



ZINC NEWS

MONTHLY HOUSE JOURNAL OF HINDUSTAN ZINC LIMITED

### ZINC NEWS | VOL 45 | ISSUE 5 | MAY 2025

### **COVER STORY:** Hindustan Zinc Secures its First Potash Block and Rare Earth Elements (REEs) Block

**STORY:** Hindustan Zinc hosts VRL Bondholders

FEATURE

**COVER STORY** 

#### **India's Path to Critical Mineral Independence**

### Hindustan Zinc Secures its First Potash & Rare Earth Elements (REEs) block

We are proud to share that Hindustan Zinc is rapidly foraying into India's critical mineral segment by securing **two new critical mineral blocks:** one for Potash & Halite in Hanumangarh district of Rajasthan and another for Rare Earth Elements (REEs) in Sonbhadra district of Uttar Pradesh.



This strategic win marks a significant milestone in our multi-mineral growth journey, bringing our critical minerals portfolio to three blocks, including a **tungsten block** in Andhra Pradesh for which we received the letter of intent earlier this month. This also marks a major step for India's self-reliance vision in fertiliser minerals, reducing import dependency and strengthening India's agricultural future with affordable fertilisers.

## **FEATURE STORY**

### Visiting the Core of the Clean Energy Transition

### **Hosting VRL Bondholders**



Hindustan Zinc recently hosted key bondholders from around the globe at their Sindesar Khurd Mine and Dariba Smelting Complex. The delegation explored the fully automated and digitalised operations, gaining deeper insights into Vedanta and Hindustan Zinc's unique value proposition.



Our CFO, Mr. Sandeep Modi giving an overview of Hindustan Zinc



Exploring our digitalised control room



Engaging session between our senior leaders and our valued bondholders

#### Core of the Clean Energy Visiting t tion ndholders



Visiting our state-of-the-art underground operations at Sindesar Khurd Mine





Witnessing where metals take shape - visiting the Dariba Smelting Complex





Touring the iconic Pichola Lake in Zinc City - Udaipur

# **SPECIAL FEATURE**

### Celebrating Zawar - The World's Oldest Known Site for Zinc Mining & Metallurgy 3,000 Years of Producing #MetalsForLife



On the occasion of International Museum Day, Hindustan Zinc takes pride in celebrating the rich legacy of Zawar — the world's oldest known site for zinc mining and metallurgy. A dedicated museum at Zawar beautifully captures this nearly 3,000-year journey, showcasing the evolution from ancient zinc distillation techniques pioneered by local tribes around 750 BCE to the advanced technologies used in modern mining.



The museum highlights India's metallurgical prowess. Despite the presence of zinc ore in countries such as the USA, Australia, Canada, Poland and Iran, it wasn't until 1743 CE that Europe successfully smelted zinc — a milestone made possible through the transfer of knowledge from India.

#### Zinc News | Special Feature

### BUSINESS

# **Rise in Silver Output Boosts India's Offtake of the Precious Metal**



Few stories shine as brightly as the transformation of Hindustan Zinc - a tale of vision, resilience and turning overlooked potential into an extraordinary legacy. What makes this story even more extraordinary is that the dream and the revolution were not driven by someone from a metropolitan city, but by our Chairman Mr. Anil Agarwal, a first-generation entrepreneur from Bihar. His relentless belief in India's untapped potential and his bold vision for the future sparked a transformation that would redefine the country's metal industry.

- > India has emerged as a global silver powerhouse, recently becoming the world's largest silver consumer.
- Silver production has nearly doubled over the past decade — from 12 moz in 2012 to 22.5 moz in 2024 making India the largest jewellery and silverware fabrication producer and a major gold consumer.
- Driving this growth is our Sindesar Khurd Mine, among the world's top five silver-producing mines, powered by automation and digitalisation.
- Supporting it is our Pantnagar Metal Plant in Uttarakhand, India's only silver refinery, running on renewable energy and listed on the LBMA Good Delivery List.



In a landscape brimming with ambition, Hindustan Zinc stands apart through legacy, carrying a promise of innovation, ethical leadership, and India's unstoppable rise on the global stage.

