

# ZINC NEWS

MONTHLY HOUSE JOURNAL OF HINDUSTAN ZINC

VOL 44 | ISSUE 6 | JUNE 2024



**COVER STORY:**  
**ZINC BATTERIES POWERING CRITICAL SECTORS**

## ISSUE FOCUS

**Focus Story: 03**

Hindustan Zinc hosts Investors and Analysts at Rajpura Dariba Complex

**Special Feature: 06**

Announcing Financial Support for Higher Education of Transgender Employees

## ZINC BATTERIES POWERING CRITICAL SECTORS

The global battery market is expected to expand from 800 GWh in 2023 to approximately 4000 GWh by 2030, with a projected CAGR of 25% across stationary and mobility applications. Zinc-based batteries are anticipated to decrease the global energy market's reliance on specific regions where minerals and processing, such as lithium. We have been closely monitoring developments in this field and have taken a significant step by signing an MoU with Aesir Technologies, Inc.



Under this MoU, we will be the preferred supplier of zinc, a critical raw material for these cutting-edge batteries. Our high-quality zinc will be used in their next-generation zinc battery technologies. NiZn batteries will be used in high-end defense sector (including aerospace and submarines), renewable energy and critical infrastructure for data centres and 5G telecom.

Additionally, Zinc based batteries offer a compelling alternative to modern energy storage solutions, delivering higher power at lower costs, with minimal maintenance and lifespans of up to 20 years.



**Arun Misra**  
CEO - HZL

*"Zinc has a vital role to play in the low-carbon future, and I'm pleased to share that Hindustan Zinc has signed an MoU with US-based AEsir Technologies to advance the use of zinc in next-gen battery tech. This is yet another step in our ongoing developmental work in the clean technology space, and through this partnership, we are opening new avenues of zinc's critical usage in the ongoing global energy transition. Here's to a safe & sustainable tomorrow."*

**Our Zinc will now be  
used in Nickel Zinc Batteries**





## HINDUSTAN ZINC HOSTS INVESTORS AND ANALYSTS



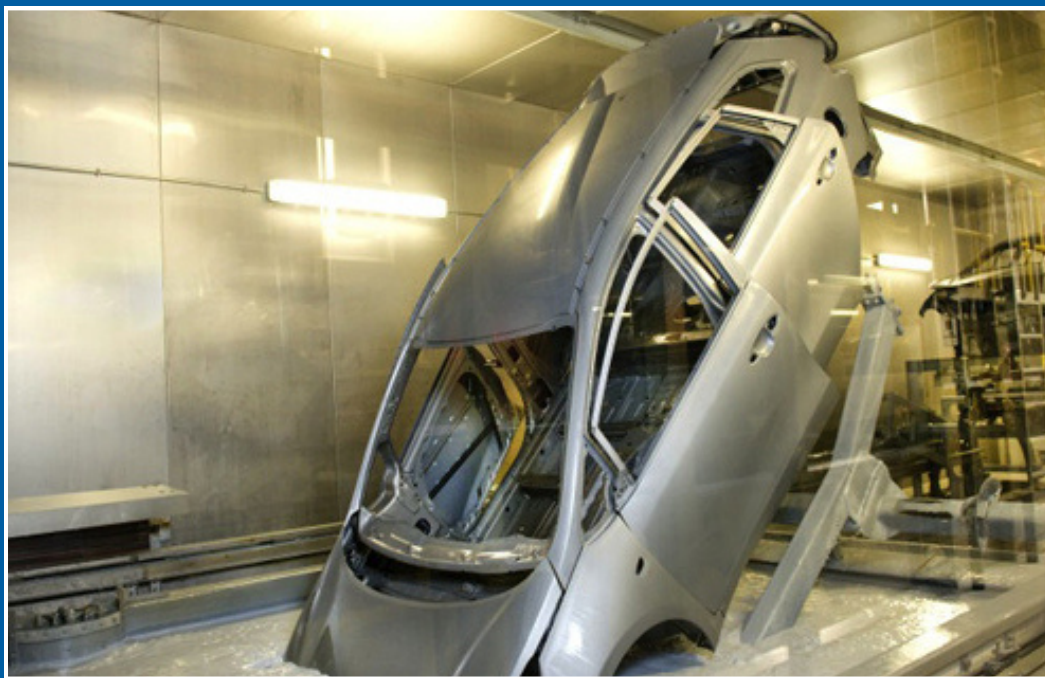
Hindustan Zinc hosted investors and analysts from leading financial institutions at our Sindesar Khurd Mine and Dariba Smelting Complex, the epicenter of our world-renowned zinc, lead and silver operations. Our guests witnessed cutting-edge innovations, superior products, and our unwavering commitment to sustainability. The day was marked by insightful discussions and the strengthening of collaborations, representing a significant step towards forging new partnerships.





