

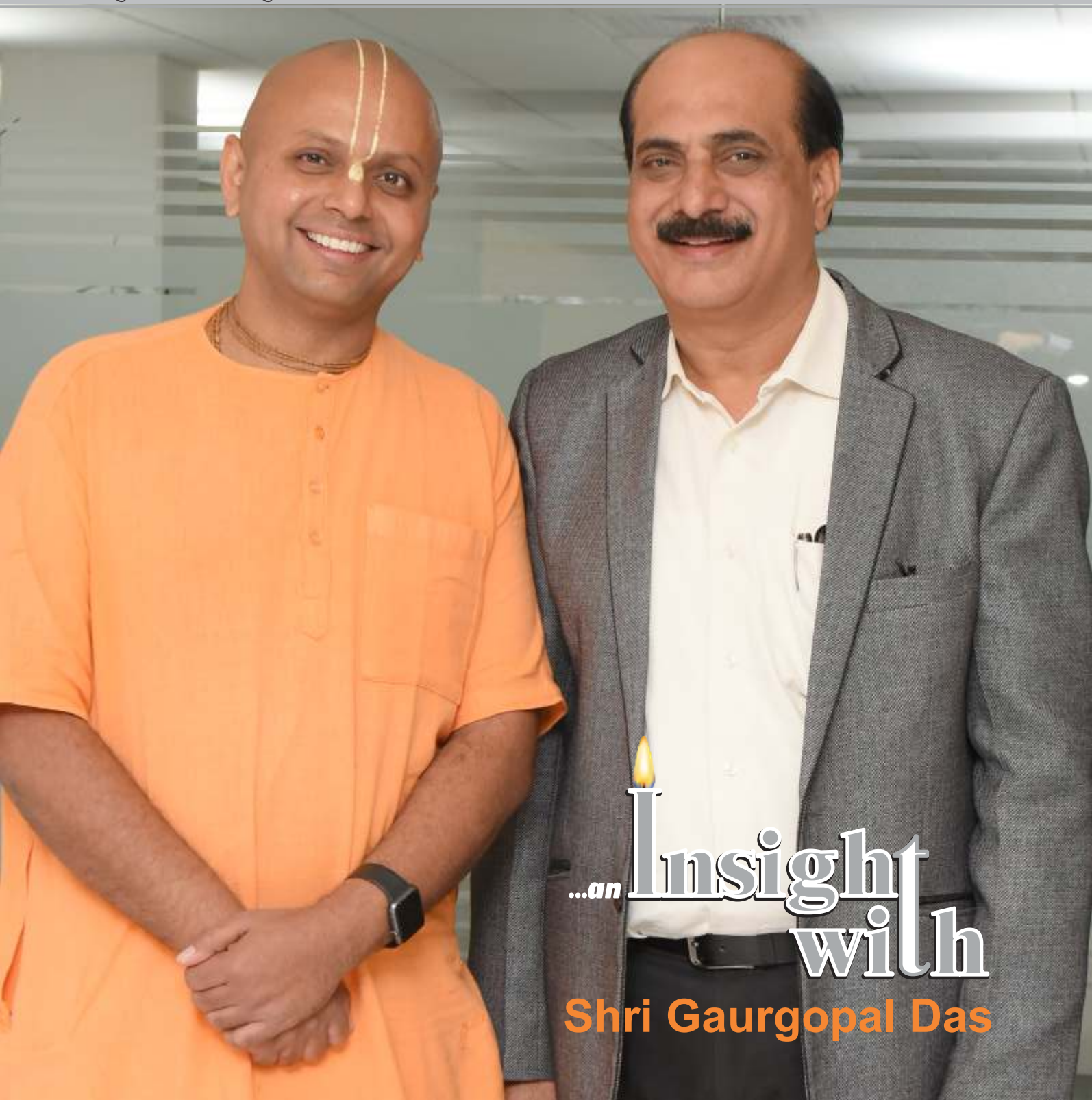
ZINC



NEWS

हिन्दुस्तान जिंक का मुख पत्र / The House Journal of Hindustan Zinc

JANUARY 2018



...an **Insight**
with
Shri Gaurgopal Das

"ZINC - MORE THAN JUST A
MINERAL, A BOON FOR HEALTH"
- PAVAN KAUSHIK - HEAD,
CORPORATE COMMUNICATION

"7-8% CONTRIBUTION
OF MINING SECTOR IN GDP CAN CREATE
25 MILLION JOBS IN INDIA"
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Dear Colleagues,

Greetings of the festive season!

As 2017 comes to a close, I would like to take a moment to appreciate all of us for the hard work put in during the year. We put our energies and achieved great results on all fronts – right from commissioning of new mills at SK and Zawar, overcoming geotechnical challenges, getting certified as a Great Place to Work, Platinum Green Building certification, putting up Solar power, recognition by Dow Jones Sustainability Index – we have been tirelessly working and achieving results. Now, with the advent of the New Year, it is time to get ready for the next phase of growth.

At this juncture, let us also stop and take a learning from our lapses. We have had unfortunate Safety and Integrity incidents, which were completely avoidable with a little more attention. I would like to remind each one that Safety and Integrity are core pillars of Vedanta and we need to be extremely cautious in our conduct. Walking past is as criminal as committing the lapse. Let us renew our focus on these values and make 2018 an *Incident-free* year.

Our immediate area of focus for the new calendar year is to ramp up the Q4 production and achieve the vision of 1.2 MTPA while keeping the costs under tight control. Q4 would be particularly important and would demand an all-out effort from all of us as we would transform to a totally Underground miner by the end of the quarter and our efforts would set the tone for the times ahead. We need to also ensure all the major projects including Fumer and Shafts get commissioned timely.

I would urge each one of us to take a pledge to increase cleanliness and hygiene at our locations to world class levels and increase our VSAP scores significantly.

Let us all work together rapidly taking calculated bold decisions and take Hindustan Zinc to newer heights.

Wishing you all a very Happy and Safe New Year.

Best Regards,

Sunil Duggal
CEO-Hindustan Zinc



प्रिय साथियों,

आपको एवं आपके परिवार को नववर्ष की हार्दिक शुभकामनाएँ।

मैं, 2017 में हम सभी द्वारा किये गये कठिन परिश्रम को सराहते हुए आप सभी को धन्यवाद देना चाहता हूँ। हमारी सम्पूर्ण मेहनत एवं लगन के फलस्वरूप ही हमने सभी स्तरों पर सर्वश्रेष्ठ परिणाम हासिल किए हैं – ज़ावर एवं सिन्देसर खुर्द में नई मिलों की शुरुआत से लेकर भू-तकनीकी चुनौतियों पर नियंत्रण, ग्रेट प्लेस टू वर्क, प्लेटिनम ग्रीन बिल्डिंग सर्टिफिकेशन के रूप में प्रमाणित, सोलर पावर की स्थापना, डॉव जोन्स सस्टेनेबिलिटी इण्डेक्स द्वारा मान्यता जैसी उपलब्धियों से उत्कृष्ट परिणाम मिल रहे हैं। अब, नववर्ष आगमन के साथ ही, हम सभी को अगले चरण के विकास के लिए तैयार रहना है।

इस अवसर पर, आइए हम सभी बीते साल की हमारी बाधाओं एवं कठिनाइयों से सीख लें। वर्ष के दौरान दुर्भाग्यवश सुरक्षा एवं नैतिकता की घटनाएं घटित हुई हैं जो थोड़ा सतर्क रह कर पूर्णरूप से टाली जा सकती थी। मैं सभी को याद दिलाना चाहता हूँ कि सुरक्षा और अखण्डता वेदान्ता के प्रमुख स्तंभ हैं और हमें अपने व्यवहार में बेहद सतर्क रहने की ज़रूरत है। गलतियों को देखकर अवगत नहीं कराना भी गलत है। आइए इन मूल्यों पर ध्यान देकर कुछ नया करें और 2018 को एक घटना रहित वर्ष बनाएं।

नववर्ष में वर्तमान संसाधनों से चौथी तिमाही में उत्पादन बढ़ाना है और लागत पर नियंत्रण रखते हुए, हमें 1.2 मिलियन टन लक्ष्य को हासिल करना है। विशेष रूप से चौथी तिमाही हमारे लिए महत्वपूर्ण साबित होगी और हम सभी के अथक प्रयासों की ज़रूरत होगी क्योंकि तिमाही के अंत तक हमारी खदानें पूर्ण रूप से भूमिगत खदानों में परिवर्तित हो जाएगी और यह आगे आने वाले उत्पादन का आधार बनेंगी। हमें यह भी सुनिश्चित करना है कि “फ्यूमर और शाफ्ट” सहित सभी प्रमुख परियोजनाओं को समय पर प्रारंभ किया जाए।

मैं आप सभी से अनुरोध करता हूँ कि हमारे कार्यस्थलों को विश्व स्तर के बनाने एवं वीसैप के स्कोर में सार्थक बढ़ोतरी के लिए स्वास्थ्य एवं स्वच्छता में अधिक से अधिक योगदान का संकल्प लें।

आइए, हम सभी एक साथ मिलकर दृढ़ निश्चय से साहसिक फैसले लेते हुए हिन्दुस्तान जिंक को नई ऊँचाइयों पर ले जाने के लिए बेहतर कार्य करें।

आप सभी को खुशहाल एवं सुरक्षित नववर्ष की हार्दिक शुभकामनाएँ।

एक बार पुनः धन्यवाद। वर्ष 2018 आपके स्वास्थ्य, खुशी व समृद्धियों से परिपूर्ण हो।

स्नेह सहित।

आपका

सुनील दुग्गल
मुख्य कार्यकारी अधिकारी



CHAIRMAN'S VISIT TO YPO, JAIPUR I HZL, UDAIPUR

Chairman, Vedanta Group - Mr. Anil Agarwal was in Jaipur to address the YPO members (Young Presidents' Organization) on 8th December, 2017.

He also visited Udaipur and interacted with over 60 employees including senior management of Hindustan Zinc in a workshop on 9th December, 2017.

It was a memorable day filled with energy, enthusiasm and inspired all the employees.

He also met the special children of Jeevan Tarang.



7-8% contribution of mining sector in GDP can create 25 million jobs in India

Authored by : Sunil Duggal - CEO, HZL



Mr. Sunil Duggal
CEO, HZL

Continuous decrease of mining sector share in India's GDP is holding GDP's growth. The mining sector aspires to contribute 7-8% to India's GDP and if this happens, India would realize a GDP of 9% in the coming years.

The development of natural resources dates back to about 50,000 years - in the Middle Paleolithic Chert mines of Nazlet Sabaha (or Safaha), a site on the western banks of the Nile River in Egypt. In India, Zinc mining dates back to over 3000 years in Rajasthan at Zawar.

India produces 87 minerals which include 4 fuel minerals, 10 metallic minerals, 47 non-metallic minerals, 3 atomic minerals and 23 minor minerals.

Mining was important in the ancient times and mining is important today and for the future survival of mankind. Development of natural resources is essential for sustaining economies as it gives birth to industrial development, ancillary industries, employment generation and prosperity. Employment generation is a key result but the end result is eradication of poverty.

But, in the last over a decade, the contribution of mining sector in GDP has been stagnant to nearly 1.2%, which is highly alarming. The Indian mining sector grew at a CAGR of 7.3% in the last decade compared to 22% in China in the same period. The mining sector in India employs a smaller percentage of India's population, just about 0.3% as compared to 3.8% in South Africa, 1.4% in Chile and 0.7% in China. It is also true that employment in the Indian mining sector has grown at a rate of 3% per annum over the last 10 years.

The McKinsey Global Institute report suggests that development of mining sector will be important if India has to achieve 7% plus GDP growth. The report further says that mining sector alone has the potential to create 6 million additional jobs by 2025. The sector can contribute an additional USD 125 billion to India's output and USD 47 billion to India's GDP by 2025.

About five years back, in the year 2012, mining sector accounted for about 3 million direct jobs and additional 8 million indirectly.

The mining sector contributed 3.4% of India's GDP in 1992-93, which declined to 3% in 1999-2000 and further to 2.3% in 2009-10.

To mention, every 1% increase in the growth rate of mining sector results in 1.2% to 1.4% increment in the growth rate of industrial production and correspondingly increase of 0.3% in the growth rate of India's GDP.

According to a report by FICCI, if India is looking to increase the share of mining sector to 5% of the GDP in the next 20 years, this sector would be required to grow at the rate of 10-12% annually.

The economies are simple. If India is unable to keep pace with the growing demand of infrastructure development, it would only be increasing the import bill. The import not only increases the cost but it also decreases the employment opportunities for the primary country. This becomes important since India currently is dealing with about 30% of unemployed youth.

Example of Angul is unique. Due to Mahanadi Coal Field, large down-stream industries have been set-up and that has resulted in increase in Angul's GDP per capita from INR 39,000/- to INR 101,000/-. Even the lowest income group in Angul has decreased from 67% in 2002 to mere 25% in 2012 and is expected to be less than 5% by 2025.

Develop Mine-in-India for Make-in-India growth

Despite large mineral reserves, India lags to mining as it struggles to implement more mining policies



SUNIL DUGGAL

TO MAKE IN INDIA, WE HAVE TO MINE IN INDIA

CONTRASTING TO THE 'MAKE IN INDIA' slogan, the mining sector in India is still largely unexplored. The country's mineral reserves are vast, but the mining sector's contribution to the GDP is only 7-8%. This is a significant gap compared to other countries like Australia, Canada, and the USA, which have a mining sector contribution of 10-15% to their GDP. The mining sector is a key driver of economic growth, and it is essential for India to develop its mining sector to achieve its growth targets. The mining sector is a key driver of economic growth, and it is essential for India to develop its mining sector to achieve its growth targets.

7-8% contribution of mining sector in GDP can create 25 million jobs in India




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इकोनॉमी.10

खनन क्षेत्र में होंगे 2

1. खनन क्षेत्र में होंगे 2

2. खनन क्षेत्र में होंगे 2

Published in Asian Age, Financial Express, Financial Chronicle, Rajasthan Patrika & Dainik Navjyoti

India is also far behind in expenditure towards exploration. It accounts for only 0.3% compared to over 19% by Canada, 12% by Australia, 7% by United States, and 4.5% by China. The Geological Survey of India needs to expand its focus on baseline data generation to encourage exploration activities for the development of mining sector. Exploration in India is mostly limited to a depth of 50 to 100 metre as compared to 300 metres in countries such as Australia.

If India's global ranking in production of minerals is an indication, it would not be wrong to say that economies of other countries are growing due to sustainable mining and have been successful in addressing unemployment and poverty issues. We being a country of huge mineral reserves and resources are lagging behind because we are still struggling to implement even the existing policies.

Self-declaration, simple policies and quick decisions are required to promote the mining sector. Policies of self-accountability with provision of stringent punishment will deter mining companies from doing anything wrong.

India, even for obtaining mining lease, it takes minimum 1 years' time, which can be extended even to more than 5 years, as compared to just 30 days in Canada and 60 days in Australia.

If the government wants to be a regulator and not the owner, then it should give a substantial space for the industries to develop the mining sector.

The fact is that we are already years behind, since mine development itself takes about 3-5 years and further setting up smelters for processing these minerals takes another 2-3 years, even if we start today, we would be able to achieve some results only by 2022.

To 'Make in India' we have to 'Mine in India' and if we can do this, we would be able to address large unemployment issues.

The strategic plan document by Ministry of Mines has very impressively highlighted improvement in the functioning of GSI, IBM, R&D projects and Human Resource Development as few of the key areas.

The demand of minerals will grow 4-5 times over the next 12-15 years against a backdrop of globally decreasing resources. There would be a huge demand for the metals in view of the rapid urbanization and growth in the manufacturing sector.

