



Hindustan Zinc – FY19/20

SMART MINING FOR A SUSTAINABLE FUTURE

Cautionary Statement and Disclaimer

The views expressed here may contain information derived from publicly available sources that have not been independently verified.

No representation or warranty is made as to the accuracy, completeness, reasonableness or reliability of this information. Any forward looking information in this presentation including, without limitation, any tables, charts and/or graphs, has been prepared on the basis of a number of assumptions which may prove to be incorrect. This presentation should not be relied upon as a recommendation or forecast by Hindustan Zinc Limited. Past performance of Hindustan Zinc cannot be relied upon as a guide to future performance.

This presentation contains 'forward-looking statements' – that is, statements related to future, not past, events. In this context, forward-looking statements often address our expected future business and financial performance, and often contain words such as 'expects,' 'anticipates,' 'intends,' 'plans,' 'believes,' 'seeks,' or 'will.' Forward-looking statements by their nature address matters that are, to different degrees, uncertain. For us, uncertainties arise from the behaviour of financial and metals markets including the London Metal Exchange, fluctuations in interest and or exchange rates and metal prices; from future integration of acquired businesses; and from numerous other matters of national, regional and global scale, including those of environmental, climatic, natural, political, economic, business, competitive or regulatory nature. These uncertainties may cause our actual future results to be materially different than those expressed in our forward-looking statements. We do not undertake to update our forward-looking statements. We caution you that reliance on any forward-looking statement involves risk and uncertainties, and that, although we believe that the assumption on which our forward-looking statements are based are reasonable, any of those assumptions could prove to be inaccurate and, as a result, the forward-looking statement based on those assumptions could be materially incorrect.

This presentation is not intended, and does not, constitute or form part of any offer, invitation or the solicitation of an offer to purchase, otherwise acquire, subscribe for, sell or otherwise dispose of, any securities in Hindustan Zinc or undertakings or any other invitation or inducement to engage in investment activities, nor shall this presentation (or any part of it) nor the fact of its distribution form the basis of, or be relied on in connection with, any contract or investment decision.

Hindustan Zinc Limited (HZL) - Corporate Overview

VISION

To be the world's largest and most admired zinc, lead and silver company.

MISSION

- Enhance stakeholder value through exploration, innovation, operational excellence, safety and sustainability
- Be the lowest cost producer
- Maintain market leadership and enhance customer delight

LARGEST UG MINE

Rampura Agucha, globally[&]

2nd LARGEST

Zinc-lead miner globally^{#&}

4th LARGEST

Zinc-lead smelter globally^{#&}

6th LARGEST

Silver producer globally^{*}



Recognised as 'Zinc & Silver of India'



Ranked #1 in the Metal and Mining category in DJSI



Among the top 15 corporate CSR spenders in India

Growing Portfolio of Value-Accretive Assets



HINDUSTAN ZINC
Zinc & Silver of India



- MINES
- 1> RAMPURA AGUCHA MINE
- 2> SINDESAR KHURD MINE
- 3> ZAWAR MINING COMPLEX
- 4> RAJPURA DARIBA MINE
- 5> KAYAD MINE

- SMELTER
- 1> CHANDERIYA LEAD-ZINC SMELTER
- 2> DARIBA SMELTING COMPLEX
- 3> DEBARI ZINC SMELTER



Additional facilities in Pantnagar, in the state of Uttarakhand, for processing and refining of zinc, lead and silver, which do not add to our overall smelting capacity

MINES

Mines	Key Stats				
	Reserve (mn MT)	Resource (mn MT)	Reserve Grade Zn (%)	Reserve Grade Pb (%)	Captive Power Plant (MW)
Rampura Agucha Mine	39.1	45.8	12.6	1.6	-
Sindesar Khurd Mine	37.3	79.1	3.6	2.3	-
Zawar Mining Complex	14.2	82.2	3.1	1.5	80
Rajpura Dariba Mine	20.4	38.5	5.1	1.7	-
Kayad Mine	3.6	1.9	5.1	1.0	-

SMELTERS

Smelters	Key Stats				
	Pyro-metallurgical Zinc Smelter (TPA)	Pyro-metallurgical Lead Smelter (TPA)	Hydro-metallurgical Zinc Smelter (TPA)	Lead Smelter (TPA)	Captive Power Plant (MW)
Chanderiya Lead-Zinc Smelter	1,05,000*	90,000	4,80,000	-	234
Dariba Smelting Complex	-	-	2,40,000	1,20,000	160
Debari Zinc Smelter	-	-	88,000	-	-