## 1 DAY TO GO! HINDUSTAN ZINC TO PARTICIPATE IN THE 4th ACMA RAW MATERIAL CONCLAVE, DELHI

You can find us at the 4th ACMA – Automotive Raw Material Conclave and Exhibition on Non-Ferrous Metals on the 3rd of July, 2024. We are at the forefront of automotive innovation with our cutting-edge products, as we unveil the Future of Mobility. We will be showcasing our unique offerings for the automotive industry at the event. The event promises to showcase the latest advancements and trends in the automotive industry, highlighting the significant role of non-ferrous metals in driving sustainable and efficient mobility solutions.



## HINDUSTAN ZINC RECOGNIZED FOR BEING RAJASTHAN'S 2nd HIGHEST TAXPAYER

Hindustan Zinc has been recognized for being Rajasthan's 2nd highest taxpayer by Rajasthan GST Department. The company was felicitated during the celebrations on completing 7 years of GST. We continue to remain committed towards fostering economical and sustainable growth, ensuring India achieves its goal of #ViksitBharat by 2047.



## OLÁ! OUR ZINC IS NOW SUPPLIED TO BRAZIL



Our global reach extends to over 40 countries across Southeast Asia, the Middle East and now South America with our expansion into Brazil. We are providing Special High Grade Zinc for automotive and steel galvanization in Brazil. Among our esteemed customers is Brazil's largest fully integrated steel producer. We are committed to establishing a high-end global presence in new markets.

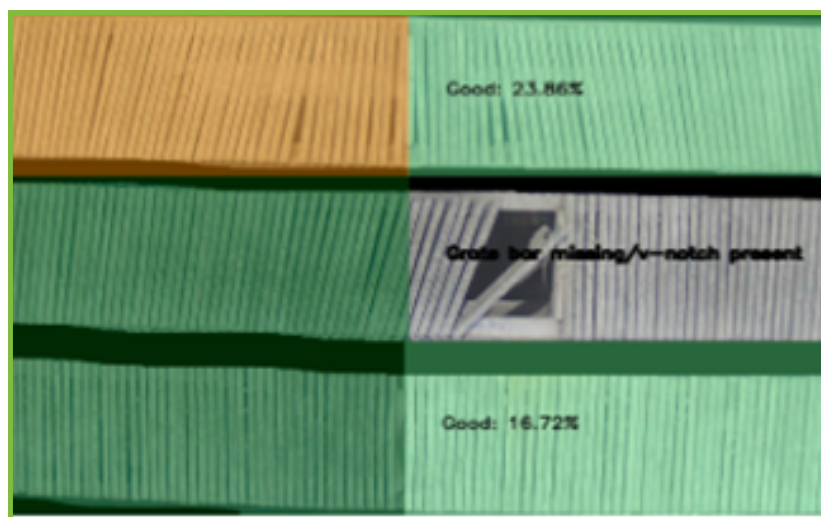


## REAL - TIME ONLINE TEMPERATURE MONITORING FOR ENHANCED EFFICIENCY

As part of digitalizing our operations, we have introduced a new technology that allows online temperature monitoring system for cells that offer precise visualization of cell numbers, electrode positions (Cathode and Anode) and temperatures directly on the computer screen. With real-time alerts and detailed reports, immediate rectification of hot and cold spots is possible, ensuring optimal performance.