The mining sector aspires to contribute 7-8% to India's GDP and if this happens, India would realize a GDP of 9% in the coming years. This is expected to create at least 25 million jobs, directly and indirectly.

But, above all, India will have an edge over other countries in terms of exports of these minerals, employment generation, eradication of poverty and taking a leadership position in the mining sector.

Zinc - More Than Just A Mineral, A Boon for Health

Pavan Kaushik - Head Corporate Communication | Published in Asian Age | 4th December, 2017



We all know that the majority of usages of Zinc is for protecting the steel from corrosion, giving an extended life and durability. Zinc batteries and Zinc based paints are also common globally. But how many of us know that Zinc is an essential mineral for daily life. There is another side of Zinc which is lesser known than used and which only proves, we all have Zinc in our lives...

Germans called Zinc metal as 'Caunterfeitum' or 'mock-silver' because of its silvery white lustre and 'rishis' of Vedic era recommend 'Jasada bhasma' a Zinc based preparation, as the treatment of choice for diabetes. The importance of Zinc has been known to India since ancient times. Modern medicine also recognizes the curative properties of Zinc. Long before being identified as an element, Zinc was used for making brass and for medicinal purposes.

While Zinc was unknown in Europe until the end of 16th century, India had been producing Zinc at a large scale since the 12th century onwards. The mines in Rajasthan have given an evidence of Zinc production since 6th century BC.

Today, Zinc is the 4th most widely consumed mineral in the world after iron, aluminium, and copper. Almost 58% of the Zinc mined across the world is used for galvanizing, 14% for die-casting, 10% for alloys and brass making, 9% in chemicals, 6% in rolled Zinc and 3% for other miscellaneous purposes.

An adult human body contains about 2-3 grams of Zinc, needed for the body's enzymes and immune system to function properly. Every cell requires Zinc to multiply. Zinc strengthens the immune system to prevent and effectively fight diarrheal diseases

which are often life threatening for children in the developing countries. A few extra milligrams of Zinc everyday could save the life of 450,000 kids.

Zinc deficiency is a global health problem. According to studies done by International Zinc Association, in spite of proven benefits of adequate Zinc nutrition, approximately 2 billion people still remain at the risk of Zinc deficiency and 800,000 people are at risk of dying each year due to Zinc deficiency.

According to Food and Health Organization (FAO), one third of the world population lives in countries that have high risk of Zinc deficiency, India being one of them. The most vulnerable are infants, young children, pregnant and lactating women due to their elevated requirements for Zinc.

Children are especially vulnerable to Zinc deficiency which weakens their immune system making them prone to diarrhoea, pneumonia and malaria which are most common causes of death in developing countries. Surprisingly, India contributes to the largest child deaths in the world. Zinc deficiency also leads to retarded growth & development and stunting with life-long impacts on health.

Point is, we do understand that we need Zinc for our body, but how many of us actually demand for it.

ZINC - a Nutrient for all

An essential trace element, Zinc is imperatively required by the human body to act as a catalyst for the daily functioning of the body. Zinc deficiency today kills 1.5 million children every year. Zinc deficiency affects not only kids but adults too.

It all starts with the soil that grows the crops which the populace consumes. When the soils are deficient in Zinc, the grain concentrations of the crops grown in these soils are lower. Thus people eating crops that have been grown in Zinc – deficient soils receive less Zinc from their diets and are therefore at risk of Zinc deficiency. By consuming Zinc rich foods like seafood, beef, wheat germ, spinach, nuts etc., one can ensure a healthy immune system, proper building of proteins and smooth absorption of copper and iron in the body in the long run. Thus, by adding Zinc to the soils, to the foods (also called fortification) or even through consumption of oral tablets or multivitamin supplements, one can ensure no pathological and physiological consequences of Zinc deficiency and a healthy working body.

ZINC - reduces DNA Damage

Zinc is an essential part of nearly 3,000 different proteins, and it impacts how these proteins regulate every cell in our

body. In the absence of sufficient Zinc, our ability to repair every day wear and tear on our DNA is compromised.

A modest increase in dietary Zinc - equivalent to four milligrams per day - may reduce oxidative stress and wear and tear to DNA, a new study has claimed. Researchers from the UCSF Benioff Children Hospital Research Institute (CHORI) in the US show that extra Zinc in the diet can have a profound, positive impact on cellular health that helps fight infections and diseases. This amount of Zinc is equivalent to what bio-fortified crops like Zinc rice and Zinc wheat can add to the diet of vulnerable, nutrient deficient populations, researchers said. The study led by CHORI Senior Scientist Janet King and her team is the first to show that a modest increase in dietary Zinc reduces oxidative stress and damage to DNA.

ZINC - for improvement of your Vision

In today's times of increasing working hours and chronic stress, Computer Vision Syndrome and Digital Eye Strain are a common issue. Headache, blurred vision, irritation, extra tearing, excessive blinking and even neck pain are symptoms of the same.

Zinc, the essential trace mineral, or 'helper molecule', is vital for eye health. Zinc is highly concentrated in the eyes, mostly in the retina and choroid, the vascular tissue layer under the retina. It plays a crucial role in bringing vitamin-A from the liver to the retina in order to produce melanin, a protective pigment in the eyes. Zinc has been shown to protect against age-related macular degeneration, night blindness, cataract, damage to optic nerve, impaired vision, poor night vision and cloudy cataracts. A person with Zinc deficiency in their body is also at risk for alopecia (loss of hair from eyebrows and eyelashes), mental sluggishness and increased susceptibility to infection.

ZINC - a tonic for your Skin...

Pollution, harsh weather, the sun's UV rays, poor diet, stress and lack of

exercise. All of these have a role to play in deteriorating your skin's condition. A trace mineral essential to all forms of life, Zinc is especially important for clear skin because of its fundamental role in gene expression, cell growth and cell replication. Zinc's presence in personal care products like sunscreens, bath soaps, baby lotion, makeup etc. helps reduce sunburn and premature aging of the skin. Used in a wide range of cosmetics and personal care products, Zinc in the form of Zinc Oxide, acts as a skin protectant from both UVA and UVB rays. It enhances the wound healing process, and meets the increased demand of cell proliferation that occur in the early phases of healing. Sunscreens containing Zinc and its soluble forms provide antioxidant protection to the skin. Zinc salt has been used as a cosmetic ingredient since it contains anti - microbial and astringent properties. By using skin toners with Zinc helps tighten pores and absorb excess oil, which in turn helps to prevent the build-up of sebum, the reason behind acne.

'Seborrheic dermatitis' (dandruff) is a condition that we are well aware of. Shampoos containing Zinc help treat and prevent flaking of the scalp tremendously as per a study done by National Centre for Biotechnology Information. Also, extensively used in the form of mineral make up, Zinc and its compounds help prevent and protect the skin from burns and irritation because of which, it is universally used in ointments for relieving from sunburns, windburns and diaper rashes. Another benefit of Zinc is its usage in Soaps. Zinc helps treat various skin conditions like psoriasis, eczema, ringworm, fungus etc.

ZINC - boon for Healthy Hair

Hair loss can be caused by various reasons such as hormones, genetics, poor diet, age, radiation or chemotherapy treatment, stress, infections, chemicals, rapid weight loss, or other diseases. But the most common cause of hair loss is poor nutrition.

Zinc consumption is vital in human body because it helps build healthy cells, regulate hormones and absorb other

nutrients. It also plays a key role for healthy hair, skin and nails.

Zinc is required for the normal division of hair follicle cells, leading to healthier hair growth. Zinc also helps keep hormone levels balanced, which could be one of the reasons why it is effective in preventing hair loss.

Experts believe that Zinc deficiency can actually lead to deterioration of the protein structure that makes up the hair follicle. This weakening of follicles can in turn cause hair shedding and hair loss. There are even a few outlying studies in which people's greyed, aged hair returned to its original colour when nourished with Zinc-rich diets or hair growth supplements. As a bonus, Zinc for hair growth may help eliminate dandruff on the scalp as well.

ZINC – a must for Dental Care

Zinc plays a significant role towards dental care and hygiene. Bad breath or halitosis is caused when there are signs of tooth decays, which produces sulphur compounds that are reasons for foul odour. Mouthwash might mask the problem for some time, but won't fix it. Brushing the teeth regularly is the remedy to remove the bacteria causing malodour.

Here is where Zinc steps in. Zinc and chlorine dioxide when used in toothpastes help treat bad breath. Zinc stops the enzymes from breaking down the amino acid that makes sulphur; while chlorine dioxide kills the already formed bacteria. This prevents tooth decay, gum disease, and gastroenteritis, which are all associated with bad breath.

While Zinc is present in the human body in cells, eyes etc., it is also naturally present in mouth in the saliva and the enamel of teeth. Zinc is formulated into oral health products to control plaque, reduce malodour, prevent growth of bacteria and inhibit calculus deposits that form on the teeth. Zinc helps prevent diseases that originate from the mouth like: oral ulceration, stomatitis, white tongue coating, mouth sores and burning mouth syndrome. Zinc is also used when teeth are affected by cavities, in the form of fillings to restore a damaged tooth back to its normal function and shape. Using a mixture of Zinc and other elements, this filling lasts

for more than 10 years, is less expensive and can withstand forces.

ZINC – can prevent Osteoporosis

What is Osteoporosis - It is a medical condition in which the bones become brittle and fragile from loss of tissue, typically as a result of hormonal changes, or deficiency of calcium or vitamin D. Though any age is vulnerable to Osteoporosis, but people above 40 are more prone to it. There are more than 10 million cases per year in India.

We all have forever patronized Calcium for strong bone health in our bodies. With increased awareness for the nutrient, everyone focuses on Calcium and forgets about another essential element which helps in increasing bone density and boosting immunity.

Zinc is in fact a crucial element for proper absorption of Calcium and Vitamin D to get into cells where it works to build bones. Although Calcium is the mineral most associated with bone formation, Zinc is also found in the bones. Forming a small percentage of the bone, Zinc is needed to form Hydroxylapatite which is a naturally occurring crystalline Calcium complex. Hydroxylapatite crystals make up about half of the bones' weight.

A deficiency in trace minerals predisposes osteoporosis. According to studies by National Centre for Biotechnology Information, Zinc helps in prevention of osteoporosis.

ZINC – helpful for Thyroid patients

Zinc may be helpful in patients with low T3 and may contribute to conversion of T4 to T3. In animal studies, Zinc deficiency lowered T3 and free T4 concentrations by approximately 30%. Levels of total T4 were not affected by Zinc deficiency. In a group of patients with low levels of free T3 and normal T4, but elevated rT3 and mild to moderate Zn deficiency, taking oral Zinc supplements for 12 months, normalized the serum free T3 and total T3 levels, decreased the rT3 and normalized TSH levels.

On the other hand, like iodine, too much Zinc may suppress thyroid function. Very high doses of Zinc interfere with copper absorption and can lead to serious and potentially fatal copper deficiency. Thus it is advised to take copper when supplementing with Zinc.

ZINC - helpful in Depression

Zinc plays a part in modulating the brain and body's response to stress all along the way. Zinc has been found to be low in the serum of those suffering from depression. In fact, the lower the Zinc level, the more depressed a person is. Zinc deficiency can lead to symptoms of depression, difficulties with learning and memory, seizures, aggression, and violence. Low serotonin levels are also believed to be the cause of many cases of mild to severe depression which can lead to symptoms such as anxiety, apathy, fear, feelings of worthlessness, insomnia and fatigue. The enzymes containing Zinc are necessary for the synthesis of serotonin.

Since the 1920s Zinc has been known to play a credible role in mental health. Decades of research have found a link between taking Zinc supplements and improvement in the symptoms of schizophrenia, autism, ADHD (Attention Deficit Hyperactivity Disorder) and other mental health problems. Zinc is particularly found in a part of the brain called the hippocampus. In the hippocampus, which is the part of the brain central to memory and mood, antidepressants work by increasing the production of the nerve fertilizer BDNF (Brain-Derived Neurotrophic Factor) in the hippocampus, which helps in nerve recovery, adaptation, and repair. Zinc deficiency leads to decreased Zinc in the nerve synapse. The same mechanism might be responsible for seizures, migraines, dementia, anxiety, depression, and bipolar disorder.

Under conditions of major stress, Zinc swiftly leaves the body in the form of urine, sweat, and saliva. A daily intake of Zinc is required to maintain a steady state of the body.

ZINC – a boon for your Memory

The link between Zinc and memory is well studied especially because Zinc

deficiency can cause memory loss. Don't be surprised, Zinc deficiency also affects your Memory - How !!! Over the years, it has been shown that some people with memory impairment do have Zinc deficiency. In a study done on mice by researchers from Duke University Medical Centre and Massachusetts Institute of Technology, the role of Zinc in the brain has been highlighted. Zinc is stored and released in the brain from nerve cells that are also responsible for releasing the neurotransmitter, glutamate. The released Zinc can act on glutamate receptors and other voltage-gated ion channels in the brain. It can also modulate synapses (a property known as synaptic plasticity). Both of these effects contribute significantly to learning and memory. Zinc deficiency affects short-term memory more than long-term memory.

ZINC - stave off Cancer growth

Zinc supplements may halt the rapid growth of esophageal cancer cells, according to a study that could lead to new prevention and treatment strategies for the disease. Previous studies have shown that Zinc is essential for maintaining human health and protects the oesophagus or food pipe from cancer. Researchers at the University of Texas, Arlington, U.S. discovered that Zinc selectively halts the growth of cancer cells but not normal esophageal epithelial cells. "Zinc deficiency has been found in many cancer patients. Both clinical data and animal studies have shown that this mineral is very important for overall body health and for cancer prevention," says Dr. Zui Pan, an associate professor of nursing at UTA. The study, published in the FASEB Journal, found that Zinc is an important element in many proteins and many enzymes and its absence makes it impossible for cells to function.

An insufficient amount of Zinc can lead to the development of cancer and other diseases, the researchers say.

Zinc plays an essential role in neurotransmitter function and helps maintain cognition. It is necessary in the metabolism of Melatonin which is a key hormone for healthy sleep. Zinc is one of the three minerals that have a sedative effect on the nervous system (the others are Calcium and Magnesium) and is also thought to help mental recovery post-stress.

A research study by Rondanelli et al in 2011 tested the effect of Zinc, Melatonin & Magnesium on patients with primary insomnia and found that the treatment had a beneficial effect on the quality of sleep. It is thought that whilst the Melatonin helped with sleep onset, it was Magnesium and Zinc that had a positive effect on the restorative value of sleep.

Consumption of Zinc helps to have less wake-ups in the night. It is an excellent & safe sleep aid; and also has a calming & antidepressant effect. Zinc has shown to improve the vividness of dreams as well.

Studies published in the Journal of American Geriatrics Society have revealed that the combination of Zinc, Melatonin and Magnesium is highly recommended to help improve the quality of sleep of insomnia patients.

Diabetes might be one of the most talked about diseases across the world and especially in India, but awareness about the same can well be estimated by the fact that today India has more people with type-2 diabetes. The WHO also estimates that 80 per cent of diabetes deaths occur in low and middle-income countries and projects that such deaths will double between 2016 and 2030.

Interestingly, Zinc has long been an ingredient used in “older” insulins, such as Regular, NPH, and Lente. Zinc is also necessary for the formation of insulin in the pancreas's beta cells. For these reasons, researchers have looked at the role of Zinc supplementation in the prevention and treatment of Type 2 diabetes— but unfortunately, without success.

However, new light has been shed on

the role of Zinc in diabetes. In this month's issue of *Diabetes Care*, Finnish researchers followed 1,050 adults with Type 2 diabetes for seven years. During that time, 156 participants died from heart disease and 254 had fatal or nonfatal heart attacks. Blood Zinc levels were lower in people who died from heart disease compared to those who survived; also, Zinc levels were lower in those who had heart attacks. The authors of this study speculate that, possibly because Zinc has antioxidant properties, supplementation may be useful in warding off heart disease in people with Type 2 diabetes.