SMELTING AND POWER SUMMARY

Category	Key Stats
Zinc Smelting	9,13,000 TPA
Lead Smelting	2,10,000 TPA
Silver Refining	800 TPA
Thermal Power	474 MW

Category	Key Stats
Wind Power	273.5 MW
Solar Power	39.64 MW
WHRB Power	35.37 MW

Delivering Shareholder Value in a Sustainable Way



HINDUSTAN ZINC
Zinc & Silver of India



TRACK RECORD OF VALUE CREATION

- Consistently demonstrated ability to grow production, optimise cost and implement sustainability strategies effectively
- Commitment to growth and strong balance sheet will continue our value creation story in the future

108%

5-year average dividend pay-out

30%

5-yr UG mine prod. CAGR

18%

5-yr Silver prod. CAGR

STRONG FINANCIALS

- Strong balance sheet invested in quality assets
- High ROI projects
- Rationalizing our cost structure
- Enhancing our margins by improving operational efficiency and technology

29%

Return on capital employed

52%

3-year average EBITDA margin

\$2.89BN

Net cash

SUSTAINABLE OPERATIONS

- Proven ore deposits with above average zinc-lead grades
- Long mine life of over 25 years
- Transition to a low-carbon economy and optimising our water, waste and land footprint through innovation and technology.

2.41X WATER POSITIVE

Certified by DNV-GL

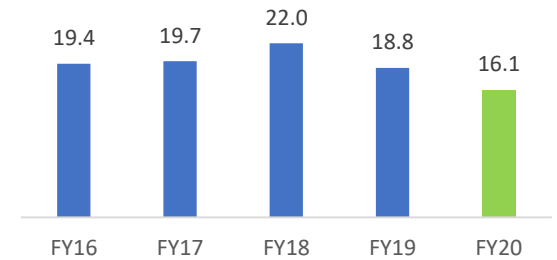
348.5MW

Renewable energy

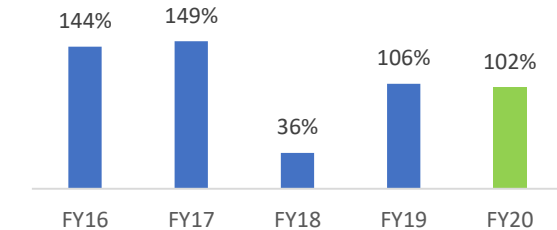
DRY TAILING PLANT

First in India

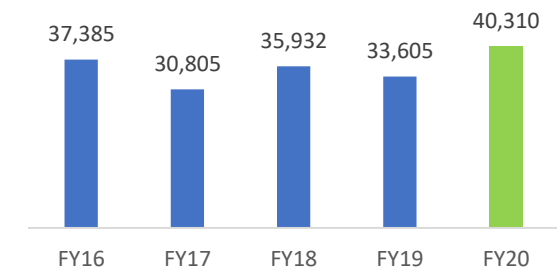
Healthy earnings per share (INR)



High dividend payout ratio



Increasing Net-worth (INR Cr.)



*611 Crore working capital and fund-based banking facilities as on March 31, 2020 and zero long-term debt

Our vast Suite of Offerings – Fundamentals Remain Strong



HINDUSTAN ZINC
Zinc & Silver of India

REFINED ZINC (Zn)

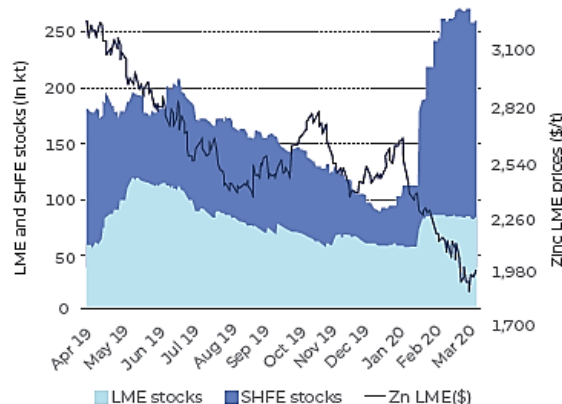


688,286 MT

Production volume

₹12,645 Cr

Revenue



Outlook

More than 25% of global annualised zinc supply has been impacted by lockdowns and workforce curtailments. Zinc price will find support from lower mine and smelter production this year.