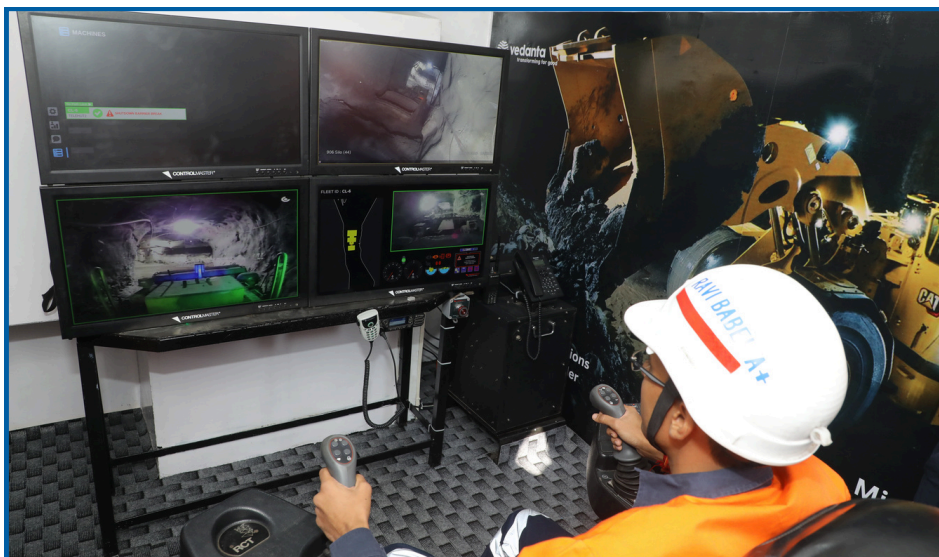
## COMPUTER VISION-BASED SINTER BELT HEALTH MONITORING



A sinter machine consists of a series of pallets where concentrate with fluxes is placed, and the bottom layer is ignited using fuel. Fans blow fresh air from below, carrying the flame across the bed and sintering the ore into lump form. We have developed a computer vision-based model to monitor and analyze the health of the sinter belt conveyor, detecting pellet spacing and indicating conveyor health. This ensures uniform oxidation of zinc/lead sulphide concentrates, reducing sulphur content in the sinter product. Additionally, it has extended the ISF campaign life by 0.25 days per month.

## TELE-REMOTE OPERATIONS OF LOADER

Using tele-remote operations, the loader can be controlled from the surface, ensuring efficient and safer mining during shift changes. This reduces idle time and increases machine utilization for continuous, round-the-clock operations. This technology allows the operator to control the machine remotely using multiple cameras, sensors, and communication systems. This smart technology maximizes loader utilization & ensures ergonomic and safe operation during shift changes.







## ANNOUNCING FINANCIAL SUPPORT FOR HIGHER EDUCATION OF TRANSGENDER EMPLOYEES

In a groundbreaking move towards inclusivity, Chairperson Priya Agarwal Hebbar unveiled the new 'Financial Support for Higher Education of Transgender Employees' policy at Zinclusion, offering up to INR 1 Lakh to support them. Currently, 16 transgender individuals are in mainstream roles, integrating this community and fostering a safe environment. Our hiring for mainstream jobs, ongoing employee sensitization sessions, and supportive workplace policies make us a Great Place To Work.



The Zinclusion event featured a panel discussion on 'Challenging Barriers, Fostering Inclusivity,' with insights from Chairperson Priya Agarwal Hebbar, CEO Arun Misra, CHRO Munish Vasudeva, and Zainab Patel, Diversity, Equity, Inclusion, Belonging (DEIB) leader at Cummins Inc. Zainab shared her experiences as a transgender community leader who reshapes norms for an inclusive workplace where diverse talents thrive. The session also saw parents of transgender employees sharing their pride at seeing their children thrive at Hindustan Zinc. All Vedanta Business Units joined this event virtually. At Hindustan Zinc diversity is a core value, empowering every individual to achieve excellence. Every single day.