Researchers from the University of Leicester discovered that Zinc plays a key role in regulating the way Calcium moves in the heart cells. Zinc is present in heart muscle and interacts with Calcium to affect heart function.

Past research have shown patients with congestive heart failure often have profound Zinc deficiency. Zinc has potent antioxidant properties which help to neutralize free radicals that may accelerate aging & contribute to the development of chronic diseases like cancer and heart disease. In addition to essential metabolic functions, the level of Zinc in the body also affects the heart muscle. When oxidative stress occurs, it may be due to a shortage of Zinc, which can be determined by examining the heart muscle. Studies by the Technical University of Munich (TUM) show the relationship between the total amount of Zinc in the body and cardiac function. Zinc deficiency initially appears as symptoms on the skin, hair and fingernails, although it can progress to include reduced immune response and organ failure, including the heart. Heart palpitations have numerous causes, including many benign ones, but they may indicate early signs of heart failure.

ZINC, More Than Just A Mineral, A Boon for Health

We all know that the majority of enzymes of Zinc is for protecting the steel from corrosion, giving an extended life and durability. Zin bacteria and Zinc based paints are also common globally. But how many of us know that Zinc is an essential mineral for daily life. There is smaller side of Zinc which is lesser known than steel and which early grows, we all have Zinc in our lives.



Zinc - reduces HDL cholesterol

Zinc - a boon for poor skin

Zinc - eye power improvement

Zinc - has a healthy heart?

Zinc - can improve your Sleep Disorder

Zinc - a nutrient for all

Zinc - for replacement of your Vitamins

Zinc - boost for Healthy Skin

Zinc - Adapted for Special patients

Zinc - a chance for poor Memory

Zinc - is necessary requirement for Diabetes

Zinc - helpful to Rheumatism

Zinc appears to have protective effects in coronary artery disease and cardiomyopathy. In such states, replenishing with Zinc has been shown to improve cardiac function and prevent further damage.

There are many areas where Zinc is beneficial. Globally, the usages of Zinc are still being explored and the doctors are finding new areas where Zinc may prove to be useful.

While Zinc is vital for proper functioning of the body, it is important to consult medical advice before taking Zinc supplements.

India is amongst very few countries in the world that have sufficient availability of Zinc for at least next 40 years. Once the public sector company, Hindustan Zinc, now under the Vedanta Group, has production capacity of 825,000 tonnes of Zinc against the consumption of about 675,000 tonnes in India. Hindustan Zinc is also looking to expand the production of Zinc to over 1.2 million tonnes in the coming 3-5 years to meet the growing demand of Zinc in the domestic sector.

Ask for ZINC

... A to Zinc in our lives...

INNOVATORS *of* ZINC

“Everything is designed. Few things are designed well...”

Re-designing of “Insert” to increase Cathode life in Cell houses...

In smelting operations, Zinc is deposited on Aluminium Cathodes in Electrolytic Cells during Hydrometallurgical process. This deposition is removed at regular time intervals by Cathode Stripping Machines (CSMs).

Stripping process starts with Pre-Stripping by CSM, where Pre-Stripping knives move swiftly downwards and strike the Cathode to separate Zinc from Aluminium Cathode sheets. At this Knife Striking area, a Circular Disc is provided, which is Corrosion resistant and electrically Non-conductive. This is called Insert.

Initially, two separate Discs made of ordinary plastic were used for Inserts.

Chanderiya team faced a major challenge with this Insert. As the Insert was subjected to repeated impact by Stripping Knife, it used to wear out frequently and needed regular replacement every month. This reduced the life of Cathodes.

To increase the life of Cathodes, a team comprising Mr. Ch. Pardhasaradhi (Operation Head, Cellhouse-1&2, Unit-II), Mr. D. K. Ahir (Head, Cellhouse-1&2, Unit-II) and Mr. B. K. Prasad (Associate Manager & Incharge Electrode Management, Cellhouse-1&2, Unit-II) decided to make Insert by moulding it with ABS (Acrylonitrile-Butadiene-Styrene), a tough engineering

plastic. The wear & tear of Inserts got reduced significantly, leading to increase in Cathode life to around 16-18 months.

To further improve the life of Inserts, team came up with an

idea that, design of Inserts should be modified to have some support within the moulded circular portion; circular portion should have 8 triangles and a central hole in the design for additional support.

Modified Inserts were developed successfully with ABS material and re-designed in such a way that the Inserts became defect free and repair free, thereby, increasing life of Cathodes.

The team efforts resulted in 34% reduction in maintenance cost and a saving of about 1.13 Crore was achieved by enhancing life of Cathodes.



“Every innovation begins with an idea...”

When Ground Consolidation ensured fresh air for miners at RD mine...

During the Rajpura Dariba mine expansion project, ventilation was the major challenge at deeper levels of RD mine. To meet the ventilation requirement, it was planned to increase ventilation capacity of mine by developing one ventilation raise, apart from other raises, from the surface to 100mRL i.e. 400 metres depth at East lode of RD mine.

The raise position was finalised at an uneven ground condition and RD mine team faced a major challenge as the ground condition was not favourable for installation of ventilation raise. The productivity and efficiency of employees working in underground mine was at stake.

To make the ground suitable for ventilation raise, a team comprising Mr. Ambareesh Jha (Manager-Rock mechanics), Mr. Kunal Dahasahasra (AM-Rock Mechanics), Mr. Dipanjan Chakraborty (Geologist-Rock Mechanics), Mr. Ashish Panda (Geologist-Rock

Mechanics) and Mr. Alagu Ramkumar (Engineer-Rock Mechanics) came up with an idea of Ground Consolidation through pressurised cement grouting. Team decided to carry out this project up to the depth of 60 metres as a trail.

A total of 72 holes having 76mm diameter were drilled in five concentric ring patterns and grouted with OPC cement (Ordinary Portland Cement) by maintaining a pressure of 10 Bar. The quality of grouting was ensured by Permeability test and checking the drill cuts.

On 10th July 2017, team efforts paid result and the Ground Consolidation process was completed to the depth of 400 metres without any water loss. RD mine is the first mine in Hindustan Zinc to adopt “Ground Consolidation” technology. This innovation helped in installation of ventilation raise at a depth of 400 metres at RD mine and ensured fresh air for miners at RD mine.

Hindustan Zinc wins India Today - Safaigiri Awards 2017



Hindustan Zinc has won the India Today Safaigiri Award 2017 under the category of Best Public Private Partnership (PPP) Model for project - Sewage Treatment Plant(STP), built in Udaipur. The award was presented by Hon'ble Vice President of India - Mr. Venkaiah Naidu and Founder & Editor-in-Chief of India Today - Mr. Aroon Purie, in a glittering ceremony held in New Delhi on 2nd October, 2017. The jury of the award were Mr. Shashi Tharoor – MP & Author, Mr. Aroon Purie – Chairman, India Today, Mr. Shubhagato Dasgupta - Senior Fellow, Centre for Policy Research, Ms. Shilpa Shetty – renowned Actress, Mr. Vinayak Chatterjee - Co-founder, Feedback Infra Private Limited, Mr. T.V. Mohandas Pai – Chairman-Manipal Global Education and Ms. Neerja Birla – Founder and Chairperson-Aditya Birla Education Trust.

Mr. Pavan Kaushik presented the insight on the STP project to the audience which was very well received and the audience understood this project as a model to be replicated by the industries that need water for their operations. He spoke about how the project STP is cleaning lakes and rivers, replacing fresh water with treated water and how this has impacted the overall environment of Udaipur. Hon'ble Vice President also spoke about sustainable models for cleanliness. Hon'ble Prime Minister also sent a message that was read-out during the conference.

On behalf of Hindustan Zinc, the award was received by Mr. Pavan Kaushik - Head Corporate Communication, Mr. T.R. Gupta - AVP, Corporate Affairs and Ms. Devika Gupta - AM, Corporate Communication.

Environment Excellence Award 2017

Kayad and Dariba Mines received the Environment Excellence Award 2017 and Special Jury Certificate Holder in the ICC Environment Excellence Award 2017.

IEI Industry Excellence Award 2017-Certificate of Commendation

Hindustan Zinc has been adjudged as one of the recipients of the Certificate of Commendation of IEI Industry Excellence Award 2017 for demonstration of highest order of Business Excellence.

2nd CII National 5S Excellence Award - 2017 to PMP

Pantnagar Metal Plant received first prize under category of Process Industry – Large along with the certificate of gold rating during 2nd CII National 5S Excellence Award - 2017 on 27th October, 2017 at New Delhi. There were around 112 participants in the category. The award was given by Mr. S.S. Gupta – Department of Industrial Policy & Promotion, Ministry of Commerce & Industry, Govt of India and Mr. Winfried Damm – Director, Indo – German Energy

Program. The award was received by Mr. C. Chandru – Head PMP, Mr. V.K. Singh – Head Civil, PMP and Mr. Sandeep Nain – Head Quality, PMP.



हिन्दुस्तान जिंक सीआईआई-आईजीबीसी प्लेटिनम अवार्ड से सम्मानित



हिन्दुस्तान जिंक को कन्फेडरेशन ऑफ इण्डियन इंडस्ट्री ने इण्डियन ग्रीन बिल्डिंग काउन्सिल (सीआईआई-आईजीबीसी) ने 'प्लेटिनम अवार्ड 2017' से ग्रीन बिल्डिंग कांग्रेस द्वारा जयपुर में आयोजित एक भव्य समारोह में 5 अक्टूबर, 2017 को सम्मानित किया। सीआईआई-आईजीबीसी द्वारा स्थापित प्रतिष्ठित प्लेटिनम अवार्ड से हिन्दुस्तान जिंक के प्रधान कार्यालय, यशद भवन, उदयपुर को सम्मानित किया गया है। हिन्दुस्तान जिंक भारत की कुछ गिनी चुनी कंपनियों में से एक एवं राजस्थान की पहली कंपनी है जो सीआईआई-आईजीबीसी प्लेटिनम रेटेड बिल्डिंग्स अवार्ड से सम्मानित है।

उद्घाटन सत्र के दौरान राजस्थान सरकार के माननीय उद्योग मंत्री – श्री राजपाल सिंह शेखावत ने हिन्दुस्तान जिंक की ग्रीन बिल्डिंग परियोजना की सराहना की। इस अवसर पर राजस्थान सरकार के माननीय वन एवं पर्यावरण मंत्री – श्री गजेन्द्र सिंह खीवसर, श्री ताई ली सियांग – चेयर ऑफ दी बोर्ड, वर्ल्ड ग्रीन बिल्डिंग काउन्सिल, सुश्री टेरी विल्स – सीईओ, डब्ल्यूजीबीसी एण्ड डॉ. प्रेम सी जैन – चेयरमैन, आईजीबीसी, गणमान्य अतिथि उपस्थित रहे। यह प्रतिष्ठित सीआईआई-आईजीबीसी प्लेटिनम ग्रीन बिल्डिंग अवार्ड श्री वी. सुरेश, चेयरमैन-पॉलिनी एण्ड एडोवेक्सी आईजीबीसी एवं हुडको, दिल्ली के पूर्व प्रबन्ध निदेशक, श्री सी.एन. राघवेन्द्र, चेयरमैन, आईजीबीसी-चैन्नई चैप्टर एण्ड श्री आनन्द मिश्रा, को-चेयर, आईजीबीसी-जयपुर चैप्टर एवं श्री के.एस. वैकटगिरी-एग्जिक्यूटिव डायरेक्टर, सीआईआई सोहराबजी गोदरेज ग्रीन बिज़नेस सेन्टर, हैदराबाद ने प्रदान किया।

Being SAFE

Be Safe for Your families ... Your family needs You

“Let us renew the focus on our company values and make 2018 an *Incident-free* year.”
- Sunil Duggal - CEO, HZL



"Being Safe" initiative has been quite effective in reducing stress, bringing-in a sense of responsibility not just at the workplace but also towards the families of the employees...



Hindustan Zinc conducted "Being Safe" workshop on 20th December 2017 at Zinc Smelter Debari to promote safety awareness amongst the employees. The workshop was attended by over 200 contract and regular employees of Hindustan Zinc.

The workshop was undertaken by Head – Corporate Communication of Hindustan Zinc who is also the founder of "Being Safe" – Pavan Kaushik who interacted with the employees informally and explained to them the significance of life. The 90 minutes workshop comprised discussion of live case studies, screening specially crafted safety films and showcasing real life photographs as to how people take their own safety for granted.

"Being Safe" is a scientifically designed interactive program to reduce the mind stress of the employees and bring in a sense of realization of "Being Safe" for their own-self and for their families.

The workshop concluded with the participants taking oath of following the path of "Being Safe" and to make it a habit while working in the plant and outside too.

"Being Safe" workshop has interacted with more than 2500 employees, their family members and school students of Rajasthan.



TELEGRAM

ON SUSTAINABILITY

The moral science of yesterday and environmental science of modern world ...

TELEGRAM – a short 50 words message on Sustainability that would bring in something that also might be unheard and unknown. TELEGRAM, you may call it TWITTER OF YESTERDAY, has been the most awaited instrument of communication in the golden era and we expect it would be today as well...

The Blinking lights of Traffic Signals...



THE FIRST non-electric gas-lit traffic signal was invented by J P Knight, a railway signalling engineer and was installed outside the Houses of Parliament, London in 1868. On 5th August

1914, the American Traffic Signal Company installed the first electric traffic signal system in Cleveland, Ohio.....

Gas mask that saved lives in World War I

The Gas mask, an evolutionary invention, involved many inventors. Gas masks were first made after the first deadly gas attack near Ypres in Belgium (April 22, 1915); some of the British soldiers were dead due to inhalation of deadly chlorine gas launched by the Germans.



Safety Shoes – A revolutionary invention in Safety...

Origin of safety shoes can be traced to the beginning of 20th century when industrial safety first became an issue. Before then, it was cheaper to replace an injured worker than to introduce safety measures. The first protective boots were wooden boots, called SABOTS that protected worker's feet while working.



The Evolution of Fire Extinguisher

The concept of Fire Extinguisher dates back to ancient times. In 200 BC, Ctesibius of Alexandria invented a hand pump that delivered water to put out fire. Romans used water buckets, passed hand-to-hand for extinguishing fire. In 1818, George William Manby invented the first Fire Extinguisher.



The History of Safety Goggles

In ancient times, the Eskimos carved snow goggles from antler, wood, and shell to help prevent snow blindness. The first patented Safety Goggle called SANIGLAS was developed in 1909. During World War I, Safety Goggles came into use with gas masks to safeguard the eyes of soldiers.



Safety Town Hall at HZL



Safety Town Hall was organized at Head Office, Udaipur on 1st December, 2017. The program started with a screening of a heart touching short film as a safety contact aimed at increasing awareness on importance of safety. During the program, Mr. Sunil Duggal – CEO, HZL emphasized on a re-audit of lifting & shifting practices for further improvement in rigging practices as well at Hindustan Zinc. Also present were Mr. Naveen Singhal - Director, Projects and Mr. Dilip Pattnayak - Head HR during the program along with other senior management officials.

The employees from all the units joined through 12 TP/VC and 8 webcasts. More than 2000 employees participated in the Town Hall.

Carbon Disclosure Project (CDP) Results 2017

Hindustan Zinc has been participating in Carbon Disclosure Project program since 2011. This year in CDP – Climate Change Disclosure, the company has scored 'B'. 13 companies out of BSE Top 200 companies applied in Materials category, out of which only 8 companies including HZL received 'B' band and none of the Indian companies scored 'A' in this category. Also, Hindustan Zinc participated in CDP- Water Disclosure for the first time and received score band 'B'. In India, only 8 companies have applied for the Water CDP, four companies including HZL received 'B' and none of the companies received A. Hindustan Zinc is also one of the four Indian companies along with Wipro, Tech Mahindra and Mahindra Sanyo Steel who are committed to the Science Based Target initiative (SBTi) to set GHG emissions reduction targets in accordance with climate science.



