwal
Director



Sudhir Kumar
Director

Executive Committee



*interim

REPORT SCOPE & BOUNDARY

The scope of the report extends to all operations of Hindustan Zinc Limited. These include five mining locations, three smelters, and one refinery. The boundary for the identified material aspects are primarily limited to the operations of the Company. It extends to encompass the entire value chain for certain material aspects based upon its relevance to the sustainability strategy of Hindustan Zinc and the relevance to stakeholder interests.

Report Content

This is HZL's third Sustainability Report and discloses information from 1st April 2017 - 31st March 2018. This year's report has been prepared as per GRI Standard "in accordance"- Core criteria, including the technical protocols of the Mining and Metals Sector Supplement.

The data has been reviewed for completeness and accuracy at the operations level. Unless otherwise stated, we have reported the data using the metric system and the currency has been reported as Indian rupees. The GRI Index at the end of this report provides a list of GRI Indicators and Disclosures (as per GRI Standard) and their locations within this report.

Assurance of this report was carried out in accordance with the International Standard on Assurance Engagements 3000 (revised) by M/s KPMG.

Growth Boundaries

Mines

Rampura Agucha Mine | Kayad Mine
Zawar Mining Complex
Sindesar Khurd Mine | Rajpura Dariba Mine

Smelters & Refineries

Chanderiya Smelting Complex
Dariba Smelting Complex
Debari Zinc Smelter | Pantnagar Metal Plant

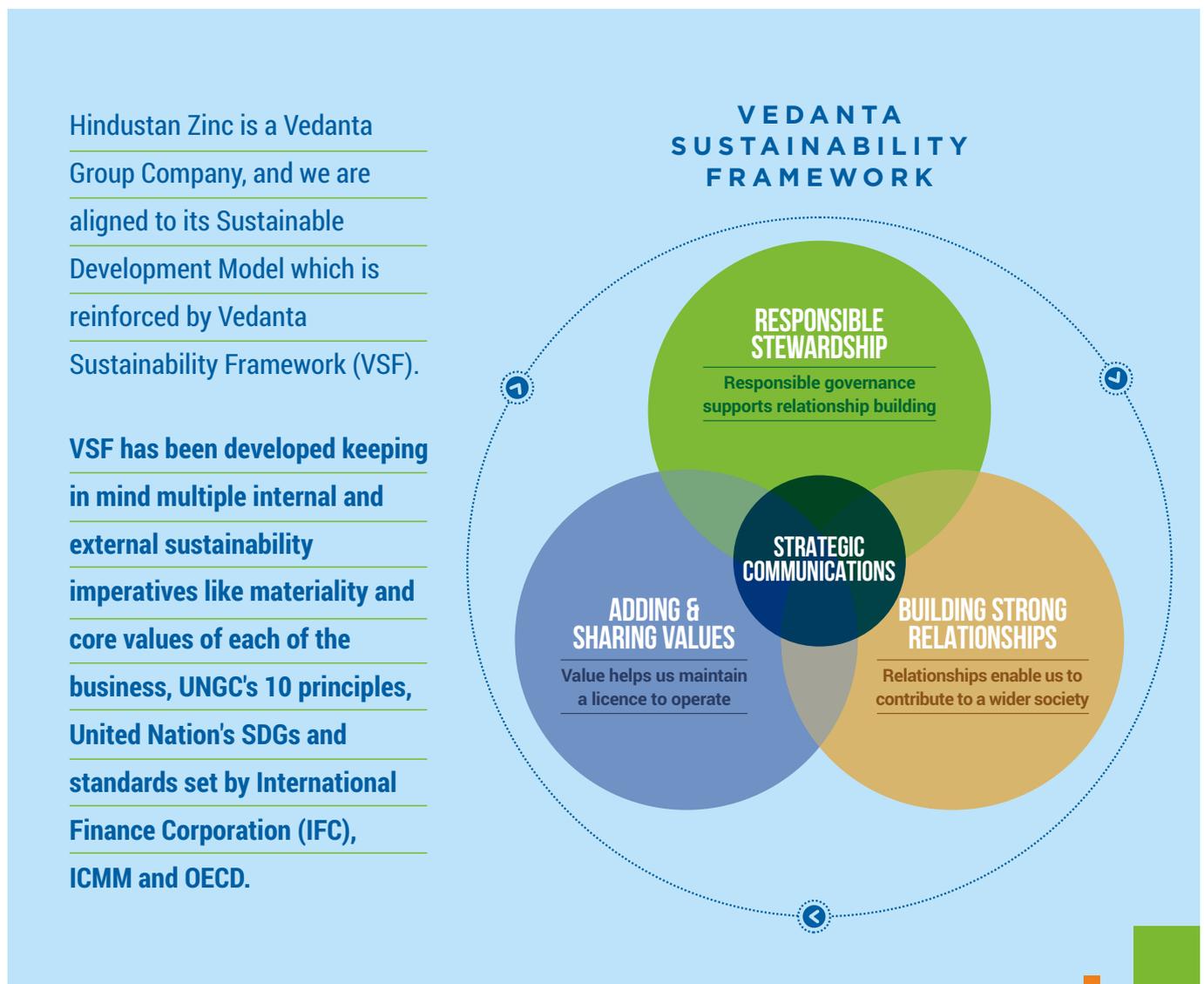


SUSTAINABILITY & US

Strategy & Approach

Sustainability is the only business strategy at Hindustan Zinc. It entails long-term growth maximisation in a way that is both sustainable and responsive for the stakeholders and the society.

In whatever we do and the way we do it, the ethos of sustainability and growth are built into it. The strategy is aided by sustainability of our products such as zinc which has an intrinsic galvanisation property to protect steel or iron from rusting.



Our management systems and processes have been aligned with VSF and to identify any lacunae between the current systems and processes we conduct gap analysis through Vedanta Sustainability Assurance Programme (VSAP). The identified gaps are discussed and reviewed by the leadership teams, and action plans are put in place to ensure compliance within specified period of time.

Our Sustainable Development Model comprises four pillars



RESPONSIBLE STEWARDSHIP

The way we manage our business in a sustainable manner and is the measurement of our performance against both our own targets and international benchmarks, in line with our Sustainability Framework.

It is critical to defining how we operate, covering all aspects outlined in our Code of Conduct - including ethical behaviour and whistleblowing - and our approach to risk management.

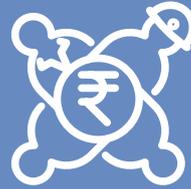
It also encompasses our health, safety and environmental management - including the way we manage water and energy use, waste, carbon footprint and biodiversity management.



BUILDING STRONG RELATIONSHIP

The strength of the relationships we build with our stakeholders is one of the ways we add value in a broad sense as they play an important role in influencing the strategic direction of our business.

Engaging effectively and understanding the distinct requirements of our various stakeholders we identify groups with significant interest in our operations.



ADDING AND SHARING VALUE

Our operations are based in India and we believe that we can add and share value in the communities where we operate to facilitate the development of the nation.

We create value through structured and collaborative engagement with our stakeholders, including for our employees, our host communities and broader society. This is done not only through the commodities that we produce but through the economic and social contributions we make across our global operations, particularly in the developing world.



STRATEGIC COMMUNICATIONS

The pillar interlocks with the other three pillars of our model and is the guiding principle which enables the organisation to engage with our stakeholders in a transparent dialogue.

This pillar is the vital element of sustainable development, in implementing and strengthening our 'social license to operate' efforts.

This pillar further reflects our commitment to becoming a more transparent and responsible corporate citizen and emphasises on our principles of community dialogue and mutual respect, including free, prior and informed consent to access natural resources.



SUSTAINABILITY VISION & MISSION

We constantly strive to achieve our sustainability vision and mission in alignment with the VSF. The framework has served as an effective tool to conduct business in line with our core values of trust, entrepreneurship, innovation, excellence, integrity, respect and care.



Vision

To excel in operations by upholding world-class standards of governance to achieve zero harm and zero discharge, while being socially responsible



Mission

Our mission is to become a global leader and create value by conducting our business in a responsible and ethical manner by:

- Improving health, safety, and well-being at the workplace
- Eliminating the potential damage of our activities on the environment, and reducing our environmental footprint with the adoption of sustainable practices and preservation of natural resources
- Benefitting the communities in which we operate and enhancing their livelihood
- Communicating our sustainability efforts and performance to our stakeholders with transparency, authenticity, and integrity

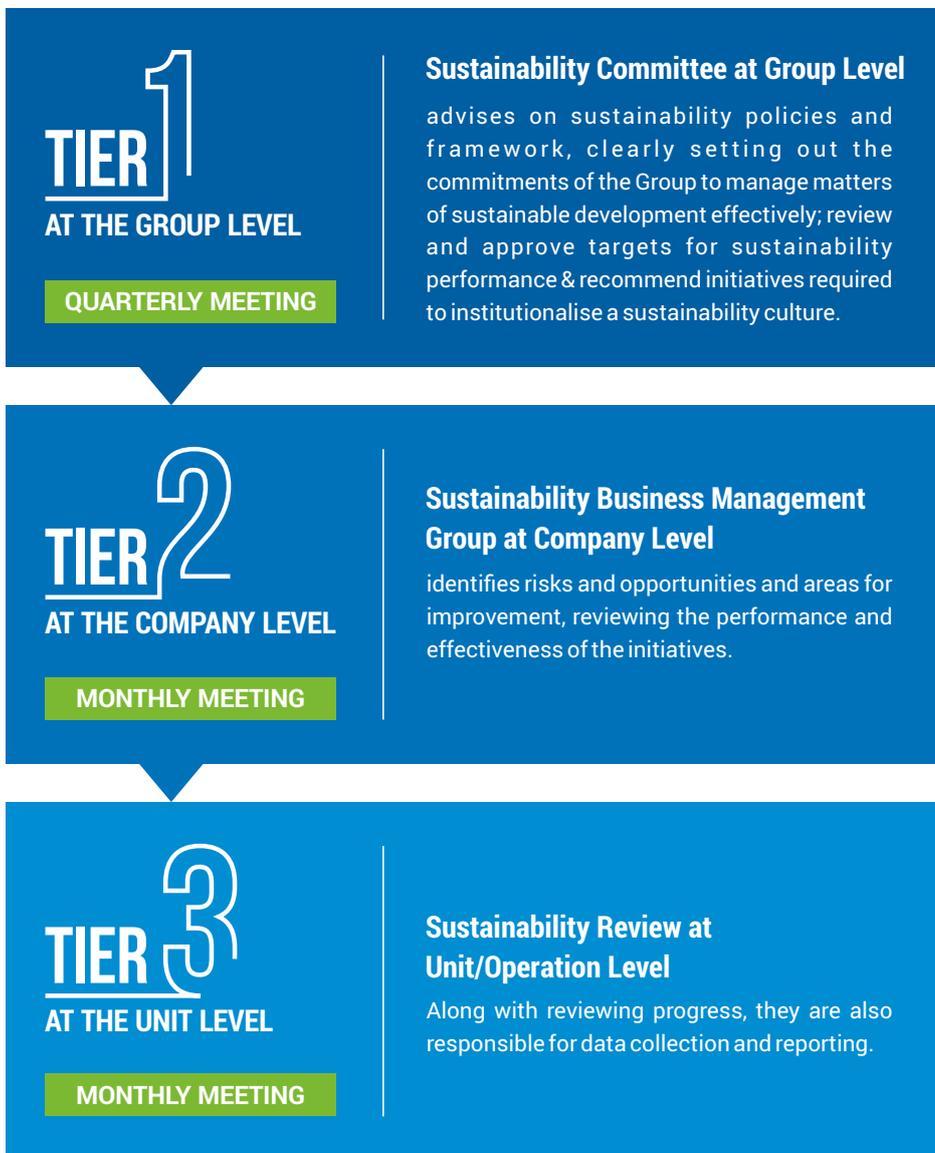


Sustainability Governance

Sustainability governance enables us to implement our sustainability strategy across our businesses, manage goal setting and reporting process, strengthen relations with our stakeholders and ensure overall accountability. We monitor and review our sustainability objectives and implement the same at regular intervals to comply with the Vedanta Sustainability Assurance Programme (VSAP). VSAP is an internal risk management tool run by Vedanta's Management Assurance System team.

Sustainability Governance Framework

Our sustainability governance framework consists of a three-tier governance mechanism, directed by the Vedanta Board to the units of operations at the site level.



Sustainability Policies

- HSE Principles & Policy
- Human Rights Policy
- Energy and Climate Change Management Policy
- CSR Policy
- Supplier & Contractor Sustainability Management Policy
- Water Management Policy
- Biodiversity Management Policy
- HIV - AIDS Policy

We have eight sustainability policies which influence every decision we make and give us the confidence to perform in a safe, ethical, and transparent manner. Through a dedicated sustainability taskforce, which includes officials from the safety, environment, and occupational health division, we drive sustainability throughout our Company.

Sustainability Risks

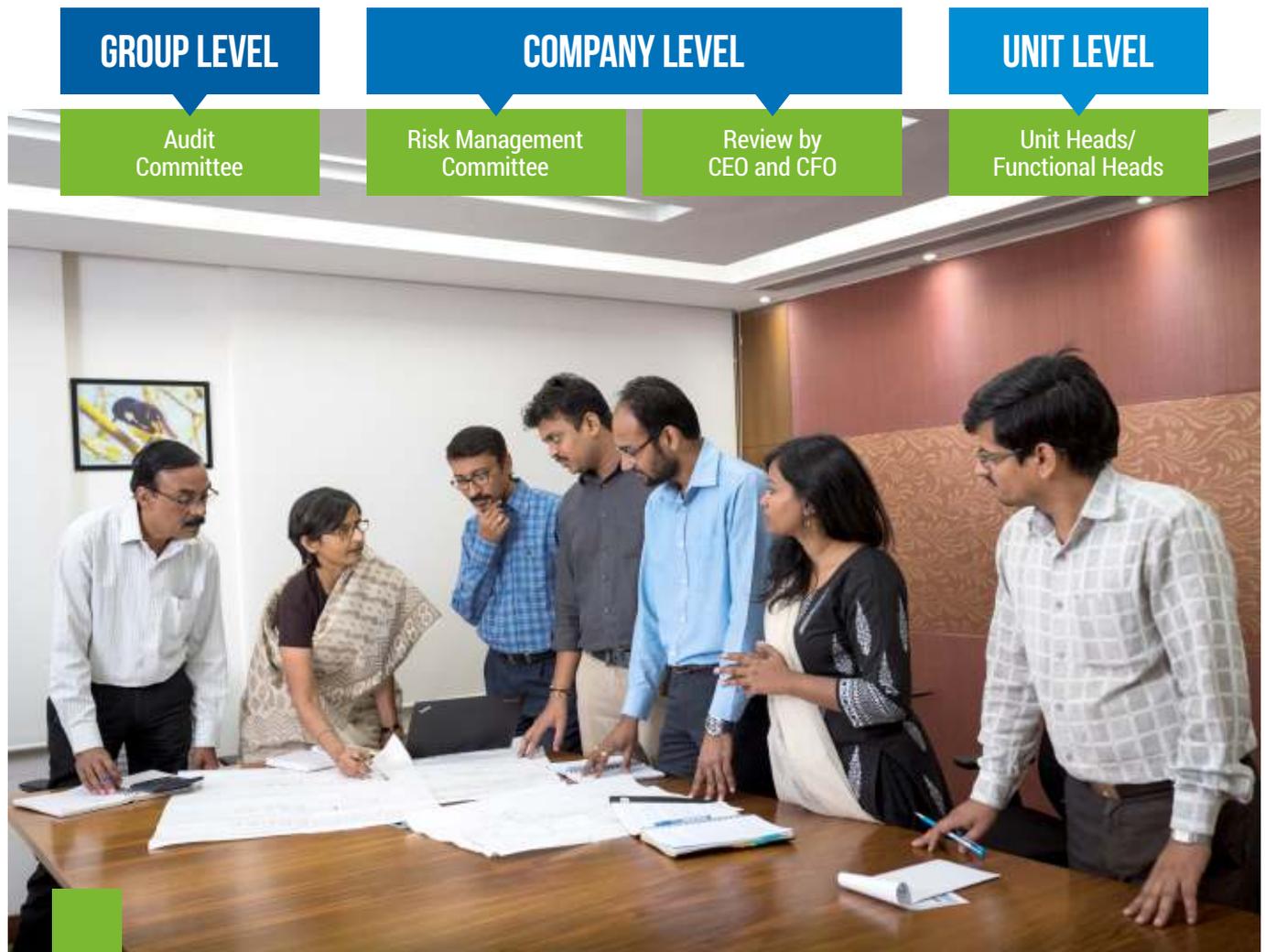
Hindustan Zinc is the world's second largest producer of zinc. The industry that we are operating in exposes us to a variety of internal and external risks. We have put a robust management framework in place to manage these risks, right from predicting them early on to working towards mitigating them.



Risk Governance Structure

At HZL we continuously identify, assess and mitigate risks arising as a result of internal and external factors. Through a formal monitoring process at the unit and Company level, new risks are identified, categorised as per impact and likelihood, mapped to key responsibilities of select managers and managed with an appropriate mitigation plan.

To ensure transparency and efficiency of the measures we have in place a Group Management Assurance System that coordinates the risk management framework, reviewed annually by the Audit Committee on behalf of the Board. This in turn is supported by a Board Level Risk Management Committee comprising the CEO, CFO and Chairman of the Audit Committee. The Head of Group Management Assurance, COO Mines and COO Smelters are permanent invitees of the committee.



Risk Impact and Analysis

The process of analysing risks and its impacts keeps Hindustan Zinc always ready for the future. As we move towards becoming a complete underground mining company, predicting, analysing and mitigating the impacts is an imperative. We have analysed all our processes and spheres of influence for potential risks and appropriate mitigation measures are in place.

Some of the key sustainability risks and the kind of impacts they can have on the organisation and the stakeholders have been identified below:



SAFETY, HEALTH AND ENVIRONMENT

Sustainability Risks

- Incidents
- Explosions
- Leakage of hazardous emissions and wastes

Impacts

- Adverse impact on surrounding communities and loss of goodwill/brand image
- Adverse impact on environment
- Litigation and disruption to operations
- Penalties | Adverse impact on productivity
- Property or body damage



COMMUNITY RELATIONS

- Inability to provide inclusive growth
- Disruption to their lifestyles due to the Company's operations

- Discontent amongst the community
- Loss of social license to operate



NATURAL RESOURCES

- Lack of availability of natural resources like water, energy and land

- Negative impact on operations and effect on future projects



HUMAN RESOURCES

- Talent retention and lack of underground mining skills

- Adverse impact on productivity
- Attrition of talent pool

ETHICS AND CORPORATE GOVERNANCE

As a responsible corporate citizen, it is essential to uphold the values intrinsic to Hindustan Zinc. We believe it is not only important to create value but also to effectively sustain it over a longer term. Good corporate governance begins with a company's own internal practices and policies. Hence, we take a holistic business view, with sustainability as an integrated aspect of our corporate governance.

The Board of HZL is committed to the highest standards of corporate governance as it believes that in the interests of the shareholders, the application of corporate governance must reflect the nature of our businesses, the ownership of the Company, and its development needs. It is the moral, ethical and value framework on which we base our decisions. Our Board of Directors seek to ensure transparency, growth and commitment in the Company's relationship with all its stakeholders through our robust corporate governance framework, which is driven by a three-tier structure.

The Board of HZL is supported by five committees that help to implement the strategic decisions across our units and demonstrate good corporate citizenship through environmental awareness, ethical behaviour and sound corporate governance practices.



At HZL, we place great emphasis on fostering a culture built on core values, professionalism and transparency, thus, upholding the integrity in all our dealings. We constantly endeavour to improve upon these aspects on an ongoing basis through our corporate governance framework providing strategic supervision and executive management.

CORPORATE GOVERNANCE FRAMEWORK

STRATEGIC SUPERVISION

Board of Directors

Lay down strategic goals, major expansion projects, capital expenditure and business plan approvals.

OPERATION MANAGEMENT AND CONTROL

Functional heads, Plant heads, steered by the CEO, CFO and COOs

Handles management and coordination of the business to seek continuous improvements in the working of the company.

PLANT/UNIT EXECUTIVE MANAGEMENT

Comprises several strategic SBUs

Responsible for overall execution and empowerment through decentralised decision making.

Promoting Ethical Business

Adhering to ethical practices in every aspect of business is crucial to us at HZL. Cultivating an honest and transparent environment that ultimately reflects in our dealings with stakeholders strengthens their confidence in us. Our Business Ethics and Code of Conduct, established in compliance with Foreign Corrupt Practices Act and UK Bribery Act, 2010, address matters of ethical conduct in our work environment, business practices, and relationship with internal and external stakeholders through the values and principles enshrined therein. The Code guides our behaviour and helps us to:

Promote ethical handling of conflicts of interest

Full, fair, accurate and timely disclosure of reports and documents that HZL files with relevant authorities

Prompt internal reporting to the appropriate persons identified in the Code

Compliance with applicable government rules and regulations



**Dow Jones
Sustainability
Indexes**

In the Dow Jones Sustainability Index under mining & metal industry group 'Codes of Business Conduct' category
Scored 90 against the industry avg of 70



BUSINESS ETHICS AND CODE OF CONDUCT

- ✓ HUMAN RIGHTS
- ✓ GIFT POLICY
- ✓ WHISTLE BLOWER POLICY
- ✓ SEXUAL HARASSMENT POLICY
- ✓ INSIDER TRADING
- ✓ FCPA (USA)
- ✓ DIVERSITY AND INCLUSION POLICY
- ✓ UK BRIBERY ACT

All the Board members, executives and new employees annually affirm compliance with the Code. Every year all employees give their sign-off for compliance with COC. An Ethics Committee has been constituted to orient and address the principles and standards. The committee takes various initiatives to spread awareness about the Company's Code of Conduct and whistle-blower policy.

Anti-Bribery and Anti-Corruption

In line with our policy to conduct all our businesses in an ethical and honest manner, we take a zero-tolerance approach to bribery and corruption. We are committed to acting fairly and with integrity in all our business dealings and relationships, and reducing bribery and the potential for corruption in our entire value chain, from the beginning to the final sale and delivery of our goods to the customers. Employees shall not offer or provide undue monetary or facilitation payments, any other advantage to any person or persons, including public officials, customers, employees or any associated persons in violation of laws and the officials' legal duties to obtain or retain business.

We are a signatory to the United Nations Global Compact and abide by the UNGC Principle 10 which states that business should work against corruption in all its forms including extortion and bribery. All our employees and suppliers are made aware of the same through our Code of Conduct training, and are expected to follow them rigorously. All our operations are regularly assessed for the risk of corruption.

During FY 2017-18, there have been no reported legal cases on anti-competitive behaviour, anti-trust and monopoly practices. There were no fines levied on us non-compliance with laws and regulations.

Slavery and Human Trafficking

At HZL, we are committed to upholding human rights and dignity aligned with national and international regulations. Consistent with the disclosure obligations under the UK Modern Slavery Act 2015, we are committed in our approach to tackling modern slavery in our business and supply chain. We expect all our contractors, suppliers and business partners to strictly follow the same high standards we have set for all our business units. We ensure there is no use of forced, compulsory or trafficked labour, or anyone held in slavery or servitude in any part of our business and we expect our suppliers to apply the same high standards to their own organisations and supply chain. This year we have modified our Human Rights policy, and Supplier and Contractor Sustainability Management policy to ensure the compliance towards MSA.

Encouraging Fair Practices

We have put in place a whistle-blower mechanism at HZL which provides our employees and business partners with opportunities to report any unethical practice within the Company. Our whistle-blower policy ensures that the identity of the whistle-blower is kept confidential. We also have in place the safety whistle-blower programme to foster safety across our operations. This portal allows employees to reach out to the senior management to report safety violations and concerns on site. An escalation mechanism to higher authorities enables immediate action regarding violations of serious nature. This portal is accessible to all employees, including contractual employees, and from any network. Complaints can be reported pertaining to the following areas:

- 1** | **Fraud against investors, securities fraud, mail or wire fraud, bank fraud, or fraudulent statements.**
- 2** | **Violations of any rules and regulations applicable to the Company and related to accounting and auditing matters.**
- 3** | **Intentional error or fraud in the preparation, review or audit of any financial statement of the Company.**
- 4** | **Any violation to the Company's ethical business practices as specified in the Company's Code of Conduct policy.**

Any complaints under this policy are reported to the Group Head - Management Assurance, who is independent of operating management and business. The Head Management ensures thorough investigation of complaints and submits regular reports to the Company's Audit Committee for review. During the reporting period all whistle-blower complaints have all been satisfactorily resolved, and all customer complaints were suitably addressed.

Safety Whistle-Blower Portal

To foster safety and for faster actions on closer of unsafe conditions at site along with escalating the serious nature of unsafe acts observed and closed, a safety whistle blower portal is there wherein employee can provide the details which would be directly communicated to the corporate. To facilitate all the employees including employees of the contractor, the portal is accessible from any network.



<https://web.hzlmotals.com/safetywb/AddNewRecord.aspx>

Hotline Number:

000-800-100-1681

hzlwhistle.blower@vedanta.co.in

Web based reporting platform:

<http://www.vedanta.ethicspoint.com>

COMPLAINTS
CAN ALSO BE
SENT TO



MEMBERSHIP & ASSOCIATION

MEMBERSHIPS OF



HINDUSTAN ZINC



Confederation of Indian Industry



Federation of Mining Associations of Rajasthan



Indian Chamber of Commerce



Total Membership fees paid during reporting period FY 2017-18

₹ 1,487,798

AWARDS & ACCOLADES

SUSTAINABILITY



Received **India Today Safaigiri-2017 Award** for Best PPP Model for the Sewage Treatment Plant at Udaipur

Ranked 11th Globally by Dow Jones Sustainability Index

Featured in RobecoSAM Sustainability YearBook 2018 - one of the nine companies in India and the only Indian mining company

Received the **CII-IGBC Green Existing Building Platinum Award - 2017**

Received the **Sustainable Plus Platinum Label - 2016** by CII

Received **National Awards for Excellence in CSR and Sustainability 2017** - Best Sustainable Practices, Best Sustainability Report and Best Carbon Footprint

Kayad mine received the **Global Sustainability Award 2017** under Gold Category

DSC received the **Corporate Governance & Sustainability Vision Awards - 2017** by Indian Chamber of Commerce (ICC)

Received ICICI Lombard and CNBC TV18 - **India Risk Management Award 2018** for best Sustainability Risk Management Framework

OPERATIONAL EXCELLENCE



Received the **Safety Innovation Award 2017** by Institution of Engineers (India)

Received Certificate of Commendation '**IEI Excellence Award 2017**'

Pantnagar Metal Plant received the **Par Excellence Award in 5S & Kaizen in the 5th National Enclave on 5S** organised by Quality Circle Forum of India

Pantnagar Metal Plant received the **2nd CII National 5S Excellence Award - 2017**

Rampura Agucha and Rajpura Dariba mines received '**5 Star Rating**' by Indian Bureau of Mines, Government of India

Received **Dun & Bradstreet Corporate Award 2017** in the non-ferrous and precious metal category



ENVIRONMENT



Received the **SEEM National Energy Management Award - 2016**

Kayad mine received the **Environment Excellence Award - 2017** by Indian Chamber of Commerce (ICC)

The solar power projects at Dariba (4.8 MWp) and Debari (14.4 MWp) have been declared **Gold Award Winner in the Rising Category as Best Performing Project of the Year** on Utility Scale Solar Energy at the RE ASSETS Excellence Awards Summit 2017

Hindustan Zinc's 4 units received **8th Rajasthan Energy Conservation Award 2017** by Government of Rajasthan. Rampura Agucha Mine received First Prize in Large Scale Mining Sector, Sindesar Khurd Mine received Second Prize in Large Scale Mining Sector, Zawar CPP received **Recognition Certificate in Large Scale Power Plant Sector** and Yashad Bhawan received **Recognition Certificate in Energy Conservation Building Directives (ECBD)** compliant building category.

DSC received the **Water Digest Water Awards (WDWA) 2017**

SKM received **Second Prize in the Fertilizer (Phosphate) Sector** during National Energy Conservation Award - 2017

Chanderiya CPP received **Fly Ash Utilisation Award 2017**

HUMAN RESOURCES



HZL was recognised as "Great Place to Work" by Great Place to Work Institute

Received the **CII HR Excellence Award 2017-18** for "Strong Commitment to HR Practices"

CORPORATE SOCIAL RESPONSIBILITY



Received the **ET Now CSR Leadership Awards 2018** in Best CSR Practices

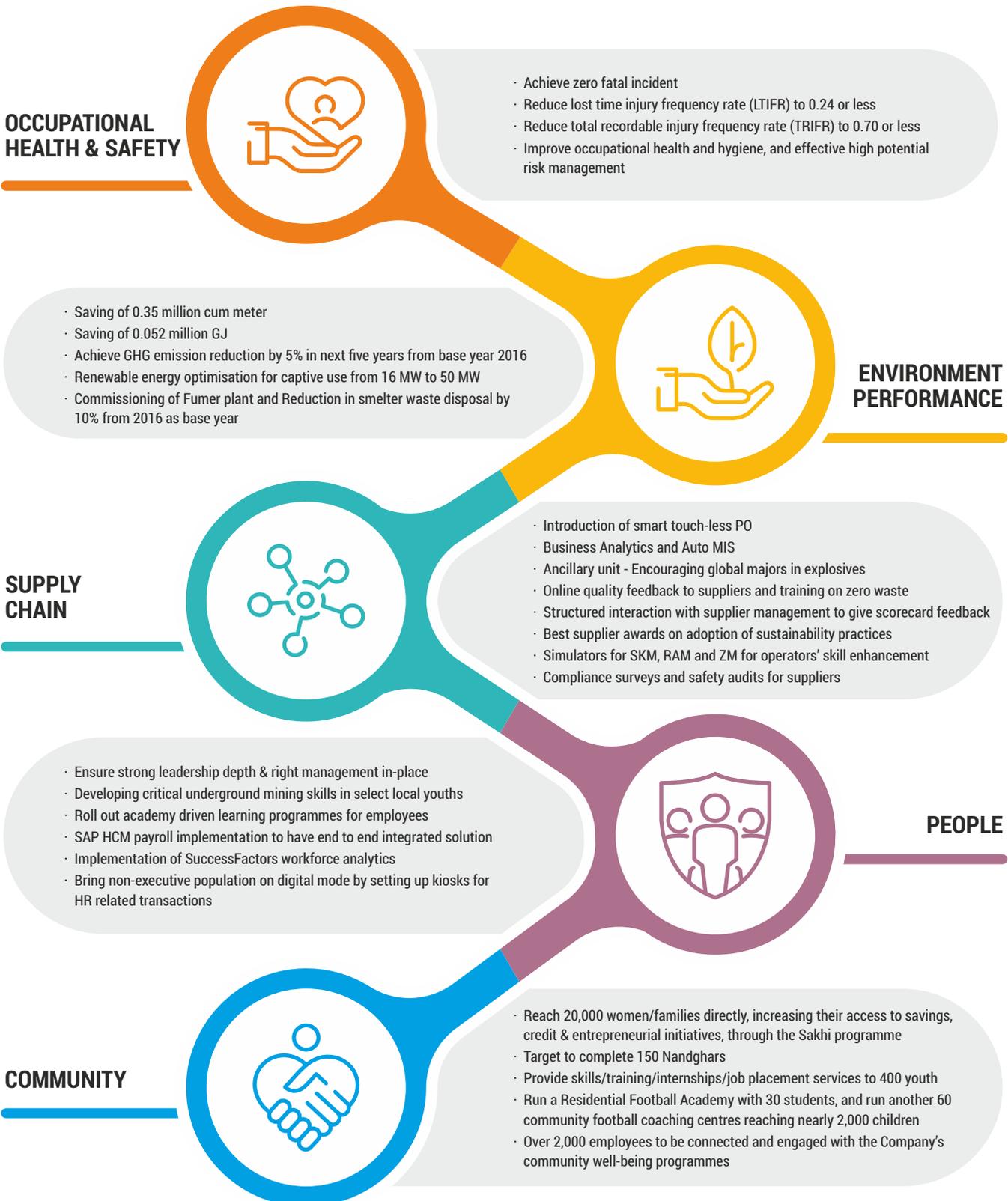
Ranked 20th in Responsible Business 2017 by Economic Times and IIM Udaipur

Received the **Bhamashah Award 2016-17** for exceptional contribution in the field of education



SUSTAINABILITY ROADMAP 2018-19

As we progress to achieve our future goals, we will ensure that we meet the expectations of all our stakeholders and continue with our commitment.



