



ELEMENTAL

Vedanta Aluminium Business' Monthly Newsletter

Building sustainable cities with Aluminium, the Metal of the Future

Vedanta dedicates two COVID Hospitals to Odisha

Vedanta has developed state-of-the-art COVID Hospitals at Kalahandi and Deogarh in partnership with the Government of Odisha. With 300 critical care beds, 28 Intensive Care Units, 48 High Dependency Units and two Paediatric COVID Wards, we aim to bolster Odisha's medical infrastructure and aid the state's efforts to provide timely and proper care to the critically ailing patients.



IN THIS ISSUE

HIGHLIGHT

Vedanta dedicates 2 COVID hospitals to Odisha

HSE & SUSTAINABILITY

Sustainability Highlights of FY21

DIGITAL & INNOVATION

Smart Logistics

COMMUNITY & US

Teleconsultation for communities

EVENTS & AWARDS

Triple Gold for Energy Management

MEDIA

Odisha: Aluminium Capital of the World

Vedanta Aluminium Business recycles 16.5 billion litres of water in FY21

Vedanta Aluminium Business has recycled 16.5 billion litres of water in FY 20-21, leveraging technology for focused control and monitoring of water consumption. The water saving projects across its Alumina Refinery, Aluminium Smelters and Power Plants have alone resulted in water conservation to the tune of 700 million litres.

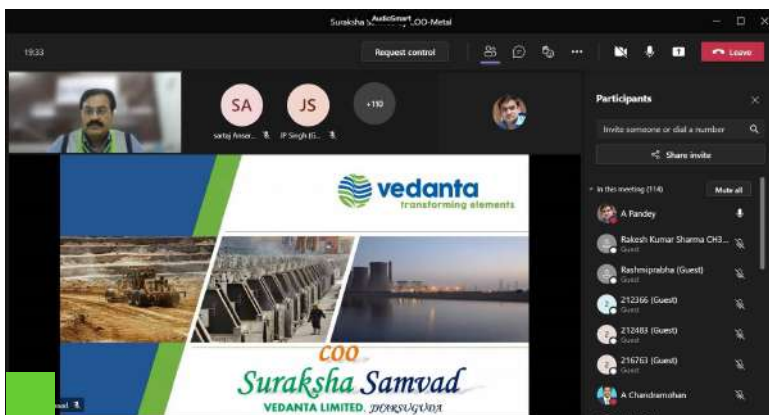


Reducing Carbon Footprint Through Next-gen Technology

Our subsidiary BALCO is leveraging next generation technology to make its manufacturing process sustainable and reducing carbon footprint. It has reduced power consumption in Potline 1 to 12,862 KWH/MT, the best performance amongst potlines in India and the Gulf countries in terms of specific power consumption.

21% Reduction in GHG Emission Intensity From 2012 Baseline at Aluminium Business

Our Aluminium Business has been able to achieve 21% reduction in GHG emission intensity from 2012 baseline. In line with the Vedanta Group's commitment to substantially decarbonize our operations by 2050, we are committed in our efforts to explore and adopt solutions to minimize the carbon footprint across our operations. Our climate impact reduction targets and initiatives are in complete alignment with the goals of Paris Agreement and the Nationally Determined Contributions (NDC) submitted by the Government of India.



Suraksha Samvad Safety Community Program Launched

We have launched 'Suraksha Samvad', a virtual safety meet, at our Jharsuguda plant. Suraksha Samvad provides a structured platform for our senior leadership to directly interact with shop floor employees on safety facets of work being undertaken, identification of critical areas and their control.

Model Predictive Control (APC)

When faced with interdependent complex processes with constrained raw material availability, our team at Vedanta Lanjigarh came up with the idea to combine multivariate analysis, predictive analysis and advisory sensor, to reduce steam and caustic consumption, improve throughput and reduce process variability.



Mobile Application for Smart Logistics Inside the Plant

BALCO has launched a mobile app for optimization of internal technological vehicle utilization, using RFIDs and soft GPS features using IOT. This application will provide a digital platform for tracking industrial heavy vehicles used for operational and maintenance activity inside the plant premises.

Green Innovation: Old Petrol Bike Converted Into E-bike

Our talented Vehicle Maintenance Team at Jharsuguda has leveraged in-house engineering and innovation capabilities to convert an old and defunct petrol-fuelled motorbike into an e-bike. This innovative salvage is in line with Vedanta's focus to reduce carbon footprint by promoting the 3Rs – reduce, reuse, and recycle – of waste management. The new eco-friendly e-bike carries with it the benefits of low maintenance, no fossil fuel consumption, and zero pollution, and will be used by our Security Team for patrolling.



Creation of Remote Switching for High Voltage Outgoing Feeders

At our Lanjigarh plant, high voltage switching was being carried out manually, with people standing within the arc flash region of the feeders. Looking at the safety risk, our team developed a remote switching device using control plug sockets, which will allow our people to operate and control the feeder at a distance of 10m from arc limit.

COVID Vaccination Camp for Community

Vedanta Aluminium has organized COVID vaccination camps at Maa Samaleshwari Nagar and a school for specially abled children at Jharsuguda, vaccinating over 200 people in the process. Under the Vedanta Cares COVID Vaccination Drive, more than 30,000 people including employees, business partners and their families, have been vaccinated till date.



Nand Ghar Team Develops Teleconsultation Facility for Community

Our Nand Ghar team at Lanjigarh has come up with an innovative solution whereby patients from the community can consult specialist doctors in their region simply by dialing a toll-free number. Prior to consultation, patients can get themselves screened through the dedicated help desk agents who are qualified nursing professionals.