Commissioning of 3 Solo-DL421 at SKM

Sindesar Khurd Mine has commissioned higher version of Electro Hydraulic Drill Rig Solo on 17th October, 2017. It is equipped with on-board compressor, data transfer technology and auto-drilling option for one-hole data drilling and full fan automation. The Drill Rig can automatically drill the hole, add new drill string and uncouple the string. The drill function features anti-jamming automatics and auto-flushing.

Vertigo Test Conducted at Zawar Hospital



Vertigo Test was conducted for the 1st batch of employees and business partners on 3rd & 4th November, 2017 and the second batch on 9th & 10th November, 2017 at Zawar Mines.

Training on Rigging Safety at HZL

Training on Rigging Safety was conducted at all locations of Hindustan Zinc through M/s Ability Consultant in December, 2017.

Signature Campaign for Awareness on Traffic Rules at Kayad Mine

A Signature Campaign for awareness on Traffic Rules was organized by Kayad Mine team in collaboration with District Traffic Police Department on 19th November, 2017 for people who lost their lives in road accident.

Monthly Safety Themes at HZL



Improvement initiatives/training/awareness campaign were conducted at all units of Hindustan Zinc under Monthly Safety Themes – Confined Space Entry in October, 2017, Emergency and Response Plan in November, 2017 and Material Handling in December, 2017. Various competitions like poster drawing, slogan, poem, etc. were also conducted across all units.

New Refuge Chamber installed at RAM

Additional four of 8 seater capacity Refuge Chambers have been procured and installed in Rampura Agucha Underground Mine at prominent places in the section. Now Rampura Agucha Underground Mine is having four of 8 seater, four of 6 seater and two of 20 seater Refuge Chambers in place.

Fire Fighting Demonstration at Zawar Mines



Fire Fighting was demonstrated in underground at 250 mRL at Zawarmala Mine for class A, B and C type fires. The exercise was held on 23rd September, 2017.

VSAP Chaupal at CSC

VSAP Chaupal at Chanderiya Smelting Complex was conducted to educate all employees of location including the business partners regarding Vedanta Sustainability Framework in September, 2017.

31st Opencast Mines Safety Week 2017 at RAM

31st Opencast Mines Safety Week 2017 was celebrated on theme - Cleanliness and Silicosis Awareness from 27th November – 2nd December, 2017 at Rampura Agucha Open Cast Mine. On this occasion, various events were observed at Mine/ Mill and other common areas like internal trade test, safety speech, poster competition, slogan competition along with poster making competition organized for Hind Zinc School.

V Fitness- Heart Marathon at CSC

Heart Day was celebrated on 1st October, 2017 at Chanderiya Smelting Complex by organizing Heart Marathon at zinc colony where all the employees and colony residents participated and won trophies.

Aarohan 4th Anniversary Celebration at PMP & CSC



Aarohan 4th Anniversary Celebration was conducted at Pantnagar Metal Plant on 30th October, 2017 and at Chanderiya Smelting Complex on 29th November, 2017. Various activities were conducted - prize distribution for near miss reporting, safety slogan competition, safety walk, to name a few.



Housekeeping Drive was conducted to set the tone of a clean, well ordered and hygienic work place at all locations of Hindustan Zinc.

A theme – Target Housekeeping Score : 90 by Diwali was also launched with a tag line – Clean & Green Vedanta. Various activities and competitions were conducted across Hindustan Zinc. It was to create awareness people on the importance of bringing a change on the ground and also taking housekeeping operations to excellence of 90 score and sustaining the same in future. It involved assessment by HSE teams across units.

Safety Chaupal at CSC & RAM

Training on 'Work at Height' & 'Confined Space' and various other awareness initiatives were taken at IBU level and Rescue Drills were conducted in Quarter 3 at Chanderiya Smelting Complex. Chaupals were conducted at various spots and the champions were recognized in open forums. Live demo on Confined Space was also organized on 27th October, 2017.

Team Mill of Rampura Agucha Mines organized Suraksha Chaupal program chaired by Mr J. Balasubramanian – Head Mill on 30th October, 2017. Various programs were conducted on the theme – confined space, work at height, LOTO, etc. by M/s Monomark. 130 contract workers participated in the event and winners were awarded during the program.



5S Slogan Competition at Zawar Mines

A 5S Slogan Competition was launched on 25th August, 2017 for all employees, business partners and their workers at Zawar Mines. The contest was concluded on 18th September, 2017 and the prize distribution ceremony was organized on 6th November, 2017. The winners were – Mr. Jagdish Chandra Lohar – Environment Department at 1st position, Mr. Prakash Chandra Kalal – M/s Simar Contractor at 2nd and Mr. Dhamendra Kumar – M/s Simar at 3rd position.

Launch of Contractor Safety Management 6 step tracker at HZL

To strengthen the Contractor Safety Management Initiatives by getting a consolidated view on CSM six step compliance at UIC, Zone and at Corporate level, a six step tracker was launched in November, 2017 across all units of Hindustan Zinc.

41st Underground Mine Safety, Cleanliness and Silicosis Awareness Week

Underground Mines Safety Week was celebrated at all mines in Udaipur and Ajmer Region under Directorate of Mines Safety starting on 5th November, 2017. The participating mines included Rampura Agucha Mine, Khetri Mines, Koliyan Mines, Kayad Mine, Rajpura Dariba Mine, Sindesar Khurd Mine, Bend Mines, Khandel Ki Pal and Zawar Group of Mines – Balaria, Baroi, Mochia & Zawarmala. The closing ceremony of the 41st Underground Mines Safety, Cleanliness and Silicosis Awareness Week was held on 14th November, 2017 at MKM Stadium, Zawar Mines. The Chief Guest of the function was Mr. P.K. Sarkar - Director General of Mines Safety, Dhanbad. The guest of honour was Mr. Narayan Rajak - Dy. Director General of Mines Safety North Western Zone, Udaipur. Mr. A.K. Porwal - Director of Mines Safety, Udaipur Region, Mr. Amitabh Gupta - CFO, HZL, Mr. L.S. Shekhawat - COO Mines, HZL, Mr. K.S. Shaktawat - General Secretary of Hindustan Zinc Federation and Mr. Lalu Ram Meena - General Secretary, Zawar Mines Mazdoor Sangh attended the program. Over 1200 participants witnessed the event including officials from various mines, students of DAV school, workers and business partners of Zawar-IBU. Prizes were distributed to winners under various categories and Balaria Mine emerged as the overall winner.

Swachhata Pakhwada at Hindustan Zinc

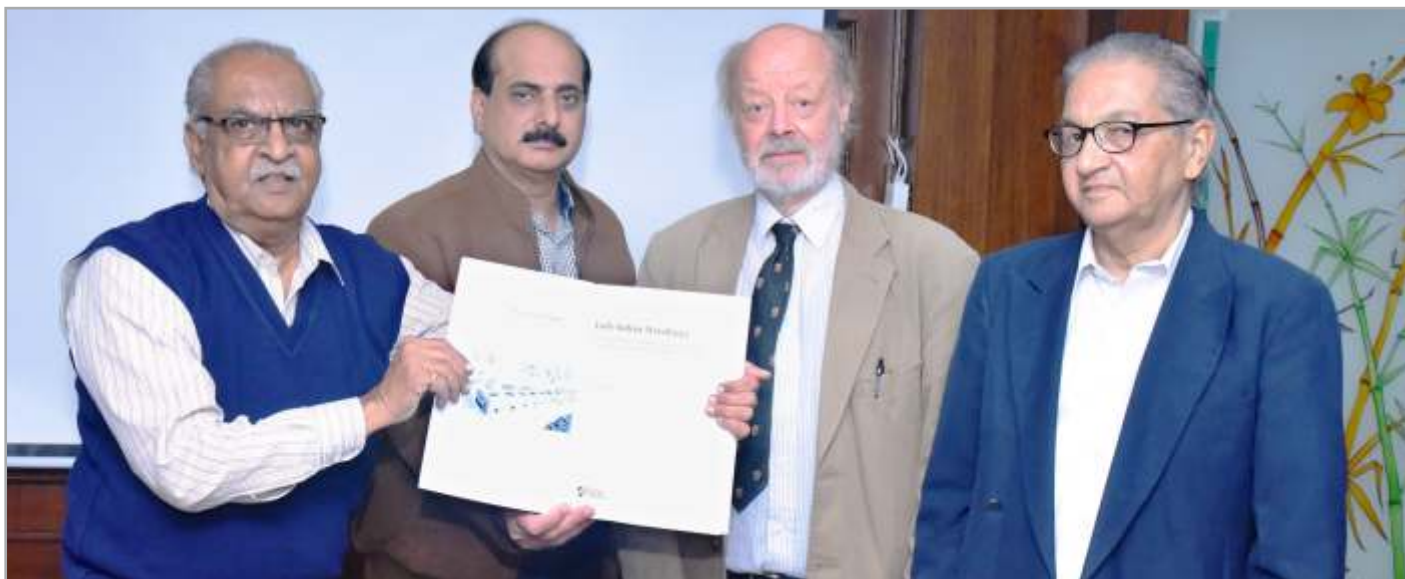
With the objective of bringing a fortnight of strong focus on the issues and practices of Cleanliness, Swachhata Pakhwada was commenced on 16th December, 2017 in all the mining locations of Hindustan Zinc. Swachhata Pakhwada is an intensive cleanliness drive by Government of India to bring about behavioural change through innovative activities so that the ultimate goals of the Swachh Bharat Abhiyan could be achieved and sustained.



At Rampura Agucha Mines, employees and senior management together took the 5S oath and pledged to spread the message of Swachh Bharat Mission. Plantation drive was organised at Kayad Mine wherein employees and senior management pledged to plant 1000 saplings during Swachhata Pakwada. At Rajpura Dariba Mine, Safety Officer highlighted the importance of good house-keeping and, identifying the hazards and timely action to prevent these hazards. Many other innovative activities like walk for cleanliness, essay writing competition, debate competition, cleanliness kit distribution, training for making India Open Defecation Free, poster making, puppet shows on cleanliness, street plays and Shramdaan were organized from 16th – 31st December 2017.

News Digest...

- ◆ Jacon – New water spraying equipment has been installed at Rampura Agucha Underground Mine for dust suppression in November, 2017.
- ◆ Two Online safety awareness tests were conducted at Hindustan Zinc on Excavation and Rigging Safety to raise awareness and ensure the compliance of the same.
- ◆ Conveyor Safety Drive was conducted on 9th & 10th November, 2017 for Conveyor Safety and Operation by M/s Martin Engineering. 32 engineers across HZL participated in the drive.
- ◆ Management of Change Personnel Policy was rolled out on 26th October, 2017 across Hindustan Zinc.
- ◆ A Training Program was organized on 8th & 9th December, 2017 for Loaders & Lifters Operators by M/s Escort Ltd. at Zinc Smelter Debari.
- ◆ Height Rescue Mock Drill was conducted at Chanderiya Smelting Complex on 7th November, 2017 in the presence of senior management and IFSS.
- ◆ Two days regulatory training program was conducted for environment professional of Hindustan Zinc on 11th & 12th October, 2017 at Chanderiya Smelting Complex by Dr B. Sen Gupta - Ex CPCB & MoEF.
- ◆ A session was organized to encourage female employees to be diet conscious for healthy life at Rampura Agucha Mines in Quarter 3.
- ◆ Nano Marathon was organized on 19th November, 2017 for employees at Rampura Agucha Mines.



हिन्दुस्तान जिंक के मुख्य कार्यकारी अधिकारी श्री सुनील दुग्गल ने डॉ. पॉल टी. क्रेडाक, श्री के.टी.एम. हेगड़े, श्री एल.के. गुर्जर एवं एल. विलीज द्वारा 'प्रारंभिक भारतीय धातु-विज्ञान' पर आधारित पुस्तक का हिन्दुस्तान जिंक के प्रधान कार्यालय में 27 नवम्बर, 2017 को विमोचन किया। इस पुस्तक में राजस्थान के अरावली पहाड़ियों में प्रारंभिक धातु विज्ञान, उत्तर पश्चिम भारत में तीन सदियों से सीसा-जस्ता एवं चांदी का उत्पादन, हिन्दुस्तान जिंक की स्थापना, जावर, राजपुरा-दरीबा एवं आगुचा खदानों के इतिहास एवं स्मारक का वर्णन, खनन प्रचालन का अनुसंधान, धरातलीय स्थलों पर सर्वेक्षण एवं उत्खनन, खदानों में औद्योगिक सामग्री का वैज्ञानिक परीक्षण, लाभकारी खनन, चांदी उत्पादन की प्रक्रिया, जस्ता एवं ब्रॉस का उत्पादन तथा 17वीं से 21वीं सदियों के दौरान विलुप्त और पुनरुद्धार-भारतीय उद्योग का विस्तृत वर्णन किया गया। इस समारोह में हिन्दुस्तान जिंक के पूर्व निदेशक (खनन) – श्री एच.वी. पालीवाल, पूर्व वरिष्ठ खनन अधिकारी – श्री कान सिंह चौधरी, हिन्दुस्तान जिंक के भूतपूर्व वरिष्ठ भू-विज्ञानी – श्री एल.के. गुर्जर, हिन्दुस्तान जिंक के निदेशक (प्रोजेक्ट्स) – श्री नवीन कुमार सिंघल, हेड-कार्पोरेट रिलेशन्स – श्री प्रवीण कुमार जैन एवं जिंक के वरिष्ठ अधिकारी एवं कर्मचारी उपस्थित रहे।

Lead Battery Conference attended by HZL

The Indian Lead and Zinc Development Association (ILZDA) organized a Lead Battery Conference on 27th & 28th November, 2017 in Bangalore. Over 100 delegates from Lead Acid battery manufacturing community as well as Lead Battery recycling community participated in the conference. Dr. B. Subramanian - Principal Scientist at CECRI and Jt. Director of SAEST spoke on the ongoing developments towards achieving better electrochemical efficiency. The breakthroughs made in the 'Dash Charging' for lead acid battery along with the increase in life of battery was very impressive. Cost of production using Lead Acid Batteries (LABs) is around \$120-\$200 per Kwh which is at least twice as less as than that of \$400 per Kwh of lithium ion battery. Notwithstanding the fact that Li-ion battery has been proven to last for 8-10 years as compared to 2-3 years life of LABs for certain applications, recyclability of LABs makes them the obvious choice for battery manufacturers and consumers from across the world. Dr. Jianbin Meng - Director of Economics and Environment at ILZSG, covered the impact of improper lead recycling on the environment and the measures that should be taken for proper recycling and transportation of the metal.

Zawar Mines hosted session on Zawar and Zinc: The first Chemical Industry

Zawar Mines hosted a session by Dr. Paul T. Craddock, Mr. L.K. Gurjar, and Dr. Arvind Kumar on 23rd November, 2017. The session was attended by the Zawar Geology Team and employees from various functions. Dr. Paul spoke about his book 'Early Indian Metallurgy : The production of Lead, Silver and Zinc through three millennia in North West India' which detailed the archeologically significance and history of Zawar through the Mauryan Period. Dr. Paul also highlighted the complex working of the Maruyan mine, medieval open trench mines, and Medieval process of roasting zinc ore.



...an Insight with Shri Gaurgopal Das

Hindustan Zinc organized
“an INSIGHT”
with Shri Gaurgopal Das, a well renowned,
motivational speaker and lifestyle coach
from ISKCON
on 29th November, 2017.