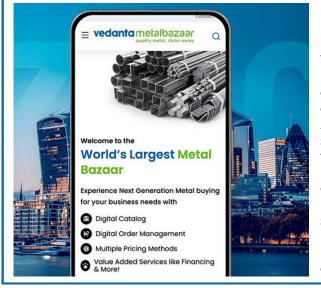
#### Click here to read more!

### BUSINESS

#### Hindustan Zinc accelerates research in emerging Zinc Battery technology

Accelerating innovation in next-generation zinc-based battery technologies, Hindustan Zinc is driving strategic collaborations with IIT Madras and JNCASR Bengaluru to develop safer, longer-lasting, and more efficient energy storage solutions. With zinc emerging as a cost-effective, abundant, and sustainable alternative to lithium, the company is focused on Zinclon and Zinc-Air batteries for applications such as EVs, grid storage, and electronics. Leveraging its metallurgical expertise, Hindustan Zinc has also partnered with AEsir Technologies to fast-track the commercialization of nickel-zinc batteries, reinforcing its role in India's clean energy future.





#### Ushering in an Era of Online Metal Buying via Digital Auctions

Transforming India's metal procurement landscape, Hindustan Zinc offers 100% of its product portfolio on advanced e-commerce platforms. With the launch of Online Premium Discovery and Digital Pricing Automation platforms, metal buying has become smarter, faster, and more transparent. From MSMEs to large industries, customers now enjoy real-time insights and dynamic pricing. Fully integrated with global commodity exchanges like the London Metal Exchange and foreign exchange markets, these systems ensure pricing remains aligned with international benchmarks. This isn't just tech innovation - it's a complete reimagination of metals commerce for the digital age.

### Hindustan Zinc at the International Galvanizing Conference 2025



Demonstrating its leadership in the zinc and lead industry, we made a significant impact at the prestigious International Galvanizing Conference held in Nagpur by the India Lead Zinc Development Association. Mr. Ankur Maroo, National Sales Head (Zinc & Lead), captivated the audience with his presentation on 'The Future of Zinc: Hindustan Zinc's Vision for Tomorrow', underscoring our commitment to innovation and customer-centricity through digital platforms like Zinc Freight Bazaar and Vedanta Metal Bazaar. Our robust portfolio of value-added products further reinforces our leadership in delivering high-quality, customized solutions.

#### Zinc News | Business

### BUSINESS

### Insights, Innovation, and Impact Workshops & Seminars

### **Exploring opportunities in Critical Mineral Extraction**

At a recent national seminar on 'Critical Minerals Extraction from Mine Tailings & Waste' in Nagpur, jointly organized by the Indian Bureau of Mines (IBM) and the National Mineral Development Corporation (NMDC), Hindustan Zinc was represented by Ms. Sheeba Mashruwala, Head – Research & Development. The event brought together around 180 participants from the industry, academia, and regulatory bodies. Ms. Mashruwala's presentation, 'Potential for Critical Minerals Extraction from Tailings', highlighted the crucial role of advanced technologies and AI in driving sustainable mineral recovery.



### Integrated Management System workshop at Zawar Group of Mines



Zawar Group of Mines recently conducted a two-day Integrated Management System (IMS) workshop, bringing together over 45 employees from various departments. The workshop aimed to understanding deepen of IMS standards while reinforcing best practices in safety, sustainability, and operational excellence. The interactive sessions encouraged active participation and reflected our ongoing commitment to continuous improvement across our operations.



### Showcasing safety innovations at DGMS national seminar

At the National Seminar on 'Safety Challenges in Bulk Material Handling Equipment of Mining (Coal & Non-Coal)' organized bv the Directorate General of Mines Safety (DGMS), Hindustan Zinc presented three technical papers focused on men transportation safety and the role of automation and digitalisation in enhancing mine safety. The seminar showcased key advancements in mining safety and technology, reinforcing the company's commitment to safe and efficient operations.

## **DIGITAL & INNOVATION**

### **Boosting Production and Safety with Emerging-Tech**

### **National Technology Day**

FEATURED IN ET Manufacturing From The Economic Times

Hindustan Zinc has deployed emerging tech solutions such as tele-remote and guidanceenabled loaders (vehicles used to transport ore), smoke-hours drilling and integrated an Aldriven, sensor-based predictive maintenance system. For the company, this makes industry-first tech solutions implementation across the entire value chain.