SUSTAINABILITY SCORECARD



HEALTH AND SAFETY

(2017-18)

Goals and Targets	Status	Performance
Achieve zero fatal incidents	●	2 fatalities (2 contract employees) in Projects
Achieve zero occupational illness cases	●	No occupational illness cases recorded
Reduce lost time injury frequency rate (LTIFR) to 0.27 or less	●	LTIFR reduced to 0.27
Reduce total recordable injury frequency rate (TRIFR) to be 0.70 or less	●	TRIFR reduced to 0.82
Critical review & audit of safety standard implementation	●	VSAP safety scores improved from 54 last year to 63 this year
Improvement in risk analysis and evaluation methodology	●	Strengthening of fatal and serious incident prevention plan and experience-based risk assessment



HUMAN RESOURCE MANAGEMENT

(2017-18)

Goals and Targets	Status	Performance
Create and develop leadership pipeline and succession planning for key positions	●	Identified key and critical position and succession pipeline
Develop operational skills in underground mining for enhanced performance and productivity	●	<ul style="list-style-type: none"> First ever campus placement 2017 held, 96% of the total batch (155) placed with various mining companies Launched Vth batch of JDO with 113 learners started in Jan 2018 at Railmagra
Leverage technology for data driven people decisions	●	<ul style="list-style-type: none"> Successful implementation of end-to-end HR digitisation online on SuccessFactors My HR Canvas for all major HR verticals Launched online employee modules Online Query management and E-separation for enhanced HR delivery
Foster environment of high engagement and admired employer in the industry	●	Certified as 'Great Place to Work'



ENVIRONMENT

(2017-18)

Goals and Targets	Status	Performance
Save 0.32 million cum meter	●	Target achieved (Actual-0.4 MCM)
Save 0.030 million GJ	●	Target achieved (Actual-0.079 MGJ)
Achieve GHG emission reduction by 5% in next five years	●	Continuing efforts to achieve target
Implementation of BMP recommendation	●	Annual phase-wise implementation started across all HZL sites
Zero Category 4 or 5 environmental incidents	●	Target achieved (No category 4 & 5 incidents during the year)

● Achieved ● Not achieved ● Work in progress



COMMUNITY

(2017-18)

Goals and Targets	Status	Performance
Expanding the Group's flagship CSR programme, Nandghar	●	Expanded to 4 districts of Udaipur, Rajsamand, Bhilwara and Ajmer, taking total to 53 centres
Social Audit and Need Assessments to be conducted	●	Commissioned the studies
Embed and encourage employee volunteerism in social initiatives	●	Special drive of employee engagement done in 3 CSR programmes. Around 2,000 employees participated/contributed
Encourage safety practices and initiatives among partners and communities	●	1) Embedded culture of safety in our partners 2) Conducted awareness sessions on home safety, fire safety and road safety. Around 400 sessions conducted, covering more than 50,000 people



SUPPLIER AND CONTRACT MANAGEMENT

(2017-18)

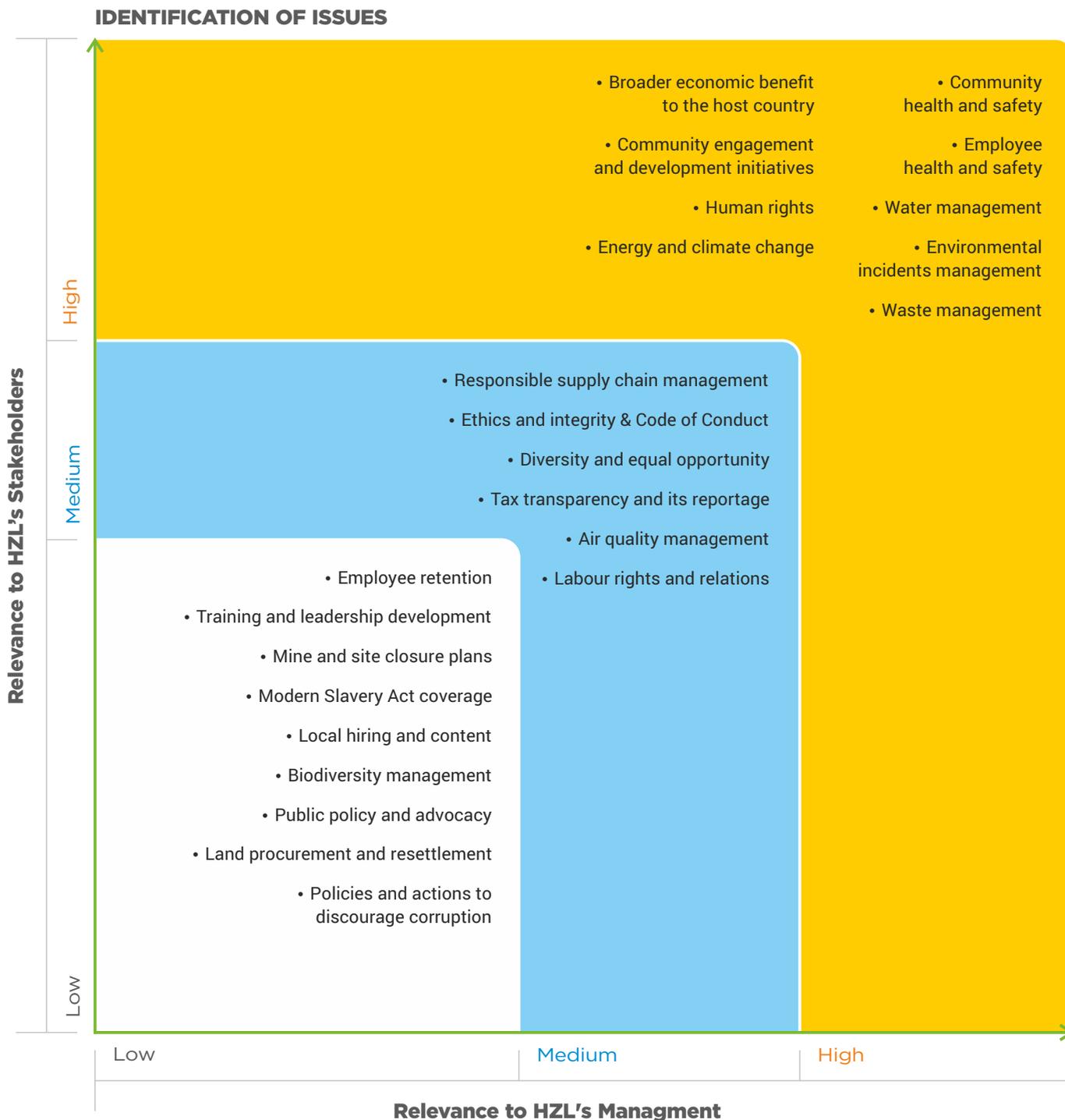
Goals and Targets	Status	Performance
Driving supplier co-innovations to improve TCO and green sourcing, technological investments (ARIBA, TMS) for enhanced supply chain collaboration	●	ARIBA supplier collaboration went live in March 2018 Major advantages of this technological intervention: a) PR-PO cycle time reduced to zero by using catalogues b) Easy vendor registration process - Self profile registration & updation for vendors c) Elimination of repetitive activities and DMS d) HZL has realised savings of INR 117 crore using online negotiation tool (auction platform)
Zero defect culture with our suppliers and zero waste in supply chain	●	Use of shuttered trucks for transporting concretes from mines to smelter resulted in zero spillage and theft - leading to significant savings for HZL
Supplier scorecards for star rating of supplier performance and recognising best-in-class performance	●	Steps taken to improve performance of business partners under V-step initiative: a) New performance scorecard for service providers introduced & implemented b) Small/petty vendors (with T/O <5 Cr) and traders/middlemen have been blocked to deal directly with OEMs c) Introduced two new aggregators to reduce multiple transactions
Investment in skill enhancement of our contract workforce and driving zero non-compliance of our suppliers	●	Sophisticated mining equipment and jumbo drill training centre set up in Railmangra and Bijaynagar. Total 155 people trained in the past one year

IDENTIFYING MATERIAL ISSUES

Materiality assessment helps us identify the issues that are most important to our stakeholders, our business, and to prioritise our interventions accordingly. It also acts as an efficient tool to introspect on our sustainability journey as well as shape our future plan across the triple bottom-line. In 2015-16, we conducted materiality process which identified material sustainability topics, prioritised them and got it verified. To ensure that the same material issues still have relevance in 2017-18, the issues were revalidated internally this year.

<p>Government</p> 	<p>Top Management</p> 	<p>High Priority</p> <hr/> <ul style="list-style-type: none"> Community health and safety <hr/> Employee health and safety <hr/> Water management <hr/> Environmental incidents management <hr/> Waste management <hr/> Broader economic benefit to the host country <hr/> Community engagement and development initiatives <hr/> Human rights <hr/> Energy and climate change
<p>Employees</p> 	<p>Community</p> 	<p>Medium Priority</p> <hr/> <ul style="list-style-type: none"> Responsible supply chain management <hr/> Ethics and integrity & Code of Conduct <hr/> Diversity and equal opportunity <hr/> Tax transparency and its reportage <hr/> Air quality management <hr/> Labour rights and relations
<p>Trade Union</p> 	<p>Contractors / Suppliers</p> 	<p>Low Priority</p> <hr/> <ul style="list-style-type: none"> Employee retention <hr/> Training and leadership development <hr/> Mine and site closure plans <hr/> Modern Slavery Act coverage <hr/> Local hiring and content <hr/> Biodiversity management <hr/> Public policy and advocacy <hr/> Land procurement and resettlement <hr/> Policies and actions to discourage corruption
<p>NGOs</p> 	<p>Customers</p> 	

Based on the rankings of the internal revalidation, here are the key material issues for both the management as well as the stakeholders in FY 2017-18.



PRODUCT RESPONSIBILITY

Hindustan Zinc is the largest integrated producer of zinc-lead with a capacity of 1 million tons per annum and among leading global lead and silver producers. While we are in the business from 1966, we are not standing still. In the last fifty years, we have been consistently innovating and using technology to meet the demand for our products in the global market in a sustainable manner.

Sustainability is inherent to our products. They enhance life of other products, reduce the demand for natural resources, and significantly shrink the environmental footprint of humankind. A coat of zinc on steel or iron prevents rusting and increases their longevity, while lead has radiation resistance properties and is used as a shield in high radiation environments. Silver is anti-microbial as well as non-toxic which makes it useful in medicine and several consumer products such as jewellery; while cadmium protects iron from rusting.

These products contribute in a large measure to our daily lives. From mobile phones and renewable energy products to medical equipment, and automobiles to infrastructure such as bridges, these metals are the building blocks of society and the economy. It is our constant endeavour to enhance the sustainability quotient of our products and reduce our footprint through innovation and optimisation.



LME registered Special High-Grade Zinc products

HZL SHG
HZL Zn SHG
Vedanta SHG
Vedanta Zn SHG **99.995**

Product Profile

ZINC

We produce refined zinc metal, which is used in a number of applications including galvanising, oxides, die casting and alloys in a variety of grades.

Last year saw a healthy increase in zinc consumption in the three major consuming regions - Asia, Europe and North America. Demand growth in China from the real estate and automotive sectors, and the 'One Belt One Road' initiatives, was partly offset by the impact of pollution control measures.

In India, zinc consumption in the near-term will benefit from the ongoing restructuring of the steel industry and adherence to newly established IS277 coating standards. The alloys and die casting sector also witnessed robust growth, led by zinc-magnesium alloys. Demand from the automotive sector remains robust due to the rising penetration of galvanised steel in domestic cars.

We produce zinc in a variety of grades

Special High Grade (SHG) Zinc

99.995%

High Grade (HG)

99.975%

Prime Western (PW)

98.65%

Continuous Galvanising Grade (CGG)

Electro-Plating SHG Zinc (EPG SHG)

Zinc Die Casting Alloy (HZDA)

Zinc die casting alloy can be cast into virtually limitless shapes and sizes ranging from simple toy cars to complex auto component due to its unique physical and mechanical properties.

Grades

HZDA Z3 & HZDA Z5

Hindustan Zinc Special High-Grade Zinc 99.995% conforms to the following standards

**ASTM B6-SHG Z13001 Grade
BS EN 1179:2003 – Z1 Grade**



Over the next five years, zinc demand in India will be a beneficiary of higher construction spending, which is expected to increase at around 10% CAGR with projects under the metro rail, Smart Cities Mission and Swachh Bharat (Clean India) driving investments in urban infrastructure.

LEAD

We produce refined lead, which is LME registered. Lead metal is used in several applications including battery segment, lead-based pigments, and cathode ray tubes.

The battery sector is the single largest consumer of lead, accounting for around three-quarters of the demand. Starting-Lighting-Ignition (SLI) batteries, which currently accounts for over 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 currently consume around a quarter of the total lead produced. This sector can be split roughly 50:50 into stationary and traction batteries. The remainder is used in non-battery applications. Around 20% of lead consumption is in alloys and chemical industry, in the form of lead-based alloys, pigments and other compounds.



Hindustan Zinc Lead Ingots are LME registered - Hindustan Zinc has two LME registered lead brands - Vedanta 99.99 & Vedanta Pb 99.99.

The number denotes purity of lead produced and signifies that these lead ingots are acceptable for delivery at the LME warehouse.

Historically, the market for industrial batteries has grown at a CAGR of 20% and is expected to clock a similar growth rate in the coming years.

Non-auto consumption in telecom and power back-up segment has performed consistently at around 7.7% CAGR in the past. The expansion of services by operators, the rollout of 4G services, and a surge in data traffic led to a quick increase in the number of Base Transceiver Stations (BTS) per tower for which lead-acid battery are being used.

HZL is set to benefit from operating efficiencies in the long run as it is one of the lowest cost producers globally. This will help maintain higher margins compared to peers, in both up and down economic cycles. Domestic consumption of primary lead has grown at over 6% CAGR for the past 5 years primarily driven by growth in the automotive segment which comprise of 55% of consumption.

CADMIUM

We are India's largest cadmium producer. We recover cadmium from our zinc smelting process as it is mainly found in association with zinc ores. We produce high quality cadmium pencils having a minimum purity of 99.95% to 99.99%

The single most important use of cadmium is in the production of nickel-cadmium ("Ni-Cad") batteries. About three quarters of the cadmium consumed annually is used to make batteries. Cadmium is also useful in a few other applications as paint pigments, low-temperature melting alloys, etc. Its malleability and ductility properties have led to an increased demand in semiconductor and electronics industry.

Cadmium
99.95%



SILVER

We are India's largest and one of the world's leading primary silver producers. We produce refined silver which is recovered as a by-product of lead metal and produce high quality silver bullion having a minimum purity of 98.5% to 99.9% of silver.



Silver
99.99%

Hindustan Zinc holds the position of being India's only primary silver producer – 17.9 million ounces in the last financial year – and ranks 10th globally in terms of the top silver-producing companies. A major proportion of the Indian market's appetite is satisfied through imports, with the balance coming from secondary manufacturers and recyclers. With the latest accreditation of 'London Good Delivered Bars' in April 2018, HZL's silver is on par with international standards.

In India, the highest usage of silver is in jewellery (38%), followed by coins and bars (22%) silverware (20%) and industrial fabrication (20%), according to the World Silver Institute. We cater to markets including the industrial sector (electrical contacts, solder and alloys, pharmaceuticals), and the jewellery and silverware manufacturing segments. As the sole producer of silver in India, HZL is poised to reap benefits from the government's focus on solar energy projects and use of electric vehicles, both tipped to boost demand for silver. Silver contributed INR 1,850 crore to HZL's operating profit in FY 2017-18 while accounting for 9% of its revenues.

INITIATIVE

Plant Dispatch of Finished Goods to Customers

The double handling of material, once at the plant and next at depots, was time consuming and led to logistical and environmental issues. Hence, we started dispatching goods directly to our customers from our plant locations. With additional services of dependable transporters and reports of real-time movements to customers, we have been able to retain the reliability and carry out the transition smoothly. The move reduces emissions, enhances productivity and saves costs. We have already replicated this in the North and West regions and aim to extend it for our South and East region customers as well.



DIGITIZATION

Technology makes it easier for us to produce these products in a sustainable manner. Digitization is the way forward for Hindustan Zinc. We are using digital capabilities heavily in our mining operations and across the organisation to create value for our stakeholders.

We are working towards making our mines smart, connected, intelligent besides making them safer and more productive. Key features of our future mines will be autonomous drilling, autonomous haulage, remote controlled operations and real-time asset tracking & mine monitoring. We already have a prototype of digital mine in Sindesar Khurd and we expect 80% of our entire fleet to be autonomous in the next three years.

SUCCESS
STORY

TRANSFORMING SINDESAR KHURD TO A FULLY DIGITAL MINE



Sindesar Khurd Mine is India's largest underground mine with production of 4.5 million MT in FY 2018. With average reserve grade of 7%, the mine differentiates itself with its silver-rich zinc-lead deposit and highly mechanised and low cost of operations. We have added another differentiator to this mechanised mine. SKM is being transformed in to a fully digital mine enabling us to maximize efficiency, improve safety, reduce cost of operations and provide much greater transparency across the value chain.

A pilot project to digitise over 1.5 km of decline and portals was taken up in partnership with global technology experts to check the feasibility. Full roll-out across the mine is now in progress after conducting pilot successfully. Once fully operational, the project will allow monitoring and optimisation of assets, traffic management, improved scheduling and task management, autonomous fleet operations and real time visibility of machine health and productivity data.

Here are some of the key initiatives undertaken during the mine digitization project include:

- Converted 'SKA6 section' of the mine fully to wi-fi and successfully
- Commissioned the first phase of OPTIMINE system in trucks for health monitoring of machine
- Introduced Lechler system for dust suppression in stopes which has improved loader productivity and safety
- Commissioned autonomous drill rigs from leading manufacturers which allows to drill holes in autonomous mode and being utilised in shift changeover hours to increase utilisation
- Implemented teleremote Loaders and highest capacity load haul dump machines of 21 MT to utilize shift-changeover hours
- Established Mine control room to enhance communication during shift thereby improving utilisation and mean time to repair

We expect a wide range of benefits from these initiatives:

- Increased utilisation rates across our fleet and equipment by up to 15%
- Timely maintenance checks improving safety and equipment availability
- Increased mine throughput and volumes with better traffic management & safety
- Ability to activate ventilation on demand leading to potential energy savings of 15%
- Ability to increase the fill factor of loaders to 100%

STAKEHOLDER ENGAGEMENT

At Hindustan Zinc, stakeholder satisfaction is a top priority and we value the concern of all our stakeholders associated directly or indirectly with the business. We operate through a sustainability framework that is strengthened by responsible stewardship, building strong relationships, adding and sharing of values and strategic communication. Thus, we see it as imperative to maintain transparency in our engagements with stakeholders, encouraging a long term and mutually beneficial relationship that is built on trust.

ENGAGEMENT APPROACH

Since our operations deal with several stakeholder groups, each playing diverse roles with varying priorities, it is vital to design a robust engagement model that understands and addresses the concerns of each group. Our stakeholder engagement model is updated every two years to keep in step with emerging engagement mechanisms and evolving stakeholder behaviours. The identification of all pertinent stakeholders and understanding their expectations is of high concern for us in our pursuit to ensure sustainability.

The process of engagement with our stakeholders is as follows:

- 1 **Share information transparently and in a timely manner**
- 2 **Proactively consult with potentially affected parties**
- 3 **Set up procedures for stakeholders to be able to freely discuss, comment, submit complaints and voice desires**

Another key aspect of our stakeholder engagement is a robust grievance redressal mechanism. This involves a Grievance Committee that is chaired by respective unit heads who review complaints and suggestions on a periodic basis. An apex committee chaired by the location head meets every quarter while the unit level committee meets every month, to monitor and resolve any pending grievance.

STAKEHOLDER IDENTIFICATION

An important exercise, stakeholder identification helps us classify them and their concerns or interests into groups, to enable us to engage with them in an effective and efficient manner. The identified stakeholders include all those who have a direct or indirect influence on our business operations, also including those who are impacted by us.



Stakeholder Identification Process

1	2	3	4
Identify individuals or groups who are affected, likely to be affected by our operations (either directly or indirectly) or who may have interest in any of our operations	Identify potential stakeholder representatives, especially in the form of community leaders	Identify individuals and groups who may be differentially or disproportionately affected by operations due to their disadvantaged, isolated or vulnerable status, and consider specific and proactive communication routes for these groups	Identify individual or a group of people who have benefitted or been marginalised due to overall development of an HZL operational area

ENGAGEMENT PLATFORMS

Since our operations deal with several stakeholder groups, each playing diverse roles with varying priorities, it is vital to design a robust engagement model that understands and addresses the concerns of each group. Our stakeholder engagement model is updated every two years to keep in step with emerging engagement mechanisms and evolving stakeholder behaviours. The identification of all pertinent stakeholders and understanding their expectations is of high concern for us in our pursuit to ensure sustainability.

The process of engagement with our stakeholders is as follows:

Employees



Safe workplace, employee engagement, career development, senior management interaction

We are committed to taking care of our employees and addressing their concerns in a timely and effective manner. The Company engages with the employees through various mechanisms such as mentor-mentee and senior management meet, open forums, suggestion scheme, training programmes, town hall meetings and V-Connect. The senior management interacts with the employees on a monthly basis, the safety committee meets monthly/quarterly, meetings with contractors are conducted on a quarterly basis and regular Suraksha Chaupals are conducted.

To address the employees' concerns, the Company has comprehensive incentive policies, that include provident fund, gratuity, canteen facilities, parental and maternal leave, all resulting in greater employee satisfaction. The Company has a Diversity & Inclusion policy that guides us to increase focus on gender diversity, equal opportunity to work and retention of employees. Several Health & Safety measures have also been undertaken by the Company to ensure a safe working environment for its people.

Trade Unions



Workforce Welfare

At HZL we ensure to maintain a strong relationship with the trade unions, and constantly endeavour to engage with them to address their concerns.

The Company interacts with the trade unions regularly through group and one-on-one meetings. Tripartite meetings are conducted with DGMS and Union representatives to discuss the improvement areas in safety performance and systems.

Contractors/Suppliers



Safe workplace, ongoing engagement

We engage with our contractors and suppliers through vendor meets, pre-qualification meetings and meetings with senior management on a regular basis. V Step Up programme and the set-up of an ancillary plant are the key initiatives taken during the year to enhance our relationship with our suppliers.

Various training programmes are being conducted regularly for their skill enhancement alongside regular interaction through the Safety Chaupal and through monthly meetings. Issues relating to ease of doing business, delay in payment and speed of contracting have been resolved by automating the vendor registration process and using digital interventions such as implementation of ARIBA.

Communities



Socio-economic Development

At HZL, we are constantly working towards creating an inclusive environment, with opportunities of development for all. We seek to engage with the communities through public hearings, scheduled interactions by our CSR Field Team and through Baseline Surveys.

Socio economic development of communities through improvement in health, education, livelihood and public infrastructure facilities are some of the key issues that were discussed in these forums. We have also identified and implemented flagship programmes like Sakhi, Khushi, Samadhan, Mining Academy etc. for the development of nearby communities. During the year we had three capacity expansion projects at Kayad/Pantnagar and SK mine.

As per regulatory requirement we conducted public hearing at applicable site SKM.

Community Engagement at SKM

The expansion of Sindesar Khurd Lead-Zinc underground Mine (SKM) from 4.5 million TPA to 6 million TPA ore production, and beneficiation from 5 million TPA to 6.5 million TPA, involved community engagement. The public hearing was conducted by Rajasthan State Pollution Control Board on 1st November 2017 outside SKM. It was presided by the Government officials and about 800 villagers from nearby areas participated in it and shared their views.

Government



Regulatory compliance, Regional economic development

The Government can influence business through a myriad of ways. This may include influencing businesses through tax, regulatory and other policies, and also creating a level playing field for businesses, providing them access to capital and other related functions as well. For HZL, falling in line with all laws, rules and regulations is of utmost importance. Our dedicated team at corporate as well as facility level takes up the responsibility of interacting with the respective regulatory and government agencies for various compliances and other related functions.

The Company constantly endeavours to engage with the Government, Regulatory Authorities and professional bodies through regular dialogue and meetings to ensure timely sanctions, approvals and clearance. During the year we participated in Rajasthan Digifest & IT Day 2018 organized by RSPCB and our stall was well appreciated by all.

NGOs



Community Development

At HZL we work towards maintaining strong relationships with the NGOs by listening to their concerns and using various mechanisms to interact with them. HZL regularly engages with them through one-on-one and group meetings.

Customers



Product quality and delivery

At HZL, we believe in a customer centric approach and are focused on areas such as product innovation, excellence in quality, value pricing and service. The Company engages with customers through various forums like customer meets, customer satisfaction survey conducted every two years, online customer complaint tracking system, site visits and social media. The issues raised by the customers at these forums were regarding improvements in resource efficiency, support in time to market, and enhancing service capability and consumer experience. The Company has taken various initiatives to address these issues, and has also offered tailor-made value propositions on customer demand.

Shareholders/Investors



Value Generation

We immensely value the efforts of our shareholders and investors. We appreciate that Investors are now looking beyond the shareholder value and are also concerned about the sustainability endeavors of our organization.

The Company is committed to excellence in governance and in creating long-term sustainable value. We engage with investors through investor meets, conferences and analyst calls. The dialogue is mostly around the Company's strategy, operational, financial and sustainable performance and outlook. HZL conducts a yearly shareholder gathering, the Annual General Meeting and we present our key performance indicators and the company's strategy and way forward. During the year we had one Earnings Call, three Analyst conferences, Investors site visit to our SK and RA mines, and we also attended the Axis Capital 11th Annual Conference.

CUSTOMER SATISFACTION SURVEY

“Your most unhappy customers are your greatest source of learning.” Bill Gates

Customers are a key stakeholder group and their satisfaction is vital to sustained value generation and a healthy economic bottom-line. To measure customer satisfaction and better understand customer loyalty, we commissioned a comprehensive global customer satisfaction survey.

The survey covered customers for all our product lines and was specifically designed to assess the health of HZL's relationship with existing customers, while gaining insight into potential as well as breakaway customers. Findings from the survey helped us gain significant insight on where we stand in the industry, our products, operations and processes, and how we can improve to enhance customer loyalty.

Key Findings

Product	ZINC	SILVER	LEAD
Mindshare	 <p>86% For product quality & brand reputation</p>	 <p>83% For product quality & timely delivery</p>	 <p>71% For product quality & service support</p>
Key findings	Positive and improved scores from previous year for various factors including product quality, packaging, contracting process and online portal	Positive scores on most attributes including partnership and business dimensions	Nearly 3/4th mention HZL as best in class with positive and improved scores for most factors, including

Across product lines, HZL dominates customers' mindshare with superior product offering and brand reputation.

Product quality stands out as a key strength of HZL.

On the whole, customers, especially from the international market, would like a more concentrated push towards digital adoptability & upgradation to accommodate their evolving needs.

International customers are extremely happy with Company Personnel and Executives.

WAY FORWARD

At HZL, we also used this opportunity to engage with our breakaway customers and analysed the root cause. This helped us understand our shortcomings, while giving us an opportunity to improve. The survey indicated that HZL has a positive customer mind share among lost customers, with the company being first for top of mind and spontaneous recall. The survey also showed the majority of lost customers preferred dealing with HZL. These findings strengthen our resolve to realign our operations to address unfulfilled needs of breakaway customers and rebuild a strong and fulfilling engagement with them.

Another key takeaway from this survey was that while there were significantly more positive feedback than negative ones, our monopoly in the field should not make us complacent, and we need to always be alert to the changing needs of our customers. After all we aren't just in the business of customer satisfaction, but customer delight.

STAKEHOLDER PERCEPTION SURVEY

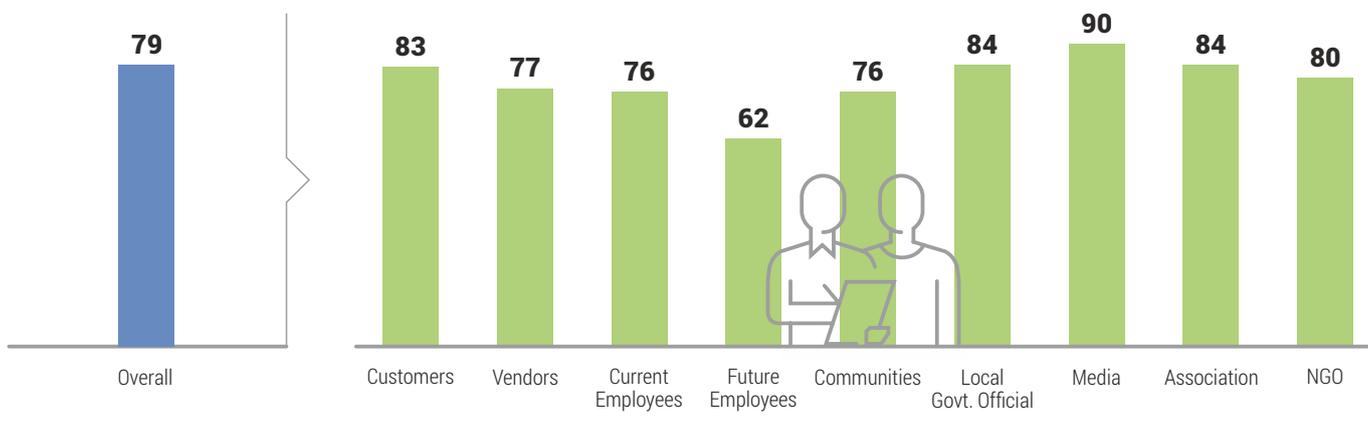
HZL commissioned Corporate Image Survey with the help of leading integrated marketing services company. This was done to better understand and improve our engagement with the stakeholders. As part of our operations we deal with a diverse group of stakeholders, each playing an important role in our journey towards sustainable growth. Hence, gauging HZL's image amongst our stakeholders and measuring our performance against various parameters is imperative in fostering a long-term, mutually beneficial relationship with our key partners.

Methodology

Face-to-face interviews with the help of a questionnaire were conducted with the stakeholders. 1020 face to face interviews conducted in all across stakeholders. They were asked to rate their perception of HZL on the following parameters:

**Awareness | Familiarity | Disposition | Interested in Following Progress | Level of Trust
Strength of Relationship | Recommendation | Image as an Organization | Awareness of CSR Activities**

Findings The overall brand image score for HZL was 79. Media had the highest brand image score of 90, putting them at the top and future employees at the bottom with a score of 62.



Customers

The survey revealed great bonding between HZL and their customers through an effective communication flow. However, there is a need to strengthen their awareness with the facts of the organization, which will help in enhancing the brand image.

Vendors

Vendors and suppliers are pleased with the trust they enjoy with HZL. This bonding can further be strengthened through more transparent and simplified policies. There is also the need to find a more effective tool of communication for the local vendors who are not familiar with email communication.

Associations

All the Associations were found to have high regard for Hindustan Zinc. However, they are of the opinion that HZL should expand its CSR activities beyond its business operations.

Government

At the state and central level, there is an immense level of trust and belongingness. But, at the local level, the authorities have more expectations from HZL.

Media

Media at the local, state and national level perceives HZL as close as family and friends. While 85% of the media confirmed a strong bonding with the Company, they have also indicated for more transparency at the time of incidents

Employees

Current: They are well versed with all the activities and projects being undertaken by the Company. All the verticals of the communication are properly read & acknowledged. The employees have suggested the need for more bonding between the employees and senior management within the plant.

Potential: In the mining sector HZL stood out as one of the best companies to work with. But, there still exists the need to increase familiarity with HZL in colleges.

To know more details about activities please refer our people section of the report pg 85

Communities

Communities have good awareness level of HZL's CSR activities being undertaken in their vicinities, and its subsequent impact on their lives. The NGOs pointed out the need for long-term projects that create a larger impact on the communities. There is also scope for improving their trust level on HZL's CSR.

To know more details about activities please refer our community section of the report pg 115



Augmen TECH

Digital Mining

From jackhammer to long feed jumbos

From pneumatic to electro-hydraulic - high speed solo

From track to trackless mining

At Hindustan Zinc, profit maximisation, environmental performance and social empowerment are not seen as disparate objectives, but a part of an overall solution – to create long-term sustainable stakeholder value. Society and environment are central to our growth as they provide resources needed to produce goods and services. Efficiently maintaining them is the key factor in sustaining growth.

Technology and innovation enable us to ensure that our products improve the quality of life without compromising the ecosystem or the future generations. Our commitment includes zero-harm to environment, optimal use of natural resources, improving efficiencies, and recoveries of by-products. Concurrently, we are enhancing the entire value chain right from beneficiation to smelting to green power to waste management for higher value creation through higher metal recovery, minimal environment impact, gainful waste utilisation and lower cost. Hindustan Zinc has taken concrete steps to protect the environment in parallel with improving operational efficiencies.

Our efforts have led to societal acknowledgement as well.



In the Dow Jones Sustainability Index under mining & metal industry group

Ranked 11th overall globally and 3rd in environment dimension



In RobecoSAM Sustainability Yearbook 2018

Only Indian mining company that has been included



This has been possible through some concrete environmental initiatives such as reducing water footprint, cutting GHG emissions through energy and climate change management, increasing use of green energy in the total energy mix, maintaining air quality, preventing environmental pollution by reducing waste, and conserving or rejuvenating the biodiversity near our operations.

We are also improving our operational efficiency through productivity improvement, optimisation of consumables and energy efficiency. In the reporting period we also introduced RACE initiative.

RACE (Reengineering to Achieve Cost Excellence) to Drive Productivity

Reward and recognition help improve employee engagement and drive productivity. We introduced RACE programme in the reporting period to reward exemplary work done by the teams of employees at Hindustan Zinc in the areas of reducing cost, improving operational efficiency, reducing fixed and logistics cost, and waste to wealth initiatives. Ideas put forth by the teams go through three stages: identification, implementation, and sustenance before they are eligible for rewards. The winning ideas receive a cash reward equivalent to 1% of annualised eligible savings and up to 10 lakhs per team member.



Financials

Hindustan Zinc delivered strong performance from all our underground mines and many benchmarks in operational and financial performance were set during the year.



up 27%

Record EBITDA at
₹ 12,376 CR.



up 12%

Record Net Profit at
₹ 9,276 CR.