Opportunities

- Better auto galvanizing standards
- Public investments in electricity, road and airports
- Electrification of Indian railways
- Continuous Galvanised Rebar (CGR)
- Zinc-rich fertilizers
- Zinc-based alloys

REFINED LEAD (Pb)



181,370 MT

Production volume

₹2,699 Cr

Revenue



Outlook

Mine production amid the COVID-19 lockdown is expected to contract by 8.2% in CY 2020 and contraction in demand is expected at 5-6%.

Opportunities

- Auto start-stop (idle-stop) technology to boost battery usage
- Lead auxiliary batteries in EVs
- Renewable energy sector
- High purity lead alloys

REFINED SILVER (Ag)



610 MT

Production volume

₹2,445 Cr

Revenue

(market balance, Moz)



Outlook

Supply-demand deficit to intensify next year. Quantitative easing to act as a tailwind for silver prices. Going forward, the roll-out of 5G telecom networks is also expected to propel silver demand

Opportunities

- Electronics usage under 'Make in India' (PLCs, contacts, brazing etc.)
- Photovoltaic demand
- Higher investor portfolio diversification

Strategy in Practice for Executing Growth Imperatives

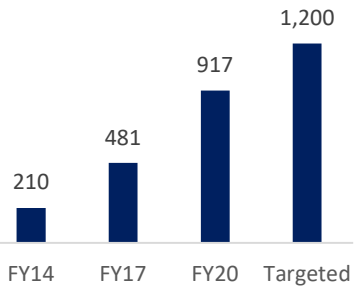


HINDUSTAN ZINC
Zinc & Silver of India



EXPANSION OF CAPACITIES

We are planning the next phase of mining expansion by increasing ore production to our target of 25 mn MT per annum.

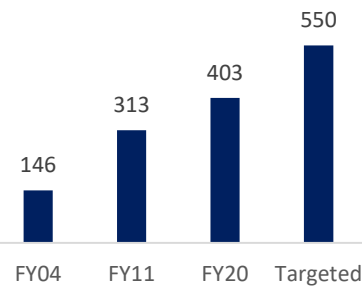


Underground (UG) Production (MIC Production, kT)



MAINTAINING A PORTFOLIO OF MINES WITH LONG LIFE

Upgrading galena zone at Rampura Agucha, exploring a new ore body below shaft at Sindesar Khurd and establishing new lenses at Zawar.

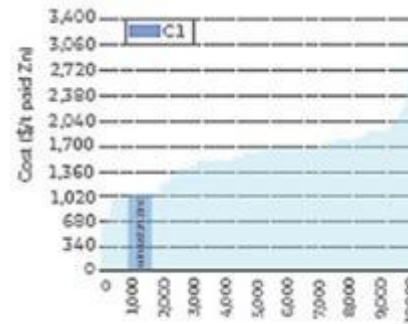


Ramping up R&R (total R&R MN MT)



STRENGTHEN COST LEADERSHIP

Shaft hauling, digitalisation, autonomous vehicles, ancillary plants and power optimization will lead to cost reduction in the coming year.



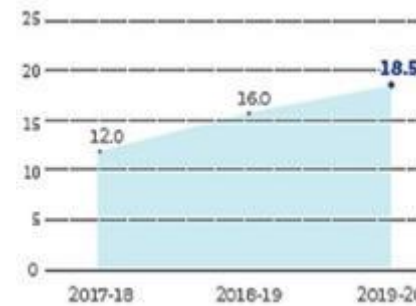
Lowest quartile in the cumulative cost curve

Source: WoodMackenzie



EXPANSION OF PRODUCT PORTFOLIO

We are developing new products by identifying downstream applications. We plan to launch new products in lead alloys and increase the penetration of zinc alloys.



Rising share of value-added products (VAP) in sales



TRANSITION TO A CIRCULAR ECONOMY

We are using technology and innovation to reduce-reuse-recycle waste and restore natural systems, including water and land. Increasing local sourcing to bolster local economy.