“Happiness is a choice. 'Being Successful' and 'Feeling Successful' are different.”
- Shri Gaurgopal Das



“Life is like a mathematical equation. There is a constant and there is a variable. Happiness does not happen automatically in life. You have to choose it to feel it”, said Shri Gaurgopal Das during his interaction with employees of Hindustan Zinc on 29th November, 2017 at Hindustan Zinc Yashad Auditorium.

His interaction was focused on secrets to renew one's energy and enthusiasm. With spiritual humour, he emphasized on “doing something you have to do and doing something that you love to do”. Investing in interpersonal and spiritual time apart from the daily job is important. It will aid in consciously liking your life. It is important to be thankful for what you have received and achieved in life.



“In the journey of life, there is birth and death; and in the middle there are challenges and turbulence. But it completely depends upon a person how he chooses to live and handle the situations as they come. One can be like a soda bottle which when shaken gushes out with force or one can be like water in a bottle that remains calm & stable no matter how much it is shaken”, Shri Gaurgopal Das described the way of living the life with this simple example.

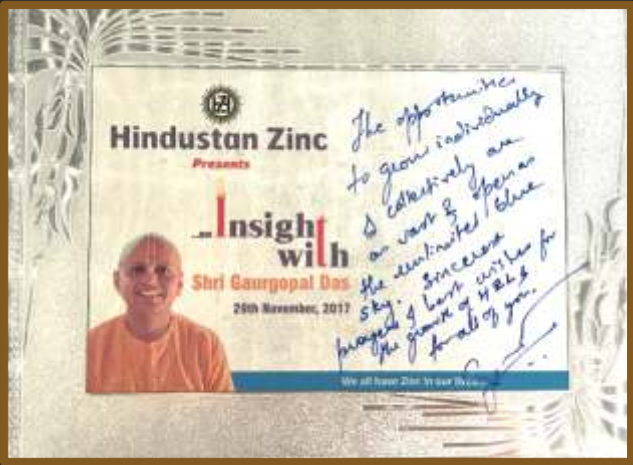
During his visit, Shri Gaurgopal Das planted a mango sapling under environment protection initiative. Mr. Sunil Duggal - CEO, Hindustan Zinc also planted a sapling of mango.

The interaction reached out to more than 500 employees of Hindustan Zinc, where the employees of Head Office and the units joined to listen the address of Shri Gaurgopal Das.





The program was compered by Ms. Hansa Vyas and tone was set by Mr. Pavan Kaushik – Head Corporate Communication.



Mining, Exploration Convention & Trade Show - Mining Mazma 2017



Federation of Indian Mineral Industries (FIMI), New Delhi organized a Mining, Exploration Convention & Trade Show - Mining Mazma 2017 from 14th -16th September, 2017 at Bangalore International Exhibition Centre (BIEC), Bangalore. It saw the presence of companies & experts from leading national and global mining & exploration companies, policy makers, technocrats, investors, manufacturers who showcased their unique achievements, key strengths through presentations and exhibitions. It focused & facilitated deliberations on various opportunities in mining besides providing a bird-eye view at Indian mining companies. The

participating companies & state DMGs presented their views in interactive sessions as to how to make Indian Mineral industry globally more competitive. All stakeholders from Rajasthan at the behest of State government put an integrated Stall - Rajasthan Pavilion under the leadership of Hindustan Zinc with DMG, HCL and RSMM as participants.

Hindustan Zinc was represented by Mr. S.K. Vashisth – AGM, Business Development Group and Mr. B. Dave – AGM, Geo.

चन्देरिया लेड-ज़िंक स्मेल्टर मजदूर संघ का रजत जयंती समारोह सम्पन्न

चन्देरिया लेड ज़िंक स्मेल्टर मजदूर संघ का रजत जयन्ती समारोह श्री यू.एम. शंकरदास की अध्यक्षता एवं श्री लक्ष्मणसिंह शेखावत के मुख्य आतिथ्य में 1 नवम्बर, 2017 को सम्पन्न हुआ। कार्यक्रम में अध्यक्ष पद से बोलते हुए श्री यू.एम. शंकरदास ने कहा कि प्रबंधन एवं श्रमिकों में सामंजस्य ही औद्योगिक विकास का आधार है। श्रमिकों की खुशी पूर्णतया कम्पनी की खुशी पर निर्भर है। हर श्रमिक अपने उत्तरदायित्वों का समर्पित भाव से निर्वहन करें। मुख्य अतिथि, श्री लक्ष्मण शेखावत – मुख्य प्रचालन अधिकारी खनन प्रचालन ने मजदूर यूनियन के रचनात्मक सहयोग की प्रशंसा करते हुए सुरक्षित कार्यप्रणाली पर जोर दिया। विशिष्ट अतिथि – श्री पंकज कुमार सिंह मुख्य प्रचालन



अधिकारी स्मेल्टर ने विश्व प्रतिस्पर्धात्मक वातावरण में कार्य कुशलता की उत्कृष्टता बढ़ाने को भावी चुनौती बताया। संघ के महासचिव एवं समारोह के मुख्य मेजबान श्री घनश्यामसिंह राणावत ने अपनी 25 वर्षों की यात्रा के संस्मरण याद करते हुए सभी के सहयोग एवं विश्वास को अपनी शक्ति बताया। समारोह में ज़िंक स्कूल की छात्राओं द्वारा प्रिंसिपल श्रीमती बिन्दु नायर के नेतृत्व में मनमोहक नृत्य प्रस्तुतियाँ दी गईं।



Training on Electrical Hazards at RAM

Mr. Annandale – DDMS, Electrical conducted a workshop on 12th October, 2017 at Rampura Agucha Underground Mine to identify the Electrical Hazards and prepared the safety management plan to mitigate the risks.

Town Hall Meeting at DSC

Town Hall Meeting was conducted on 1st November, 2017 at Dariba Smelting Complex. Mr. Deepak Sopori – Smelter Head highlighted the Performance in Q2 and Targets in Q3 in terms of Cathode Production, COP for smelter and its achievements. He also instructed the team to strengthen the maintenance practices with focus on preventive maintenance (PM/CBM, refurbishment, etc.) to avoid surprises and prevent failures. The session was followed by reward & recognition where achievers of Q2 were appreciated and rewarded.

Refresher Training at Zawar Mines

Refresher Training for mining mates was organized on 16th November, 2017 at Zawar Mines. First batch of 22 mining mates from all the four mines of Zawar attended the training.



SMEs Development Program at RDC

As a part of Skill Development Drive at Dariba Smelting Complex, the initiative of development of technical Subject Matter Experts (SMEs) was completed in October, 2017. In this drive, Regional Training Centre, Nimbahera developed the SMEs in 3 phases. Phase-1 included validation of the SMEs, phase-2 included development of their behavioral skills which involved presentation & communication skills and the art of connecting with the audience. In phase-3 their technical skills were enhanced by theoretical training as well as practical sessions at RTC. Now, there are total 60 SMEs at Dariba Smelting Complex that included employees from operations, electrical, instrumentation and mechanical department.



GRI Certified Training on GRI Standard at HZL

Two-day training on GRI standard was conducted on 29th & 30th November, 2017 through M/s CII. 20 employees participated in the training. GRI standard is widely used framework for Sustainability reporting and help businesses to understand and communicate the impact of business on critical sustainability issues to stakeholders.

Training on Communication & Presentation Skills at RAM

Training on Communication & Presentation Skills was conducted at Rampura Agucha Mines for employees on 29th November, 2017 by Dr. Manisha and Dr. Vinod Kumar from M/s Manvin Consultant.

Training on SA 8000 at Kayad Mine

Training on SA 8000 was organized at Kayad Mine where about 45 employees and contract supervisors participated. The faculty of program was Mr. V. Saxena from M/s Rina, New Delhi.

Training on Safety at CSC

Training on Kitchen Safety & BBS were given to medical staff, colony residents and contract workers in Quarter 3 at Chanderiya Smelting Complex.





Interaction with GETs at RDC

Mr. Dilip Pattnayak - Head HR had an interactive session with GETs of Rajpura Dariba Complex in October, 2017 regarding their experience in the company, the progress of their projects and their learning. The discussion not only focused on the progress but also gave the perspective to young GETs on company's objectives and what approach is expected from them in becoming future leaders.

Womentoring Initiative at CSC

Womentoring Initiative was organized by Chanderiya Smelting Complex team to understand how female employees should deal work pressure and excel in their field. The session was taken by Ms. Samiksha Nalwaya followed by interaction with Site President and Location HR Head on 3rd November, 2017.

HR Analytics Workshop at RDC

A workshop on HR Analytics by SHRM (Society for Human Resource Management) was organized at Rajpura Dariba Complex on 7th & 8th November, 2017 wherein several insights were shared on analytics by means of case based studies and hands-on exercises. Participants came from across Hindustan Zinc attended this 2-day learning session.



Pre Act-up Workshop at Zawar Mines

A Pre Act-up Workshop for 29 high potential employees was organized at Zawar Mines on 14th October, 2017 in order to make them understand and set the expectations of the Act-up process.

Training on Basic Shotcreting & Concreting at RAM

A training was organized at Rampura Agucha Underground Mine on Basic Shotcreting & Concreting and operation of Normet Spraymecs with the use of simulator from 6th - 13th November, 2017. Training was imparted to 20 shotcrete /miller operators (10-AAC,9 TCL,1 Barmenco) by Mr. Santosh Sharma and Mr. Matti Martikainen.



Workshop - Aparajitha at Zawar Mines

A workshop - Aparajitha was conducted on 28th October, 2017 at Zawar Mines to share and understand overall approach, methodology and way forward of the activities to be carried out to ensure legal compliance related to contract workers.

Recognition to AECT trainers at RDC



AECT trainers were felicitated for successfully achieving the target of giving a comprehensive training to 728 members. Dariba Smelting Complex-Zinc was the first unit to complete AECT training in Zone 1. Trainers from M/s SS & Company, M/s Nalco and HZL were appreciated and rewarded for their contribution in safety journey - Aarohan.

Mera Vichar & NMI at RDC



Mera Vichar – a Kaizen scheme has been initiated at Rajpura Dariba Complex in Quarter 3 for contract workers. The objective is to increase the involvement of workforce in continuous improvement at the workplace. New initiative to enhance safety has also been initiated where contract workers are rewarded for reporting Near Miss Incidents (NMI).

Stakeholder's Engagement at RDC

A session on Stakeholder's Engagement was conducted on 11th November, 2017 at Rajpura Dariba Complex by trainers from M/s Manvin Consulting.

5S Training at Kayad Mine

5S Training was conducted at Kayad Mine by Mr. Ravi Srivastava from M/s QCFL. More than 160 employees and contract workers attended the program on 15th & 16th November, 2017.

GET get-together at RDC

GET get-together was organized on 7th October, 2017 at Rajpura Dariba Complex. The interaction with Site President – Mr. Kastoor Meena during the program was followed by the feedback shared by GETs with senior management.

Training on Management of Change at Kayad Mine

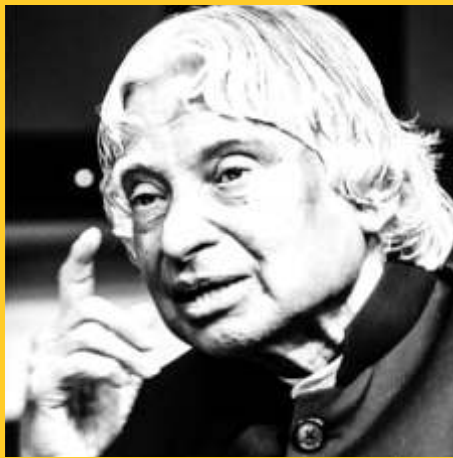
Training on Management of Change was organized at Kayad Mine by Mr. Rajesh Pareek of Oryx from 31st October - 2nd November, 2017. About 50 employees and contract supervisors were given the training.

News Digest...

- ◆ In-house training was organized at Rampura Agucha Mines for contract workers on HIV Aids Day i.e., 1st December, 2017.
- ◆ SI training was conducted on 17th, 18th & 20th November, 2017 for the employees of Zawar Mines.
- ◆ A GET Review was done by Unit Head at Kayad Mine and mentors for all the GETs in Quarter 3.
- ◆ Chanderiya Smelting Complex team has initiated quarterly bi-partite communication platform - Samvaad between management and business partner in Quarter 3.
- ◆ Safety Stand Down was conducted by Chanderiya Smelting Complex at 21 different locations in IBU covering over 350 members in Quarter 3.
- ◆ A COP awareness cum quiz was organized on 27th November, 2017 at Rajpura Dariba Complex. The session emphasized on cost awareness where small changes at shift level leads to higher benefits at the workplace.
- ◆ Snehbhoj was organized at Sindesar Khurd Mine for approximately 2000 employees and contract workers to celebrate the record breaking production in November, 2017.
- ◆ Chanderiya Smelting Complex team has launched a comprehensive program Mehnat se Kamyabi (MSK) at Pyro Plant on 6th November, 2017.
- ◆ Training on Work at Height was conducted at Zawar Mines for contract workers on 3rd October, 2017.

CORPORATE SOCIAL RESPONSIBILITY

**Building a
Life of Dignity
for the Rural
Deprived in
Rajasthan**



Dr. A.P.J. Abdul Kalam
'the Missile Man of India'
11th President of India

"Friends, for promoting universal peace and prosperity, we need to identify what are the fundamental parameters which connect nations into one unified platform, what tools which enable such connectivity and what specific agendas are needed to bring the world together. Such fundamental parameters include environment, trade and economics, security, health and education of the humanity. These four parameters connect the world with a compounding positive effect, meaning that well-being of one nation on these parameters imply the well-being of every other nation as well..."



Anil Agarwal
Metal King with a Golden Heart
– A Billionaire Philanthropist

"Women form a very significant part our society and demonstrate great skill, intelligence, hard work and innovation. If we harness the potential of these attributes through a proper skill development programme, India's growth will be very equitable and inclusive. Our Nand Ghar project is aimed to bring social and economic empowerment in rural women..."



HINDUSTAN ZINC FOOTBALL ACADEMY

SETS-UP INFRA FOR FUTURE FOOTBALL PLAYERS IN INDIA

Pavan Kaushik - Head Corporate Communication
Published in Asian Age | 22nd December, 2017

Football is the most popular sport and enjoys maximum participation and fan following on a global scale with over 200 countries and affiliates playing the football as official members of FIFA. Over the last few years, India has seen a great push towards the development of football with a massive football fan following which was also recently seen at the Under-17 FIFA World Cup in India.

Going back to the history, on November 6, 1869, Rutgers and Princeton played, what was billed as the first college football game. However, it wasn't until the 1880s that a great rugby player from Yale, Walter Camp, pioneered rules changes that slowly transformed rugby into the new game of American Football.

In India, Nagendra Prasad Sarbadhikary, who is recognized as the father of Indian football, introduced soccer in the year 1877 at Hare School, Calcutta. It is Nagendra Prasad Sarbadhikary who mobilized his classmates and started playing the game at Hare School compound.

In 1889 India's oldest and current team Mohun Bagan A.C. was founded as "Mohun Bagan Sporting Club". This was the first club to be under the rule of the army. Several football clubs like Calcutta FC, Sovabazar and Aryan Club were established in Calcutta during the 1890s.

Hindustan Zinc, has been associated with sports and has been promoting sportsmen for almost 4 decades when the company made its football stadium at Zawar in Rajasthan in 1976. Since last 40 years, National Football Tournaments are being organized every year at Zawar Stadium in the memory of late Shri Mohan Kumar Manglam, former Union Minister for Steel and Mines, Government of India. The tournament attracts more than 50,000 spectator every year from across India with teams participating from Delhi, Mumbai, Udaipur, Chennai, Kolkata, Jodhpur, Jaipur, Dehradun, Ahmedabad, Hisar, Meerut and Himachal Pradesh and other cities. Overall the tournament witnesses about 20 national level football matches. The company has also constructed a stadium in Rajsamand in Rajasthan to promote sports.