Payment to exchequer
₹ 9,301 CR.
(excluding dividend paid GOI - 998 cr.)

Total dividend of INR 8.0 per share (400%) amounting to
₹ 4,068 CR.
including DDT

CSR Investment
₹ 92 CR.

Total employees
19,660

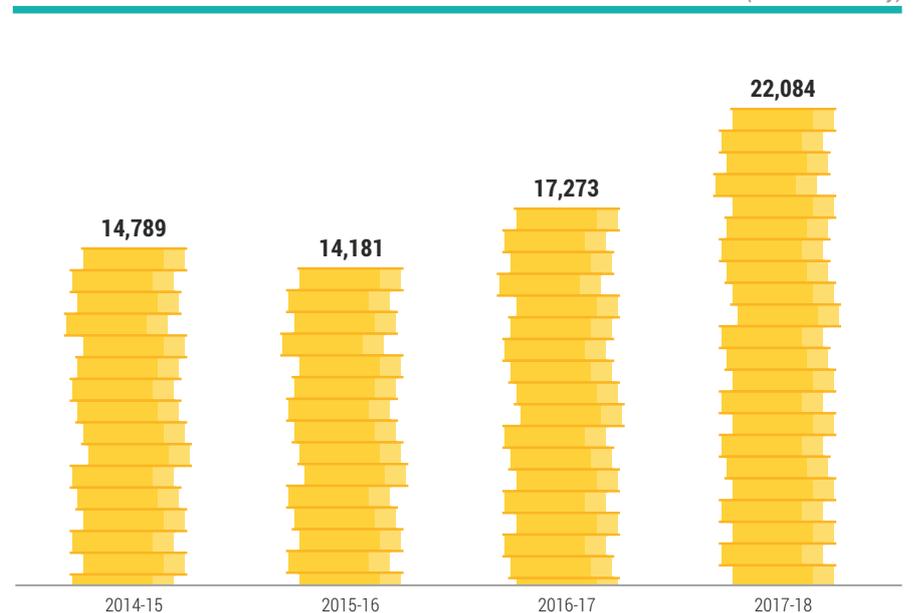
Economic Value Generated and Distributed

Crores

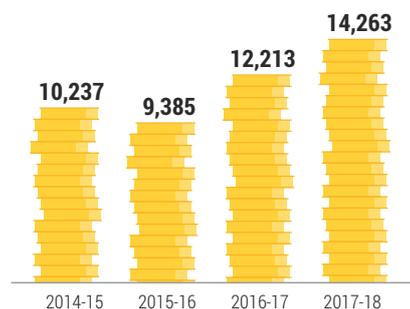
	2017-18	2016-17
Revenue from operations (including excise duty)	22,521	18,798
Other income	1,751	2,474
Employees' wages and benefits	776	722
Operating costs	6,298	6,763
Payment to providers of capital	3,663	12,624
Payment to government (Income Tax, Royalty, etc.)	3,769	6,250
Community Investments	92	49
Economic Value Retained	9,674	(5,136)

Revenue from Operations

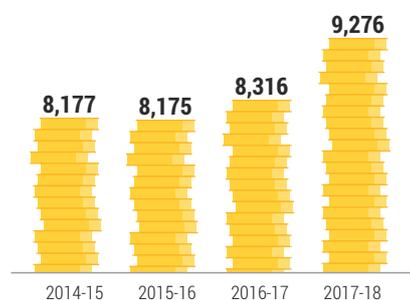
(net of excise duty)



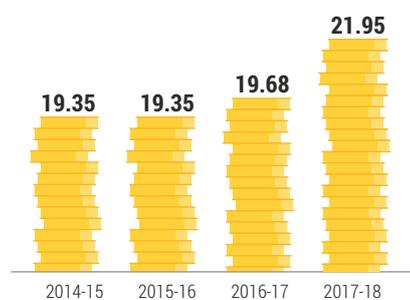
Profit before dep, int & tax *in INR crores*



Profit after tax *in INR crores*



Earnings Per Share *in INR*



The financial year 2018 was a landmark year marked by record operational and financial performance. Hindustan Zinc delivered highest ever ore, mined metal, refined zinc-lead and silver production driven by its relentless pursuit of efficiency and productivity.

Further, the buoyancy in zinc market enabled an all-time high EBITDA and Net Profit for the year. We continue to maintain our position as one of the lowest cost producers globally, even though the recovery in commodity prices led to higher operating costs and offset the leverage of higher volume and cost optimisation initiatives.

In FY 2017-18, our net revenue stood at INR 22,084 crores compared with INR 17,273 crores in FY 2016-17 - a growth of around 27%. EBITDA for FY 2017-18 improved to INR 12,376 crores, an all-time high of 27% over previous year.

We continued our robust performance setting new record of 960kt of zinc & lead metal and 558 MT of silver, delivering growth of 19% and 23% respectively from last year. At 947kt, mined metal production was also at an all-time high. We are targeting another record year of production in FY 2019, in line with our expectation of delivering 1.2 million MT in FY 2020.

The Board declared dividend of 400% amounting to INR 4,068 crores including dividend distribution tax during the year. The EPS for the year was INR 21.95 per share as compared to INR 19.68 per share in FY 2017.



During the year, we contributed INR 9,301 crores to the Government treasury through royalties, taxes and dividends, which is 42% of our revenues.

The journey towards 1.2 million MT production that started in 2013 is now in its final stages and expected to be achieved in FY 2020. Our strategic vision is to grow our output to 1.5 million MT per annum and our silver portfolio to 1,500 MT.

CRISIL has reaffirmed the long-term rating of AAA/Stable and short-term rating of A1+ to Hindustan Zinc. The financial risk profile is driven by our sustained strong liquidity and conservative capital structure as well as integrated operations, highly competitive cost position and high-grade reserves.

We follow a conservative investment policy and invest in high quality debt instruments. As on March 31, 2018, our cash and cash equivalent was INR 20,395 crores invested in high quality debt instruments and the portfolio is rated "Tier -1" implying highest safety by CRISIL.

During the year, Hindustan Zinc paid off INR 8,000 crores of short term commercial paper raised in March 2017 to meet the special interim dividend funding requirement.

Employees

Hindustan Zinc has a committed workforce of 4,398 employees and over 15,262 associates through business partners. Some of the key interventions that were taken up for their development during the year include:

FOCUS ON DIVERSITY

Achieving an overall gender ratio of 12% women, with 27% in enabling functions.



Technology in HR

Integrated landscape of digital HR for data driven decisions and transparency in HR processes. Success Factors was implemented in SAP ERP system.

Engagement & Development

Coaching and mentoring, global benchmarking visits, Leaders' Connect, live business projects, etc.

Building Robust Talent Pipeline

Dedicated process of talent review, over 50 high potential young talent were identified and given enhanced leadership role in the organisation.

Effective Performance Management

Outcome-based performance system has been introduced that promotes frequent performance dialogues and help employees get timely feedback.

Strategic Outsourcing & Partnership Model

Driving and aligning the performance of contractors and helping them achieve business results.

Society

We believe in giving back to society and our social mission is to uplift the lives of people around our operations which contributes to nation building. Our corporate social responsibility programmes are designed to address a wide range of issues such as education, sustainable livelihood, women empowerment and health, water and sanitation among others. We have gained ground in our social projects which are growing in impact while strengthening our governance to make our CSR spending more transparent.



In FY 2017-18
we spent

₹ 92 CR.
on CSR programmes

Our interventions
cover half a million
people & more than

100,000
households in
Rajasthan.

During the year, we focused on 360° CSR to strengthen the foundation of our engagements. The primary beneficiaries of our CSR initiatives are the families living in our neighbourhood (184 villages in Rajasthan and 6 villages in Pantnagar).





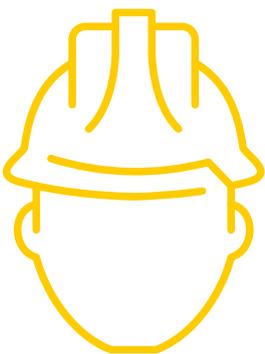
Automation of hot metal transfer

IT-enabled six-step contractor safety management programme

New refuge chambers

Safety towards the employees including the business partners is our prime responsibility, and continues to be our top priority as well. Loss of life or workplace injuries are unacceptable.. Hence, we continue to look for ways and methods that enable us to increase our efficiency while leading us towards a Zero Harm culture. Automating certain processes help in eliminating potential hazards by keeping employees away from the path of direct danger. To that end, we have reduced the manual intervention in many of our processes by harnessing the power of technology, which helped reduce injuries and increased the efficiency of the employees.

At HZL, we are committed to conducting our businesses in an environment that promotes safe working conditions for all. Safety of our people is of utmost importance to us. Hence, when it comes to safety, we ask ourselves some really tough questions and are determined to foster a culture of Zero Harm through. We aim to achieve our safety targets through a shared responsibility approach, with increased engagements at all levels of the workforce. We, therefore, follow international best practices, deploy robust infrastructure, and seed a culture of safety ownership from the shop-floor to the boardroom. Safety is a critical component of the way we do business.



Vision 2020

Establishing a **Zero Harm culture** at work and enhancing safety by eliminating fatalities, incidents and illnesses.

Aspect Boundaries

While matters of health and safety within our premises are taken seriously, we also place equal emphasis on health and safety outside our boundaries. In this regard, Health and Safety standards adopted by our business partners are important for us. Hence, through our supplier screening and supplier code of conduct we ensure that we only engage with partners who are willing to adopt our safe business practices.

Performance

Our safety performance for this reporting period has seen a noticeable improvement. There were no fatalities at the HZL operations. However, we regret to report two fatalities in Project sites at the RAM-UG and CLZS Fumer project. Loss of life is absolutely unacceptable. Hence, every fatality is followed by immediate actions to ensure no further similar occurrences. The fatality is thoroughly investigated to find the root cause and recommendations are made to mitigate the risk, along with effective consequence management to foster a strong safety culture across HZL, as we are even more determined to eliminate fatalities across our entire operations and all project sites.

Our LTIFR reduced from 0.30 in FY 2016-17 to 0.27 in FY 2017-18. This trend shows our commitment towards Zero Harm and implementation of safety standards and HSE policy.

Performance Highlights of FY 2017-18



0.27 Reduced lost time injury frequency rate

0.82 Reduced Total Recordable Injury Frequency Rate (TRIFR)

0.60 Million safety training man-hours accomplished

ZERO Fatality in operations

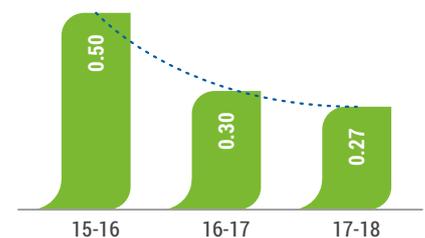
ZERO Occupational illness cases

2 fatalities in projects

Action Plans for FY 2018-19

- Achieve zero fatal incident
- Reduce lost time injury frequency rate (LTIFR) to 0.24 or less
- Reduce total recordable injury frequency rate (TRIFR) to 0.70 or less
- Improve occupational health & hygiene, and effective high potential risk management

LTIFR* Trend



*one million man-hours worked and injuries classification and accounting based on ICMM guidelines



In the Dow Jones Sustainability Index under mining & metal industry group
Ranked 3rd in 'Occupational Health and Safety'

100% periodic medical examinations for all applicable employees

Strategy & Approach

Safety continues to be our top priority and a critical component of every business decision we take. It is our goal to ensure zero harm for all our employees, contractors and communities. Towards achievement of this goal, we have adopted a strategic approach based on the following three pillars -

Aarohan, flagged off in 2013, is our flagship programme for achieving safety excellence. It builds on each of the three pillars and helps us drive safety deeper and wider into the organisation.



Strategy for Enhanced Safety

PROGRESSING TOWARDS ZERO HARM



We capture High Potential Near Miss Incidents (HIPOs), and take proactive steps and corrective actions to avoid similar incidents in future. Safety stand-downs are conducted for each HIPO for horizontal deployment of learnings. While our approach to safety focusses on prevention, we have an emergency response preparedness plan in place for all potential emergencies in all units.

Safety Governance

Our integrated safety organisation structure is driven by the Corporate Safety Council, which is chaired by the CEO, and Corporate Head-EOHS is the Member Secretary of this council. The council operates through the five corporate sub-committees and five zone apex committees, which are primarily responsible for establishing the safety culture at the unit level through various prioritised work streams, namely the Safety Interaction Committee, Incident Management Committee, Standard Rules and Procedures Committee, Contractor Safety Management Committee and Process Safety Management Committee.

The Corporate Safety Council has also been initiated at the IBU level to bring more accountability in matters of safety. Monthly safety meetings are conducted at all the IBUs and stringent decisions are taken to improve safety at all levels.

We also have a formal joint management - worker health and safety committee - which is responsible for monitoring our on-site occupational health and safety programmes. Both management and workers are equally represented and most of our employees are represented in these safety committees. Committee meetings are held regularly to check the progress of these programmes so that the best standards are constantly put into practice.

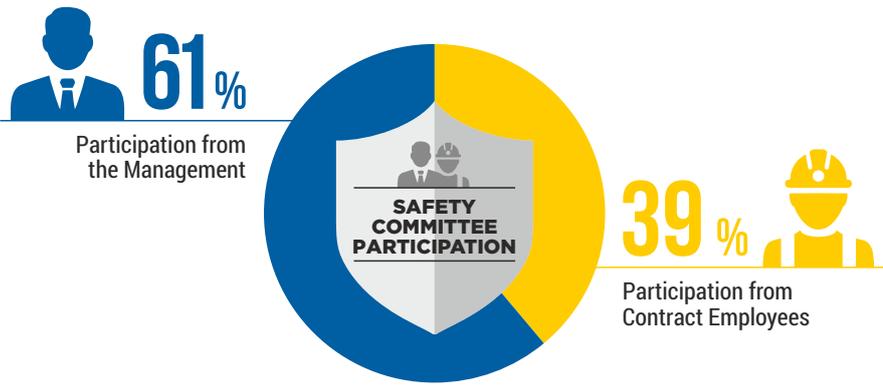
All our major units are OHSAS 18001:2007 certified, and we have also initiated the migration process from OSHAS 18001 to ISO 45001.



Safety Governance Structure



Safety Committees: Composition



16 No. of Safety Committees | 128 No. of Executives | 76 No. of Non-Executives | 130 No. of Contract Employees

Safety Committees: Roles & Responsibilities



Safety Culture

Given the inherent characteristics of our business and the fact that it engages massive amount of human capital, we constantly invest in reinforcing our strong safety culture across all levels and units, and every employee. We are continuously strengthening our safety culture by introducing innovative initiatives and trainings for our employees.

We aspire to achieve a Zero Harm work culture with the belief that all workplace injuries and fatalities are preventable.

Safety Town Hall Meetings

Safety town hall meetings are conducted regularly across all units, wherein employees, including the contract workforce, share their thoughts and concerns, ask questions to the management and also give suggestions for safety improvement. These meetings are an effective mode to cultivate a safety conscious culture by talking about present conditions on the ground and setting future expectations. **During the reporting period, 9 town hall meetings were conducted** of which 7 were conducted at different units and 2 from the head office.



Line of Fire Awareness Drive



Unsafe incidents can be prevented if employees are aware of what separates safety from danger, which is often a thin line. Educating employees about the line of fire along with a proper understanding of the machines and its operations will enable them to avoid entering that line. Our past incidents analysis showed that 50% of the injury incidents are due to the line of fire.

Hence, a Line of Fire awareness drive was conducted across all sites, led by the senior leaders, to educate and increase awareness among the employees. The drive included exhibitions, quiz competitions and display of posters.

Suraksha Chaupal



It is a platform where senior management and union leaders engage with workers on the shop floor to emphasise the importance of a stringent safety culture. Done through interactive discussions, demonstrations & information sharing, it also acts as a forum for discussing and resolving safety concerns at the workplace.

Safety Awareness Test



Twelve safety awareness tests were conducted during the year on various safety standards to raise awareness. Three safety standards were rolled out during the year to raise awareness and ensure compliance regarding lifting and shifting of equipments and materials, chemical handling and machine guarding.

Safety Inspection & Interaction

To inculcate a safety rigor similar to that followed within our factory premises, a safety inspection was held at our Panvel Sales Depot. The staff was briefed about the safety hazards identified during the inspection. Appropriate measures were suggested and an action plan put in place to make the depot a safer and better working place. Given the success of this initiative at the Panvel depot, similar interactions are being undertaken at all of our 14 operational depots.



SAFETY PLEDGE

Our goal is to build a Zero Harm culture, and we believe that every incident is preventable. To reinforce this belief, we introduced 'Safe at Work Pledge' signature campaign. In light of the recent incidents at our sites, it is extremely important for us to put safety in the first place at all our locations. As emphasised by our CEO, every employee should take safety as their personal responsibility and consider it their duty to take care of themselves and others.

- Never compromise my own safety or the safety of my co-workers to get the job done*
- Never take shortcuts or bypass the safety features to perform the task quicker or easier*
- Perform my job with understanding that working safely is a condition of my employment*
- Never walk past the work being done in unsafe manner, Stop the job if it is not safe*
- Actively look for hazards, promptly report them, and take appropriate action to warn others*
- Always follow the Life Saving Rules*
- Always do my job with 100% compliance of Safety Rules/ Standards/ SOPs*
- Be a good safety role model for my friends and family even when off the job, I will voluntarily participate in the safety promotional activities and will demonstrate a safe behaviour at all times.*

Strengthening Our Safety System

As part of our ongoing commitment to eliminate hazards in the workplace and enforce stringent safety measures, we undertook various initiatives during the reporting period. Detailed below are a select few.

New Refuge Chamber of 8-Seater Capacity installed at RAM-UG

Modern mines feature many advanced technologies. But there might still exist gases and vapours in the mine that make the environment not fit for breathing. To prepare for such an eventuality, we installed a Refuge Chamber that acts as a safe refuge for up to 36 hours and provides fresh air in case of emergencies like fire, rock fall and blockage of escape routes in the underground mines. It has in-built oxygen supply, carbon-dioxide absorbing system, first aid kit, stretcher, eye wash and toilet. These Refuge Chambers also have air conditioning, escape hatch with external access handles, indicating lights or strobe and siren to signal emergency situations. During the reporting period four additional 8-seater capacity Refuge Chambers were installed at our RAM-UG site. These are in addition to the already existing four 6-seater and two 20-seater refuge chambers.



Conveyor Safety Drive

Machine guarding and conveyor safety standard was released to strengthen the conveyor safety at HZL. Multiple training programmes were conducted and actions initiated for identified gaps, viz., guard on tail, head, snub, take up, side guards, ZSS and interlocking, for compliance. An audit was conducted by the conveyor specialist of Martin engineering on two of our sample conveyors.

Actions on their recommendations have been initiated to make the conveyors safer and spill free. Apart from that, conveyor inventorisation and audit was conducted throughour conveyor committee, a standard checklist and score card developed, line management accountability fixed, and spill free conveyor implementation was started across all units.

Tripartite Meeting

The 20th tripartite meeting was held in Udaipur between Hindustan Zinc management, DGMS and Hindustan Zinc worker federation. The purpose of the meeting was to review the status of the recommendations of the 11th conference of Safety in Mines and discuss work strategies to effectively address the health and safety of the workforce.



Tailing Dam Break Analysis

Hindustan Zinc conducted tailing dam break analysis at two different locations to ensure that there is no breach. M/s SRK consultants initiated the study at RAM to establish a risk evaluation system, based on the tailings dam failure probability analysis and dam failing consequence assessment. The report has been received and actions are under progress in compliance to the recommendations. Another study was conducted by M/s Golder Associates at Zawar Mines. The action will be based on the recommendations proposed in the report.

Automation of Hot Metal Transfer

In our Silver Refinery at PMP, the transfer of hot molten metal from Noble furnace to Cupel furnace required a certain degree of manual intervention. This manual operation that required handling of hot metal put the employees at great risk. The people engaged were directly in the line of fire while adjusting the launder and hooking up the ladle back hole to EOT crane for tilting. This transfer process has now been automated, thereby making it safer and eliminating potential hazards.

Safety Training

When it comes to business, safety is our first priority. And when it comes to safety, training is our first priority. Training provides us the first line of defence in protecting all our assets - human, environmental, social and manufacturing. Thus, it is no surprise that we give due importance to safety trainings and ensure trainings are provided at all levels.

Trade test for various skills are conducted before onboarding our business partners to better understand their skill competency, which is then followed by a safety induction training, on-the-job training and trade specific training. Regular refresher training sessions are also conducted along with training from experts like OEMs and other third party.

Our training calendar comprises:

- | | |
|--|--|
| 1 Awareness and understanding of workplace hazards and how to identify, report, and control them | 3 Specialized training, when their work involves unique hazards |
| 2 Knowledge and skills needed to work safely & avoid creating hazards that could place themselves or others at risk | 4 Personal safety beyond the work environment |



Contractor Safety Management

As an organisation that employs contracted labour, our intense focus on safety extends also to our contractors. Our business partners are equally important to us, and their safety is also our prime responsibility. As they are part of our journey to build an excellent safety culture, we apply the same set of safety standards for them as we do for our employees.

Our exclusive six-step contractor safety management programme emphasises on safe execution of the contractual work carried out by our business partners. It involves providing them with safety training, daily tool box talks, a work permit system, and an independent assessment of their tools and tackles, along with regular audits. Routine Contractor Field Safety Audits (CFSA) are also conducted by trained executives to improve contractor safety standards and bring them at par with our standards.



Steps followed to ensure effective contractor safety management

1 Hand-holding & Capability Building

The training of CWMS is continuously upgraded. Recently introduced features include historical training record based on bio-metric identification, thus, enabling us to track the training hours invested on a particular contractor employee throughout their engagement with us.

2 Auditing & Performance Monitoring

The CSM holds monthly meetings to review performance, and from FY 2018-19 we will be introducing quarterly audits too. This will enable us to be aware of any safety gaps, take immediate precautionary steps to resolve the issue and discuss ideas on how to further enhance safety.

3 Selection Process

Through an IT-enabled six-step safety management programme, we aim to bring SAP, CWMS, field observation and critical incident history of contractors under a common platform, HRMS. This will ensure that the contractor comes onboard aware of the safety standards expected and we are able to pick the best fit contractor, thus ensuring safety for all.



Safety Beyond Boundaries

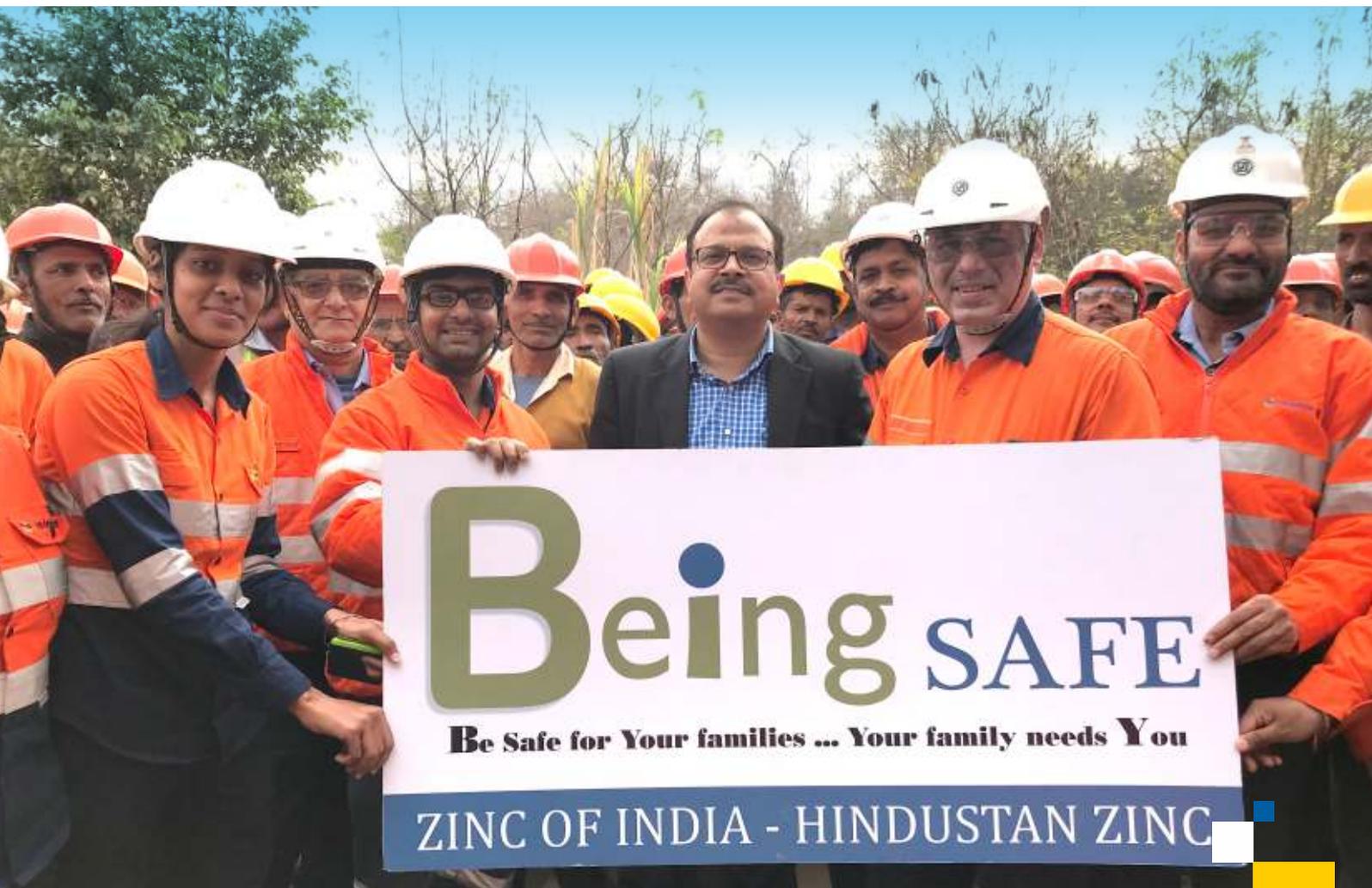
We extend our safety responsibility to our communities and engage with them regularly to impart knowledge on the importance of safety. We undertook various activities and initiatives throughout the reporting period to engage with them and educate them about the various safety measures.

For improving the safety performance in and beyond our boundaries, Hindustan Zinc Limited has been awarded the "Safety innovation Award 2017" by the Institution of Engineers (India).



Being Safe: A Step Towards Attaining "No Unsafe Act"

This unique initiative has strengthened the belongingness within HZL. As part of this initiative, the corporate communication team visited most of our units and interacted with employees, including contract employees, and their families. Four safety films involving our employees were made and shared along with case studies and real life photographs depicting how people take their own safety for granted, consequences of working without following the safety rules and its impact on their families. Activities like meditation were undertaken post the screening to facilitate reflection and assimilation of the safety messages.



Extending this initiative to schools, 20 workshops were conducted for students where over 200 students took the pledge to exercise safety in their daily lives. The workshops have so far touched the lives of 2,500 contract and regular employees, school children and families.



Be Safe - Outreach through Radio

With the aim to promote safety beyond our boundaries and among the citizens of Rajasthan, a new initiative "Be Safe - Surakshit Rahiye" was launched in association with All India Radio (Rajasthan) through 19 radio stations. This 5-minute programme, with the message of safety for themselves and their families, is broadcast daily by AIR and reaches the masses in urban and rural Rajasthan. 100 programmes with numerous promos have been broadcast reaching out to almost 100% of radio listeners. Getting associated with AIR has enabled to drive this wave of safety awareness on a larger scale.

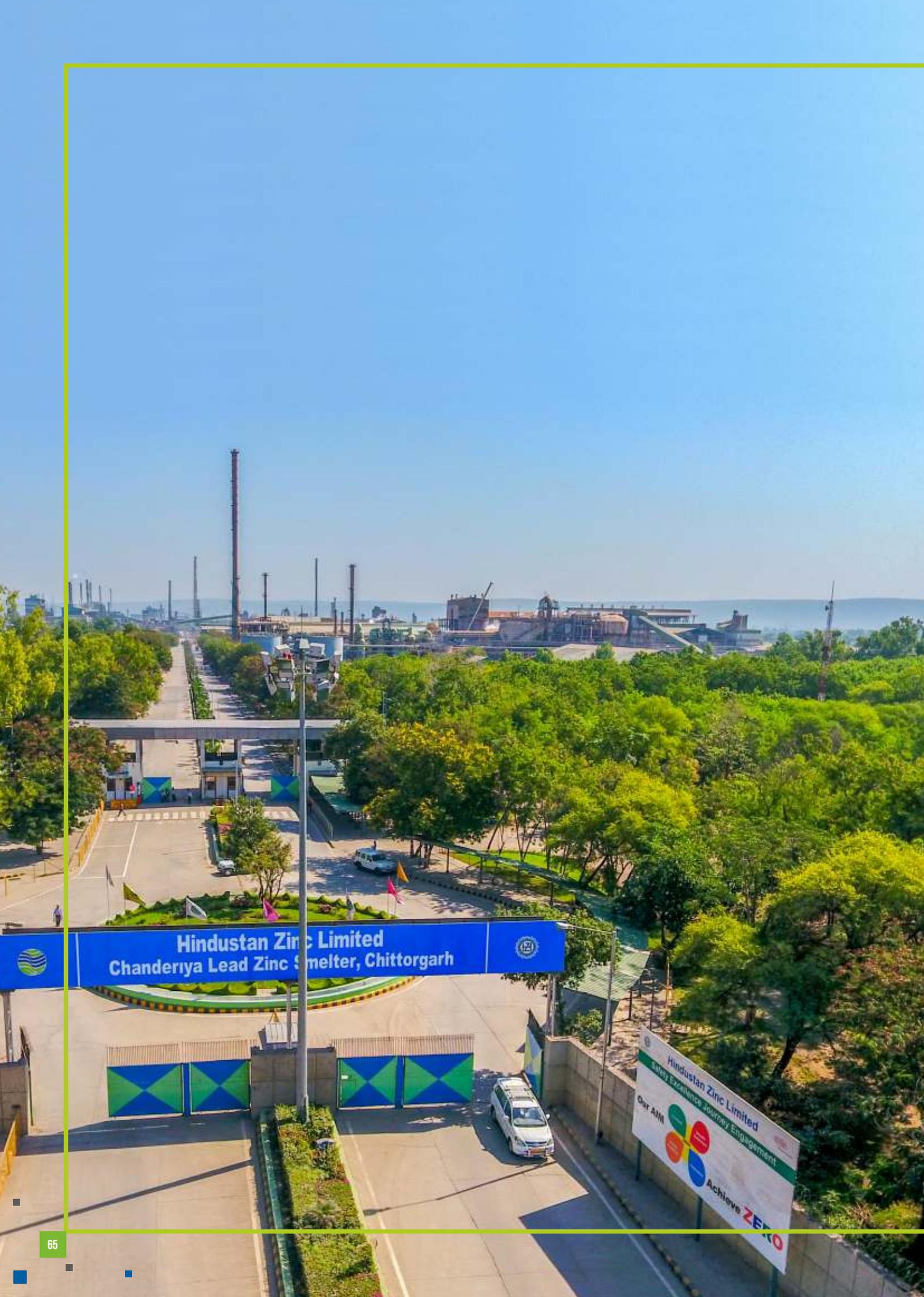
Safety Drives for Community

Safety is of prime importance at HZL. Hence, to extend this practice and inculcate it in the society, safety drives were organised in the community we operate in from time to time. A mega safety awareness drive was organised by RTO Rajsamand in collaboration with Rajasthan Transport Department, District Administration Rajsamand and Police Department. HZL supported the programme by providing 100 helmets distributed to college girls by the Education Minister of Rajasthan. More than 500 school students, teachers, district government officials, including the Collector and SP of Rajsamand, were present at the programme.

Be Safe Zindagi

Taking forward the guidance from our CEO and our combined vision of achieving Zero Harm in HZL, we started a new initiative in May 2018 - Be Safe Zindagi. As part of this initiative one true story of the employees, including the senior management and their families is being presented that talks about their personal experiences on road, industrial and personal safety. This is an effort to make all employees understand that it is not necessary to pass through a process of incidents to learn the essence of safety. Rather, we can and we should draw lessons from others' experience.





Hindustan Zinc Limited
Chanderiya Lead Zinc Smelter, Chittorgarh

Hindustan Zinc Limited
Safety Excellence Journey Engagement
Our AIM: 
Achieve **ZERO**

TECH juvenate

INR 59 crore invested as environmental protection expenditure in FY 2017-18

Fumer Technology: Gainful waste utilisation

While mining brings employment, government revenues, and opportunities for economic growth and diversification, it also impacts the environment we live in. At Hindustan Zinc, we conduct our business in a responsible manner and in a way that has minimal environmental and social impact. Technology and innovation have been integrated in to the way we conduct our business strategy which ultimately enables us to sustain long-term stakeholder value.

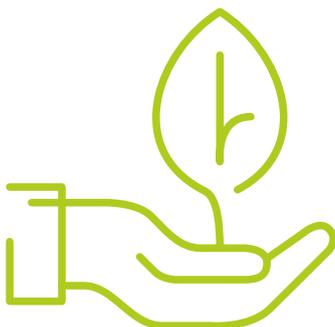
Both our products and processes have sustainability at their core. Our products - Zinc, Lead and Silver - help us in protecting the environment and minimising any negative impact. Zinc prolongs the life of steel and iron structures by protecting them from corrosion and in the process saves raw materials, energy and water which would otherwise be required for replacing the corroded structures. Lead is mostly used for manufacturing of lead acid batteries; lead sheets are used in building industry for roofing and cladding. Silver is used in silverware and jewellery making, while its anti-microbial as well as non-toxic properties make it useful in medicine and several consumer products.