 **0.5 mn tCO₂e**
Lesser GHG than 2017

 **5x**
Water positive

 **3x**
Increase in gainful utilization of waste

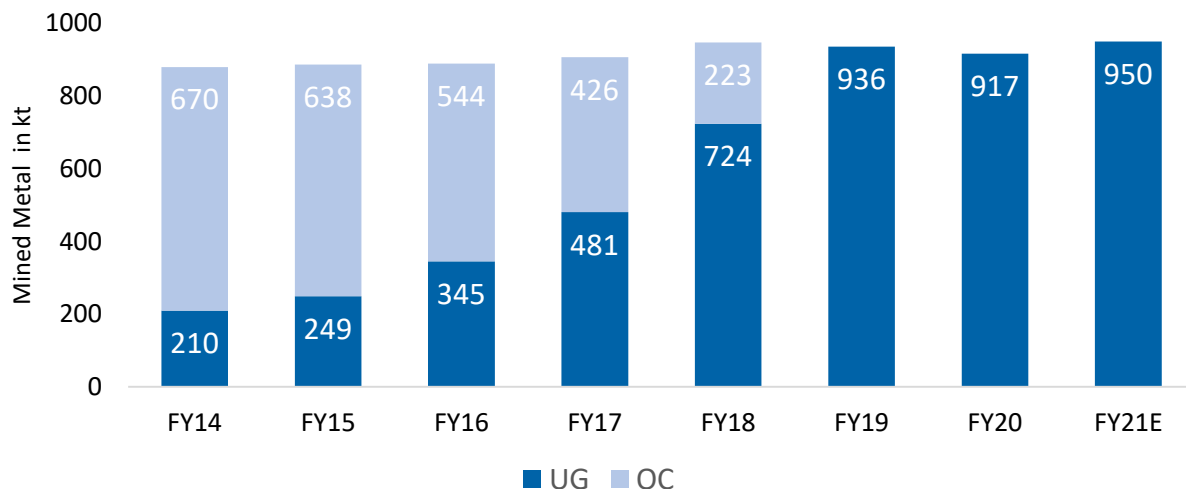
 **100%**
Responsible sourcing

Sustainability Goals 2025

Expansion Projects with a Long-Term Focus

Completed all projects for reaching 1.2 million MT mined metal capacity

Sustained production post-transition to fully UG mining company



Key pillars to support higher capacity utilization

Optimize Operations	Faster stope turnaround	Shaft driven haulage
50 kms development target. Reduction in waste dilution factor and achieving recovery benchmarks across the value chain.	Maximum use of tailings as back-filling material to lead to faster development of stopes improve working conditions & reduced costs.	RA and SK Shaft stabilization ongoing which will make haulage from lower blocks possible. RD Shaft upgradation ongoing.

Vision 1.5 million MT mined metal capacity

World class technologies for upgrading R&R to 550 million MT

Technology	Process Improvements
Retractable core barrel	Change drill bit without pulling out the rods
Digital Core Library	Strip core logs displaying elemental values, alteration zones & structural data
High Dimensional Analysis	Integrated data analytics to predict exploration drilling target

Strategic planning will fuel production growth

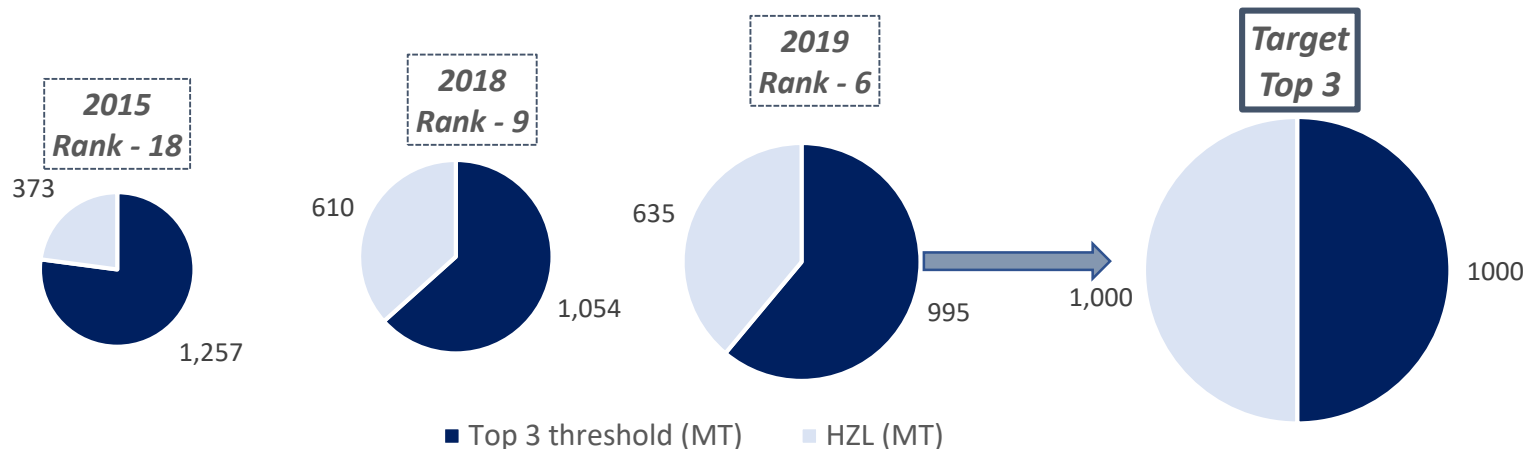
Mine planning	Multi-level Mining	Tenements
<ul style="list-style-type: none"> Life of mine planning completed for 2 mines; remaining underway 	<ul style="list-style-type: none"> Simultaneous development and ore production in a mine. 	<ul style="list-style-type: none"> Govt. mineral auctions Portfolio of tenements