Hindustan Zinc assessed that a sportsman needs financial security, training, infrastructure and confidence to put his hundred percent energy. With an aim to encourage and support sportsmen, the first association of Hindustan Zinc started with the Ace Archer Padam Shri Limba Ram and extended to Bhupendra Vyas - 7 Gold Medals winner of Commonwealth Games in Power-Lifting event; Mala Sukhwil - Gold Medallist in Women Power-Lifting and Jabbar Mohammed, the Volleyball Player. Hindustan Zinc also supported the Ace Discus-Throw international champion, Krishna Poonia who has been the recipient of the Arjuna Award in 2010 and Padma Sri Award in 2011.

Another example of support was Bhakti Sharma who has set world record in open-water swimming by covering 2.5 km in Antarctic Ocean, beating the record of British open water swimming champion Lewis Pugh and American swimmer Lynne Cox. 'Had Hindustan Zinc not supported, it would have been impossible to achieve this feat', Bhakti Sharma had said after achieving this milestone.

The company also supports multi-sports tournaments for school children in Rajasthan that sees thousands of children participating in various sports.

Setting up "Hindustan Zinc Football Academy"

Hindustan Zinc association with sports and sportsmen brought the thought of setting up of India's first, below 12 years, international level 'Hindustan Zinc Football Academy' in Udaipur. The Company's vision is to set up a world-class technology based fully residential Football Academy and provides a 360 degree holistic platform whereby talented footballers from Rajasthan, both boys and girls, can get an opportunity to get trained and play for the Indian National Team. Hindustan Zinc has tied-up with 'The Football Link Sport' for setting-up this state-of-the-art Football Academy.

Hindustan Zinc Football Academy currently has 40 children. To get these 40 children, 23 Talent Scouting Camps have already been organized that saw the participation of over 3000 children from 5 districts of Rajasthan –



Perhaps India's first junior football academy that will go at the grass-root level and select 40 talented & aspiring footballers, below the age of 12 years, to nurture & train them as professional football players. It will also organize 64 Community Football Clusters that will nurture 2500 football enthusiasts through camps to form a 20 players team each of girls and boys at each Cluster. Hindustan Zinc Football Academy will be fully residential, with international standard training facilities and induction of 'F-Cube Technology' for training. The Academy will also introduce for the first time in India 'Junior Zinc Premier League Football Tournament'.

"I have always believed that every person should pursue one sport throughout his life with the intention to keep the body fit and healthy. Hindustan Zinc believes that India has a huge talent that is hidden in rural and tribal areas, unexplored, and they just need guidance, support and opportunities. Hindustan Zinc has supported many sportsmen that have brought laurels to India. We decided to build an international level football academy and have identified Zawar in Rajasthan, which is a tribal area, to bring forward hidden talent and give them proper infrastructure, training and all other facilities, so that one day they are able to play not just for Rajasthan but for India. All this support is part of our CSR and budget will never be a constraint."

– Mr. Sunil Duggal - CEO, HZL



Udaipur, Bhilwara, Chittorgarh, Rajsamand and Ajmer. These identified 40 children will now undergo rigorous training to become professional football players and play in various Local, National and International football tournaments. The training will be for 4-6 hours a day, for about 5-6 years, till they get to the age of 17-18 years.

World Class technology based 'Player Performance Analysis Centre' is also being set-up with artificial turf grounds and latest technological innovations including the 'F-Cube Technology'.

Hindustan Zinc Football Academy would provide all necessary facilities, complete football kits and accessories to the selected children. Their training and grooming would be monitored by experts that would include health & fitness experts and nutrition & diet experts. Their skills, body weight, energy, strength and stamina would be tested and monitored on regular basis.

To strengthen the ultimate purpose, the Academy will further undertake skill development of local and national football coaches by organizing various coaches' development initiatives and certification courses in association with the District, State and National Football Federations to develop a talent pool of skilled football educators.

The Academy will therefore help in creating employment and job opportunities for passionate football coaches.

The ultimate objective is to reach out to more than 60,000 children in 100 villages and tribal areas in Rajasthan in the next five years.

Induction of Technology for Skill Development

The Academy has introduced 'F-Cube Technology' which is a globally accepted sensor based interactive and intelligent device for football training, skill evaluation, accuracy, response monitoring, measurement of speed, endurance and power of the players.

First time introduced in India, this device, as a player crosses different levels, would measure and enhance the training parameters. It precisely presents, digitally, an analysis of players for evaluation so that necessary strengths can be developed and weaknesses may be addressed.

Developing Community Football Clusters in Rural Rajasthan

Hindustan Zinc has focus to penetrate in rural and tribal areas through an extensive 'Community Outreach Program' across 5 identified districts of Rajasthan by adopting 64 Government Schools and their play-grounds to create grassroots football network for nurturing football talent in the long run. Each Cluster will also scout for about 40 children who are below the age group of 12 years and will form 2 teams, 20 each of boys and girls. Overall these clusters will nurture 2500 football enthusiasts. By now, 30 clusters have already become operative and training have started. These football enthusiasts are provided with professional training and fitness sessions.

Assurance of Formal Education - Admissions in Schools

Hindustan Zinc has already been associated with about 55 schools through its Shiksha Sambal Project and the company also has its own schools at every location where the businesses are located. To assure continuance of formal education to the final 40 children of the Academy, the company has identified schools for the admission of these children so that their formal education is also not hampered. Additional tutoring to these children will also be provided to help them in their Academics.

Zinc Football Team v/s National Football Teams

After the rigorous training at Hindustan Zinc Football Academy, a 'Zinc Football Team' of boys and girls would be separately formed that would compete in national tournaments. Hindustan Zinc Football Academy also has plans to partner with International Football Clubs to promote the trained football players of Hindustan Zinc Football Academy for further exposure.

The Company is confident that some of these players will have the potential to be selected for the national football team and clubs and would also be eligible to participate in international football tournaments. ■■■





SCALING UP SKILLS

Pavan Kaushik - Head Corporate Communication
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A qualified and productive workforce in mining operations is of utmost importance. Pavan Kaushik elaborates on the efforts of Hindustan Zinc (HZL) and its Mining Academy in enhancing the skill levels of mining machine operators through its various hands-on training courses.

The natural resources industry in India has seen significant changes in the past 10 years in terms of technology, employment generation, metal production and attracting best of Indian and global talents of engineers and management graduates. The growth of mining projects in India has resulted in huge demands of skilled operators to operate sophisticated mining equipment such as jumbo drill, load haul dumper (LHD), low profile dumper truck (LPDT), etc. Hindustan Zinc Mining Academy is preparing the youth for these new and exciting opportunities.

The Beginning

In the past few years, there has been a tremendous growth in the mining sector worldwide and India is no exception. The demand of manpower in the natural resources sector is increasing year-after-year. To meet this demand, many international experts have joined at key positions to explore natural resources, improve metal recovery and build a future of sustainable mining.

As the industry is growing with the advent of automation and technology, the need for trained manpower is also increasing. This is where the Prime Minister Narendra Modi highlighted the scope of employment opportunities with growth in natural resources sector. This led Hindustan Zinc, India's only and world's leading integrated producer of zinc, lead and silver, to identify areas that play crucial role in underground mining where the need for skilled manpower is being felt with a need to tap local talent. HZL has set up the Hindustan Zinc Mining Academy in collaboration with the Skill Council for Mining Sector and the training partner, Indian Institute of Skill Development Pvt Ltd.

Jumbo drill operators and winding engine operators came out as two distinct roles where the need for Indian skilled manpower could be deployed. These are currently being operated by expats at very high cost. Hindustan Zinc itself engages about 200 jumbo drill operators and 45 winding engine operators through business partners. The opportunities are set to move up with an increase in expansion of mines.

The Mining Academy was started as a Corporate Social Responsibility (CSR) initiative on August 1, 2014. The vision of this initiative was to provide a platform to local youth for developing highly specialised skills to operate the latest and the most advanced equipment used in underground mining operations, while making them self-reliant and opening paths for sustainable livelihood. The initiative has successfully delivered two batches of six-month residential programme on jumbo drill operators, followed by a six-month residential programme on underground mining equipment. In 2014-15, the academy trained 55 ITI/Diploma pass-outs in the jumbo drill and all of them got immediate placements.

After the huge success of the programme, Hindustan Zinc envisioned and made the programme more robust with quality changes. Currently, the academy runs three centres at Bhilwara, Rajsamand and Zawar near Udaipur, with 260 candidates from all over Rajasthan.

In October 2016, Hindustan Zinc commenced jumbo drill operator training to 120 ITI/Diploma pass-outs and their training will be complete by March 2018. In the winding engine operator training programme, 47 ITI/Diploma pass-outs were enrolled in February 2017 and their eight-month long training was completed in October 2017. Besides winding engine training, these candidates are also being given exposure in banksman and bellman operations.

The Facility and Courses

Hindustan Zinc extends high-tech facility for VTC training, simulation, and hands-on training for learning maintenance and operations required in underground mines. The candidates are able to operate real machines and are given industry exposure before they complete the course as per requirement. For jumbo drill operators, the company has set up a 3-D simulator, which is a virtual reality high-tech device used in Hindustan Zinc to train the operators in heavy machinery. The 3-D simulators are cost-effective, safe, and efficient methods for training all concepts and skills, from controls familiarisation to procedure compliance. Simulation training maximises productivity and increases workforce efficiency.

Hindustan Zinc also engages experts from its locations for taking expert faculty interface classes periodically, and also invites its business partners for engagement with candidates.

All academy centres run in a professional manner with inbuilt monthly monitoring system. Since the course is residential, the academy has a provision for free boarding and lodging facilities for all the selected candidates in all the training programmes. Equal emphasis is being given on classroom lectures and practical exposures to the students for enabling them to develop a better understanding of the module. The trainees are being groomed in various aspects like soft skills, team effort, discipline and overall personality development, which would further help them in securing sustainable livelihood in future.

Also, uniform for class-room and practical sessions are being provided by the academy to all candidates. They are also engaged in various indoor and outdoor sports – cricket, volleyball, badminton, chess, carom board, football etc.

Selection Criteria

It was assessed as an opportunity for the ITI pass-outs and diploma holders who are below the age of 30 years and who are qualified to operate equipment through training.

The candidates are being invited through advertisements in prominent newspapers as well as channels like FM Radio, WhatsApp and jingles are also engaged to create the buzz.

Application forms available on the mentioned website are to be filled online and then all applicants have to appear for written test (aptitude/respect for rules/IQ/English proficiency test etc). Successful participants are then called for documents check, medical fitness test, police verification for final selection/completion of the course and then

proceed for interview. Also, all existing trainees act as brand ambassadors and communicate through their channels.

Evaluation Process

The training assessment has inbuilt weekly and monthly tests, followed by quarterly third-party assessment. Candidates successfully fulfilling passing criteria each month

and in the third-party quarterly assessment are being awarded with National Skill Qualification Framework (NSQF) certifications. The Government of India notified the

NSQF on December 27, 2013. This is a competence-based framework that organises all qualifications according to a series of knowledge, skills and aptitude.

Certification based on National Occupational Standards is facilitated by Skill Council for Mining Sector (SCMS) after third-party assessment to the enrolled candidates who successfully complete the programme. The National Occupational Standards specify the standard of performance an individual must achieve when carrying out a role at the workplace, together with the knowledge and understanding they need to meet that standard consistently.

The candidates are given stipend ranging from Rs 2,000 to Rs 7,000 and also performance top-up according to set criteria based on their attendance and assessment performance, which motivates high performers to give their best. Further, to boost the confidence, centre-wise toppers and overall toppers are also given cash reward on quarterly basis, ranging Rs 5,000-10,000 during the course.

Apart from certification and monetary rewards, SCMS conducts an internal



auditor assessment as well through reputed third-party audit checks like KPMG that are monitored by a designated Project Steering Committee comprising senior executives.

Importance of Skill Development in Mining

According to the McKinsey Global Institute, over the last decade, the contribution of mining to India's GDP has fallen from 1.2 per cent to one per cent. If properly tapped, the mining industry could help propel growth for the country over the next decade. In fact, the performance of mining sector will be an important factor for India to achieve over seven per cent GDP growth. The mining industry has the potential to create six million additional jobs by 2025, accounting for 12 per cent of the new non-farm job gap.

India needs to create an additional 150 million non-farm jobs by 2025, to significantly reduce poverty, and empower people. It is also need to be highlighted that

there are no relevant courses available in mining space for the candidates to pursue. Apart from this, the awareness level among youth and quality of education are other bottlenecks to meet the required skills.

Mining workforce is crucial for sustainable development of the sector, especially as there could be incremental demand of 1.5-2.5 times of the current workforce by 2025.

To bridge the imminent shortage of human resource in mining sector, there are two possibilities that can be considered: increase the number of seats in mining engineering in relevant institutes over the next 10-15 years. The second solution is to devise short-term mining-specific courses for ITIs/diploma holders in mining states by facilitating private sector participation in skill development for the mining sector.

Setting up perhaps India's first Mining Academy, Hindustan Zinc is developing an ecosystem and contributing in unlocking India's potential in mining. This is certainly going to enhance India's capability in training people in the mining space and putting India on the growth path.

Definitely, a long-term vision and consistent effort is going to make India self-reliant on such mining skills, which presently is outsourced mostly from abroad. This has helped local youth to gain meaningful employment, and enhance employability of eligible youth. To some extent, it has also ensured sustained availability of adequate trained operators for the growing mining sector in India that completely aligns with 'Make in India' concept and act as a catalyst in nation building.

Challenges

There is a need to drive initiatives for the overall development of the mining sector. The major challenge in training people in mining is availability of proper infrastructure. The equipment is costly and sophisticated. Hindustan Zinc has provided simulators and has made its underground mines accessible for training, which is substituting need for the required infrastructure. Also, to enhance the personalities and imbibe discipline in these candidates, the programme has been made fully residential. The attrition is almost nil at Mining Academy, which itself speaks about its credibility and standard with qualitative training.

Future Plans

Hindustan Zinc plans to spend Rs 30 crore in five years to train about 500 ITI pass-outs in jumbo drill and winding engine operations. The academy is determined to have the jumbo drill batches every six months, which is well in place. The academy also provides training on other trades like winding engine, banksman, bellman, etc; an exclusive jumbo operator programme for ex-servicemen that started in October 2017 and another batch of regular jumbo drill programmes to start in January 2018.

Currently, there are approximately 260 candidates on board at the academy across its three centres. To further strengthen the foundation of Mining Academy, Hindustan Zinc is exploring the possibilities to run it through a registered society. The academy is even planning to initiate online assessment for entrance examinations and has started a step-up programme for rural youth residing near Hindustan Zinc's business locations. This is a pre-coaching programme to encourage and prepare these youth for entrance examination to join the course.

Recently, the company organized placement drive for these students and 126 passing-out students got jobs with an average package of Rs. 25,000/- per month. Hindustan Zinc's business partners have come together to employ these trained youths and use them for their different operations. These candidates have been recruited by companies like SK Khetan, BGE Mining Pvt Ltd, SMSL, Aravali Construction Co, Teknomin Construction Limited, UTM Engineering Pvt Ltd, AAC Mining Executors India Pvt Limited, to name a few. Hindustan Zinc itself engages about 200 Jumbo Drill Operators and 45 Winding Engine Operators. As Hindustan Zinc mines are in expansion mode, the opportunities for employment are only likely to increase.