Our processes are designed to check and ensure that the environment remains undisturbed during all stages of operation. Be it reducing the dust and suspended particles which causes air pollution, to setting up zero discharge plants that doesn't contaminate water sources, and transitioning from open pit to underground mining.

We have embedded sustainability in all stages of mining and smelting - right from exploration, design and planning to construction, production, closure and reclamation. Planning for project closure begins even before we start, and we restore the land for productive post-operation land uses after closure.

Vision 2020

To be an industry leader in using green technologies for reducing our environmental footprint; this we envisage to achieve **by innovating processes for water stewardship; introducing captive usage of energy from renewable sources; and adopting new methods for waste reduction.**



Aspect Boundaries

Mining and smelting operations are hazardous to the environment by nature. Unless the associated risks are managed properly, it can have a negative impact on the communities surrounding our operations.

Performance

Highlights FY 2017-18

Ranked 3rd in Dow Jones Sustainability Index environmental dimension in the industry group - Mining and Metal

Improved our scores in CDP - Climate Change disclosure band from "C" to "B"

Participated in CDP - Water Disclosure for the first time and received score band "B"

0.46 million cubic metres water saving

35% water recycling rate

Signed MoU with Udaipur Smart City Limited for another 40 MLD STP

ZERO environmental incidents in Category 4 & 5

Generated significant monetary savings from waste-to-resource conversions

42% waste recycled

Recorded total energy consumption at 47.54 million GJ, equating to total carbon emission of 4.98 million tCO₂e

Phase-wise implementation of BMP - recommended projects commenced across all sites

Action Plan FY 2018-19

- Saving of 0.35 million cum meter
- Saving of 0.052 million GJ
- Achieve GHG emission reduction by 5% in next five years from base year 2016
- Renewable energy optimisation for captive use from 16 MW to 50 MW
- Achieving waste minimisation through various waste reduction initiatives



Dow Jones Sustainability Indexes

In the Dow Jones Sustainability Index under mining & metal industry group

Ranked 2nd in 'Environmental Policy & Management System' and 'Operational Eco-Efficiency'

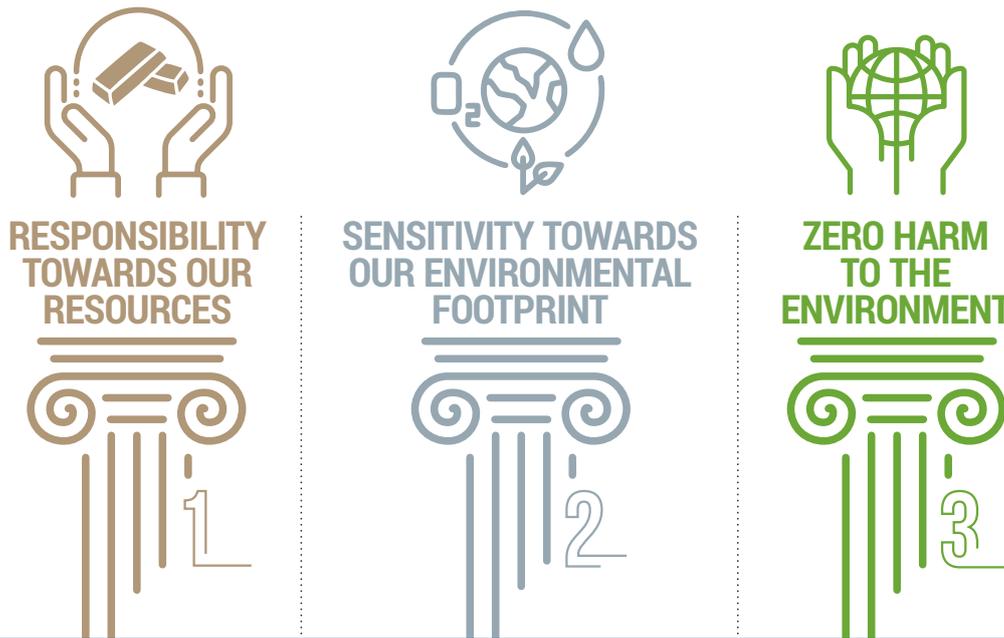
Scored 92 against the industry avg of 59 in the 'Environmental Policy & Management System' category



Strategy & Approach

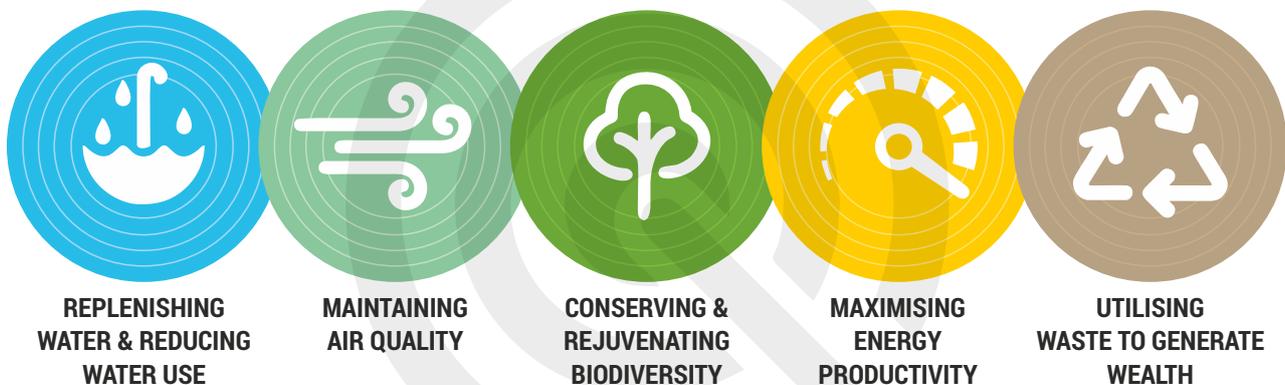
We adhere to Vedanta's Sustainability Framework (VSF) which comprises comprehensive policies, standards and guidance notes to install systems thinking and process-oriented approaches to manage environmental impacts. Our targets related to environmental material issues have been developed and disclosed to all key stakeholders including the community, and performance is reviewed and reported annually.

We go beyond simply meeting current regulatory standards to embrace a philosophy of rejuvenating the environment. This proactive strategy of nurturing the environment has been laid on the foundation of three pillars:



Our environmental policies are in place and drive strategy to meet our commitments. We partner with the communities, governments and other organisations to accelerate action, increase knowledge sharing and achieve milestones of our sustainability roadmap.

Our focus areas in the reporting period



We report and record environmental incidents and hazards in the online Incident Management portal. Incident investigations are undertaken to identify and implement appropriate preventive and remediation measures. During the year based on the actual impacts of environmental incidents, there were no high potential (Category 4 & 5) environmental incidents.

During the reporting year there have been no significant monetary or non-monetary fines for non-compliance with environmental laws and regulations.

Water

Water is becoming a challenge for the natural resources industry, globally.

Hindustan Zinc has been turning these concerns into positive outcomes through sustainable initiatives. Our operations are located in the water stressed state of Rajasthan and to sustain our business and the community around, we are going beyond just conserving water. We are in the process of rejuvenating various sources of water.

We follow a holistic approach towards water management. A water policy and a water management standard has been instituted which integrates with decision-making processes for all our new and existing projects, thereby ensuring that necessary measures are in place to minimise the water footprint of our projects.

We deploy a two-pronged strategy towards better water management within our operations - minimising our water footprint and reducing the amount of freshwater we consume by reusing as much water as possible in our processes.

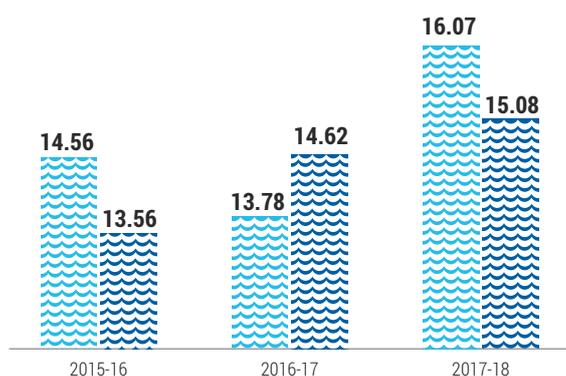
In the reporting period, we conducted water risk assessment at sites enabling us to create comprehensive water balance across the units, which supports improved measuring and reporting on water.



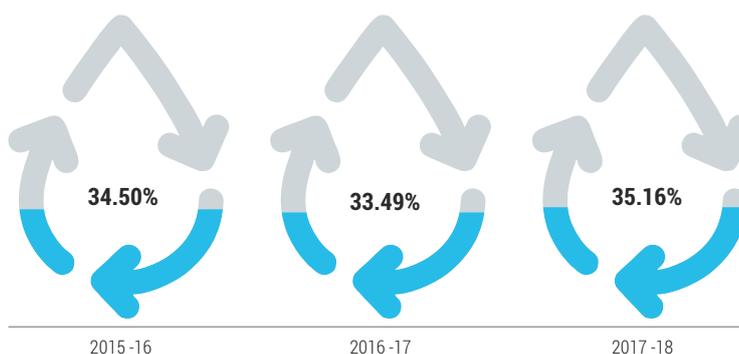
Hindustan Zinc has been reporting to the CDP Water Disclosure programme. Stringent water management policies and standards are in place to optimise consumption, better technologies to reduce demand and free up resources within the same supply of water and maintain zero discharge. We have installed Effluent Treatment Plants with Reverse Osmosis and multiple effective evaporator at smelting locations resulting in reducing freshwater footprints and maintaining zero discharge.

Specific Water Consumption

(m³/MT of MIC) (m³/MT of Metal)



Waste Water Recycling (%)



This year due to commissioning and stabilisation of a new mill in SKM, de-bottlenecking of ZM mill and unplanned operations of a less water efficient roaster, there is a minor increase in our specific water consumption.

IMPROVING WATER ECOSYSTEM THROUGH TECHNOLOGY

CHALLENGE

The domestic sewage generated by Udaipur city is a potential threat to the environment and the aesthetic look of the lakes. Being a major national and international tourism destination, the city needed to streamline the sewage system which was becoming an area of concern for the administration. The challenge was to build a Sewage Treatment Plant and establish a well-organised modern sewage disposal network.

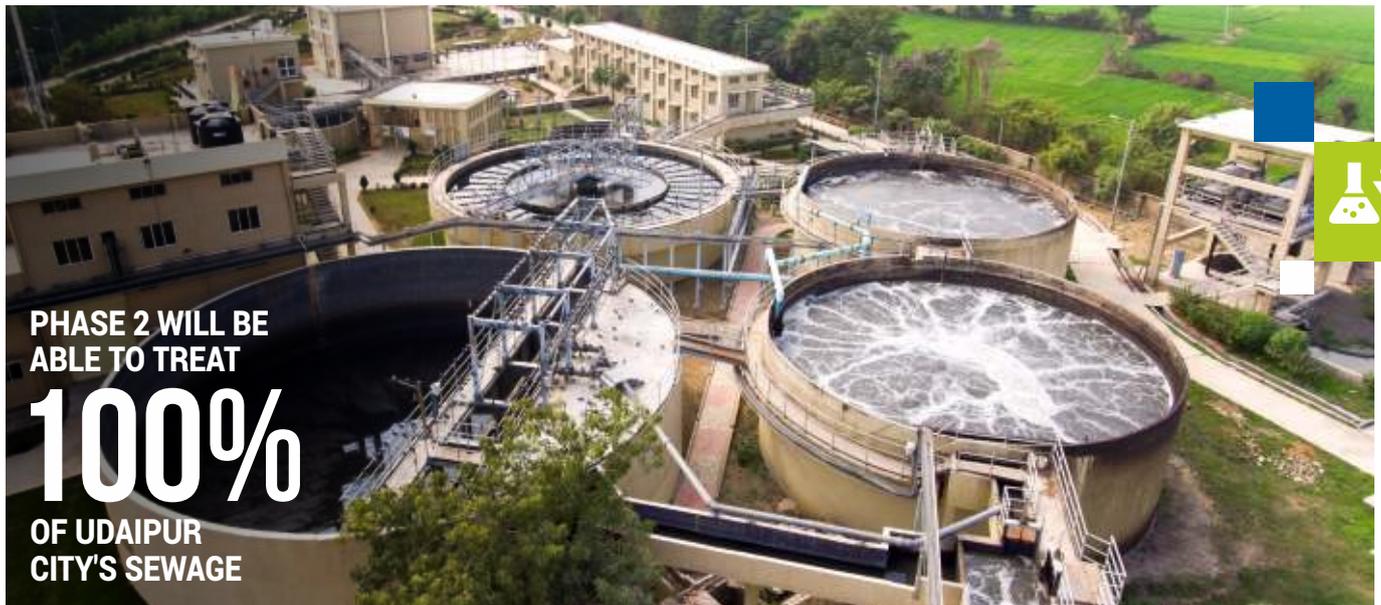
ACTION

Urban Improvement Trust, Udaipur and Hindustan Zinc joined hands and built Rajasthan's first Sewage Treatment Plant in Udaipur. The STP is currently treating 20 million litres of Udaipur domestic sewage per day, keeping the lakes clean.

Successful implementation of 20 MLD Sewage Treatment Plant is proof that such a complex, technology intensive public-private partnership deal can be reached and has the potential to deal with the water scarcity problems of a state like Rajasthan.

Hindustan Zinc is in Phase 2 for further expansion by another 40 MLD with an investment of 80 crores.

HZL has signed an agreement for Phase 2 with Udaipur Smart City Limited (USCL) for design, construction, supply, installation, testing, commissioning and operation of an STP of another 40 MLD (25+10+5). This is for 15 years under the hybrid Annuity Model. We will have 75% of treated water from 25 MLD STP and 15 MLD STP output will remain with USCL.



PHASE 2 WILL BE
ABLE TO TREAT
100%
OF UDAIPUR
CITY'S SEWAGE

OUTCOME

This has resulted in improving the ecosystem of the lake and fresh water consumption has correspondingly reduced. The results and overall impact of this particular initiative has been appreciated by the State Government and other authorities.

With the completion of Phase 2 we will be able to treat 100% of Udaipur City's sewage and significant reduction of fresh water consumption at the operational site.

GOING AHEAD

- 25 MLD - will be commissioned by 2019 based on Moving Bed Bioreactor (MBBR) technology
- 10 MLD - will be commissioned by 2020 based on Sequential Bioreactor (SBR) technology
- 5 MLD - will be commissioned by 2020 based on Sequential Bioreactor (SBR) technology

Apart from Phase 2 we have initiated another project for faecal sludge and septage management in Udaipur City. We signed an MoU with Centre for Policy Research, Udaipur Municipal Corporation and Vidhya Bhawan Society. With the treatment plant we will be able to treat the city's faecal sludge while the waste water will get treated in the STP.

REDUCING FRESH WATER INTAKE AT RAM (Mill)



CHALLENGE

Efficient management of the runoff water leaving the RAM premises was getting difficult as the average rainfall in the last three years was above 500mm. This, coupled with average fresh water intake of around 9,000 m³ per day into the system, aggravated the problem. The challenge was to address these two issues at the same time; reduce the fresh water intake from Banas river and utilise the excess water present at the RAM tailing dam. RAM is a zero-discharge unit and is presently having an excess water inventory of 6 lac m³ in the tailing dam.

ACTION

Since the tailing storage facility is a high risk practice, we decided to use the partial quantity of water stored in the tailing dam in the mill, instead of the fresh water. An 8" reclaimed water discharge pipeline was laid and the water from the tailing dam was diverted back to the mill on a daily basis. Throughout this process, the quality of the water was tested by the RAM lab to maintain optimum standards.



OUTCOME

The intervention resulted in fresh water saving of 497,900 m³ at RAM.

Fresh Water Saving at RAM (Mill) (m³)

Targeted	Actual
244,000	497,900

Water saving target over-achieved by

104% at RAM (mill)

Strategic benefits
Effective utilisation of water resources

The project accrued a cost benefit of INR

84.64 LACS

and yielded various social benefits.

Climate Change & Energy

While the natural resources industry is one the major contributors to greenhouse gas emissions, it is also one of the industries that is most exposed to the impacts of climate change. Right from physical assets and infrastructure of the companies to the availability of energy and water, climate change can have multiple impacts on the industry. Difficult geographies and climate amplifies the risk further. A recent World Bank study found that changing rainfall patterns and rising temperatures will cost India 2.8% of its GDP and will drag down the living standards of half of its population by 2050.

Hindustan Zinc acknowledges global concerns on climate change and recognises that concerted and sustained action is required to reduce the scale of the problem and to adapt to its impacts. We have an exclusive Energy and Climate Change Management Policy that helps us achieve a balanced energy-carbon cycle at Hindustan Zinc. We periodically monitor our progress in energy and climate change management and adopt best practices to reduce our energy intensity.

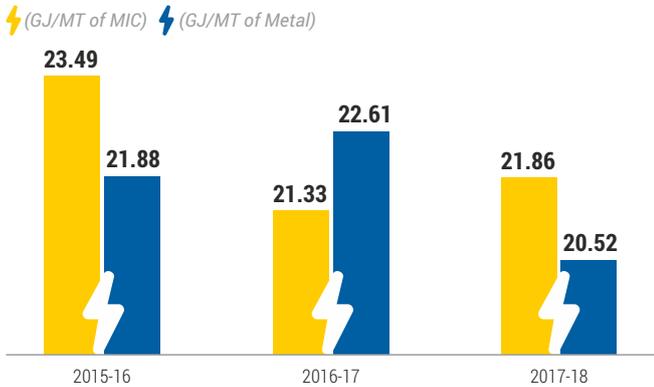
In sync with our Vision 2020, we aim to improve our energy efficiency, reduce our GHG emissions, and intensify our efforts for the captive use of energy from renewable resources (wind, waste heat and solar). In the reporting period, our approach for a lean energy and carbon footprint included the use of energy-efficient equipment and usage of captive solar power generated at our operations.

Energy

Energy use of an organisation is directly related to its productivity, maintenance, safety and environmental performance. Hindustan Zinc has a two-pronged approach to energy management. First is to maximise energy productivity and second, to increase the alternative energy in the energy mix. We periodically monitor progress in energy and climate change management and guide implementation of best practices to maximise our offsets.

Our interventions in this area are aligned with our energy and climate change management policy and standard that helps us to achieve a balanced energy-carbon cycle.

Energy Consumption



INITIATIVE

Making Profits While Keeping It Cool

Hindustan Zinc replaced compression chillers with vapour absorption machine (VAM) chillers at Dariba Smelting Complex CPP to increase energy efficiency, reduce emissions and the operating costs. VAM chillers use water as the refrigerant and Lithium Bromide (LiBr) solution as the absorbent, eliminating the need of CFC or HCFC refrigerants which have high global warming potential.

It utilises waste heat from the lead plant for cooling purposes and saves 2,000 Kwh of energy per day which leads to reduction in operating costs. Also, VAM chillers are vibration free non-rotating equipment and are maintenance free.



UTILISING EXCESS STEAM AT HZL DARIBA CPP POWER CYCLE



CHALLENGE

A lead plant at HZL Dariba was commissioned in 2010-11 and around 15-20 ton of steam was venting off this plant till 2015. The challenge was to channelise this huge amount of steam and de-mineralised water to generate power.

ACTION

The HZL team conducted a steam audit of Dariba Smelting Complex and found that steam venting from DSC lead can be utilised in CPP power cycle. The team analysed different options with support from the in-house talent and after a lot of research and engineering with the OEM, the team found that DSC lead can be utilised in LPH-2 & 1 extraction of 80 MW turbine installed at Dariba power plant. HZL completed the necessary modifications by carrying out all IBR procedures and commissioned the system in 2015.



OUTCOME

This project led to increase in savings in specific steam consumption, coal and CO₂ emission reduction. We also saved approximately 360 T/Month of de-mineralised water.

Renewable Energy

Renewable energy is becoming a part of the solution to various challenges that the natural resources industry is facing today. It is enabling companies to reduce emissions, be more cost-competitive and have greater energy supply reliability and consistency.

Hindustan Zinc has been ahead of the curve in realising the advantages of renewable sources of energy to power operations. Nine years back, we put up 274 MW of wind power when nobody was talking about it. Today, we are generating wind-based power from our plants in Gujarat, Karnataka, Rajasthan, Tamil Nadu and Maharashtra. These projects are registered under Clean Development Mechanism (CDM) programme by the United Nations Framework Convention on Climate Change (UNFCCC).



In FY 2017-18,

638

million units of green power was generated as compared to 609 million units in FY 2016-17, primarily driven by commissioning of solar power plants.

We are looking at increasing alternative in the total energy mix to reduce our carbon footprint, be more environment-friendly and cost competitive.

Projects in the pipeline

24 MW

solar power project at waste dumpyard of Rampura Agucha Mine

5 MW

rooftop solar power project

1 MW

floating solar power project at Gosunda captive dam near Chanderiya for utilisation of available water surfaces



Additionally,

30 MW & 50 MW

solar power plant

wind power plant

Green Buildings

Hindustan Zinc has been a key initiator in adopting greener technologies. Last year, our Head Office - Yashad Bhawan became the first building in Rajasthan was awarded with CII - IGBC (Indian Green Building Council) Platinum Rating under IGBC Green Existing Building rating system and was commended for achieving the same in the very first attempt.

It achieved energy savings of 27% and water use reduction of 37% due to green initiatives. The management as well as employees are committed to continue making buildings with zero carbon and zero waste. We are the first in the country to register for IGBC Net Zero Energy Building Certification .



Initiatives taken up at Yashad Bhawan

- Fresh air ventilation system integrated with active cooling system to improve indoor air quality
- On-site renewable energy of 100 KWp to generate 162,000 units every year
- Online energy monitoring system to track the energy performance of the project and identifying energy use by various buildings
- Air Handling Units (AHU) integrated with Indoor Environmental Quality (IEQ) monitoring system to ensure continuous measurement of indoor environment resulting in thermal comfort conditions
- Water metres to record water usages



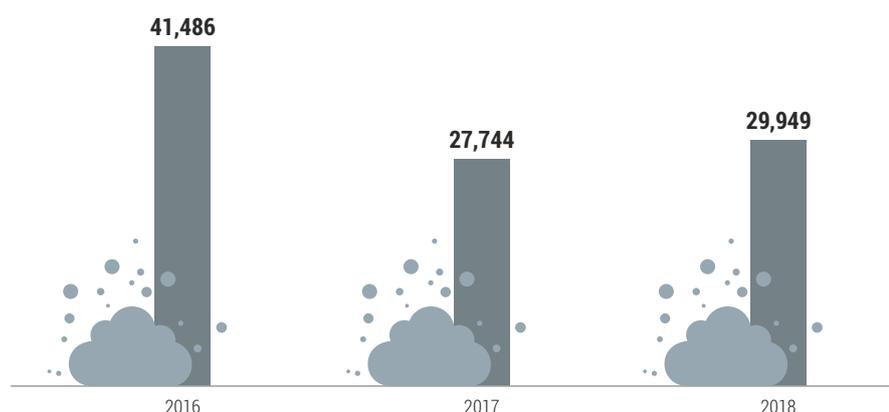
Air Quality

At Hindustan Zinc, air quality management has been integrated into the mining and smelting operation and is compatible with the community and regulatory expectations. We ensure that, at any time and under any usual set of conditions, and at any stage in the mine's life cycle from mine planning, operation to closure, air quality is managed within acceptable levels.

We proactively measure, control and reduce air emissions at each of our sites and are implementing systems and procedures to address any concerns. Through advanced mitigation, measurement and management strategies, we continue to identify, reduce and wherever possible, eliminate any potential impacts to air quality caused by our operational activities.

Air Emission from Stacks

(MT)



INITIATIVE

Improving Air Quality & Safety

Rampura Agucha Mine installed Jacon Water Cannon, a water spraying equipment. It improves air quality by suppressing the dust generated on haul roads as well as on freshly blasted stope. As a safety equipment, it loosens the hanging rock pieces through pressure of the water nozzle and is also used in firefighting as its nozzle can rotate 360-degree.

Emissions

Hindustan Zinc Limited is focused on setting emission reduction and renewable energy targets by aligning with the country's Climate Action Plan under the Paris Agreement.

We are committed to Science Based Target initiative (a global team comprised of UNGC, CDP, WWF and WRI) to set GHG emissions reduction targets in accordance with climate science, i.e. in line with the level of decarbonisation required to keep global temperature increase below 2°C compared to pre-industrial temperatures.

Hindustan Zinc participated in CDP (Carbon Disclosure Programme), whereby it calculated and reported greenhouse gas (GHG) inventory i.e. Scope 1 (process emissions and other direct emissions), Scope 2 (purchased electricity) and Scope 3 (downstream and upstream movement) as defined under the World Business Council for Sustainable Development and World Resource Institute GHG protocols.

We installed an online effluent and emission monitoring system which sends warning alerts to the management when the pollution levels cross the permissible limit. The sensors linked with the departmental software sends an automatic alert message. This system is directly connected to the servers of the State Pollution Control Board. As part of this exercise, we have installed high quality sensors and software to convert accumulated data regarding air and water pollution and send them across to the state PCB and Central Pollution Control Board offices.

Our 10 UNFCCC registered projects reduced our carbon footprint by 583,685 MT of CO₂ emission per annum while unregistered projects contributed to the reduction of 147,270 tonnes CO₂ emissions per annum. New solar projects in the pipeline will further reduce our carbon footprint by 58,000 MT of CO₂ emission per annum.

We generated 34.4 MW of power capacity through waste heat recovery from roasters and Steam Turbo Generator (STG) out of which 9.4 MW was from the WHRB project registered under CDM along with 21 TPH LCV boilers for a steam generation project.

Approved SBT targets

Hindustan Zinc Limited commits to reduce absolute Scopes 1 and 2 GHG emissions 14% by 2026 from a 2016 base-year.

Hindustan Zinc Limited also commits to reduce absolute Scope 3 GHG emissions 20% by 2026 from a 2016 base-year



Waste

At Hindustan Zinc, we have added one more 'R' to the waste hierarchy - 'revenue' from waste. While we continue to reduce, recycle, reuse, and dispose the waste in an environment friendly manner, we are going a step ahead to generate value out of the waste.

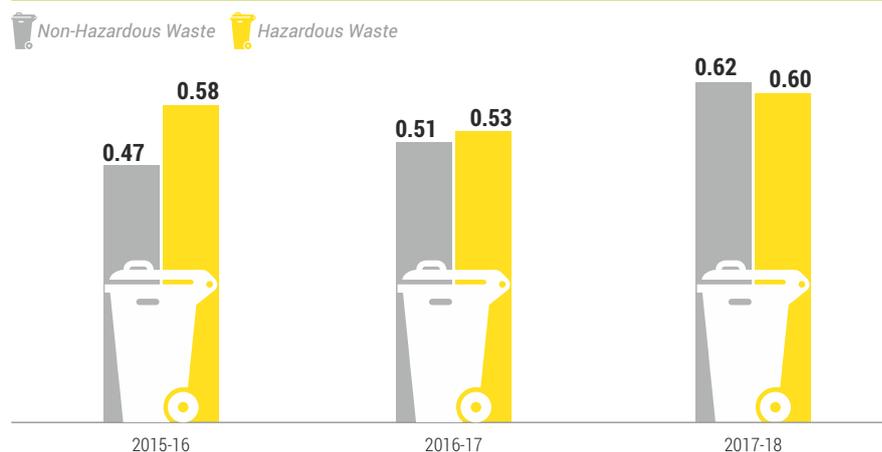
The major waste generated by operations are tailings, jarosite, slag and rock. All wastes are stored at earmarked places and hazardous waste is disposed timeously through approved registered recyclers as per the Hazardous Waste Rule. We have laid down comprehensive guidelines on waste management, which cover hazardous as well as non-hazardous waste and monitoring of waste management is carried out on a regular basis.

During the year, a Waste to Wealth Committee was constituted to spearhead waste reduction and value extraction initiatives. Several initiatives were taken up under the guidance of the waste to wealth committee.

- Used paste fill technology to capitalise on wastes like fly ash, bottom ash and shape them into useful ingredients for cement industry
- Commissioning under final stage for our first zinc fumer plant to extract metals from the waste which will open up new streams in our value chain
- Conducted tailing dam break analysis at two of the locations to avoid any breaching in the future

Waste Generated

(Million MT)



Tailing generated from beneficiation of the ore is stored in Tailing Storage Facilities (TSF) available at all the locations with beneficiation plant. At HZL we have three active tailing storage facilities and all sites have a dedicated TSF manager and TSF committee consisting of the design engineer, operations, construction and environmental staff. All TSFs, as well as associated pipeline and pumping infrastructure, are subject to a regular audit as well as regular inspection.

Waste to Wealth - ancillary product plant at Dariba Smelting Complex

A significant 'Waste to Wealth' initiative is the ancillary product plant at DSC to treat residues produced during smelting process leading to in-house production of few key consumables and by-products, in collaboration with the Company's central R&D team. During the year, additional projects were successfully executed including production of copper sulphate and zinc sulphate from PF cake as well as production of potassium antimony tartrate from antimony dust. With this, the gains from ancillary unit during the year was INR 30 crore.

The key initiatives planned for FY 2019 include production of sodium sulphate from RO reject, treatment of slag from silver refinery to produce bismuth oxychloride and production of copper sulphate from copper matte.



FUMER TECHNOLOGY: FINDING SILVER LINING IN WASTE

SDG 12

CHALLENGE

The most advanced global zinc production technology hydro-metallurgical, generates Jarosite as waste which is part of the metallurgical process to produce zinc. Due to generation of jarosite, there is a significant loss of metals like zinc, lead, copper, silver and other minor metals in the waste. Recovery of metals from waste is a challenge. As per estimates, Hindustan Zinc loses about 27,000 MT of metal per annum in this waste.

ACTION

The most successful process for recovery of metals, without the formation of jarosite, is Zinc Fumer Plant. It not only deviates from the process of formation of jarosite, instead, recovers the metals from the waste. Hindustan Zinc is commissioning a fumer plant at Chanderiya with a cost of INR 570 crore to improve recovery of zinc from 96.8% to 97.5% (from MIC) that would add about 3,000 tonnes of zinc from just one smelter per annum. The plant will be commissioned by FY 2019. While treating waste, the Zinc Fumer Plant will also produce a large quantity of slag that would be fully utilised by the cement industry.



EXPECTED OUTCOMES

The major recovery from the Zinc Fumer Plant would be in lead and silver, an increase of lead production by about 4,700 tonnes and silver by 33 tonnes per annum.

The Chanderiya Hydro-II Smelter of Hindustan Zinc has a capacity to produce 210,000 tonnes of zinc. The Fumer technology will save 4 hectares per annum of land which till now was required for dumping waste.

GOING AHEAD

The Zinc Fumer Plant is not commissioned yet, and the benefits it will yield are estimated ones at this time. Hindustan Zinc plans to set up Zinc Fumer Plants at its other smelting complexes - at Hydro-I in Chanderiya and Rajsamand at Dariba Smelting Complex.

Once the commissioning is completed at all the three locations, the capacity of zinc, lead and silver is likely to increase significantly, which would ultimately add to overall volumes, revenue and value for stakeholders.

CASTING PAVER BLOCKS USING WASTE

CHALLENGE

Mining and smelting processes generate considerable amount of waste and managing this waste in a manner that generates wealth and doesn't contaminate the environment is a challenge.

ACTION

HZL's Central R&D Laboratory (CRDL) worked with wastes generated from Pyro-smelting, Hydro-smelting and Captive Power Plant and found a suitable raw mix design to cast paver blocks using these waste materials.

Cement paving blocks are precast solid products made from cement concrete. The conventional raw materials used in manufacturing these blocks include Ordinary Portland Cement, aggregates and stone dust which are available locally in every part of the country.

CRDL substituted conventional raw materials and got the raw mix validated for different grades of paver blocks from M-25 to M-40 grade. About 70% to 80% waste substitution was observed for M-25 to M-30 grade paver blocks, which are generally used in constructing pedestrian paths.

CRDL replaced 60-80% of conventional raw materials used for making paver blocks by utilising wastes like fly ash, slag and jarosite.