#### **Key Highlights**

#### **Tele-remote and Guidance-Enabled Loaders:**

We have deployed tele-remote and guidance-enabled loaders, allowing operators to control underground equipment from the surface during shift changeovers. This, supported by an in-house optical fibre backbone, has boosted productivity at the Rampura Agucha mine, increasing shaft hoisting capacity from 6,500 TPD to 8,000 TPD.

### Smoke-Hours Drilling Technology:

The implementation of smoke-hours drilling technology enables production drilling during shift transitions, yielding an extra 22,000 tonnes of metal in concentrate annually over the past three years at Rampura Agucha and Sindesar Khurd.

#### Al-Driven Predictive Maintenance & Automation:

In collaboration with Infinite Uptime, the company has deployed AI-driven, sensor-based predictive maintenance, cutting unplanned downtime by nearly 500 hours. AI-based automation tools further optimise consumables usage while maintaining top-quality zinc production.

#### Advanced Technologies Integration:

We also have integrated robotics, AI, blockchain, IIoT, and advanced AI-powered camera surveillance across operations, achieving about a 50% reduction in manual intervention and enhancing workplace safety and efficiency.

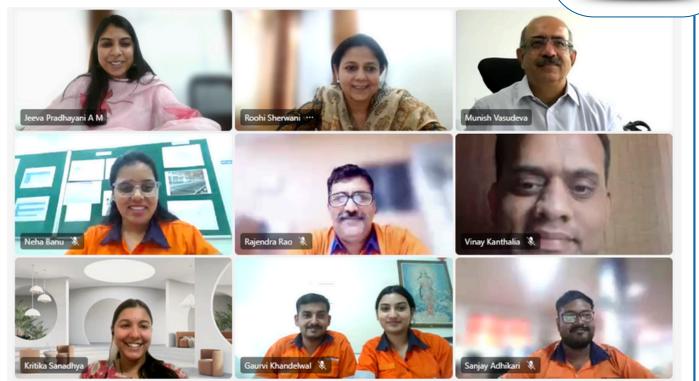
#### 6 Robotics in Smelting & Future Plans:

Robotic automation in high-temperature smelting improves precision and product consistency. Going forward, LiDAR-enabled drone-based stope scanning is planned to further refine underground mapping and extraction.

### **PEOPLE PRACTICES**

### **Fostering a Culture of PRISM**





Building on our strong foundation in People Practices, we proudly launched the **PRISM Campaign,** focusing on Prevention, Respect, Inclusion, Safety, and Mindset. This initiative has set a positive tone across the organization, inspiring everyone to create a safer and more inclusive workplace. To bring PRISM to life, a series of activities have been rolled out, including quiz competitions, knowledge sharing case studies, and POSH awareness sessions across locations.

### Dariba Smelting Complex hosts SHABASH rewards & recognition ceremony

Dariba Smelting Complex recently organised the SHABASH - rewards & recognition ceremony to honour the exemplary contributions of its workforce. A total of 125 business partners were recognised for their commitment to safety, productivity enhancement, and support during critical situations, while reinforcing the importance of maintaining a safety culture strong and progressing towards the goal of Zero Harm.



### **PEOPLE PRACTICES**

### Celebrating HR Day



HR







# PEOPLE OF ZINC CITY

Meet Yuvraj Bhadaktiya from Zawar CPP, whose passion for photography captures the essence of Zawar - its natural beauty and the spirit of our operations.





Have a creative side? Share it with us at sheen.raina1@vedanta.co.in to get featured!

# SAFE & SUSTAINABLE

### Friendly Cricket Match for Environment Day!



**Zinc Smelter Debari Team** 



A friendly cricket match was recently organized by the Rajasthan State Pollution Control Board (RSPCB) as part of the upcoming World Environment Day celebrations. Teams from Zinc Smelter Debari and Zawar Group of Mines participated with great enthusiasm, showcasing not only their sportsmanship but also their shared commitment to environmental protection.

### **#SafetyScript - Because Every Script Can Save A Life**

We at Hindustan Zinc believe that safety is about creating an environment where people, property, and the surroundings are well-protected and cared for. It's about being mindful and prepared in everyday situations—at work, on the road, or at home. True safety also means psychological well-being, where individuals feel respected, heard, and empowered to speak up.