Jeevan Tarang Enhancing Special Talent of Special Children

Hindustan Zinc under its unique initiative - Jeevan Tarang, on the occasion of World Disability Day distributed Android Smart Phones to blind students of Pragya Chakshu School, Udaipur and Badhir Baal Kalyan Vikas Samiti, Bhilwara on 4th December, 2017 with an objective of enhancing academic opportunities for these children and mainstreaming them into the society.

These Android Smart phones will enable the visually impaired students to 'Read & Write' using Accessibility Features on the device. These phones will allow these students to access their textbooks in DAISY format from the world's largest Online Library for the Print Disabled - 'Bookshare'. This will bring these students at par with other students by

allowing them to comprehend, read and prepare their academic content for better understanding hence making them competitive & ready for any exam. These Accessible devices will also allow the students to access the power of the internet and also gain worldly knowledge. They will also be able to enjoy games specially designed for Blind users on their phones.

Hindustan Zinc has partnered with experts to build capacities of these institutions and under this initiative Mr. Nitin Patel has been appointed in both these schools as a trainer to train these students in these advanced gadgets.

The Chief Guest of the event, Mr. Amitabh Gupta – CFO, HZL expressed his happiness to see the passion of these students to learn and climb up the ladder of success. He emphasized that through Jeevan Tarang, Hindustan Zinc strives to provide better opportunities to these students to grow and learn.

Jeevan Tarang endeavours to support people with disabilities, with a focus to identify needs of deaf-mute, visually impaired and children with brain damages. Around 500 beneficiaries have been identified from HZL's operational areas; Kayad Mine, Rampura Agucha Mine, Chanderiya Smelting Complex and Udaipur.



हिन्दुस्तान जिंक की स्वयंसेवी संस्था की महिलाओं को हेलमेट वितरण

चंदेरिया लेड जिंक स्मेल्टर के आस-पास के कार्यक्षेत्र में गठित स्वयं सहायता समूहों की लगभग 1400 महिलाओं ने स्वयं और परिवार को सड़क पर सदैव सुरक्षित रहने हेतु हेलमेट और यातायात नियमों के पालन की शपथ ली। राजकीय उच्च प्राथमिक विद्यालय भवानीपुरा में हिन्दुस्तान जिंक द्वारा आयोजित हेलमेट वितरण समारोह आयोजित हुआ।

रामपुरा आगुचा टीम द्वारा 10 दिवसीय कैम्पेन में स्वयंसेवी संस्थाओं की 1000 महिलाओं को क्रेश हेलमेट वितरित किये गये एवं सड़क सुरक्षा के बारे में अवगत कराया गया।

सखी कार्यक्रम के अन्तर्गत जावर गाँव की स्वयंसेवी संस्था की 216 महिलाओं को हेलमेट वितरण किये गये।



नगरी में 'खुशी' बाल मेले का आयोजन

नगरी पंचायत के आंगनवाड़ी केन्द्र में 'खुशी' बाल मेले का आयोजन 23 नवम्बर, 2017 को किया गया। बाल मेले में आंगनवाड़ी के बच्चों द्वारा गीत, कविता, खेल एवं संस्कृतिक कार्यक्रम प्रस्तुत किये गये। बच्चों ने निंबू रेस, जलेबी रेस, गेंद फेंक खेल प्रतियोगिता में बढ़चढ़ कर भाग लिया। मेले में आंगनवाड़ी कार्यकर्ता, सहायिका की चेयर रेस आयोजित की गयी। बच्चों को कठपुतली के माध्यम से आंगनवाड़ी के बारे में जानकारी दी गयी। खुशी परियोजना के तहत आयोजित इस मेले में नगरी आंगनवाड़ी के चार केन्द्र, आवलहेड़ा के तीन, भिलिया खेड़ी, बल्दरखा के दो, दल्ला का खेड़ा केन्द्रों से 110 बच्चों एवं आंगनवाड़ी कार्यकर्ताओं सहित 125 की सहभागिता रही।



चित्तौड़गढ़ के तीन ब्लॉक के 574 आंगनवाड़ी केन्द्र 'खुशी' में हुए शामिल



हिंदुस्तान ज़िंक की 'खुशी' परियोजना के तहत चित्तौड़गढ़ ज़िले की तीन ब्लॉक भदेसर, गंगरार, चित्तौड़गढ़ ग्रामीण के 574 आंगनवाड़ी केन्द्रों को शामिल किया गया। महिला एवं बाल विकास विभाग के समन्वय में पार्टनर एन.जी.ओ. द्वारा ज़िले के तीन ब्लॉक में संचालित खुशी परियोजना का शुभारंभ माननीय सांसद श्री सी.पी. जोशी द्वारा किया गया।

हिंदुस्तान ज़िंक चंदेरिया लेड ज़िंक स्मेल्टर के तत्कालीन साईट प्रेसिडेंट श्री राजेश कुण्डु ने हिंदुस्तान ज़िंक द्वारा सीएसआर के अंतर्गत चलाई जा रही खुशी परियोजना एवं अन्य परियोजनाओं के बारे में विस्तार से प्रकाश डाला। इस अवसर पर अतिथियों द्वारा 'खुशी' बोर्ड का लोकार्पण किया गया। कार्यक्रम में महिला एवं बाल विकास विभाग उपनिदेशक लक्ष्मी चरपोटा, भदेसर ब्लॉक के श्री सुरेश जैन, सृष्टि सेवा समिति के अध्यक्ष श्री शांतिलाल मेहता, श्री कमलेश पुरोहित, श्री किशन गुर्जर, पंचायत समिति सदस्य श्री तेजपाल रेगर, पार्षद श्री शैलेन्द्र झांवर, केयर इंडिया से श्री एहतेशाम, श्री अखिलेश दवे, हिंदुस्तान ज़िंक सीएसआर अधिकारी श्री विशाल अग्रवाल, निशा मित्तल, वागधारा से श्री माजिद खान, श्री दशरथ टेलर, सभी क्लस्टर समन्वयक, आंगनवाड़ी कार्यकर्ता एवं महिला पर्यवेक्षक उपस्थित थे।

ज़िंक द्वारा संचालित खुशी केन्द्रों पर मनाया बाल दिवस

ज़िंक द्वारा संचालित खुशी परियोजना के तहत चित्तौड़गढ़ जिले के गंगरार, भदेसर व चित्तौड़गढ़ ग्रामीण ब्लॉक की 90 आंगनवाड़ी केन्द्रों पर बाल दिवस हर्षोल्लास से मनाया गया। इस अवसर पर ड्राईंग, फैंसी ड्रेस, बैलून रेस आदि गतिविधियों का आयोजन किया गया जिसमें स्थानीय समुदाय के लोगों ने बढ़चढ़ कर हिस्सा लिया तथा जनप्रतिनिधियों ने बच्चों को पारितोषिक प्रदान कर उनका उत्साह वर्धन किया।

इसी प्रकार रामपुरा आगुचा माईन्स टीम द्वारा 3 ब्लॉक सुवाणा, शाहपुरा और हुरडा के आंगनवाड़ी केन्द्रों में बाल दिवस का आयोजन किया गया।

राजपुरा दरीबा कॉम्प्लेक्स की आंगनवाड़ी केन्द्रों पर भी बाल दिवस का आयोजन किया गया।



Sakhi Program at Kayad Mine, RAM, Zawar Mines, RDC & CSC



Stitching Centre was inaugurated on 20th October, 2017 at Kayad village wherein 25 women are getting training on basic stitching. Aam Sabah was also organized in Gagwana village on 30th November, 2017 to brief Sakhi women about sharing roles & responsibilities, SHGS rules & indicators and maintaining records. About 100 Sakhi women participated in the program.

Under Sakhi Project, Rampura Agucha Mines team formed 27 Sakhi self help groups with 312 rural women and constituted 4 village level organization.

A meeting was organized on 8th September, 2017 with Deepak SHG members and community members of Dariya fala by Zawar Mines team. The agenda of the meeting was to solve the problem of drinking water, through community participation.

Under Sakhi Project for women empowerment, 166 Sakhi Self Help Groups have been formed till November, 2017 by Rajpura Dariba Complex team. Total 2020 women of 23 villages are covered in these SHGs. 107 SHGs have opened their Bank accounts and 6 Village Organization have availed Start up fund. A tailoring centre was also inaugurated at Amarpura village. 15 local women started receiving the training.

2 Sakhi Centres are inaugurated by Chanderiya Smelting Complex team to benefit more than 160 Sakhi rural women in Quarter 3. These women will be given training on stitching uniforms, dress and bags for 1 year.

Step-up Program at RAM, Zawar Mines & RDC

Step-up Program has been initiated by Rampura Agucha Mine team for rural youth of nearby areas to prepare them for competitive exams benefitting more than 120 students.

30 ITI rural youth have been identified to participate in Step-up program conducted at the Hindustan Zinc Mining Academy, Udaipur on 25th October, 2017.

Step-up program has been initiated on 3rd December, 2017 at Rajpura Dariba Complex. More than 50 students of nearby villages were benefitted from the program.

Swatchh Diwas at Khushi Anganwadi Centre at Kayad Mine

Swatchh Diwas was celebrated on 2nd October, 2017 at 34 anganwadi centres where 450 children and women participated and cleaned the Anganwadi complex. They also organized a rally to create awareness in cleanliness and gave motivational speech. Under Khushi project, more than 150 mothers of anganwadi children were invited to discuss women health, hygiene and malnutrition on 3rd September, 2017.

Installation of RO in schools at RDC

Under Safer Drinking Water Project, 3 water coolers with RO were installed in Quarter 3 by Rajpura Dariba Complex team at UPS Naya Dariba, UPS Ladpach and Kastorba Gandhi Balika School, Railmagra catering to more than 500 students.

ज़िंक कॉलोनी स्थित हिंद ज़िंक विद्यालय की स्थापना के 25 वर्ष पूरे होने के उपलक्ष्य में रजत जयंती समारोह आयोजित किया गया जिसमें सांस्कृतिक कार्यक्रम 'स्पंदन 2017' में 1992 से 2017 तक के सफर का चित्रण किया गया। विद्यार्थियों द्वारा प्रस्तुत कार्यक्रमों में हिंदी एकांकी "ओल्ड एज होम" अंग्रेजी एकांकी तेनालीराम, बंगाली, चाइनीज, केरला, असमी, घूमर, रेड इंडियन एवं देशभक्ति से पूर्ण प्रस्तुतियों ने दर्शकों की तालियाँ बटोरी। इस अवसर पर विद्यालय में 25 वर्ष सफलतापूर्वक संपन्न करने वाले अध्यापकगण वंदना सिंह, एस.डी. रे, टाइटस थॉमस एवं ए.



पी. सिंह भदौरिया, लिपिक योगेन्द्र सिंह झाला, चतुर्थ श्रेणी कर्मचारी कमला एवं सुशीला को शॉल ओढ़ाकर प्रशस्ति पत्र के साथ रजत स्मृति चिन्ह भेंट कर सम्मानित किया। इसके साथ ही दो अध्यापिकाओं दीपलता गौड़ व जसप्रीत कौर अरोरा को वर्सेटाइल एवार्ड से भी सम्मानित किया गया। लोकेशन वित्त प्रमुख एवं विद्यालय सचिव रोहित अग्रवाल द्वारा शैक्षणिक क्षेत्र में उत्कृष्ट प्रदर्शन करने वाले छात्र-छात्राओं को पुरस्कार तथा प्रमाण पत्र दिए गए, शैक्षणिक सत्र की चल बैजन्ती विन्ध्याचल सदन को प्रदान की गई। उपप्राचार्य एम.आर.वी. झा ने धन्यवाद ज्ञापित किया। समारोह में ज़िंक के गणमान्य अतिथि एस.के. मोड़, जी.एन.एस चौहान, योगेश शर्मा उपस्थित थे।



Uniform Distribution at Kayad Mine

In support of girl child education and to promote quality education, school uniforms were distributed in all the nearby government schools covering seven villages on 29th November, 2017 by Kayad Mine team. 600 students got benefitted from the program.

Inauguration of Sindesar Kalan Nandghar at RDC

Nandghar has been constructed at Sindesar Kalan village adjacent to Sindesar Khurd Mine. It was inaugurated on 26th October, 2017 by Mr. K.C. Meena - Site President and Sarpanch of Sindesar Kalan.

Inauguration of Performance Analysis Centre for Football Academy at Zawar Mines

The foundation stone was laid for the technology based Performance Analysis Centre for Football Academy on 23rd September, 2017. This centre will have the first-of-its-kind F-Cube Technology at DAV School, Zawar Mines.



Samadhan Project at Zawar Mines, RDC, Kayad Mine & RAM

Seeds of wheat, gram and organic fertilizers were distributed to 400 farmers under Samadhan project in 12 core villages from 10th - 16th November, 2017 at Zawar Mines.

Under Samadhan project at Rajpura Dariba Complex, 53 lemon and guava orchards were developed. Total 53 New Fruit orchards have been distributed. In this order, organic manure were provided in 96 old wadi. To support rabi crops, 500 farmers were provided seeds and fertilizer for wheat in 15 project covered villages. Under Livestock initiative, 570 artificial inseminations and 1630 FMD vaccinations were done through partner NGO in nearby villages. 6 Animal Husbandry camps were also organized covering 2200 cattle of 370 families from 6 villages.

Under Samadhan project FIG (Farmer Interest Group) were formed and training on pest control was conducted on 4th November, 2017 for farmers at Kayad Mine.

4 Infertility Cattle Camps were organized by Rampura Agucha Mines team in November, 2017, benefitting 100 cattle of 4 villages – Rampura, Munji Kheda, Sultanpura and Jaisingpura.

Inauguration of Community Toilets at Zawar Mines

Newly constructed community toilets were inaugurated on 3rd October, 2017 at Zawarmata. Mr. Arjunlal Meena - MP Udaipur, Mr. Phool Singh Meena - MLA Gramin, Mr. Takhsat Singh Shaktawat - Pradhan Girwa and Mr. Parvatidevi Meena - Sarpanch Zawar Panchayat inaugurated the community toilet units.



फुटबॉल स्काउटिंग कैम्प में स्थानीय प्रतिभागियों ने दिखाया दम



हिन्दुस्तान जिंक द्वारा मेवाड़ के पांच जिलों सहित अजमेर के 14 वर्ष तक की उम्र के स्थानीय फुटबॉल प्रतिभागियों को आगे लाने के लिये स्काउटिंग कैम्प आयोजित किये गये। चित्तौड़गढ़ में आयोजित कैम्प में 500 से अधिक, भीलवाड़ा में 100 से अधिक, अजमेर जिले में आयोजित 3 स्काउटिंग कैम्प में 300 के लगभग छात्र-छात्राओं ने उत्साह से भाग लिया।

News Digest...

- ◆ To assess the learning level of students of Shiksha Sambal program, a mid line exam was conducted in seven schools covering more than 900 students at Rampura Agucha Mines.
- ◆ During Swachhta Week, Rampura Agucha Mines team organized the rally of Sakhi SHG women in Hurda, Agucha and Kothiya villages to spread awareness on cleanliness in village taking in loop the PRIs and other Govt. officials.
- ◆ Hybrid seeds of wheat were provided to more than 400 farmers by Rampura Agucha Mines team for improvement of quantity as well as the quality of production.
- ◆ An interaction and feedback session was organized with 12 girl students enrolled for higher education to Vedanta PG Girls College, Ringus on 24th October, 2017.
- ◆ Bhoomipoojan ceremony was conducted at Kanpur village by Zawar Mines team for drinking water project by Mr. Arjunlal Meena - MP Udaipur, Mr. Phool Singh Meena - MLA Gramin, Mr. Takhsat Singh Shaktawat - Pradhan, Girwa and Mr. Parvati Devi Meena - Sarpanch, Zawar Panchayat.
- ◆ Recipe training was imparted to mothers at Sushalaphala to improve the nutrition intake of children and mothers under Khushi project on 7th November, 2017 at Zawar Mines.
- ◆ Pre-school kit and need based material were distributed at 172 Khushi Anganwadi Centres of Ajmer district from 3rd – 8th November, 2017. The kit included first aid box, school bags, workbook and other need based material.
- ◆ PRI members visited Brownfield Nand Ghar at Gagwana and also supported Nand Ghar for water connection at Kayad Mine.
- ◆ Seeds for gram crop and organic manure were provided to the selected farmers by Kayad Mine team.
- ◆ To promote rural sports and culture, various tournaments were supported by Rajpura Dariba Complex team during Quarter 3.