COLLABORATIONS

National Metallurgical Laboratory, Jamshedpur | Central Electro Chemical Research Institute, Karaikudi | Indian Institute of Technology, Roorkee | National Council for Cement & Building Material Research (NCCBM), Ballabgarh | Central Mining Research Institute (CMRI), Dhanbad

OUTCOME

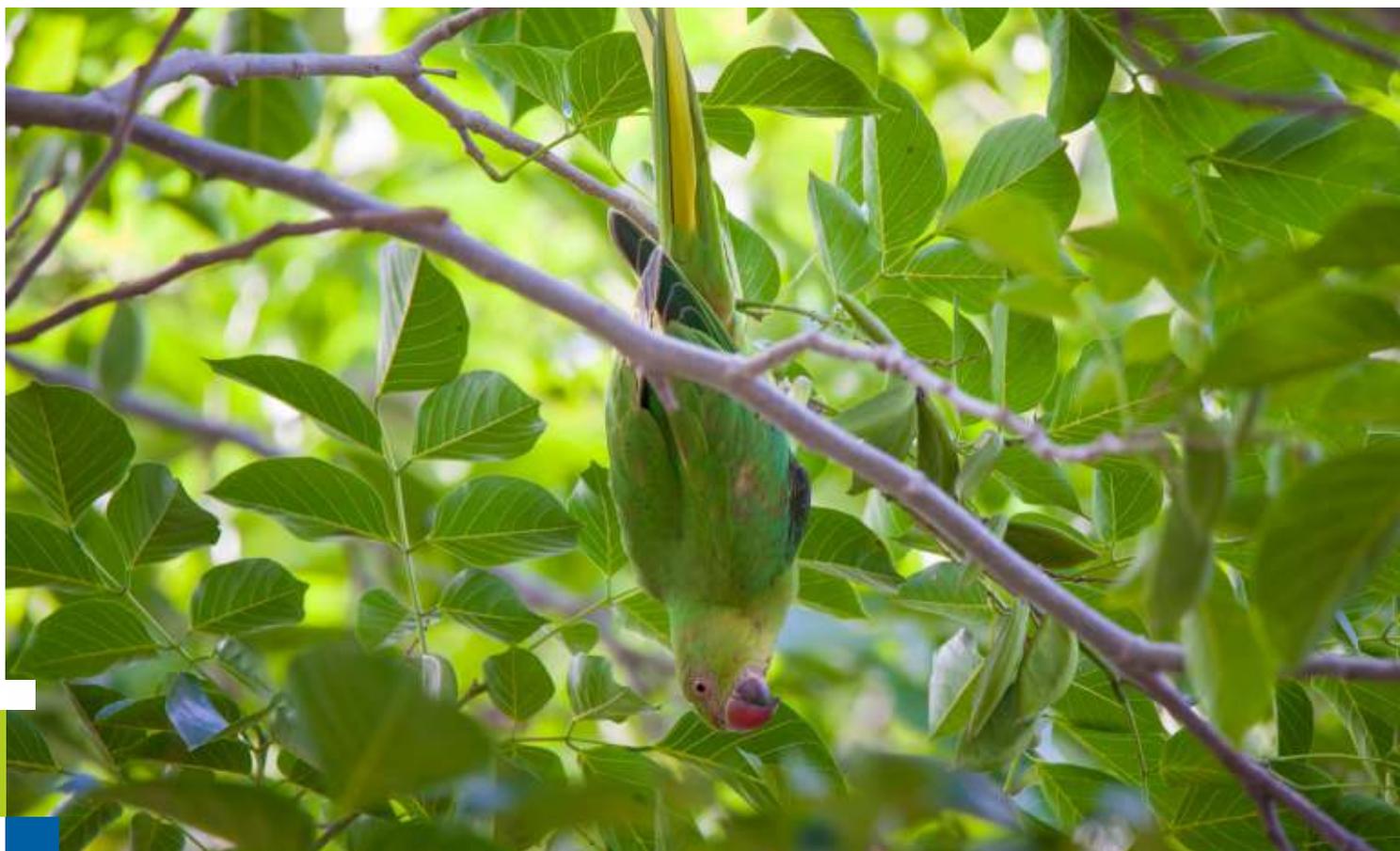
- Utilisation of waste as raw material in making paver blocks resulted in 50% reduction in the production cost. More than 80,000 of M-25 grade paver blocks have been produced for internal consumption at Hindustan Zinc.
- Low cost of manufacturing as conventional raw material consumption is reduced.
- A CSR initiative can be driven to establish SMEs for paver blocks & bricks manufacturing using these wastes.

Biodiversity

Biodiversity and ecosystem services such as food production, fresh water supplies, air quality control and landscapes get impacted throughout the mining life cycle, from exploration to closure. Hindustan Zinc recognises that its impact on biodiversity can arise from a number of sources including operational activities, land use and management of waste streams.

We have a Biodiversity Management Plan in place at all our units. Our biodiversity management programme is developed to avoid, minimise or compensate the loss of biodiversity as a result of new projects or major expansions. During assessments for new projects, detailed environmental impact assessments are undertaken, including biodiversity aspects.

During project permitting, detailed Environment and Social Impact Assessments (ESIAs) are conducted to support approval of the project by regulators and support for the project from stakeholders. We identify and understand the critical biodiversity areas and develop an action plan to mitigate the risks associated with new project activities on the region's biodiversity. Even at the closure stage we work towards restoring the land as close as possible to its natural state.



Keeping the environment clean and green

- Partnered with IBBI for Natural Capital Action Plan implementation at RAM as the site for pilot project
- Planted more than 1.5 million plants around our operations
- Created an endangered plant nursery at the Rampura Agucha Mines and Kayad Mines, a peacock conservation park at Kayad Mines and a Butterfly Park at Pantnagar
- Conducted tree census to assess the quality of the existing arboreal cover. Details regarding the diverse species of trees, names, girth, height (approx.), health condition, etc. were also collected to maintain and manage them better
- Created awareness on 'Plantation, Water Conservation, and Biodiversity' through a three-day workshop which not only provided education but also created a bond among the villagers and their surrounding environment.

Life Cycle Assessment Study

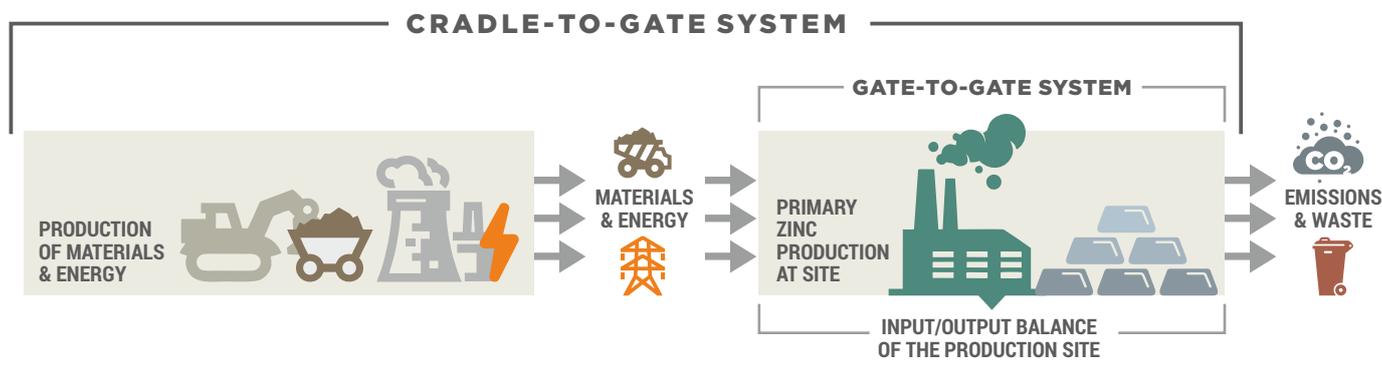
HZL conducted Life Cycle Assessment (LCA) study as per ISO 14040/44 standard, using the approach of “cradle to grave” for their Zinc, Lead and Silver products. This study establishes the baseline impact of '1 ton of Zinc, Lead and Silver Production' for facilities of Hindustan Zinc Limited. The system boundary for this study is a cradle to grave system.



The exercise aims to understand the various environmental impacts of the selected products as well as evaluate the savings potential which can then further be used for setting sustainability targets or communication to the stakeholders. LCA is helping us in:

- **Identifying all potential areas for improvement and direct efforts so as to reduce the impact, or otherwise minimise as far as possible, getting the consequent environmental improvement and compare with the benchmark and best available technologies**
- **Optimisation and improvement of the production processes, end-of-life scenarios, etc.**
- **Stimulating the generation of information on the life cycle performance of materials to support both reductions in the footprint of the upstream activities to harvest the materials, as well as more sustainable applications of materials in products**
- **Competing materials who are putting environmental information on their products into the marketplace through a variety of mechanisms**
- **Objectively analysing different future scenarios and possible alternatives and their implications and impact on the life cycle**
- **Third party standards and rating schemes that are trying to improve the environmental footprint of product and building systems**
- **Supplier evaluation and collaboration with suppliers for improvement in the impacts over the life cycle**

This study provides a platform to understand the environmental profile across the value chain for three product systems from various routes and different sites. Life cycle inventory and impact assessment results can be used to perform internal benchmarking. HZL may initiate the external benchmarking with the best available technologies on various key impact indicators. Outcome of the LCA study can be utilised to communicate to the customers, downstream/end users, policy makers, NGOs and other stakeholders to showcase environmental performance of products of HZL.



RESULTS

A set of life cycle environmental impact indicators such as Abiotic Depletion of Fossil Elements, Acidification Potential, Eutrophication Potential, Global Warming Potential, Ozone Layer Depletion Potential, Photochemical Ozone Creation Potential, Primary Energy Demand and Blue Water Consumption were considered.

Products	ZINC	LEAD	SILVER
Melted-Casted Production (MTPA)	724,452.72	135,897.08	447.5
	Result per ton melted-casted Zinc	Result per ton melted-casted Lead	Result per ton melted-casted Silver
Abiotic Depletion of Fossil Elements (ADP elements) (kg Sb eq.)	-0.09	-0.16	24.43
Acidification Potential (AP) (kg SO ₂ eq.)	17.55	-3.52	386.53
Eutrophication Potential (EP) (kg Phosphate eq.)	0.96	0.08	19.85
Global Warming Potential (GWP) (kg CO ₂ eq.)	4,378.66	1,047.67	59,815.61
Ozone Layer Depletion Potential (ODP) (kg R11 eq.)	2.77E-08	1.01E-09	7.99E-07
Photochemical Ozone Creation Potential (POCP) (kg ethene eq.)	0.71	-0.17	19.68
Primary Energy Demand (MJ)	47,898.34	5,046.97	913,245.41
Blue Water Consumption (kg)	29,064.84	3,019.21	350,386.29

While comparing the results with the study undertaken by International Zinc Association and International Lead Association, HZL's results are at par with the world average data. Unlike European manufacturers having lower grid emission factor for electricity generation, HZL's production processes are dependent on coal-based electricity production. In spite of this situation, the LCA results are quite close to world average.

We have enhanced the renewable energy portfolio, implemented many projects and initiatives for waste reduction and recycling, while various water and energy saving projects have largely contributed in reducing the overall impact of all the operations.

TRANSITIONING FROM OPEN PIT TO UNDERGROUND MINING

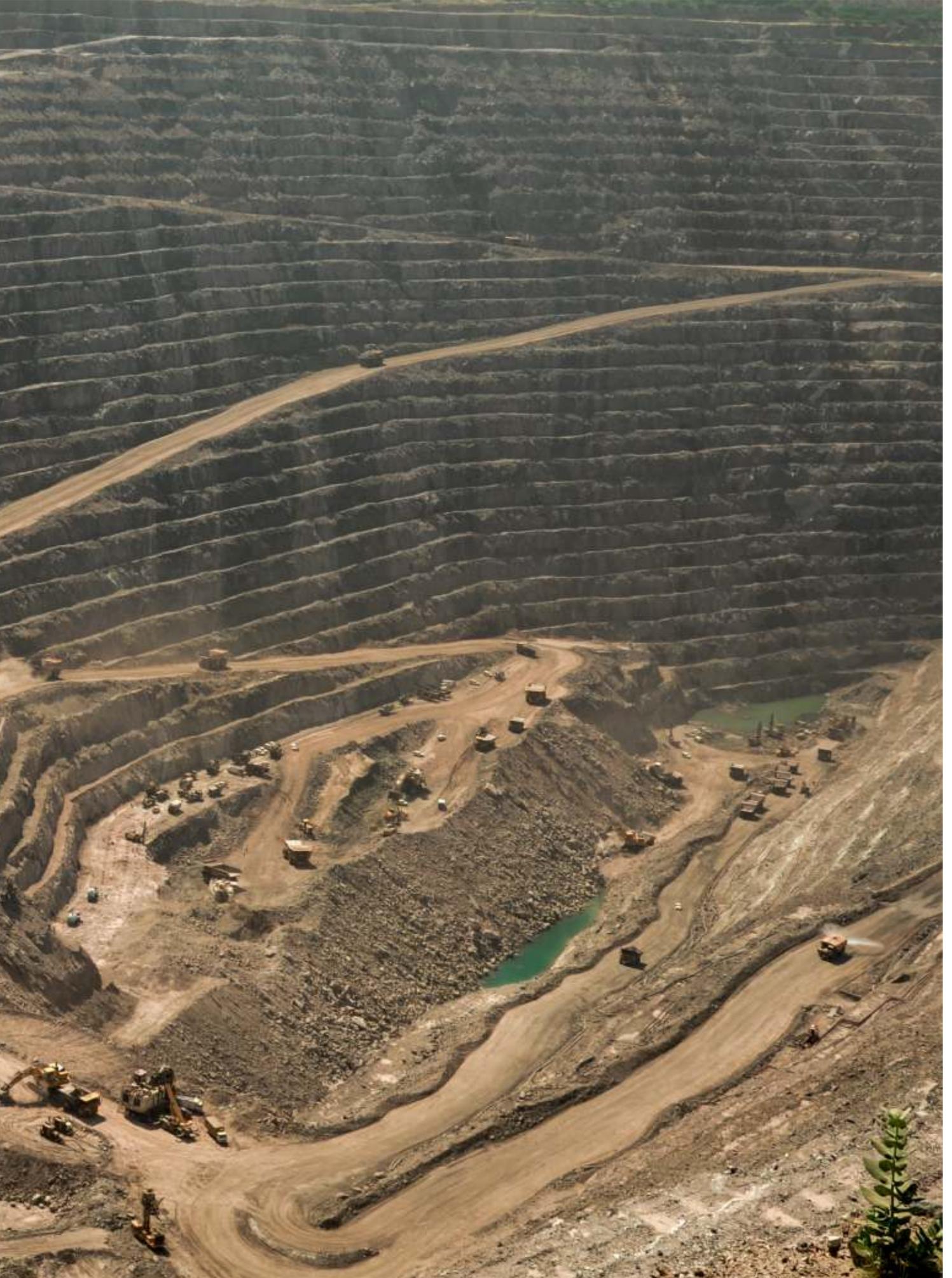
Rampura Agucha Open Cast Mine (RAOC), which delivered its last ore in March 2018 was seamlessly and successfully transitioned into an underground mine on the completion of its open pit operations. Over a period of last 27 years, it produced around 79 MT of ore and 710 MT of waste.

As we went through the transition, we ensured that the two key stakeholders, society and environment are not impacted negatively. Being aligned to international standards like IFC and ICMM, we follow standards and regulations as mentioned in the mine closure plan. Our approach to social impact mitigation is founded on disclosure of relevant information, consultation and participation of all affected communities, and arriving at solutions that are feasible for all the stakeholders.

We consulted interested and affected parties, right from the earliest stages of transitioning. Based on consultations with our key stakeholders, we came up with a range of solutions to transition sustainably. Most of the people engaged with the RAOC were absorbed in existing RAUG operation. These people were imparted training and skills required to work in the underground mine. Those who opted out were suitably compensated and released.

On the environment front, we followed our mine closure plan and started activities which do not contaminate the environment. Waste dump rehabilitation is being done by taking up plantation, 50 Ha waste dump is being utilised to set up 24 MW solar power plant, several initiatives to monitor air and water quality are being taken up. We are also constructing a masonry wall around the pit periphery. The infrastructures used for RAOC will be utilised for RAUG operations.

The open pit operation has not been fully closed except for the mineral extraction part. The activities such as dewatering operation, underground ore & waste hauling, construction of underground portal in open pit, construction of ventilation raises in open pit and pit slope stability management in open cast mining will be continued in the long run to support and facilitate the underground mine operation.



IN CONVERSATION WITH V JAYARAMAN

Corporate Head Environment, Occupational Health & Safety



Why is sustainability important for Hindustan Zinc

Mining is a transformative business, which gives us the ability as individuals and as a company to change our nation for the better. The materials we produce - Zinc, Lead and Silver - are the building blocks of society, and contribute to a better quality of life for people around us.

Sustainability is the only business strategy at Hindustan Zinc. It entails long-term growth maximisation in a way that is both sustainable and responsive for the stakeholders and the society.

Our strategy is aligned with Vedanta Sustainability Framework (VSF), supporting us in doing business responsibly, building strong relationship with stakeholders and adding and sharing values to their life. Thus sustainability is a core value and strong sustainability performance is fundamental to everything we do.

What is Hindustan Zinc's approach to managing sustainability risks and opportunities

The industry that we are operating in exposes us to variety of internal and external risks. We have put a robust management framework in place to manage these risks, right from predicting them early on to working towards mitigating them.

We focus on key sustainability risks in HSE, Community, our people and natural resources and set out our Vision 2020, which keeps us focused and motivated and gives us opportunity to track the sustainability performance against the identified risks and their mitigation actions.





What is Hindustan Zinc's approach for water stewardship

We deploy a two-pronged strategy towards better water management within our operations - minimising our water footprint and reducing the amount of fresh water we consume by reusing as much water as possible in our processes.

Stringent water management policies and standards are in place to optimise consumption, better technologies to reduce demand and free up resources within the same supply of water and maintain zero discharge.

During the reporting period, we signed an MoU with Udaipur Smart City Limited for establishing another 40 MLD STP, which would double the sewage treatment capacity and significantly reduce our fresh water intake.



What is Hindustan Zinc doing to fight climate change

Hindustan Zinc acknowledges global concerns on climate change and recognises that concerted and sustained action is required to reduce the scale of the problem and to adapt to its impacts. We have an exclusive Energy and Climate Change Management Policy that helps us achieve a balanced energy-carbon cycle at Hindustan Zinc. We periodically monitor our progress in energy and climate change management and adopt best practices to reduce our energy intensity.

In sync with our Vision 2020, we aim to improve our energy efficiency, reduce our GHG emissions, and intensify our efforts for the captive use of energy from renewable resources (wind, waste heat and solar).

This has been possible through some concrete environmental initiatives such as reducing water footprint, cutting GHG emissions through energy and climate change management, increasing use of green energy in the total energy mix, maintaining air quality, preventing environmental pollution by reducing waste, and conserving or rejuvenating the biodiversity near our operations.

We are signatory to Science Based Target initiative and committed to reduce absolute Scopes 1 and 2 GHG emissions 14% by 2026 from a 2016 base year and also committed to reduce absolute Scope 3 GHG emissions 20% by 2026 from a 2016 base year. To meet these targets, we are looking at increasing alternative energy in the total energy mix to reduce our carbon footprint, be more environment-friendly and cost competitive.



What are the key sustainability issues that Hindustan Zinc was focused on in the past year

Safety of our employees, mitigating impact of climate change and insuring availability of fresh water to the community, these are the key focus areas for us. We are constantly looking for ways to do things differently to make our business safer.

Aarohan, a company-wide initiative, focuses on eliminating fatalities and serious injuries through positive safety behaviour and a better understanding of the consequences of unsafe acts. We are implementing technology interventions for water conservation and mitigating climate change.

We are signatory to Science Based Targets and planning to increase our green energy portfolio by another 100 MW of solar and wind energy. We are also very focused on responsible use of water and strengthening our relationships with our communities. We signed MoU for another 40 MLD STP to treat municipal sewage as a key step towards water conservation. Fumer project for waste management will get commissioned by end of 2018 which will help us to reduce waste and land requirement, and increase metal recovery.





Digitisation of HR - from induction to e-separation

HZL was conferred 'Best Use of Technology in HR' title by World HRD Congress

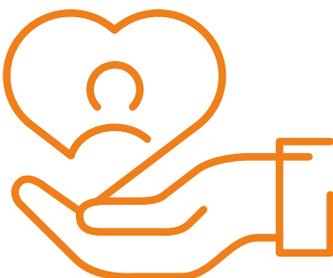
Successful closure of Rampura Agucha Mine with 1,000 employees re-employed

Today a new world of HR technology is on the horizon. Modern technologies are leading the way in enabling HR to revolutionise the entire process from induction to separation. At HZL, digitising our HR practices and processes have led to achieving our organisational goals in a more effective manner. We aim to build an empowered and engaged workforce by overcoming challenges of recruiting, developing and retaining the right talent, via our new HR platforms, apps and avenues.

During this reporting period, we introduced a host of digital initiatives in alignment with our vision to be an organisation of the future. The digital HR strategy has been designed to ensure transparency and informed decision making in all key processes, thereby delivering efficient HR services across all our businesses.

Hindustan Zinc is committed to creating a dynamic and thriving workplace where capabilities are valued, leaders are developed from within and performance is rewarded. We recognise that our people are the ones who power our growth and prepare them as leaders for tomorrow. Being a future-ready company, we strongly focus on developing our people for leadership roles. Hence, it is our constant endeavour to ensure every employee is aligned with the vision of the organisation, feels engaged and is given every opportunity possible to develop his/her skills and talents, and contribute in meaningful ways to the growth of the organisation.

Engagement initiatives, and training and development activities ensure consistent professional and personal growth. It is our strong belief that only when our people thrive, we can thrive.



Vision 2020

To build a highly empowered and engaged workforce by delivering innovative, digitised and technology-oriented HR programmes and practices that foster a high performance, talent-based environment aligned with strategic business goals.

Aspect Boundaries

This aspect poses relevance within the boundaries of the company

Performance

Highlights FY 2017-18

96%

of the total batch (155) placed with various mining companies in the first ever campus placement

Successfully implemented end to end HR digitisation on online platform SuccessFactors - My HR Canvas - for all major HR verticals

Launched online query management and e-separation for enhanced HR delivery

Action Plan FY 2018-19

- Ensure strong leadership depth and right management in place
- Developing critical underground mining skills in select local youths
- Roll out academy driven learning programmes for employees
- SAP HCM payroll implementation to have end to end integrated solution
- Implementation of SuccessFactors workforce analytics
- Bring non-executive population on digital mode by setting up kiosks for HR related transactions

Strategy & Approach

Our human resource is a crucial and integral part of achieving the organisational vision and targets, as well as in working towards the greater good of the community and nation. Every employee at HZL comes on board based on their talent, and we aim to enhance this talent that ultimately reflects on their productivity and the overall organisational performance.

Employees are given opportunities that enable them to climb up the succession ladder and are also taken through training to nurture their leadership abilities.

A Great Place to Work

Hindustan Zinc was voted as "Great Place to Work" by Great Place to Work Institute for building high trust and high performance culture within the organisation. Key to winning this title is not that the organisation has a prescriptive set of employee benefits, programmes, and practices, but the demonstrated ability to build high-quality relationships in the workplace - relationships characterised by trust, pride, and camaraderie.

We invest time, management bandwidth and money to create and nurture a workplace that motivates employees and helps inject more meaning in their work.



Dow Jones
Sustainability
Indexes

Ranked 2nd by the Dow Jones Sustainability Index in 'Talent Attraction & Retention'



Total Workforce (as on 31.03.2018)



866 security personnel received training in the organisation's policies for human rights and their application to security

Being a future-ready company, at HZL we focus on a two-pronged HR strategy to drive growth and enhance productivity, which is:

1 Building an empowered workforce | 2 Creating an engaging work environment

Building an Empowered Workforce

Policies that Empower People

SDG 3, 5, 8

■ PARENTAL LEAVE

To ensure both mother and father are able to give ample time during the birth or adoption of their child, we offer maternity, paternity and adoption leaves. They are entitled to 6 days of paternal leave and 26 weeks of maternity leave. **During the year 156 male executives availed paternity leave and 19 female executives availed maternity leave.**

All female executives, trainee, probationer or confirmed, who have completed minimum continuous service of 80 days with the Company are entitled to adoption leave with full pay. Female employees who legally adopt a child are entitled to 12 weeks of adoption leave. **One executive availed this leave.**

No. of employees who were in continuous service for 12 months after returning from parental leave - **149 male & 17 female executives. Return to work rate is 95.51% for male and 89.47% for female.**



■ DIVERSITY & INCLUSION

Hindustan Zinc is committed to an inclusive and diverse workplace across its operations. Leaders are expected to build diversity in their teams by fostering positive behaviours and promoting an inclusive environment. Our recruitment, deployment, reward and development practices are designed to attract and retain diverse talent, and equal opportunities for growth are provided to all based on their experience, expertise, qualification and ability.



■ INCENTIVE

Our comprehensive incentive policies, that include provident fund, gratuity, canteen facilities, parental and maternal leave, also add to employee satisfaction. They can also avail additional benefits such as life insurance, healthcare, disability/invalidity coverage as per Employee Compensation Act 1923 and retirement provisions such as superannuation fund for M4 and above and other benefits as per statutes.

The identified high potential employees are rewarded with the Employee Stock Ownership Plan (ESOP). Employees are also provided a range of non-statutory benefits like housing and leave travel allowance. The ratios of entry level wages meet or exceed the legal requirements.

Creating an Engaging Work Environment

Employee Engagement

SDG 3, 8

We conduct yearly Employee Engagement Survey to know the level of satisfaction of our people on different drivers and motivators and revise our policies based on the survey feedback.

The various drivers considered for this purpose are - career opportunities, compensation & rewards, working conditions, work-life balance, communication, performance management, policies, quality of life, culture and safety. Based on the recent survey feedback we have made following changes in our policies:

• Inclusion of M8 & M9 population in PPS	• Revision of ESOPs	• Improvement in infrastructure
• Pay revision for geologists	• Enhancement of overall PPS	• 6 months maternity leave and inclusion of paternity leave

	Engaged employees through survey as % of total employees	Coverage %
2015-16	61	60
2016-17	66	91
2017-18	60	65

At the corporate level, Hindustan Zinc Workers' Federation (HZWF) represents all the unions in different units and deals with matters pertaining to service conditions, wages and benefits, and strategic policies. A bi-partite forum like Joint Consultative Committee deals with matters relating to productivity, health and safety.

Health and safety topics are also included as part of the formal agreements with trade unions. For all significant changes the minimum notice period is decided in agreement with our employee associations. **During the reporting period there were no strikes or lockouts.**

It is our aim to continue our smooth working relationship with the unions in achieving harmonious outcomes for all concerned stakeholders.



% of Full Time Employees Covered by Collective Bargaining Agreements
100% of non-executives

During the year 1,567 queries were raised by employees on various categories such as compensation, leave matter, incentive, payroll, claim etc., through the online query portal and 97% were resolved

To promote dialogues across all levels of the organisation, a system of senior management interaction has been established which includes one-on-one feedback with unit heads, open house meetings, interactions with CEO/COO, town hall meetings, and Chairman Workshop.

The CEO town hall incorporates themes ranging from safety to business priorities, while quarterly held location level town hall meetings are used by location/unit heads to share performance updates with their team. These are great platforms for employees to raise their concerns, share feedback and have one-on-one interactions with the management. We encourage employee associations while our non-executives are covered under collective bargaining agreements and are part of unions affiliated to the Indian National Trade Union Congress (INTUC), which is recognised by the management.



Inclusion of Sustainability criteria in employee incentive and performance

To increase focus on safety and sustainability performance, as a progressive approach we have linked the performance based compensation with safety and sustainability performance of the unit and also it is also mandatory for each employee to take at least one KRA under safety with minimum 10% weightage. The scheme was specially designed to enhance the high-performance culture across HZL and to align the individual and team performance with the business objectives.

CEO & OTHER SENIOR LEADERSHIP

The payment of the CEO's performance-based compensation of the annual salary is determined by a comprehensive evaluation of measurable indices such as financial performance including revenue and operating profit and the non-measurable indices such as leadership, achievement of strategic goals, expertise and contribution to the Company's management and sustainability performance.

- CEO's KRA - Become a zero harm organisation by establishing & inculcating the safety culture. KPI is VSAP score.
- COO - Mines and Smelters KRA - Become a zero harm organisation by fostering a safe and risk free work environment through elimination of incidents/injuries. KPI - VSAP score and Zero fatality.

ALL EXECUTIVES

The payment of the performance-based compensation of the annual salary is determined by HSE parameter along with business performance. Under HSE parameter, the weightage was increased from 8% to 20% this year to further promote a safe & sustainable work culture by bringing in individual focus.

- Safety & sustainability scores are based on the VSAP audit and the threshold achievement to become eligible for payout is 70%.
- Any fatality across the Company results into nil payout under this parameter.
- Apart from this consequence management is also there where based on the responsibility matrix the punishment is imposed ranging from withdrawal of last increment to demotion and nil/partial payment of PPS.

CONTRACTOR

Payment of contractors is also linked with their safety performance in plants, which is monitored through their monthly safety score card.

Creating Leaders

Today's market environment demands speed, flexibility and the ability to lead in uncertain situations. Couple this with the flattening of organisations and the need for leadership skills at every level is a must for continued organisational success. At HZL we are not only developing leaders at all levels of the organisation, we are also equipping them with the critical capabilities and skills they need to succeed. Our strategy includes:

- Engaging top executives to develop leadership strategy and actively govern leadership development
- Focusing on three aspects of developing leaders - developing leaders at all levels, developing global leaders locally and developing a succession mindset
- Implementing effective and unique leadership programmes

Vedanta Leadership Development Programme (VLDP)

VLDP was launched in 2017 with the aim of bringing on board the best-in-class young talent from the premier institutes, and nurturing them to be the future leaders of Vedanta. We endeavour to achieve this objective by providing the recruits with the right opportunities, role, job rotation and anchoring. **This financial year we had on board 19 recruits from IIT - Bombay, Kharagpur and Chennai, and IIM - Ahmedabad, Bangalore and Kozhikode, out of which 2 IITians and 2 IIMians have joined Hindustan Zinc.**

“Vedanta Leadership Development Programme is the flagship programme of Vedanta and it was a matter of great pride for me to be a part of it. I have been working on projects in multiple domains as a VLDP working with the CEO's Office. The learnings that I have been able to derive have only increased as the days have gone by, thus opening up a multitude of avenues for me to consistently contribute to the organisation. Through VLDP I have been able to grow personally and professionally in a variety of environments and I could not have asked for more at the beginning of my career.”

SNEHIL KUMAR



V-Connect - Leaders Build Leaders

V Connect, launched in July 2016, connects high performers - “Talent”, across the Vedanta Group with senior leaders - “Anchors”, to achieve better performance and strengthen the leadership pipeline. The specific purpose of the interactions, both one-on-one and group, between the Anchors and Talents, is to help the Talent develop on personal, professional, and organisational fronts.

V-CONNECT
Inspire | Engage | Deliver

Chairman Internal Growth Workshop - Unlocking Leadership Potential

During the workshop, top performers make a presentation, collectively as a team or individually, on evolving business scenario and their views on 'unlocking value and creating wealth'. A panel comprising of the Vice Chairman Vedanta, ExCO leaders and business function leaders, zero in on high potentials, who are then given new roles as leaders. **Identifying internal talent and elevating them to leadership roles is embedded in our DNA and has been the driving force behind our rapid growth.**



“As part of this workshop, I was selected as one of the high potential business leaders for power plants at Vedanta, and was given the role of Head Maintenance, DSC CPP, along with coal planning for HZL. The Vice Chairman and the leadership team of the power plant operation devoted their time during this 3-months long workshop where they hand-held and mentored us to become next level leaders. I feel privileged and proud to have been part of an initiative that opens up opportunities for deserving internal talent to progress in their career with better roles and greater responsibilities, which is in line with the motto of our Chairman.”

CHANDNI PRASAD DAS | Head Engineering DSC CPP, HZL

Talent Management

Investing in our employees and ensuring their professional and personal growth is an essential part of our organisational goals. Through our talent management process we aim to leverage each employee's unique strengths, identify their potential and accelerate their growth.

Our talent management plan encompasses all hierarchies. From training new incumbents to upgrading existing talent and from kick-starting productivity of new joiners to developing domain experts, our talent management plan enables us to attract the best talent and retain the top performers.

Productive From The Word Go-Induction for Graduate Engineer Trainees

Our robust 90 days induction programme engages millennials through paperless on-boarding, online weekly assessments and merit based posting allocations. After completion of the classroom training all GETs are allotted live projects and are assigned to mentors who also serve as their project guides. This induction programme also enables the internal subject matter experts of HZL to take up sessions of their interest. Each faculty and session is rated by the GETs and the best faculty is recognised in formal forums. The top performers are given preferential postings and are recognised in the valedictory ceremony chaired by the CEO and the HZL Leadership Team. 67 GETs of 2016 batch were part of the valedictory ceremony.



209 GETs joined in 2017 from 47 prestigious colleges across India, of which 10% were female GETs.

Developing Knowledge Anchors

Subject Matter Expert Development Programme

The Regional Training Centre, Nimbahera, developed and conducted a three phase Subject Matter Expert (SME) programme.

Phase 1 included validation of the SMEs, **phase 2** included development of their behavioural skills, involving communication skills and the art of connecting with the audience, and **phase 3** comprised technical skills enhancement through theoretical training and practical sessions.

The programme has helped create a total of 60 SMEs at Dariba Smelting Complex in disciplines as diverse as operations, electrical, instrumentation and mechanical.



Digital Transformation of HR

At HZL, an unwavering focus of our HR has been to build an organisation of the future. In step with this ongoing objective, the digital HR strategy has been crafted to deliver on the following two objectives:

- **Help employees shift to a digital mindset**
- **Revolutionise employee experience by transforming the HR processes and systems via new platforms, apps and avenues of delivering HR services**

To deliver HR services more effectively and efficiently, we are adopting and implementing digital technology to inject immediacy, transparency and informed decision-making in all key processes such as recruiting, compensation management, learning and development, and talent management.