Improving metal-ore ratio: Achieving benchmark efficiencies

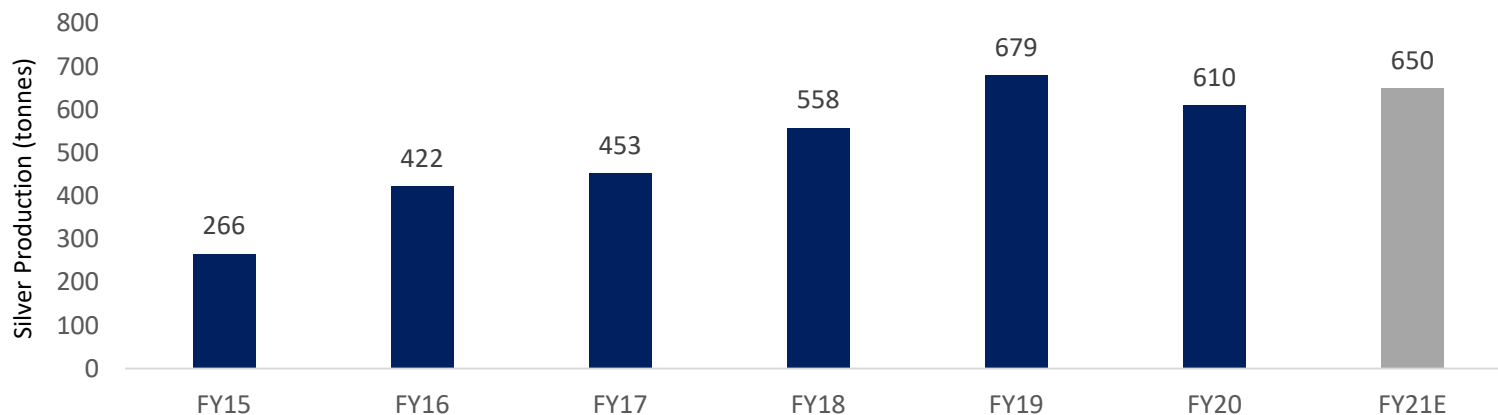
Debottlenecking	Ancillary Set-up	Technology
<ul style="list-style-type: none"> Sustain industry-leading CE of 93% Lead circuit upgradation 	<ul style="list-style-type: none"> Smelter ancillaries to increase downstream recovery 	<ul style="list-style-type: none"> Fumer stabilization & replication Weak-acid leaching recovery technology

Maintaining our position as top 10 primary Silver producers in the world

Maintaining our position globally as a leading silver producer



Production growth of 18%* over last 5 years; further to be driven by key initiatives#



Source: World Silver Survey, 2020, *5-year CAGR



8,000 MT
Total Contained Silver in Ore Reserves



























20,000 MT
Total Contained Silver in Mineral Resource

#Initiatives/Growth levers

- Volume growth through mine expansion
- Fuming technology for increased recoveries
- Recovery from mine tailings
- Achieving benchmark process recoveries

Sustainability Goals 2025

We have taken a holistic view in setting our sustainability goals 2025 and our focus is on creating a positive change. With clearly defined targets and tangible goals, our focus is to reduce any negative impact across the value chain.