## CELEBRATING THE SPIRIT OF WOMEN IN MINING



Honoring the trailblazing women transforming the mining industry! From India's 1st underground women mine manager to the 1st all-women underground mine rescue team, Hindustan Zinc celebrates the incredible achievements and spirit of our women in mining. With about 22% women in our executive workforce, we strive for equal representation and aim to maintain 30% diversity across all management committees.



Zawar Group of Mines



Rajpura Dariba Complex



Rampura Agucha Mine



Rajpura Dariba Complex



## ZINC PARIVAR CELEBRATES INTERNATIONAL YOGA DAY

Celebrating #InternationalYogaDay, Zinc Parivar from across locations united to embrace the spirit of yoga with dynamic sessions that energized the bodies and uplifted the souls.



Head Office Udaipur



Zawar Group of Mines



Kayad Mine



Rampura Agucha Mine



Rajpura Dariba Complex



Zinc Smelter Debari



Chanderiya Lead-Zinc Smelter



## COMMITTED TO CONTINUOUS IMPROVEMENT

As part of an ongoing commitment towards upskilling and #transformingtheworkplace, we organized a 4-day training program on Statistical Tools in collaboration with the Indian Statistical Institute, Kolkata. This program focused on statistical methods such as regression analysis, hypothesis testing, control charts, and their application in problem-solving through a data-driven approach. Graced by the senior leadership team, our commercial, central planning, AO leads, and reliability teams also attended the session.



## TRANSFORMING HEALTH CARE FOR ZINC PARIVAR

In our continued efforts to further improve community healthcare and well-being, Zinc Smelter Debari inaugurated the renovated hospital lab and physiotherapy room. Chief Medical Officer HZL - Dr. Salma Shah inaugurated the renovated lab in the presence of Deputy CEO - IBU Smelters, HZL - Mr. Manas Tyagi, Deputy SBU Director, Zinc Smelter Debari - Mr. Ameet Wali along with senior management and employees.



## #WOMENINLEADERSHIP DEVELOPMENT PROGRAM: EMPOWERING FUTURE LEADERS

To nurturing leaders from within and empowering our women talents to ascend to leadership positions, we collaborated with Gallup to conduct an impactful Leadership Development Program for 40 women leaders. This power-packed event centered around transformative themes of Building Leadership Brand, Driving High Performance Teams, and Mastering Resilience & Wellbeing as effective leaders to thrive in the workplace.





## A BIG JOURNEY THAT BEGAN WITH SMALL STEPS IN ZINC CITY

Our women-led dairy, Ghatawali Mataji Farmer Producer Company (GMFPO), has made an incredible impact in Zinc City. Achieving Rs. 1 Crore turnover in FY 2023-24, marking a two-fold increase from Rs. 54 Lakh in 2022-23. GMFPO processes & markets milk under the brand name Gauam. Their products include fresh milk, cream-based ghee, A2 Biloni Ghee, curd, buttermilk, paneer, mava and khoya. The products are available both offline and online, ensuring widespread access. Shop now from Amazon!



## ZINC SMELTER DEBARI INAUGURATES A BRAND-NEW RESTAURANT IN EMPLOYEES' COLONY



Zinc Parivar Debari unveils an all-new restaurant, designed to foster friendships and create lasting memories beyond the workplace. In our continuous effort to #TransformingWorkplace, ZSD's senior management, along with Deputy CEO, IBU Smelter, HZL - Mr. Manas Tyagi, and Deputy SBU Director, Zinc Smelter Debari - Mr. Ameet Wali, inaugurated the newly constructed restaurant in Zinc Smelter Debari Colony.