At HZL, digital HR is a tool for cultural transformation.



THE APPROACH

PLATFORM

Streamlining and integrating our HR processes by bringing them under common platforms - SAP, SuccessFactors and Mobility SAP Fiori

PEOPLE

Encouraging a culture of innovation and sharing among the workforce and activating a digital mindset through a robust change initiative

WORK

Leveraging digital tools and apps to deliver solutions to change the way we work and support continuous experimentation and innovation



THE GOALS

COST REDUCTION

Achieve cost reduction through digitisation, process change, outsourcing, etc.

DATA CONSISTENCY

Create a single system of record for all HR data

INTEGRATION

Build an integrated HR data system to perform workforce analytics

STANDARDISATION

Standardise HR data across multiple geographies

ENHANCEMENT

Move away from legacy system that was not meeting growing organisation needs

GOVERNANCE

Establish reliable, consistent reporting for compliance and legal perspective

EFFICIENCY

Enhance efficiency of all processes



THE ROADMAP

EXPLORE DIGITAL

Payroll COBOL

For cost reduction, enhancement, integration

Employee PF Portal

For enhancement, standardisation

E-Separation

For enhancement, integration, efficiency

DO DIGITAL

HRMS Implementation

For data consistency, integration, enhancement and standardisation, efficiency

SAP HCM

For enhancement, integration, governance

CLMS Implementation

For enhancement, integration, governance, efficiency

BECOME DIGITAL

Mobility App (Fiori)

For enhancement, efficiency

HCM Payroll

For enhancement, integration, data consistency, standardisation

SuccessFactors

For enhancement, efficiency

Nakisa (Organisation structure)

For integration, data consistency, enhancement

BE DIGITAL

Workforce Analytics

For enhancement



We have reached the stage of 'Be Digital' in our HR digitisation journey by bringing all our HR processes under integrated platforms which are on premise as well as cloud based.

Outcomes of HR Digitisation

Strategic and Empowered HR

With digital HR taking hold and becoming more platform based, business partners are becoming more digitally empowered.

Higher Talent Visibility

Data integration and improved data transparency have allowed our business leaders to get a clear view of the talent, thus, enabling them to take decisions like identifying successors for critical roles.

Goal Alignment

With technology enabling quick and easy cascading of organisation goals, alignment of individual goals to the organisation's mission has become more effective and has helped employees to understand their contribution in the organisation's overall success.

Digitisation has helped us move beyond process redesign and harmonisation to focus on optimising employee productivity, engagement and teamwork. This journey has been a major milestone towards ONE VISION, ONE TEAM.

Delightful Onboarding

The acclimatising programme begins once the employee accepts the offer. All the activities from job description, issue of e-offer letter to form filling and paperwork have been digitised and new hires get through the administrative process quickly and smoothly.

HR Shubhcintak - Online is backed by on-ground support

It is a single point of contact from HR to support end-to-end formalities while joining at the unit which includes plant induction, settling procedures in colony, school admissions for their children and other personal requirements.

This helps reduce the initial confusion and uncertainty faced by all new employees and helps increase their self-confidence allowing him/her to focus on adding value to the organisation.

Enhanced Career Development and Succession

- **Planning** The digitised employee talent review on SuccessFactors - My HR Canvas, measures the impact an employee has on the growth and success of the business, and identifies high potentials from within who can move into larger roles.
- **Empowered Employees** Employees have the right to own and manage their personal and professional data available with the HR.
- **Effective Learning Management System** LMS is based on the SuccessFactors platform - My HR Canvas. Employees can access training programmes from anywhere and the LMS tracks the learner's progress, maintains training records, and generates insightful reports.
- **Progressive Performance Management and Compensation Planning** We now have online goal setting, cascading, reviews, calibration and reports. Also the e-compensation planning and management has completely eliminated manual interventions.



Superior Service

We have set up an online HR query management for employees to voice their queries and expect a resolution within a stipulated time frame. This has greatly enhanced our HR service delivery.

E-Separation

Similar to the seamless digitised on-boarding system, an e-Separation has been implemented to ensure transparency in the off-boarding process, and thereby imparting a pleasant experience for the exiting employee.

Better Contract Workforce Management

Saviour is a biometric attendance system introduced for contract workforce across all locations at HZL and has hugely streamlined the way we manage them. Only system generated gate passes are issued and the entire contract workforce at a given point in time can be viewed on a live dashboard indicating segment, education, skill level, age, etc.



Gender Diversity

At HZL we believe every employee, irrespective of their gender, is capable of contributing to the organisation's growth. Employees are assigned roles and responsibilities based on their capabilities and merits. We value and appreciate the strengths afforded by differences in the styles, ideas and organisational contributions of each person, and create a workplace which promotes dignity and respect to all. We believe in creating equal opportunities for both our female and male employees and empower them equally so that they can meet their aspirations and the organisation's goals.



Diversity Indicator	2017-18
Women fresher's inducted	26.8% of 313 freshers
Female share of total workforce (%)	12.08% of total executives
Females in management positions (as % of total management workforce)	7.11%
Females in junior management positions, i.e. first level of management (as % of total junior management positions)	16.62%
Females in top management positions, i.e. maximum two levels away from the CEO or comparable positions (as % of total top management positions)	2.40%
Females in management positions in revenue-generating functions (e.g. sales) as a % of all such managers (i.e. excluding support functions such as HR, IT, Legal, etc.)	7.65% in O & M 27.61% in enabling functions

Dispelling Gender Myths

Forklift driver is not a common career aspiration for women in India. However, that did not deter Saroj Kumari from becoming the first female forklift operator at HZL. Today, she deftly transports packed zinc ingot bundles which weigh around one ton. According to Saroj, this job needs you to be extra careful, and women inherently possess that trait. This job is important to her not just to supplement the family income, but also for her pride.

She encourages other women to pursue non-traditional careers where the pay is good and thereby build a bright future for themselves and their family.



Know Her - Leader's Talk

A group-wide initiative to raise more women leaders through shared experiences encourages interaction between women leaders and women employees of Vedanta. Due to societal structures and years of conditioning, too often gifted women doubt their capabilities and tend to aim low. This is where mentors step in to dissolve doubt and galvanise women for great accomplishments.



Health & Well-being

People are our prime assets and it is our responsibility to protect their health. Along with this responsibility it is also basic business prudence. Occupational ill health leads to decreased productivity and increased human error, with the potential for increased accidents at work, thereby, creating occupational hazard. All occupational diseases can be prevented by providing a workplace that is free from occupational health risk and hygiene hazard. Hence, we strive to provide our employees with a clean, healthy, and safe working environment that enhances their productivity and well-being.

Healthy employees make a healthy organisation. For us, people are not mere assets to enhance our business growth, but partners in our journey towards attaining sustainable growth. They are also one of the key indicators of the effectiveness of our sustainability strategies. Hence, their overall health and wellness is one of our key parameters and we undertake initiatives and programmes that address their health concerns and augment their well-being.

Health Management

Given the importance of minimising health related risks in the growth of the Company, we have put in place processes to monitor and manage the health of our employees. One of the important steps in creating an engaging workforce is having employees with healthy mind and body. At HZL, we focus on a holistic approach to health management, which includes periodic health check-ups, workplace hygiene, protective equipments and training to raise awareness. A pre-employment medical check-up is followed by periodic check-ups post employment along with other onsite tests to keep track of every employee's occupational exposure limits.

sanitisation and hygiene. All our employees, both permanent and contract are provided with personal protective gears, which they are expected to use at all times.

We also have dedicated occupational health centres established at all major mine and smelter locations, which are well equipped with the latest technology and staffed with occupational health experts to prevent and treat employees' health concerns.

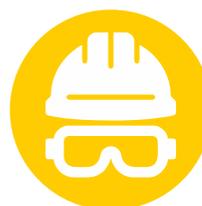
Snapshot of Health Management at HZL



HEALTH CENTRES AND HEALTH CHECK-UPS



WORKPLACE HYGIENE



PROTECTION EQUIPMENTS



HEALTH TRAINING AND AWARENESS

During the year **26,480** periodic and initial medical examinations conducted for employees and contract employees.



None of our permanent and contract employees were identified to be at risk of any kind of occupational diseases during the reporting period.



Detailed below are measures we undertake on a regular basis to ensure good health and well-being of our people.

- 100% periodic medical examinations of all relevant employees
- Well-equipped occupational health centres for regular health examination of employees including contract employees
- Regular monitoring of ambient air at workplace. Air parameters are maintained below the permissible limits
- Training for first aid and occupational health awareness for employees, including contract employees
- Specific examinations like blood lead level, audiometric, spirometry, ophthalmic and chest x-rays
- Special campaigns for stress management, bone density tests, hyper tension for employees and dependents
- Pneumatic conveying of fine dust to prevent secondary emission
- Regular monitoring and control of work zone
- Dry Fog System in raw material handling section
- Appropriate filter media and bag filter design for hygiene and ventilation system
- Emphasising on controlling the source of pollution and monitoring exposure to hazardous substances through technologically advanced processes

Insight

A new initiative "Insight" was launched to motivate and rejuvenate employees by touching upon the finer points of life. As the name suggests an insight helps to discover one's inner happiness and bring out the best in all of us. Under this new initiative, every quarter, renowned motivational speakers and celebrities share insights about life.

Renowned actor Mr. Ashish Vidyarthi was the first speaker. He adopted the theme "Zinda Hoon Main", to address employees about breaking the routine and discovering their uniqueness. This session was webcast live on HZL's Facebook page, and garnered an overwhelming participation of 100,000 viewers. In the second session Shri Gaurgopal Das, motivational speaker and lifestyle coach, addressed the audience in his witty style, on how happiness and being successful is a choice. The interaction reached out to 500 employees.



In the future sessions, the audience will interact with different celebrities on topics ranging from spirituality, philosophy, strengths and failures to opportunities and relationships.

V-Fitness

This is a pan-Vedanta wellness initiative undertaken with a commitment to promote healthier lifestyle choices amongst the employees. With a commitment to promote health and wellness among all our employees, through this initiative we drive different themes related to health and fitness by organising a number of programmes throughout the year.

A fitness calendar is rolled out to enable employees to choose from a variety of health and fitness activities, which are carried out by the business unit representatives. During this reporting period, V-Fitness Calendar included activities such as Healthy Heart, Eat Smart, Get Active, Ergonomics, Happiness, Lifestyle and Women's Health. Eminent specialists from the respective fields are invited to impart their knowledge to the employees.

Apart from these activities business units continue to drive other wellness activities as per their timelines.



Work-Life Balance

In order to encourage work-life balance we have created world-class infrastructure such as the executive club, gymnasium, badminton court, swimming pool, golf course, etc. at all our units.

We also organise team outings, movie screenings, cricket and football tournaments and activities such as Monsoon Mania, Kavi Sammelan and Art of Living. These activities also give them a chance to interact with employees from other locations.

SLIM Campaign

Hindustan Zinc & Nasofilters carried out a week long SLIM (Save Lungs India Movement) campaign for its employees at Debari, Dariba and Chanderiya sites.

SLIM used Nasofilters, a non-inserted, hypo-allergenic and self-adhering nanotechnology based nasal filter, which prevents harmful effects of bacteria, viral infections and tiny suspended dust particles. It is a convenient and effective disposable nasal filter which helps prevent respiratory diseases, heart and lung related problems.



Integrated Health & Wellness Initiative | HZL, Agucha

Employee health and well-being is our prime responsibility, and we work towards empowering our employees to pursue a healthier lifestyle.

HZL decided to partner with an expert health and wellness service provider to overcome challenges and improve the health and well-being of the employees at Agucha. A leading provider of primary and occupational healthcare services, was selected to foster a culture of health and wellness, thereby, positively impacting the overall health of the entire workforce. In addition, following are the key objectives for undertaking this initiative:



- Improvement of physical infrastructure and medical equipment at the hospital
- Deployment of additional requisite medical resources onsite including X-ray technicians, and visits by dietitians, physiotherapists and specialists such as gynaecologist, pediatrician, cardiologist, ENT and orthopaedic specialist.
- Set up a state-of-the-art pathology lab
- Establish a robust medical emergency response plan
- Health & wellness workshops on diet and nutrition, physical fitness, mental health along with seasonal illnesses and lifestyle diseases

This has increased the overall performance of Occupational Health Management system at Rampura Agucha Mine.





Implementation of ARIBA for Procure-to-Pay Integration

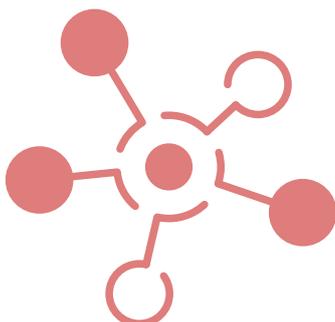
Ancillary Plant at Dariba Smelting Complex

Transportation of Concentrate by Container Rail

Innovation and automation are becoming the new paradigm shift in today's digitised marketplace. Keeping in line with the technological advancements in the world, and our Vision 2020, we are making efforts to bring about a digital transformation and push for innovations in our supply chain process. Digitally integrating our supply chain, from its daily operation to larger strategic value, leads to transparency, better management and accountability, in turn strengthening our relationship with our suppliers and business partners.

One of our key digital transformations for the reporting period has been the Transport Management System, across all our locations. Automating our transportation system, thereby, reducing manual intervention, has led to zero spillage and pilferage, secure movement of goods and reduction in the carbon footprint.

Strengthening our collaboration with our suppliers, vendors and contractors is key to creating a sustainable future. Managing the social, environmental and economic impacts across our partner relationships constitute a critical aspect of our 360-degree approach to sustainability. We are leveraging technology and undertaking several strategic interventions to enhance the sustainability quotient across our supply chain.



Vision 2020

Digital transformation with a focus on innovation and collaboration.

Aspect Boundaries

The supply chain being an integral part of our business, we strive to build strong and resilient relationship with our partners. We do so by focusing on strategies, processes and policies that enable us to develop the capacities of our employees as well as our suppliers, vendors and contractors, thereby delivering business excellence. In our dealings with them, our primary focus remains tier-1 suppliers, and we connect to our tier-2 and tier-3 suppliers through the tier-1 suppliers. If the need arises we also directly connect with our tier-2 and tier-3 suppliers.

Performance

Highlights FY 2017-18

ARIBA supplier collaboration went live in March 2018

Transportation of concentrate from mines to smelter using shuttered trucks and container rail have led to

ZERO spillage and theft

New performance scorecard, recognising best-in-class-performance, for service providers implemented

Action Plan FY 2018-19

- Introduction of smart touch-less PO
- Business Analytics & Auto MIS
- Ancillary unit - Encouraging global majors in explosives
- Online quality feedback to suppliers and training on zero waste
- Structured interaction with supplier management to give scorecard feedback
- Best supplier awards on adoption of sustainability practices
- Simulators for SKM, RAM and ZM for operators' skill enhancement
- Compliance surveys and safety audits for suppliers



Strategy & Approach

Our supply chain is one of the key factors contributing to our triple bottom-line performance. Hence, effectively managing its impact on environment and society positions us for strong growth. The supply chain is also an area where we see great potential to innovate and create a long-term positive impact.

All our suppliers go through a stringent evaluation process, which is a part of our techno-commercial bidding process. The selection process is guided by two robust policies, namely, the Procurement Policy and Supplier & Contractor Sustainability Management Policy. We screen our new suppliers based on their practices in human rights, labour practices and environmental impact on society.

Our procurement function is a product of the principles of quality, reliability and sustainability. In order to transform these ideals into action, we have rolled out a set of five sustainability objectives for our supply chain and targeted action plans to achieve them.

KPI 1**T A R G E T S**

**Productivity
in supply chain**

Driving supplier co-innovation to improve TCO & technological investments (ARIBA Phase-II) for enhancement of supply chain collaboration

**TARGET
Y E A R
2 0 1 8**

KPI 2**T A R G E T S**

**Sustainability in
supply chain**

Skill enhancement of supervisor team of HZL as well as business partners from global company LTMS (Lisheen Technical And Mining Services)

Evaluation of vendors on sustainability criteria

**TARGET
Y E A R
2 0 1 8**

KPI 3**T A R G E T S**

**Innovation & automation in
product supplies which are
environmental friendly**

Setting up self-driven lubricant filling system in SKM to reduce pilferage of oils due to multiple handling and reducing use of plastic container

**TARGET
Y E A R
2 0 1 8**

KPI 4**T A R G E T S**

**Encourage the vendors and
their tier-1 & tier-2 vendors to
adopt sustainable processes**

Will ensure same safety practices and zero discharge as in HZL to our critical commodity and single vendor/proprietary vendors

**TARGET
Y E A R
2 0 1 9**

KPI 5**T A R G E T S**

**Collaborative approach with
business partners to achieve
enhanced production targets
and to improve bottom line
of the Company**

Business partner engagement through structured framework

Ensure the timely redressal of vendor/supplier grievances

**TARGET
Y E A R
2018-19**



Supplier Code of Conduct

Our association with our partners begins by introducing them to the Supplier Code of Conduct which ensures they commit to the same norms as HZL, and we regularly monitor their compliance on the same. This Code is applicable to suppliers globally and refers to any representative who has a business relationship and provides, sells or seeks to sell any kind of goods or services to the Company.

Apart from setting forth the basic requirements and international standards our suppliers need to adhere to, we have also included sustainability requirements that our suppliers need to abide by while conducting business with the Company. They should follow all the laws of the land including laws on environment sustainability and protection while executing any work for the Company.

We ensure that we associate only with suppliers with a proven track record in sustainability. Doing so enables us to establish the ideals of sustainability in our overall supply chain from the very beginning.

Child Labour and Slavery

Employment of child, forced or compulsory labour by any contractor is an unpardonable offense that leads to blacklisting of suppliers across Vedanta. As a preventive measure we carry out regular inspections at all locations and require proof of age for all our contract workers.

During the reporting period none of our suppliers were identified as being at risk for undesired labour practices including child, forced or compulsory labour.

At HZL we are also committed in our approach to tackling modern slavery in our business and supply chain, consistent with the disclosure obligations under the UK Modern Slavery Act 2015.

As we expect the same high standards from our vendors and suppliers, we ensure that they apply the same high standards as HZL to their own organisations.

We have incorporated the Modern Slavery Act requirements in the Supplier & Contractor Sustainability Management Policy, and we ensure that there is no use of forced, compulsory or trafficked labour, or anyone held in slavery or servitude in any part of our business.

Digitalisation & Innovation of Supply Chain



In keeping with our Vision 2020, we are making efforts to bring about a digital transformation and push for innovations in our supply chain process. This will lead to simplification of the procurement process, transparency, better management of expectations on both sides and thus, strengthen our relationships with our business partners.

While working towards a digitally enhanced supply chain, we are also creating more eco-friendly processes that are conducive for sustainable performance. Over and above these benefits, digitalisation has helped improve the mechanisation of our operations, which in turn has enhanced productivity.



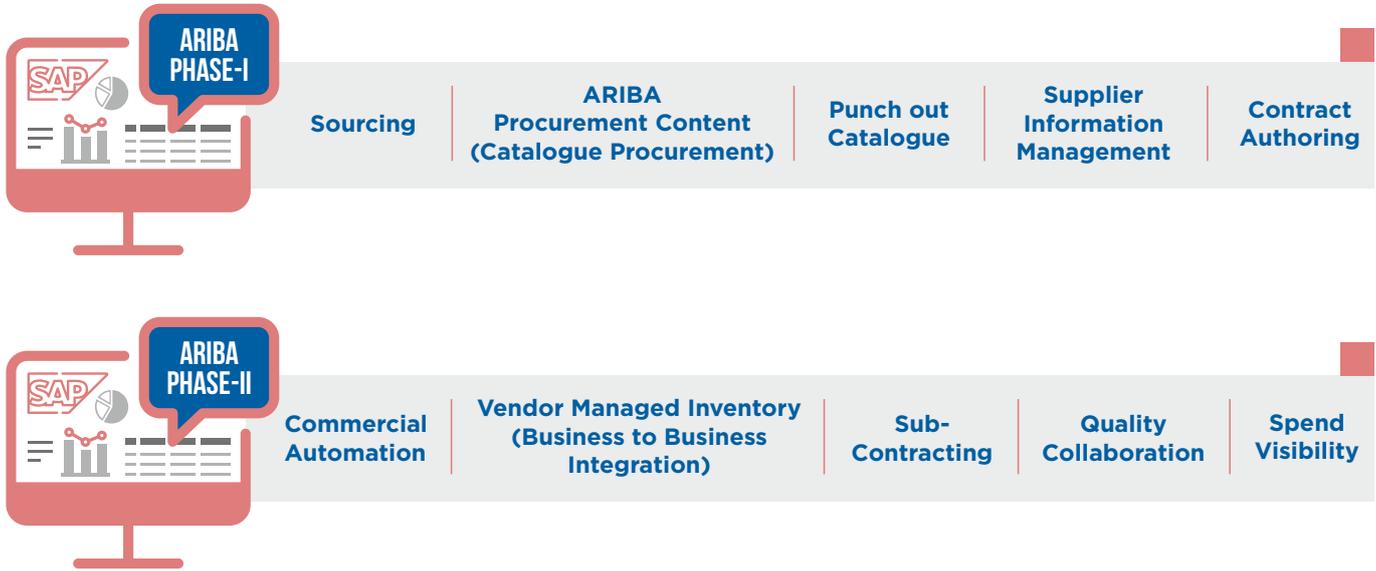
Transitioning from open-cast to underground mining, made us realise the immense scope for innovations in our processes

Implementation of ARIBA for Procure-to-Pay (P2P) Integration

SDG 9

The SAP ARIBA, a network based collaboration platform, has made it easy and convenient to connect and share information with our partners and vendor networks in real time. It has added significant value across the entire supply chain lifecycle by enabling efficient on-boarding and easy integration, improving transparency and compliance, and allowing scope for broader collaboration. It also provides crucial intelligence that helps detect warnings early on and implement remedial measures to mitigate probable risks.

During the reporting period we rolled out the ARIBA project for P2P integration in two phases. SAP Ariba: Sourcing & SIM (Supplier Information Management) Phase 1 module was launched on March 8, 2018.



ADVANTAGES FROM THE PROJECT INCLUDE

- Seamless self-registration by vendors
- Improved compliance & governance, high transparency
- Digital invoicing from suppliers
- Integrated Procure-to-Pay (P2P) platform
- Online negotiations using auctions
- B2B & VMI integration with suppliers
- Supplier performance management
- ARC Catalogue auto touch-less PO
- Spend analytics
- PR-PO cycle time will be reduced to zero for APC Catalogues
- Elimination of repetitive activities & Data Management System

BENEFITS DURING THE REPORTING PERIOD INCLUDE

Savings of INR

117 CRORE

(7% over Last Purchase Price or L1 offer) through online auctions

462

online auctions were conducted for a total amount of INR

1,460 CRORE

Saving of

6,000

man-hours by eliminating the PR-PO cycle time for Annual Rate Contract items through APC catalogues



Sustainability in Transportation

Transportation of Concentrate by Container Rail

During the reporting period, we started transporting concentrate from Agucha by container rail. Prior to this the concentrate was transported by road through open trailers, resulting in a higher carbon footprint and making it susceptible to pilferage and spillage.



Almost 140 vehicles are dispatched by road every day, which called for real-time tracking, caused traffic congestion inside the plants and highway which added to complexities. The container rail transportation has resulted in reduction in road vehicles, reduced emissions and provides safe and secure movement of the concentrate. Initially flagged off from Agucha to Chanderiya, it will be replicated at Debari and Dariba.

Driver Training Programmes

We have undertaken major initiatives to improve the effectiveness of the vehicle and driving standards in our locations. The two essential pillars of vehicle and driving standards are: vehicle fitness and awareness training. We have designed safety training covering all the safety aspects and training sessions have been conducted. We strictly follow the Vehicle Driving Safety Standard and No-Go criteria, and only 100% fit vehicles are allowed in our locations.

Driver safety training was conducted at the Debari Parking Plaza with the support of the safety, security and sales team, in which 42 drivers participated.

Apart from that, the following other training programmes were undertaken to enhance the safety awareness of our drivers.

Campaign Title	Activities
Surksha Ki Baat Drivero Ke Sath	Involvement of higher management, safety interaction with drivers and knowledge sharing
On-the-spot VDSS training session	Basic knowledge of VDSS and No-Go criteria awareness to external drivers
LSR training session	Awareness of Life Saving Rules for external drivers
MSDS & TREM card training session	Awareness for external drivers on how to handle hazardous materials and emergency procedure
Kuch Pal to Gujaro Parking Me	Daily visit of parking areas to ensure proper housekeeping, driver behaviour, volume of vehicles, and interacting with security guards and drivers
Stand down for VDSS HIPO	Incident and key learnings shared with external drivers to avoid any incidents in the parking area, inside the plant and on the road
Firefighting training session	Awareness of firefighting to external drivers
Driver Choupal	Basic knowledge of VDSS, safety interactions, on-the-spot quiz completion and prize distribution to winners
Transporter Meet	To discuss safety concerns, VDSS incidents and other concerns with the transport representative
Safety Interaction (SI)	Safety interaction with external drivers in the parking plaza
Roko Toko	Traffic safety awareness among the masses for use of helmet, seat belt and other safety gears
Mock Drill	Mock drill in HMV Parking Plaza for awareness of emergency procedure



TOTAL LUBRICATION MANAGEMENT PROGRAMME

Out of the 6,229 KL/MT of lubricants that Vedanta procures annually, 74% of the requirement originates from HZL. The Rampura Agucha Mines (RAM), being a major location, covers 40% of HZL's lubes consumption. Coupled with the quantity of our lube requirement is the wide range of lubes that we need. Different grades are required for different machines based on user and OEM recommendations, technical specifications and service providers.

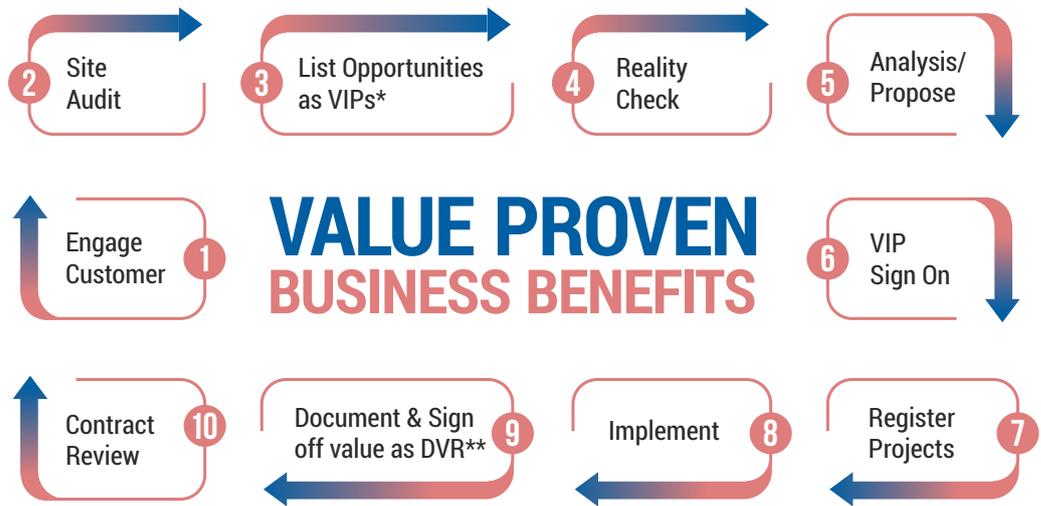
This combination of scale and variety resulted in various challenges in procurement and supply chain management of lubricants, such as quality, safety, application management, and cost optimisation.

To address these challenges holistically we introduced Total Lubrication Management Programme.



Legacy Lubrication Sourcing Model at RAM





*VIP = Value Improvement Project **DVR = Demonstrated Value Record

PHASE I

RATE CONTRACTING

The annual rate contract with multiple vendors to cater to the Hindustan Zinc as well as Vedanta pan India requirements has been finalised for January 2018 to December 2019.

PHASE II

VENDOR MANAGED INVENTORY

Rampura Agucha Mines has provided premises within their plant as per the vendor's specifications and requirements for storing of lubricants. The allocated premises are demarcated by chain-links with facilities for unloading trucks, railway siding, and storage and supply of lubricants to RAM.

The vendor delivers lubricants to the allocated warehouse from the supply points nominated by the vendor. After delivery of the stock to RAM, RAM makes all the necessary documentation for proper accounting of the materials. A joint inspection of the stock on a monthly basis is carried out by the vendor and RAM. The vendor also keeps a track of every lubricant's consumption and their responsible use, ensures reduction in consumption and makes recommendations to reduce lubrication cost.

BENEFITS

Switching over to the improved model of procurement of lubricants and streamlining the process led to the following benefits:

Saving of inventory carrying cost of INR 3 crore bi-monthly considering safety and rollover stock

Saving of interest cost by 12% on INR 3 crore, i.e. INR 0.4 crore

Reduced stock procurement, holding costs and related manpower cost

Transfer of risk and ownership to supplier taking over responsibility for service delivery

Reduction in overall consumption of lubricants and guarantee that lubrication tasks will be completed on time and in accordance with approved lubrication schedules

Improved systems, procedures and application knowledge for lubrication

Better lubrication management using vendor expertise

Integrated approach to oil sampling and analysis

Exploiting various maintenance tools to further reinforce pro-active maintenance

Overall improvement in the standard of lubrication

Improvement in equipment reliability (eliminate/increase interval between downtime)

Increase in productivity (less equipment downtime)

High level of expertise in lubrication application on-site

Building a comprehensive plant and equipment lubrication history

Supplier Engagement

Our suppliers and vendors play a crucial role in accelerating our growth and enhancing our overall development. Hence, we go beyond our business dealings with them and engage with our suppliers in various capacities to ensure a healthy, long-term relationship with them.



V STEP UP PROGRAMME

HZL, along with the Boston Consulting Group (BCG), has embarked on a strategic supplier relationship management and capability development journey, called the V Step Up programme. The key objective of the programme was to deepen the engagement with high potential and strategic partners, conforming to the highest levels of ethical standards of the Vedanta Group.

The programme has consolidated the vendor base across categories of spares, consumables, facility management, logistics and IT services, while optimising the long tail of low potential vendors and traders.

~41% optimisation in vendor numbers have been achieved as of March 31, 2018, with further ~27% identified for implementation for a leaner, more capable and strategic supplier base. A robust set of system controls through IT tools are being leveraged to ensure sustenance of implementation and prevent re-proliferation of vendors.

SUPPLIER SITE SUSTAINABILITY ASSESSMENT

Critical supplier sustainability assessment is in progress. We are assessing them based on the requirement of Modern Slavery Act, compliance with applicable laws and regulations and also compliance with our supplier code of conduct. This will further help in strengthening our supply chain sustainability.

Ancillary Plant at Dariba Smelting Complex

An Ancillary plant has been installed adjacent to our Dariba Smelter Complex to recycle wastes generated from our smelting process like zinc process residue, lead residue, etc. With this initiative we have been able to improve recovery of Zinc, Lead and Silver from wastes, minimise import of Copper Sulphate and reduce emission and risk involved in the transportation of these wastes to other states. Setting up of this ancillary plant is a win-win situation for both HZL and the supplier - providing ground support to set up local production for bringing supply chain efficiencies. HZL has benefitted with recycling the process residue and getting value added products which is consumed in-house either at smelter and mines.

Ancillary unit supplier also gets exposure to better process, system oriented approach and enhancement of capability for residue recycling.





Edu TECH

CSR investment INR 92 crores

Smart Digital System to track the performance of each Anganwadi Centre

Android smart phones for visually impaired students

Technology based football academy

CSR is a core and inseparable component of our business. At HZL, our community interventions are guided by two key tenets – shared value and empowerment. We leverage our expertise, technology and resources to empower communities living around our operational sites.

We maintain close and continuous engagement with communities that we work with. We also stringently monitor all our projects to ensure that our efforts are able to deliver lasting development. Our strong preference for partnering with the Government, leading NGOs, Educational and Healthcare Institutions, etc brings in synergies of diverse experiences and expertise in our CSR projects, thus helping in transforming lives at a scale.

Our CSR theme for this year is EduTech. We have made a special effort to incorporate the power of technology in our key flagship education interventions, to demonstrate how technological innovations can benefit humanity.

In FY 2017-18, we invested INR 92 crore in community interventions and touched the lives of half a million people from 189 villages (184 in Rajasthan, 5 villages in Pantnagar), positively impacting lives of more than 100,000 households.



Vision 2020

Transforming the quality of life and economic well-being of the communities around our operations

Aspect Boundaries

At HZL we believe that CSR is about building long term trust based relationships with our stakeholders, especially communities living around our operations. To this end our focus is to work in close collaboration with the communities, to ensure overall well-being of people.