#	Description	Target	Linked to UN SDGs*
Goal 1	 GHG emission savings in our operations from base year 2017	0.5MN tCO ₂ e	 
Goal 2	 Water-positive Company and achieve 25% reduction in freshwater consumption	5x	  
Goal 3	 Increase in gainful utilisation of smelting process waste	3x	 
Goal 4	 Throughout the life cycle	Protect and enhance biodiversity	
Goal 5	 Work-related fatalities and 50% reduction in TRIFR	ZERO	
Goal 6	 Positively impacting lives through social, economic and environmental outcomes	1MN	     
Goal 7	 Diversity in an Inclusive and diverse workplace	30%	 
Goal 8	 Responsible sourcing in the supply chain	100%	

Environment, Safety and Governance form the Core of our Operations



HINDUSTAN ZINC
Zinc & Silver of India

Fostering a Culture of Safety

Felt Leadership

Safety Town Hall

Responsible Sourcing

Monthly safety interactions at sites

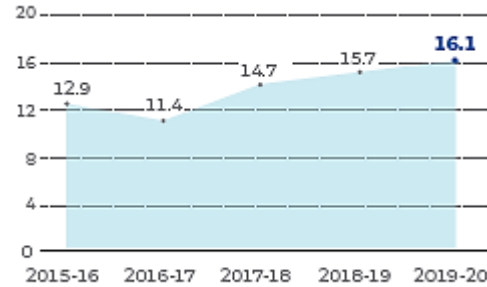
Project Ru - Ba - Ru for business partners

Technology – Eliminating Human Interface

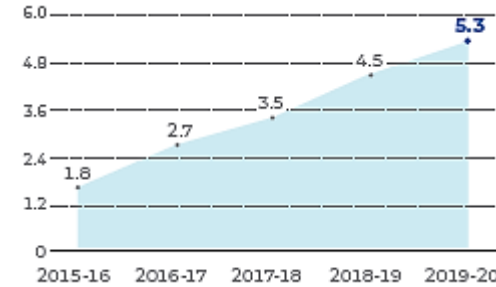
0.72 MN MAN-HOURS

Safety training for employees and contract workers

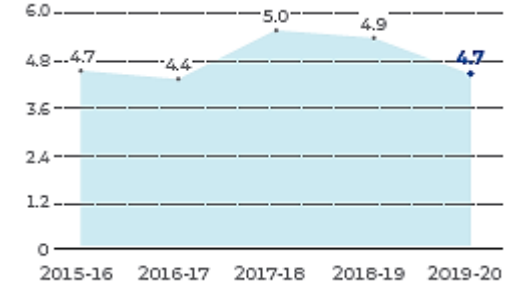
Ensuring Responsible Utilisation of Natural Resources



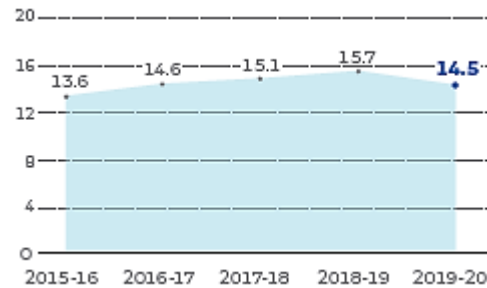
Water Recycled (million m³)



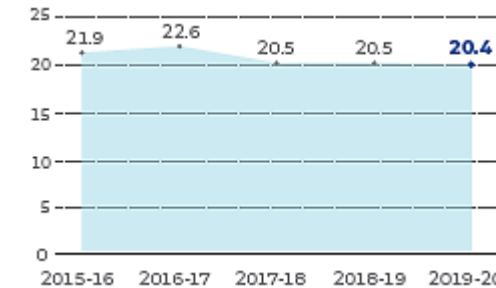
Waste Recycled (million MT)



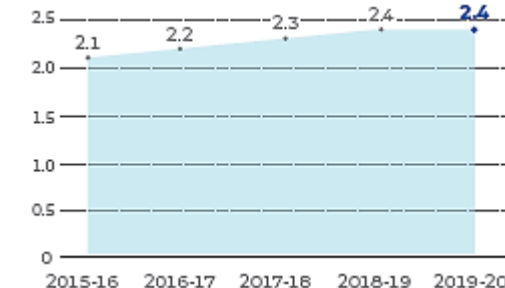
GHG Emission: Scope 1 + Scope 2 (MN tCO₂)



Specific Water Consumption (m³ per MT)



Specific Energy Cons. (GJ/MT of metal)



Renewable Power (MGJ)

Paste fill plant

60% of tailings to be used for void filling in UG mines. Land saving

Dry Tailing plant

1st dry tail stack plant. Water and land savings.