Vedanta Supported ICU Facility at Jharsuguda COVID Hospital Inaugurated

Vedanta has supported the ICU facility at Jharsuguda's District COVID Hospital with essential medical equipment, such as 20 ICU beds, 20 ventilators, 200 oxygen flowmeters and 2000 N95 masks. The newly ramped up ICU was inaugurated by Shri. Naba Kisore Das, Hon'ble Minister – Health & Family Welfare, Govt. of Odisha at a virtual ceremony, in the presence of other eminent dignitaries of the region.



International Yoga Day Celebrations

Our Nand Ghar celebrated International Yoga Day with beneficiaries of 35 Nand Ghars of Kalahandi, Rayagada and Dhenkanal districts in Odisha, covering nearly 480 people in the process. Through these sessions, they demonstrated various types of Yoga & Pranayam and sensitized them on the importance of Yoga.



Campus Connect with IIM Sambalpur & IIT Bhubaneswar on Business Sustainability



Virtual pavilion at AICircle EXPO 2021, the world's largest Aluminium Expo

Glimpses of COVID Hospital Inauguration at Kalahandi & Deogarh, Odisha



Awards Galore for Vedanta Jharsuguda



Triple win at SEEM National Energy Management Award (SNEMA) - 2020

- Gold Award - Smelter I
- Gold Award - Smelter II
- Gold Award - CPP 1215 MW

Double wins at Thermal Power Plant Operation & Maintenance Conference 2021:

- Winner in >500 MW category - TPP 2400 MW
- Winner in <500 MW category - CPP 1215 MW

Click on the stories to read more!

TIMES OF INDIA

GEOXCHANGE

DRY CARGO INTERNATIONAL

ODISHA: ALUMINIUM CAPITAL OF THE WORLD

With the aluminium industry deemed a 'Champion Sector' by the Government of India, Odisha has a crucial role to play in propelling India's journey towards a \$5 trillion economy, states **Rahul Sharma**

TRANSFORMING LIVES
The aluminium industry in Odisha is not just a source of employment but also a catalyst for socio-economic development. It has led to the growth of infrastructure, education, and healthcare in the region. The industry has also led to the development of a skilled workforce, which is a key to the state's economic growth.

ODISHA CALLING
Odisha is calling for investment in the aluminium industry. The state government is offering incentives and subsidies to attract investors. The industry is also looking for partnerships with global players to enhance its production capacity and efficiency.

A VIBRANT ECOSYSTEM
The aluminium industry in Odisha has created a vibrant ecosystem. It has led to the growth of ancillary industries, which are providing employment to a large number of people. The industry is also contributing to the state's GDP and is a key sector for the state's economic growth.

Lakshya Arora in conversation with Mr. Rahul Sharma, Dy. CEO - Aluminium Business, Vedanta Ltd.

On environment, four, surface-mining operations for bauxite is among the most eco-friendly and sustainable operations. As it involves extraction of bauxite ore from the surface and upper layer of the mine, without having to dig deep trenches for extracting the ore. Sustainable mining operations have become the norm, and Indian aluminium producers have adopted efficient methods of extracting the ore without minimal effect on the eco-system or the communities.

Land with rich bauxite reserves is mostly barren and unutilized. After the mined-out zone is reclaimed by landfills, the topsoil is brought back to the original ground level. Today, the mining community includes extensive re-greening of the mined land and proactive participation in the socio-economic development of communities around. There are significant opportunities to implement technology driven scientific mining techniques in bauxite mining in India as most of India's bauxite reserves are located on a single plateau, making bulk open cast mining possible. There are enough examples in Odisha and Chhattisgarh where mining operations are conducted efficiently without affecting the economic and social dividends for all stakeholders - the state, the organizations, the local communities, and the nation.

1. What is the aluminium mining process and how is it benefited?
Bauxite is the ore of aluminium, and one of the most abundant minerals on the earth's crust. Bauxite undergoes chemical refining to produce alumina (aluminium oxide), which then undergoes electrolytic reduction to produce pure aluminium.

2. How is the aluminium mining process conducted efficiently without affecting the economic and social dividends for all stakeholders - the state, the organizations, the local communities, and the nation?
Bauxite is mined through the surface mining techniques. Deposits of bauxite are located by geologists through a process known as prospecting. This process involves sourcing core samples or drilling the soil which might contain bauxite ore. Analysis of the core samples help in determining the quantity and quality of the bauxite. Following the discovery of the ore, bauxite is sourced from open-pit mines.

Infrastructure projects spending to enhance the demand for Metal Industry

Infrastructure projects spending to enhance the demand for Metal Industry. The report highlights the significant role of infrastructure projects in driving the demand for metals. It also discusses the challenges faced by the metal industry and the need for government support to enhance its competitiveness.

Key highlights:
- Infrastructure projects spending is expected to increase significantly in the coming years.
- This will lead to a surge in demand for metals, particularly steel and aluminium.
- The metal industry is facing challenges such as high energy costs and environmental regulations.
- Government support is needed to enhance the industry's competitiveness and to meet the growing demand.

CONSTRUCTION & ARCHITECTURE UPDATE

TND INDIA

METAL WORLD

Aluminium, the Metal of the Future, for Building a Modern India

Aluminium is the second most used metal in building today and will continue to be so. It is a versatile material that can be used in a wide range of applications. It is also a sustainable material that is easy to recycle. Aluminium is a key material for building a modern India.

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We Are Working On Application-Centric Customizations For The Power Industry: Vedanta

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- Vedanta is committed to providing high-quality products and services to its customers.

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