Performance

Highlights FY 2017-18

Expanded Nandghars to 4 districts of Rajasthan and 1 district of Utrkhand, taking the total to

53 CENTRES

Placed

96%

of the 155 youth who graduated from the HZL Mining Academy, at an average salary of INR 2.92 Lacs/annum

16,600

women are members of 1,299 Sakhi Self Help Groups (SHGs), and their total savings are now INR 3.17 Crores

70,000

children reached through pre-school and high school education programmes

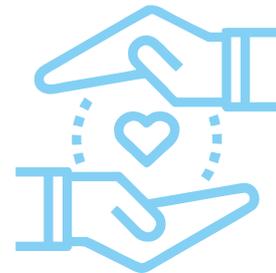
More than 500 Safety Awareness Sessions conducted

60,000 Beneficiaries

2,000 employees engaged in various CSR initiatives

Action Plan FY 2018-19

- Reach 20,000 women/families directly, increasing their access to savings, credit and entrepreneurial initiatives, through the Sakhi Programme
- Target to complete 150 Nandghars
- Provide skills/training/internships/job placement services to 400 youth
- Run a technology based Residential Football Academy with 30 students, and run another 60 community football coaching centres reaching nearly 2,000 children
- Over 2,000 employees to be connected and engaged with the company's community well-being programmes



CSR Investment

2015-16

63 CRORES

2016-17

49 CRORES

2017-18

92 CRORES

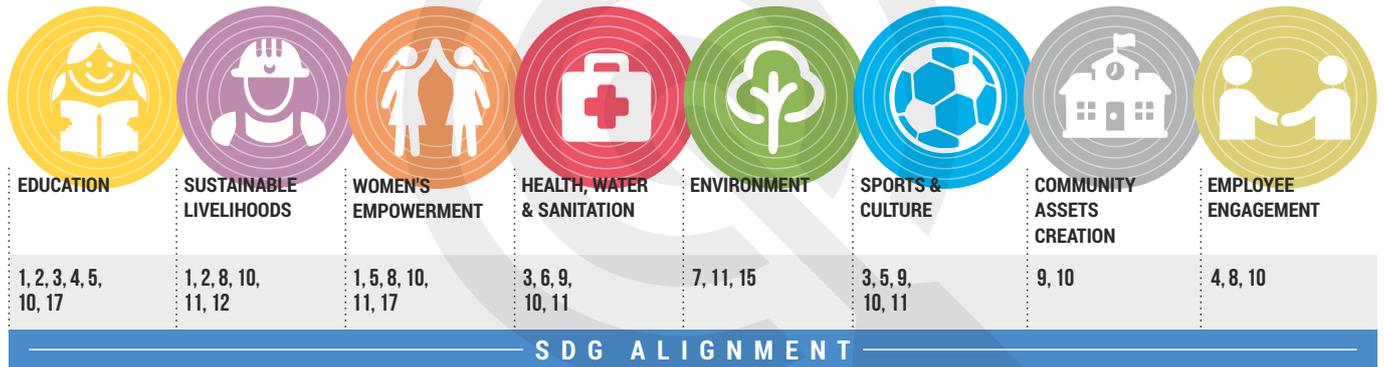


Strategy & Approach

At HZL, we believe that our license to operate comes not only from the government but also from the communities surrounding our operations and particularly the people of Rajasthan. We believe our success stems from our active contribution to society and by building collaborative relationships. Our growth has true meaning when it creates betterment opportunities for the people around us.

We are guided in achieving our goals by Vedanta's Sustainability Framework that highlights the importance of 'Building Strong Relationships' and 'Adding and Sharing Value'. Our mandate and approach come from HZL's CSR Policy.

Our focus areas



SDG 1, 2, 3, 4, 5, 10, 17

Education

Projects	% spend of CSR Budget	Partners
<ul style="list-style-type: none"> • Khushi, Nandghar • Shiksha Sambal • Unchi Udaan • Scholarships & Sponsorship • Jeevan Tarang...Zinc Ke Sang 	<p>36%</p>	Ministry of Women & Child Development - Government of India, Department of Women & Child Development - Government of Rajasthan, Care India, Seva Mandir, Jatan Sansthan, Gramin Evam Samajik Vikas Sanstha, Vidya Bhawan, Resonance, Sumedha, Noida Deaf Society, Vedanta PG Girls College Ringus

At HZL we see the importance of education and the impact it can create on society at large. We believe every child should have the opportunity to receive quality education and with this in mind, we have been implementing several educational initiatives that focus on government run institutions accessed by children from rural areas.

Several of our educational projects use advanced teaching methodologies and technology to take learning to the next level. Along with improving infrastructure, our efforts to impart good education rest on building capacities of teachers, so that they are able to open a world of opportunities for their students.



Khushi Anganwadi Project

We believe that a healthy child is a happy child and a happy child in a favourable learning environment is more receptive and curious to learn. The Khushi Anganwadi Project thus focuses on good health and quality pre-school learning opportunities for the 3 to 6 year old children coming to an Anganwadi run under the Government of India's Integrated Child Development Services (ICDS) scheme.



Khushi currently covers
3,089
 Anganwadis in 5 districts
 of Rajasthan

An EduTECH effort in this project is a Smart Digital System to track the performance of each Anganwadi Centre. Further, grading and assessment tools have been developed to monitor the performance of the centres and of the children as well.

Reporting Period Highlights

64,000
 children (3-6 years)

Comprehensive health check-ups
20,000+ children

Attendance at the centres
43% in 2016 to 59% in 2017

Pre-school education & nutrition training
4,500 ICDS workers & NGO staff

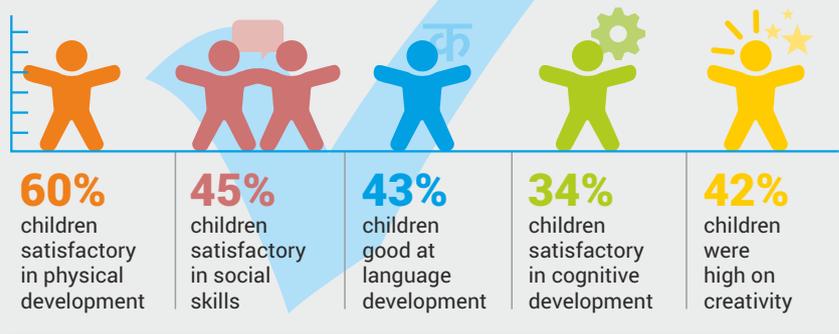
25,000
 community meetings held

Community contributions mobilised
INR 54.32 Lakh

1,107
 kitchen gardens developed at
 Anganwadis and households to
 supplement fresh vegetables in meals
 cooked for the children at the centres

Learning assessment undertaken for about **9,666 children**

This is the first such assessment done on such a large scale, and some of the key highlights that emerged are as under:



SUCCESS
STORY

A SECOND CHANCE AT CHILDHOOD

In 2016, during routine home visits by the Khushi team at Kotharia village, they came across 2-year-old Yashwant Gameti. He was suffering from several health issues and weighed a meagre 7 Kgs. Khushi immediately took action and hospitalised Yashwant and within 15 days he was on the path to recovery.

The Khushi team along with the local Panchayat keeps regular track of his health and family, providing them with all the necessities required to raise a healthy child. Today, we are happy to report Yashwant is a happy, healthy child who has begun attending Anganwadi.



	16 September'16	21 April'17	19 March'18
Age	2 yrs 3 months	2 yrs 10 months	3 yrs 9 months
Weight	7.125 Kg	11.200 Kg	17.300 Kg
Height	76 cm	81.5 cm	101 cm
HB level	6.3 g/ml	9.8 g/ml	14.2 g/ml

Nandghar

'Nandghars' are new-age Anganwadis equipped with state-of-the-art infrastructure to enable access to e-learning, clean water, sanitation and solar power. We have integrated two of our flagship projects, Khushi and Sakhi, within the Nandghar and the outcome is a re-imagined Anganwadi which is a springboard into the future for both children and women.

This is one of Vedanta's flagship projects with a goal to construct 4,000 Nandghars across India. A detailed step-by-step user friendly manual on how to convert existing Anganwadis into Nandghars is also put in place.



49 Nandghars completed this year, taking the total number to 53 (which are now fully functional), and another 225 have been initiated

Shiksha Sambal

The Shiksha Sambal project aims to help rural children from 59 government schools near our operational locations. We have found that for students in these schools, Science, English and Mathematics are often the most challenging subjects. The fact that many of these schools do not have sufficient teachers for these subjects is a big challenge; failing in these subjects increases the likelihood of a student dropping out of school.



Impact has been highest in the remote tribal areas of Zabar, reaching **6,600** students from classes 9 to 12 in 59 government schools

Interventions like deployment of subject teachers trained in innovative teaching methodologies, and activities like baseline tests, learning camps, remedial classes, practical learning using science lab kits, science fairs etc., have transformed the learning experience of students under Shiksha Sambal.

Overall results of class 10th of Siksha Sambal Schools

Categories	2015-16 (55 schools)	2016-17 (57 schools)	2017-18 (57 schools)
No. of schools having below 30% passing results	2	0	0
No. of schools having 30% to 50% of passing results	7	6	2
No. of schools having 50% to 70% passing results	18	16	11
No. of schools having above 70% to 90% passing results	14	20	19
No. of schools having above 90% passing results	14	15	26

Inspired Inventor

Rohit Sikhwal is a prime example of how quality education can ignite a young mind. Having come across the disastrous effects of oil spills on marine life while watching television, Rohit was determined to make a difference.

His keen interest in the subject matter and participation at Shiksha Sambal's May 2017 summer camp, allowed him to devise a concept and design a machine that can clean up oil spills in water bodies. Rohit has presented his ideas along with a model of his proposed machine at the State Institute of Education Research and Training, Udaipur and at a state level science fair. Along with support from the Shiksha Sambal team and positive feedback from his presentations, our young champ is refining the design of his machine and also working towards patenting it.

UNCHI UDAAN

Using the platform of Shiksha Sambal, our programme Unchi Udaan identifies bright students in government schools to coach and groom them for entry into IITs and other prestigious engineering institutes.

Selected from a base of almost 2,000 students, Unchi Udaan currently has 56 students, including 26 girls, who are receiving residential schooling along with intensive coaching support.



COMPANY RUN SCHOOLS

HZL runs 5 CBSE schools, some directly and others in partnership with DAV catering to both our employees' wards as well as the local population. Situated in remote areas, these schools offer access to quality education, to local children and children of HZL employees.

During the reporting period, the schools served 2,092 outside students.

SUPPORT FOR HIGHER EDUCATION

- Yet another way in which the Company encourages higher technical education among Rajasthan's youth is through the provision of merit-cum-means scholarships to engineering students. **In addition to the ongoing 50 students from last year, 37 new scholarships were awarded this year.** All 87 children are studying engineering at government engineering colleges of Rajasthan, and belong to economically weak families.
- HZL awards the toppers from each of the 8 engineering departments at the College of Technology and Engineering, Udaipur. **The toppers receive a scholarship of INR 50,000 each, and the award was given this year as well.**
- We strongly believe that educating a woman changes a whole family and society. To that end, we support girls from our operational area to go for higher education at the Vedanta Post Graduate Girls College, Ringus. **HZL takes full care of the tuition fees and living expenses for the selected girls. During the reporting period, 59 girls were sent to Ringus for college education.**

Jeevan Tarang... Zinc Ke Sang

In January 2017, we launched a flagship project, Jeevan Tarang, to mainstream people with disabilities. At the end of this reporting period, more than 600 differently abled children are benefiting from this project, getting opportunities to learn new skills that help them lead a more dignified life. Technology has become a new leveler and we are introducing this in our work with the blind children.

Another challenge with Special Education is a dearth of qualified teachers, and in rural settings, this is even more so. To address this problem, one of our first efforts has been to introduce Indian Sign Language Training for teachers and hearing-impaired students.



600
differently-abled
children benefited
during the
reporting period

Bringing the power of the Internet to the visually challenged

On World Disability Day, we distributed Android smartphones to visually impaired students in two schools, with special features tailored to assist them in their learning. The special accessibility features on the devices help students to read and write. The devices also help children access 'Bookshare', the world's largest e-library for the visually disabled, which also includes text books from the Rajasthan Board of Education.

It's not just all work and no play for the students! These Android devices also come with Internet features and special games that they can enjoy just like anyone else.





MOVIE SCREENING FOR VISUALLY IMPAIRED

Everyone enjoys watching movies and that includes blind people. Often blind persons have to rely only on the spoken dialogues to make sense of the movie. Pauses and musical effects are lost as no word is spoken.

A new concept - audio description – where a narrator describes the silent segments of the movie, makes the entire movie accessible to the blind.

Hindustan Zinc under its Jeevan Tarang project organised a special format screening of Aamir Khan's blockbuster movie 'Dangal' for the visually impaired in Udaipur.

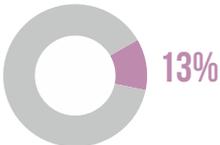
The movie was edited, with a narrator describing segments without dialogues. The screening was attended by **110 visually impaired children and adults accompanied by our employees and their families to experience the movie together**. Many more such movies will be screened for a larger group of blind people.

Sachin Porwal, a visually impaired student of Pragya Chakshu school said, "the audio description format was amazing. The support was superb, the experience was really great. Thank you Hindustan Zinc."

Raju, a visually impaired student of Udaipur said, "maine pehli baar movie suni hai, audio description ki help se puri movie samajh mein aayi. Dangal dekhne se bahut prerna mili." (First time I heard a movie too. The audio description helped me understand the entire movie. The movie has really inspired me).

We would like to tell Raju that because of the response received on this initiative, we are inspired too! And we will continue, in this and different ways.

Sustainable Livelihoods

 <p>Projects</p>	 <p>% spend of CSR Budget</p>	 <p>Partners</p>
<ul style="list-style-type: none"> • Samadhan • HZL Mining Academy 	 <p>13%</p>	<p>BAIF Institute of Sustainable Livelihood Development (BISLD), Skill Council of Mining Sector, Indian Institute of Skill Development</p>

There are two strands to our sustainable livelihood initiatives. One aspect focuses on the predominantly agricultural and livestock base of our neighbouring communities. For most of our communities, the connection with farming and animal husbandry is very strong, and we at HZL have always been undertaking interventions that will further improve the productivity from these lands, by bringing in innovations and ideas. This programme is called Samadhan.

The second strand is more focused on the youth, and preparing them to become part of the emerging and industrial economy. The first step in this direction has been the setting up of the HZL Mining Academy. The Academy is working to impart skills to the youth so that they become employable for high paying jobs in the underground mining sector.

Samadhan

HZL's neighbouring communities are largely rural settlements with agriculture and animal husbandry as the backbone of their economy. Under Project Samadhan, we work with them on adoption of improved farming practices, pest management, rain water harvesting, livestock breed improvement and more. We have also formed Farmer Interest Groups so as to ensure community ownership and long term sustainability of the interventions.

The National Farmers' Day celebrations organised under the project saw participation from 3,000 farmers, 75% of whom were women. Farmers sharing their experiences, exhibitions showcasing their produce, live demonstrations, farm visits, knowledge sharing sessions on farming and livestock techniques, quizzes and games were all part of these celebrations.

Reporting Period Highlights

Reached over **7,000** farming families

Our interventions in wheat cultivation resulted in **28% increase** in production with an average production of 38.34 quintal per hectare

2,499 farmers benefited

The resultant average production was 50.3 quintal per hectare, which is about a 31% increase in production in comparison to FY17

KHARIF (MONSOON) CROP

994 farmers with irrigated land achieved 30%, 70% & 33% increase in production in Maize, Soya-bean and Millet respectively and 558 farmers with rain fed land had a 21%, 55%, 47% & 45% increase in production in Maize, Soya-bean, Millet and Black gram respectively

HORTICULTURE

Under vegetable farming, 390 families were covered out of which 60% of families cultivated high value vegetables leading to a cash flow increase of INR 13,199/family



LIVESTOCK

A total of 5,942 Artificial Inseminations were done during the year. 627 female calves were born and the asset valuation of milking progenies is estimated to be INR 18.88 lakh at INR 3,000 per animal

Hindustan Zinc Mining Academy - Skilling for the Mining Sector

If we as a country, wish to harness our demographic dividend and continue to grow the economy, we urgently need to invest in the youth to prepare them to become active partners in the country's growth story. Towards this end, HZL has decided to use its domain expertise to set up a Mining Academy, in partnership with the Skill Council of Mining Sector (SCMS) and the Indian Institute of Skill Development (IISD).

The Academy currently offers two courses for underground mining - Jumbo Drill Operators, an 18-month programme, and Winding Engine Driver/Banksman/Bellman, an 8-month programme. Both courses are fully residential, and the Academy provides free boarding and lodging facilities to all candidates.



The five-year goal of the Academy is to train and place over

500 YOUTH

We have also introduced 'Step Up', a programme that helps eligible youth from our operational areas to prepare for entry into the Academy

Reporting Period Highlights

55 rural youths

completed their training successfully and 195 rural youths are under training

105 Jumbo Drill Operators

got placed with an average salary of INR 3.25 lakh per annum during the year

47 Engine Drivers/ Banksmen/Bellmen

qualified and 44 have got placed with an average salary of INR 2.92 lakh per annum

A 9-fold Salary Hike

Irfan Mohammed Pinjara who passed out from the Academy late 2017. Hailing from a middle-class background, joined the Academy for the Jumbo Drill Operator course.

The vastly experienced instructors took him through a rigorous training of soft and technical skills, along with life lessons on the importance of discipline. To his greatest joy, during campus placement, he received multiple job offers. After reviewing all of them, he picked SMSL Company and now earns a respectable salary of INR 28,000 a month - a big jump from his last job where he earned a meagre INR 3,000 a month.



Women's Empowerment

 Projects	 % spend of CSR Budget	 Partners
<ul style="list-style-type: none"> Sakhi 		Manjari Foundation & Saheli Samiti

Throughout history, women have collectively struggled against direct and indirect barriers to their self-development and full participation in social, economic and political processes. However, to achieve lasting sustainable development of society the economic empowerment of women is imperative. Women's self-help groups are a powerful mechanism to empower women and promote socio-economic development.

Sakhi

In partnership with Saheli Samiti and Manjari Foundation, we relaunched our flagship project Sakhi in 2016. The SHGs empower women not only in the economic sphere, but also the social sphere. Instances of the SHG women beginning to lead their communities and villages on social, and even political issues, abound. In our programme too, we have begun to witness SHG women come forward on issues of safety, cleanliness, making villages ODF, etc.

The programme aims to form 2,000 SHGs and their 6 independent federations by 2021. Collectively, we hope to impact the lives of 24,000 families through this initiative.

Reporting Period Highlights

839 SHGs formed
Total 1,299 SHGs
16,621 women

Total accumulated savings over
INR 3.17 crore

Computerised the records of
1,042 SHGs

783 SHGs linked with banks

INR 7.9 crore loans availed by 10,580 women primarily for household consumption, agriculture, health & sanitation, animal husbandry and entrepreneurship

280 women used the loans to set up new or expand existing enterprises

12,400 women participated in International Women's Day celebrations at all our locations with the theme 'Press for Progress'



Creating Women Entrepreneurs

Seema Bhil, her husband and child lived in Shivpura Village, Rajsamand District, on a meagre amount of INR 3,000/month. That is, until Sakhi ventured in and helped her set up a SHG. A study of the village showed that the women, along with all the other duties of running a household, had to also take on the tough task of grinding flour manually as there wasn't a single flour mill in the village.

Seema, helped by her SHG and Sakhi managed to get a loan to set up a flour mill. She is now a successful entrepreneur and contributes an additional INR 4,000/month to her household.

Health, Water & Sanitation

 Projects	 % spend of CSR Budget	 Partners
<ul style="list-style-type: none"> • Health Camps • Support to Homeopathic Centre • Angdaan Mahadaan Campaign • Company Run Hospitals • Supporting Water Security • Swachh Bharat Abhiyan • Mukhyamantri Jal Swavlamban Yojana 		<p>Mukhyamantri Jal Swavlamban Yojana - Government of Rajasthan, Swachh Bharat Abhiyan, Helpage India, Dainik Bhaskar</p>

The health of a community rests on three interlinked aspects - water, sanitation and hygiene, and these are what we address to prevent incidence of illness among the community. We also invest in early diagnosis through health camps and our fully equipped hospitals provide medical care to not only our employees and their families but to the entire community.

This year, in partnership with Hindi daily Dainik Bhaskar, we are also running the Angdaan Mahadaan Campaign which encourages people to pledge their organs for donation.

Reporting Period Highlights



HEALTH

68 Health & Awareness Camps
10,374 Beneficiaries
 in 23 villages

22,000 Patients
 treated at Homeopathic Centre,
 Gulabpura, Bhilwara

108,000 External Patients
 treated at HZL's 6 hospitals



WATER

8 Anicuts constructed
 7 in Chittorgarh and 1 in Udaipur - as part
 of the Mukhyamantri Jal Swavlamban
 Abhiyan (MJSA)

1,100 metres pipeline
 laid for drinking water in
 2 villages of Chittorgarh district



SANITATION

30 School Toilets
 constructed in Chittorgarh under
 Swachh Bharat Abhiyan



Environment

 <p>Projects</p>	 <p>% spend of CSR Budget</p>	 <p>Partners</p>
<ul style="list-style-type: none"> • Tree Plantations • Renewable Energy • Sewage Treatment Plant 	 <p>15%</p>	<p>Urban Improvement Trust, Forest Department</p>

At HZL, along with using solar power for our own captive consumption, we have also extended its use to communities. For the safety of community members in the villages, **231 new solar street lights were installed and 243 were replaced in 42 villages across all locations.** We have also installed a solar pump at Sunariyakheda village. **The 51 Nandghars which are already set up, are all powered by solar energy, and we plan to do the same for the ones under construction.**

During the year, a campaign to plant mango trees in the premises of all Anganwadis centres supported by the Company was initiated. **Nearly 1,700 mango saplings were planted at Anganwadis this year.**

The Sewage Treatment Plant set up and run by HZL for the city of Udaipur is counted among the best functioning STPs in the country. **The effluent treated every year is about 6,215,000 kilolitres and during the year it recovered 5,731,650 kilolitres of water.**

'Road Safety'- the road safety project is running across all operating locations in partnership with the All India Federation of Motor Vehicles Department. The focus areas for the project were the 4E's of road safety: Education, Engineering, Enforcement and Emergency care. **During the year, baseline surveys and stakeholder meetings involving all district level stakeholders were done and over 540 awareness sessions were held covering about 60,000 people.**



Sports & Culture

 <p>Projects</p>	 <p>% spend of CSR Budget</p>	 <p>Partners</p>
<ul style="list-style-type: none"> • HZL Football Academy • World Music Festival 	 <p>14%</p>	<p>Football Link, Seher, Government of India</p>

In a country where academic excellence has long been considered the ultimate goal, sports and cultural activities are more often than not relegated to the backseat. Non-availability of quality infrastructure pushes them further down the priority list.

For us at HZL, support for sports and culture have been as integral to our CSR as have been all the other interventions.

Zinc Football Academy

HZL believes that India has enormous sporting talent that is hidden in rural and tribal areas. They are largely unexplored and need the right guidance, support and opportunities. To make this possible HZL is setting up a state-of-the-art Football Academy that will provide a holistic platform for young and talented footballers from Rajasthan. Giving equal opportunities for both girls and boys, this fully residential academy tied up with 'The Football Link', - a technology based football organisation with professional expertise in setting up large scale grassroots football initiatives. The goal is to reach out to more than 60,000 children in the next 5 years, across 100 villages of Rajasthan, with a special focus on tribal areas.

Reporting Period Highlights

58 Community Football Centres across HZL communities (including 4 all-girls centres), providing regular football coaching to nearly **2,000 children**

23 Talent Scouting Camps held in 5 districts of Rajasthan

Outreach to over **3,500 children** across Rajasthan, 56 children shortlisted for the residential academy



Sports & Culture

Trained to Perform

Rigorous training at the HZL Football Academy saw our Girls Team represent Udaipur District at the Rajasthan State Senior Women's Football Championship 2018, after just 4 months of playing the sport!

Sixteen girls of ages 8 to 14 years old played against experienced teams and powered through to the semi-finals and returned with a trophy for 3rd place in the first year of participation.



Culture

The Udaipur World Music Festival conceptualised by the cultural organisation SEHER and supported by HZL, has become a matter of cultural pride in the city of Udaipur. **This year the festival hosted over 200 musicians from 17 countries over 3 thrilling days. Over 50,000 people enjoyed these concerts, including many who had specially travelled to Udaipur for the Music Festival.**

We strongly value the conservation of our heritage and under the Swachh Iconic Places initiative, HZL has been appointed as the CSR partner for the Ajmer Sharif Dargah. Our vision for this initiative is to convert the Dargah into a future-ready, iconic site. This includes the development of a state-of-the-art interpretation centre which will orient the visitor to the long term vision for the Dargah. During this period, we completed work on the detailed plans for works to be undertaken during Phase 1, and we are now identifying suitable implementing agencies.

Some of the other cultural activities supported by HZL are the Rajasthan Heritage Week, Lake Festival, Rajasthan Diwas, Smritiyaan, Srajan and more.



Community Assets Creation

 <p>Projects</p>	 <p>% spend of CSR Budget</p>	 <p>Partners</p>	<p>While infrastructure development is not a key focus area of our interventions, there are some local initiatives that are undertaken every year.</p> <p>These include installation of solar lights, setting up of community halls, classrooms, among others.</p>
<ul style="list-style-type: none"> Improving infrastructure in government schools Road construction Installation of LED lights 	 <p>9%</p>	<p>Local Panchayats and Government</p>	

Reporting Period Highlights

6 government schools repaired and renovated at Udaipur, Rajsamand and Ajmer

5 classrooms & 2 toilets constructed for a school in Chittorgarh

150 LED lights installed in 3 villages at Ajmer

Roads constructed at 3 villages in Ajmer and 2 in Rajsamand



Employee Engagement



Campaigns

- Khushi Baatiye • Paint for Joy • Movie Screening for visually challenged children
- Holi Ke Rang Jeevan Tarang Ke Sang • International Women's Day

Ensuring physical and emotional well-being of our employees, and encouraging them to lead fuller lives is an essential part of our organisational culture. One way of ensuring this has been to encourage employees to volunteer with non-profit and educational organisations. This year, HZL is proud to report that employee engagement in our CSR activities has increased. More and more employees are volunteering. Volunteering inspires employees, helping them gain new perspectives, develop leadership skills, and work better as a team.

During the year, nearly 2,000 employees contributed 2,096 man-hours in various CSR initiatives.

KHUSHI BAATIYE

A fundraising campaign on Diwali that brought Khushi in the lives of children of Anganwadis, saw **304 employees raising funds to the tune of INR 10.56 lacs**, with additional funds provided by HZL. The money was used to present new sets of clothes and sandals to over 64,000 children at the Khushi Anganwadis.

AUDIO DESCRIBED MOVIE

In a first of its kind initiative, the blockbuster film 'Dangal' was screened in an Audio Descriptive format for 110 visually impaired children in Udaipur. **The screening was also attended by 130 HZL employees.**

SUMMER & WINTER CAMPS

As part of our Shiksha Sambal Project, employees and their spouses have often been mentors to children attending the camps, supporting them on both academic and non-academic activities like theatre, music, yoga, craft, self-defence, etc.

PAINT FOR JOY

Around 100 of our HZL staff enthusiastically participated in this painting event for children with autism, cerebral palsy and hearing impairment. The children and our employees spent the day painting to their hearts' content.

HOLI KE RANG

This year, employees celebrated Holi with organic Gulal as part of a fund-raising effort by Prayas Sansthan, Udaipur. The money from the sales of over 3,000 packets enabled Prayas to buy their centre's first television. **Around 1,100 employees and families as well as people from communities across all locations purchased Gulal to contribute to this noble cause.**



Governance

Transparency and Accountability are the cornerstones of governance at HZL. A multi-tiered Governance System ensures that all our CSR initiatives are subject to stringent audits and are monitored by the Implementation Monitoring Committee (IMC) on a monthly basis, by the Executive Committee (ExCo) on a quarterly basis and by the CSR Board Sub Committee on a half yearly basis.

All major CSR projects are reviewed by Project Steering Committees and Project Advisory Committees. The Project Steering Committee comprises of CSR team members and NGO partners and conducts monthly or bi-monthly reviews. The Project Advisory Committee meets twice a year to review progress and plan future measures. This committee consists of concerned Government officials, NGO partners, CSR Project Leaders from HZL and leading subject matter experts.

CSR BOARD SUB-COMMITTEE	<ul style="list-style-type: none"> • Meets twice a year & approves CSR plan & budget • Reviews the progress & ensures CSR activities conducted as per board policy
EXECUTIVE COMMITTEE	<ul style="list-style-type: none"> • Approves the annual CSR plan & budget • Reviews the progress of the program every quarter
IMPLEMENTATION MONITORING COMMITTEE	<ul style="list-style-type: none"> • Monthly meeting • Approves specific projects, partners and budgets • Monitors audit reports & their compliance • Review CSR programmes

Climbed up to 20th Rank, from 50th rank last year, in the Futurescape & IIM - Udaipur CSR & Sustainability ratings.

Hindustan Zinc's performance in the 2017 study improved dramatically, and it jumped about 30 places. This performance improvement comes on the back of the release of its sustainability report which enhanced disclosures considerably. A sustainability report with an assurance report is viewed favourably by the study. The publication of the sustainability report led to several items on stakeholders and sustainability, that did not receive a score earlier, got evaluated and scored. Disclosure scores increased by 67%, stakeholders by 40% and sustainability by 39%.



Annexures

Key Performance Indicators

Economic Indicators

	UNITS OF MEASURE	FY 2015-16	FY 2016-17	FY 2017-18
Economic value generated (A)				
Revenue from Operation (including excise duty)	INR Crores	15,463	18,798	22,521
Other Income	INR Crores	2,763	2,474	1,751
Total (A)	INR Crores	18,226	21,272	24,272
Economic Value Distributed - Expenses (B)				
Employee Wages and Benefits	INR Crores	774	722	776
Operating Costs	INR Crores	6,691	6,763	6,298
Payment to Providers of Capital	INR Crores	11,764	12,624	3,663
Payment to Government (Income Tax)	INR Crores	5,478	6,250	3,769
Community Investments	INR Crores	63	49	92
Total (B)	INR Crores	24,770	26,408	14,598
Economic Value Retained (A-B)	INR Crores	(6,544)	(5,136)	9,675
Profit before depreciation, interest and tax	INR Crores	9,385	12,213	14,263
Profit before tax	INR Crores	8,623	10,200	12,497
Net tax expense/(benefit)	INR Crores	448	1,884	3,221
Profit for the year	INR Crores	8,175	8,316	9,276
Earnings per equity share	INR	19.35	19.68	21.95

Production Indicators

	UNITS OF MEASURE	FY 2015-16		FY 2016-17		FY 2017-18	
		Mined Metal	Refined Metal	Mined Metal	Refined Metal	Mined Metal	Refined Metal
Zinc	Million MT	0.74	0.76	0.76	0.67	0.75	0.79
Lead	Million MT	0.14	0.15	0.15	0.14	0.15	0.16
Silver	MT		459		480		557

Revenue share	2016-17	2017-18
Zinc	74%	75%
Lead	12%	13%
Silver	10%	10%
Wind Energy	3%	1%
Others	1%	2%

Human Resource Indicators

	UNITS OF MEASURE	FY 2015-16			FY 2016-17			FY 2017-18		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
WORKFORCE										
Full-time Employees	Number	4,365	325	4,690	4,097	324	4,421	4,035	363	4,398
Contract Employees	Number			12,410	13,049	106	13,155	15,149	113	15,262
New Hires	Number			157	117	32	149	348	108	456
New Hire Rate	Percentage			3.35	2.6	0.7	3.37	7.91	2.46	10.37
New Hires (Age-wise split)										
Less than 20 years	Number				1	0	1	1	1	2
20-30 years	Number				114	30	144	287	102	389
31-45 years	Number				1	2	3	46	5	51
46-58 years	Number				1	0	1	14	0	14
Employee Turnover Rate	Percentage			8.7			10.28			10.19
EMPLOYEE TRAININGS										
Full-time Employees	Man-hours	1,44,908*	6,398*	1,51,306*	89,205*	13,999*	1,03,204*	55,949*	5,922*	61,871*
Contract Employees	Man-hours			2,86,710	3,91,159	1,079	3,92,238			8,77,172

*Including workmen

Health And Safety Indicators

	UNITS OF MEASURE	FY 2015-16			FY 2016-17			FY 2017-18		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
FATALITIES										
Full-time Employees	Number	2	0	2	0	0	0	0	0	0
Contract Employees	Number	2	0	2	4	0	4	2	0	2
LOST TIME INJURY FREQUENCY RATE										
Full-time Employees	Number per Million Hours Worked			0.28			0.32			0.22
Contract Employees	Number per Million Hours Worked			0.57			0.30			0.29
Overall HZL	Number per Million Hours Worked			0.50			0.30			0.27
TOTAL RECORDABLE INJURY FREQUENCY RATE										
Full-time Employees	Number per Million Hours Worked			0.75			0.95			0.75
Contract Employees	Number per Million Hours Worked			1.25			1.00			0.83
Overall HZL	Number per Million Hours Worked			1.14			0.98			0.82
OCCUPATIONAL DISEASE RATE	Number per Million Hours Worked			0.00			0.00			0.00
PROCESS INCIDENTS	Number per Million Hours Worked			5.96			7.72			7.66

Leading indicator reporting trend

Year	Near Miss Reporting	Unsafe Act Reporting	Unsafe Condition Reporting
2015-16	13,316	1,25,613	80,063
2016-17	12,738	2,03,250	87,307
2017-18	12,466	2,03,857	64,010

Environmental Indicators

	UNITS OF MEASURE	FY 2015-16			FY 2016-17			FY 2017-18		
		MINES	SMELTERS	TOTAL	MINES	SMELTERS	TOTAL	MINES	SMELTERS	TOTAL
MATERIALS USED										
Raw Material	Million MT	11.04	0.00	11.04	11.15	0.00	11.15	13.23	0.00	13.23
Semi-manufactured goods or parts	Million MT	0.00	1.63	1.63	0.00	2.08	2.08	0.00	2.56	2.56
Associated Process Materials	Million MT	0.12	0.45	0.57	0.17	0.49	0.66	0.53	0.24	0.77
Packing Material	MT	0.00	663.93	663.93	0.00	469	469	0.00	484	484
ENERGY CONSUMPTION										
Direct Energy	Million GJ	9.36	33.97	43.3	9.31	32.17	41.48	9.20	37.7	46.87
Indirect Energy	Million GJ	0.22	0.74	0.96	0.11	0.39	0.50	0.14	0.54	0.68
Renewal energy (Solar energy)	Million GJ									0.11
TOTAL ENERGY CONSUMPTION										
Fossil fuels purchased and consumed	Million Mwh			12.03			11.52			13.02
Electricity purchased	Million Mwh			0.26			0.14			0.19
Total renewable energy purchased or generated	Million Mwh			0.16			0.14			0.20
Total non-renewable energy sold	Million Mwh			0.016			0.014			0.025
Total non-renewable energy consumption	Million Mwh			12.29			11.66			13.18
Total costs of energy consumption	INR Crores			1,381.79			1,593.46			1,976.94
WATER WITHDRAWAL										
Ground water	Million m3	3.73	0.13	3.86	3.25	0.067	3.32	3.59	0.09	3.68
Surface water	Million m3	4.66	12.62	17.27	4.93	11.84	16.77	5.40	14.98	20.38
Rainwater	Million m3	0.04	0.00	0.04	0.00	0.005	0.005	0.00	0.02	0.022
Waste water from another organization	Million m3	0.00	5.36	5.36	0.55	4.21	4.77	1.14	3.90	5.04
Municipal water supplies or other water utilities	Million m3	0.008	0.00	0.008	0.005	0.00	0.005	0.09	0.00	0.09
Total net fresh water consumption	Million m3			19.58			18.09			22.13
WATER RECYCLED										
	Million m3	7.16	5.78	12.94	6.38	5.05	11.43	9.17	5.50	14.67
AIR EMISSIONS										
PM Emission from stacks	MT			1,083			887			1,039
SOx Emission from stacks	MT			32,328			19,255			22,112
Nox Emission from stacks	MT			8,075			7,602			6,798
CARBON EMISSIONS*										
Scope I Emission*	Million MT CO ₂ e			4.47			4.29			4.83
Furnace oil (FO)*	Million MT CO ₂ e			0.038			0.042			0.03
High Speed Diesel (HSD)*	Million MT CO ₂ e			0.23			0.20			0.17
Propane*	Million MT CO ₂ e			0.016			0.016			0.02
Liquified Petroleum Gas (LPG)*	Million MT CO ₂ e			0.002			0.001			0.00
Coal*	Million MT CO ₂ e			3.79			3.64			4.22
Coke*	Million MT CO ₂ e			0.39			0.38			0.39
Pyrolysis Oil*	Million MT CO ₂ e			0.00			0.002			0.00
LSHS*	Million MT CO ₂ e			0.0008			0.00			0.00
Scope II Emission (electricity purchased from state grid)*	Million MT CO ₂ e			0.22			0.11			0.15
Scope III Emission*	Million MT CO ₂ e						2.77			4.44
WASTE GENERATION										
Hazardous Waste	Million MT	0.001	0.58	0.58	0.001	0.53	0.53	0.001	0.60	0.60
Non-Hazardous Waste	Million MT	0.06	0.42	0.47	0.06	0.45	0.51	0.06	0.56	0.62
Overburden/ Waste Rock Tailings (gross generation)	Million MT	64.71	0.00	64.71	38.42	0.00	38.42	15.86	0.00	15.86
	Million MT	8.92	0.00	8.92	9.09	0.00	9.09	11.66	0.00	11.66
SOLID WASTE DISPOSED										
Total waste disposed#				72.91			45.41			24.31

* GHG emissions have been computed in line with the Greenhouse Gas Protocol: Corporate Accounting and Reporting Standard, evaluated by a third party as per the ISAE 3410 standard

Waste disposal quantity is provided for the Hazardous Waste given which is being disposed in the Secure Landfill (SLF) and the common Treatment, Storage and Disposal Facility (TSDf), tailing which is being disposed in tailing dam and overburden at dump area. Our Non-hazardous Waste is being sold or stored in the store yard.