Ancillary Plant

Recover & recycle metal in high value forms. Circular economy.

Sewage Treatment

Treat Udaipur's sewage (60 MLD). Minimise fresh water usage

Solar projects

Floating, rooftop and waste-dump solar projects. Reduced emission.

Response to COVID-19: Our Approach & Objectives



Employee Safety & Welfare

- Task Force at each site under leadership of location BU Directors
- Dedicated COVID watchers to ensure safety and hygiene
- Skill and technical upgrades through training
- Screening and monitoring health of all employees



Supporting Government

- Contributed Rs 101 Crore to PM CARES and Rs 5 Crore to Rajasthan Chief Minister COVID-19 Mitigation Fund
- Sanitization of 189+ villages
- Support to Health Admin- 100K+ PPEs, 25K Lts. Hypochlorite solution



Supporting Society

- Dry ration support to 30k+ families; 1.5 lac Ready to Eat meals
- 1.30 lacs masks stitched & Rs. 8+ lacs earned by Sakhi SHG members
- Take Home Ration packets for malnourished children (0 to 5 years), pregnant women and lactating mothers

Leveraging Partnerships

1. Community Connect

100+ village level stakeholders reached out to by HZL Leaders

2. Business Partnerships

Sandvik extended 1700 relief packets; Care India provided PPEs

3. HZL families

Caretaking of humans being as well as animals; 2500 masks stitched

4. Flagship CSR Program Partners

Reached nearly 7000+ women & migrant labour through 'Sakhi'

**WE STAND UNITED
WITH OUR NATION
TO FIGHT COVID-19**

Contributing to the communities



HINDUSTAN ZINC
Zinc & Silver of India

Benefitting the lives of 5 lakh people across 189 villages

Healthcare, Water and Sanitation

2.5 lakh+ people under potable water & medical services
treated over 1 Lakh external patients at six Company-run hospitals

Community Asset Creation

Community halls, classrooms in schools, roads, bus stands, cremation centres, drains etc. in villages.

Education

Reaching out to 70,000 students via '*Khushi*' Anganwadi, '*Nandghar*', '*Shiksha Sambal*', '*Unchi Udaan*' and '*Jeevan Tarang*'

Sports & Culture

Training 390 kids through '*Zinc Football Academy*'
State-level youth tournament started

Women Empowerment

2,161 '*Sakhi*' SHGs comprising ~26,560 women have become self-sufficient

Environment and Safety

Tree plantations & green technology
STPs accomplish the twin objectives of preventing untreated sewage from entering the city's lakes

Sustainable Livelihood

'*Samadhan*' reached 13,835 farmers to promote on-farm sustainable livelihood
11,507 families through livestock practices
Upskilling of youth at company-run centres

5,00,000+

People

INR 131.65 Cr

Community Investment

Sensitivity: Public (C4)



Our Key People Practices & Key Awards

Empowered Business with Common DNA

- Purpose of all work is '**The Greater Good**' towards national prosperity & sustainable Growth
- **Fully empowered executive committee at business units**
- Federated structure with lean corporate

Promoting Leaders from Within

- Strong bench of workshop leaders identified in last 3 years through Chairman Growth workshops

Advisors to unlock value

- **Reputed advisors** onboarded from across various domains including retired senior leaders from ministry, government, Supreme Court, banks etc. to realize growth vision

Key external recognitions

- *1st in the Asia-Pacific region in the metal and mining sector by the Dow Jones Sustainability Index 2019*
- *Featured in The Sustainability Yearbook 2020 by S&P Global and RobecoSAM*
- *2019 CII HR Excellence for Significant Achievement in HR*
- *Member of FTSE4 Good Emerging Index based on Environment, Social and Governance*



HINDUSTAN ZINC
Zinc & Silver of India



Thank You

For any queries email us at hzi.ir@vedanta.co.in