## BLOOD DONATION CAMP - SHARING THE PRECIOUS GIFT OF LIFE, ONE DROP AT A TIME!

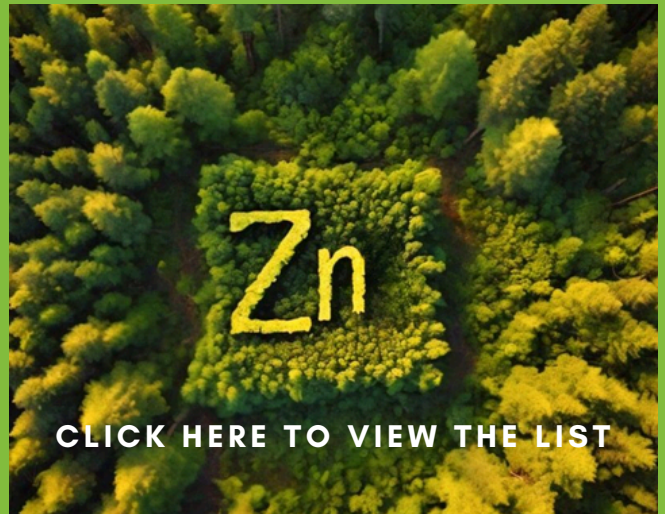
On the occasion of World Blood Donor Day, we collaborated with Red Cross Society to organize a Blood Donation Camp at HZL Dispensary, Udaipur. This heartwarming event saw the generous contribution of 32 units of blood, showcasing the community's spirit of giving. The event was honored by the presence of distinguished guests, including District Collector - Mr. Arvind Poswal, Deputy CEO - HZL, Mr. Krishnamohan Narayan, CHRO - Hindustan Zinc, Mr. Munish Vasudeva and Chief Medical Officer - HZL Dispensary, Dr Salma Shah.





## HINDUSTAN ZINC HAS BEEN NAMED ON TIME'S WORLD'S MOST SUSTAINABLE COMPANIES 2024 LIST!

At Hindustan Zinc, sustainability isn't just a choice—it's our foundation. Our zinc and silver metals play a critical role in the global energy transition and clean technologies like renewable energy, electric vehicles and energy storage solutions. We are committed to ensuring India's sustainable growth by providing essential raw materials that enhance infrastructure life, protect against corrosion and support the development of green technologies. Recognized as the world's most sustainable company in metals & mining sector by S&P Global Corporate Sustainability Assessment 2023, we foster a green value chain from operations to applications. Click here to view the list: <https://lnkd.in/d3QZPFC8>



## HINDUSTAN ZINC JOINS PICHOLA LAKE CLEANING DRIVE



Our Employees participated in the cleaning of Pichola Lake organized by Rajasthan State Pollution Control Board.

## ELEVATING SAFETY STANDARDS AT ZINC SMELTER DEBARI

At Hindustan Zinc, safety transcends protocol; it's ingrained in our ethos. Demonstrating our continuous focus on real-life simulations and commitment to effective response and prevention, Zinc Smelter Debari recently organized a Work at Height Rescue Mock Drill, simulating a rescue from scaffolding at a height of 10 meters. This drill showcased our preparedness and dedication to ongoing improvement in safety practices. Here's to reaching new heights and achieving many more safety milestones.





## ZINC FOOTBALL PLAYERS CALLED UP FOR FIFA-AIFF ACADEMY TRIALS



## UNLEASHING BRILLIANCE, NURTURING DREAMS FOR 1400+ STUDENTS



The month-long Shiksha Sambal Summer Camp concluded on a high note, impacting over 1400 students from communities around our operational areas with a rich blend of educational, skill development, sports, and cultural activities. The camp culminated in a vibrant cultural program, spotlighting the hidden talents of participants and providing a platform for their creativity to shine.

## EMPLOYEE-LED SESSIONS ILLUMINATE YOUNG MINDS OF GOVERNMENT SCHOOLS

A 15-day long summer camp was organized at the Senior Secondary School, Bhallo Ka Guda where our employees took sessions on mental wellbeing, self-defense and career opportunities in the armed forces. Dr. Sumeet Siroya, Chief Medical Officer, Zinc Smelter Debari enlightened over 150 students on the importance of mental wellbeing and happiness while Major Raviraj Pullabhatla, Chief Security Officer, ZSD guided the students on potential career paths in the armed forces.







FICCI honored us with the 2nd FICCI Sustainable Industrial Practice Award in the large industry category, while CDP recognized our (A-) Leadership Band for our efforts toward climate change and water security.