#### Why Safety is Important:

- Protects Lives: Reduces risk of injury, illness and fatal accidents.
- Prevents Harm: Shields people from physical, psychological and health-related issues.
- Boosts Productivity: A safe & psychologically secure environment leads to better focus and efficiency.
- Preserves Assets: Prevents damage to property, equipment and resources.
- **Builds Trust:** Creates confidence and peace of mind.
- Avoids Legal Risks: Minimizes chances of fines, lawsuits and penalties.



### COMMUNITY

### Securing a Better Tomorrow

### **Biodiversity Day!**

#### Hindustan Zinc signs an MoU for Crocodile Conservation Reserve in Udaipur

Hindustan Zinc has signed a Memorandum of Understanding (MoU) with the Department of Forest, Udaipur, to rejuvenate the 400-hectare Baghdarrah crocodile conservation reserve in Kaladvas, Udaipur. The MoU, signed in the presence of Mr. Arun Misra, CEO, Hindustan Zinc, and Mr. Sunil Kumar Singh, Deputy Conservator of Forest, Wildlife, Udaipur, aims to restore the habitat for marsh crocodiles and 200 bird species through afforestation, water conservation, and eco-friendly visitor facilities. With an investment of ₹5 crores, this initiative aligns with our commitment to the United Nations Sustainable Development Goal 15 – Life on Land.

#### Leading green development at Rajpura Dariba Biodiversity Park

**5** LIFE ON LAND

We have developed a dedicated Biodiversity Park at our Rajpura Dariba Mines, rejuvenating over 10 hectares of land with more than 50,000 plants from 42 native species. Recognized by the Confederation of Indian Industry (CII), the park adopts the Miyawaki plantation technique for creating dense, fast-growing native forests, reinforcing our commitment to sustainable afforestation practices.

### tion waki ving to



#### Green growth through groundwater recharge and high-tech nursery at Rampura Agucha Mine

Continuing our efforts to safeguard natural resources, we enhanced groundwater recharge in Bhilwara district by desilting, strengthening embankments, and constructing recharge shafts in four blocks, creating 8.7 billion liters of capacity. Our high-tech nursery at Rampura Agucha's residential colony further rejuvenates waste dumps and nurtures 25,000 plants, supporting biodiversity and ecological restoration.

#### Barren land transformed into a lush green belt at Chanderiya Lead Zinc Smelter

We have launched the second phase of converting 16 hectares of barren land at our Chanderiya Lead-Zinc Smelter into a vibrant green belt. Using the Mycorrhiza technique, which fosters a symbiotic relationship between plants and fungi, the company is enabling vegetation to flourish even in challenging conditions.



#### Zinc News | Community

## COMMUNITY

#### **Shaping Young Minds**

### Summer Camp under Shiksha Sambal Initiative





Continuing its commitment to education and holistic child development, Hindustan Zinc has launched summer training camps benefiting over 1500 students under the Shiksha Sambal initiative across all business units. These camps are nurturing students with expert-led instruction in English, Mathematics, and Science. Beyond academics, they also emphasize skill development, sports, cultural activities, and digital learning to ensure well-rounded growth.





Chanderiya Lead Zinc Smelter

Rajpura Dariba Complex

### **Reviving Roots, Empowering People: Hindustan Zinc's Artistic Movement**

- In collaboration with artisan networks and NGOs, the company has established a block printing unit in Ajmer and launched an Ajrakh printing initiative both supporting its homegrown textile brand, Upaya.
- We actively promote **performing arts** through music platforms like the Vedanta Udaipur World Music Festival, Srajan - The Spark and Smritiyaan.
- Sakhi Utsav 2025 celebrated over 7,000 women through cultural and awareness activities across locations. Further, through our social impact project Sakhi we empower over 25,000 women via more than 2,000 Self Help Groups, contributing to our impact on 2 million lives across nearly 4,000 villages.



#### Zinc News | Community

### **SPORTS**

# Zawar Group of Mines Hosts Badminton Tournament Smash & Rally!



The much-awaited Zawar Badminton Tournament has concluded in style, leaving the courts echoing with cheers, laughter, and the thwack of shuttlecocks. Played across various categories—including Men's Singles, Women's Singles, Men's Doubles, Mixed Doubles, and even a Children's category—the tournament was a celebration of sportsmanship, teamwork, and community spirit.