Alignment with Sustainable Development Goals



In September 2015, the UN member states agreed on a set of 17 Sustainable Development Goals (SDGs), to end poverty, fight inequality and injustice, and tackle climate change by 2030. Given below is our SDG priority list which states our endeavours that align with the said goals.



Community - Pg. 115
Economic - Pg. 45



Community - Pg. 115



Community - Pg. 115
Safety - Pg. 51
People - Pg. 85



Community - Pg. 115



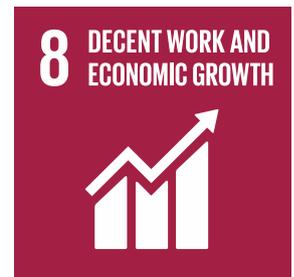
People - Pg. 87
Community - Pg. 115



Environment - Pg. 65
Community - Pg. 115



Environment - Pg. 65
Community - Pg. 115



People - Pg. 87
Economic - Pg. 45



Economic - Pg. 45
Product - Pg. 33



People - Pg. 87
Community - Pg. 115



Community - Pg. 115
Environment - Pg. 65



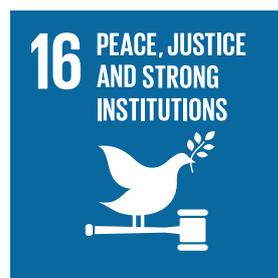
Environment - Pg. 65, Supply Chain - Pg. 103, Product - Pg. 33



Environment - Pg. 65



Environment - Pg. 65
Community - Pg. 115



Ethics and Corporate Governance - Pg. 22



Stakeholder Engagement - Pg. 38
Community - Pg. 115
Environment - Pg. 65
Membership & Association - Pg. 25

Mapping with UNGC Principles

We continue to uphold the ten principles of the UNGC. Our Sustainable Development report communicates our progress in implementing the ten principles, and below we have mapped the principles against our various sustainability aspects and specific report sections. From 2016-17 we have started reporting UNGC advance COP.

Principles	Statement	Report Reference	Page number
Human Rights			
Principle 1	Businesses should support and respect the protection of internationally proclaimed human rights	Ethics and Corporate Governance	22
Principle 2	Make sure that they are not complicit in human rights abuses	Ethics and Corporate Governance	22
Labour Rights			
Principle 3	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining	Ethics and Corporate Governance	22
Child and Forced labour			
Principle 4	The elimination of all forms of forced and compulsory labour	Ethics and Corporate Governance	22
Principle 5	The effective abolition of child labour	Ethics and Corporate Governance Supply Chain	22 103
Principle 6	The elimination of discrimination in respect of employment and occupation	People	87
Environment			
Principle 7	Businesses should support a precautionary approach to environmental challenges	Sustainability and Us, Environment	16, 65
Principle 8	Undertake initiatives to promote greater environmental responsibility	Environment	65
Principle 9	Encourage the development and diffusion of environmentally friendly technologies	Environment, Supply Chain	65, 103
Anti-Corruption			
Principle 10	Businesses should work against corruption in all its forms, including extortion and bribery	Ethics and Corporate Governance	22

Mapping with FIMI Principles

We continue to uphold the ten principles of the UNGC. Our Sustainable Development report communicates our progress in implementing the ten principles, and below we have mapped the principles against our various sustainability aspects and specific report sections.

Principles	Statement	Report Reference	Page number
Principle 1	Integrate sustainable development considerations within the corporate decision making process	Sustainability and Us	16
Principle 2	Conduct business with ethical practices and sound systems of corporate governance	Ethics and Corporate Governance	22
Principle 3	Implement risk management strategies based on valid data and sound science	Sustainability and Us	16
Principle 4	Seek continual improvement in health and safety performance	Safety, People	51, 87
Principle 5	Seek continual improvement of our environment performance based on a precautionary approach	Environment	65
Principle 6	Uphold fundamental human rights and respect cultures, customs and values in dealings with employees and others who are affected by our activities	Ethics and Corporate Governance	22
Principle 7	Contribution to conservation of biodiversity and integrated approaches to land use planning and management	Environment	65
Principle 8	Facilitate and encourage responsible use, reuse and recovery of mined materials including associated natural resources	Environment	65
Principle 9	Contribute to the social, economic and institutional development of the communities in which we operate	Community	115
Principle 10	Implement effective and transparent engagement, communication and verifiable reporting arrangements with our stakeholders	Stakeholder Engagement	38

Assurance Statement



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INDEPENDENT LIMITED ASSURANCE STATEMENT TO HINDUSTAN ZINC LIMITED ON THEIR CORPORATE SUSTAINABILITY REPORT FOR FY 2017-18

To the management of Hindustan Zinc Limited,
Yashad Bhawan, Udaipur, Rajasthan, India - 313004

INTRODUCTION

KPMG in India (KPMG) was engaged by Hindustan Zinc Limited ('the Company' or 'HZL') to provide an independent assurance on its Sustainability Report for FY 2017-18 ('the Report'). The Report is prepared by the Company based on Global Reporting Initiative (GRI) Standards 'in-accordance-core' option for sustainability reporting.

The development of Report, its content, identification of key material topics and related impacts, engaging with stakeholders is the sole responsibility of the management of the Company. KPMG's responsibility is to provide limited assurance on the Report content as described in the scope of assurance.

REPORTING CRITERIA

HZL applies its sustainability performance reporting criteria based on Sustainability Reporting Standards of Global Reporting Initiative (GRI Standards) including the Mining and Metals Sector Disclosures, National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business (NVG) framed by the Ministry of Corporate Affairs (MCA), Government of India, United Nations Global Compact (UNGC) principles, International Council on Mining and Metals (ICMM) and Sustainable Development Goal frameworks for the Company as detailed in the 'Scope, Boundary and Limitations'.

ASSURANCE STANDARDS USED

We conducted limited assurance in accordance with the requirements of International Federation of Accountants' (IFAC) International Standard on Assurance Engagement (ISAE) 3000 (Revised), Assurance Engagements Other than Audits or Reviews of Historical Financial Information. Under this standard, we have reviewed the information presented in the report against the characteristics of relevance, completeness, reliability, neutrality and understandability.

SCOPE, BOUNDARY AND LIMITATIONS OF ASSURANCE

The Assurance has been provided for selected sustainability performance disclosures presented by HZL in its Report. The reporting boundary included data and information for the period 01 April 2017 to 31 March 2018 for India and Global operations, based on Global Reporting Initiative's (GRI) Standards in accordance Core option. Our Scope of assurance included verification of the sample data and information on selected material topics reported at the following units/locations and Corporate offices in Udaipur:

- | | |
|---|---------------------------------------|
| • Chanderiya Lead Zinc Smelter, Rajasthan | • Dariba Smelting Complex, Rajasthan |
| • Debari Zinc Smelter, Rajasthan | • Kayad Mines, Rajasthan |
| • Pantnagar Metal Plant, Uttarakhand | • Rajpura Dariba Mines, Rajasthan |
| • Rampura Agucha Mines, Rajasthan | • Sindesar Khurd Mines, Rajasthan |
| • Zawar Mines, Rajasthan | • Udaipur Corporate Office, Rajasthan |

The assurance scope excludes:

- Data and information outside the defined reporting period and boundary;
- The Company's financial performance;
- The Company's compliance to legal obligations/disclosures;
- The Company's statements that describe expression of opinion, belief, aspiration, expectation, aim or future intention and assertions related to Intellectual Property Rights; and
- Aspects of the report other than those mentioned below;

The Universal and Topic Specific Standard Disclosures subject to assurance were as follows:

Universal Standard Disclosures

General Disclosures • Organizational Profile (102-7 to 102-11) • Strategy (102-14) • Ethics and Integrity (102-16) • Governance (102-18)
• Stakeholder Engagement (102-40 to 102-44) • Report Profile (102-46 to 102-56)

Management Approach • Disclosure on Management Approach (103-1)¹

Topic Specific Standard Disclosures

Environment • Energy (302-1, 302-3, 302-4, OG3) • Water (303-1, 303-3) • Biodiversity (304-1)
• Emissions (305-1, 305-2, 305-4, 305-7) • Effluents and Waste (306-1, 306-2, OG5, OG7, MM3)

Social • Employment (401-1, 401-2, 401-3) • Occupational Health and Safety (403-2) • Training & Education (404-1, 404-2, 404-3)
• Diversity and Equal Opportunity (405-1) • Non Discrimination (406-1) • Local Communities (413-1)

¹ Disclosures on Management Approach were verified for select topic specific disclosures as per the given table

METHODOLOGY ADOPTED FOR ASSURANCE

Our assurance processes involve performing procedures to obtain evidence about the reliability of specified performance information. The nature, timing and extent of procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the selected sustainability disclosures whether due to fraud or error. In making those risk assessments, we have considered internal controls relevant to the preparation of the Report in order to design assurance procedures that are appropriate in the circumstances.

We have obtained sample evidence, information and explanations that were considered necessary in relation to the assurance scope and have arrived at conclusions mentioned below. Our work included a range of evidence-gathering procedures which included:

- Assessing that the report is prepared in accordance with the Sustainability Reporting Standards of the Global Reporting Initiative (GRI Standards - in accordance "Core" option).
- Reviewing the Report to ensure that there is no misrepresentation of disclosures as per scope of assurance and our findings.
- Reviewing the materiality and stakeholder engagement framework deployed at HZL.
- Understanding the appropriateness of various assumptions used for estimation of data by HZL.
- Assessing the systems used for data collection and reporting of the Universal Disclosures and Topic Specific Disclosures of material topics as listed in the assurance scope above.
- Verifying systems and procedures used for quantification, collation and analysis of sustainability performance disclosures included in the Report.
- Holding discussion with senior executives at the plant locations and at the corporate office to understand the risks and opportunities from a sustainability perspective including the strategy that HZL has adopted to address the same.
- Assessing data reliability and accuracy.
- Verifying select key performance data through site visits to operational locations and corporate office for:
 - Testing reliability and accuracy of data on a sample basis.
 - Assessing stakeholder engagement process through interactions with relevant internal stakeholders and review of related documentation.
 - Limited review of the materiality assessment process
 - Reviewing the processes deployed for collection, compilation and reporting of sustainability performance disclosures at corporate and plant level.

Appropriate documentary evidence was obtained on a sample basis to support our conclusions on the information and data verified. Where such documentary evidence could not be collected due to sensitive nature of the information, our team verified the same at HZL's premises.

CONCLUSIONS

We have reviewed the Sustainability Report of HZL. Based on our limited review and procedures performed in line with scope, boundary and limitations of assurance, nothing has come to our attention that causes us not to believe that the sustainability data and information presented in the Report is fairly represented in line with the identified material topics and is in accordance with the sustainability reporting standards of the Global Reporting Initiative (GRI Standards).

We have provided our observations and areas for improvement to the company in a separate management letter. These, do not, however, affect our conclusions regarding the Report.

INDEPENDENCE

The assurance was conducted by a multidisciplinary team including professionals with suitable skills and experience in verifying environmental, social and economic information in line with the requirements of ISAE 3000 (Revised) standard. Our work was performed in compliance with the requirements of the IFAC Code of Ethics for Professional Accountants, which requires, among other requirements, that the members of the assurance team (practitioners) as well as the assurance firm (assurance provider) be independent of the assurance client, in relation to the scope of this assurance engagement, including not being involved in writing the Report. The Code also includes detailed requirements for practitioners regarding integrity, objectivity, professional competence and due care, confidentiality and professional behavior. KPMG has systems and processes in place to monitor compliance with the Code and to prevent conflicts regarding independence. The firm applies ISQC 1 and the practitioner complies with the applicable independence and other ethical requirements of the IESBA code.

RESPONSIBILITIES

HZL is responsible for developing the Report contents. The Company is also responsible for identification of material sustainability topics, establishing and maintaining appropriate performance management and internal control systems and derivation of performance data reported. This statement is made solely to the Management of HZL in accordance with the terms of our engagement and as per scope of assurance. Our work has been undertaken so that we might state to HZL those matters for which we have been engaged to state in this statement and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than HZL for our work, for this Report, or for the conclusions expressed in this independent assurance statement. The assurance engagement is based on the assumption that the data and information provided to us is complete and true. We expressly disclaim any liability or co-responsibility for any decision a person or entity would make based on this assurance statement. By reading this assurance statement, stakeholders acknowledge and agree to the limitations and disclaimers mentioned above.



Santhosh Jayaram
Partner
KPMG

September 5th, 2018

GRI Content Index

GRI Standard	Disclosure	Response
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GRI 101: Foundation 2016 [GRI 101 does not include any disclosures]

GENERAL DISCLOSURES

Organizational Profile

GRI 102- General Disclosures 2016	102-1: Name of the Organization	Hindustan Zinc Limited
	102-2: Activities, brands, products, and services	Company Overview - Page 11-12 Product Section - Page 33
	102-3: Location of headquarters	Back Cover
	102-4: Location of operations	Company Overview - Page 12
	102-5: Ownership and legal form	Group holding and board of Directors- Page 13-14
	102-6: Markets served	Company Overview - Page 11
	102-7: Scale of the organization	Company Overview - Page 11, 12 Economic section - Page 47,48
	102-8: Information on employees and other workers	People Section - Page 90
	102-9: Supply chain	Supply Chain Section - Page 104
	102-10: Significant changes to the organization and its supply chain	Supply Chain Section - Page 107
	102-11: Precautionary principle or approach	Ethics and Corporate Governance Section - Page 22
	102- 12: External initiatives	Mapping with SDGs- Page 138 Mapping with UNGC and FIMI Principles - Page 139
	102- 13: Memberships of associations	Memberships & Association - Page 25

Strategy

GRI 102- General Disclosures 2016	102-14: Statement from senior decision-maker	Executive Messages - Page 5 to 8
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Risk & Opportunity

GRI 102- General Disclosures 2016	102-15: Key impacts, risks, and opportunities	Risk Framework- Page 20-21
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Ethics & Integrity

GRI 102- General Disclosures 2016	102-16: Values, principles, standards, and norms of behaviour	Vision, Mission and Values - Page 9,10
GRI 102- General Disclosures 2016	102-17: Mechanisms for advice and concerns about ethics	Encouraging fair practices - Page 24

Governance

GRI 102- General Disclosures 2016	102-18: Governance Structure	Ethics and Corporate Governance Section - Page 22
102-22	Composition of the highest governance body and its committees	Board Committees - Page 22
102-30	Effectiveness of risk management processes	Risk Framework - Page 20-21
102-31	Review of economic, environmental, and social topics	Sustainability Governance Framework- Page 19
102-32	Highest governance body's role in sustainability reporting	Sustainability Governance Framework- Page 19

Stakeholder Engagement

GRI 102- General Disclosures 2016	102-21: Consulting stakeholders on economic, environmental, and social topics	Stakeholder Engagement Section - Page 38
	102-40: List of stakeholder groups	Stakeholder Engagement Section - Page 38 Identifying Material Issues - Page 31
	102-41: Collective bargaining agreements	People Section - Page 92
	102-42: Identifying and selecting stakeholders	Stakeholder Engagement Section - Page 38 Identifying Material Issues - Page 31

GRI Standard	Disclosure	Response
GRI 102- General Disclosures 2016	102-43: Approach to stakeholder engagement	Stakeholder Engagement Section - Page 38
	102-44: Key topics & concerns raised	Stakeholder Engagement Section - Page 38
Reporting Practice		
GRI 102- General Disclosures 2016	102-45: Entities included in the consolidated financial statements	Economic Section - Page 46
	102-46: Defining report content and topic boundaries	Report Scope & Boundary - Page 15
	102-47: List of material topics	Identifying Material Issues - Page 31
	102-48: Restatements of information	Report Scope & Boundary - Page 15
	102-49: Changes in reporting	Report Scope & Boundary - Page 15
	102-50: Reporting period	The reporting period for this report is FY 2017-18
	102-51: Date of most recent report	Hindustan Zinc's previous sustainability report was released in June 2017
	102-52: Reporting cycle	Annual
	102-53: Contact point for questions regarding the report	Questions can be directed to: v.jayaraman@vedanta.co.in
	102-54: Claims of reporting in accordance with the GRI Standards	Report Scope & Boundary - Page 15
	102-55: GRI Content Index	GRI Index - Page 142
102-56: External Assurance	Assurance Statement - Page 140	

SPECIFIC STANDARD DISCLOSURES

Category: Economic

GRI Standard	Disclosure	Response
Economic Performance		
GRI 103: Management Approach 2016	103-1: Explanation of the material topic and its boundary	Boundary: Entire organization
GRI 201: Economic Performance 2016	201-1: Direct economic value generated and distributed	Economic Section - Page 47
Market Presence		
GRI 202: Market Presence 2016	202-1: Ratios of standard entry level wage by gender compared to local minimum wage	At all our significant locations, we ensure that the ratios of entry level wages meets or exceeds the legal requirements and complies with all applicable laws. With regards to gender, the ratio is 1:1 and we don't discriminate in any way in terms of standard entry level wages
Indirect Economic Impacts		
GRI 103: Management Approach 2016	103-2 Management approach and its component	Community Section - Page 116
GRI 203: Indirect Economic Impacts 2016	203-1: Infrastructure investments and services supported	Community Section - Page 116, Nandhghar - Page 120, Sports & Culture - Page 130, Community Assets Creation - Page 132
Anti-Corruption		
GRI 103: Management Approach 2016	103-2 Management approach and its component	Ethics and Corporate Governance Section - Page 22
GRI 205: Anti-Corruption 2016	205-1: Operations assessed for risks related to corruption	Antibribery and anti-corruption - Page 23
	205-2: Communication and training about anti-corruption policies and procedures	Antibribery and anti-corruption - Page 23
	205-3: Confirmed incidents of corruption and action taken	Antibribery and anti-corruption - Page 23

Category: Environment

GRI Standard	Disclosure	Response
Energy		
GRI 103: Management Approach 2016		Environment Section - Page 68
	301-1 Materials used by weight or volume	Environmental Indicator - Page-137
	301-2 Recycled input materials used	Environmental Indicator - Page-137
	301-3 Reclaimed products and their packaging materials	Environmental Indicator - Page-137
GRI 302: Energy 2016	302-1: Energy consumption within the organization	Environment Section - Page 72 (Climate Change & Energy)
	302-3: Energy Intensity	Environment Section - Page 72 (Climate Change & Energy)
	302-4: Reduction of energy consumption	Environment Section - Page 72-74 (Climate Change & Energy)
Water		
GRI 103: Management Approach 2016		Environment Section - Page 68
GRI 303: Water 2016	303-1: Water withdrawal by source	Environment Indicator - Page 137
	303-2: Water sources significantly affected by withdrawal of water	Environment Section - Page 69 (Water)
	303-3: Water recycled and reused	Environment Section - Page 69 (Water)
Biodiversity		
GRI 103: Management Approach 2016		Environment Section - Page 68
GRI 304: Biodiversity 2016	304-1: Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Environment Section - Page 80 (Biodiversity)
	304-2: Significant impacts of activities, products, and services on biodiversity	Environment Section - Page 80 (Biodiversity)
	304-3: Habitats protected or restored	Environment Section - Page 80 (Biodiversity)
Emissions		
GRI 103: Management Approach 2016		Environment Section - Page 68
GRI 305: Emissions 2016	305-1: Direct (Scope 1) GHG emissions	Environment indicator - Page 137
	305-2: Energy indirect (Scope 2) GHG emissions	Environment indicator - Page 137
	305-4: GHG emissions intensity	Environment indicator - Page 137
	305-5: Reduction of GHG emissions	Environment Section - Page 76 (Emission)
	305-7: NOX, SOX, and other significant air emissions	Environment indicator - Page 137
Effluents and Waste		
GRI 103: Management Approach 2016		Environment Section - Page 68
GRI 306: Effluents and Waste 2016	306-1: Water discharge by quality and destination	Environment Section - Page 69 (Water) All our operational processes have been designed to be 'zero discharge' facilities, where the generated waste water is treated and completely recycled back into process. In addition to these initiatives, effluent and sewage treatment plants along with RO are installed for reusing water and maintaining Zero Discharge.
	306-2: Waste by type and disposal method	Environment Section - Page 77 (Waste) Environment Indicator - Page 137
	306-3 Significant spills	Page-68
	306-5 Water bodies affected by water discharges and/or runoff	All our operational processes have been designed to be 'zero discharge' facilities, where the generated waste water is treated and completely recycled back into process
	MM3: Total amounts of overburden, rock, tailings, and sludge's and their associated risks	Environment Indicator - Page 137
	307-1 Environmental Compliance	Page 68

GRI Standard	Disclosure	Response
Supplier Environmental Assessment		
GRI 103: Management Approach 2016		Supply Chain Section - Page 104 The vendor on-boarding process requires vendor disclosure of their HSE & Sustainability systems. In addition, project specific requirement may require additional screening of vendors for the environmental management systems.
GRI 308: Supplier Environmental Assessment 2016	308-1: New suppliers that were screen using environmental criteria	Supply Chain Section - Page 104 All new suppliers undergo Sustainability screening checklist and scoring system before getting registered with us.

Category: Social

GRI Standard	Disclosure	Response
Employment		
GRI 103: Management Approach 2016		People Section - Page 89
GRI-401: Employment 2016	401-1: New employee hires and employee turnover	People Section - Page 89
	401-2: Benefits provided to full-time employees that are not provided to temporary or part-time employees	We provide an array of benefits to our employees that are not provided to temporary or part time employees. The benefits include: life-insurance scheme, health-insurance scheme, parental leave, retirement benefits and management grades are covered under stock options scheme of Vedanta.
	401-3: Parental leave	People Section - Page 91
Labor/Management Relations		
GRI 103: Management Approach 2016		People Section - Page 88
GRI 402: Labor / Management Changes 2016	402-1: Minimum notice periods regarding operational changes	People Section - Page 88
	G4-MM4: Number of strikes and lock-outs exceeding one week's duration, by country	People Section - Page 88
Occupational Health and Safety		
GRI 103: Management Approach 2016		Safety Section - Page 54
GRI 403: Occupational Health & Safety	403-1: Workers representation in formal joint management-worker health and safety committees	Safety Section - Page 56
	403-2: Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work related fatalities	Safety Section - Page 53, Health and Safety Indicators- Page 136
	403-3: Health and safety topics covered in formal agreements with trade unions	People Section - Page 92
Training and Education		
GRI 103: Management Approach 2016		People Section - Page 88
GRI 404: Training and Education 2016	404-1: Average hours of training per year per employee	Human Resource Indicator - Page 136
	404-2: Programs for upgrading employee skills and transition assistance programs	People Section - Page 94 (Talent Management)
	404-3: Percentage of employees receiving regular performance and career development reviews	People Section - Page 96
Diversity and Equal Opportunity		
GRI 103: Management Approach 2016		People Section - Page 97 (Gender Diversity)
GRI 405: Diversity and Equal Opportunity 2016	405-1: Diversity of governance bodies and employees	People Section - Page 97 (Gender Diversity)
	405-2: Ratio of basic salary and remuneration of women to men	We are an equal opportunity employer. Across HZL we recruit both men & women on equal salary ratio. Our remuneration is linked to performance of the individual and company business.

GRI Standard	Disclosure	Response
Non-Discrimination		
GRI 103: Management Approach 2016		Ethics and Corporate Governance - Page 23
GRI 406: Non-discrimination	406-1: Incidents of discrimination and corrective actions taken	Ethics and Corporate Governance - Page 24 Hindustan Zinc is an equal opportunity employer and does not discriminate based on race, religion, caste, gender, age, disability, HIV/AIDS status, and any other characteristic.
Freedom of Association and Collective Bargaining		
GRI 103: Management Approach 2016		Hindustan Zinc's Human Rights Policy recognizes the right to associate freely and to collective bargaining.
GRI 407: Freedom of Association and Collective Bargaining 2016	407-1: Operations and suppliers in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk	Supply Chain Section - Page 104
Child Labour		
GRI 103: Management Approach 2016		Hindustan Zinc's Human Rights Policy states that the company has zero tolerance for child labour - directly or through contracted labour.
GRI 408: Child Labour 2016	408-1: Operations and suppliers at significant risk for incidents of child labor	Supply Chain Section - Page 107
Forced or Compulsory Labour		
GRI 103: Management Approach 2016		Hindustan Zinc's Human Rights Policy states that the company has zero tolerance for forced or compulsory labour - directly or through contracted labour.
GRI 409: Forced or Compulsory Labour 2016	409-1: Operations and suppliers at significant risk for incidents of forced or compulsory labour	Ethics & Corporate Governance - Page 24
Security Practices		
GRI 103: Management Approach 2016		
GRI 410: Security Practices 2016	410-1: Security personnel trained in human rights policies or procedures	Ethics & Corporate Governance - Page 24 People Section - Page 90
Human Rights Assessment		
GRI 103: Management Approach 2016		Hindustan Zinc's Human Rights policy is the guiding document for our human rights practices.
GRI 412: Human Rights Assessment 2016	412-1: Operations that have been subject to human rights reviews or impact assessments	Each year, all of our operational sites undergo the Vedanta Sustainability Assurance Program (VSAP) audit. This audit is conducted by an external 3rd party overseen by our Management Assurance Services (MAS) team. As part of the audit, all sites of HZL are evaluated on their human rights management related to supplier and vendor management.
	412-2: Employee training on human rights policies or procedures	Ethics & Corporate Governance Section - Page 24 People Section - Page 90
	412-3: Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	Through our Human Rights policy - Hindustan Zinc is committed to ensuring that the processes that it has in place, and continues to develop, follow the UN Guiding Principles. By conducting ESIA's in compliance with applicable legal requirements and Vedanta Sustainability Framework, human rights considerations are taken into account for all new projects, including the obligation to undertake a human rights screening process in all merger and acquisition activities.
Local Communities		
GRI 103: Management Approach 2016		Community Section - Page 118
GRI 413: Local Communities 2016	413-1: Operations with local community engagement, impact assessments, and development programs	Community Section - Page 116 to 133

GRI Standard	Disclosure	Response
Supplier Social Assessment		
GRI 103: Management Approach 2016		Supply Chain Section - Page 107 (Supplier Code of Conduct)
GRI 414: Supplier Social Assessment	414-1: New suppliers that were screened using social criteria	Supply Chain Section - Page 107
Public Policy		
GRI 103: Management Approach 2016		
GRI 415: Public Policy 2016	415-1: Political Contributions	Hindustan Zinc's Code of Business Conduct and Ethics is the guiding document on our interactions with the government and political parties.
Resettlement		
G4 - MM9	Sites where resettlements took place, the number of households resettled in each, and how their livelihoods were affected in the process	None of the site
Material Aspect: Closure Planning		
G4 - MM10	Number and percentage of operations with the closure plans	As a part of statutory clearance all our mines operations have a closure plan.



FEEDBACK ON SUSTAINABILITY REPORT 2017-18

Thank you for your interest in HZL's Sustainability Report 2017-18. Your feedback is important to us as it helps to improve our reporting on sustainability performance. Please do spend a few minutes to give us your feedback on this report. It will help us make it even more engaging and relevant to your needs.

1 Which of the following describes your affiliation with HZL?

- Employee
- Vendor / Supplier
- Customer
- Regulatory Agency
- Other (please specify)

2 Your rating of the entire report

- Excellent
- Good
- Fair
- Poor

2.1 If you ticked 'Excellent' or 'Good', what did we do well? (Choose relevant options)

- Navigation
- Design & Layout
- Readability
- Comparability
- Clarity in representation
- Completeness
- Flow of information

2.2 If you ticked 'Fair' or 'Poor', what do we need to improve the most? (Choose relevant options)

- Navigation
- Design & Layout
- Readability
- Comparability
- Clarity in representation
- Completeness
- Flow of information

3 How would you rate individual sections in depth and coverage?

3.1 Stakeholder inclusiveness (Prioritisation and engagement of stakeholders)

- Depth Appropriate Too detailed Too brief
- Coverage Appropriate Too broad Too narrow

3.2 People Performance

- Depth Appropriate Too detailed Too brief
- Coverage Appropriate Too broad Too narrow

3.3 Economic Performance

- Depth Appropriate Too detailed Too brief
- Coverage Appropriate Too broad Too narrow

3.4 Environmental Performance

- Depth Appropriate Too detailed Too brief
- Coverage Appropriate Too broad Too narrow



3.5 Social Performance

Depth Appropriate Too detailed Too brief
Coverage Appropriate Too broad Too narrow

3.6 Product Performance

Depth Appropriate Too detailed Too brief
Coverage Appropriate Too broad Too narrow

3.7 Case studies

Depth Appropriate Too detailed Too brief
Coverage Appropriate Too broad Too narrow

4 How would you rate HZL's Sustainability Report as compared to our peers?

Excellent Good Fair Poor

5 Any other comments / suggestions (inclusions / exclusions)

Please provide your contact details for updates:

Name _____ Company _____

Address _____

Phone _____ Fax _____ Email _____

Fax / Email your responses to: Mr. V.Jayaraman, ID: v.jayaraman@vedanta.co.in

Mailing Address: Hindustan Zinc Limited, Yashad Bhawan, Udaipur (Rajasthan)- 313004

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