Pantnagar Metal Plant Wins 4 Gold Awards at 3rd Kaizen Competition by Quality Circle Forum of India (QCFI) Rudrapur Sub Chapter

Hindustan Zinc wins awards at People First HR Excellence Awards for the following categories



**Employee Engagement**



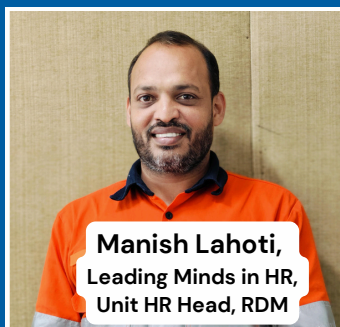
**Technology Deployment in HR**



**Talent Acquisition**



**Ritika Singh,**  
HR Future Leader  
Unit HR Head, PMP



**Manish Lahoti,**  
Leading Minds in HR,  
Unit HR Head, RDM



**Nikesh Dadhich,**  
People First Leader  
Unit HR Head, KYM



**Garima Kothari,**  
People First Leader,  
Unit HR Head, ZWM

Furthermore, our Unit HR Heads were awarded for their exemplary performance at respective units.



Hindustan Zinc wins two awards, Best Risk Practice and Masters of Risk in ESG, both in the Large-Cap category at the India Risk Management Awards by CNBC TV18.



## “IoT is helping us monitor and reduce mining emission levels”

With a wealth of experience and expertise, C Chandu, CEO - Smelter, Hindustan Zinc Limited (HCL), has been instrumental in steering the company towards technological advancements and operational excellence. In an exclusive interview with **Aanchal Chahal**, he discusses the innovative approaches adopted by HCL, exploring its evolution from traditional smelting methods to the integration of cutting-edge technologies such as the Internet of Things (IoT), drones, and Artificial Intelligence (AI). Excerpt:

**Please share an overview of HCL's smelting facilities, including their locations and distinctive features.**  
Hindustan Zinc operates smelting facilities across Rajasthan, with smelters in Chanderdih, Garha, and Debari, alongside zinc-lead-silver metal refineries in Parangarh, Uttarakhanda. Since its commencement in 2002, the company has witnessed a five-fold increase in its zinc, lead, and silver metal production capacities, with the current capacity exceeding 11 million tonnes per annum compared to 2.54 million tonnes per annum in 2002.

The Chanderdih Smelting Complex in Chittorgarh district is the world's second-largest single location integrated zinc smelting complex, boasting a production capacity of 15.5 million tonnes and a production capability of 85,000 tonnes per annum. It is complemented by captive power plants generating 234 MW and additional green power through waste heat recovery boilers. The Debari Smelting Complex in Rajasthan district has a capacity of 250,000 tonnes of zinc and 125,000 tonnes of lead per annum. Notably, it is self-sufficient

HCL has embraced IoT, drones, and AI to enable precise process control, real-time data collection, and efficient facility monitoring and inspection.

**Voice & Data**



## India Inc. Leads Land Restoration For People, Planet And Profits

As the world focuses on land restoration, corporates are stepping up to address environmental challenges, balancing economic growth with ecological sustainability. A World Environment Day special



By Naina Gautam

**T**his year's World Environment Day, themed by the United Nations, focuses on land restoration. India, a country with vast land resources, is stepping up to address environmental challenges, balancing economic growth with ecological sustainability. A World Environment Day special

SDGs, particularly SDG 15, which aims to "protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, conserve and enhance biodiversity and safeguard freshwater ecosystems". This is where the role of corporates becomes crucial. Beyond their primary role in generating revenue, they are increasingly responsible for restoring the land they operate on. Just as land restoration has been a crucial issue for the UN Convention to Combat Desertification in 1994, India has been a signatory to the UN Convention to Combat Desertification in 1994, and has been actively participating in the National Afforestation Programme, launched in 1990, to increase forest cover in the country to 33.33%, an addition of 4.47 lakh hectares, and protect areas now under about 4.4% of the country's total land area.