हिन्द जिंक स्कूल, चित्तौड़गढ़ में गूँज-2017 आयोजित

मेले एकता एवं सौहार्द की भावना को परस्पर विकसित करते हैं, इसी परम्परा का निर्वहन करते हुए 7 अक्टूबर, 2017 को हिंद जिंक स्कूल के प्रांगण में गूँज-2017 का आगाज़ हुआ। मेले में अनेक स्वादिष्ट व्यंजन की स्टालों के साथ ही विभिन्न आकर्षक खेल प्रतियोगिताओं ने मेले में आए सभी मेलास्थियों का मन मोह लिया। अतिथियों द्वारा श्री ए.के. सिंह की स्टॉल को सर्वश्रेष्ठ स्टॉल घोषित किया गया। सबसे अधिक आकर्षण का केन्द्र 'शॉप फार ए कॉज़' जिसमें विद्यालय की अध्यापिकाओं दीपलता गौड़, लीना छाबड़ा, अलका थापा, ज्योति जैन सहित विद्यार्थियों का सराहनीय योगदान रहा। इस दुकान की सबसे बड़ी विशेषता इन सभी वस्तुओं का हस्त निर्मित होना तथा इनसे प्राप्त धनराशि का लोक कल्याण के लिए प्रयोग किया जाना सराहनीय था। मेले में नन्हें मुन्नों के मनोरंजन के लिये मिक्की माउस तथा दर्शकों के लिये रंगारंग कार्यक्रम का भी आयोजन किया गया। जिसके अन्तर्गत बच्चों ने अत्यंत ही सुंदर वेश-भूषा, आकर्षक भाव भंगिमा तथा अनूठी प्रस्तुतियाँ दी।



DAV HZL School joins Bharat Yatra at Zawar Mines

DAV HZL School, Zawar Mines has joined Bharat Yatra campaign organized by Nobel Peace Prize winner - Dr. Kailash Satyarthi. The campaign started in September, 2017 and aims at starting a social dialogue about child abuse and child trafficking. The campaign has seen the participation from over 250,000 educational institutions.



Picnic for Ladies Club at RDC

A picnic was organized for the Ladies Club of Rajpura Dariba Complex on 11th November, 2017 where they went to Kankroli.

A picnic was also organized on 15th October, 2017 for employees & their families to Amantra Shilpi, Udaipur.

Versatile Student of the Year Awards at CSC

Versatile Student of the Year Award ceremony was organized at Hind Zinc School, Chittorgarh on 30th August, 2017. 27 awards were distributed in addition to reward for 100% attendance as Punctuality Award.

Swachhata Abhiyan was organized in DAV HZL School on 2nd October, 2017 and all students actively participated with enthusiasm. Several activities were organized for children to deliver the message of cleanliness through slogans, drama, poetry and songs. The students also engaged in cleaning the school premises. Principal Mr. Harban Singh Thakur gave a speech on cleanliness and requested all the students to maintain a sense of pride in cleanliness of their surroundings.

World AIDS Day was also celebrated on 1st

December, 2017 in DAV School wherein several activities were organized by the children and administration, including short plays with an objective of creating awareness among the students.



Swachhata Abhiyan at Zawar Mines

Kumbalgarh Heritage Walk

With an objective to promote tourism and to preserve and protect the traditional culture, Khumbalgarh Heritage Walk is being organized every year. This year it was organized on 30th November, 2017. The program was organized by District Administration, Archeological Survey of India with the support of corporate. Hindustan Zinc supported the program. The program witnessed the singing star Mr. Nitin Mukesh, S.P Rajsamand and Collector, Rajsamand acknowledged the corporate for their active participation. More than 400 youth across the country participated in 12 km long walk along the boundary wall of fort.

News Digest...

- ◆ Hind Zinc School Students brought laurels for the school in literary activities held at Birla Shiksha Kendra, Chittorgarh. Hind Zinc School (HZS) has bagged the overall championship trophy in the competition.
- ◆ The Zawar Ladies Club and DAV HZL School, Zawar Mines organized a fancy dress competition on 14th November, 2017 to celebrate Children's Day.
- ◆ On 20th September, 2017, a get together and cultural program followed by dinner was organized for employees & their family members at Zawar Mines for being the Runner-up of Chairman Business Award for Q1 of 2017-18.
- ◆ Chanderiya Smelting Complex has inaugurated Music Club on 31st October, 2017 to encourage employees to pursue their passion for music.

VISIT

Visits to Zawar Mines



24 international student delegates from Mahindra World College visited Zawar Mines on 30th October, 2017 to understand the mining process and get an exposure to various activities being conducted by Hindustan Zinc under Community Service Initiatives.

Students from Mayo College, Ajmer visited Zawar Mines as part of an industrial visit on 28th October, 2017 to get an overview of mining activities.

Visit of ISTD, Udaipur Chapter to RDC

ISTD, Udaipur Chapter, visited Dariba Smelting Complex on 15th October, 2017. A team of about 30 members visited plant and were explained about the smelting process.



Basketball Tournament at RDC

Basketball Preliminary Tournament was organized on 27th November, 2017 at Rajpura Dariba Complex. The tournament was inaugurated by Mr. K.C. Meena - Site President and Mr. Deepak Sopori - Smelter Head. Also present, were Mr. Nikhil Diwan - Location HR Head and Mr. Anil Gadiya - Smelter HR Head and other employees with their families. The final match was played on 28th November, 2017.

Zinc Premier League at HZL



Zinc Premier League was organized at Zinc Park, Udaipur from 14th – 17th December, 2017. The Cricket Tournament saw the participation of 6 teams. Team - Born to Beat won the tournament consecutively for the 3rd time. There were 2 friendly matches conducted on 17th December, 2017 between Zinc Queens & Zinc Warriors (Women's team) where Zinc Queens won the match and between Zinkians & Zinc Lions (Children's team) where Zinc Lions won the match.

राष्ट्रीय पॉवर लिफ्टिंग टीम में चयन



37वीं राजस्थान जूनियर व मास्टर पुरुष एवं महिला पॉवर लिफ्टिंग प्रतियोगिता 11 एवं 12 नवम्बर, 2017 को उदयपुर के भण्डारी दर्शक मंडप में शुरू हुई। इस राज्य स्तरीय प्रतियोगिता में ज़िंक फिटनेस क्लब के सदस्यों ने भी भाग लिया। इस राज्य स्तरीय प्रतियोगिता में 16 जिलों के लगभग 200 पुरुष एवं महिला खिलाड़ियों ने भाग लिया। कोच शेखर शर्मा के गाइडेन्स में राजस्थान राज्य मास्टर पॉवर लिफ्टिंग प्रतियोगिता में ज़िंक क्लब से कोमल राठोर व शिव कन्या राठोर ने स्वर्ण पदक जीता है और उनके शानदार प्रदर्शन के कारण इनका चयन राष्ट्रीय स्तर की जूनियर व मास्टर पुरुष व महिला पॉवर लिफ्टिंग प्रतियोगिता के लिए किया गया है। यह प्रतियोगिता तमिलनाडू में 7 जनवरी, 2018 से आयोजित की जाएगी जहां ज़िंक क्लब के दोनों खिलाड़ी प्रदेश का प्रतिनिधित्व करेंगे।

हाइड्रो-2 ने टी-20 नाईट क्रिकेट में ट्रॉफी पर किया कब्जा

ज़िंक नगर चित्तौड़गढ़ में स्पोर्ट्स कमेटी के तत्वावधान में आयोजित तेरह दिवसीय टी-20 नाईट क्रिकेट हाइड्रो-2 और पायरो-1 के बीच फाइनल मुकाबला हुआ जिसमें हाइड्रो-2 ने पायरो-1 को हराकर ट्रॉफी पर कब्जा कर लिया। आयोजन के मुख्य अतिथि हिंदुस्तान ज़िंक के मुख्य प्रचालन अधिकारी—श्री पंकज कुमार एवं तत्कालीन साइट प्रेसिडेंट—श्री राजेश कुंडू थे। अध्यक्षता यूनियन के महामंत्री—श्री घनश्याम सिंह राणावत ने की। मेन ऑफ द मैच—श्री दिनेश रहे। उल्लेखनीय है कि इस टूर्नामेंट में चन्देरिया ज़िंक की मुख्य टीमों के अलावा महिलाओं की टीम, कॉलोनी बॉयज की टीम, वरिष्ठ खिलाड़ियों की टीम, दरीबा इलेवन, मुख्यालय इलेवन और पुलिस अधीक्षक पी.के. खमेसरा की कप्तानी में पुलिस की टीम के साथ भी मैच खेले गए।



News Digest...

- ◆ Hindustan Zinc supported the District Level Football Tournament held at Zawar Stadium on 9th September, 2017 where 464 students from 29 schools participated.

New Year Resolution Goals



1. **START A MEDITATION PRACTICE**
2. **LEARN SOMETHING NEW EACH DAY**
3. **Pick Up a Hobby**
4. **Play MORE**
5. **EAT FEWER CALORIES**
6. **WRITE A BUSINESS PLAN**
7. **MOVE MORE**
8. **READ MORE BOOKS**
9. **BE MORE GRATEFUL**
10. **STOP PROCRASTINATING**
11. **SET ASIDE ONE HOUR A DAY TO ACHIEVE YOUR DREAMS**
12. **SPEND MORE TIME IN NATURE**
13. **START DOING PLANKS EVERY DAY**
14. **ENJOY THE LITTLE THINGS**
15. **BECOME MORE CONFIDENT**
16. **BE MORE CONSCIENTIOUS**
17. **INCREASE YOUR CHARISMA**
18. **INCREASE YOUR IQ**
19. **INCREASE YOUR EMOTIONAL INTELLIGENCE (EQ)**
20. **LEARN A NEW SKILL**
21. **BRING MORE PEACE INTO YOUR LIFE**
22. **BE KINDER TO YOURSELF**
23. **CREATE A POSITIVE ATTITUDE**
24. **STRENGTHEN YOUR PERSONAL RELATIONSHIP**
25. **TAME YOUR MONKEY MIND**
26. **KEEP A JOURNAL**
27. **GET YOUR DOCUMENTS IN ORDER**
28. **TRAVEL TO NEW PLACES**
29. **VOLUNTEER FOR A NOBLE CAUSE**
30. **SPEND TIME WITH FAMILY & FRIENDS**

चतुर मारवाड़ी

एक कहावत है — जहां न जाए रेलगाड़ी वहां पहुंचे मारवाड़ी।

इसी तरह एक मारवाड़ी अमेरिका पहुंच गया। जब वह अमेरिका गया था उस समय हवाई जहाज सुलभ साधन नहीं था। अमेरिका जाकर मारवाड़ी ने अपनी बुद्धि का इस्तेमाल करना शुरू किया। धीरे-धीरे अपनी मेहनत और तीन-पांच की गणित से व्यापार शुरू किया। बहुत ही कम समय में उसका व्यापार स्थापित हो गया। देखते-देखते अमेरिका के उस छोटे से कस्बे में जहां मारवाड़ी रहता था, अच्छी साख अर्जित कर ली। मारवाड़ी ने मर्सडीज गाड़ी भी खरीद ली।

एक बार मारवाड़ी को किसी काम से अमेरिका के बड़े शहर जाना हुआ। मर्सडीज गाड़ी को सुरक्षित पार्किंग के लिए उस कस्बे में जगह नहीं थी। मारवाड़ी को अपने कस्बे से एकाध महीने बाहर रहना था। मारवाड़ी ने अपनी बुद्धि दौड़ाई। प्रतिदिन मारवाड़ी जहां अपनी मर्सडीज पार्किंग करता था, उसका पन्द्रह दिन का किराया दो सौ डालर था। मारवाड़ी ने एक बैंक से जाकर पांच हजार डालर उधार लिये। जमानत के तौर पर मर्सडीज गाड़ी बैंक के पास गिरवी रख दी।

मारवाड़ी पंद्रह दिन बाद बड़े शहर से वापस आया। बैंक जाकर उसने पांच हजार डालर उधार के और ब्याज जमा करके मर्सडीज गाड़ी वापस ले ली।

मारवाड़ी के इस काम को देखकर उसके आसपास के लोग चकित थे। जबकि मारवाड़ी ने इसमें भी फायदा उठाया। पंद्रह दिन मारवाड़ी शहर से बाहर रहता तो दो सौ डालर पार्किंग में खर्च होते थे। गाड़ी भी सुरक्षित नहीं रहती। बैंक से कर्ज लेकर वहां गाड़ी गिरवी रखने से सुरक्षा रहती। साथ ही बैंक का ब्याज पार्किंग की फीस से कम था। ऐसा करके मर्सडीज की सुरक्षा के साथ पार्किंग का खर्च भी बचाया।

— पुस्तक 'वट वृक्ष की छांव' में

DEEDS TO EMULATE

सुश्री नरगिस राठौड़



सुपुत्री श्री कोमल राठौड़ — जिंक स्मेल्टर देबारी, ने महिला क्रिकेट मीरा कप प्रतियोगिता-2017 में कप्तानी पारियां खेलते हुए लगातार तीन मैचों में शतक लगाकर मीरा इलेवन को विजयी बनाया। राजस्थान रणजी महिला टीम की कप्तान के रूप में भी सुश्री नरगिस राठौड़ ने उत्तर प्रदेश के खिलाफ रणजी मैच में शतक 109 लगाकर राजस्थान टीम को विजयी बनाया। राजस्थान टीम से शतक लगाने वाली पहली महिला खिलाड़ी भी नरगिस राठौड़ हैं।

Naughty Vijay made 10 differences while copying the Picture - 1, he missed some and added some in the new Picture - 2. Let's find those 10 differences in Picture - 2.

Kid's
Column !!

Master Picture : Picture - 1



Oops !!!
Vijay missed some,
added some...

Copied Picture : Picture - 2



- Answers: Picture 2
1. Change in the color of T-shirt of Pooh.
 2. Change in the color of Ribbon on Donkey's tail.
 3. Extra water line sprinkling from Water Can in the hands of Pooh.
 4. Change in the color of Hair of Donkey.
 5. Change in the color of Flower in the front of picture.
 6. Cookie in the trunk of Elephant is missing.
 7. Path on Hill in the centre is missing.
 8. Extra Stone added in right side of picture.
 9. Change in color of Butterfly in centre of picture.
 10. One Flower is added under the tree on extreme right of the picture.

DIGITAL PRESENCE

- Follow CEO, HZL on - www.twitter.com/CEO_HZL
- Follow Chairman on - www.facebook.com/anilagarwal.thegreatergood
- www.facebook.com/hindustanzinc | www.twitter.com/hindustan_zinc
- www.facebook.com/KhushiCreatingHappiness | www.facebook.com/groups/vedantakhushi | www.twitter.com/khushichildcare

Hindustan Zinc Mining Academy Building a Life of Dignity for the Rural Youth of Rajasthan

'Hindustan Zinc Mining Academy', set-up in collaboration with 'Skill Council for Mining Sector' and training partner 'Indian Institute of Skill Development Pvt. Ltd'; to train 500 ITI pass outs in 5 years in Jumbo Drill Operations and Winding Engine Operations for gainful employment in mining sector...



We all have Zinc in our lives...

HINDUSTAN ZINC
Zinc of India