The finals brought out the best in our players, with spirited rallies and fierce determination on display. The prize distribution ceremony was held amidst much fanfare, recognizing the champions and participants who made this event a true success. From friendly competition to unforgettable moments, the tournament underscored the vibrant spirit of Zawar!



**Zinc News | Sports** 

### **SPORTS**

# Foundation for a Stronger Footballing Ecosystem Grassroots Football Day!



Zinc Football Academy successfully celebrated Asian Football Confederation (AFC) Grassroots Football Day 2025 on 23rd May at Zawar Stadium. Over 100 children from nearby communities like Padla, Zawar, Tidi, Seengatwara, and Zawar Mines joined in the fun.



The day was filled with exciting games and football-based activities, capturing the spirit of childhood, community, and untapped potential. This initiative aimed to promote the values of grassroots football, highlight its long-term benefits, and build a strong foundation for the game's growth. By engaging children in structured play, the event supported skill development, active participation, and a stronger football ecosystem for the future.



Zinc News | Sports



### **Setting Industry Benchmarks with Prestigious Awards**

### Hindustan Zinc triumphs in



### **RISK MANAGEMENT EXCELLENCE**

at the CNBC-TV18 Masters of Risk Awards!



## LIFE AT HZL

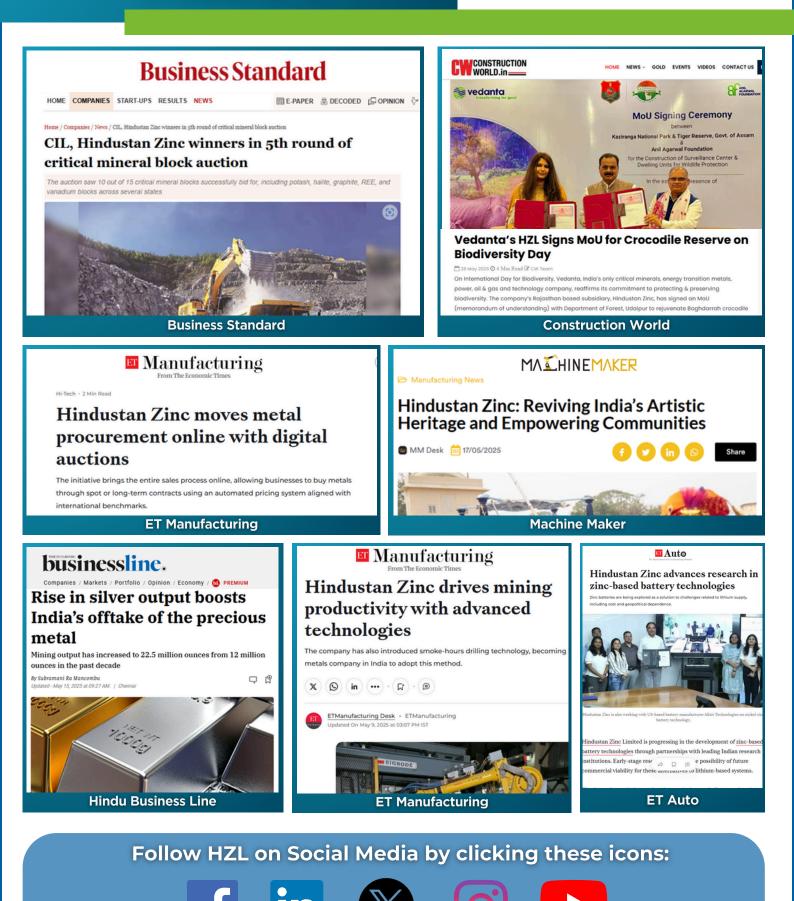


### **From Foundations to Fun**

Inauguration of Children's Park at our Zinc Smelter Debari



### MEDIA



Zinc News | Media

### **BEYOND THE DESK**

Meet Yuvraj Bhadaktiya from Zawar CPP, whose passion for photography captures the essence of Zawar - its natural beauty and the spirit of our operations.





Have a creative side? Share it with us at sheen.raina1@vedanta.co.in to get featured!