

# ELEMENTAL

Vedanta Aluminium Business' Monthly Newsletter



## We reduced carbon footprint of our largest aluminium smelter by 12% in FY22!

We are proud to share that our largest aluminium smelter (located at Jharsuguda, in Odisha) has substantially reduced its carbon footprint by around 12% in FY22 over the previous fiscal, while increasing production volume by 20%. Historically, Vedanta Aluminium has reduced its GHG emissions intensity by 21% in the 2012-21 period, while almost tripling our production in the same period.

- First among Indian aluminium producers to launch low carbon 'green' aluminium, branded 'Restora'
- India's largest consumer of renewable energy in FY22 at 3 billion units
- Planted 4 lakh more trees in FY22
- Ranked 4th on Dow Jones Sustainability Index in 2021

Being India's largest producers of aluminium, we firmly believe in our role as climate action stewards while being industry leaders. We have set ambitious targets for ourselves on our road to Net Zero Carbon by 2050, with the first milestone being 25% reduction in GHG emissions intensity by 2030.



**Rahul Sharma**, CEO - Vedanta Aluminium

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Sustainable Manufacturing Excellence Award

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Jharsuguda trims carbon emissions by 12%







## UN 'Champion of the Earth' Afroz Shah speaks to employees on individual responsibility

We hosted an inspirational dialogue with UN 'Champion of the Earth' Afroz Shah, on 'Individual Responsibility for our Shared World'. A lawyer by profession, Afroz is a globally renowned environmentalist, famous for being the driving force behind the largest beach clean-up (Versova, Mumbai) in the world!

To access the talk, [click here](#).



## Hon' Union Minister Smriti Irani visits our Nand Ghar in Chhattisgarh

Hon'ble Union Minister of Women and Child Development, Smt. Smriti Irani, visited our Nand Ghar at Uparwara in Raipur, Chhattisgarh on World Environment Day. She spent the day with the kids and planted saplings with them. She also appreciated the efforts of Smt. Renuka ji, our Nand Ghar didi, who works relentlessly to ensure that the nutrition needs of children are met.



## Awareness Rally & Cleanliness Drive at Jharsuguda

An awareness rally for the residents of the Vedanta Jharsuguda township was among the many initiatives held at the unit to mark World Environment Day. A cleanliness drive was also organised where employees volunteered to clean the local community areas. More than 4000 saplings were also planted at multiple locations in Jharsuguda. If that wasn't all, painting and quiz competitions were also conducted for children.



## Community awareness campaign on environmental issues

An awareness campaign on environmental issues such as bush fires, water conservation, waste management, etc. was organized by our Lanjigarh team for the local folk. At the event, the community members learned tips & tricks for minimizing personal carbon footprint. Many of them also won prizes in a spot quiz reiterating the learnings from the program.



## Commissioned India's largest Lithium-Ion battery powered electric forklift fleet

India's largest lithium-ion battery powered electric forklift fleet is now proudly operational at our Aluminium Smelter in Jharsuguda! This 'green' fleet can potentially reduce diesel consumption by more than 2.5 lakh litres annually, thereby saving GHG emission of nearly 690 tonnes of CO2 equivalent. The fleet has Smart Fleet Management which uses IoT technology to help ensure the highest levels of safety at site.



## BALCO greenifies its fuel mix with biomass for power generation

Our subsidiary BALCO is greenifying its fuel mix for thermal power generation with biomass briquettes to reduce its reliance on fossil fuel. This initiative has the potential for decreasing BALCO's GHG emissions by 4.3 lakh tonnes of CO2 equivalent annually, in a strong stride towards Vedanta Aluminium's target of Net Zero Carbon by 2050.

## 'Srishti Sanrakshan Sammelan' organised at BALCO on World Biodiversity Day

Several programmes at BALCO were planned in the leadup to World Biodiversity Day. Srishti Sanrakshan Sammelan was aimed at sensitizing employees, business partners, families and the public at large on the importance of and need to conserve biodiversity, even at an individual level. A jungle trail was conducted for children to inform and sensitize them towards the rich biodiversity present around them.



## Bird Conservation Projects kickstarted at Jharsuguda & Lanjigarh

We have embarked on conservation projects for indigenous bird species across our operations. We are constructing bird houses, artificial nests, and bird baths at multiple locations inside our plants and townships. Supplementing the effort, we are developing fruit orchards and gardens with medicinal plants, and reviving butterfly parks.



## Ladle cleaning shop mobile application and dashboard

We have launched a mobile application and dashboard for facilitating smooth operations at Ladle Cleaning Shops (LCS) at our cast houses in Jharsuguda. This is aimed at improving the longevity and fitness of ladles by enabling daily tracking of operational parameters, relining status and turnaround time, thus ensuring effective and efficient shopfloor management and elimination of paperwork.



## First electric tanker piloted for alumina transportation

Vedanta Jharsuguda has added to its growing electric vehicle fleet by piloting the first electric tanker to be used in transportation of alumina. A single tanker can reduce diesel consumption by more than 18,000 litres annually, thereby curbing 50 tons of carbon emission.

## Working smarter with GLASS

We are leveraging smart solutions to improve productivity, operational efficiencies, safety and more. With GLASS, our employees at BALCO are accessing expertise on the go in remote locations. It enables our teams to experience a first-person view of the GLASS wearer's perspective and collaborate with them in real time, thus bringing solutions right where it is needed and fast.



## 'Suraksha Sankalp Kutumbh' - leveraging technology for safety

BALCO's Suraksha Sankalp Kutumbh is an umbrella project for digital transformation of safety. It has 5 modules, including AR, VR and Mixed Reality Training Centre, Video Analytics, Sustainability Mobile App, E-learning course on Safety Modules for Competency Building, and Digitalization of Workforce Connectivity.



## Employees volunteer funds to buy smokeless chulhas (cooking stoves) for communities

Employees from our Lanjigarh unit personally contributed funds to purchase fuel-efficient 'smokeless' chulhas, which were then distributed to 30 households in nearby villages. They also sensitized communities on the need to transition from traditional chulhas (cooking stoves) to cleaner and eco-friendly cooking methods for better health and environmental preservation.



## Sporting gear sponsored for teams in Mo School Hockey Tournament

We sponsored sporting gear for teams participating in the 'Mo School' Hockey Tournament at Jharsuguda, Odisha. The Mo School Abhiyaan is a Govt. Of Odisha initiative to address the needs of school-going children and enable & support schools with adequate infrastructure and technology, so they can provide a wholesome and nurturing environment to children during their formative years.

## Community ponds restoration drive kicked off at Korba, Chhattisgarh

Our employees kicked off the annual cleaning of local water bodies and community ponds, by volunteering for the activity. Every year, we undertake extensive deep cleaning of ponds and local aquatic bodies in the summers so they can be naturally recharged and rejuvenated during monsoons. This helps ensure post-monsoon water availability for household purposes, irrigation and livestock maintenance, while helping maintain general ecosystem balance.



## Storage shed for Farmer Producer Organisation

BALCO has established a storage shed for the Farmer Producer Organisation (FPO) 'Nav Kisan Bahu Uddeshiya Sehkari Samiti Maryadit'. The storage shed-cum-input shop will help over 500 members of FPO with their business and will also benefit local farmers in getting quality input material at lower costs for their agriculture practices.



## World Menstrual Hygiene Day observed across locations

BALCO organized a series of activities such as wall painting, awareness rallies, slogan writing and poster making in commemoration of Menstrual Hygiene Day, under the project Nayi Kiran. At Lanjigarh, awareness sessions for women and schoolchildren were conducted and innovative comics dispelling myths on menstruation were also distributed to the participants.



## Skill training students go on immersion visit to hospitality industry

We took trainee students under our Skill Training Program at Lanjigarh on a field visit to Orion Hotel, to help them learn the finer aspects of the job role of a housekeeping attendant. 28 trainee students visited the hotel premises to gain first-hand experience and learn best practices from the highly trained hotel staff. This was the third such visit conducted as part of the program.

## Lightning safety awareness program at Jharsuguda

Team Jharsuguda conducted a lightning safety awareness program for the local community as part of disaster preparedness for the upcoming monsoon season. The program reached out to various schools and colleges in Jharsuguda, including Nand Ghars, where our employee volunteers demonstrated various lightning safety protocols and ensured that people were adequately prepared for emergencies during the monsoon.



## Jal Seva Shibir launched to alleviate heat distress

We have launched 'Jal Seva Shibirs' across high footfall areas in Jharsuguda and Bhubaneswar to provide drinking water and cold beverages for helping local travelers get some respite from the raging summer heat. Water kiosks have been set up at multiple locations to serve cold drinking water, lemonade, buttermilk, etc. to around 10,000 people daily.



## Vedanta Jharsuguda bags 'Sustainable Manufacturing Excellence Award' at Times Business Awards 2022



## Vedanta Lanjigarh bags Bronze at the 6th CSR Health Impact Awards



## BALCO receives IMC RBNQ Milestone Merits Recognition at 25th IMC Ramakrishna Bajaj National Quality awards



## Kids from Vedanta Jharsuguda make a mark at the 1st National-level skating competition organized by Roller Skate Federation of India





Click on the titles to read more!

## Economic Times

### Vedanta Aluminium largest smelter reduces GHG emissions intensity by 12 pc in FY22

PT - Last updated Jun 06, 2022, 07:02 PM IST

Synopsis

On World Environment Day, the company committed to reduce GHG emissions intensity by 25 per cent by 2030, over FY21 baseline, as part of its climate action endeavours.



Vedanta Aluminium on Monday said its largest aluminium smelter has substantially reduced its Green House Gas (GHG) emissions intensity by around 12 per cent in 2021-22.

"Vedanta Aluminium...is proud to declare that its largest aluminium smelter has substantially reduced its GHG or greenhouse gas emissions intensity (carbon footprint) by around 12 per cent in FY22 over the previous fiscal, while increasing production volume by 20 per cent," the company said in a statement.

On World Environment Day, the company committed to reduce GHG emissions intensity by 25 per cent by 2030, over FY21 baseline, as part of its climate action endeavours.

"We have set ambitious targets for ourselves on our road to net zero carbon by 2050, with the first milestone being 25 per cent reduction in GHG emissions intensity by 2030," Rahul Sharma, CEO of aluminium business of Vedanta Limited (NSE: 103%) said.

## B2B Purchase Magazine

### Exploring viability for a decentralised wastewater treatment facility

16 May 6, 2022

By B.B. Bhat



This article briefly discusses the available and viable options for efficient recycling and treating the wastewater generated at facility, through advanced filtration, A2O, SBR, etc. at A&S Technologies.

As India hurtles towards a more developed economy, one of the casualties has been the deteriorating state of our environment. Rapid industrialisation has, unfortunately, led to the number of pollutants in our surroundings. One of these pollutants is wastewater. Management of said wastewater through treatment plants in India has become imperative in our cities today.

To this effect, Vedanta Aluminium has committed itself to a sustainable water footprint. "The world water consumption has doubled between 1960 and 2000 and is increasing at about 1 percent annually. Since industries have colossal water requirements, resource efficiency through effective water treatment and maximum reutilisation is critical. Being India's largest producer of aluminium, it is imperative for us at Vedanta Aluminium to ensure a sustainable water footprint. Our first vision is to become net water positive by 2030 or sooner."

Pragana Khare, Sr. Executive, Environmental, Organica Biotech Pvt. Ltd., agrees that as water is becoming an increasingly scarce resource, the continued growth of India's economy will translate

## ET Energyworld

### Vedanta Aluminium implements solutions for sustainable growth, green economy

"Our climate action endeavours saw us reduce our GHG emissions intensity at our largest aluminium smelter by around 12 per cent in FY22 over the previous fiscal, while increasing our production volumes by 20 per cent," said Rahul Sharma, CEO of Vedanta Aluminium.

SAMS - June 06, 2022, 07:09 IST



New Delhi: On the occasion of World Environment Day, Vedanta Aluminium, India's largest producer of aluminium believes that business growth and sustainable development are two sides of the same coin.

"Our climate action endeavours saw us reduce our GHG emissions intensity at our largest aluminium smelter by around 12 per cent in FY22 over the previous fiscal, while increasing our production volumes by 20 per cent," said Rahul Sharma, CEO of Vedanta Aluminium.

The company is also India's first to launch low carbon 'green' aluminium, branded Vedanta, and in the process, became the nation's largest consumer of renewable energy, Sharma said in a note.

Over 2012-21, Vedanta Aluminium reduced its green house gas emissions intensity by 21 per cent while tripling its production.

Testimony to this relentless focus on sustainable development, Vedanta

## India CSR

### Sustainability: Vedanta Aluminium bolsters efforts towards conserving biodiversity

Embarks on conservation project for indigenous bird species across its locations.

by India CSR Network - 3 weeks ago in Sustainability



Mumbai (India CSR): On International Day of Biological Diversity, Vedanta Aluminium, India's largest producer of aluminium, announces that it is intensifying efforts towards nurturing biodiversity in the areas of its operations in Odisha & Chhattisgarh, as part of its sustainable development agenda. The company has embarked on conservation projects for indigenous bird species that include constructing birdhouses, artificial nests, and bird baths at multiple locations inside its plants and townships. Supplementing this effort, its Business Units are developing fruit orchards and gardens with medicinal plants, reviving butterfly parks, and undertaking a slew of other initiatives. The day also saw Vedanta Aluminium's employees kick-off of the annual cleaning of local water bodies and community ponds, by volunteering for the activity.

Vedanta Aluminium's operation at Larijgarh, in Kalahandi district of Odisha, is located in a richly biodiverse region. More than 380 faunal and 940 floral species have been recorded in the core (inside plant area) and buffer (up to 10 kilometres from the plant) zones, including native and migratory birds, reptiles, mammals, amphibians, macrophytes (large aquatic plants), medicinal plants, and more. The region also supports 26 floral and faunal species of conservation interest, identified by the International Union for Conservation of Nature (IUCN). Similarly, Vedanta Aluminium's operations in Jharsuguda (Odisha) are home to nearly 30 native species of trees and plants, while some Schedule I fauna species like Elephant, Sloth Bear, Indian Rock Python, Common Indian Monitor and Pea Fowl also inhabit the region. BALCO, Vedanta's subsidiary based in Korba (Chhattisgarh), is also surrounded with rich flora and fauna, recording over 20 species of flora, 30 species of butterflies, 11 species of invertebrates, 72 species of birds and 18 species of mammals.

## Construction World



### Aluminium to be India's green metal of the future for the RE industry

By Anil Kumar

Aluminium has been named the green-metal of the future. It is a critical facilitator for the ongoing shift to greener energy systems, according to a new McKinsey analysis of the raw materials required for creating clean energy.

Aluminium is ideal for solar panel applications due to its high strength-to-weight ratio, high surface reflectivity, and excellent electrical and thermal conductivity.

Most solar panel components, such as the frames and mounting structures that hold the PV panels together and support them, are already made of aluminium.

It is also widely used in the long-distance transmission and distribution of power. Extruded aluminium parts are simple to produce, transport, and assemble, and erecting solar infrastructure requires less expertise and time.

They don't need much upkeep or extra protection because they're inherently corrosion resistant. Most treated aluminium alloys can also readily tolerate wind speeds of up to 150-175 km/hr. Aluminium's light weight, which is significant for solar PV since higher temperatures limit the efficiency of energy generators. Another benefit is that aluminium may be recycled indefinitely.

Despite the fact that these qualities have made aluminium the material of choice for solar infrastructure across the world, Indian manufacturers continue to favour steel.

With a manufacturing capacity of nearly 4 MTFA, India's aluminium sector can accelerate the country's RE solar transition. Domestic aluminium companies have made major investments in research and development to develop high-performance alloys for a variety of applications.

Market giants like Vedanta manufacture high-end aluminium products that are used in solar, construction, automotive, and electrical applications.

Vedanta Aluminium is the world's largest manufacturer of wire rods (excluding China) and the top producer and exporter of billets in India.

End-users and downstream manufacturers serving the solar sector have benefited greatly from their technical expertise. They may use their R&D centres to co-create new products and applications tailored for the solar sector in addition to obtaining raw materials that meet worldwide quality requirements.

India's solar business has been hindered by factors like a lack of funding, unfavourable governmental arrangements, and competition from low-cost Chinese imports.

According to media sources, India's solar PV cell and module manufacturing capacity is only 2.5 GW/year and 9-10 GW/year, respectively, but the yearly need for the next ten years is roughly 13 GW/year.

## Mint

### Vedanta, NHAI ink long-term contract to build roads with fly-ash in Odisha



Fly-ash, which is a by-product of thermal power generation using coal, finds usage in the cement, construction and infrastructure industries.

1 min read . Updated: 17 May 2022, 07:22 PM IST

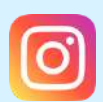
Livemint

Vedanta Aluminium has utilised nearly 2.8 lakh tonnes of fly-ash in cement production and supplied 2.7 lakh tonnes for brick manufacturing in FY22

"The company has... entered a long-term partnership with the National Highways Authority of India (NHAI) for building greener roads with fly-ash in Odisha," Vedanta Aluminium said in a statement.

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