**Outlook Planet**

## Hindustan Zinc and US-based AESir Technologies join hands for developing Zinc batteries

Last Updated: Jun 21, 2024, 12:37:00 PM IST

Hindustan Zinc AESir Technologies

### Synopsis

Hindustan Zinc Limited signed an MoU with AESir Technologies Inc, a US company specialising in Zinc battery technologies. Hindustan Zinc will supply Zinc to AESir for Zinc-based batteries, offering higher power at lower costs with longer lifespans. This partnership aligns with Hindustan Zinc's focus on sustainable metal production for the global energy transition. AESir's Nickel Zinc batteries are used in defence, renewable energy, and critical infrastructure.



Hindustan Zinc Limited signed an MoU with AESir Technologies Inc

India's largest Zinc producer, **Hindustan Zinc Limited** on Friday signed a memorandum of understanding (MoU) with **AESir Technologies Inc**, a US based company that specialises in Zinc battery technologies. The producer will supply Zinc to AESir Technologies under the MoU.

**Economic Times**

## Championing zinc sustainability and Innovation for a greener future

Zinc sustainable use drives India toward a prosperous, ecofriendly future as a key material.

By STAT NEWS | June 22, 2024 | SHARADHA



**Manufacturing Today**

## Over 600 women employees in core operations at Hindustan Zinc

Vedanta group firm Hindustan Zinc on Monday said the company's workforce includes over 600 women employees in core operations. The company is spearheading transformations in its mining operations with over 200 women mining engineers.



Hindustan Zinc is also home to the country's first women mine managers working in underground mines.

New Delhi, Vedanta group firm Hindustan Zinc on Monday said the company's workforce includes more than 600 women employees in core operations. The company is spearheading transformations in its mining operations with over 200 women mining engineers.

**ET HR World**



**Pratahkaal**

## India Inc's CSR spends on sports likely to surge in next few years

Jan Kabra Samvahi, ET Bureau - Last Updated: Jun 26, 2024, 03:41:00 PM IST

Hindustan Zinc

### Synopsis

The foundations of several companies, such as the Reliance, Tata Steel, JSW, Hindustan Zinc and SKF India, have been supporting sports as part of their corporate social responsibility (CSR) commitments. However, the data on whether there has been an increase in the CSR spend on sports and by which companies is not available. This is due to an MCA modification in September 2022 that no longer requires companies to disclose details of their CSR spends but only the total spends towards CSR.



ET Intelligence Group: As the Indian contingent is gearing up for participating in the **2024 Olympics** in Paris next month, companies that have been supporting the athletes would be keenly following their performances.

The foundations of several companies.

**Economic Times**

## पर्यावरण संरक्षण के लिए सक्रिय योगदान देना होगा: एडीजे



**Dainik Bhaskar**

## हिन्दुस्तान जिंक के सहयोग से संचालित किसान उत्पादक कंपनी बनी सशक्तिकरण की मिसाल

Udaipurnews.com | Jun 1, 2024



**Udaipur Times**

## शिक्षा संबल के विद्यार्थियों का उत्कृष्ट रक्ष परिणाम



**विद्यार्थी:** हिन्दुस्तान जिंक द्वारा छात्रों के लिए चलाए जा रहे शिक्षा संबल कार्यक्रम के विद्यार्थियों का राजस्थान माध्यमिक शिक्षा बोर्ड द्वारा घोषित दसवीं कक्षा का परिणाम उत्कृष्ट रहा। वर्तमान में इस कार्यक्रम में कक्षा छह से 12वीं तक के आठ हजार विद्यार्थी लाभान्वित हो रहे हैं। हस्त ही में घोषित माध्यमिक शिक्षा बोर्ड दसवीं के परिणामों में 91 प्रतिशत विद्यार्थी उत्तीर्ण हुए। जिनमें से 37 प्रतिशत प्रथम श्रेणी प्राप्त हैं। 66 राजकीय

**Dainik Bhaskar**

## हिन्दुस्तान जिंक के समर कैम्प का समापन



**Dainik Navjyoti**

Follow HZL on Social Media by clicking these icons:

